

SOUTH AFRICAN RED DATA BOOK BUTTERFLIES



Stephen F. Henning

Graham A. Henning

A report of the Committee for Nature Conservation
National Programme for Ecosystem Research.

SOUTH AFRICAN NATIONAL SCIENTIFIC PROGRAMMES REPORT NO. 158

1989

Issued by the

**Foundation for Research Development
Council for Scientific and Industrial Research
P.O. Box 395
PRETORIA 0001
South Africa**

from whom copies of reports in this series are available on request

First Edition 1989
Reprinted in 1990
Printed in the Republic of South Africa by Sasolburg Litho (Pty) Limited, Vanderbilpark

ISBN O 798845112

Authors' addresses

Mr S.F. Henning
5 Alexandra Street
Florida 1709
South Africa

Mr G.A. Henning
17 Sonderend Street
Helderkruijn 1724
South Africa

Cover: *Papilio euphranor*, a rare endemic swallowtail butterfly from the eastern montane forests of South Africa. (Del. S.F. Henning)

CONTENTS

Abstract	iv
Preface	v
Acknowledgements	vi
Introduction	1
Terminology	3
Reviews of threatened species	4
The species and their categories	5
Tabular summary	10
Legislation in force 1988	16
Reviews of threatened species	17
Superfamily PAPILIONOIDEA -128	17
Family Danaidae - 0	17
Family Satyridae - 10	18
Family Acraeidae - 3	28
Family Nymphalidae - 6	32
Subfamily Nymphalinae - 2	32
Subfamily Charaxinae - 4	35
Family Lycaenidae - 105	42
Subfamily Lipterinae - 5	42
Subfamily Liphyrinae - 1	48
Subfamily Miletinae - 14	49
Subfamily Theclinae - 57	61
Subfamily Polyommatainae - 28	118
Family Pieridae - 2	144
Family Papilionidae - 1	147
Superfamily HESPERIOIDEA - 14	149
Family Hesperidae - 14	149
Non-resident and other species - 12	163
Glossary	166
Bibliography	168
Index	171

ABSTRACT

Currently 632 species of butterfly are known to occur within the borders of South Africa. Using the well established IUCN definitions, 102 of these are considered to be exposed to some level of threat, two species as endangered, seven species and subspecies as vulnerable and ninety-one as rare, in addition two species are considered extinct. Thirty-nine species are dealt with as indeterminate due to lack of data, twelve species are treated separately under the heading of non-resident and other species. Distributional details of the species are summarised in tabular form.

Each species is dealt with in detail under eight headings: Identification, Distribution, Habitat and Ecology, Status, Threats, Conservation measures, Investigations required (in tabular form) and References. A distribution map indicating details of available records is provided for each species. The non-resident and other species are recorded briefly with available information.

This information will hopefully assist the reader in all aspects pertinent to the conservation of the respective taxa. Aspects of insect conservation are outlined together with a comprehensive bibliography.

PREFACE

The most disturbing observation we have made during twenty-five years of studying butterflies is the decline of the species around the cities due to habitat destruction. Year after year another marsh is drained, another road or house built, another fire at the wrong time of the year, all with the loss of the butterfly population living there. We have watched year after year feeling totally powerless to prevent this relentless march of "civilization".

It was only when the little colony of the lycaenid butterfly *Aloeides dentatis* which we had been studying for over twenty years, was threatened with housing development did we at last take action. The result being the creation of a rather small 12 hectare butterfly reserve, at Ruimsig, the first in Africa and probably one of the first in the world.

However, what this exercise really showed us was the total lack of understanding to the problem of insect conservation. What did not appear to be realised was that one did not just protect the insect as one did with vertebrates, but the habitat must also be protected. Overseas studies have demonstrated time and again the the only reason for the decline or extinction of insect populations is habitat destruction.

Several species had been placed on the protected animal lists, but all this appears to have done is hampered some butterfly collectors who are the only people studying the species and who are concerned with the subject.

To help eliminate these misconceptions about insect conservation we embarked on a book about the "Rare and Endangered Butterflies of Southern Africa". Mr A. Ferrar of the CSIR heard of our project through Dr N. Mark Collins of the International Union for Conservation of Nature and Natural Resources (IUCN). He approached us and asked if we would not do an official Red Data Book on the Butterflies of South Africa. This offer we gladly accepted.

With the help of this Red Data Book we hope to influence the approach of the authorities to the Conservation of butterflies and other insects. The **Lepidopterists' Society of Southern Africa** is already deeply involved in the surveying of Nature Reserves in the Transvaal and making suggestions on the protection of certain butterfly habitats. Hopefully the whole of South Africa will soon be following suit.

ACKNOWLEDGEMENTS

First of all we would like to thank our wives Mercedes and Eileen for their help and patience over the many months during which they have been ignored while we worked on this book. We would also like to thank Mercedes for reading part of the manuscript and for her constructive comments.

Without the help of our father, Bill Henning, this book would never have been written. Our heartfelt thanks go to him, especially for reading the manuscript at various stages and for his contribution to this final product. We also thank our mother for her patience and understanding.

Our special thanks to Dr D.M. Kroon for reading the manuscript, type-setting the final draft and arranging the printing of this book.

We are most grateful to Mr Ivan Bamptom who has made available to us all his extensive observations and notes on the habits and early stages of butterflies.

We would especially like to thank Mr C.G.C. Dickson for reading the manuscript, his help and advice on the threatened species in the Cape and for allowing us to use some of his excellent line drawings in the book.

Our thanks also to Mr Douglas Clark for allowing us to use some of the magnificent line drawings of his father, Mr Gowan Clark.

Others we wish to thank for their observations and opinions on our threatened butterflies are: Dr J.B. Ball, Dr I. Coetzer, Mr J.G. Joannou, Dr D.M. Kroon, Mr P. Krüger, Mr P.S. Liversidge, Mr R.J. Mijburgh, Mr N.K. Owen-Johnston, Mr D.J. Rossouw, Mr. R.T. Warren, Dr M.C. Williams and Mr S.E. Woodhall.

The assistance of Mrs L. Krebs, Mr D. Vermaak and Mr K. Ziemons is also gratefully acknowledged.

Finally we would like to thank Mr Koos de Wet and Miss L. Beveridge of the Transvaal Nature Conservation Department for their views on the conservation of butterflies.

All illustrations are by Mr S.F. Henning unless otherwise stated.

INTRODUCTION

The area covered by the species included in this publication is the Republic of South Africa and the Independent States within its borders.

The aim of this publication is to bring to the attention of all interested parties the plight of some of our butterfly species. The conservation of butterflies, and in fact all insects, must be approached differently from that of vertebrates. Unfortunately this is not always completely understood.

Overcollecting is often mentioned as one of the chief threats to insect populations although there are no documented cases of extinctions or even local extirpations of insect populations due to indiscriminate collecting from anywhere in the world (Pyle *et al.*, 1981). Some American researchers in the course of population studies even tried to eliminate local populations of a bee and a butterfly and found that they produced the opposite effect as the target populations increased in subsequent years (Pyle *et al.*, 1981).

Natural predators of insects, including butterflies, cover most kinds of living things. There are many insectivorous mammals, birds and reptiles, fish, spiders and even some plants eat insects. Some of the major predators are insects which prey on, or are parasitic upon, other insects. The early developmental stages of insects are one of nature's main food resources. One female butterfly will often lay up to five hundred eggs, of which only two are required to reach adulthood for the population to remain constant, the remainder may be consumed at various stages. Man as a butterfly collector is a very inefficient predator compared to insectivores. Butterfly populations have amazing recuperative powers, as long as they have the correct habitat in which to live.

Overseas studies (see Pyle *et al.*, 1981) have established that the major or only cause in the loss or decline of insect populations throughout the world is habitat destruction. This being so it must be of prime importance in all our considerations on butterfly conservation.

The conservation of insects cannot have the same immediate appeal as that of the elephant or the cheetah. When one considers how many millions of rands are spent in investing in new chemicals to kill insects, or how many scientists spend their working lives trying to devise methods of controlling their numbers, it seems odd to even mention insect conservation. In the case of butterflies, however, there is the appeal to our sense of beauty, and there is the less obvious factor that the loss of destruction of any part of nature often means that it is replaced by something else, perhaps less pleasant and of

less value either ecologically or economically.

The problem of insect conservation, in particular the conserving of local populations of butterflies, requires a different strategy to that of conventional conservation.

State run nature reserves certainly do their part in preserving the species which fall within their boundaries but the greater majority of species in this book are either on private land or on land controlled by the Department of Environmental Affairs.

Some steps have already been taken in the Transvaal with regard to protecting three species which are only known from single localities. These are *Erikssonia acraeina* and *Lepidochrysops lotana* which are found on private farms, and *Alaena margaritacea* which is on land under the control of the Department of Environmental Affairs. The landowners have been approached and made aware of the species occurring on their property; this does not, however, stop them from utilizing the land for other purposes if they so wish. The Transvaal Nature Conservation Division is involved in all three of these projects and is currently investigating the locality for *Erikssonia acraeina* as a possible Natural Heritage Site. The other two localities will be investigated in due course. The type locality of the rare *Poecilmitis aureus* from Heidelberg has already been declared a Natural Heritage Site.

The viability of small nature reserves is also being investigated at the Ruimsig Entomological Reserve, which was proclaimed by the Roodepoort City Council to preserve the rare butterfly *Aloeides dentatis*. The results of these conservation strategies could have far-reaching consequences for butterfly conservation in South Africa.

In Southern Africa the butterflies most at risk are the myrmecophilous (ant associated) Lycaenidae. These species are often quite local and rare as they require the presence of both host ant and host plant as well as optimal climatic conditions. Being thus confined to a limited area, often not larger than a tennis court, these species are particularly vulnerable to any disturbance of their preferred habitat. Thus the building of a house, the construction of a road or the ploughing of a field could lead to the extinction of a rare species confined to a single locality.

Let us now consider the various habitat changes and impacts associated with man's activities that have resulted in significant extinctions or declines of insect and related populations.

Cities are often situated in locations favourable to commerce or agriculture. Sites at the confluences of major rivers, near major embayments, or along coastlines are favoured. In South Africa, urbanization and agricultural

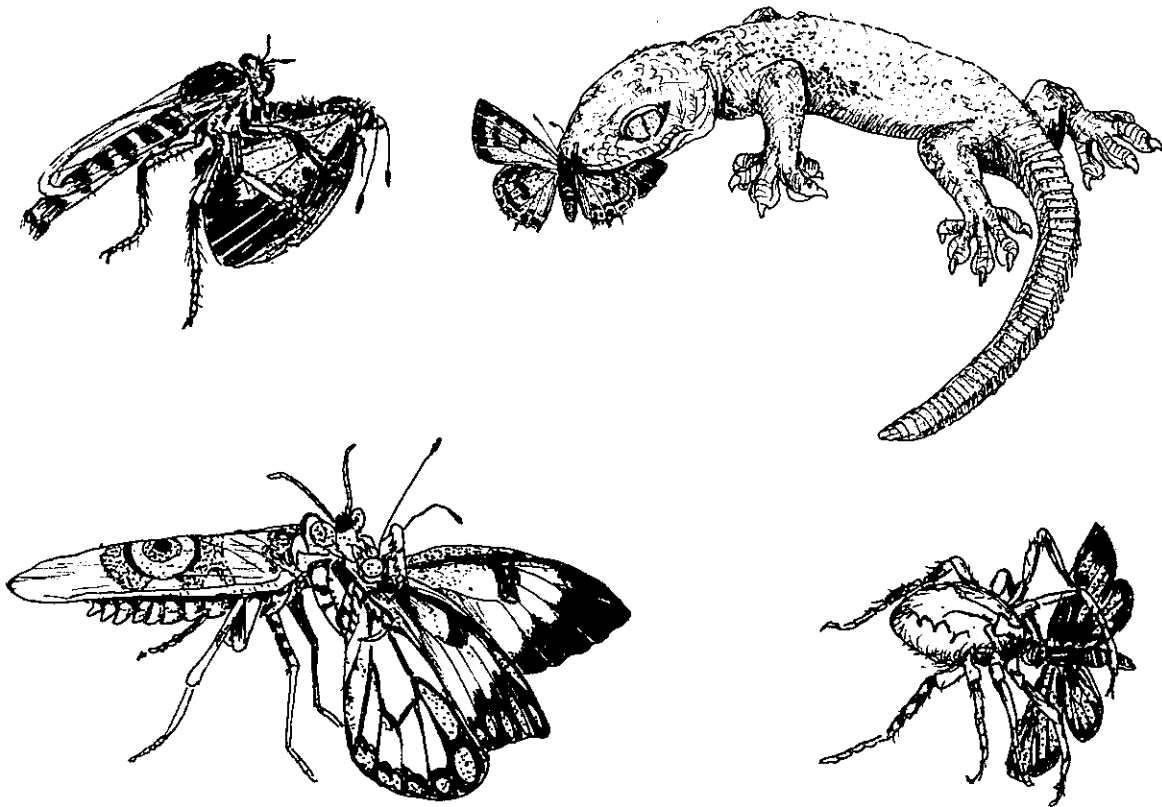


Figure 1. Some natural predators of butterflies: Gecko eating lycaenid butterfly (top right); a robber fly (Asiliidae) eating a lycaenid butterfly after capturing it in flight (top left); a praying mantis grasping a pierid butterfly (bottom left); a spider feeding on a lycaenid butterfly (bottom right). (Del. S.F. Henning)

conversion on the sandveld to the north of Cape Town, has brought the endemic butterfly *Oxychaeta dicksoni* to the verge of extinction. Along the south coast of Natal urbanization has destroyed much of the natural habitat and at Durban several good localities have been destroyed including the type locality of *Aloeides penningtoni*.

Riparian habitats are among the more productive and species-rich areas. Aside from the destruction of free-flowing river habitat necessary for the existence of many aquatic insects, dams may inundate the habitat of terrestrial insects as well. One example in South Africa would be the Brandvlei near Worcester where the only known locality of the butterfly *Poecilmitis rileyi* has apparently not produced a specimen in years, this possibly being due to habitat disturbance caused by building operations.

The draining of wetlands or the lowering of water tables has destroyed or threatens to destroy many habitats of marsh-adapted insect communities. On the Witwatersrand the draining of marshes and vleis has resulted

in the loss of several colonies of the skipper *Metisella meninx*.

Conversion of natural habitats for agricultural purposes, particularly for planted food and fibre crops, is one of the most extensive land transformations and has resulted in the greatest loss of native insect populations. For example, agricultural conversion in the Orange Free State and the south western Transvaal has apparently resulted in the destruction of colonies of *Aloeides dentatis maseruna*.

When insects must rely on specific animal or plant hosts whose numbers or ranges have become reduced, these specialists may become extinct long before their hosts. Although there is no specific Southern African example, the classic example is that of insects which specialize on the American chestnut, *Castanea dentata*. Mature examples of this tree disappeared throughout its formerly extensive range in North America subsequent to the accidental introduction of chestnut blight, *Endothia parasitica*. Today only a few mature trees persist, but sucker sprouts are

still common in many areas. At least five microlepidoptera living exclusively on the plant have not been found for almost 40 years and may be extinct (Opler, 1979).

The effects of various introductions (whether intentional or not) of alien animals and plants on native insects may be direct or indirect. Introduced plants may outcompete native plants and may indirectly lead to the decline of native insects as has happened in the Cape. The introduction of alien insects may lead to the extinction of indigenous species through direct competition.

In South Africa the introduction of alien plants, especially from Australia, has had a serious effect on butterfly populations over the past 40-50 years. The coastal, or near-coastal, belt to the north of Cape Town is a prime example. Endemic lycaenid butterflies such as *Poecilmitis brooksi brooksi* and *Poecilmitis pan* have largely disappeared from many areas in which they were once relatively abundant. *Argyrocupha malagrida malagrida* is another example of a butterfly having become exceedingly scarce in recent times - though in this case the reason has not been entirely due to the encroachment of alien vegetation. Possibly too frequent mountain fires during the actual flight-period may have been a major cause. In the Cape Peninsula, *Poecilmitis nigricans* seems to have disappeared for good, while *P. palmus* no longer flies in many of its earlier habitats. Fires may have been a contributory cause in these cases.

Although often cited as a major factor responsible for loss of insect populations, four decades of wide use of organic pesticides have not resulted in the extinction of any insect, except for the possible loss of some ectoparasites and symbionts of birds of prey which have undergone drastic population declines due to pesticide residues and direct poisoning. More normally, insecticide usage causes only temporary reductions and changes in the relative abundance of native insect populations. Nevertheless, pesticide use in native habitats, particularly island ecosystems, should be viewed with great caution (Pyle *et al.*, 1981).

The amateur lepidopterist can play an important role in the conservation programme for butterflies. He not only knows the localities but his visits to these localities over the years are the major source of information about the butterflies which fly there. The breeding and recording of life histories is an onerous task which is currently being carried out by many amateur lepidopterists, with photographic records of the species being collected as well. The work of amateur lepidopterists contributes greatly to our knowledge of this fascinating group of insects. The Lepidopterists' Society of Southern Africa was established in 1983 and one of its main aims is the conservation of our butterfly and moth species. The

Society has already been involved in the establishment of the first butterfly reserve in Africa at Ruimsig, near Roodepoort in the Transvaal (see Henning and Henning, 1985).

The Lepidopterists' Society is currently involved in research programmes with the Transvaal Nature Conservation Division. It was decided that before measures could be taken to preserve Lepidoptera in the Transvaal it is necessary to establish what is already being protected within proclaimed reserves. The initial research is taking place at Suikerbosrand Nature Reserve where members of the Society are compiling a check-list, observing behaviour, studying life histories and recording flight periods. Research is also being done in the Blyderivierspoort Nature Reserve, Percy Fyfe Nature Reserve and Verloren Valei Nature Reserve, which are also under the control of the Transvaal Nature Conservation Division. Another project already underway is research at the privately owned Lapalala Wilderness Nature Reserve. The Society hopes eventually to co-operate with other conservation bodies in a similar manner.

TERMINOLOGY

The traditional Red Data Book status categories have been used in this publication. It must be emphasised that the application of these categories to threatened species of any kind poses many problems and inevitably involves subjective judgements. It must be remembered that these categories are also subject to change at any time as new information is received. The categories are defined as follows:

EXTINCT: Taxa not definitely located in the wild during the past 50 years, despite specific efforts to locate them (criterion as used in the Convention on International Trade in Endangered Species of Wild Fauna and Flora - CITES).

ENDANGERED: Taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating. Included are taxa whose habitat have been so drastically diminished in size and/or degraded that they are deemed to be in danger of extinction.

VULNERABLE: Taxa believed likely to move into the Endangered category in the near future if the causal factors continue operating. Included are taxa of which most or all of the populations are decreasing because of extensive destruction of habitat or other environmental disturbance; taxa with populations that have been seriously depleted and whose ultimate security is not assured; and taxa with populations that are still abundant but are under threat from serious adverse factors throughout their range.

RARE: Taxa with small populations that are not at present Endangered or Vulnerable, but are at risk. The taxa are usually localised within restricted geographical areas or habitats or are thinly scattered over a more extensive range.

INDETERMINATE: Taxa which might be worthy of inclusion in any of the above categories but for which insufficient information is currently available on which to judge their status.

N.B. Threatened is a general term to denote species that are Endangered, Vulnerable, Rare or Indeterminate, and should not be confused with the use of the same word by the U.S. Office of Endangered Species.

Endemic species are taxa which are not known to occur naturally outside South Africa. These taxa may be found in any of the above categories.

REVIEWS OF THREATENED SPECIES

Each review follows a similar format to that of previous Red Data Books. The following sections and headings are used.

NAME AND TAXONOMIC POSITION

The name comprises generic (and sometimes subgeneric), specific (and sometimes subspecific) names. The scientific name is followed by the name of the author and date of the original description; the full reference to this description; and the Order and Family to which the species belongs.

RED DATA BOOK (RDB) STATUS CATEGORIES

The conservation status of the taxon at the date of this publication as defined by the International Union for the Conservation of Nature and Natural Resources (IUCN, 1979) under the categories of Extinct, Endangered, Vulnerable, Rare, Indeterminate as defined under section on terminology.

IDENTIFICATION

As the colour and size of some species of butterflies is unfamiliar to most readers, a brief description with main diagnostic characters is included where necessary. The size of the adult is indicated by the length of the forewing which is measured from the apex of the forewing to the centre of the thorax. The wings are the main diagnostic feature of butterflies and the terms used in describing them are explained in Figure 2A. The descriptions of early developmental stages are explained in Figure 2B.

As butterflies spend the majority of their lives as eggs, larvae (caterpillars) or pupae a brief description is also made of these stages of the life cycle. Measurements are given on the diameter of the eggs and the lengths of the larvae and pupae. The main diagnostic features of these stages and the terms used in describing them are explained in Figure 3. The larvae and pupa can be covered with varying amounts of setae (or hairs).

DISTRIBUTION

Distributional data are the most recent available and are generally given to the state or province and precise locality (nearest town). Notes on the distribution outside South Africa are also included.

A map indicating the South African distribution of each species is supplied, the legend is as follows:

- △ Single specimen record.
- ▲ Single locality record.
- Area records.
- Formerly recorded habitat.
- Related taxa requiring further research.

HABITAT AND ECOLOGY

Notes include data on life-cycles and foodplants (which are all too often unknown), flight times and seasonal cycles. In some cases all the biotope is described in a general way, including data on climate, vegetation and altitude where appropriate.

STATUS

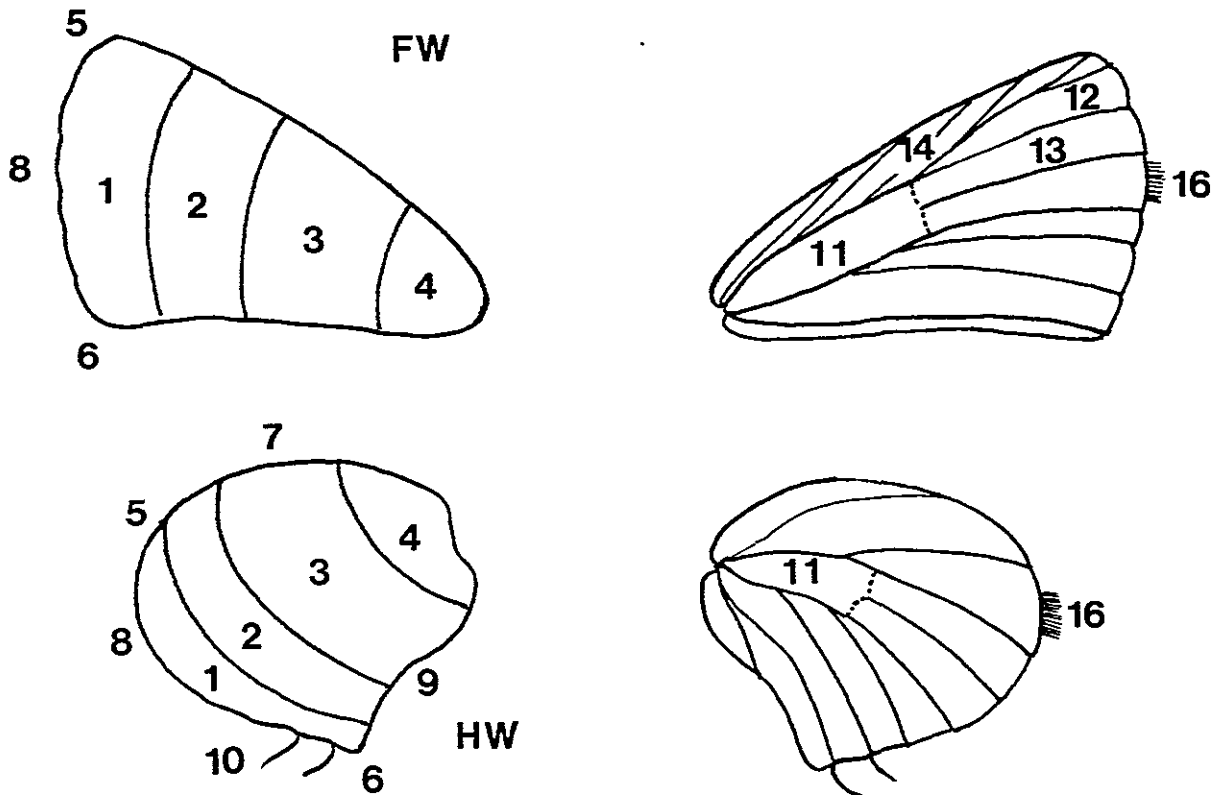
History of species - where and when it was first recorded and later distributional notes. Also other points of general interest. The number of specimens recorded in certain cases is also noted.

TAXONOMY

Notes on some species which have had recent changes in taxonomy or have previously been the subject of taxonomic debate are briefly presented in this section.

THREATS

This section includes any known or surmised threats to the survival of a species or its populations. In some cases the threats are well defined, in which case a higher con-



UFW: upperside forewing
 UHW: upperside hindwing

LFW: underside forewing
 LHW: underside hindwing

- 1. submarginal
- 2. postdiscal
- 1&2. distal
- 3. discal
- 4. basal
- 5. apex
- 6. anal angle or tornus
- 7. costa or costal angle

- 8. outer margin
- 9. anal or inner margin
- 10. tail
- 11. cell
- 12. apical
- 13. subapical
- 14. subcostal
- 15. median
- 16. cilia (fringe)

Figure 2A. Explanation of terms used in the description of butterfly wings.

ervation category may be expected. Often the threats will not be known and a species may be known from very few specimens. In such cases holding categories such as Indeterminate may be expected. Most of the listed species are threatened by loss of habitat. In many reviews where this is so, a general account of habitat loss and its causes may be given. Clearly such problems affect a wide range of wildlife.

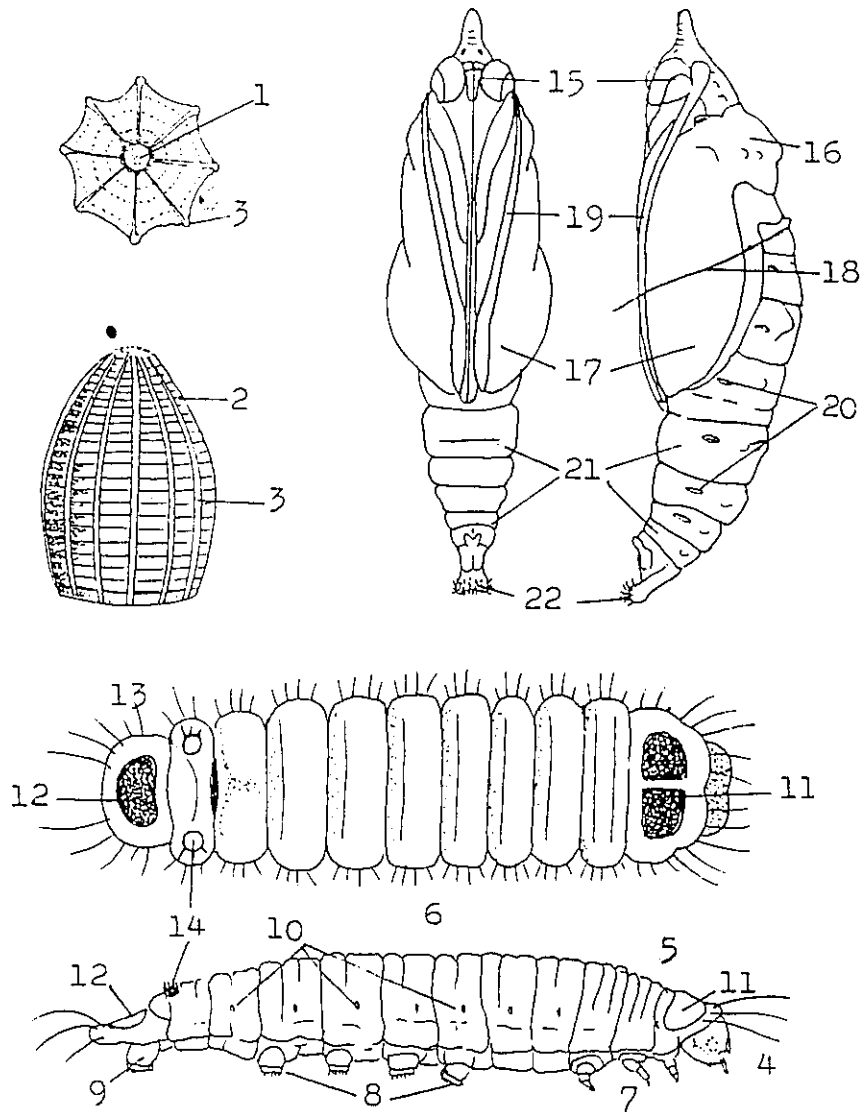
CONSERVATION MEASURES

Herein are included measures already taken to conserve the species, including protection by legislation or gazetted of protected areas. Proposed measures are also listed, including legislation, appeals for protective

measures and further scientific study to establish population sizes, distribution and status. The presence of species already recorded in nature reserves is also noted.

INVESTIGATIONS REQUIRED

This section is designed to focus attention on aspects of the species listed as Endangered, Vulnerable and Rare that warrant investigation. To this end the taxonomic status and five facets of the ecology of each species is set out in tabular form following the name and categorization of the species. A cross (X) placed in a box below headings indicates meagre or even non-existent information and special efforts should be made to remedy this.



EGG:

- 1. micropyle
- 2. cross-ridges
- 3. longitudinal ribs

PUPA:

- 15. head
- 16. thorax
- 17. forewing
- 18. central girdle
- 19. antenna
- 20. spiracles
- 21. abdomen
- 22. cremastral hooks

LARVA:

- 4. head
- 5. thorax (segments 1-3)
- 6. abdomen (segments 4-13)(5+6=body)
- 7. thoracic legs
- 8. ventral prolegs
- 9. anal prolegs
- 10. spiracles
- 11. prothorax (neck) plate
- 12. anal plate or shield
- 13. opening of honey gland
- 14. tubercles

Figure 2B. Explanation of terms used in the description of butterfly eggs, larvae and pupae.

In the case of *Aloeides nubilus*, for example, while its taxonomic status has been investigated in detail (Henning & Henning) nothing is known about the four facets of its

ecology listed hereunder and therefore an X appears below each of the headings.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X

The habits indicated above cover the behaviour of the adults as well as that of the early stages. Adult behaviour includes flight, feeding, mate locating, courtship and egg laying. The early stage behaviour includes feeding - where, when and how, defences against predators and where they shelter or rest.

In some cases our knowledge of the species is so fragmentary that a complete survey of all the aspects tabulated is required. In others, we have some knowledge of a few of these aspects but a lack in the case of others which warrant special attention.

By dealing with the threatened species in this way the opportunity is afforded of drawing attention to particular issues of importance in the conservation of some species.

REFERENCES

All references to the major publications on the adult, life history and habits are included in this section. Should additional information on a particular species be required these references may be consulted.

THE SPECIES AND THEIR CATEGORIES

Of the 141 species and subspecies included in this Red Data Book the breakdown between the various categories, as they are defined in the section TERMINOLOGY is given in the following list.

Two species have become **EXTINCT** as they have not been located in the wild during the past 50 years.

Deloneura immaculata
Lepidochrysops hypopolia

Two species are considered to be **ENDANGERED**:

Chrysoritis cottrelli
Lepidochrysops methymna dicksoni

Seven species/subspecies are treated as **VULNERABLE**:

Alaena margaritacea
Argyrocupha malagrida malagrida
Argyrocupha malagrida maryae
Erikssonina acraeina
Lepidochrysops lotana
Orachrysops niobe
Oxychaeta dicksoni

Ninety-one species and subspecies are considered to be **RARE**:

Abantis bicolor
Aloeides caledoni
Aloeides clarki
Aloeides dentatis dentatis
Aloeides egerides
Aloeides lutescens
Aloeides carolynnae
Aloeides merces
Aloeides nubilus
Aloeides rossouwi
Aloeides trimeni southeyae
Anthene minima
Appias sabina phoebe
Argyrocupha malagrida cedrusmontana
Argyrocupha malagrida paarlensis
Aslauga australis
Bowkeria phosphor borealis
Bowkeria phosphor phosphor
Capys penningtoni
Charaxes marieps
Charaxes pondoensis
Chrysoritis oreas
Coeliades anchises
Colotis doubledayi angolanus
Cyrestis pantheus sublineatus
Dingana alaedeus
Dira swanepoeli isolata
Durbania amakosa albescens
Euriphene achlys
Iolais (E.) aphnaeoides
Iolais (E.) diametra natalica
Iolais (P.) lulua
Lepidochrysops bacchus
Lepidochrysops badhami
Lepidochrysops balli
Lepidochrysops jamesi claassensi
Lepidochrysops jamesi jamesi
Lepidochrysops jefferyi
Lepidochrysops littoralis
Lepidochrysops loewensteini
Lepidochrysops oosthuizeni
Lepidochrysops oreas oreas
Lepidochrysops outeniqua
Lepidochrysops penningtoni
Lepidochrysops pephredo
Lepidochrysops pringlei
Lepidochrysops quickelbergei
Lepidochrysops swanepoeli
Lepidochrysops victori
Metisella syrinx
Orachrysops ariadne
Ornipholidotos peucetia penningtoni
Phasis pringlei

Phasis thero cedarbergae
Platylesches tina
Poecilmitis adonis
Poecilmitis aureus
Poecilmitis azurius
Poecilmitis balli
Poecilmitis brooksi tearei
Poecilmitis daphne
Poecilmitis endymion
Poecilmitis henningi
Poecilmitis hyperion
Poecilmitis irene
Poecilmitis kaplani
Poecilmitis lyncurium
Poecilmitis penningtoni
Poecilmitis pyramus
Poecilmitis pyrois hersaleki
Poecilmitis rileyi
Poecilmitis stepheni
Poecilmitis swanepoeli
Poecilmitis wykehami
Pseudonympha paragaika
Pseudonympha swanepoeli
Sarangesa ruona
Spialia confusa confusa
Stygionympha dicksoni
Thestor dicksoni calviniae
Thestor dicksoni dicksoni
Thestor kaplani
Thestor pringlei
Thestor strutti
Thestor tempe
Thestor yildizae
Torynesis orangica
Torynesis pringlei
Trimenia wallengrenii
Tsitana dicksoni
Tuxentius malaena griqua

Thirty-nine species and subspecies are placed in the INDETERMINATE category:

Acraea machequena
Acraea rabbaiae
Acraea satis
Aloeides dentatis maseruna
Aloeides kaplani
Aloeides nollothi
Aloeides pringlei
Andronymus caesar philander
Borbo ferruginea dondo
Borbo micans
Charaxes etesipe tavetensis
Charaxes protoctlea azota
Coeliades libeon
Cyclurius babaulti

Dingana bowkeri bella
Dira jansei
Durbania amakosa flavida
Gegenes hottentota
Hypolycaena lochmophila
Lepidochrysops poseidon
Lepidochrysops titei
Lepidochrysops wykehami
Metisella meninx
Papilio (P.) euphranor
Poecilmitis lyndseyae
Poecilmitis nigricans nigricans
Poecilmitis nigricans zwartbergae
Poecilmitis orientalis
Poecilmitis pan
Poecilmitis trimeni
Pseudonympha camdeboo
Spialia paula
Thestor brachycerus
Thestor compassbergae
Thestor dryburghi
Thestor montanus pictus
Thestor rossouwi
Thestor stepheni
Thestor swanepoeli

SYSTEMATIC LIST - BY CATEGORY

ORDER LEPIDOPTERA

EXTINCT (EX)

Family Lycaenidae

Deloneura immaculata Trimen
Lepidochrysops hypopolia (Trimen)

ENDANGERED (E)

Family Lycaenidae

Chrysoritis cottrelli Dickson
Lepidochrysops methymna dicksoni Tite

VULNERABLE (V)

Family Lycaenidae

Alaena margaritacea Eltringham
Oxychaeta dicksoni (Gabriel)
Argyrocupha malagrida malagrida (Wallengren)
Argyrocupha malagrida maryae Dickson & Henning
Eriksonia acraeina Trimen
Lepidochrysops lotana Swanepoel
Orachrysops niobe (Trimen)

RARE (R)

Superfamily PAPILIONOIDEA

Family Satyridae

Dira swanepoeli isolata Van Son
Dingana alaedeus Henning & Henning
Torynesis orangica Vári
Torynesis pringlei Dickson
Pseudonympha paragaika Vári
Pseudonympha swanepoeli Van Son
Stygionympha dicksoni (Riley)

Family Nymphalidae

Euriphene achlys (Hopffer)
Cyrestis pantheus sublineatus Lathy
Charaxes pondoensis Van Someren
Charaxes marieps Van Someren & Jackson

Family Lycaenidae

Omipholidotos peucetia penningtoni (Riley)
Durbania amakosa albescens Quickelberge
Aslauga australis Cottrell
Thestor strutti Van Son
Thestor dicksoni dicksoni Riley
Thestor dicksoni calviniae Riley
Thestor kaplani Dickson & Stephen
Thestor pringlei Dickson
Thestor yildizae Kocak
Thestor tempe Pennington
lolaus (P.) lulua Riley
lolaus (E.) aphnaeoides Trimen
lolaus (E.) diametra natalica Vári
Capys penningtoni Riley
Phasis thero cedarbergae Dickson & Wykeham
Phasis pringlei Dickson
Trimenia wallengrenii (Trimen)
Argyrocupha malagrida paarlensis (Dickson)
Argyrocupha malagrida cedrusmontana Dickson & Stephen
Aloeides caledoni Tite & Dickson
Aloeides dentatis dentatis (Swierstra)
Aloeides rossouwi Henning & Henning
Aloeides nubilus Henning & Henning
Aloeides merces Henning & Henning
Aloeides clarki Tite & Dickson
Aloeides lutescens Tite & Dickson
Aloeides carolynnae Dickson
Aloeides egerides (Riley)
Aloeides trimeni southeyae Tite & Dickson
Chrysoritis oreas (Trimen)
Poecilmitis pyroeis hersaleki Dickson
Poecilmitis lyncurium (Trimen)
Poecilmitis aureus Van Son

Poecilmitis wykehami Dickson
Poecilmitis brooksi tearei Dickson
Poecilmitis rileyi Dickson
Poecilmitis penningtoni Riley
Poecilmitis irene Pennington
Poecilmitis swanepoeli Dickson
Poecilmitis hyperion Dickson
Poecilmitis henningi Bampton
Poecilmitis kaplani Henning
Poecilmitis stepheni Dickson
Poecilmitis endymion Pennington
Poecilmitis pyramus Pennington
Poecilmitis daphne Dickson
Poecilmitis balli Dickson & Henning
Poecilmitis azurius Swanepoel
Poecilmitis adonis Pennington
Bowkeria phosphor phosphor (Trimen)
Bowkeria phosphor borealis Quickelberge
Anthene minima (Trimen)
Tuxentius melaena griqua (Trimen)
Lepidochrysops badhami Van Son
Lepidochrysops bacchus Riley
Lepidochrysops penningtoni Dickson
Lepidochrysops jamesi jamesi Swanepoel
Lepidochrysops jamesi claassensi Dickson
Lepidochrysops loewensteini (Swanepoel)
Lepidochrysops victori Pringle
Lepidochrysops pephredo (Trimen)
Lepidochrysops swanepoeli Pennington
Lepidochrysops jefferyi (Swierstra)
Lepidochrysops oreas oreas Tite
Lepidochrysops quickelberge Swanepoel
Lepidochrysops pringlei Dickson
Lepidochrysops balli Dickson
Lepidochrysops littoralis Swanepoel & Vári
Lepidochrysops outeniqua Swanepoel & Vári
Lepidochrysops oosthuizeni Swanepoel & Vári
Orachrysops ariadne (Butler)

Family Pieridae

Colotis doubledayi angolanus (Talbot)
Appias sabina phoebe Butler

Superfamily HESPERIOIDEA

Family HesperIIDae

Coeliades anchises (Gerstaecker)
Sarangesa ruona Evans
Abantis bicolor (Trimen)
Spialia confusa confusa (Higgins)
Metisella syrx (Trimen)
Tsitana dicksoni Evans
Platylesches tina Evans

INDETERMINATE (I)

Superfamily PAPILIONOIDEA

Family Satyridae

Dira jansei (Swierstra)
Dingana bowkeri bella Van Son
Pseudonympha camdeboo Dickson

Family Acraeidae

Acraea machequena Grose-Smith
Acraea rabbaiae Ward
Acraea satis Ward

Family Nymphalidae

Charaxes protoclea azota (Hewitson)
Charaxes etesipe tavetensis Rothschild

Family Lycaenidae

Durbania amakosa flavida Quickelberge
Thestor dryburghi Van Son
Thestor swanepoeli Pennington
Thestor montanus pictus Van Son
Thestor compassbergae Quickelberge & McMaster
Thestor rossouwi Dickson
Thestor brachycerus (Trimen)
Thestor stepheni Swanepoel
Hypolycaena lochmophila Tite
Aloeides kaplani Tite & Dickson
Aloeides pringlei Tite & Dickson
Aloeides dentatis maseruna (Riley)
Aloeides nollothi Tite & Dickson
Poecilmitis pan Pennington
Poecilmitis trimeni Riley
Poecilmitis orientalis Swanepoel
Poecilmitis lyndseyae Henning
Poecilmitis nigricans nigricans (Aurivillius)
Poecilmitis nigricans zwartbergae Dickson
Cyclyrius babaulti (Stempffer)
Lepidochrysops titei Dickson
Lepidochrysops wykehami Tite
Lepidochrysops poseidon Pringle

Family Papilionidae

Papilio (Princeps) euphranor Trimen

Superfamily HESPERIOIDEA

Family Hesperidae

Coeliades libeon (Druce)
Spialia paula (Higgins)
Metisella meninx (Trimen)
Andronymus caesar philander (Hopffer)
Borbo micans (Holland)
Borbo ferruginea dono Evans
Gegenes hottentota (Latreille)

TABULAR SUMMARY - KEY

COLUMN

- 1 The present conservation status of the taxon:
Ex = Extinct; E = Endangered; V = Vulnerable;
R = Rare; I = Indeterminate; As defined in
the section on TERMINOLOGY.
- 2 Endemic = The species (sp.) or the subspecies
(ssp.) occurs only within the borders of the
Republic of South Africa.
- 3 Distribution: **Wide** = Occurs widely throughout
in suitable habitat.
- 4 Distribution: **Marginal** = Occurs marginally
in South Africa but widely in areas beyond
the Republic's borders.
- 5 Distribution: **Limited** = Occurs only in a re-
stricted area in the Republic or, records
both from within and without the borders of
the Republic are insufficient to show that the
species is occurring at the periphery of an
extensive distributional range.
- 6 The current population trends:
U = Up; S = Stable; O = Unknown.
- 7 The distribution pattern of the species extra-
limitally in Africa: W = Widely distributed;
L = Limited distribution (sub-Saharan);
M = Marginally distributed (also occurs in
southern Angola, Namibia (South West Africa),
Botswana, Zimbabwe or southern Mozambique).
- 8 The data sheet page of the taxon.

TABULAR SUMMARY

	C O N S E R V A T I O N	P O P U L A T I O N D I S T R I B U T I O N				P O P U L A T I O N T R E N D	A F R I C A N D I S T R I B U T I O N	D A T A S H E E T N O
		S T A T U S 1 9 8 9	E N D E M I C	W I D E	M A R G I N A L			
BUTTERFLY SPECIES	1	2	3	4	5	6	7	8

Superfamily PAPILIONOIDEA

Family Satyridae

<i>Dira swanepoeli isolata</i>	R	ssp.			X	S		19
<i>Dira jansei</i>	I	sp.			X	S		20
<i>Dingana bowkeri bella</i>	I	ssp.			X	S		21
<i>Dingana alaedeus</i>	R	sp.			X	S		22
<i>Torynesis orangica</i>	R	sp.			X	S		24
<i>Torynesis pringlei</i>	R	sp.			X	S		24
<i>Pseudonympha paragaika</i>	R	sp.			X	S		25
<i>Pseudonympha swanepoeli</i>	I	sp.			X	S		26
<i>Pseudonympha camdeboo</i>	I	sp.			X	S		27
<i>Stygionympha dicksoni</i>	R	sp.			X	S		27

Family Acraeidae

<i>Acraea machequena</i>	I			X		O	L	29
<i>Acraea rabbaiae</i>	I			X		S	L	30
<i>Acraea satis</i>	I			X		S	L	31

Family Nymphalidae

<i>Euriphene achlys</i>	R			X		O	L	32
<i>Cyrestis pantheus sublineatus</i>	R			X		O	L	34
<i>Charaxes protoclea azota</i>	I			X		O	L	35
<i>Charaxes etesipe tavetensis</i>	I			X		O	L	37
<i>Charaxes pondoensis</i>	R	sp.			X	S		39
<i>Charaxes marieps</i>	R	sp.			X	S		40

Family Lycaenidae

<i>Alaena margaritacea</i>	V	sp.			X	S		43
----------------------------	---	-----	--	--	---	---	--	----

BUTTERFLY SPECIES	1	2	3	4	5	6	7	8
<i>Ornipholidotos peucetia penningtoni</i>	R	ssp.			X	S		44
<i>Durbania amakosa albescens</i>	R	ssp.			X	S		45
<i>Durbania amakosa flavida</i>	I	ssp.			X	S		46
<i>Deloneura immaculata</i>	Ex.	sp.			X	O		47
<i>Aslauga australis</i>	R	sp.			X	O		48
<i>Thestor dryburghi</i>	I	sp.			X	S		50
<i>Thestor strutti</i>	R	sp.			X	S		50
<i>Thestor dicksoni dicksoni</i>	R	ssp.			X	S		51
<i>Thestor dicksoni calviniae</i>	R	ssp.			X	S		52
<i>Thestor swanepoeli</i>	I	sp.			X	S		53
<i>Thestor montanus pictus</i>	I	ssp.			X	S		53
<i>Thestor compassbergae</i>	I	sp.			X	S		54
<i>Thestor rossouwi</i>	I	sp.			X	S		54
<i>Thestor kaplani</i>	R	sp.			X	S		55
<i>Thestor pringlei</i>	R	sp.			X	S		56
<i>Thestor brachycerus</i>	I	sp.			X	S		57
<i>Thestor yildizae</i>	R	sp.			X	S		58
<i>Thestor tempe</i>	R	sp.			X	S		60
<i>Thestor stepheni</i>	I	sp.			X	S		60
<i>Hypolycaena lochmophila</i>	I				X	S	L	61
<i>Iolau (P.) lulua</i>	R	sp.			X	S		62
<i>Iolau (E.) aphnaeoides</i>	R	sp.			X	S		63
<i>Iolau (E.) diametra natalica</i>	R	ssp.			X	S		65
<i>Capys penningtoni</i>	R	sp.			X	S		66
<i>Phasis thero cedarbergae</i>	R	ssp.			X	S		68
<i>Phasis pringlei</i>	R	sp.			X	S		69
<i>Oxychaeta dicksoni</i>	V	sp.			X	D		70
<i>Trimenia wallengrenii</i>	R	sp.			X	D		71
<i>Argyrocupha malagrida malagrida</i>	V	ssp.			X	D		72
<i>Argyrocupha malagrida paarlensis</i>	R	ssp.			X	S		74
<i>Argyrocupha malagrida cedrusmontana</i>	R	ssp.			X	S		75
<i>Argyrocupha malagrida maryae</i>	V	ssp.			X	D		76
<i>Aloeides kaplani</i>	I	sp.			X	S		77
<i>Aloeides pringlei</i>	I	sp.			X	S		77
<i>Aloeides caledoni</i>	R	sp.			X	S		78
<i>Aloeides dentatis dentatis</i>	R	ssp.			X	D		79

BUTTERFLY SPECIES	1	2	3	4	5	6	7	8
<i>Aloeides dentatis maseruna</i>	I	ssp.			X	D		81
<i>Aloeides rossouwi</i>	R	sp.			X	S		82
<i>Aloeides nubilus</i>	R	sp.			X	S		82
<i>Aloeides nollothi</i>	I	sp.			X	S		83
<i>Aloeides merces</i>	R	sp.			X	S		84
<i>Aloeides clarki</i>	R	sp.			X	S		85
<i>Aloeides lutescens</i>	R	sp.			X	S		86
<i>Aloeides carolynnae</i>	R	sp.			X	S		86
<i>Aloeides egerides</i>	R	sp.			X	S		87
<i>Aloeides trimeni southeyae</i>	R	ssp.			X	S		88
<i>Chrysoritis oreas</i>	R	sp.			X	S		89
<i>Chrysoritis cottrelli</i>	E	sp.			X	D		90
<i>Poecilmitis pyroeis hersaleki</i>	R	ssp.			X	S		91
<i>Poecilmitis lyncurium</i>	R	sp.			X	S		92
<i>Poecilmitis aureus</i>	R	sp.			X	S		93
<i>Poecilmitis wykehami</i>	R	sp.			X	S		94
<i>Poecilmitis brooksi tearei</i>	R	ssp.			X	S		95
<i>Poecilmitis rileyi</i>	R	sp.			X	D		97
<i>Poecilmitis pan</i>	I	sp.			X	S		97
<i>Poecilmitis trimeni</i>	I	sp.			X	D		98
<i>Poecilmitis orientalis</i>	I	sp.			X	S		99
<i>Poecilmitis penningtoni</i>	R	sp.			X	S		100
<i>Poecilmitis irene</i>	R	sp.			X	S		101
<i>Poecilmitis swanepoeli</i>	R	sp.			X	S		101
<i>Poecilmitis hyperion</i>	R	sp.			X	S		102
<i>Poecilmitis henningi</i>	R	sp.			X	S		103
<i>Poecilmitis lyndseyae</i>	I	sp.			X	S		104
<i>Poecilmitis kaplani</i>	R	sp.			X	S		104
<i>Poecilmitis stepheni</i>	R	sp.			X	S		105
<i>Poecilmitis endymion</i>	R	sp.			X	S		106
<i>Poecilmitis pyramus</i>	R	sp.			X	S		107
<i>Poecilmitis daphne</i>	R	sp.			X	S		108
<i>Poecilmitis balli</i>	R	sp.			X	S		108
<i>Poecilmitis azurius</i>	R	sp.			X	S		109
<i>Poecilmitis nigricans nigricans</i>	I	ssp.			X	D		110
<i>Poecilmitis nigricans zwartbergae</i>	I	ssp.			X	S		112

BUTTERFLY SPECIES	1	2	3	4	5	6	7	8
<i>Poecilmitis adonis</i>	R	sp.			X	S		113
<i>Bowkeria phosphor phosphor</i>	R	ssp.			X	S		114
<i>Bowkeria phosphor borealis</i>	R	ssp.			X	S		115
<i>Eriksonia acraeina</i>	V				X	S	L	116
<i>Anthene minima</i>	R				X	S	M	119
<i>Cyclorius babaulti</i>	I		X			O	L	120
<i>Tuxentius melaena griqua</i>	R	ssp.			X	D		120
<i>Lepidochrysops methymna dicksoni</i>	E	ssp.			X	D		122
<i>Lepidochrysops badhami</i>	R	sp.			X	S		124
<i>Lepidochrysops bacchus</i>	R	sp.			X	S		125
<i>Lepidochrysops penningtoni</i>	R	sp.			X	D		126
<i>Lepidochrysops jamesi jamesi</i>	R	ssp.			X	S		127
<i>Lepidochrysops jamesi claassensi</i>	R	ssp.			X	S		127
<i>Lepidochrysops loewensteini</i>	R	sp.			X	S		128
<i>Lepidochrysops victori</i>	R	sp.			X	S		129
<i>Lepidochrysops pephredo</i>	R	sp.			X	S		129
<i>Lepidochrysops swanepoeli</i>	R	sp.			X	S		130
<i>Lepidochrysops jefferyi</i>	R	sp.			X	S		131
<i>Lepidochrysops hypopolia</i>	Ex.	sp.			X	O		132
<i>Lepidochrysops lotana</i>	V	sp.			X	D		133
<i>Lepidochrysops titei</i>	I	sp.			X	S		133
<i>Lepidochrysops wykehami</i>	I	sp.			X	S		134
<i>Lepidochrysops oreas oreas</i>	R	ssp.			X	S		135
<i>Lepidochrysops quickelbergei</i>	R	sp.			X	S		137
<i>Lepidochrysops pringlei</i>	R	sp.			X	S		137
<i>Lepidochrysops balli</i>	R	sp.			X	S		138
<i>Lepidochrysops littoralis</i>	R	sp.			X	S		139
<i>Lepidochrysops outeniqua</i>	R	sp.			X	S		139
<i>Lepidochrysops oosthuizeni</i>	R	sp.			X	S		140
<i>Lepidochrysops poseidon</i>	I	sp.			X	S		141
<i>Orachrysops niobe</i>	V	sp.			X	D		142
<i>Orachrysops ariadne</i>	R	sp.			X	S		143
Family Pieridae								
<i>Colotis doubledayi angolanus</i>	R			X		S	M	144
<i>Appias sabina phoebe</i>	R			X		S	M	146

BUTTERFLY SPECIES	1	2	3	4	5	6	7	8
Family Papilionidae								
<i>Papilio (P.) euphranor</i>	I	sp.	X			S		148
Superfamily HESPERIOIDEA								
Family Hesperidae								
<i>Coeliades anchises</i>	R		X			S	W	150
<i>Coeliades libeon</i>	I			X		S	W	151
<i>Sarangesa ruona</i>	R		X			O	W	152
<i>Abantis bicolor</i>	R	sp.	X			D		153
<i>Spialia confusa confusa</i>	R				X	S	L	154
<i>Spialia paula</i>	I		X			S	M	155
<i>Metisella meninx</i>	I		X			D	M	156
<i>Metisella syrinx</i>	R	sp.			X	S		157
<i>Tsitana dicksoni</i>	R	sp.			X	S		157
<i>Andronymus caesar philander</i>	I			X		O	W	158
<i>Platylesches tina</i>	R			X		O	L	159
<i>Borbo micans</i>	I			X		O	W	160
<i>Borbo ferruginea dondo</i>	I			X		O	M	161
<i>Gegenes hottentota</i>	I		X			D	W	162

LEGISLATION IN FORCE 1988 REPUBLIC OF SOUTH AFRICA

The Provinces of the Republic differ in their legislation in so far as the species protected and the nature of the protection are concerned. This legislation is presently being reviewed but the measures in force as of 1988 are as follows:

TRANSVAAL (Information from Mr J.L. Erasmus)

Ordinance 12 of 1983

Section 45 (Schedule 7) (Protected Wild Animals)

Protected Wild Animals may not be hunted, kept in captivity, captured, poisoned, sold, bought, imported or exported without a permit from the Administrator.

At the moment *Poecilmitis aureus* and all species of the genus *Charaxes* are listed as Protected Wild Animals in Appendix 7.

NATAL (Information from Dr O. Bourquin)

Ordinance 15 of 1974 - Currently substituted by

Section 13 of Ordinance 25/1979

This Ordinance deals with invertebrates. However, there are as yet, no protected invertebrates in Natal.

ORANGE FREE STATE (Information from Mr Ferreira)

Ordinance 8 of 1969

The Nature Conservation Ordinance does not prevent the collection of any insect species in the Orange Free State.

CAPE PROVINCE

Ordinance 19 of 1974

Schedule 2 (Protected Wild Animals)

May not be hunted, killed, captured or kept in captivity without a permit from the Department of Nature and Environmental Conservation or under licence during the prescribed hunting season which is proclaimed annually for each animal in each divisional area.

The Administrator may confiscate any endangered wild animal and pay compensation or protect such wild animal on land not belonging to the Administration if such action is deemed necessary.

Any animal can be added to or deleted from the schedules of endangered or protected animals by proclamation of the Administrator.

Amendment of Schedule 2

(effective from 13 February 1976)

The following butterfly species were added to the protected animal list of Schedule 2 in 1976:

Family LYCAENIDAE

Aloeides egerides
Aloeides lutescens
Argyrocupha malagrida malagrida
Trimenia wallengrenii
Oxychaeta dicksoni
Lepidochrysops bacchus
Poecilmitis endymion
Poecilmitis lyncurium
Poecilmitis nigricans nigricans
Poecilmitis rileyi
Thestor dicksoni dicksoni
Thestor kaplani

Family NYMPHALIDAE

Charaxes xiphares xiphares f. occidentalis

Family SATYRIDAE

Stygionympha dicksoni

Family HESPERIIDAE

Metisella syrinx
Tsitana dicksoni

REVIEWS OF THREATENED SPECIES

The following 141 reviews summarise our present knowledge of those butterfly species for which some degree of threat has been established or is suspected. The order of appearance is given on the Contents page. A list of 141 species sorted into their threatened categories is given on page 7.

The criteria used in selecting species for review have been outlined in the section on Terminology. There it was emphasised that Red Data Book categories are constantly being updated and changed. There are always species that could arguably be in a higher category, while others could be in a lower one. We would be grateful if readers would alert us to any new information or shortcomings.

NON-RESIDENT AND OTHER SPECIES

With any biogeographic review such as this, there are those records which remain inexplicable; whether they truly represent the presence of a species in a region is open to question. Some of these specimens are discussed in this section. In the main section of the book there is one species which will perhaps be relegated to this category in the future; that is *Borbo micans*. This record is considered at present to represent a non-resident species.

The doubtful species may be more controversial. Included in this category is a described taxon which is a possible hybrid and a species described from a single specimen and based entirely on genitalic characters.

Family DANAIIDAE

Most species are generally fairly large butterflies with black or brown wings and yellow or white markings. The head and thorax are marked with white dots. The first pair of legs are greatly reduced and there are specialised sex marks or pouches on the hindwing of the male. The male also has a pair of hair-pencils near the tip of the abdomen which, when expanded, give off a characteristic scent (pheromone). The eggs are oval or barrel-shaped with broad vertical ribs and fine horizontal ridges. The mature larva has a nearly smooth cylindrical body, usually conspicuously banded, and with two, three or four pairs of long fleshy filaments bearing short hairs. The pupae are short, stout and smooth, usually delicately marked with silver or gold. They hang suspended from a pad of silk by the cremaster.

All danaids are highly unpalatable and some even toxic to predators. The poison in their bodies comes from the plants on which they feed as larvae, almost all of which are poisonous. They feed almost exclusively on

Asclepiadaceae (milkweeds) and their relatives, a group of plants that contain toxic cardiac glycosides. The distinctly patterned wings are a warning to potential predators that they are unpalatable, these warning patterns are copied by unpalatable species in other butterfly families, such as Papilionidae (females only), Satyridae, Nymphalidae and Lycaenidae (Batesian mimicry). The equally unpalatable family Acraeidae also has species which mimic the Danaidae (Mullerian mimicry).

The danaids are particularly long-lived and some species take part in migrations. During migrations they are capable of rapid, sustained flight. However, they usually appear to have a slow, laboured or gliding flight.

This is a relatively small family in South Africa. There are only 5 species and one of these has only been recorded once in South Africa and is dealt with under the section non-resident species.

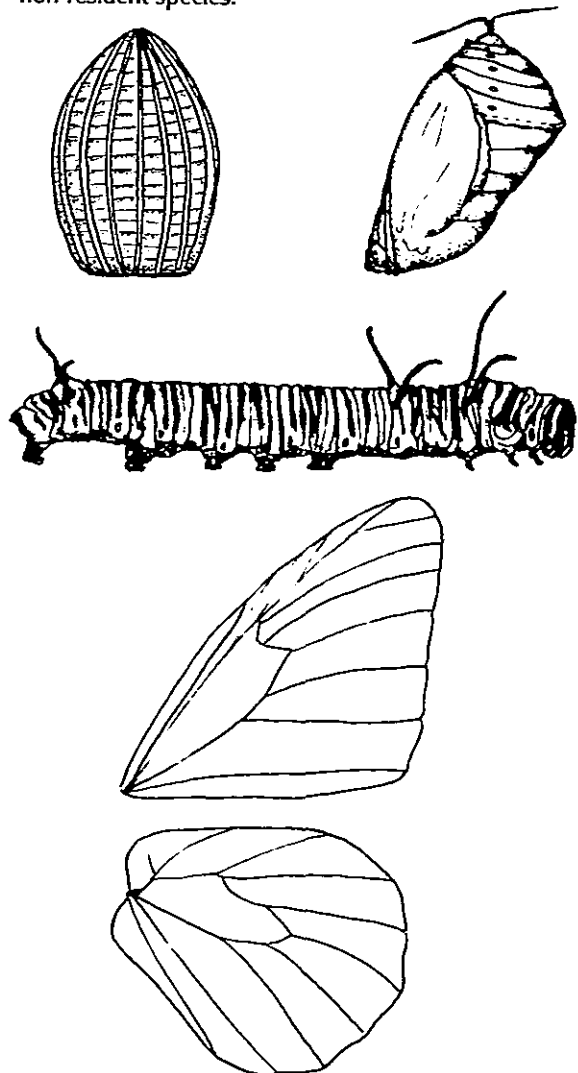


Figure 3. Danaidae: Typical wing-shape and venation (below); typical egg (top left); final instar larva (middle); typical pupa (top right). (Del. S.F. Henning)

Family SATYRIDAE

Most species are medium-sized butterflies, but there are also some small, dainty species. The browns are, as their common name suggests, usually brown with orange reddish-brown markings and most species have eye-spots (ocelli) on their wings. The first pair of legs in both sexes are reduced and are not used for walking. The mating behaviour is quite complex with the male courting the female and showering her with pheromones from patches of androconial scales, usually on the forewings. The males of many species are not clearly territorial. The eggs are spherical with a flattened base and a fine net-like (reticulated) pattern. They are either cream, yellowish or some shade of green and are usually laid singly on the foodplant. Some species, however, simply drop their

eggs into the grass while in flight or when sitting on the grass. The mature larvae may be smooth or may be thickly covered with very short hair. The anal segment is prominently forked and there are often horns on the head. The larvae are usually either green or brown. The pupae can be stout and rounded or slender and angular. They are green or brown and usually hang suspended, head downwards, by the cremaster from a pad of silk spun on the plant. Some lie unattached in the ground usually beneath debris or at the base of the foodplant. The foodplants are mainly grasses, or sometimes sedge or palms.

There are 68 satyrids occurring in South Africa, 10 being covered in this volume.

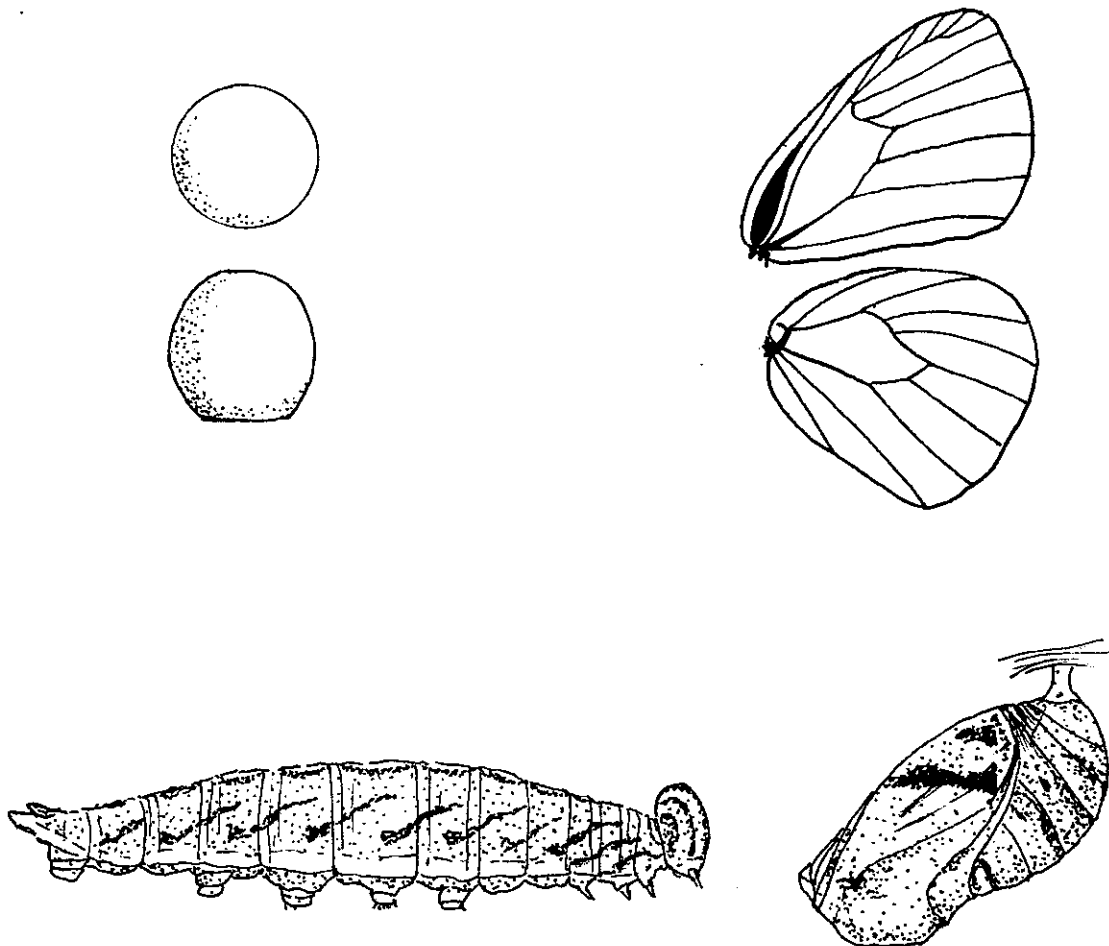


Figure 4. Satyridae: Typical wing-shape and venation (top right); typical egg - top and side view (top left); final instar larva (bottom left); typical pupae (bottom right). (Del. S.F.Henning)

Dira swanepoeli isolata Van Son RARE

SATYRIDAE SATYRINAE Tribe: DIRINI

Dira swanepoeli isolata Van Son, 1955. *The Butterflies of Southern Africa* 2:66. Type Locality: Blouberg, Transvaal.

IDENTIFICATION. Dark brown with two blue-pupilled eyespots near apex of forewing flanked on either side by yellow spots, the inner band extending across the wing. UHW with a row of orange-ringed eyespots before the margin. LHW brown with zigzag lines and with eyespots before the margin. Differs from the nominate race being smaller with an additional ocellus on the apex of the hindwing. The forewing markings are also slightly more extensive and lighter, particularly around the forewing ocelli.

Forewing lengths: male 34 - 36mm; female 33 - 35mm.

Life history. The eggs are greenish-yellow, smooth and round, diameter 1,1mm. The larvae are dark brown with longitudinal black stripes, the head and body are covered with short dark hairs. The pupa is short and rounded and dark brown mottled with golden-brown.

HABITAT AND ECOLOGY. Occurs on high elevation rocky grassveld above montane forest. Not normally seen in any numbers. It has a slow lazy flight, gliding for short distances with wings half raised. Can be swift and elusive

when disturbed. They fly about the rocks and grass on the slopes near the peaks and settle on the rocks or on the ground. They sometimes settle under rocky overhangs. The females are slower than the males and frequent the same places. The female apparently lays her eggs by dropping them into the grass. The foodplants are *Ehrharta erecta* Lam. and *Eragrostis aspera* (Jacq.) Nees (Poaceae). *D. swanepoeli* is, however, easy to breed on kikuyu. The egg stage lasts for two to three weeks. The larval stage lasts for almost eleven months, the larvae go into diapause during winter. The pupal stage lasts two to three weeks. *D. s. isolata* is on the wing during January to early March.

DISTRIBUTION. A subspecies endemic to the Blouberg, northern Transvaal.

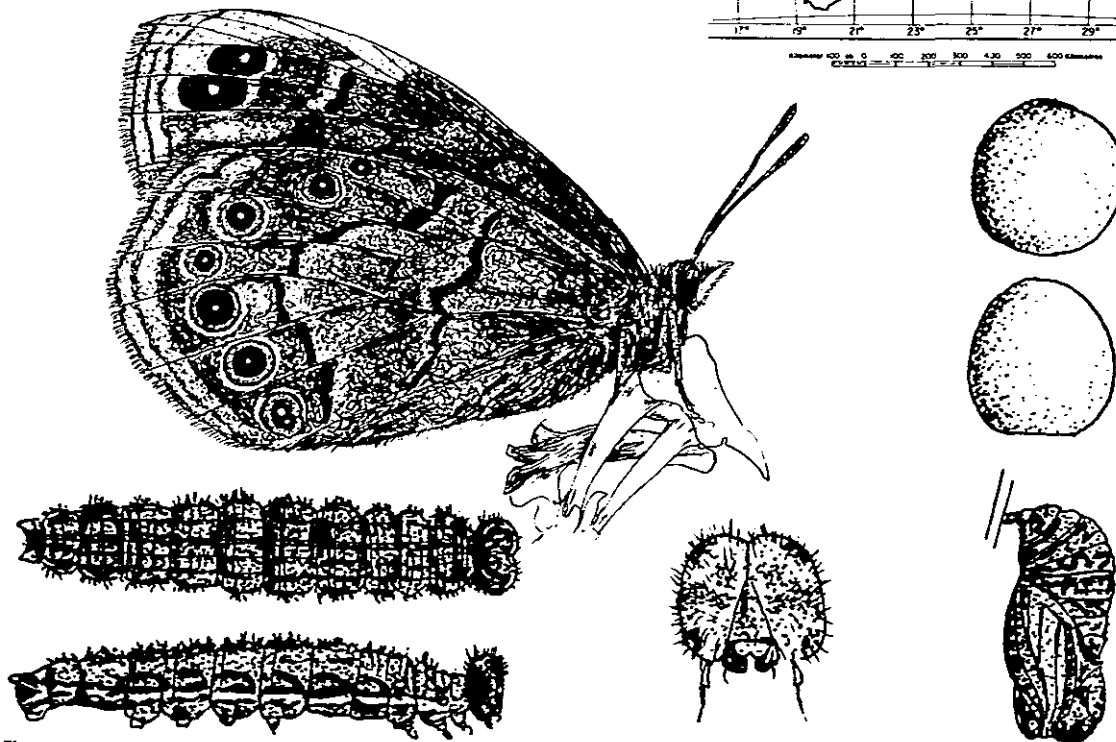
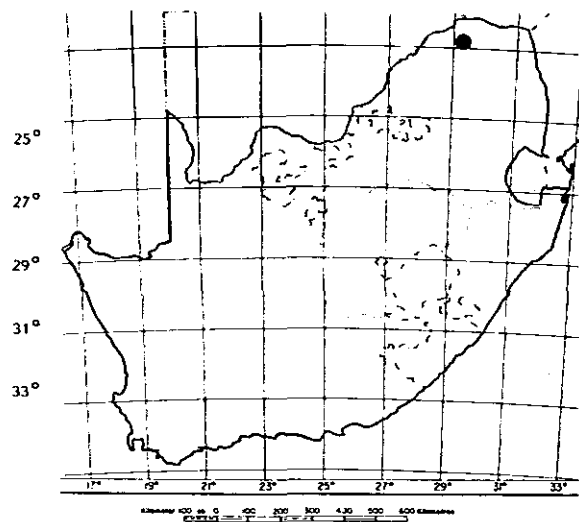


Figure 5. *Dira swanepoeli isolata* male underside (top left); *Dira swanepoeli swanepoeli* egg, top and side views (top right); final instar larva, top and side views (bottom left); final instar head (bottom centre); pupa (bottom right). (Del. S.F. Henning)

STATUS. Discovered by D.A.Swanepoel in March 1943.

THREATS. There are no known threats.

CONSERVATION MEASURES. The Lebowa Government in association with South Africa's Department of Co-operation and Development are developing the Blouberg Nature Reserve. This reserve should effectively protect this butterfly.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Pennington (1978):38 - adult and habits.
2. Van Son (1955):66 - adult, life history and habits.

Dira jansei (Swierstra) INDETERMINATE

SATYRIDAE SATYRINAE Tribe: DIRINI

Leptoneura jansei Swierstra, 1911. *Ann. Transv. Mus.* 1:175. Type Locality : Warmberg, Transvaal.

IDENTIFICATION. Dark brown with five small blue-pupilled eyespots near apex of forewing, flanked on either side by yellow spots. UHW with a row of yellow-ringed eyespots before the margin. LHW brown with zig-zag lines and with eyespots before the margin. The row of five smaller subapical forewing ocellate spots readily distinguish this species from others of the genus.

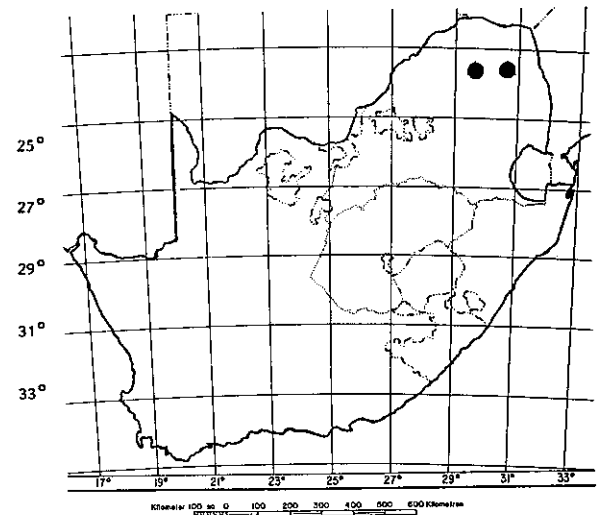
Forewing lengths: male 28 - 34mm; female 33 - 35mm.

Life history. The egg is very pale watery yellow with a diameter of 1mm by 1,1mm high. Fifth (final) instar larva attains a maximum length of 30mm. The head brick-red with black markings. Body, light reddish-brown with black dorsal and lateral longitudinal lines and markings, which towards the end of this stage fade and become ill-defined. Pupa; thorax black, wing-cases black with white streaks between the veins, abdomen at first reddish-brown, later fading to dull cream. The entire pupa is patterned with black¹.

HABITAT AND ECOLOGY. Inhabits wooded grassveld usually on south facing slopes. They prefer higher altitudes but do range down to the bottom of the mountains. They are often recorded in reasonable numbers during good years but normally less than a dozen at any one time. *D. jansei* has a slow, determined flight, showing a turn of speed if disturbed. The males normally fly about

grassy places between the trees on the higher slopes, settling on the ground or on rocks. They often settle under bushes or in the shade of trees. They can be found at their preferred spots for a number of days. The female's habits are similar to that of the males although she does wander more, settling often on blades of grass under the trees. The female lays her eggs by simply dropping them into the grass. The foodplant is a grass species, and the larvae will take *Ehrharta erecta* Lam. (Poaceae) and kikuyu when bred in captivity. The larvae are very sluggish at times, they feed at night and lie concealed near the roots by day. In order to pupate the larvae spin a slight mat of silk and fasten their anal claspers to this, they hang curled in a loop for two or three days before pupating¹. *D. jansei* flies in February and March.

DISTRIBUTION. An endemic Transvaal species, occurring from Makapans Caves to Mariepskop.



STATUS. It was first discovered by Dr J.T. Janse in March 1904 on the Warmberg, 48Km E.S.E. of Pietersburg. He collected one specimen on the flat top which forms an elevated plateau. The type specimen is a female and had probably wandered away from its normal habitat. It was next found at Makapans Caves in February 1935 by D.A. Swanepoel after he had searched for it for many years. The eastern limit was established as Mariepskop by Mr I. Bampton.

THREATS. The erratic emergence of this species makes the current status of known colonies difficult to establish. Some of the recorded colonies are Makapans Caves, Chuniespoort, Tubex, Blyderivierspoort Nature Reserve and Mariepskop. All recorded colonies are probably still viable, but at Makapans Caves veld fires are a threat.

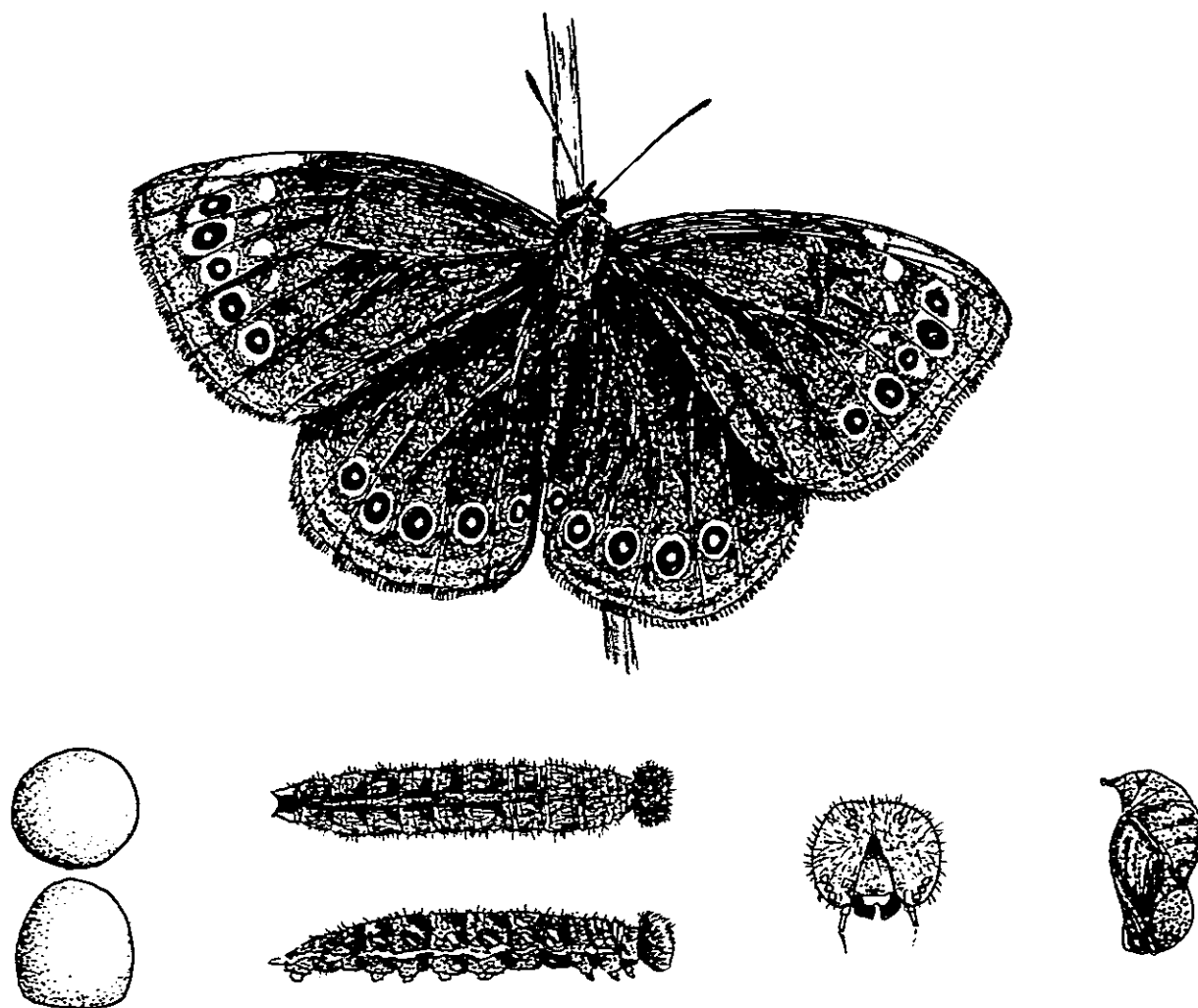


Figure 6. *Dira jansei* male upperside (top); egg, top and side view (bottom left); final instar larva, top and side view (bottom centre left); final instar head (bottom centre right); pupa (bottom right). (Del. S.F. Henning)

CONSERVATION MEASURES. Recorded in the Blyderivierspoort Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Clark G.C. (1943): 140 - life history.
2. Pennington (1978): 38 - adult and habits.
3. Swanepoel (1953): 252 - adult and habits.
4. Van Son (1955): 67 - adult, habits and life history.

Dingana bowkeri bella Van Son INDETERMINATE

SATYRIIDAE SATYRIINAE Tribe: DIRINI

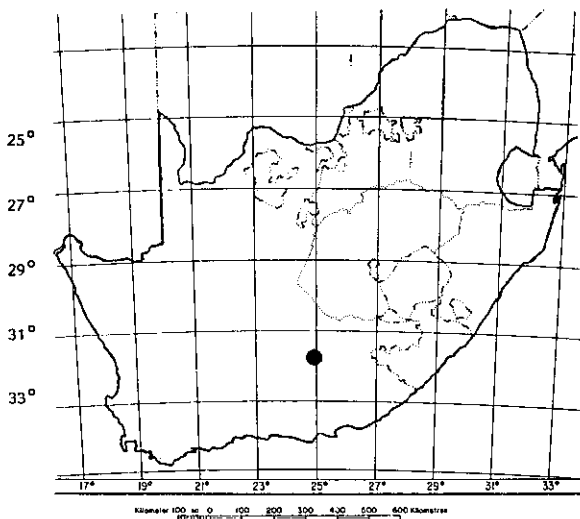
Dingana bowkeri bella Van Son, 1955. *The Butterflies of Southern Africa* 2:76. Type Locality: Richmond, Cape.

IDENTIFICATION. A large brown species. Forewing with a row of 4 white postdiscal spots below apex and small blue-pupilled eyespots. UHW with a row of orange-ringed eyespots before the margin. LHW brown with dark zigzag lines. It is larger than the nominate subspecies with smaller white markings. The wingshape is also different, the forewing being more acute and the outer margin being straighter.

Forewing lengths: male 29-32,5mm; female 29,5-33mm.

Life history. Unknown. The nominate subspecies has been recorded as follows: Egg broadly dome-shaped 0,95mm in diameter by 0,75mm high; the colour is pale yellow. The newly hatched larva is 2mm long, white with pink dorsal and lateral stripes. In the fifth (final) instar the colour of the dorsal strip is dark fuscous touched with black; lateral line fuscous, broad, with diagonal light patches on anterior half of each segment. Head greenish with fuscous markings. Maximum length of final instar 30mm. Pupa; length 16mm, brown, rather short and thick, with the abdomen strongly convex dorsally.

DISTRIBUTION. An endemic Cape subspecies, from Richmond to the Mountain Zebra National Park, Cradock.



HABITAT AND ECOLOGY. The habitat is steep grassy hillsides apparently where a species of *Merxmuellera* (*Danthonia*) grass grows. *D. d. bella* flies slowly along the steep slopes, settling frequently on the grass or ground. The foodplant is apparently *Merxmuellera* spp. (*Danthonia*) as indicated by McMaster¹.

STATUS. The first specimen was collected by Miss S. Viljoen near Richmond in December 1908. In December 1967 a large colony was found in the Mountain Zebra National Park, near Cradock, by McMaster and Quickelberge. The Pringles collected typical *bowkeri* on the Camdeboo Mountains which is almost midway between the two known localities. It is possible that *bella* is a distinct species from *bowkeri* but further research is necessary to ascertain its true relationship. A population found on the Kammanassie Mountains near Uniondale has been linked to *bella*; however, this population is very distinct and also requires further research.

THREATS. There are apparently no known threats.

CONSERVATION MEASURES. The subspecies is well protected as the main known colony is in the Mountain Zebra National Park, Cradock.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 39 - adult and habits.
2. Van Son (1955): 76 - adult and habits.

Dingana alaedeus G.A. & S.F. Henning RARE

SATYRIDAE SATYRINAE Tribe: DIRINI

Dingana alaedeus G.A.Henning & S.F.Henning, 1984. *Durban Mus. Novit.* (13)12:149. Type Locality: Wakkerstroom, Transvaal.

IDENTIFICATION. A medium sized, dark brown species. UFW with a large orange-red postdiscal patch and two fused ocellate subapical spots. UHW with a postdiscal series of ocellate spots ringed with orange-red. LHW brown with dark zigzag lines in a distinctive configuration. The large orange-red forewing patch on the forewing easily separates it from the widespread *Dingana dingana dingana* (Trimen).

Forewing lengths: male 24,5-28,5mm; female 25,5-28mm.

Life history. Eggs first pale yellow becoming pinkish-brown as development proceeds. They are 1mm in diameter and 1mm high. The newly hatched larvae are 2,5mm long, yellow with pink dorsal and lateral stripes. The sixth (final) instar larvae attain a length of 28mm. They are pale brown with broad blackish brown dorsal and lateral longitudinal stripes. The larvae are slim with very short setae. The head is pinkish-brown with greyish-brown setae. The pupa has not been recorded.

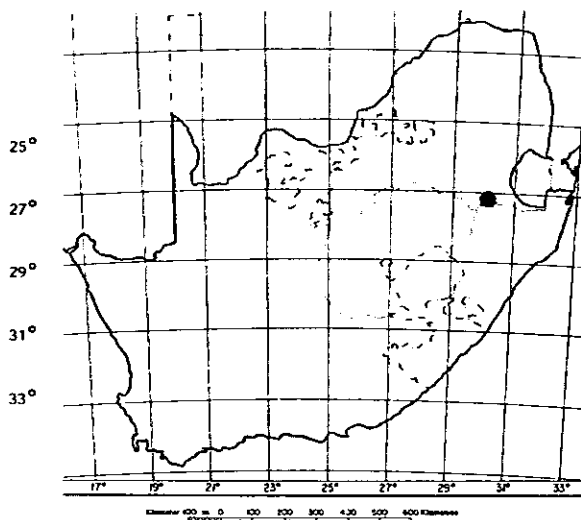
HABITAT AND ECOLOGY. The high elevation steep grassy ridges on the escarpment to the east of Wakkerstroom, on Hele mountain from about 2100m to 2218m. Also recorded lower down in good years. It can be very common on the mountain but normally restricted to less than a dozen. It flies fairly rapidly along the steep slopes near the peaks frequently stopping to feed on flowers or to settle on rocks or grass. They shelter under tufts of grass or under rocky overhangs in inclement weather. May be found at the peak but does not appear to be territorial. The females fly slower than the males but frequent the same areas. They seem to emerge later in the season than the males. The foodplant is a species of grass. Larvae were reared to final instar on a small unidentified grass, and unfortunately do not survive on kikuyu. As with others of the genus the eggs are presumably scattered in the grass. The newly hatched

larvae eat the eggshell as a first meal. They then find the foodplant and start to feed on the edge of the grass. The final instar larvae are sluggish at times, feeding at night, and as a rule, lie concealed at the base of the plant during the day. The species flies from late October to early December.

DISTRIBUTION. An endemic Transvaal species inhabiting the escarpment above Wakkerstroom, south eastern Transvaal.

STATUS. *D. alaedeus* was discovered by G.A. Henning who collected the first specimen on 16 December 1981. The specimen was very worn and broken but was immediately recognised as something different. It was at first thought to be an aberrant *D. dingana dingana* but it was later felt that if another specimen could be found this would prove it to be a new species. The following November a further visit by the discoverer left it in no doubt as the species was swarming.

THREATS. The habitat is on a private farm but due to the inaccessibility of the area there does not seem to be any danger of habitat destruction.



INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
				X	X

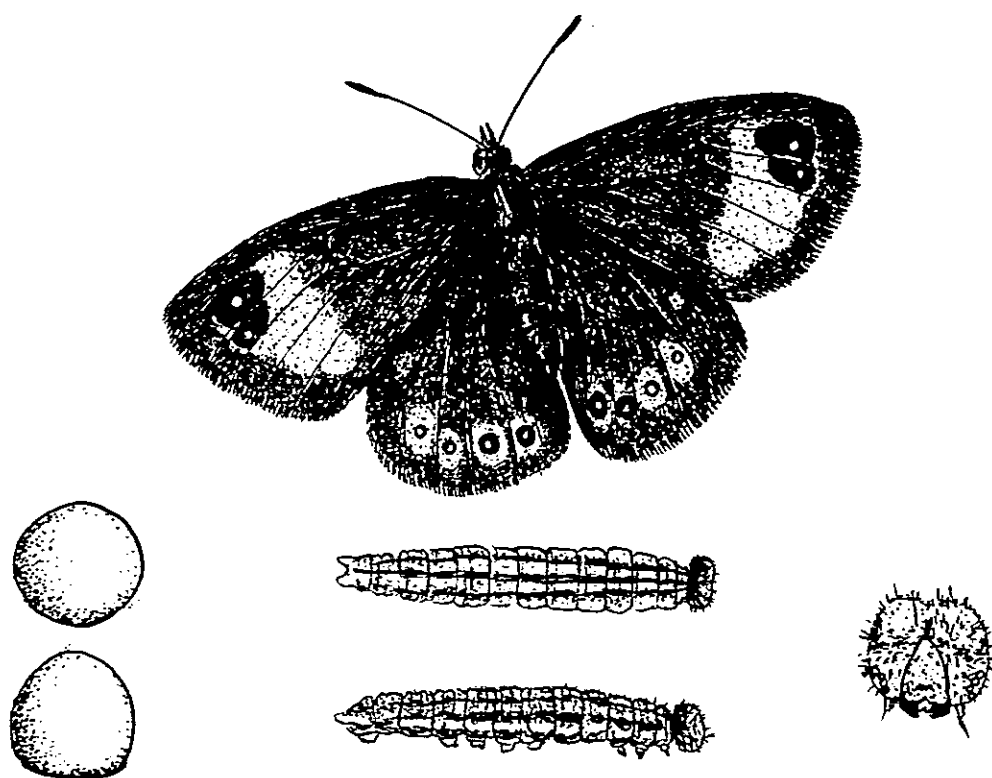


Figure 7. *Dingana alaedeus* male upperside (top); egg, top and side view (bottom left); final instar larva (bottom centre); final instar head (bottom right). (Del. S.F.Henning)

CONSERVATION MEASURES. No conservation measures are currently in force.

REFERENCE.

1. Henning & Henning (1984): 149 adult and habits.

Torynesis orangica Vári

RARE

SATYRIDAE

SATYRINAE

Tribe: DIRINI

Torynesis orangica Vári, 1971. *Ann. Transv. Mus.* 27:208. Type Locality: Golden Gate Highlands National Park, Orange Free State

IDENTIFICATION. Dark brown with two blue-pupilled ocelli near apex of forewing, flanked on either side by large yellow marks which extend as separate sagittate marks down the margin. UHW with a row of yellow-ringed submarginal spots. The LFW is reddish at the bases. LHW with silvery-white lines along the veins and crossed by a black discal stripe. The female is similar to the male but is more brightly marked.

Forewing lengths: male 25,5-28,5mm; female 25,5-29mm.

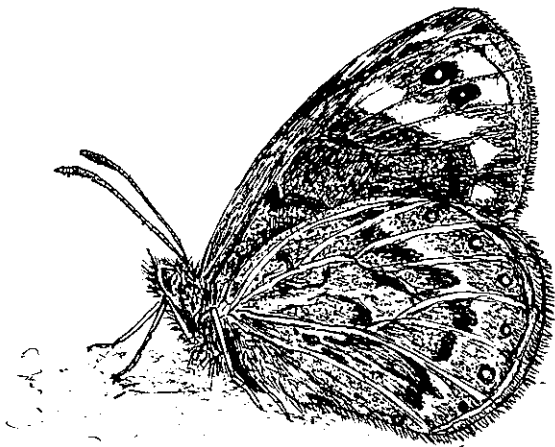
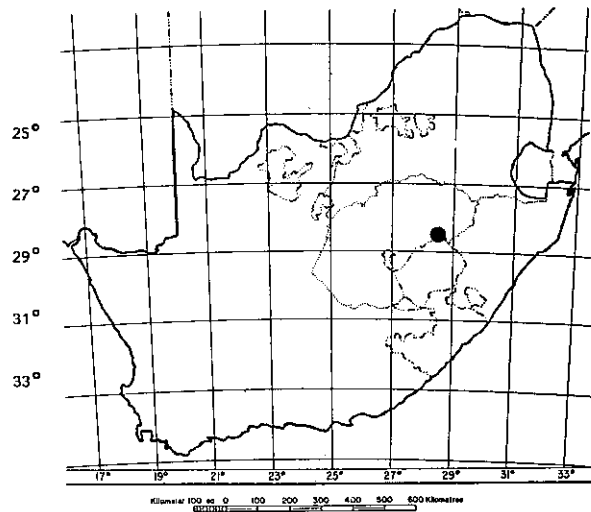


Figure 8. *Torynesis orangica* male underside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. A species endemic to the Orange Free State at Golden Gate Highlands National Park and neighbouring mountains.

HABITAT AND ECOLOGY. Inhabits the high elevation ridge that gives Golden Gate its name, at an altitude of 2200m to 2400m. Occurs only where its foodplant, probably a species of *Merxmuellera* (*Danthonia*) grass, is found. The male has a relatively weak fluttering flight diving into the clumps of grass if disturbed. The female is even slower than the male and does not readily take to the wing but spends most of her time sitting in the thick clumps of grass. The species never ventures far from the patches of foodplant. They settle on the grass or occasionally on rocks or on the ground. The species has also been found just outside the park and more localities in the immediate area are likely to be found. The flight period is from late December to early February.



STATUS. *T. orangica* was discovered by J.H. Potgieter and R. Jones in January 1968 and caused quite a stir as this was by far the most northerly locality for a hitherto exclusively Cape genus. Another species of this genus was later discovered in the intervening mountains of Lesotho.

THREATS. No known threats.

CONSERVATION MEASURES. The fact that the species was discovered in the Golden Gate Highlands National Park ensures its future.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X

REFERENCE.

- 1. Pennington (1978): 40 - adult and habits.

Torynesis pringlei Dickson, 1979.

RARE

SATYRIDAE

SATYRINAE

Tribe: DIRINI

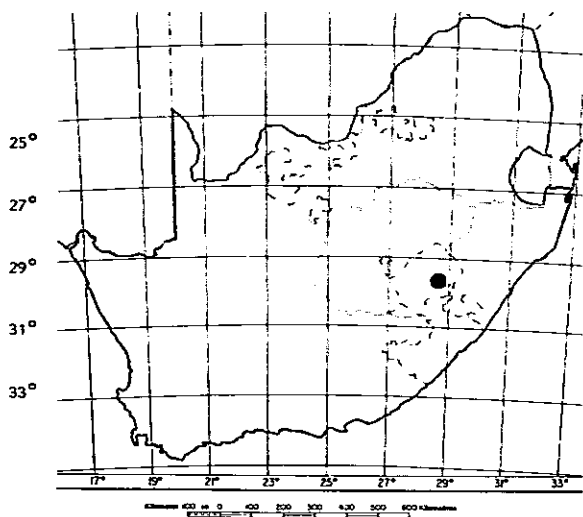
Torynesis pringlei Dickson, 1979. *Entomologist's Rec. J. Var.* 91:300. Type Locality: Rafolatsane, Lesotho.

IDENTIFICATION. Similar to but darker than *T. orangica*, UFW subapical markings white, LHW with less silvery scaling. The female ochreous markings are reduced and are brick-red in colour.

Forewing lengths: male 27,5-28mm; female 29-32,5mm.

Life History. Unknown.

DISTRIBUTION. Lesotho, east of the central range near Rafolatsane.



HABITAT AND ECOLOGY. It is found on grassy slopes just below the peaks of the mountains near Rafolatsane and also about 25km to the east. This is the only recorded *Torynesis* from Lesotho and links the preceding species (*T. orangica*) with the Cape taxa. Only recorded in February.

STATUS. This species was discovered by V.L. and E.L. Pringle in February 1977. The first specimen was a female taken at Rafolatsane. Six more were taken about twenty-five kilometers to the east. No other specimens have been recorded despite further visits at the same time of year.

THREATS. *T. pringlei* inhabits the high mountains of Lesotho where the only possible causes of habitat destruction are overgrazing and soil erosion. It is unlikely that there is any immediate threat to this species.

CONSERVATION MEASURES. No conservation measure in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

- Dickson (1979): 300 - adult and habits.

Pseudonympha paragaika Vári

RARE

SATYRIDAE

SATYRINAE

Tribe: YPTHIMINI

Pseudonympha paragaika Vári, 1971. *Ann. Transv. Mus.* 27:212.

Type Locality: Golden Gate Highlands National Park, O.F.S.

IDENTIFICATION. The upperside is greyish-brown with an orange-red discal patch on forewing and hindwing with a submarginal series of ocellate spots. The greyish ground colour and reduced silvery irroration on the LHW distinguishes this species from the closely related *P. gaika* Riley. Forewing lengths: male 16-18mm; female 19-20mm.

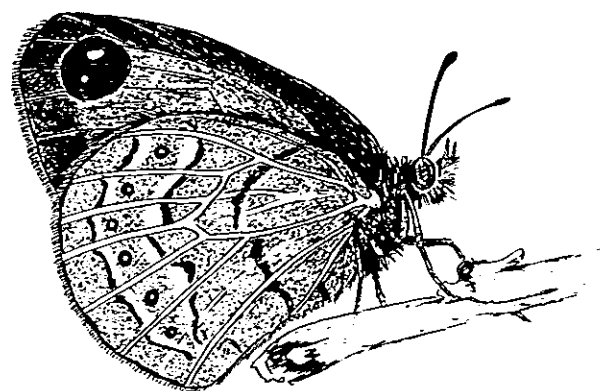
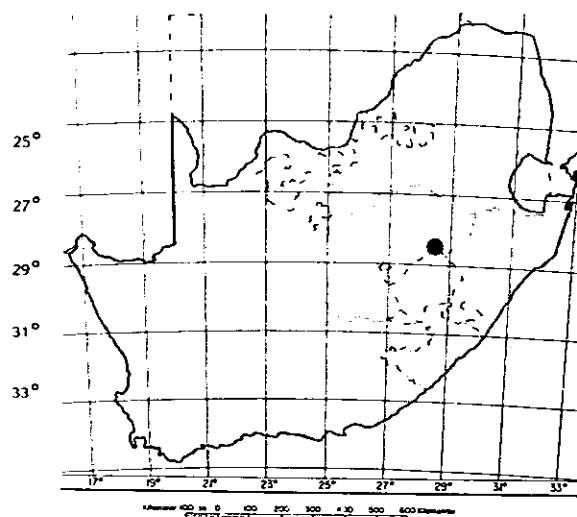


Figure 9. *Pseudonympha paragaika* male underside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Orange Free State in Golden Gate Highlands National Park.



HABITAT AND ECOLOGY. Inhabits high elevation grassveld on the southern aspect of the mountains. Not a prolific species usually only half a dozen on the wing at the best of times. It has a very distinctive flight, low and direct with frequent changes of direction and flashes of silver. The males patrol the rocky ridges about half way up. They sit on the rocks where they sun themselves with wings half open. The females are found in the same areas but tend to fly around the grassy slopes below the ridges. The best time for it is December and January.

STATUS. *P. paragaika* was discovered by J.H. Potgieter and R. Jones in January 1968, this remains the only known habitat for this butterfly.

THREATS. There are no threats.

CONSERVATION MEASURES. As the only known habitat is in the Golden Gate Highlands National Park this species is adequately protected.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 44 - adult and habits.

Pseudonympha swanepoeli Van Son RARE

SATYRIDAE SATYRINAE Tribe: YPTHEMINI

Pseudonympha swanepoeli Van Son, 1955. *The Butterflies of Southern Africa* 2:125. Type Locality: Houtbosdorp, Transvaal.

IDENTIFICATION. Upperside fuscous-brown. UFW with a large double subapical ocellate spot ringed with pale greyish-yellow, and a very small orange-red area touching the inner and lower side of the ocellate spot. UHW with very small ocellate spots in area CuA_1 and CuA_2 . LHW silvery-grey, finely but sparsely striated with ochreous-brown and with reddish-brown lines, there are greyish-yellow ringed ocellate spots posteriorly. Specimens collected at Mount Sheba and Long Tom Pass exhibit a solid silvery LHW in contrast to the brownish irrorated lines down the underside of the Houtbosdorp specimens. Forewing lengths: male 21,5-24mm; female 24-25mm.

Life history. Unknown.

HABITAT AND ECOLOGY. Originally recorded in a marshy valley high up on the mountains above Houtbosdorp.

Specimens from the eastern Transvaal (Mount Sheba and Long Tom Pass) are different from the Houtbosdorp specimens. The habitats of these two populations appear to be similar. The eastern Transvaal population is currently under investigation.

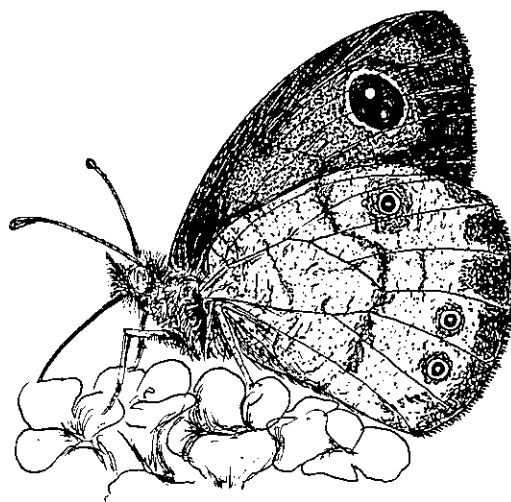
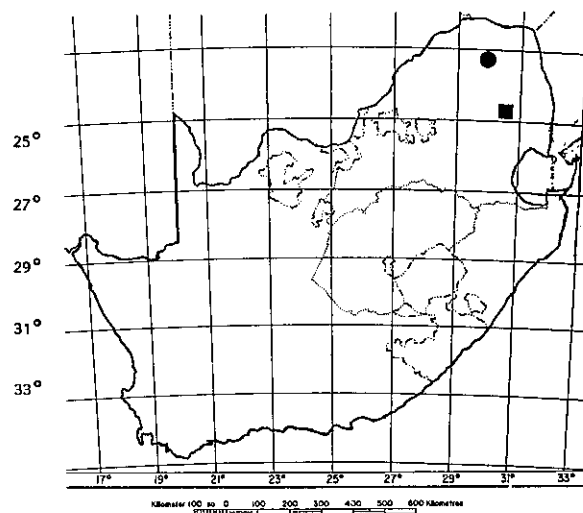


Figure 10. *Pseudonympha swanepoeli* male underside. (Del. S.F. Henning)

DISTRIBUTION. Endemic to the Transvaal, between Houtbosdorp and Woodbush.



STATUS. The first two specimens were collected by Dr G. van Son in January 1925. D.A. Swanepoel recorded a number of specimens on 10 March 1943 and from this material it became evident that it was a new species. Recent visits to the area have failed to locate the species on more than a single occasion. A pair were recorded by G.A. Henning in a large marsh near Woodbush Forest Reserve in February 1988.

THREATS. The locality near Houtbosdorp has apparently

been overgrown by large bushes, the surrounding area has been planted with pine trees by the Department of Forestry. A comprehensive investigation is necessary to establish if the species is still there and if any further colonies exist in the area. As the eastern Transvaal population probably represents a distinct subspecies the Houtbosdorp population is the only recorded one for true *P. swanepoeli*.

CONSERVATION MEASURES. Recorded within Wood-bush State Forest on a marsh.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 45 - adult and habits.

Pseudonympha camdeboo Dickson INDETERMINATE

SATYRIDAE SATYRINAE Tribe: YPTHEMINI

Pseudonympha camdeboo Dickson, 1982. *Entomologist's Rec. J. Var.* 93:219. Type Locality: Camdeboo Mountains, Cape.

IDENTIFICATION. Male upperside light fuscous brown with a subapical ocellate spot on the forewing and a large fulvous-red patch extending from the cell to below the ocellate spot. UHW with a fulvous-red patch posteriorly without any trace of ocellate spots. Underside with apical portion of forewing and entire surface of hindwing uniformly light fawn densely striated with dark brown and with numerous punctiform spots posteriorly on hindwing.

The LHW is plain, without the spots and stripe of *P. detecta* Trimen. Both sexes are similar. The main difference between this species and the closely related *P. detecta* is that the fulvous-red patch on the UFW is not broken.

Forewing length: male 17,5-18,5mm; female 18,5-19mm.

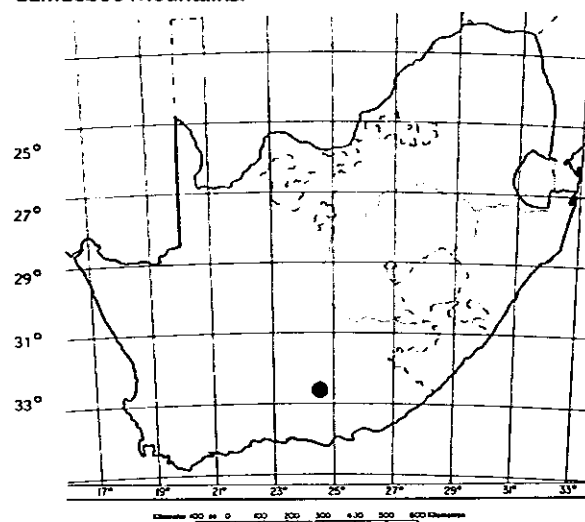
Life history. Unknown.

HABITAT AND ECOLOGY. Occurs on open grassveld on the edges of thick bush. It has a rapid skipping flight. It is found on the mountains at an altitude between 1500m - 1600m above sea level. It has only been found in November and December.

STATUS. The first specimen was collected by C.W. Wykeham on 3 December 1969 on the Camdeboo Mountains. It was later found some distance to the west of the

original locality by the Pringles.

DISTRIBUTION. Endemic to the Cape, only found on the Camdeboo Mountains.



THREATS. Due to the relatively isolated nature of the habitat it is not considered to be threatened in any way.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Dickson (1982): 219 - adult and habits.

Stygionympha dicksoni (Riley) RARE

SATYRIDAE SATYRINAE Tribe: YPTHEMINI

Stygionympha dicksoni Riley, 1938. *Trans. R. ent. Soc. Lond.* 87:233. Type Locality: Tygerberg Hills, Cape.

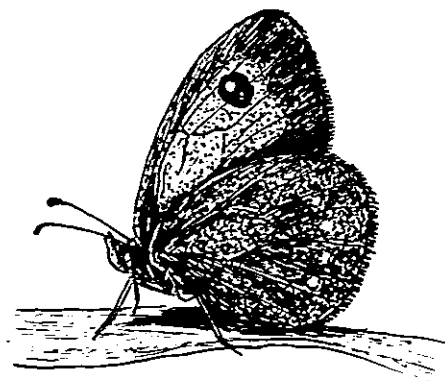


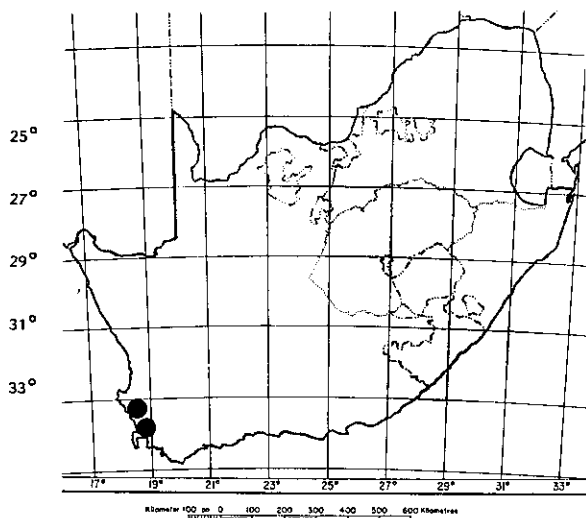
Figure 11. *Stygionympha dicksoni* male underside. (Del. S.F. Henning)

IDENTIFICATION. Upperside brown with a double pupilled subapical eyespot and a large orange-red patch on the forewing. UFW with the orange patch more extensive than the closely related *S. irrorata* (Trimen). The LHW is dark purplish-grey except for a light fawn sub-basal area. Both sexes are similar.

Forewing lengths: male 18-19mm; female 18-20mm.

Life History. Unknown.

DISTRIBUTION. Endemic to the Cape, from Tygerberg Hills, near Cape Town, to Malmesbury.



HABITAT AND ECOLOGY. On the Tygerberg Hills you can find it in small east facing kloofs, sparsely covered with grass and small bushes. It is normally found on the higher grassy slopes and also on bushy hillsides. The species is quite fast and evasive, zigzagging and circling before quickly settling on the ground. Specimens have been recorded flying a considerable distance before resting. They seem to spend more time at rest than in flight and are seldom seen feeding on flowers. The females flit about the higher slopes of the hills. The foodplant is *Lasiochloa echinata* (Thunb.) Adamson (Poaceae).

STATUS. *S. dicksoni* was discovered by C.G.C. Dickson in October 1933 on the Tygerberg Hills. The population on the Tygerberg Hills is apparently stable.

THREATS. The encroachment of habitat destruction, which is such a feature of the lower lying areas of the Western Cape, compared to the more elevated regions is an ever present threat.

CONSERVATION MEASURES. On protected wild animal list of Cape Province 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES:

1. Pennington (1978): 48 - adult and habits.
2. Swanepoel (1953): 271 - adult and habits
3. Van Son (1955): 147 - adult and habits.

Family ACRAEIDAE

The acraeids are a distinctively and easily recognised family of medium sized butterflies. They have rather narrow and rounded wings and long abdomens. The wings of some species are partially devoid of scales making them transparent in these areas. The wings, or the part of the wings with scales, are brightly coloured, usually being black and red, yellow or white. These are usually warning colours because the acraeids are distasteful to predators because of their foodplants. In both sexes the front legs are degenerate and useless for walking. The mating habits of some species are curious. The male having identified an available (unplugged) female will grab her on the back of her thorax while in flight and the pair will fall from the sky with the female apparently trying to escape from the male's embrace. Having successfully landed on the ground or on a plant the female is held down while the male mates with her. After the male has firmly copulated with the female he lapses into a comatose state. The female is now free to leave and she flies away with the male attached. Once the mating procedure is over many of the females have the genital opening plugged with a characteristically shaped waxy deposit. The males are usually territorial, establishing their territories on hilltops or around the tops of tall forest trees. Unmated females have been seen to ascend the hilltops in the late afternoon, apparently to find a suitable mate. The eggs are usually oval or vase-shaped with numerous upright ridges and indentations. They are normally laid in large clusters, often well over a hundred, on the leaves of the foodplants. Odd species lay their eggs singly but in quick succession on the foodplant. The larvae are cylindrical with longitudinal rows of rigid branched spines. They are often gregarious, especially in the first two instars. The pupae are long and slender and suspended by the cremaster at the anal end. The acraeids use several different families of plants as larval foodplants. These include the Passifloraceae, Flacourtiaceae and Urticaceae.

There are 30 species of *Acraea* recorded in South Africa, of which 3 are included in this book.

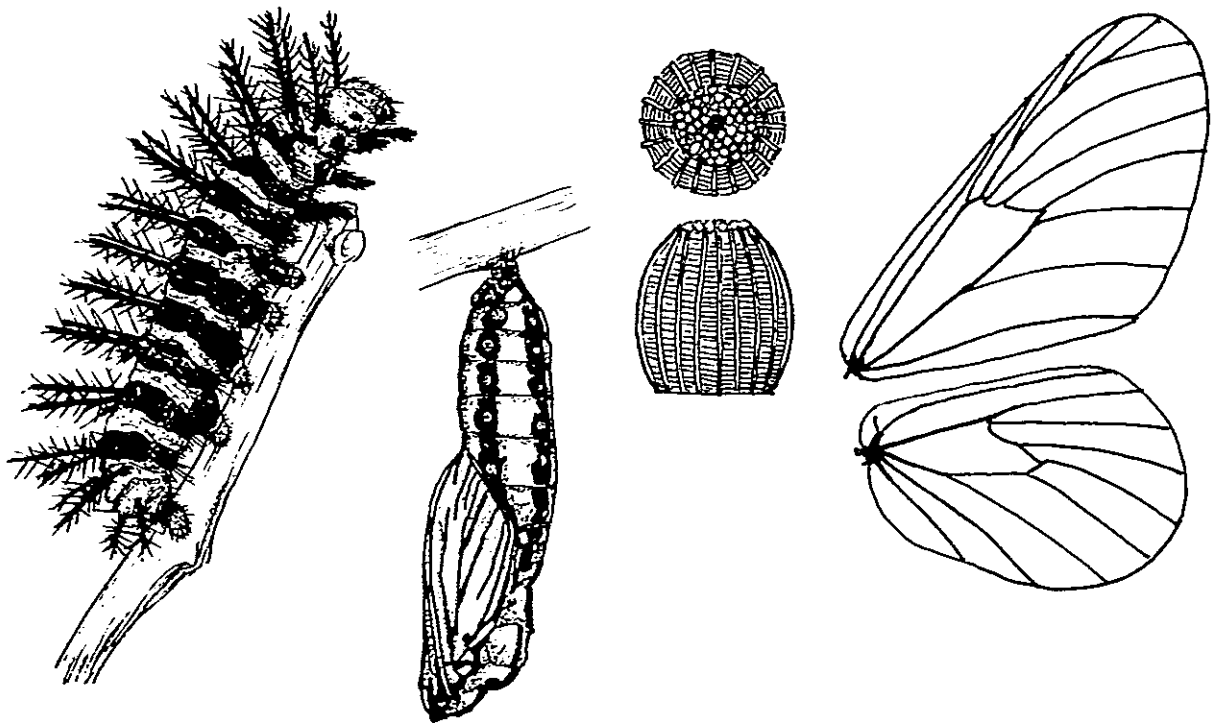


Figure 12. Family Acraeidae: Typical wing-shape and venation (top right); typical egg - top and side view (centre right); typical final instar larva (left); typical pupa (centre left). (Del. S.F. Henning)

Acraea machequena Grose-Smith INDETERMINATE

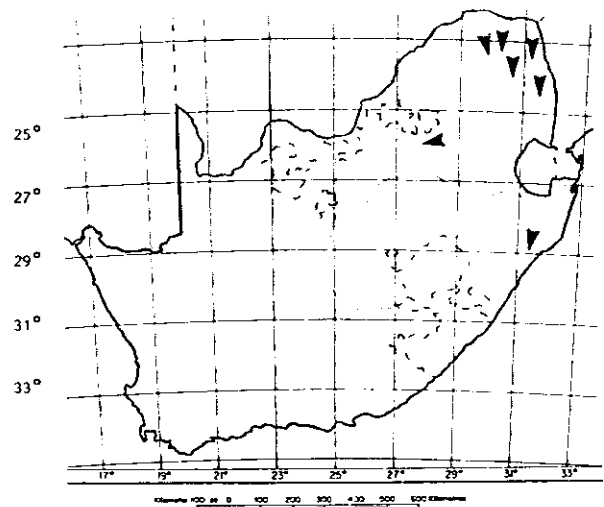
ACRAEIDAE ACRAEINAE Tribe: ACRAEINI

Acraea machequena Grose-Smith, 1887. *Ann. Mag. nat. Hist.* (5)9:62. Type Locality: Delagoa Bay.

IDENTIFICATION. Forewing semi-transparent, unmarked except for an occasional slight discocellular black suffusion. The ground colour is light brick-red in the male, much lighter and yellowish, occasionally whitish, in the female, the latter having the forewing sometimes almost entirely transparent. In the male the basal half of the forewing is of the ground colour, the distal half being semi-hyaline. Hindwing with a distinctive pattern of black spots, the inner edge of the margin is distinctly dentate. Forewing lengths: male 21-27mm; female 26-30mm.

Life history. Unknown.

DISTRIBUTION. A marginal species migrating periodically into South Africa. Isolated records across the Transvaal, from Satara and Dzundwene Kop, in the Kruger National Park, to Pietersburg and Brits. In Natal from Eshowe and Chakaskraal. Occurs in Mozambique, Zimbabwe and Malaŵi.



HABITAT AND ECOLOGY. Usually occurs in bushveld areas, but being a migrant it may be found in any intervening habitats. Possibly establishes small temporary breeding populations in South Africa. One such record was in April 1978 when *A. machequena* were found flying in some numbers on top of the Buffelsberg near Munnik. More than one specimen at a time has been recorded several times in the Transvaal. The Natal records appear to be of single specimens. Males exhibit hilltopping be-

behaviour strongly, in a fashion similar to that of the common *A. neobule* Doubleday. In Mocambique they have been recorded in the thickly wooded part of the forests. Cookson records it, 'flying over dense shrubbery at the forest fringe. They skimmed slowly over the top of the bushes, gliding rather than flying, and settled whenever the sun went. Each male chose a particular area at the very top of a tree and perched on a leaf, usually with wings outspread. From here he made slow gliding flights, always keeping high. When another butterfly (*Charaxes*, etc.) intruded, he chased it with rapid wingbeats and a good turn of speed, but these chases never took him far and on their conclusion he glided back to his perch.' It has been recorded feeding on flowers in the morning and hilltopping at midday and in the afternoon. *A. machequena* has been recorded throughout the year in its normal habitat. The South African records support this, being January, February, April, May, August and November.

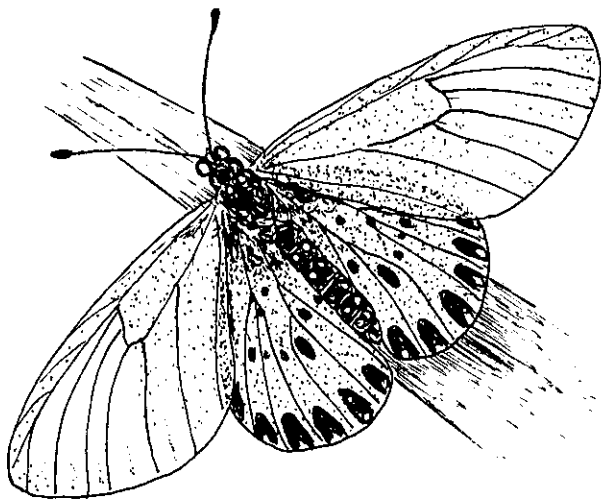


Figure 13. *Acraea machequena* male upperside. (Del. S.F.Henning)

STATUS. First recorded in South Africa by a ten year old boy in Pietersburg. This seldom seen migrant has been recorded infiltrating our borders on various occasions in recent years. Its close similarity to *A. neobule* may have some effect on the paucity of records.

THREATS. There being apparently no permanent population there can be no threats.

CONSERVATION MEASURES. The species has been found in the Kruger National Park.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Eltringham (1912): 66 - adult and habits.
2. Pennington (1978): 50 - adult and habits.
3. Swanepoel (1953): 243 - adult and habits.
4. Trimen (1889): 377 - adult and habits.
5. Van Son (1963): 19 - adult and habits.

Acraea rabbaiae Ward INDETERMINATE

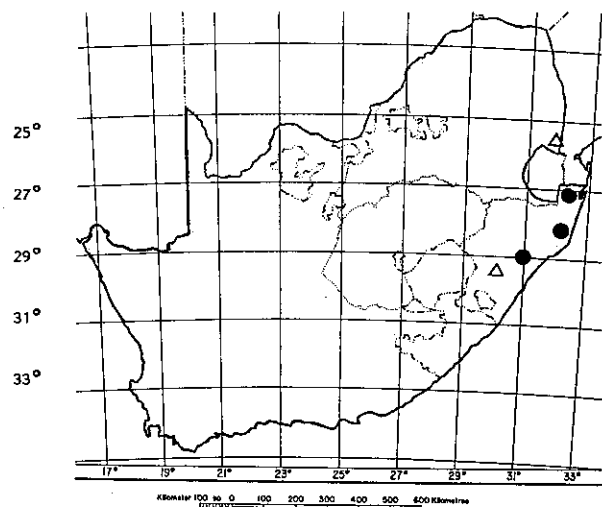
ACRAEIDAE ACRAEINAE Tribe: ACRAEINI

Acraea rabbaiae Ward, 1873. *Entomologist's mon. Mag.* **10**:152.
Type Locality: Rabai, Kenya.

IDENTIFICATION. All wings are hyaline (transparent). The forewing is marked only with an irregular, oblique black mark. Hindwing unmarked, except for a marginal row of ochreous spots broadly edged on inner side by a black suffusion.

Forewing length: male 30-33mm; female 35-38mm.

Life History. a) A brief summary of form *mombasae* Grose-Smith is as follows; the eggs are long and barrel-shaped, tapering at the upper end, with fine ribbing. They are creamy-white when first laid rapidly turning greyish-brown. The larvae are greyish-brown in the first stages becoming reddish-brown with yellowish at both ends, with long, branched spines. The pupa is creamy-white with buff on the wingcases. On the thorax and around the wingcases there are black lines while the abdomen has rows of black circles with orange centres. b) The larva of the nominate form recorded by Mrs Rose Monteiro (1891) is distinguished by being 'bright red with black spines'.



DISTRIBUTION. A marginal species. Odd records from

Kranskop and Balgowan in Natal, which could indicate a migratory behaviour, as do the Transvaal records of Komatipoort and Pretoria (one fresh specimen apparently recorded above Van Son's house). The normal habitat in South Africa is northern Natal from Eshowe to near Kosi Bay. It occurs in Mozambique and Zimbabwe to Kenya.

HABITAT AND ECOLOGY. An inhabitant of high coastal forests. It seldom descends below the canopy. The males establish territories around the tops of high forest trees. It flies about in circles taking the occasional rest on its favourite perch. Inclement weather may drive it down from its lofty heights as happened one day in January 1948. Swanepoel writes, 'although sunny, there was a strong wind blowing over the tree tops that day, and seemingly for this reason, their usual tree-top gambolling being spoiled by the wind, they descended to the shade and shelter of the undergrowth. Every now and then a specimen was observed fluttering across the roads traversing the forest. Many specimens were observed that day. The next day the wind subsided and as I had expected not a single specimen was observed.' The species has been recorded on flowers but apparently very rarely. The females fly about the canopy in search of foodplants on which to lay their eggs. Like all acraeids, the female apparently mates only once. A waxy plug called a sphragium being deposited over the aperture. Females can sometimes be seen along the forest edge but usually quite high above the ground. They fly along investigating the trees of the canopy. They do not rest but keep going until they disappear back into the thick foliage. Its transparent wings render it difficult to detect as it flies through the canopy. Eggs are laid in clusters under the leaves of the foodplant, which turns out to be the forest creeper *Basanthe zanzibaricum* (Mast.) De Wilde (Passifloraceae). The South African foodplant is not known. The species is apparently on the wing throughout the year, October being recorded as a consistently good time of the year near Kosi Bay.

STATUS. The species was described from Rabai, on the Kenyan coast. A subspecies *mombasae* Grose-Smith was described from Mombasa. There being no geographical barrier between the nominate subspecies and *mombasae* the latter must be considered either a separate species or a regional form. The reigning opinion is that it is a form but further research is necessary in this regard.

THREATS. The destruction of the northern Natal (Zululand) bush has left isolated pockets of forest in which this species can still be found. If farming activities and general habitat destruction are not monitored more of these beautiful forests will be destroyed.

CONSERVATION MEASURES. *A. rabbaiae* is protected in Natal as it occurs in the False Bay Park, Sordwana Bay

National Park, Manguzi Forest and the Dhlhiza Forest Nature Reserve in Eshowe.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Eltringham (1912): 43 - adult and habits.
2. Monteiro (1891): 219 - life history.
3. Pennington (1978): 51 - adult and habits.
4. Swanepoel (1953): 244 - adult and habits.
5. Trimen (1887): 133 - adult and habits.
6. Van Someren & Rogers (1925): 116 - life history.
7. Van Son (1963): 22 - adult and habits.

Acraea sats Ward INDETERMINATE

ACRAEIDAE ACRAEINAE Tribe: ACRAEINI

Acraea sats Ward, 1871. *Entomologist's mon. Mag.* 8:35. Type Locality: Ribe, East Africa.

IDENTIFICATION. Male bright red, the forewing with transparent apical and outer marginal zones and some black markings at the end of the red area. Hindwing with pale-spotted dark border and an irregular band across the middle. The female has the red colour replaced by white. Forewing lengths: male 33-36mm; female 32-42mm.

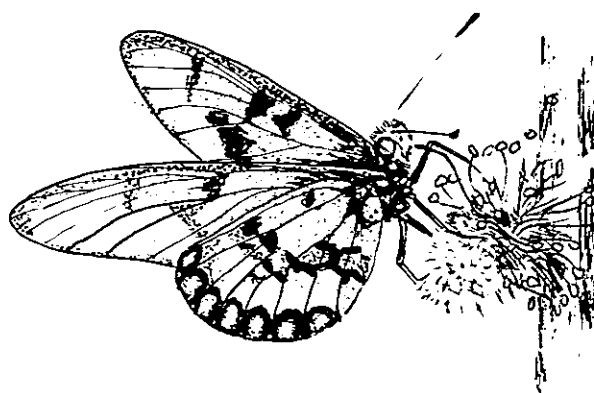
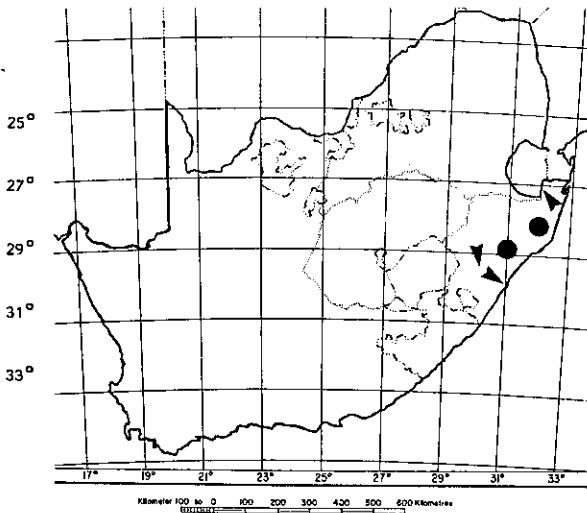


Figure 14. *Acraea sats* male underside and part of upperside. (Del. S.F. Henning)

Life history. Unrecorded.

DISTRIBUTION. A marginal species. Odd records through Natal; Isipingo, Balgowan, Krantzop, Umhlanga Rocks, Eshowe and Cecil Mack's Pass, indicate that the species

may be migratory. The resident populations are in north-east Natal; Dukuduku Forest, St Lucia, False Bay, Josini, Ingwavuma and Gwaliweni Forest. All these localities have fairly unstable and perhaps temporary populations except Gwaliweni Forest on the Lebombo Mountains. Situated at about 700 metres above sea level, the Gwaliweni Forest has a large stable population. The species occurs in Moçambique and Zimbabwe to East Africa and it has also been recorded on Madagascar.



HABITAT AND ECOLOGY. A forest species, the males establish territories around high trees while the females search the canopy for foodplants on which to lay their eggs. The species has been recorded flying lower down during the mornings and at about mid-day they go to the tree tops. They are fond of flowers and have been recorded visiting gardens at Josini to feed on the flowers. The species has only been recorded in numbers in the Gwaliweni Forest. The foodplants have been recorded as *Urera hypselodendron* (Hochst. ex A. Rich.) Wedd. (not S.A.) and *U. cameroonensis* Wedd. (Urticaceae). *A. satis* probably flies throughout the year with peaks in November and December and February to April.

STATUS. The Gwaliweni Forest locality was discovered by Dr van Son on 14 December 1960. It was, prior to this date, considered an occasional migrant into South Africa.

THREATS. Even though *A. satis* has been recorded in the False Bay Park, Sordwana Bay National Park, Mihobi Nature Reserve and the Dhlintza Forest Nature Reserve, the main population at Gwaliweni Forest and the other localities on the Lebombo hills are not apparently protected. Representation should be made to the relevant government bodies to ensure the continued safety of the habitats mentioned.

CONSERVATION MEASURES. Recorded in the False Bay Park, Sordwana Bay National Park, Mihobi Nature

Reserve, Dhlintza Forest Nature Reserve. It is not positively established if any of the above reserves contain breeding populations. The only certain breeding population is in the Gwaliweni Forest.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X	X	X

REFERENCES.

1. Eltringham (1912): 44 - adult and habits.
2. Pennington (1978): 51 - adult and habits.
3. Pinhey (1965): 68 - adult and habits.
4. Swanepoel (1953): 245 - adult and habits.
5. Van Son (1963): 28 - adult and habits.

Family NYMPHALIDAE

The nymphalids are medium to large in size and are often quite colourful. The front legs of both sexes are reduced and not used for walking. The hindwings occasionally have tails, or are scalloped, crenulate or dentate. They often exhibit striking sexual and seasonal dimorphism. The males adopt a perching behaviour in mate location. They normally establish territories along paths, forest edges or on hilltops. The eggs are usually oval with vertical or horizontal ribs, or they may be pitted with a flat area at the top. Some of the larvae are smooth, while others have branched spines along the body. The pupae are of various shapes but are always suspended, head downwards, from the cremastral hooks at the anal end. A wide variety of plant families are used as foodplants for larvae.

There are 69 species of nymphalid in South Africa and 6 are recorded in this book.

Subfamily NYMPHALINAE

Euryphura achlys (Hopffer) RARE

NYMPHALIDAE NYMPHALINAE Tribe: LIMENTINI

Harma achlys Hopffer, 1855. *Mber. dt. Akad. Wiss. Berl.* 1855:641
Type Locality: Querimba (=Kerimbas Island, Moçambique).

IDENTIFICATION. The dark, mottled, bottle green upperside readily identifies this species from any other. Underside rusty-brown, with the markings of the upperside repeated and with a partial violet sheen. The sexes are almost alike in colour and markings, but the female is larger with more white marks near the middle of the

forewing.

Forewing length: male 28-31mm; female 32-38mm.

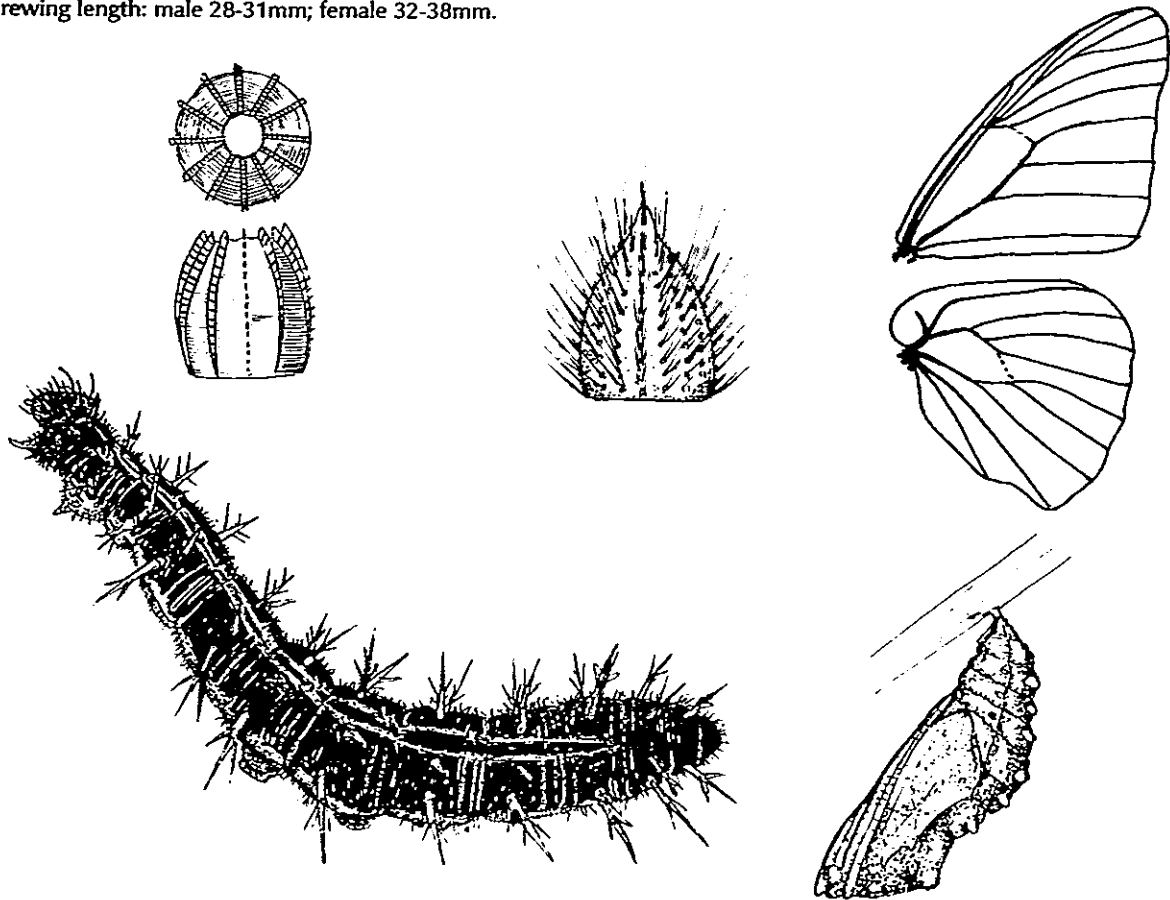


Figure 15. Nymphalidae: Typical wing-shape and venation (top right); various types of egg (top left); typical final instar larva (bottom left); typical pupa (bottom right). (Del. S.F.Henning)

Life history. The eggs are shaped somewhat like a garlic clove and are green in colour developing brownish markings if fertile. The eggs are deeply faceted with short spines at the angles of the facets making them glisten in the sunlight. The larvae emerge from the egg after about ten days and are dull olive, becoming green with pale feathery projections in the third instar. In the fourth instar a white dorsal line develops with an interrupted blue line on either side and a blue dot at the base of each long feathery spine. The pupa is dark green with golden spots and highly glazed. The head is strongly bifid with the points black tipped.

DISTRIBUTION. A marginal species, only recorded in South Africa from the Ngoye and Manguzi Forests in northern Natal.

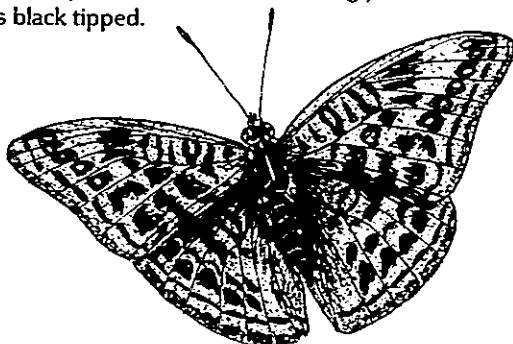
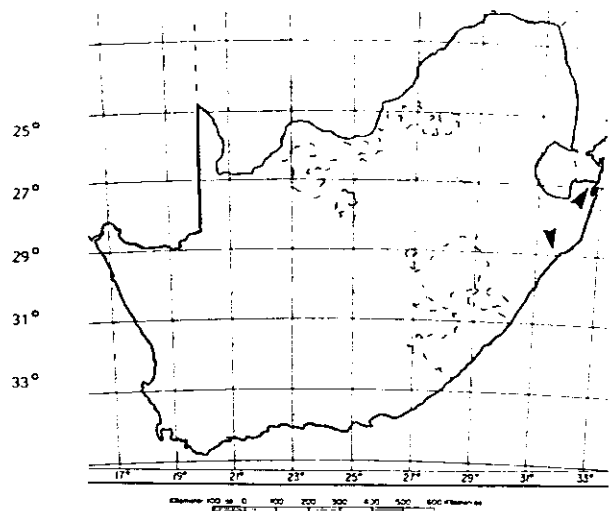


Figure 16. *Euryphura achlys* male upperside. (Del. S.F.Henning)



HABITAT AND ECOLOGY. Inhabits relict lowland forest. It has a swift strong flight, often gliding low across the ground and sits in the sun with its wings open. *E. achlys* flies along the edges of forest clearings and along stream beds. It is usually found near water. The males select a conspicuous perch from which to pursue intruders into their territory. They also patrol their territories, flying swiftly to and fro, always on the alert. The species appears very dark when in flight. When settling on bushes in the shade the wings are held at about 60 degrees. This couples the dark green upperside with the reddish-brown, leaf-like underside. When settling in the sun the wings are held flat and slightly downwards. The females frequent thicker bush and spend their time searching for foodplants. Both sexes are attracted to fermenting fruit and have been recorded on guavas, sugar cane and bananas. The foodplants are *Craibia brevicaudata* (Vatke) Dunn (Fabaceae) and *Chrysophyllum* spp. including *C. viridifolium* J.M Woods & Franks (Sapotaceae) from the north of South Africa. It will be very interesting to see what foodplant is used in the Ngoye Forest as this forest is botanically unique. The only *Chrysophyllum* in South Africa is *viridifolium* and this tree has been seen at Manguzi Forest. The eggs are laid on the young leaves of the foodplant. The dark green larvae lie along the mid-rib of the leaf with the feathery spines in contact with the surface, the outline is thereby disrupted and no shadows are cast. The larvae are to be found underneath the leaves of the foodplant, usually in deep shade and often overhanging streams. The larvae pupates on the end of a leaf which it has cut back to the mid-rib for the last third of its length and here at the tip of this bare mid-rib the pupa is attached. *E. achlys* has been recorded throughout the year in neighbouring territories but has apparently only been found in April in the Ngoye Forest and from March to June at Manguzi.

STATUS. *E. achlys* was first recorded in Ngoye Forest by K.M. Pennington and H. Cookson in April 1952. Pennington's comment in a letter on their discovery was, 'see for yourself the bronzy green gloss of an *achlys* flying down a stream or along a glade and you'll die happy'. No recent records have apparently been made in the Ngoye Forest so the current status there cannot be determined. The population at Manguzi Forest was found by C.D. Quicquelberge in March 1988. Whether the species will be resident in years to come remains to be seen.

THREATS. There are no apparent threats.

CONSERVATION MEASURES. The Ngoye and Manguzi Forests are controlled by the Kwazulu Bureau of Natural Resources and must be considered fairly safe.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X	X	X

REFERENCES.

1. Pennington (1978): 69 - adult and habits.
2. Swanepoel (1953): 215 - adult and habits.
3. Van Son (1979): 123 - adult and habits.

Cyrestis (Azania) pantheus sublineatus Lathy RARE

NYPHALIDAE NYPHALINAE MARPESIINI

Cyrestis sublineata Lathy, 1901. *Trans. ent. Soc. Lond.* 1901:25.
Type Locality: Zomba, MalaWi.

IDENTIFICATION. Wings white with some of the veins emphasized with brown near the apex. Hindwing with a sharply pointed tail and some blue and grey dots above the anal angle; there are several straight orange or brown bands and stripes down the wings. The underside is similar to the upperside and the female is similar to the male but less heavily marked and with more rounded wings.

Forewing lengths: male 27-30mm; female 31-33mm.

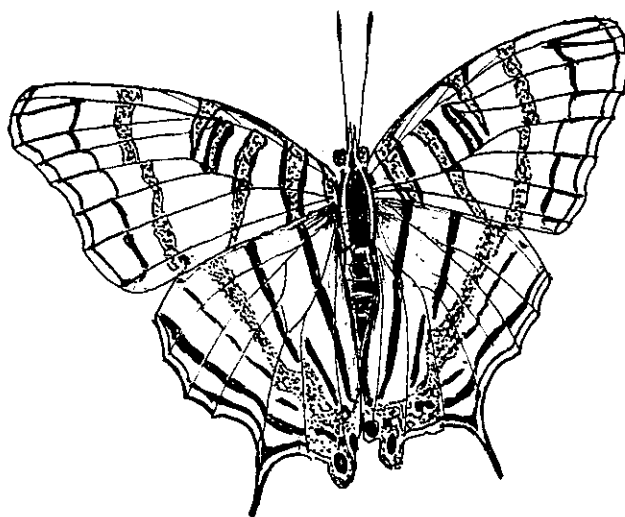
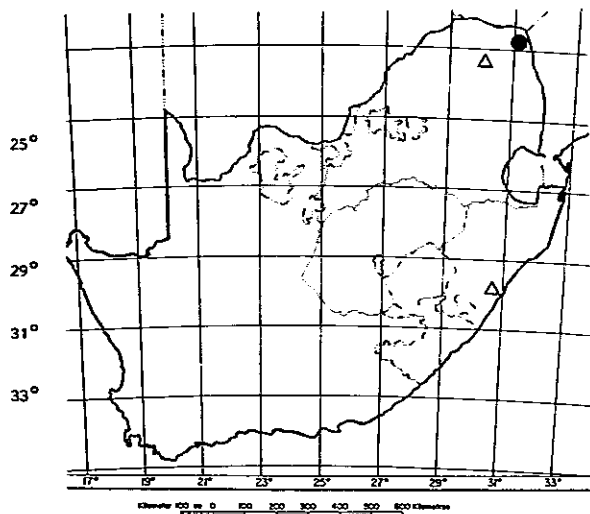


Figure 17. *Cyrestis pantheus sublineatus* male upperside. (Del. S.F. Henning)

Life History. Unknown.

DISTRIBUTION. A marginal species. Recorded in the Transvaal from Malta Forest, Woodbush and the far northern areas of the Kruger National Park. In Natal one record from Durban. Normally found in Mozambique and Zimbabwe to East Africa.



HABITAT AND ECOLOGY. Montane and riverine forest, usually near water. A number have been recorded at Pafuri and Punda Milia, otherwise single records. It has a strong swift flight, elusive when disturbed. *C. p. sublineatus* prefers high forest and keeps to the treetops along rivers and streams. Will often sit on the undersides of leaves. When settled thus Van Son says that its resembles the uranid moth, *Urapteroides falcifera* (Weymer) (Uraniidae), which is apparently unpalatable, this therefore being a case of Batesian mimicry. Van Son had the following to say about the species when they settle on wet spots on the ground, 'they adopt a position unique among butterflies, namely by holding their wings spread out and inclined slightly downwards, with the forewings pushed forward'. He records mainly males sucking at wet spots. Van Son further states that, 'when frightened, they fly off at speed, and after some irregular zig-zagging, settle on the underside of leaves, thus suddenly disappearing from sight'. Seasonal dimorphism is also apparent, the hindwing undersides of the midsummer brood being well marked. The foodplant is unknown but probably grows along rivers or streams. The species has been recorded throughout the year in Zimbabwe and Moçambique. In the northern part of the Kruger National Park it has been found between February and May.

STATUS. Recorded singly in the northern Transvaal forests until it was found by J. Kloppers in the northern parts of the Kruger National Park, which is apparently the home of *C. p. sublineatus* in South Africa.

THREATS. None, as the main population of this species appears to be in the northern parts of the Kruger National Park where there is obviously no threat.

CONSERVATION MEASURES. The species is recorded from the Kruger National Park.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Kloppers (1978): 78 - adult and habits.
2. Pennington (1978): 73 - adult and habits.
3. Van Son (1979): 84 - adult and habits.

Subfamily CHARAXINAE

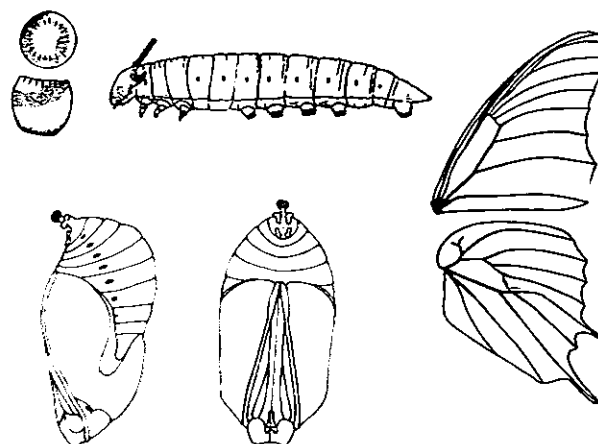


Figure 18. Subfamily Charaxinae: Typical wing-shape and venation (top right); egg, top and side view (top left); final instar larva (centre); pupa, side and ventral view (bottom). (Del. S.F. Henning)

***Charaxes protoclea azota* (Hewitson)**

INDETERMINATE

NYMPHALIDAE CHARAXINAE Tribe: CHARAXINI

Philognoma azota Hewitson, 1877. *Entomologist's mon. Mag.* 14:82. Type Locality: Delagoa Bay.

IDENTIFICATION. Male upperside black with broad orange-red marginal band, breaking up into spots near apex of forewing. Underside deep reddish-brown. Tails very short. Female: forewing upperside similar to male with a broad discal band which is white posteriorly, becoming orange-rufous towards costa. Hindwing upperside black with a large white discal band and narrow red marginal band. Underside rufous-grey with yellowish discal bands. Two long thin tails on each hindwing. Forewing lengths: male 40-42mm; female 42-45mm.

Life history. The egg is rather barrel-shaped, flattened on the top with distinct fluting and rounded at the base. Creamy-white when first laid, developing a dark spot in centre of flattened top, surrounded by a pale brown ring

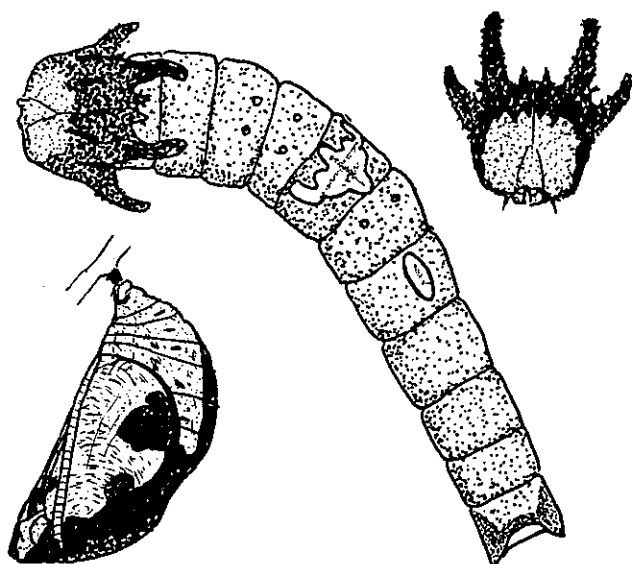


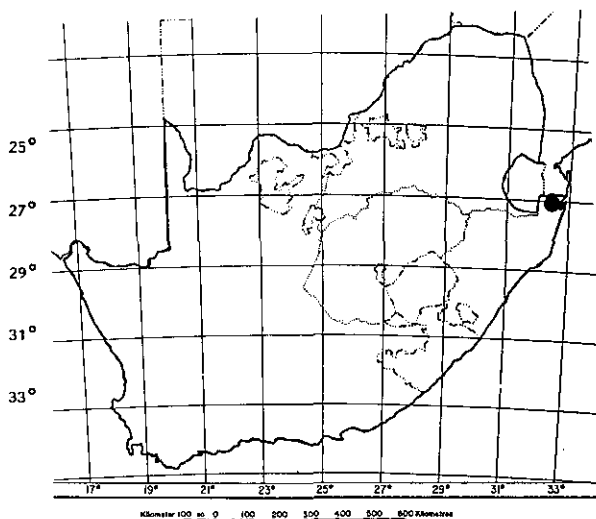
Figure 19. *Charaxes protoclea azota* final instar larva, head and pupa. (Del. S.F.Henning)

which reaches to the edge of the flattened area. From this edge to halfway down the side there develops a dark brown ring and the bottom half becomes greenish-yellow; the pale areas at top and bottom gradually become darker as development proceeds and merge in with the dark areas. Final instar larva maximum length 60mm. Head green with upper portion and outer margin rusty brown. Both pairs of horns thick and dark brown in colour. Body green strongly irrorated with yellowish tubercles; a lateral line yellow or brown speckled with yellow; there are ochreous oblique lines passing down to prolegs. There is dorsal ornamentation on segments 6 and 8 - the mark on segment 6 is large and roughly trident-shaped while that on segment 8 is smaller and oval in shape - ornamentation is grey or greyish-pink with a distinct oblique black cross in the centre and speckled with bluish-white margined in black; "prongs" of mark on 6 are yellow. Pupa: Length 26mm. Bicoloured and dimorphic. Two forms, one mainly pinkish with chocolate markings, the other pale bluish green with dark olive green markings.

HABITAT AND ECOLOGY. The habitat is lowland evergreen forest and woodland. It is a powerful and rapid flier. The males are seldom observed except when coming to feed. Particularly fond of carnivore droppings and carcasses of animals. Both sexes can be found feeding on rotten fruit and occasionally sucking trees. The female has been observed laying her eggs on a number of occasions

and appears to favour mature leaves. Both sexes have been observed to come to flowers. The eggs are usually laid singly or occasionally in pairs. The foodplants are *Afzelia quanzensis* Welw., *A. africana* Sm. ex Pers., *Brachystegia spiciformis* Benth., *Berlina craibiana* Bak. f., *Bussea occidentalis* Hutch., *Julbernadia globiflora* (Benth.) Troup. (Fabaceae:Caesalpinioideae); *Syzygium guineense* (Willd.) DC, *S. cordatum* Hochst (Myrtaceae). The eggs are laid singly on the upper surface of the leaves of the foodplant. The larva spins a pad of silk to create a firm attachment for itself, and when not foraging spends all its time on the "silk pad". It pupates among the foliage of the host plant and is suspended by the cremastor at the anal end, which is attached to a small pad of silk. The flight period is probably throughout the year.

DISTRIBUTION. A marginal species from Kosi Bay in Zululand. *C. p. azota* is distributed from South Africa to East Africa.



STATUS. First recorded in S.A. by the Pringles in April 1976. The type locality is Delagoa Bay, Moçambique.

THREATS. No known threats. It is not known how permanent the species is at Kosi Bay.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X

REFERENCES.

1. Henning (1989): 63 - adult, life history and habits.
2. Pennington (1978): 58 - adult and habits:
3. Van Son (1979): 147 - adult, life history and habits.

Charaxes etesipe tavetensis Rothschild
INDETERMINATE

NYMPHALIDAE CHARAXINAE Tribe: CHARAXINI

Charaxes etesipe tavetensis, 1894. *Novit. zool.* 1:535. Type
Locality: Taveta, Kenya.



Figure 20. *Charaxes* species feeding on rotten banana: *Charaxes protoclea azota* male (top) and female (bottom); *Charaxes etesipe tavetensis* male (centre). (Del. S.F. Henning)

IDENTIFICATION. Male upperside black with blue reflection. Forewing with a complete series of blue postdiscal spots and four discal spots. Hindwing with a discal band represented by a white subcostal mark and a greenish-blue postdiscal band. Underside creamy-white with

reddish-brown spots and bars at base. Hindwing also with partial network of reddish-brown lines. There are two thin tails on each hindwing. Female upperside dark brown. Forewing crossed by a creamy disco- postdiscal band and a broad white or cream discal band on hind-

wing. Underside similar to male. There are two thin tails on each hindwing, longer than those of the male. Forewing lengths: male 36-41mm; female 40-50mm.

Life history. The egg is spherical, diameter 2,0mm, with a slight depression on top with radiating rays from the mid point. It is white when first laid becoming yellow then dark brown as development proceeds. Fifth (final) instar maximum length 60mm. Head: green with yellow margin; dorsal horns green with an interior black patch at tips, lateral horns green with black along upper edge. Body: dull bluish-green covered with fine white tipped papillae, lateral ridge white, dorsal ornamentation on segments 6 and 8 variably shaped, usually a three point crescent or quadrilateral in outline; the spots are brick red surrounded with a grey line outwardly edged with a series of minute black dots. Pupa, 22-23mm long. Emerald green with broad yellow bands laterally and dorsally across abdomen, along upper margins of wing cases and with large yellow patches dorsally on thorax and abdomen.

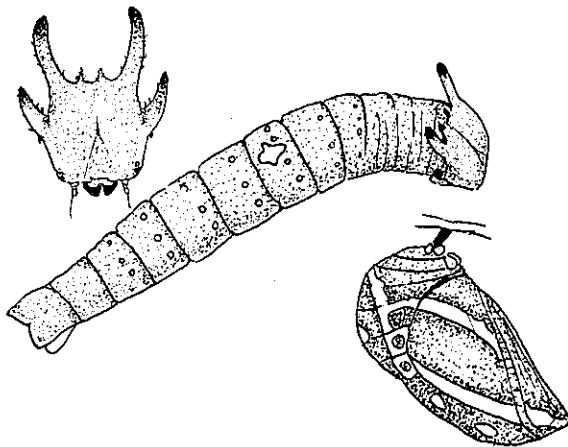
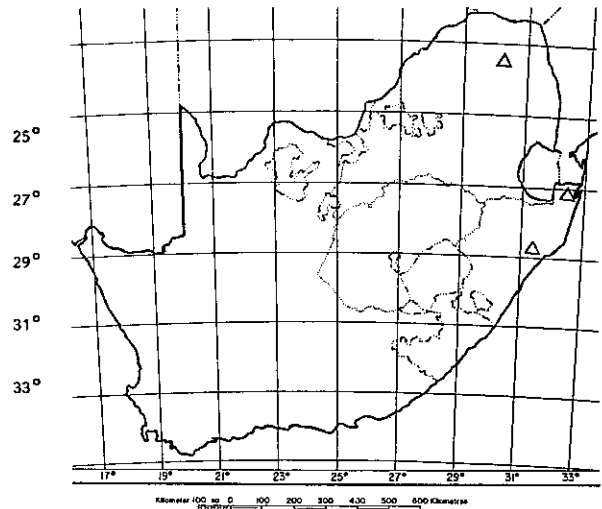


Figure 21. *Charaxes etesipe tavetensis* final instar larva, head and pupa. (Del. S.F.Henning)

HABITAT AND ECOLOGY. It is an inhabitant of evergreen forest, associated riverine and high rainfall savannah woodlands. Flight is swift, males appear to be faster than females. In the woodlands the males are often found on the summits of hills where they establish territories. They usually pick an exposed twig about 3 metres above the ground for a perch and from these vantage points, will chase all intruders from their territories. Males most often seen when feeding on the excrement of carnivores or on animal corpses. The females are often encountered hovering around their foodplants. Both sexes are attracted to fermenting fruit. The foodplants are *Entada rheedii* Spreng, *E. abyssinica* Steud. ex A. Rich (Fabaceae: Mimosioideae); *Azelia quanzensis* Welw. (Caesalpinioideae); *Securidaca longepedunculata* Fresen (Polygalaceae). The eggs are laid singly on the upper surface of the leaves of the foodplant. The larvae spins a pad of silk

to create a firm attachment for itself, and when not foraging spends all its time on this "silk pad". It pupates among the leaves of the foodplant, suspending itself from its cremastor, at the anal end, from a small pad of silk. Flies throughout the year - August, September, April and May are perhaps the best months.

DISTRIBUTION. A marginal species from Natal - Kosi Bay, Manguzi Forest, Eshowe; Transvaal - Tzaneen. This subspecies is recorded from South Africa to East Africa.



STATUS. The type is from Taveta, Kenya. Widespread in eastern Africa. Recorded in Kenya, Tanzania north of the Ruvuma River, inland to Songea district, southern Malawi, Mozambique inland from Beira, eastern Zimbabwe, north eastern Transvaal and southwards to Zululand. Occasional records of this species in South Africa. Not yet established whether it is a breeding resident or an occasional migrant.

THREATS. No known threats.

CONSERVATION MEASURES. All species of the genus *Charaxes* in the Transvaal are Protected Wild Animals under Ordinance 12 of 1983. Section 45, Schedule 7, Appendix 7. The Natal localities are apparently all under the control of the Kwazulu Bureau of Natural Resources.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X

REFERENCES.

1. Henning (1989): 218 - adult, life history and habits.
2. Pennington (1978): 62 - adult and habits.
3. Van Son (1979): 183 - adult, life history and habits.

Charaxes pondoensis Van Someren RARE

NYMPHALIDAE CHARAXINAE Tribe:CHARAXINI

Charaxes pondoensis Van Someren, 1967. *Bull. Br. Mus. nat. Hist. (Ent.)* 18 (9):285. Type Locality: Port St Johns, Transkei.

IDENTIFICATION. Male upperside velvety black, immaculate except for two small blue subapical spots on the forewing and a series of small bluish-white submarginal dots and a narrow reddish to green marginal border on the hindwing. Underside greyish-brown with black markings. There are two long thin tails on each hindwing. Female upperside black crossed by an orange-ochreous discal band and postdiscal spots, except for the large discal spot at inner margin which is white. Hindwing crossed by white, blue-bordered, discal band. Underside as in male but with pale bands clearly represented in

buffish-white. There are two long tails on each hindwing, longer than those of the male.

Forewing lengths: male 32-33mm; female 35-36mm.

Life history. The egg is spherical, diameter 1,6mm, green when first laid, developing a brown ring around rim of fluted dorsal depression as development proceeds. Final instar maximum length 42mm. Head green, broadly rimmed with yellow; lateral horns yellow with white tubercles ventrally and black dorsally; dorsal horns green with tips pinkish-brown and covered with black tubercles. Body, green densely speckled with bluish-white papillae; lateral ridge whitish-yellow; dorsally on each segment are a pair of whitish spots and dorso-laterally a faint yellow mark anteriorly. In addition there are creamy-yellow crescent shaped marks on segments 6,8 and occasionally on 10; these marks enclose two blue spots surrounded by black.



Figure 22. *Charaxes pondoensis* female (left) and male (right) flying around the foodplant, *Miletia grandis*. (Del. S.F.Henning)

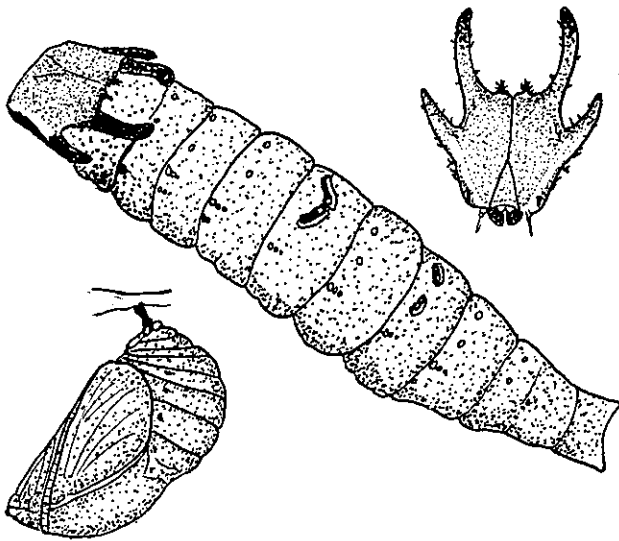
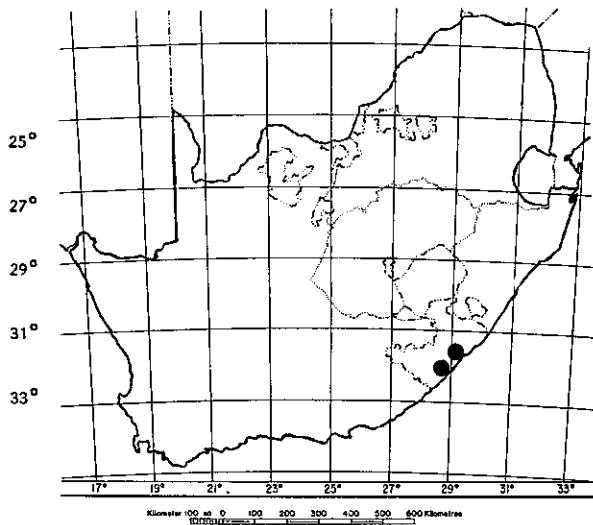


Figure 23. *Charaxes pondoensis* final instar larva, head and pupa. (Del. S.F.Henning)

Pupa: green without markings. Length 20-22mm.

DISTRIBUTION. Coastal forests of Transkei.



HABITAT AND ECOLOGY. Inhabits coastal forest. The males have a relatively fast flight, while the females are slightly slower. The males can usually be observed flying on the summits of forested hills where they establish their territories. They select an exposed twig or spray of leaves from 2-8 metres above the ground as their perch sites. The males ascend to the hilltops as early as 10h00 and can often be observed sunning themselves with outspread wings on their perches in the early morning sun. They will frequently make short gliding flights around their territories, returning again to the same perch. All intruders are investigated and other male *pondoensis* are chased off. The females spend the majority of their time in search of suitable trees on which to oviposit and will

return time and again to a favoured tree. Both sexes are attracted to fermenting sap of wounded trees or rotten fruit. The foodplant is *Millettia grandis* (E. Mey) Skeels (Fabaceae: Papilionioideae). The eggs are laid singly on the upper surface of the leaves of the foodplant. The larva spins a pad of silk to create a firm attachment for itself. When not foraging it spends all its time on the 'silk pad'. It pupates among the foliage of the foodplant where it suspends itself by its cremaster, at the anal end, from a small silk pad. The flight period is throughout the year.

STATUS. Discovered by J.C. McMaster in May 1964 at Port St Johns, Transkei. Subsequent records are Embotyi Forest, Bashee River Mouth, Coffee Bay, and Haga Haga. Appears to be fairly plentiful in known localities. The reason for past decline is the destruction of indigenous forest in the Transkei.

THREATS. Further destruction of forest.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X		

REFERENCES.

1. Henning (1989): 293 - adult, life history and habits.
2. Pennington (1978): 64 - adult and habits.
3. Van Son (1979): 206 - adult, life history and habits.

Charaxes marieps Van Someren & Jackson RARE

NYPHALIDAE CHARAXINAE Tribe:CHARAXINI

Charaxes marieps Van Someren & Jackson, 1957. *Ann. Transv. Mus.* 23(1):50. Type Locality: Mariepskop, Transvaal.

IDENTIFICATION. Male upperside velvety black with occasionally two blue subapical spots on the UFW with lilac and white submarginal spots and greenish-blue marginal border. Underside greyish-brown with the normal thin black lines and an irregular olive and maroon postdiscal line on the hindwing. The female upperside is black with distal portion of forewing rusty-brown. The forewing is crossed by well developed postdiscal and small discal spots which are rusty-ochre becoming whitish with blue scaling towards the inner margin. Hindwing with comparatively narrow blue discal bar. Underside reddish-brown with well developed black marks and a buff forewing discal band.

Forewing lengths: male 66-70mm; female 84-88mm.

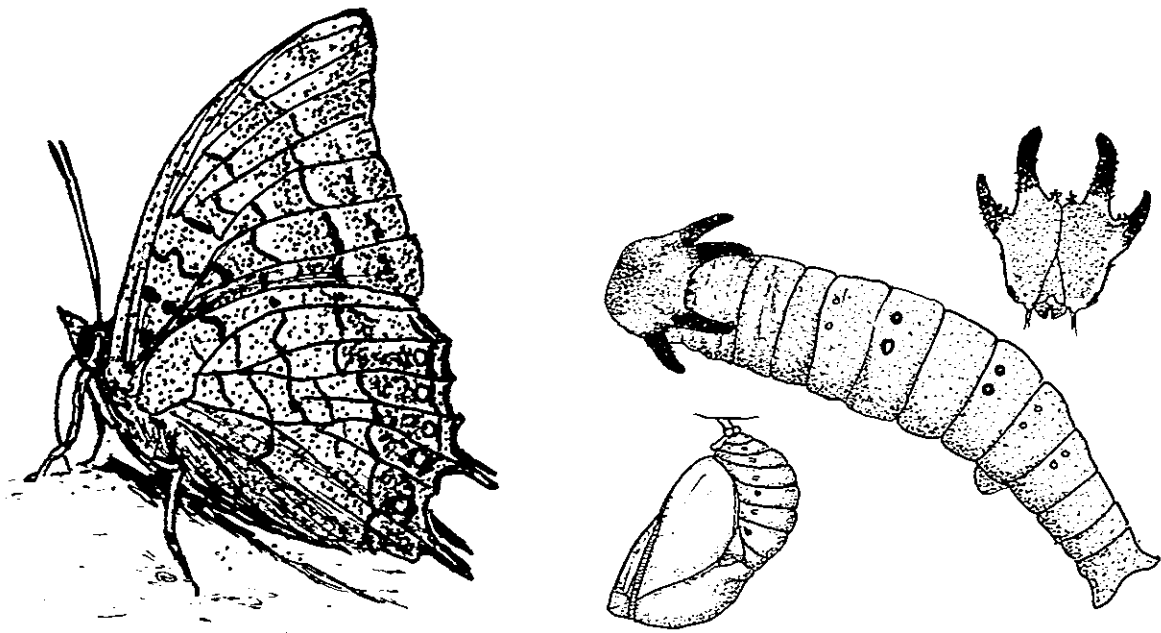
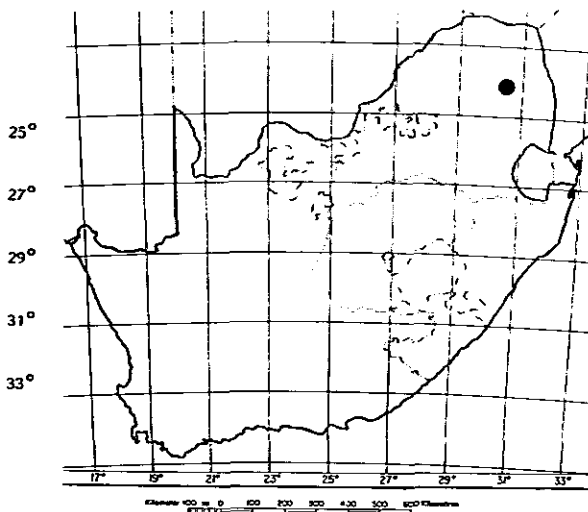


Figure 24. *Charaxes marieps* male underside (left); final instar larva, head and pupa (right). (Del. S.F. Henning)

Life history. The egg is spherical, diameter 1,8mm, with a slightly fluted dorsal depression. Bright yellow when first laid, but becomes duller and develops a reddish-brown ring if fertile. Final instar maximum length 45mm. Head-shield green bordered in ochre-yellow; horns of medium length and dark or purplish brown in colour; dorsomedial spines black. Body green finely speckled with creamy-white papillae. Dorsally on each segment a pair of small spots which are white except for those on segments 6 and 8 which are black with silvery-blue centres. The black marks on segment 6 are occasionally enclosed by a white or creamy-white crescentic line. Pupa: Light green with a creamy-yellow line along upper margin of wing cases and round the eyes. Length 18-22mm.

DISTRIBUTION. Eastern Transvaal in the escarpment montane forests from Mariepskop to Graskop and Sabie.



HABITAT AND ECOLOGY. Montane evergreen forests.

Males have a swift flight. Females flight is slow and gliding reminiscent of that of a swallowtail. The males fly around the canopy, sunning themselves on their favoured perches or darting out to investigate intruders into their territories. Males have been observed sucking mud along forest roads. The females spend a lot of time high above the ground looking for suitable foodplant in the canopy on which to lay. Both sexes feed on the fermenting sap of wounded trees and are attracted to rotten fruit. The foodplants are *Ochna arborea* Burch. ex DC., *O. holstii* Engl., *O. natalica* (Meisn.) Walp., *O. serrulata* (Hochst.) Walp. (Ochnaceae). The eggs are laid singly on the upper surface of the leaves of the foodplant. The larva spins a pad of silk to create a firm attachment for itself and, when not foraging, spends all its time on this pad. If disturbed the larva may swing its head around to discourage its attacker and will often adopt a defensive posture by lifting its fore and hind parts while holding on with its prolegs. Pupation takes place among the foliage of the foodplant. Flies throughout the year with a peak from February to April.

STATUS. Mariepskop, north eastern Transvaal. Subsequent records include Graskop, Sabie, Ceylon Forest, Mount Sheba and Blyfstaanhoogte. Still fairly plentiful at Mariepskop.

THREATS. Future threats are possible to indigenous montane forest from commercial forestry enterprises. Measures that should be undertaken to combat threats would be to establish a reserve in the natural forest at Mariepskop.

CONSERVATION MEASURES. Currently all *Charaxes* species are protected in the Transvaal - Ordinance 12 of 1983, Section 45, Schedule 7, Appendix 7. Recorded in Mount Sheba Nature Reserve (private).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Henning (1989): 288 - adult, life history and habits.
2. Pennington (1978): 64 - adult and habits.
3. Van Son (1979): 192 - adult, life history and habits.

Family LYCAENIDAE

These are small, often brightly coloured, butterflies with colours ranging from metallic blues, reds and oranges to dull brown. The undersides of the wings are often marked for camouflage. Many of the species have flimsy, slender tails on their hindwings. The legs of the adults are all functional and are used for walking.

Most males are territorial, establishing territories on hilltops, at the bottom of gullies, at the base of cliffs, along rocky ridges and many other places where they can be located by the freshly emerged females. This is particularly obvious with regard to low-density bushveld species. The females are courted by the males and androconial patches can be found on both the fore and hindwings of the males of a number of species.

The eggs are usually described as "bun-shaped" with a surface pattern varying from deep indentations to a shallow tracery. The larvae are onisciform (highest and widest in the middle, with the head largely hidden beneath the body). The larvae of most or a large number of species

are associated with ants. Some shelter in the ants' nest during the day but leave the nest to feed on the foodplant at night. Others are carnivorous and spend all or part of their larval stage in the ants' nest feeding on the ant brood. Most lycaenid larvae have a honey-gland which secretes a fluid which is immediately eaten by ants if they are in attendance. A pair of tubercles is also usually present, these can be everted and look like long white tubes crowned with a rosette of little hairs, which are often brightly coloured. When not extruded all that can be seen of the tubercles are small round depressions (Henning 1982a,b, 1987). The pupae are usually stout and round in cross-section and may be smooth or covered with fine hair. The pupae are attached to a pad of silk, spun by the larvae, by cremastral hooks at the anal end and a girdle of silk around the middle. Sometimes the pupae lie free on the soil surface beneath vegetation, or just beneath the surface. A wide variety of food types are consumed from jassids to ant brood and tree galls to lichen.

This is the largest family of butterflies in South Africa with 310 species of which 105 are dealt with in this book.

Of the six subfamilies of Lycaenidae found in South Africa five are represented in this Red Data Book. These are the Lipteninae, Miletinae, Liphyrinae, Theclinae and Polymatinae.

Subfamily LIPTENINAE

In this subfamily the adult butterfly has no tail or tornal lobe on the hindwing. The colour and pattern vary and some species mimic other unpalatable families. The usual lycaenid pattern on the underside is seldom recognizable.

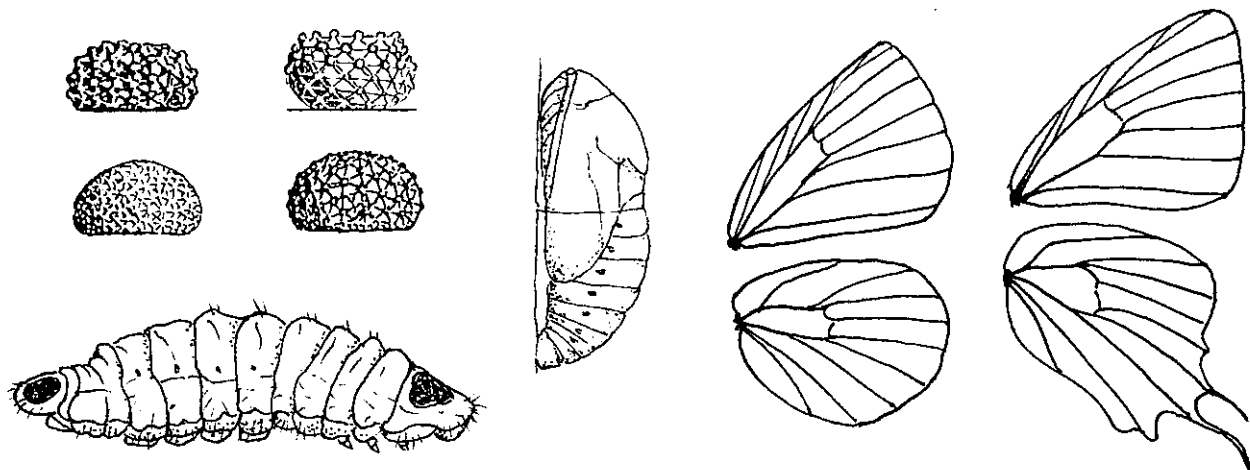


Figure 25. Lycaenidae: Typical wing-shapes and venation (right); various types of egg (top left); typical final instar larva (bottom left); typical pupa (centre). (Def. S.F.Henning)

Life history: eggs shaped like a truncated pyramid or dome with variable sculpturing. The larvae differ from other lycaenid families in so far as resembling the larvae of the moth family Lymantriidae, with a comparatively broad and barely retractile head and dorsal and lateral tufts of hairs. The honey-gland and tubercles are absent. Known foods are lichen and microscopic fungi and algae. The pupae are attached only by the cremaster without a girdle and often retain the larval skin around the abdominal segments (Eliot, 1973).

Alaena margaritacea Eltringham VULNERABLE

LYCAENIDAE LIPTENINAE Tribe: PENTILINI

Alaena margaritacea Eltringham, 1929. *Trans. ent. Soc. Lond.* 77:492. Type Locality: Haenertsburg, Transvaal.

IDENTIFICATION. A small species with elongated forewings. The upperside is black with a broad orange band, which is very broad in the female almost reaching the base. The LHW is creamy-white with an intricate, lace-like pattern of thin black lines.

Forewing lengths: male 12-13,5mm; female 14-15mm.

Life history: The eggs are 0,9mm in diameter by 0,4mm high and purple-brown in colour. There are four rings of fourteen round indentations on each egg; those at the micropyle are narrow and elongated. The first instar larva is purplish-brown with a pale yellow neck-shield and white humps which bear the outer dorsal and lateral setae. The head is purplish-brown. The subsequent instars and pupa are unrecorded¹.

HABITAT AND ECOLOGY. Occurs in a couple of secluded colonies on the steep slopes of the mountains about 400 metres below the peaks. It is found on steep grassy slopes with large lichen covered rocks. Its colonies can contain very large numbers of specimens in an area of

about a hectare. The males have been recorded ascending almost to the mountain tops at about midday, where they establish small territories at the base of rocky ridges just below the peaks. It has a weak fluttering flight, when disturbed it flies a few metres before settling again on a grass stem. If repeatedly disturbed it is capable of sustained flight and may fly for 100 metres before settling again. The males normally establish territories in the breeding area perching on grass stalks and fluttering around the grass. When another male enters its territory it will sometimes chase it away. The females flutter slowly throughout the breeding area searching for suitable lichen on rocks on which to lay her eggs. The foodplant is probably rock lichen, and females have been seen laying on large rocks or even relatively small stones on the ground without much lichen in evidence. The eggs are laid singly or in small clusters. The flight period is December to January, with a peak towards the end of December.

DISTRIBUTION. Endemic to the Transvaal. Known only from near Haenertsburg in the north eastern Transvaal.

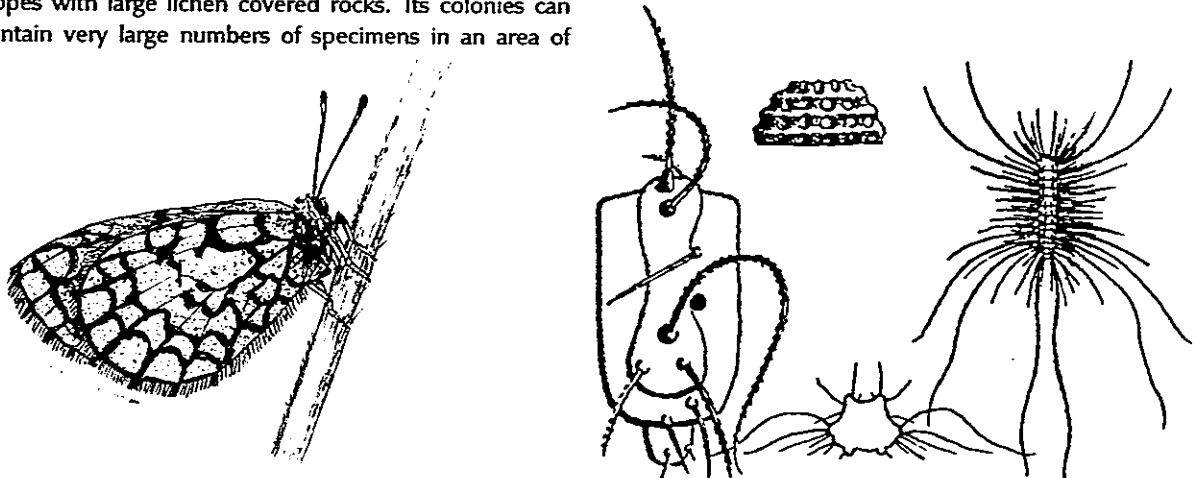
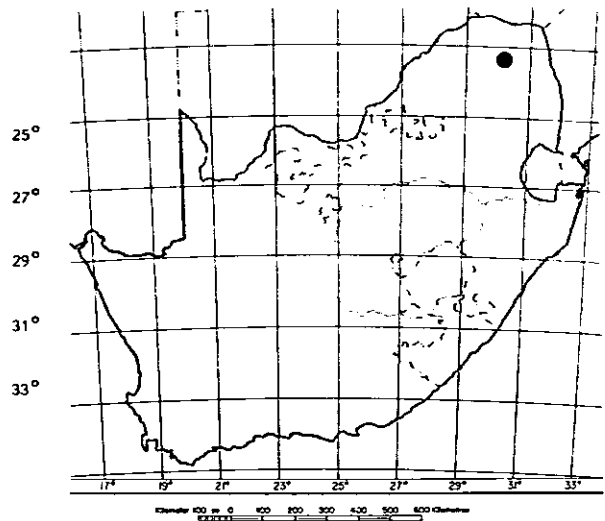


Figure 26. *Alaena margaritacea* male underside (left) (Del. S.F. Henning); egg, first instar larva, enlargement of seventh segment and cross section (right) (after Clark & Dickson, 1956).

STATUS. *A. margaritacea* was first recorded by Miss Margaret Kenway in January 1925 in the hills around Haenertsberg, Transvaal. Many have searched for it since then in the Wolkberg hills and valleys but it has only been found in one or two kloofs in a very restricted area.

THREATS. The planting of pines is a very real danger to this species.

CONSERVATION MEASURES. The Forestry Department should be contacted and made aware of the known localities. The Transvaal Nature Conservation Department has been made aware of the situation as regards this species.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	

REFERENCES.

1. Clark and Dickson (1971): 237 - life history (in part).
2. Murray (1935): 48 - adult.
3. Pennington (1978): 82 - adult and habits.
4. Swanepoel (1953): 182 - adult and habits.

Ornipholidotos peucetia penningtoni (Riley) RARE

LYCAENIDAE LIPTENINAE Tribe: PENTILINI

Pentila peucetia penningtoni Riley, 1944. *Entomologist* 77:29.
Type Localities: Hluhluwe and False Bay, Zululand.

IDENTIFICATION. A white lycaenid with black margins and a black transverse band across the apex, from mid-costa to mid-margin. In subspecies *penningtoni* the transverse band does not reach the margin.
Forewing lengths: male 19-20mm; female 19-20mm.

Life history. Unknown.

HABITAT AND ECOLOGY. Coastal and low altitude riverine forest. Its flight is slow and it has been recorded fluttering around in the shade of tall forest trees, one or two feet above the ground, settling on small plants in the undergrowth. Normally only a few specimens recorded at any of the localities, but Dr van Son found a colony, in December 1961, along the banks of the Hluhluwe River, in the Hluhluwe Game Reserve where he recorded the subspecies in some numbers. Bell-Marley recorded a few at Maputa in December 1945, one of which is labelled "bred". Unfortunately no further information is available.

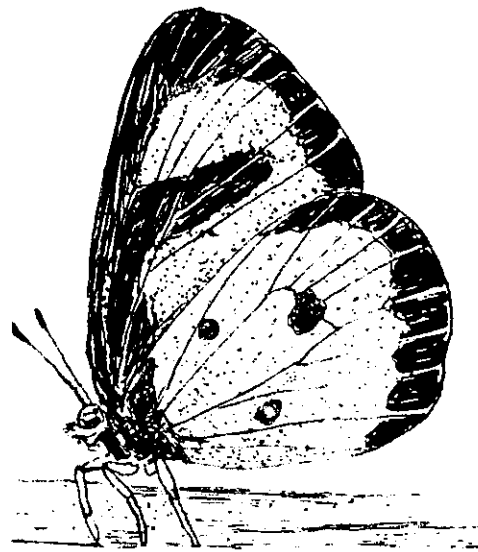
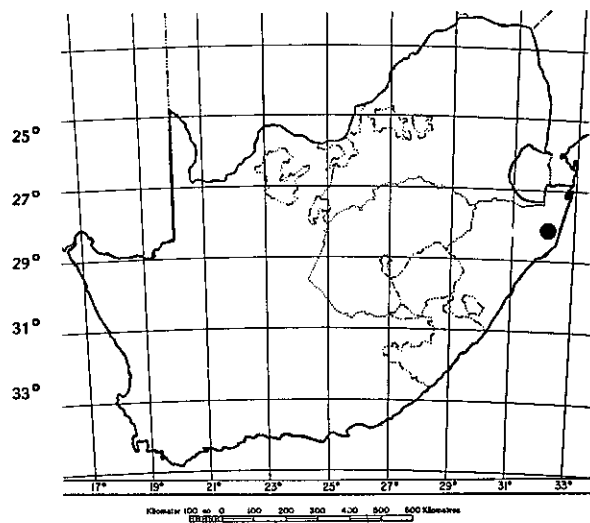


Figure 27. *Ornipholidotos peucetia penningtoni* male underside. (Def. S.F.Henning)

DISTRIBUTION. Northern Natal, False Bay, Hluhluwe Game Reserve, Maputa, Charters Creek and Mtunzini. It also occurs in southern Moçambique, Zimbabwe, Malaŵi, Zambia and western Tanzania.



STATUS. Discovered by K.M. Pennington in December 1939, in the bush along the west side of False Bay. The existing records are very few and far between. A great deal of the thick bush inhabited by this species has already made way for pineapple farms. The species probably still exists in small isolated colonies deep in the remaining forests.

THREATS. Further farming development in northern Natal may destroy more of the species' natural habitat.

CONSERVATION MEASURES. Recorded in the False Bay Park and the Hluhluwe Game Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 83 - adult and habits.
2. Swanepoel (1953): 190 - adult and habits.

Durbania amakosa albescens Quickelberge RARE

LYCAENIDAE LIPTENINAE Tribe: LIPTENINI

Durbania amakosa albescens Quickelberge, 1981. *Dbn. mus. Novitates* 12(19):218. Type Locality: Margate, Natal.

IDENTIFICATION. This species has rounded wings, the upperside is brown with a band of yellowish-orange spots down both wings. The underside is cryptic, being pale grey with numerous striations and some orange markings. The colour and markings on the underside resemble the lichen on the rocks on which the species lives. Upperside discal bands paler than nominate subspecies, spots on hindwing larger. Ground colour paler and whitish markings more extensive. Underside paler with more extensive whitish markings.

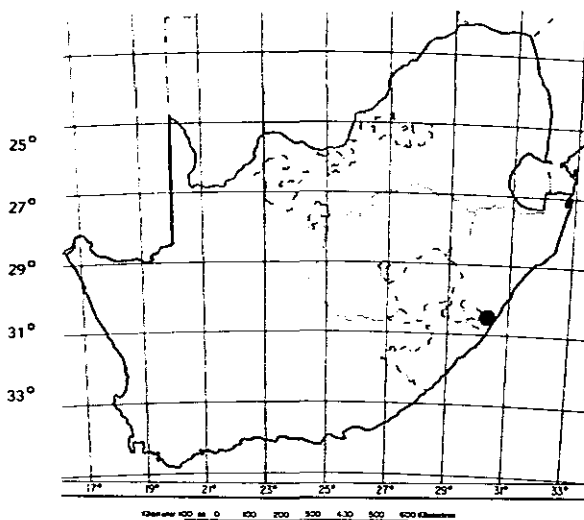
Forewing lengths: male 14-18mm; female 17-21mm.

Life history. Unknown. The life history of subspecies *natalensis* Van Son is as follows: Eggs 0,8mm in diameter and 0,45mm high. They are pink with clear but irregular ribbing. The final instar larva is usually greyish mottled with dark brown and there are long, hair-like, setae. The lateral setae are very long and act as shadow breakers. The larva is short and stout attaining a length of 17mm. Neither tubercles nor honey-glands are present in this species. The pupa is 10mm long, brown with partially discarded larval skin still attached to the abdomen and to the rock where the larva pupated.

DISTRIBUTION. Endemic subspecies, only recorded from Natal; Margate and one specimen from Paddock, near Port Shepstone.

HABITAT AND ECOLOGY. Coastal macchia, habitat normally found at higher altitudes occurs at the coast in this part of southern Natal. Inhabits lichen covered rocky outcrops among grassveld. The population at any one time is normally limited to about half a dozen at the height of the season. They have, however, been caught in some numbers during good years. Its flight is rather slow and floppy, when disturbed it darts off the rock on which it was sitting and flies directly to another where it alights. If

unmolested it will soon return to its favourite rock. Most of the time they sit on their selected rocks, presumably waiting for females to enter their territory. The size of the rocks can vary considerably from quite small to very large. The species has been seen to lay itself flat on the rock to avoid casting a shadow. The cryptic, lichen simulating, underside makes it very difficult to detect on lichen covered rocks. Both males and females can sometimes be found under shady overhangs or in the characteristic round depressions which are present in the rocks which they inhabit. The female is larger than the male and flies at random looking for suitable rocks on which to lay its eggs. The foodplant is lichen or the algae associated with it. The larvae have colouring and markings which match the lichen covered rocks on which they feed. They are very hairy, the long lateral hairs act as shadow breakers to prevent the larvae being detected by predators, by virtue of its shadow. The larvae pupate on the rocks, under overhangs or in the round depressions and always in a sheltered position. *D. a. albescens* is normally on the wing from November to January.



STATUS. An early specimen of this subspecies was recorded from Paddock, near Port Shepstone, in November 1960 by R.C. Heathcote. The type specimen was collected by D. Whiteley on 18 November 1976 at Margate.

THREATS. Two colonies were found when the type locality was visited by G.A. Henning. One (the type colony) is in an urban development project to the north of Margate. This colony is situated around a wooded rocky ridge and adjacent stream. The future of this colony is doubtful, however, the aesthetic appeal of this locality may prevent it from being destroyed which could save the colony. The second colony found is a couple of kilometres inland from the first and is situated near a water reservoir. This locality is at present outside the housing development, but without some protective

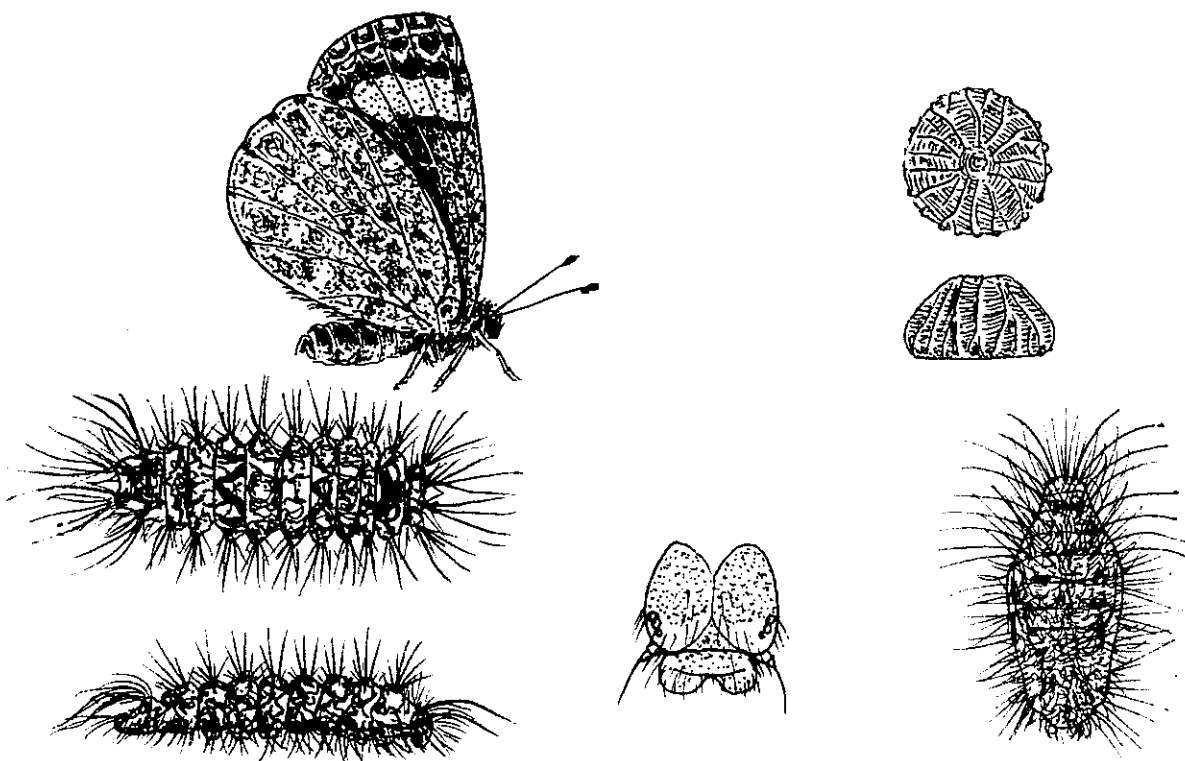


Figure 28. *Durbania amakosa albenscens* male underside (top left); *Durbania amakosa natalensis* egg, top and side view (top right); final instar larva, top and side view (bottom left); final instar larva head (bottom centre); pupa (bottom right). (Def. S.F.Henning)

measures it could easily be destroyed. The single record at Paddock has not been repeated. A great deal of habitat in this area has been laid waste by the ravages of goats so perhaps this colony no longer exists. The declaration of a small reserve around the water reservoir would ensure that future development will not destroy this locality.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X			X	X

REFERENCES.

1. Henning (1983): 68 - life history (subspecies *natalensis*)
2. Quickelberge (1981): 218 - adult and habits.

Durbania amakosa flavida Quickelberge
INDETERMINATE

LYCAENIDAE LIPTENINAE Tribe:LIPTENINI

Durbania amakosa flavida Quickelberge, 1981. *Dbn. mus. Novitates* 12(19):219. Type Locality: Shongweni Dam, Natal.

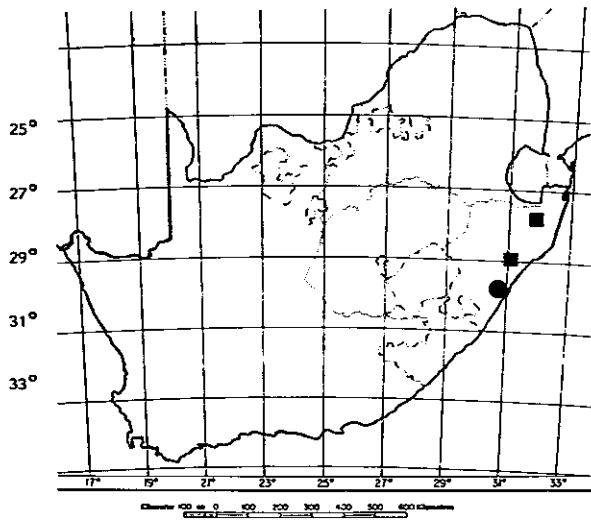
IDENTIFICATION. A brown species with a row of orange dots down the upperside and a grey striated underside with orange markings. Upperside paler and discal spots yellower than *D. a. natalensis* Van Son. Underside paler with distinct orange spots.

Forewing lengths: male 17-19mm; female 15-22mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The habitat of this subspecies appears to be closely associated with thick riverine bush and forest, compared to the habitats of some of the other subspecies which appear to be more associated with grassveld. The rocks frequented by this subspecies are on the ridges directly above, and in places in clearings within, the thick bush. The habits and life history will be similar to that described in subspecies *albescens*. This subspecies appears to be on the wing earlier than its inland relative, being found in November, whereas *natalensis* only makes its appearance in mid-December.

DISTRIBUTION. Subcoastal hills from about 450 to 900 metres above sea level from just inland of Durban, at Kloof, Shongweni and Inchanga, and possibly at similar elevation in the hills about Ngoye Forest and Nkandla. There is even a record from near Mkuze which could be this subspecies.



STATUS. The paper by C.D. Quickelberge titled, *On the Natal populations of Durbania amakosa Trimen, with descriptions of two new subspecies*, brought the existence of this subcoastal population to light. Not many old records apparently exist. Swanepoel (1953) does not record any subcoastal localities.

THREATS. The regions inhabited by the subspecies *flavida* are, in some cases, well populated and are therefore threatened. The subspecies appears to be quite widely spread but its full distribution has yet to be established.

CONSERVATION MEASURES. The type locality, at Shongweni Dam, appears to be protected to some degree. It is not known if the species occurs within the apparently protected forest reserves at Ngoye and Nkandla.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Quickelberge (1981): 219 - adult and habits.

Deloneura immaculata Trimen

EXTINCT

LYCAENIDAE

LIPTENINAE

Tribe: LIPTENINI

Deloneura immaculata Trimen, 1868. *Trans. ent. Soc. Lond.* 1868:83. Type Locality: Bashee River, Transkei.

IDENTIFICATION. An immaculate pale yellow species with rounded wings. The upperside is ochreous-yellow, without markings of any kind. LHW with a pale ill-defined costal and outer marginal border. The male is not known. Forewing length: male not available; female 18-23mm.

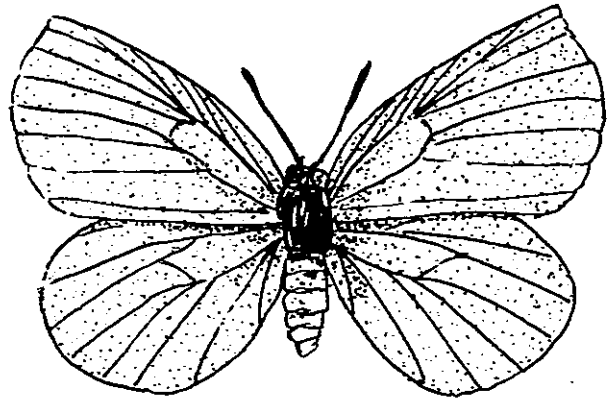
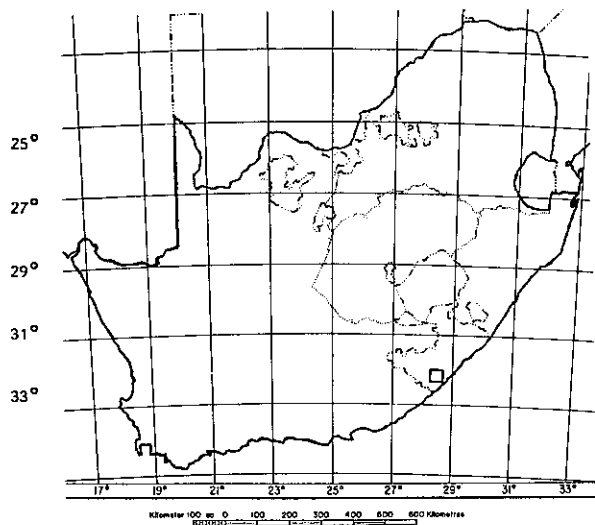


Figure 29. *Deloneura immaculata* female upperside. (Del. S.F. Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. Only three specimens known. They were recorded from the wooded area along the banks of the Bashee River. Colonel Bowker, who discovered the species, observed that it is, 'a true forest insect, only found in or at the edge of the woods, and appearing but for a few days. In flight they resemble *Acraea horta*, and still more the yellow tree moth, whirling slowly, with flapping wings, round the tops of trees, rising and falling, sailing away and returning'. The three specimens so far recorded were collected late in December. The above words, 'appearing but for a few days' were quite prophetic as regards this species. This is the type species of the genus, other species subsequently discovered have very sedentary habits, sitting for long periods of time sucking on coccids. They seldom take to the wing unless disturbed, and then they usually flutter out only to return immediately to the depths of the tree. These unique habits make the finding of the species of this genus very arduous, so perhaps, somewhere along the Bashee River, *D. immaculata* sits waiting to be rediscovered.

DISTRIBUTION. Known only from Fort Bowker on the Bashee River, Eastern Cape Province.



STATUS. The first specimen was taken by Colonel Bowker along the Bashee River on 27 December 1863. He captured two other specimens during the remaining days before 1 January 1864. The species has not been recorded since despite an extensive search by numerous collectors over the past 125 years. Possibly early development in the vicinity of Fort Bowker led to its extinction or perhaps this is a case of natural extinction. The general habitat along the Bashee River has not changed substantially since Bowker's day. Further investigations are needed in the Bashee River area to try and establish if the species still exists there at some remote locality. The other species of *Deloneura* from South Africa, *D. millari* Trimen, has recently been recorded on the Bashee River.

Of the three known specimens two are in the South African Museum in Cape Town and one in the British Museum (Natural History). The BM specimen is a small female and is pictured in D'Abrera (1980). Of the two in Cape Town, the large female has been pictured twice, (2) and (3). The drawing in the original description is also of a female.

THREATS. Possibly already extinct.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Murray (1935): 59 - adult and habits.

2. Pennington (1978): 87 - adult and habits.
3. Swanepoel (1953): 190 - adult and habits.

Subfamily LIPHYRINAE

In this subfamily the hindwing is tailless. On the underside the standard lycaenid pattern is not discernable. Life history: Egg oval with a slight central depression. All known liphyrine larvae possess a tough leathery cuticle which extends in a wide, skirt-like carapace to the substrate, so that the larvae somewhat resemble limpets (Eliot, 1973). The larvae of the genus *Aslauga* has a completely flat under-surface and bears chitinanths (chitinous flower-like outgrowths) on top and the sides. It is only attached by the cremaster and the larval skin is entirely discarded.

Aslauga australis Cottrell RARE

LYCAENIDAE LIPHYRINAE

Aslauga australis Cottrell, 1981. *Systematic Entomology* 6:5. Type Locality: Kowie River (Port Alfred), Cape Province.

IDENTIFICATION. The male upperside has the outer marginal area dark greyish-brown and the basal area is blue merging into the marginal area. The basal blue is extensive, covering more than two thirds of the wings. Underside pale brown speckled with brown. There is an indistinct transverse line from the forewing apex to hindwing anal angle. The female is similar to the male but with blue areas slightly paler. The genitalia of this species is distinctive.

Forewing lengths: male 12,5mm; female 13-18mm.

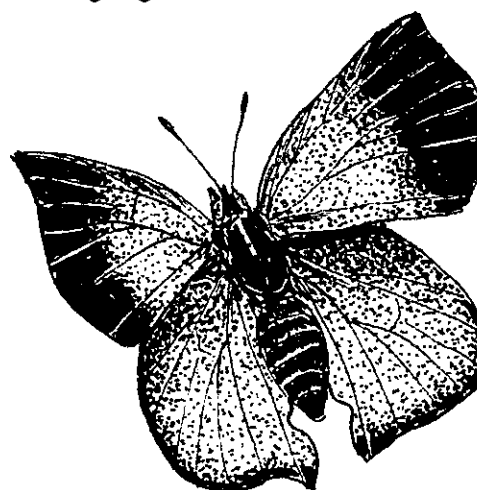
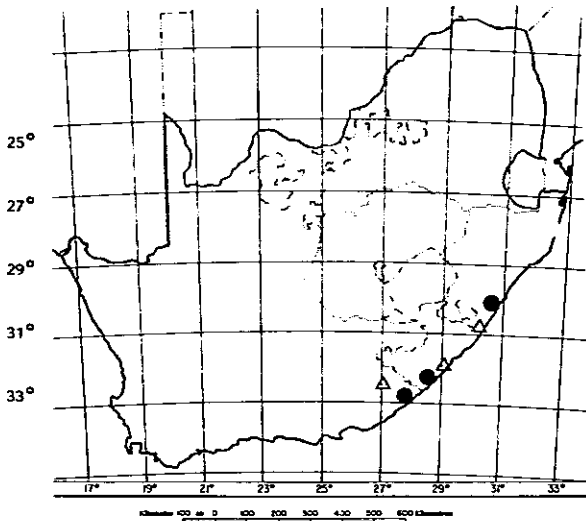


Figure 30. *Aslauga australis* female upperside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. An endemic species from Natal, the eastern Cape and Transkei coastal and subcoastal regions. Records include the Bluff at Durban, Port Alfred, Kowie River, East London, Buffalo Pass, Keiskamma Hoek, Stutterheim, Bashee River, Doutsza Pass and Port St Johns.



HABITAT AND ECOLOGY. Only a few widely separated records exist for this extremely rare species. Some of the records indicate that the species inhabits thick riverine bush. R.J. Mijburgh recorded a male and three females along the Bashee River flying around trees about two metres above the ground. He likens its flight to that of *Lachnocnema bibulus* (Fabricius). The closely related taxa *A. atrophifurca* Cottrell in Zimbabwe whirls about the treetops at great speed eventually alighting within the canopy of foliage, usually on a twig or branch. Swanepoel² records H.E. Irving, who collected one of the three known males at Port Alfred, saying that if he had not been collecting moths he would have let that dark little moth-like thing, fluttering under the trees in the shade, go unmolested. It must be assumed from the lack of records that the species keeps to the thick bush and with its moth-like flight and appearance it may have been overlooked on occasions. A female recorded by Quickelberge at Doutsza Pass was "hovering around a small tree in the fashion of an *Iolais* searching for *Loranthus*". The unusual flight pattern of the female was also recorded by P. Krüger from Buffalo Pass, East London, where he collected a specimen on top of the mountain above the pass. It flew up the hill with a strange fluttering and skipping flight, darting swiftly and erratically from side to side before diving onto a leaf on the outside of a bush about half a metre from the ground. The species has apparently not been recorded in the same place more than once. It is assumed that like its congeners further north, its larvae are carnivorous and feed on membracids or coccids.

STATUS. So few records exist that in the past the avail-

able specimens were merely lumped into the northern taxon *A. purpurascens* (Holland). Only one male was available for examination at the time of the original description in 1981. This specimen was caught by H.E. Irving on 22 September 1919 and was located in the Bloemfontein Museum. A second recorded male from Durban (H.A. Green, 1906) was examined by Trimen but the specimen could not be traced. Only nine females were available for examination in 1981. One male and three females have been recorded subsequently from the Bashee River by R.J. Mijburgh and one female by P. Krüger from Buffalo Pass. Sixteen specimens recorded in almost a hundred years makes this an extremely rare species.

THREATS. As no established colonies are known there can be no threats. The species is so scarce that nobody would ever know if it became extinct.

CONSERVATION MEASURES. No conservation measures are in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 87 - adult and habits. (in part as *A. purpurascens marshalli* Butler.)
2. Swanepoel (1953): 193 - adult and habits. (in part as *A. purpurascens* (Holland)).

Subfamily MILETINAE

In this subfamily the hindwing is tailless and lobeless. On the underside the normal lycaenid pattern is discernable. Life history: Egg round, flattened, disc-like and in the genus *Thestor* with a lobe on one side of the upper surface. The larvae are onisciform and lack both the honey-gland and tubercles. The members of this subfamily are totally carnivorous, preying mainly on Homoptera, although some feed on ants and the secretions of ants and Homoptera. The pupae are suspended by the cremaster, usually without a girdle, or are found reclining on or below ground in ants' nests (Eliot, 1973).

Thestor dryburghi Van Son INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

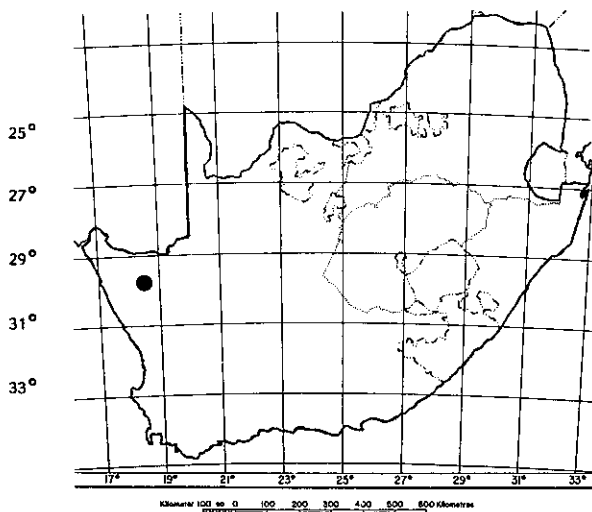
Thestor dryburghi Van Son, 1966. *Ann. Transv. Mus.* 25(4):86.
Type Locality: Kamieskroon, Namaqualand.

IDENTIFICATION. The rounded wings, golden ochre colour and two separate and distinct dots on the UHW serve to identify this species. There are apparently two colour variations, one being darker than the other. The female can be determined by the absence of the androconial scales on the UFW.
Forewing lengths: male 16-18mm; female 18-21mm.

Life history. Unknown.

HABITAT AND ECOLOGY. Inhabits dry rocky slopes of small hills, usually with small bushes. It is found around the foothills of some of the Namaqualand mountains. It flies early in the season, most records being from October.

DISTRIBUTION. Endemic to Namaqualand, this species has been recorded from the area around Kamieskroon.



STATUS. *T. dryburghi* was discovered by K.M. Pennington in October 1949, along the road from Kamieskroon to Leliefontein Mission. Dr P. Dryburgh recorded more in October 1961 and 1964 which enabled Van Son to describe this species.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 89 - adult and habits.

Thestor strutti Van Son RARE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor strutti Van Son, 1951. *Ann. Transv. Mus.* 21(4):444. Type Locality: Wolseley, Cape Province.

IDENTIFICATION. Upperside buff or creamy-white with broad dark margins and discal spots. The LHW is grey with darker grey discal markings. The females are similar to the males but with rounder wings.
Forewing lengths: male 17-17,5mm; female 19-21mm.

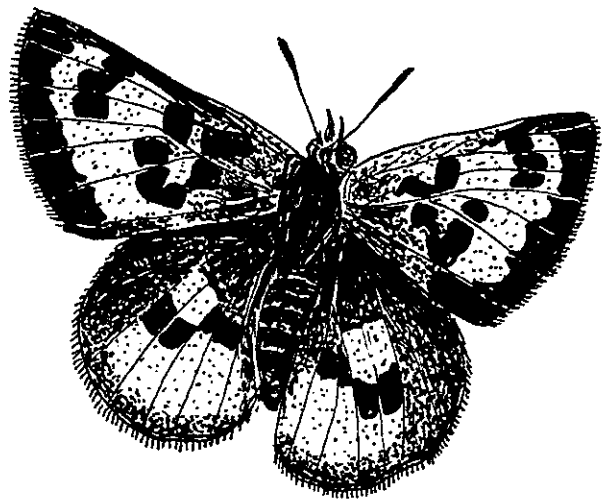


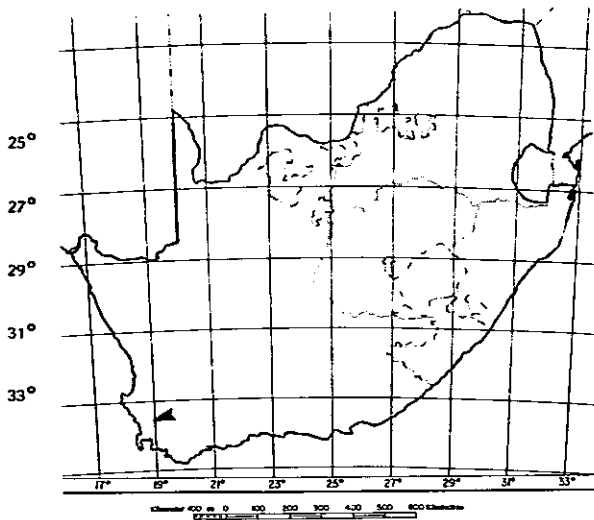
Figure 31. *Thestor strutti* male upperside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Cape. Only recorded on the farm "Verrekyker" and Kluitjieskraal Forestry near Wolseley, in the western Cape.

HABITAT AND ECOLOGY. Occurs around the foot of the twin peaks on the above-mentioned farm. The species is shy and wary, taking to the wing quickly when approached. They settle on the rocks or on the ground; they soon settle again after being disturbed. The males estab-

lish territories, some only five metres from one another. They are not often seen flying but when disturbed they may fly into a neighbouring territory and a short tussle may ensue. If undisturbed the male will return to its original territory. They fly low and fast and settle on the rocks with their wings partly open. The females are slower than the males and flutter about searching for places to lay eggs. They are found in the same areas as the males. This *Thestor* is one of those emerging very early and is on the wing in August, flying through to September.



STATUS. *T. strutti* was discovered by S. Strutt in August 1950. Dr J.B. Ball who has visited the type locality every August for the past eight years (1980-1987), has only seen it twice in small numbers (1980-1981).

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Pennington (1978): 89 - adult and habits.
2. Swanepoel (1953): 151 - adult and habits.

Thestor dicksoni dicksoni Riley RARE

LYCAENIDAE MILETINAE Tribe: LACHNOCNEMINI

Thestor dicksoni Riley, 1954. *Entomologist* 87:97. Type Locality: Roode Zands Mountains, Cape Province.

IDENTIFICATION. The upperside is light golden-yellow with broad golden-brown margins and there are several black markings in the centre of the wing. The LHW is light silvery-grey with indistinct dark to distinct dark grey markings across the middle. The female is larger, with rounder wings and no androconial scales on the UFW. Forewing lengths: male 17-19mm; female 21,5-22,5mm.

Life history. The eggs are white when laid and of the distinctive shape of the genus, which has a broad raised area around one side of the micropyle. There is an hexagonal pattern of raised ridges with the ridges closer together on top of the egg, which is 0,6mm in diameter by 0,35mm high. The larva on emergence is about 1mm long and straw coloured with two narrow, white, longitudinal dorsal streaks. The head is dark brown. The final instar is 12-16mm long when at rest and 14-20mm long when active. The head is orange-brown and the body is light creamy-buff marked with vinous-pink transversely across the anterior portions of segments 5-10. There are nine rows of small sunken orange-brown to yellow-brown plates, of different sizes. The neck and anal shield are large and orange-brown. No details of the pupa are available¹.

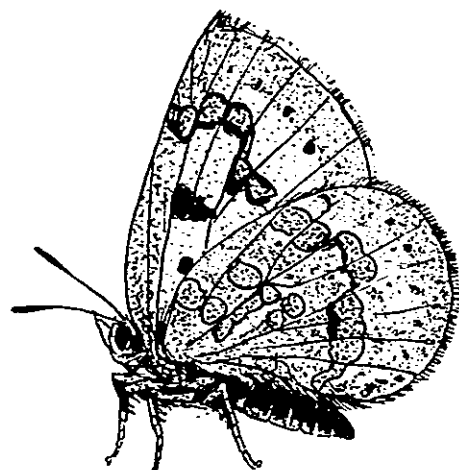
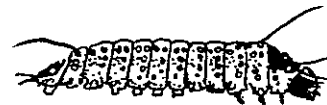
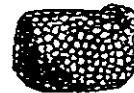
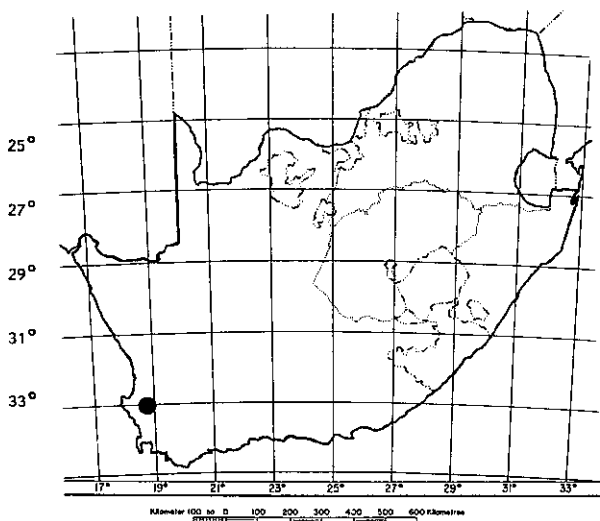


Figure 32. *Thestor dicksoni dicksoni* male underside; egg and first instar larva. (Del. S.F.Henning)

DISTRIBUTION. Endemic to the Cape. Roode Zands Mountains, above Tulbagh Kloof; the Olifants River Mountains, above Piekeniers Kloof (Greys Pass); Paardeberg and Porterville, South Western Cape.



Thestor dicksoni calviniae Riley

RARE

LYCAENIDAE MILETINAE Tribe: LACHNOCNEMINI

Thestor dicksoni calviniae Riley, 1954. *Entomologist* 87:101. Type Locality: Hantamsberg, Cape Province.

IDENTIFICATION. This species has a dusky golden-brown upperside with very elongated and pointed wings. There are black discal markings on the uppersides of both wings and the margin is broad and coppery-brown. The LHW is grey with darker grey discal markings. Forewing lengths: male 19mm; female not available

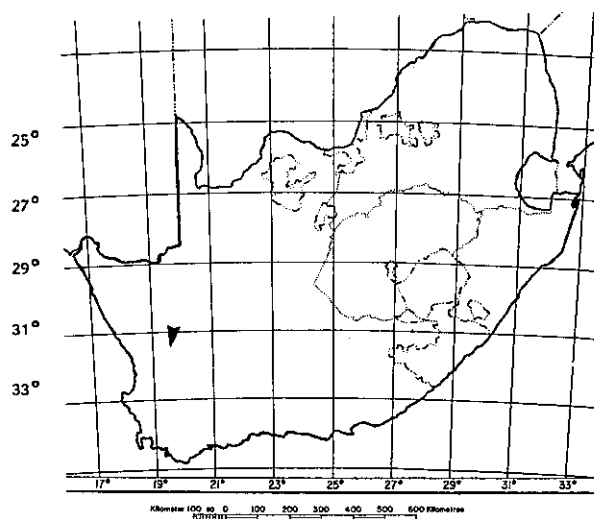
Life history. Unknown.

HABITAT AND ECOLOGY. Occurs on the flats and lower slopes of low rocky hills to the south of the Hantamsberg near the town of Calvinia.

STATUS. Discovered by C.G.C. Dickson on 15 December 1951. It has been recorded several times in recent years. Recent evidence appears to indicate that this subspecies may be a separate species.

THREATS. No known threats.

DISTRIBUTION. Endemic to the Western Cape. Found among the foothills on the southern side of the Hantamsberg.



HABITAT AND ECOLOGY. *T. dicksoni* flies mainly along or near the summits of ridges. The flight of the male is brisk and erratic and it frequently settles on the ground or low bushes in open patches. The females lay their eggs in small clusters on twigs and other dry pieces of vegetation. The newly emerged larvae were carried by the host ants, *Anoplolepis custodiens* Smith, into their nests where they are believed to feed on the ant brood. Final instar larvae have been found within the nest of the host ant. Adults are on the wing from January to early April¹.

STATUS. First captured by C.G.C. Dickson on the Roode Zand Mountains in March 1937. A second locality was located in the Olifants River Mountains in 1961. The Paardeberg and Porterville localities were found recently.

THREATS. Under no immediate threat.

CONSERVATION MEASURES. *T. dicksoni* was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Clark & Dickson (1971): 256 - life history and habits.
2. Pennington (1978): 90 - adult and habits.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 89 - adult and habits.

Thestor swanepoeli Pennington INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor swanepoeli Pennington, 1971. *Novos Taxa ent.* 95:3. Type Locality: Still Bay, Cape Province.

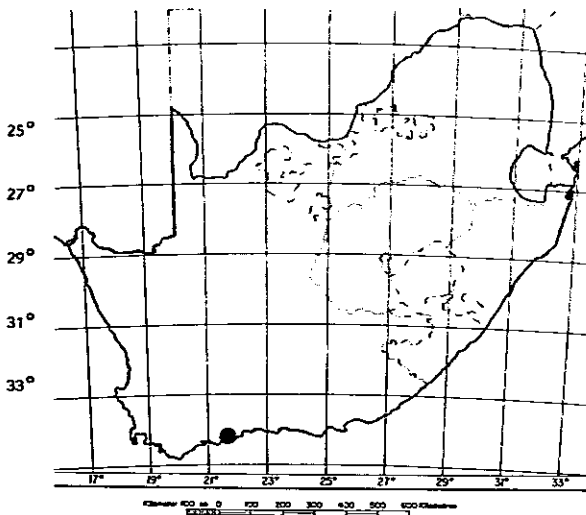
IDENTIFICATION. The male is ochreous on the upper side with a darker margin and discal black markings. The wings are rounded and the female is ochreous-yellow with the margins blackish and the markings black. The underside is darkly irrorated with grey and still darker grey medial markings.

Forewing lengths: male 16-17mm; female 19-20mm.

Life History. Unknown.

HABITAT AND ECOLOGY. Inhabits the flats and low hills. Flies among shrubs and long grass. The females are reluctant to fly. Has been recorded flying in some numbers on occasion. Recorded in November.

DISTRIBUTION. Endemic to the Western Cape, between Riversdale and Still Bay.



STATUS. Discovered by D.A. Swanepoel in November 1970.

THREATS. No known threats.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 89 - adult and habits.

Thestor montanus pictus Van Son INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

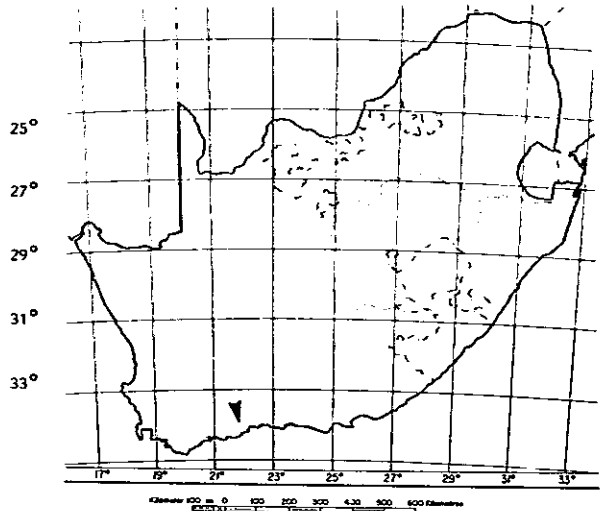
Thestor montanus pictus Van Son, 1941. *J. ent. Soc. sth. Afr.* 4:193. Type Locality: Garcia's Pass, Cape Province.

IDENTIFICATION. The male is ochreous-yellow with distinct dark brown margins and ochreous black discal markings on the upper side. The base of the forewing and the hindwing is darker golden-brown. The wings are rounded and the underside is dark irrorated grey with darker, grey medial markings.

Forewing length: male 17,5-18,5mm; female 19,5-20mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape. Only recorded from Garcia's Pass, western Riversdale district.



HABITAT AND ECOLOGY. This subspecies occurs around the summit of the pass, where specimens are widely dis-

tributed and settle on the ground. It is reluctant to take to the wing and must almost be trodden on before taking off once disturbed. Pennington records them sitting on a fire-fighter's path. It appears to be on the wing during November.

STATUS. Discovered by Dr G. van Son in November 1940. It has only rarely been recorded. Dr J.B. Ball on six trips spread over ten years has only seen three specimens on one occasion.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 90 - adult and habits.

Thestor compassbergae Quickelberge & McMaster
INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor compassbergae Quickelberge & McMaster, 1970. *Entomologist's Rec. J. Var.* 82:319. Type Locality: Compassberg, Cape Province.

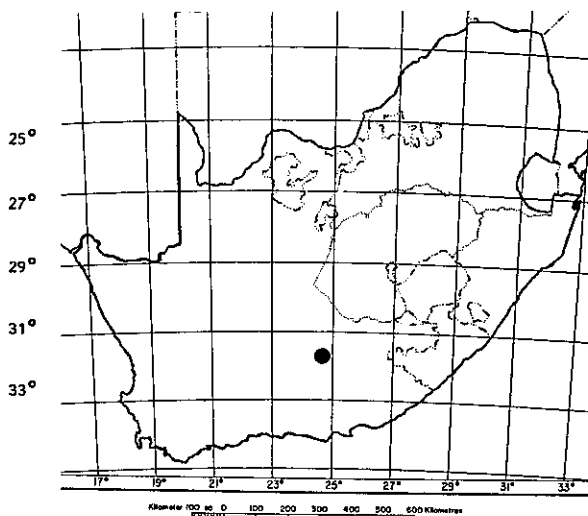
IDENTIFICATION. The upperside is light brownish-yellow at the base shading to golden-brown at the margin. There are some black markings across the middle of the wings. The LHW is grey with faint striations and dark grey central markings. The female has rounder wings. Forewing lengths: male 15,5-17,5mm; female 17-20mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Cape. From the Compassberg in the Sneeuwbergen north of New Bethesda, eastern Cape Province.

HABITAT AND ECOLOGY. It occurs in colonies of limited area mostly about some of the lower slopes and foothills of the Compassberg itself. One strong colony was located in an area of rocks, low bushes and matted tufts of course grass (*Merxmullera/Karoochloa* spp.). They have a rapid flight and their camouflaged colour makes them difficult to detect among the grass and bushes. Males were often

observed to settle on rocks, seldom on bare patches of ground. Females occur at random, but especially about grassy patches. Only recorded in December.



STATUS. First discovered by J.C. McMaster on 12 December 1967.

THREATS. None known.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 90 - adult and habits.

Thestor rossouwi Dickson INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor rossouwi Dickson, 1971. *Entomologist's Rec. J. Var.* 83:155. Type Locality: Stanford District, Cape Province.

IDENTIFICATION. The upperside is fairly deep yellow-ochreous with blackish-brown margins and prominent white checkered cilia. The basal areas are darker and the discal markings are joined and form a black band down the fore- and hind-wings. The underside is pale grey with indistinct discal markings and small dark grey striations. Differences were originally noted in the male genitalia between this species and the closely related *T. swanepoeli*

and subsequently differences were also noted in the female genitalia.

Forewing lengths: male 16,5-17,5mm; female 19,5-21mm.

Life history. Unknown.

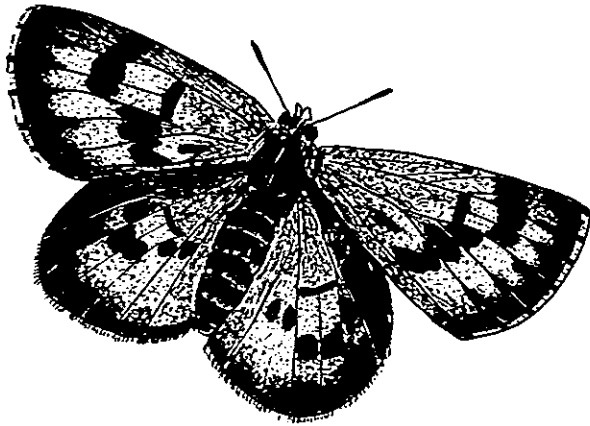
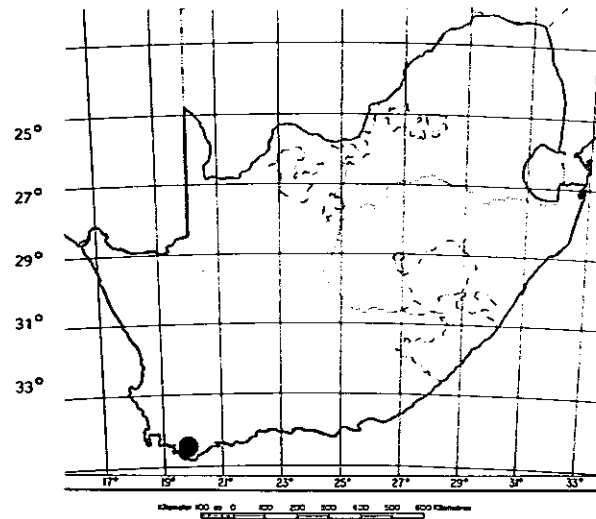


Figure 33. *Thestor rossouwi* female upperside. (Del. S.F. Henning)

HABITAT AND ECOLOGY. It inhabits the higher parts of the hills in the district. Its habits are typical of the genus, a rather swift flight when disturbed, settling quickly. It appears rather dark when in flight. The species is on the wing from October to April.

DISTRIBUTION. Endemic to the Western Cape, found near Stanford, to the east of Hermanus, to Bredasdorp.



STATUS. Discovered by D.J. Rossouw on 26 December 1970 on the farm "Platrug" near Stanford. Swanepoel and Rossouw found more colonies between the type locality and Bredasdorp during the following year. Dr J.B. Ball has also recorded it on all the rocky ridges between Stanford and Struysbaai.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 90 - adult and habits.

Thestor kaplani Dickson & Stephen RARE

LYCAENIDAE MILETINAE Tribe: LACHNOCNEMINI

Thestor kaplani Dickson & Stephen, 1971. *Entomologist's Rec. J. Var.* 83:131. Type Locality: Greyton, Cape Province.

IDENTIFICATION. The upperside is golden-yellow at the base becoming dark brown a third of the way from the base. The black discal markings are indistinct because of the dark ground colour. The LHW is grey with faint striations. The discal black markings form a sinuate band down the wing. The female has rounded wings. Forewing lengths: male 16,5-18,5mm; female 19-22mm.

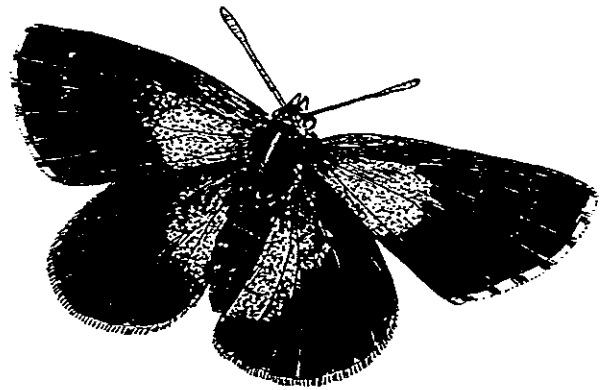
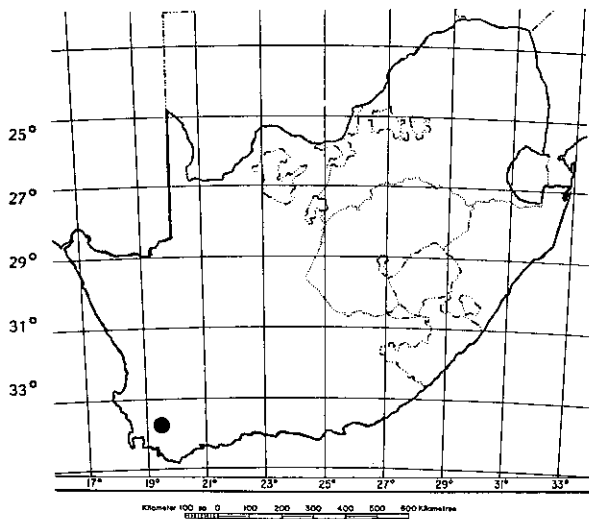


Figure 34. *Thestor kaplani* male upperside. (Del. S.F. Henning)

Life History. Unknown.

DISTRIBUTION. Rivier Zonderend Mountains, near Greyton and Genadendal range of mountains, western Cape Province.



HABITAT AND ECOLOGY. Their location is a valley between peaks on patches of white stones or white sand. Only known habitat is the north-west facing slope at an altitude of almost 1000m, stretching for almost 1km. They have the typical easy low flight of the *Thestors* and are easily distinguishable in flight as a whitish looking insect due to the light underside. The males settle frequently, occupying an area some 300 metres in diameter. They seem to favour flat, sandy areas sparsely vegetated, where they settle on ground which matches closely the whitish colour of the underside of their wings. The flight period is December and January.

STATUS. Discovered by Dr J. Kaplan on 25 December 1970 on the Greyton and Genadendal Mountains.

THREATS. None known.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 90 - adult and habits.

***Thestor pringlei* Dickson**

RARE

LYCAENIDAE

MILETINAE

Tribe: LACHNOCNEMINI

Thestor pringlei Dickson, 1976. *Entomologist's Rec. J. Var.* 88:309. Type Locality: Sutherland, Cape Province.

IDENTIFICATION. The upperside has a golden-ochre base becoming dark golden-brown from the middle of the wings. There are discal black markings on the fore- and hindwings. The LHW is pale grey with faint dark edged discal markings. The female has the basal gold colour reaching the broad margin.

Forewing lengths: male 15,5-18mm; female 18,5-19,5mm.

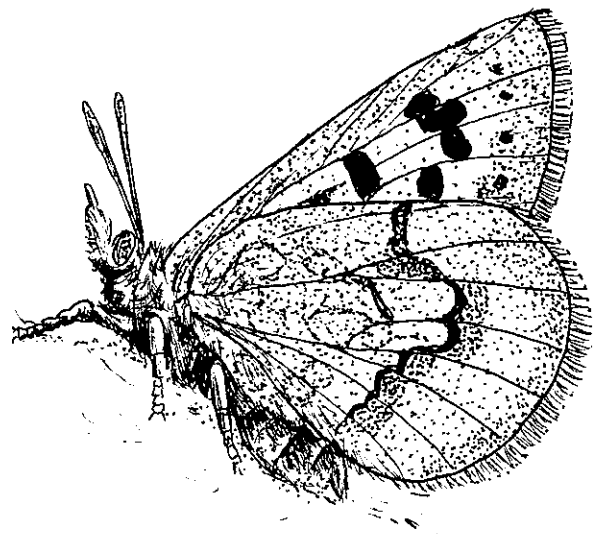
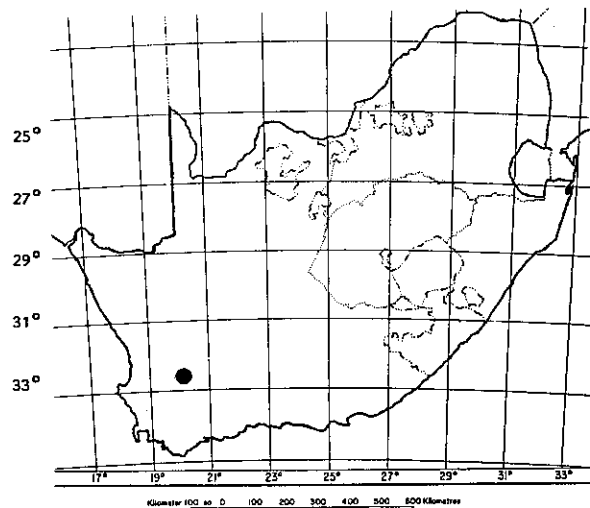


Figure 35. *Thestor pringlei* male underside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape. Occurs in the Sutherland district, on the Swaarweeberg and elsewhere on the Roggeveld Escarpment.



HABITAT AND ECOLOGY. Recorded around high elevation macchia on rocky slopes below the peaks. Can sometimes be seen in numbers, thirty or forty specimens seen in an area of one hectare. Its flight is fast and direct. The males establish small territories a couple of metres across, usually on a bare patch of gravel among the bushes, which they vigorously defend against intruders. They fly in wide circles eventually returning to the original spot. Their cryptic undersides render them inconspicuous as they settle on the ground amongst the gravel. The speed at which they fly in and around the small bushes make their movements very difficult to follow. They were also seen to settle on the bushes and to feed at flowers. The females seem to fly about at random looking for places to lay their eggs. The flight period is apparently limited, the species so far only being recorded during December.

STATUS. First recorded by E. Pringle on 13 December 1974. The first examples were recorded near Sutherland, others were recorded two days later at some considerable distance to the south-east. The species has been recorded in the area regularly since then.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 90 - adult and habits.

Thestor brachycerus (Trimen) INDETERMINATE

LYCAENIDAE MILETINAE Tribe: LACHNOCNEMINI

Arrugia brachycera Trimen, 1883. *Trans. ent. Soc. Lond.* 1883:353. Type Locality: Knysna, Cape Province.

IDENTIFICATION. A dark greyish-brown species with black discal markings on the upperside. There is a distinct white patch on the middle of the forewing near the costa. On the underside there are distinct black sagittate submarginal markings on both fore- and hindwing. The underside is pale grey with large distinct discal markings. The female has more rounded wings with larger white markings.

Forewing lengths: male 13,5-17mm; female 14,5-18,5mm.

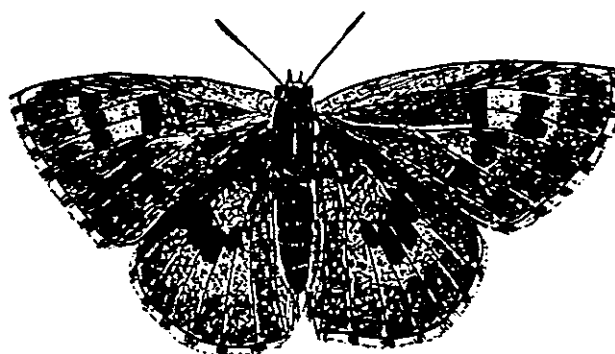


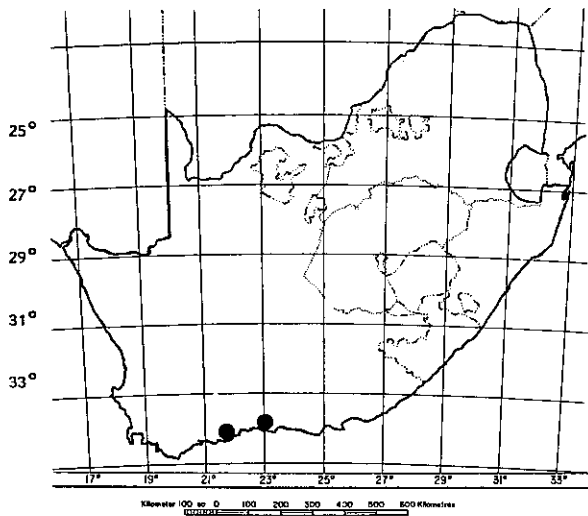
Figure 36. *Thestor brachycerus* male upperside. (Del. S.F. Henning)

Life history. The egg is white, round and raised on one side. They are 0,6mm in diameter and 0,35mm high. The surface pattern consists of a network of very fine ridges forming elongated cells. On emergence the larva is about 1mm long, white with pale straw-coloured longitudinal streaks. The head is dark brown while the neck-shield and anal-plate are black. The remainder of the life history is unknown^{2,3}.

HABITAT AND ECOLOGY. Inhabits low sandy hills with bushes and grassy patches. Settles on the bushes, grass or on the ground. Its flight is not swift and they settle quickly after being disturbed. The males fly in wide circles before returning to their original spot. After being disturbed it will settle again quite quickly. Pennington³ records it in the vicinity of limestone outcrops, and 'near the white stones, which catch the eye among the shrubs and trees, in numerous places'. Swanepoel⁴ says, 'each specimen in his particular spot for long periods. They love stony ground along hillsides facing west or north.' The female is slow and does not fly readily. The species is on the wing from October to February. The early stages are closely associated with ants. C.G.C. Dickson observed a female laying a single egg on the shrub *Gymnosporia* sp. (Celastraceae); however, the larvae failed to feed on it. It is therefore assumed that this species is carnivorous, possibly feeding on ant-brood as apparently do some of the other species of this genus.

STATUS. Trimen says that all the specimens he saw came from Knysna. He comments about their habits that, 'they settle on the bare ground, and I used often to find them sitting on the heaped-up dust of the waggon-roads, to which they would return after being roused by the passing passenger or vehicle.' C.G.C. Dickson is of the opinion that the more westerly specimens are not quite the same as the nominate Knysna specimens.

DISTRIBUTION. Endemic to the Cape from Knysna to Stilbay.



butterfly colonies in this area should be monitored to ensure their continued safety.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X		X	X	X

REFERENCES.

1. Clark & Dickson (1971): 257 - life history (in part).
2. Murray (1935): 102 - adult and habits.
3. Pennington (1978): 91 - adult and habits.
4. Swanepoel (1953): 153 - adult and habits.

THREATS. No known threats. Many areas along the southern Cape coast and adjacent interior are being developed for housing and recreation. This could give rise to possible habitat destruction in the future. In particular, the area around Knysna is already well populated and the

Thestor yildizae Koçak

RARE

LYCAENIDAE MILETINAE Tribe: LACHNOCNEMINI

Thestor obscurus Van Son, 1941. *J. ent. Soc. Sth. Afr.* 4:194

Thestor yildizae Koçak, 1983. *Priamus* 3 (1):39 Type Locality: Table Mountain, Cape Town.

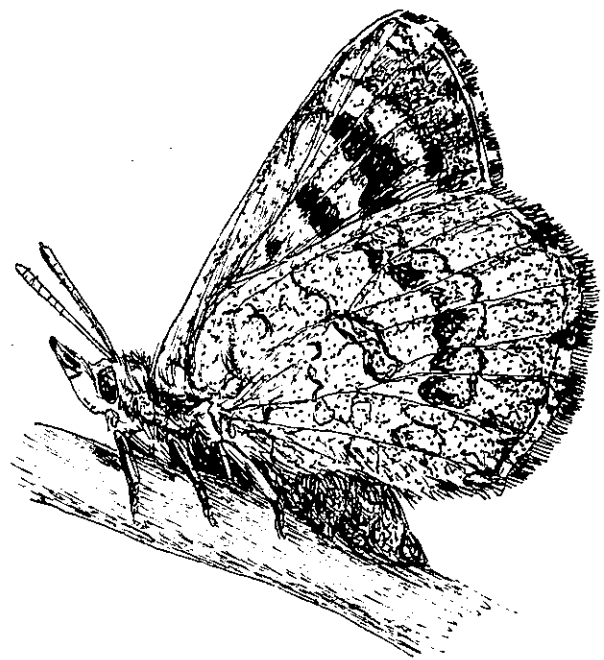
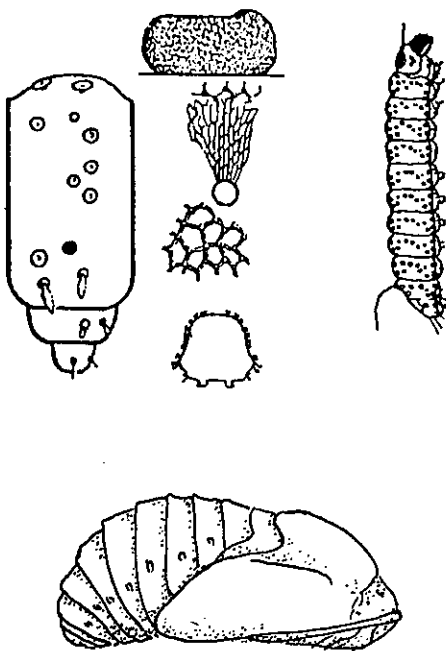
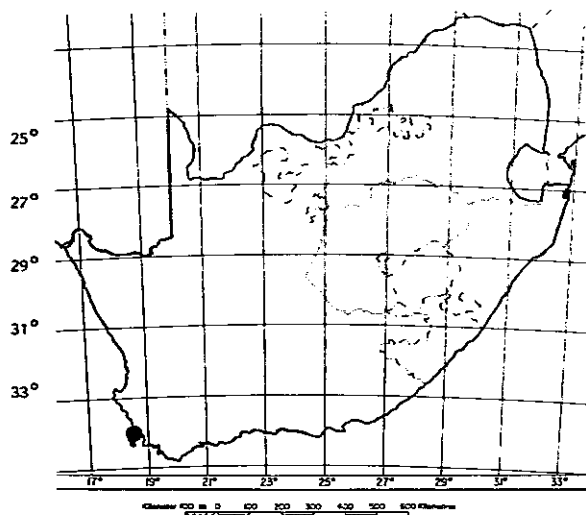


Figure 37. *Thestor yildizae* egg, first instar larva, enlargement of seventh segment, cross section (top left) (after Clark & Dickson, 1956); pupa (bottom left); male underside (right). (Del. S.F.Henning)

IDENTIFICATION. The upperside is dark brown with black discal markings. The LHW is grey with dark grey striations and a broad band of dark grey markings down the middle of the wing. The female has rounder forewings. Forewing lengths: male 12,5-16mm; female 14-18,5mm.

Life history. Egg 0,6mm in diameter by 0,35mm high. Colour white. Pattern on sides consists of mainly hexagonal cells with minute spheres at the intersections of the fine ridges, but on the top of the egg the pattern changes to elongated cells and the spheres are lost². Larva onisciform. On emergence the larvae are 1mm long, white with ochreous coloured longitudinal streaks or bands. Final instar larva is pale creamy-fawn with 10 pale amber coloured round plates mid dorsally on segments 2-11; laterally are similar plates, ie. three on each side of segments 2 and 3, four on segments 4 to 10 and two on segment 11. Scattered over the entire upper surface are very short, golden-brown star shaped setae. Dorsally on segments 2 to 10 are a pair of pale spine-shaped setae on dark brown bases. The larva is 12mm in length. The head is light orange-brown. When resting, the head is withdrawn into the first segment. The pupa is at first yellowish-brown, becoming orange brown as development proceeds. Its length is 11-12mm. The advanced stages of this insect were discovered by researcher Dr A.J.M. Claassens.

DISTRIBUTION. Endemic to the Western Cape. Its distribution is restricted to the Cape Peninsula; Cape Town, Table Mountain, Llandudno, Steenberg, Muizenberg, St James and Kalk Bay Mountains, Vlakkenberg and Red Hill.



HABITAT AND ECOLOGY. Found on mountain slopes among the rocks and shrubs. Its flight is very fast, in wide circles, but less zigzagging than that of the blues. Nor-

mally it flies in a leisurely fashion about the grass and shrubs. The males are territorial. They select certain spots which they will defend from other males. They settle on grass stems, low bushes or on the ground. The female is quite scarce. She flies at random as she searches for the pheromone trails of the host ant *Anoplolepis custodiens* to lay her eggs near, or rests on the ground. Eggs are usually laid singly. The larva does not appear to feed on plants and is possibly carnivorous on host ant (*Anoplolepis custodiens*). When placed near an ants' nest, the larvae soon crawl about, often lifting their heads and sometimes resting while keeping their heads high up. Some of the smallest workers soon find the larvae and after 'greeting' them by touching and stroking them with their antennae, they were picked up and carried into the nest. The manner in which the larvae were picked up was intriguing. The larvae of *T. yildizae* obviously tried to seek contact with the mouth parts of the ant in attendance. Once contact was found the ant grabbed the larva by its head-end and it was carried away with its body hanging straight down from the ant's mouth. Once the larvae were in the nest, the ants were not observed to pay any attention to them. The larvae were also not seen to feed¹. The larvae pupate within the tunnels of the host ant's nest. The flight period is late November to February.

STATUS. Discovered by R. Trimen on the Peninsula. See list of localities under distribution. Koçak (1983), due to a technicality, changed the name from *obscurus* to *yildizae*.

THREATS. Fires and habitat destruction due to urbanisation of the Peninsula are a serious threat to colonies of this species.

CONSERVATION MEASURES. Probably safe within the Table Mountain Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
				X	X

REFERENCES.

1. Claassens & Dickson (1980): 49,136,138 - life history and habitats.
2. Clark & Dickson (1971): 258 - life history (in part) and habits.
3. Pennington (1978): 91 adult and habits.
4. Swanepoel (1953): 155 - adult and habits.

Thestor tempe Pennington RARE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor tempe Pennington, 1962. *J. ent. Soc. sth. Afr.* 25(2):282.
Type Locality: Seven Weeks Poort, Cape Province.

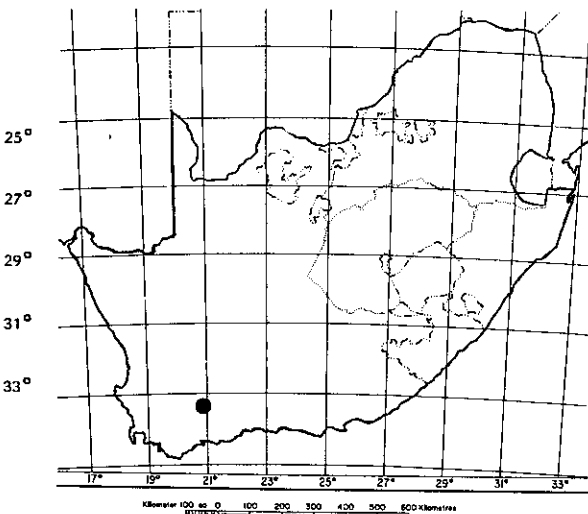
IDENTIFICATION. A dark brown species with a pale area beyond the end of the cell. The LFW is ochreous-grey with black spots, there is an additional black spot in the cell and the lower spots in the discal band are more basad than in the closely related *T. petra* Pennington. The LHW is pale grey with curved discal markings. Differences between this species and *T. petra* were also noted in the genitalia.

Forewing lengths: male 15-17mm; female 19-20mm.

Life history. Unknown.

HABITAT AND ECOLOGY. This species is found on the higher slopes and in the gulleys of the Klein Swartberg Mountains and on the summits of the Elandsberg and Rooiberg. It was originally recorded in a rocky gully on the northern slopes of the Klein Swartberg Mountains. The males are territorial. They were observed resting on the ground on the flower-strewn slopes. The species has been recorded in some numbers on the high northern slopes of the Klein Swartberg by the Pringles. The species flies from October to January.

DISTRIBUTION. Endemic to the Western Cape, from the Klein Swartberg and the nearby Elandsberg and Rooiberg Mountains.



STATUS. Discovered by K.M. Pennington and his wife during December 1957 at the southern end of the Seven

Weeks Poort in the Klein Swartberg Mountains. Found again in January 1970 by R.D. Stephen at the type locality.

THREATS. No known threats. The localities for this species are all in isolated high mountain areas where man is unlikely to have any effect, for many years.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 91 - adult and habits.

Thestor stepheni Swanepoel INDETERMINATE

LYCAENIDAE MILETINAE Tribe:LACHNOCNEMINI

Thestor stepheni Swanepoel, 1968. *Entomologist's Rec. J. Var.* 80:54. Type Locality: Boesmansklouf Pass, Cape Province.

IDENTIFICATION. *T. stepheni* has a very dark brown upperside with black medial markings and pale brown androconia scales along the veins in the shape of a three pronged fork. The underside is dark grey with darker grey striations and central markings. The distinguishing characters are the smaller LFW spots which are placed basad, the smaller sagittate markings on the LHW and the linear shape of the discocellular mark.

Forewing lengths: male 17mm.

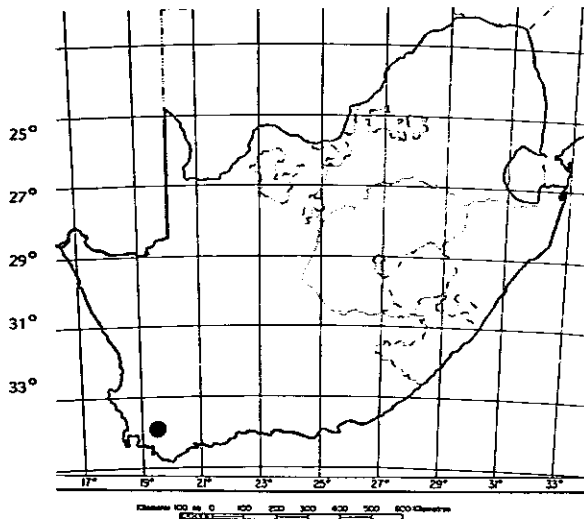
Life history. Unknown.

DISTRIBUTION. Boesmansklouf Pass in the Robertson district, the Klipberg and the Rivier Zonderend Mountains behind Greyton, Western Cape Province.

HABITAT AND ECOLOGY. Rocky mountain sides, on the lower ridges of the mountains. The recorded flight period is December.

STATUS. First discovered by R.D. Stephen on 16 December 1965 on the Boesmansklouf Pass in the Robertson district, Cape Province. Also recorded 12km to the west in the Klipberg and on the Rivier Zonderend Mountains above Greyton on the south side of the range.

THREATS. No known threats.



CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 91 - adult and habits.

Subfamily THECLINAE

A large subfamily divided into several tribes. The hindwing is sometimes tailless but usually with 1, 2, or 3 and very rarely 4 tails on each hindwing. On the underside the normal lycaenid pattern is usually discernable.

Life history: Egg usually dome-shaped, often flattened on top. The larvae are most often, more or less, onisciform, but sometimes prominently shouldered or waisted. This shape is often modified as in the tribe Aphnaeini the larvae are long and parallel-sided. Both honey-glands and tubercles are usually present. The pupae are normally girdled but in a few tribes may only be attached by the cremaster. The last pupal segment is often dilated in the form of a horse's hoof.

Important tribes of the Theclinae in South Africa are the Hypolycaenini, Iolaini, Deudorigini and Aphnaeini.

Tribe HYPOLYCAENINI

Hindwing usually with two tails.

Life history: Larvae more or less onisciform. The pupae are girdled, except sometimes when sheltered or reclining (Eliot, 1973).

Hypolycaena lochmophila Tite INDETERMINATE

LYCAENIDAE THECLINAE Tribe: HYPOLYCAENINI

Hypolycaena lochmophila Tite, 1967. *Entomologist* 1967:166.
Type Locality: Hluhluwe, Zululand.

IDENTIFICATION. The male has a dark purplish-blue upperside and a grey underside with reddish-brown lines. The female is dark brown on the upperside with a whitish-grey patch on the forewing. This species can also be identified by the genitalia.

Forewing lengths: male 16-17,5mm; female 16-18mm.

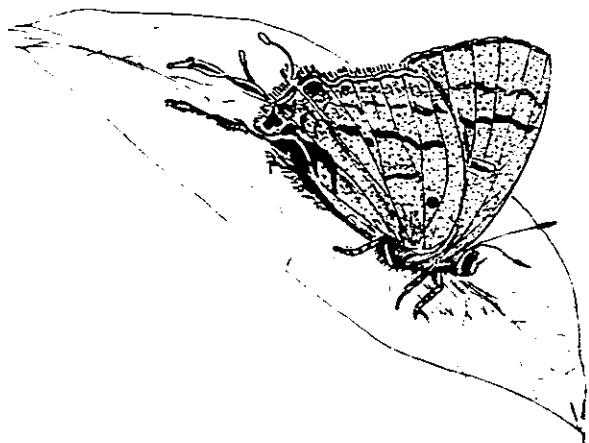


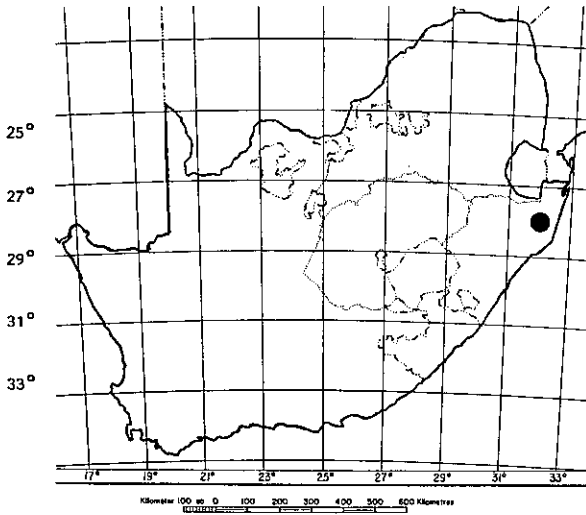
Figure 38. *Hypolycaena lochmophila* male underside. (Del. S.F. Henning).

Life history. The larva is green and has been recorded feeding on the flowers of *Deinbollia oblongifolia* (E. Mey. ex Arn.) Radlk. (Sapindaceae).

DISTRIBUTION. A marginal species occurring in northern Natal. Also from Zimbabwe, Moçambique and MalaWi.

HABITAT AND ECOLOGY. Usually flies in thick forest, in the shade of large trees. It keeps inside the bush, settles in patches of sunlight and seldom emerges from the cover of the forest. Pennington records it settling on orchids growing on tree trunks. The species flies throughout the year but is scarcer during the winter

months. It appears on the wing at about 10h00.



STATUS. K.M. Pennington first recognised *H. lochmophila* as being distinct in 1965, having first collected specimens in January 1926.

THREATS. The extensive destruction of the coastal and riverine forest in northern Natal has restricted the distribution of this species to various remnant patches of bush, except along the shore of False Bay where large patches of bush still exist.

CONSERVATION MEASURES. The species is, however, found in the False Bay Park and in the Manguzi Forest.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X		X	X

REFERENCES.

1. Pennington (1978): 95 - adult and habits.
2. Swanepoel (1953): 181 - adult and habits. (as *H. pachalica* Butler).

Tribe IOLAINI

Hindwing always with two tails. Secondary sexual characters are usually present.

Life History: The larvae are waisted and shouldered around segments 5 and 6. They always feed on Loranthaceae. The pupae are attached by the cremaster without a girdle, usually more or less horizontally or head downwards. The last pupal segment is dilated in the form of a horse's hoof (Eliot, 1973).

Iolaus (Pseudiolaus) lulua Riley.

RARE

LYCAENIDAE

THECLINAE

Tribe: IOLAINI

Pseudiolaus poultoni lulua Riley, 1944. *Entomologist* 77:28. Type Locality: Hluhluwe, Zululand.

IDENTIFICATION. A distinct species, the upperside is dark blue with black margins and white patches and an orange submarginal mark on the hindwing. The underside is white with a distinctive pattern of thin red lines. Forewing lengths: male 17,5-18mm; female 17-19mm.

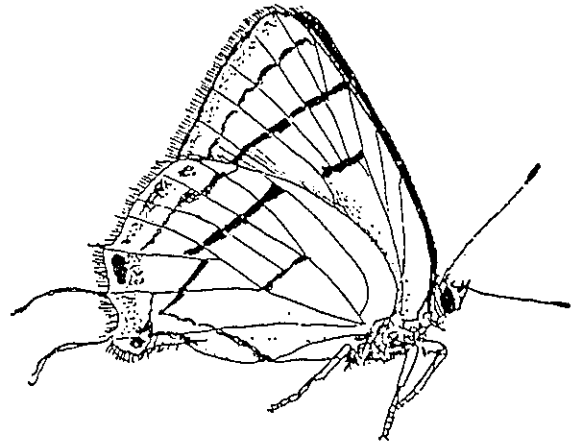
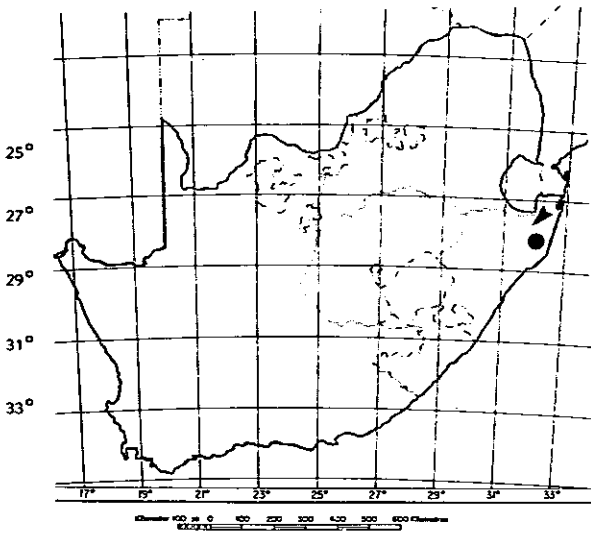


Figure 39. *Iolaus (P.) lulua* male underside. (Del. S.F.Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. Inhabits thick coastal and riverine bush. They fly about the edges of the bush, alighting on trees about five metres above the ground. They favour the edge of False Bay where most of the records have originated. The white flowers which abound in the steep-banked gullies around the shore of the bay has attracted a number of specimens. Pennington recorded specimens some kilometres away from the thick bush at False Bay, finding them along a stream in the foothills of the Lebombo Hills. It has once been recorded on a hilltop and once at a light-trap at 23h00 on the Mkuze River. Most records refer to specimens feeding on flowers, although Swanepoel says they never feed for long on one flower but search for fresh ones every now and then. The species seems to be very alert and will dart off its perch at the slightest provocation. They have not been recorded exhibiting strong territorial behaviour, perhaps they establish their territories around the tops of tall trees in the thick bush thus being difficult to detect. Records indicate that the species flies from September to April, with the best time being October.

DISTRIBUTION. Endemic to northern Natal (Zululand), Hluhluwe, False Bay and Lebombo Hills.



STATUS. *I. lulus* was discovered by K.M. Pennington on 21 December 1933 at False Bay, the first female was also found by Pennington on 15 December 1939. Recent records are few and far between but the species is still to be seen at False Bay.

THREATS. Much of the thick bush in the low lying areas of northern Natal has been destroyed. Those remnants along the False Bay shores and along the foothills of the Lebombo hills must still be thoroughly investigated to establish the existing distribution of this butterfly.

CONSERVATION MEASURES. Still found in False Bay Park. Therefore it should not require immediate action. Should any viable habitats be found outside the park, these must be brought to the attention of the conservation authorities for consideration.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Pennington (1978): 97 - adult and habits.
2. Swanepoel (1953): 179 - adult and habits.

Iolus (Epamera) aphnaeoides Trimen RARE

LYCAENIDAE THECLINAE Tribe: IOLAINI

Iolus aphnaeoides Trimen, 1873. *Trans. ent. Soc. Lond.* 1873: 110. Type Locality: Grahamstown, Eastern Cape Province.

IDENTIFICATION. The upperside has a black apex and margins with blue at the centre; it is distinguished by a black transverse band on the hindwing. The underside has broad reddish-orange bands margined with black on a white ground colour. The female is similar but has white patches on the more extensive basal blue.

Forewing lengths: male 14,5-17mm; female 15-17mm.

Life history. The egg is 0,8mm in diameter, 0,4mm in height and hatches in 8-10 days. It is white in colour and is circular and domed, though flattened ventrally. The upper surface is covered with a number of hexagonal indentations, forming a complicated embossed pattern, reminiscent of that of a golf ball. In the first instar the larva is greenish yellow with a disjoint pale red dorsal stripe and long black setae on each segment. In the third instar the larva takes on a distinctive shape, the thoracic segments having a humped shape which tapers down over the abdominal segments. The larva at this stage is smooth, without prominent setae and is either pale green, yellow or yellow mottled with red. At the end of the fourth instar the larva stops feeding and changes colour to a mottled grey prior to pupation. The final instar attains a length of about 16mm. The pupa is 10mm long, grey mottled with green and dorsal protuberances. (E. Pringle, pers. comm.).

HABITAT AND ECOLOGY. A montane forest species reaching the coast at the Emboyti Forest in Transkei. The imago is very rarely seen probably because the species inhabits the canopy of the forest and seldom ventures down. The species has been recorded in a number of localities by virtue of the early stages being relatively easy to find on the foodplant, *Tapinanthus kraussianus* (Meisn.) v. Tieghem (Loranthaceae). E. Pringle (pers. comm.), records the following: *I. (E.) aphnaeoides* spends most of its life in the pupal stage, normally lying dormant in the pupa for 10-11 months. The butterfly usually emerges in late spring, October or November. Its date of emergence coincides with the two month period (November and December) during which its foodplant comes into flower. The eggs are normally laid singly on the flowers, rarely on the leaves. The larva feeds almost exclusively on the flowers, although occasionally, and for short periods, may feed off the leaves as well. In the initial stages the larva feeds by gauging out a furrow in the flower. In later stages it feeds by eating the flower from the tip down. This species has never been known to hibernate in the larval stage, and there is very little variation in the duration of this stage. Larvae have not been recorded later than mid-January, by which time the foodplant has normally ceased to flower. This species has only a single brood each year and a limited period of emergence. No larval or pupal parasites have been re-

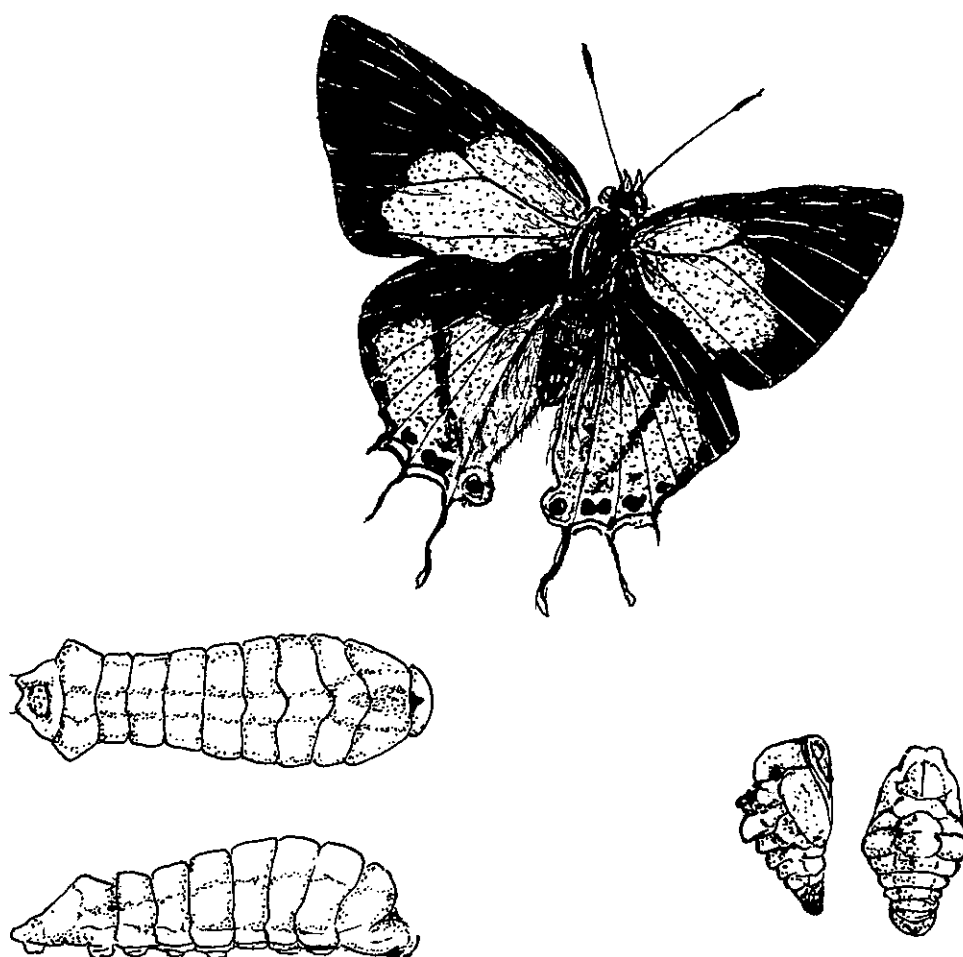


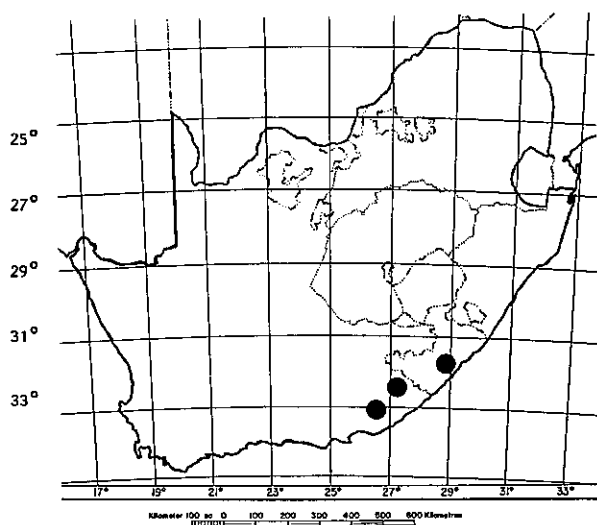
Figure 40. *Iolus (E.) aphnaeoides* male upperside (top); final instar larva, top and side views (bottom left); pupa, top and side views (bottom right). (Del. S.F.Henning)

corded despite a large number of specimens being bred from larvae collected in the field. The species therefore apparently has a very low parasitic rate. It usually pupates on the bark of the tree on which its foodplant grows. The pupa is cryptic, resembling a knot of wood.

DISTRIBUTION. Endemic to the Eastern Cape and the Transkei coast.

STATUS. *I. aphnaeoides* first recorded by E. James near Grahamstown in 1870. Rediscovered by C.D. Quickelberge near Adelaide in November 1954. The species has been bred from a number of localities since then.

THREATS. No known threats. The montane forests in the areas inhabited by this species are still relatively safe although it is advisable for lepidopterists in the Eastern Cape to monitor the known localities.



CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X		

REFERENCES.

1. Pennington (1978): 99 - adult and habits.
2. Swanepoel (1953): 176 - adult and habits.

Iolaus (Epamera) diametra natalica Vári RARE

LYCAENIDAE THECLINAE Tribe: IOLAINI

Iolaus (Epamera) diametra natalica Vári, 1976. *Ann. Transv. Mus.* 30:132. Type locality: Hluhluwe, Zululand.

IDENTIFICATION. Similar to *I.(E.) apnaeoides* but without the fully developed transverse bar on the UHW, particularly the male. Both sexes have reduced blue areas and the female has darkened veins. The underside stripes are orange and the thin black line on the inner margin is doubled.

Forewing lengths: male 16,5-17,5mm; female 16,5-18mm.

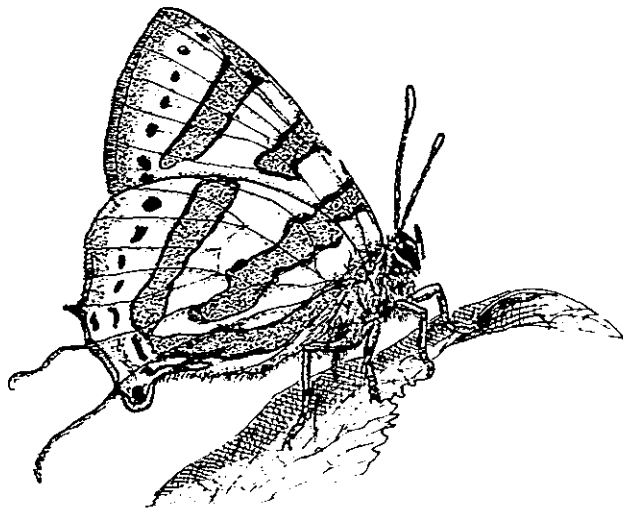
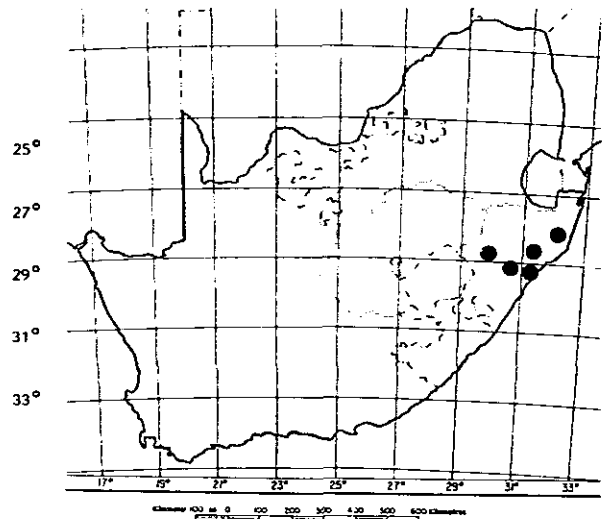


Figure 41. *Iolaus (E.) diametra natalica* male underside. (Del.S.F. Henning)

Life history. The eggs are white with a fine ribbing tracery and are 0,6mm in diameter and 0,5mm high. The first in-

star larva is 0,8mm long on hatching and is creamy-white with long black setae and a reddish-brown dorsal stripe. In the third instar the larva develops a hump on the thoracic segments tapering down along the abdominal segments. The larva is variable in colour being pale yellow to green, with or without a dorsal stripe, or yellowish green mottled with reddish-brown lateral stripes. The final (fourth) instar is equally as variable, some being pale green with a darker green dorsal stripe to yellow with a red dorsal stripe, others are the same as the third instar and a uniform reddish-brown has also been recorded. The larva stops eating a couple of days before pupation and takes on a mottled grey colour. The pupa is 9-10 mm long and is secured by the cremastral hooks. The colour is varied to match the surroundings, from dull cream to grey mottled with off-white, bluish-green or dappled brown and cream.

DISTRIBUTION. Endemic to northern Natal. Records include Hluhluwe, False Bay, Kosi Bay, Eshowe, Tugela River, Black Rock, Kranskop, Weenen, Estcourt and Muden.



HABITAT AND ECOLOGY. Thick coastal and riverine forest is the home of this rare species. It is seldom seen, but early lepidopterists recorded it at False Bay in some numbers and it can still be found in the False Bay Park. A couple of well established colonies were found just north of Eshowe in somewhat drier bush. The species does not seem to fly around the treetops but keeps to the lower bushes often settling in the shade or on the grass under the trees. When disturbed its flight is swift and elusive but it often returns to its favourite spot. Swanepoel records, 'It usually flutters slowly about a low bush or tree, settling on the leaves or twigs to rest. At times it alights on the thicker branches, where the yellow and black marks on the underside of its wings lends it a certain amount of protection. You may also see the butterfly playing about

the highest branches of a tree in company with other *Iolais*, or alone. More usually, however, it frequents low places, sometimes quite near the ground, and in the deepest shade of the forest. Specimens are often found on flowers. Particular mention must be made of trees with small clusters of white flowers which occurs at False Bay and the flowers of its foodplant *Actinanthella wyliei* (Sprague) Wiens (Loranthaceae). The females are sometimes seen fluttering around the foodplant laying eggs singly here and there on the leaves or flowers. The first instar feeds by eating a furrow into the flower. In the later instars the larva eats the entire flower from the tip. The larva pupates on a twig or branch on which it has spun a pad of silk to which it is attached by the cremastral hooks. The pupa lies flat against the substrate and has short protuberances on the dorsum of the abdominal segments. It is very well camouflaged resembling a knot of wood. *I. (E.) diametra natalica* has been recorded from May to January, but the best time appears to be October.

STATUS. The first record from False Bay was by K.M. Pennington in December 1939. The earliest record is by J.M. Hutchinson who collected a specimen from Weenen in 1896. The next available record was by G. Burn from the Tugela in 1903. The significance of this population was only recognised by Vári in the early 1970's, as prior to this date it had been considered to be *I. (E.) aphnaeoides*. He noted some distinctive differences and on examination of related species from East Africa concluded that this population was a subspecies of *I. (E.) diametra* Karsh.

THREATS. No known threats. Much of the Zululand and northern Natal bush has been destroyed for farming activities. This species does, however, inhabit a relatively wide area and remnant patches of bush containing populations of this species are not currently in danger. Monitoring of these areas must continue and any threats must be reported.

CONSERVATION MEASURES. The species is found in the False Bay Park and at Kosi Bay so is currently adequately protected.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X		

REFERENCES.

1. Pennington (1978): 99 - adult and habits.

Tribe DEUDORIGINI

Hindwing with one tail except in the genus *Capys*.

Life history: Larvae more or less onisciform. The pupae are girdled and attached by the cremastral hooks (Eliot, 1973).

Capys penningtoni Riley RARE

LYCAENIDAE THECLINAE Tribe:DEUDORIGINI

Capys penningtoni Riley, 1932. *Ann. Mag. nat. Hist.* (10)10:142.
Type locality: Inhlozane, Natal.

IDENTIFICATION. The uppersides of both male and female are orange with a narrow dark grey margin. The underside is grey with dark grey to reddish-grey annulets. The outer margin of the male forewing is evenly rounded which distinguishes it from the common *C. disjunctus* Trimen.

Forewing lengths: male 20-21mm; female 22,5-25mm.

Life history. The eggs are white with a fine ribbing tracery. The larvae are very slug-like in shape and are usually pale ochreous-brown in colour. There are a number of short, pointed setae all over the body and forming a fringe around the outer portion. The honey-gland is present but the tubercles are absent. The final instar larva attains a length of 25mm. The short, stout pupa is about 14mm long and is brown with faint black flecks.

HABITAT AND ECOLOGY. Occurs among the proteas on mountain slopes. The foodplant is *Protea caffra* Meisner (Proteaceae). The males usually establish territories among the proteas a short way down from the summit. Here they defend their territories against other males. Their flight is very fast and they will dart off a bush at speed and attack an intruding male with gusto, and the pair will whirl around each other up into the air or off across the hillside. The winner will return to the perch to await further combat. The males will also patrol their territory flying swiftly in wide circles and zigzagging among the proteas. The odd specimen can also be found on the peaks and as there are usually no proteas on the peaks the specimens will sit on rocks or on grass. The females usually fly about the lower slopes looking for suitable flower heads on which to lay their eggs, which are laid singly on the buds. The newly hatched larva burrows into the base of the protea head and will usually spend its entire larval stage feeding on the base of one head. The larva has a thick shield on the anal segment which protects the larva from attack while it is at the entrance

hole, through which it defaecates. The larva goes into diapause during the winter months and in early spring it will bore a suitably large hole through the base of the flower head to allow the butterfly to escape once it has emerged. The larva pupates within the chamber in the base of the flower head. It is secured to a silken girdle around the middle. The larva and pupa are often atten-

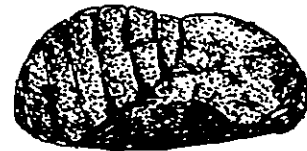
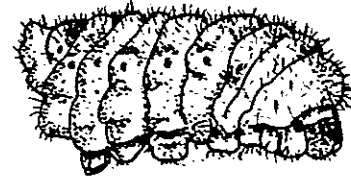
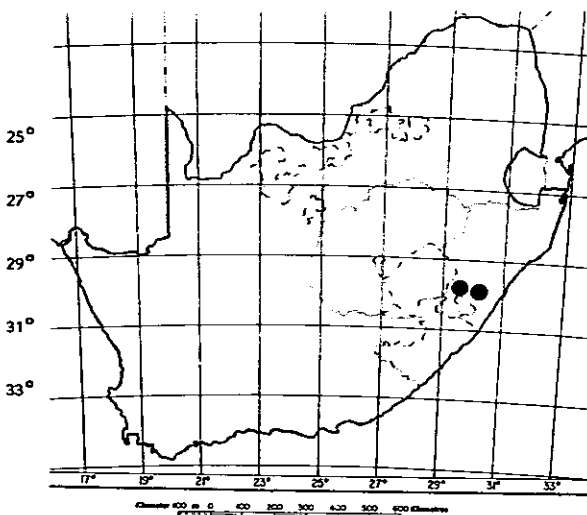


Figure 42. *Capys penningtoni* freshly emerged male on *Protea* head (left); final instar larva (top right); pupa (bottom right). (Def. S.F.Henning)

ded by small ants which move in and out through the entrance hole. The pupa hatches after two or three weeks. *Capys penningtoni* only flies in spring and is single brooded unlike the other species of the genus. It has been recorded from July to early November.

STATUS. First found by Archdeacon G.E. Pennington in July 1929 when he found a pupa of this species, which later hatched into a male. The species was subsequently found in the same neighbourhood by I. Morphew later the same year. Further localities were found over the years and the species is now known to extend eastwards to as far as Loteni in the foothills of the Drakensberg.



DISTRIBUTION. Endemic to the Natal midlands and adjacent foothills of the Drakensberg.

THREATS. The destruction of the proteas on which it feeds is an ever present threat. Fires and unusual weather conditions, such as snow, can have adverse effects on the proteas and consequently on the butterflies. The species is very local even though its foodplant is widespread. The particular patches inhabited by this species should be monitored and any imminent threats investigated.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X		X

REFERENCES.

1. Henning & Henning (1988): - adult, life history and habits.
2. Murray (1935): 99 - adult.
3. Pennington (1946): 22 - life history.
4. Pennington (1978): 107 - adult and habits.
5. Swanepoel (1953): 158 - adult and habits.

Tribe APHNAEINI

Hindwing occasionally tailless, usually with one or two tails. Underside nearly always bearing metallic silver,

golden or nacreus spots or stripes on the forewing and often on the hindwing as well.

Life history: The larvae are rather long and parallel-sided, with a permanently raised basal ring sheathing the tubercles on the 11th segment. They are usually closely associated with ants, sheltering in the ants' nests or being attended by them on the foodplants. The pupae are very rarely girdled, but are often enclosed in some form of shelter or reclining (Eliot, 1973). Two major genera in South Africa are the *Poecilmitis* and *Aloeides*.

Phasis thero cedarbergae Dickson & Wykeham RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis thero cedarbergae Dickson and Wykeham, 1974. *Entomologist's Rec. J. Var.* 86:177. Type Locality: Cedarberg, Capé Province.

IDENTIFICATION. A large dark brown lycaenid with sharply angled wings and short thick tails. The upperside is dark brown with large orange-red spots. The LHW is mottled greyish-brown with a large silvery-white number "1" diagonally across it and other small markings. Differs from nominate *P. thero* (Linnaeus) by its more "square" forewings and other differences.

Forewing lengths: male 15,5-23mm; female 19-24mm.

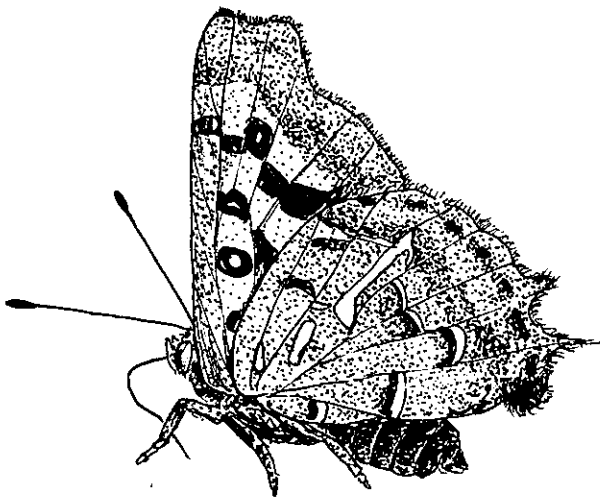
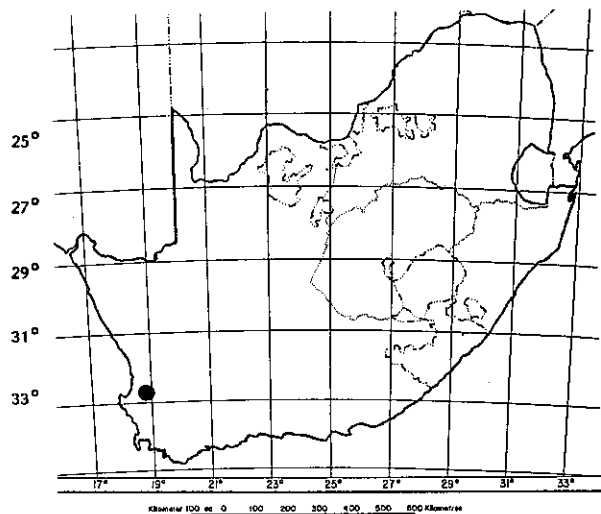


Figure 43. *Phasis thero cedarbergae* male underside. (Del.S.F.Henning)

Life history. Unknown. The life history of the nominate subspecies is as follows: The eggs are cream [coloured] when first laid changing to purplish-brown, 1,25mm in diameter and 0,9mm high. The eggs hatch after 10-14 days. The larvae is 2,5 mm long on emergence and is somewhat flattened particularly towards the anal end. It is greyish-white with broken reddish-brown longitudinal lines, brown dorsally at either end and a black head and neck shield. The final instar larva attains a length of about

30mm. The body is pale greyish-green to bluish-green with a smoky-grey dorsal line and some salmon pink and pale orange markings. The head is brown, tubercles and a honey-gland are present. The pupa is rather slender, 16-20mm long, and purplish-brown in colour¹.

DISTRIBUTION. Endemic to the Cedarberg Mountains in the Western Cape.



HABITAT AND ECOLOGY. Occurs along high elevation rivers where its foodplant, a large species of *Rhus* (Anacardiaceae) grows. The species flies vigorously in an undulating manner along the *Rhus* bushes, often relatively high above the ground. The bushes grow to a height of ten metres and the males can be seen flying along above the trees. It settles infrequently on the outer edges of the bushes, on the stems or on protruding twigs. If disturbed the insect usually takes cover in the thick scrub. The females fly slower, and normally within the trees, while searching for suitable places to lay their eggs. The species has been seen feeding on flowers, mainly those of a bramble growing amongst the foodplants. The life history of this subspecies has not yet been recorded; however, it should be similar to that of the nominate subspecies. The eggs are laid on the stems of the foodplant. The larva feeds on the foodplant at night and spends the day in the hollow stems of the foodplant. The larva is associated with the ant *Crematogaster peringueyi* Emery. The larva pupates in the hollow stems of the foodplant. Another possible foodplant used by the nominate subspecies, as well as related species, is *Melianthus major* L. (Melanthaceae).

STATUS. This subspecies of *P thero* was found by C. Wykeham in November 1972 in the Cedarberg, not far from the Cedarberg post office in low-lying scrub alongside the Matjies River. Dr J. Kaplan caught a female at the same spot on 25 November 1972.

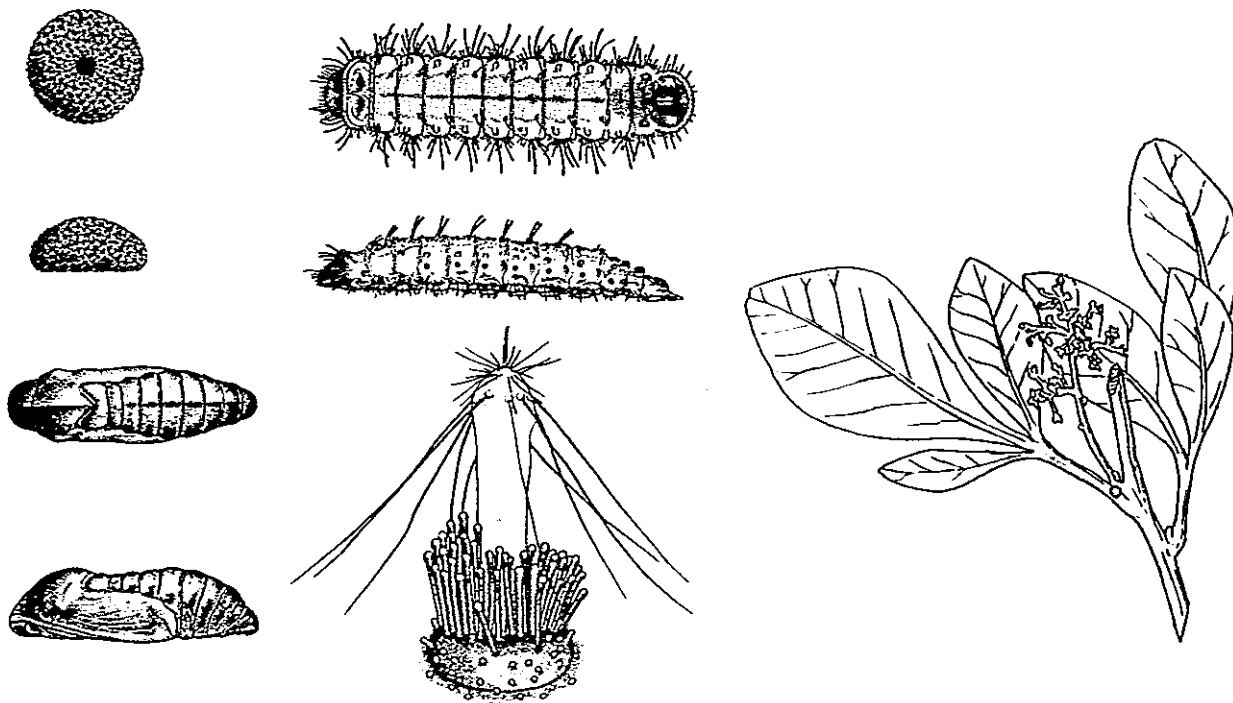


Figure 44. *Phasis thero thero* egg, top and side view (top left); final instar larva, top and side view (top centre); tubercle, outer lateral view, fully extended but not directed towards gland (bottom centre); pupa, top and side view (bottom left): (after Dickson, in Clark and Dickson, 1971). Foodplant *Rhus* spp. (right). Del. C.C.C. Dickson.

THREATS. No known threats.

CONSERVATION MEASURES. This subspecies is found in the Cedarberg Wilderness Area.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X	X	X

REFERENCES.

1. Clark & Dickson (1971): 193 - life history of nom. ssp.
2. Pennington (1978): 108 - adult and habits.

Phasis pringlei Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis pringlei Dickson, 1977. *Entomologist's Rec. J. Var.* 89 (12):317. Type Locality: Sutherland, Cape Province.

IDENTIFICATION. A quite large species with a dark brown upperside with large orange-red spots on the forewing. The LHW is pale ochreous-brown in colour with small silvery-white markings. The female is similar to the male but has a broader wing shape. Forewing lengths: male 15,5-18mm; female 18,5-19,5mm.

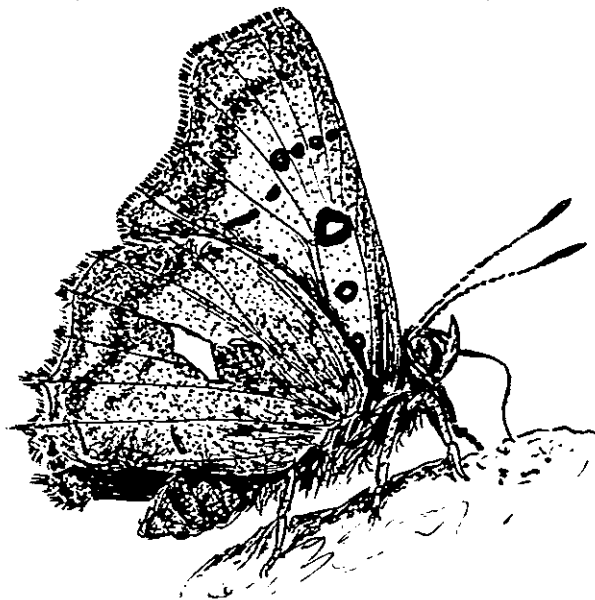
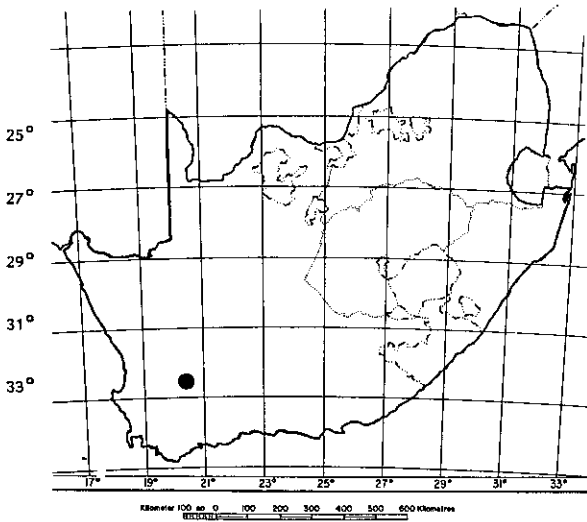


Figure 45. *Phasis pringlei* male underside. (Del. S.F.Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. Inhabits deep rocky valleys and gorges where its foodplant, a species of *Melianthus* (Melianthaceae), grows. Their flight is rapid and elusive. They fly above the clumps of foodplant and always seem to settle on it. At times the only way to see specimens is to disturb the foodplant and the specimens fly out. The colonies have only been found at two places on the Roggeveld Escarpment near Sutherland. The species does not appear to be found away from its foodplant. The colonies appear to be rather small and isolated. The species was, however, found to be "swarming" in November 1976 by the Pringles. It is apparently on the wing from September to December.

DISTRIBUTION. Endemic to the Western Cape Province, occurring in the Sutherland district, on the farm Voelfontein and at Verlaten Kloof.



STATUS. Discovered by E.L. Pringle near Sutherland on 19 December 1975. The following year a second colony was found in Verlaten Kloof.

THREATS. The remoteness and isolation of the areas inhabited by this species precludes the possibility of any threats.

CONSERVATION MEASURES. No conservation measures are in force.

INVESTIGATION REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 108 - adult and habits.

Oxychaeta dicksoni (Gabriel) **VULNERABLE**

LYCAENIDAE THECLINAE Tribe: APHNAEINI

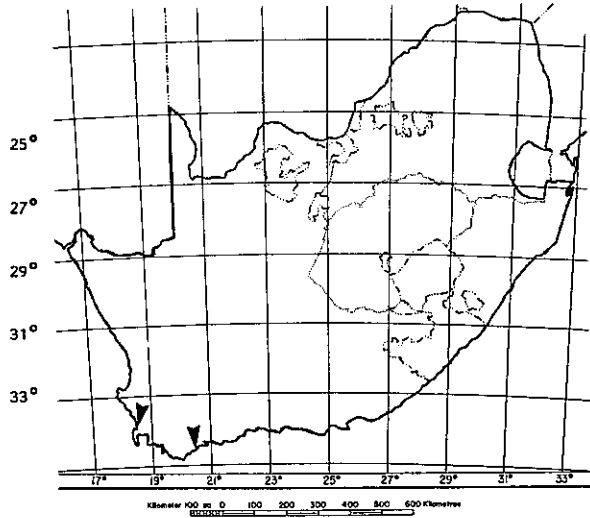
Phasis dicksoni Gabriel, 1946. *Entomologist* 80:60. Type Locality: Melkbosch Strand, Western Cape Province.

IDENTIFICATION. Upperside golden-orange with the basal area dusted with black scales and medial black spots. UFW with broad marginal band. LHW mottled greyish-brown with three irregular transverse rows of greyish-blue spots and a submarginal row of greyish-white lunules. The female has rounder wings.

Forewing lengths: male 14-18mm; female 16-20mm.

Life history. The eggs are 0,8mm in diameter by 0,5mm high. They are at first greyish-white, changing to chocolate as development proceeds. There is a surface pattern of a fine network of shallow ridges. The first instar larva has a black head and a pale whitish-grey body with dull red longitudinal lines and markings. The final instar larva is 16mm long, with a small shiny dark brown head. The body is light pinkish-brown irrorated with dull brown, these markings form two broad longitudinal bands on either side. There is also a broad mid-dorsal salmon-pink line. Retractable tubercles are present. The pupa is 11-17mm long, orange-brown at first changing gradually to dark brown with orange-brown marks¹.

DISTRIBUTION. Near and north of Melkbosch Strand, Western Cape Province; Witsands near the Breede River Mouth.



HABITAT AND ECOLOGY. Flies in sand-veld type country, with short vegetation. Although extremely localised, the butterfly has usually been present in reasonable numbers in the localities where it does occur. The normal flight is brisk though not rapid, around the shrubs on which the butterfly frequently alights. The males establish small territories of their own, and after short flights, settle on low shrubs, or sometimes on the ground, with wings partially open. It appears that the early stages are entirely carnivorous. The eggs are laid singly on the base of fresh plants and dry vegetation. The larvae at an early stage make their way into the nest of their host ant, *Crematogaster peringueyi* Emery, and appear to subsist on a diet of ant brood. The larvae pupate within the ants' nests. The nests in which the early stages have been found consist largely of fibrous material constructed partly above and partly below the ground. The adults on emergence make their way, with their wings still folded,

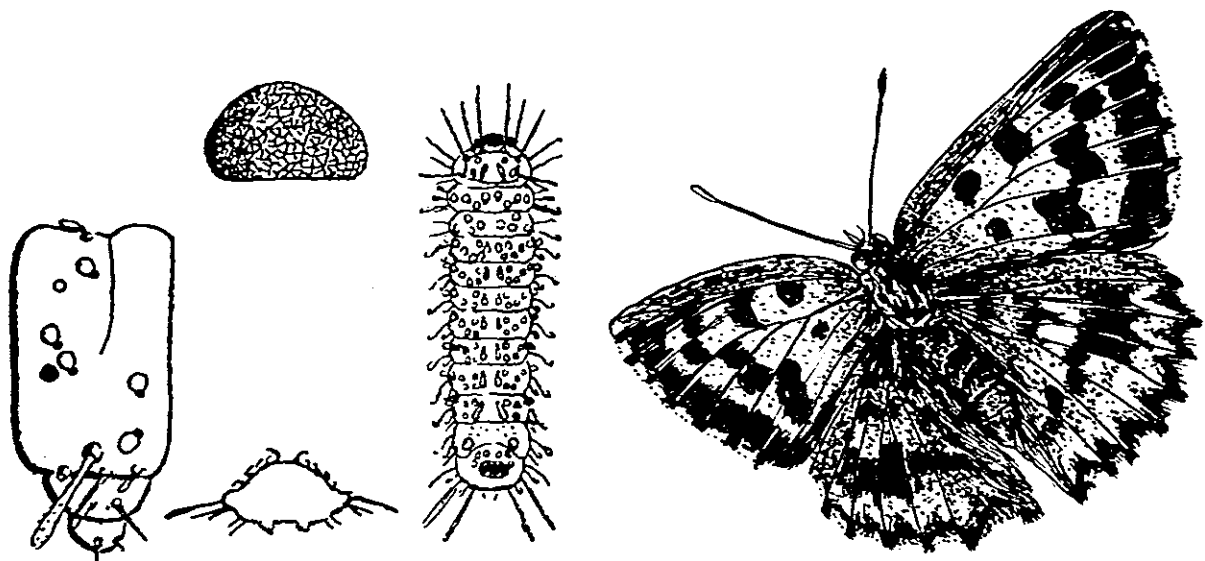


Figure 46. *Oxychaeta dicksoni* egg, first instar larva, enlargement of seventh segment, cross section (left) (after Clark & Dickson, 1956); male upperside (right). (Del. S.F. Henning)

through the nest and only expand their wings when they are safely outside. The adults are on the wing from late July until early October.

STATUS. *O. dicksoni* is confined to the South Western Cape. It was discovered by C.G.C. Dickson at Melkbosch Strand on 25 September 1946. In subsequent seasons it was found in several neighbouring localities, but most of these habitats were adversely affected by ploughing and other agricultural activities. Beside these localities near and north of Melkbosch Strand it was recorded far to the south east by Dr B.R. Stuckenberg and L. Schoeman at Witsands near the Breede River Mouth. This colony, however, appears to have been rather small and has been effected by building activities and the spread of australian acacias in the area. It now appears to have disappeared from this area as well. The status of this species is very precarious at present.

THREATS. This species is particularly vulnerable to agricultural activity and the encroachment of alien vegetation. Mr C.G.C. Dickson (personal communication) believes that conservation measures to preserve this unique species effectively would have to consist of fencing an extensive portion of ground where it is still to be found to occur and the constant eradication of alien vegetation from the habitat. Even so, it's relatively low density (from past experience of it) might still leave the butterfly in a somewhat precarious position.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X			X	X

REFERENCES.

1. Clark & Dickson (1971): 189 - life history and habits.
2. Pennington (1978): 109 - adult and habits.
3. Swanepoel (1953): 146 - adult and habits.

Trimenia wallengrenii (Trimen) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Zeritis wallengrenii Trimen, 1887. S.A. Butt. 2:192. Type Locality: Stellenbosch, Cape.

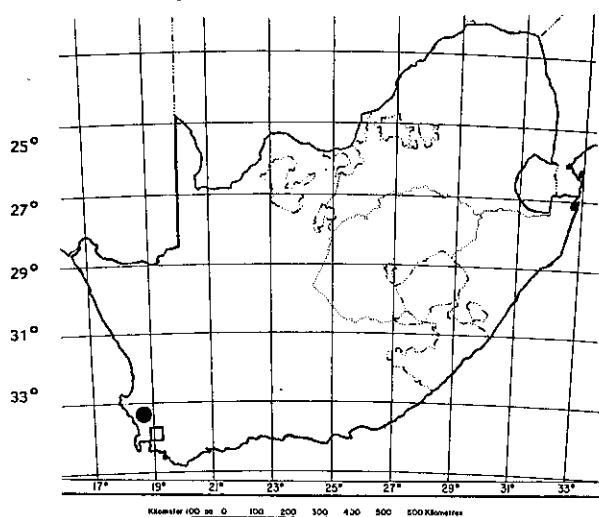
IDENTIFICATION. Upperside orange with broad black borders. LHW is reddish-brown with an intricate pattern of thin silvery-white lines. The female is similar to the male but is larger with rounder wings.

Forewing lengths: male 12-17,5mm; female 14,5-21mm.

Life history. The egg is bun-shaped, 1,3mm in diameter and 1mm high, bluish-white becoming creamy-white as development proceeds. The larva on emergence is 2,5mm long, pale buff with a reddish-brown longitudinal line dorsally and other markings. The remainder of the life history is unrecorded.

HABITAT AND ECOLOGY. Inhabits stony and bush covered hills. The males take short, swift flights about their territories, returning to settle on the ground with their wings closed. The female is usually observed flying at random around the host plants, searching for suitable places on which to oviposit. Both sexes have been seen to feed at flowers, including those of *Mesembryanthemum*. The female has been seen to lay her eggs on two species of plants, one of them being a *Senecio* sp. (Asteraceae). It is not known if the larva is phytophagous. They are laid in pairs, or small batches of three or possibly more, on stems or withered vegetation under the plants. All the larva obtained by Clark and Dickson died in the first instar after failing to feed on the plant used for oviposition. It is believed the larvae are probably carnivorous and ant associated. The species is on the wing during November and December.

DISTRIBUTION. Endemic to the South Western Cape, north east of Cape Town.



STATUS. Discovered by R. Trimen in December 1862 at Stellenbosch. Found at Mamre, about 50km north of Cape Town, by C.G.C. Dickson on 5 November 1936. Also recorded on the Piketberg and at Darling. Trimen reported that he found *wallengrenii*, 'rather numerous, on hills near Stellenbosch.' There have been no other records from this locality and it is probably no longer there.

THREATS. Extensive agricultural activities in the area has led to the extinction of several colonies. It has survived at a few habitats situated on rough or rocky ground, which, owing to its nature, has escaped the plough. In some cases the cultivated areas extend up to the borders of the existing colonies. The continued existence of *T. wallengrenii* would seem to largely depend on the habitats remaining free of alien vegetation.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Clark & Dickson (1971): 208 - life history and habits.
2. Pennington (1978): 109 - adult and habits.
3. Swanepoel (1953): 125 - adult and habits. [Refers chiefly to *T. argyropilaga*].

Argyrocupha malagrida malagrida (Wallengren)
VULNERABLE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Cygaritis malagrida Wallengren, 1857. *K. svenska VetenskAkad. Handl. (N.F.)* 2(4):43. Caffraria.

IDENTIFICATION. The upperside is dull dark brown with an ochreous patch on the fore- and hindwing. The females have larger patches which extend to a dull ochreous basal colour. The LHW has a somewhat variable pale brown to purplish-red ground colour with small silvery-white markings forming an intricate lacey pattern. The female has rounder wings.
Forewing lengths: male 12-15mm; female 15-17mm.

Life history. The eggs are 1,25mm diameter by 0,75mm high. Whitish when first laid, later assuming a creamy colour with some pale green between the fine netting pattern. The eggs are usually densely covered with spinous scales from the end of the females abdomen during oviposition. First instar larva is 2,25mm long, light-yellowish or stone coloured and marked with reddish-brown or dully vinous colouring. Tubercles are present. No further records are available^{1,3}.

HABITAT AND ECOLOGY. Its habitat is dry slopes bearing short vegetation. The flight is close to the ground and quite brisk under warm conditions, but of short duration, individuals settling on the ground or occasionally on plants. The species has been recorded feeding on the flowers of a *Mesembryanthemum* and the small flowers of a fine twiner, *Cuscuta*. The males establish territories in the breeding areas usually perching on the ground, occasionally on plants. The females fly at random over the breeding area searching for plants on which to lay.

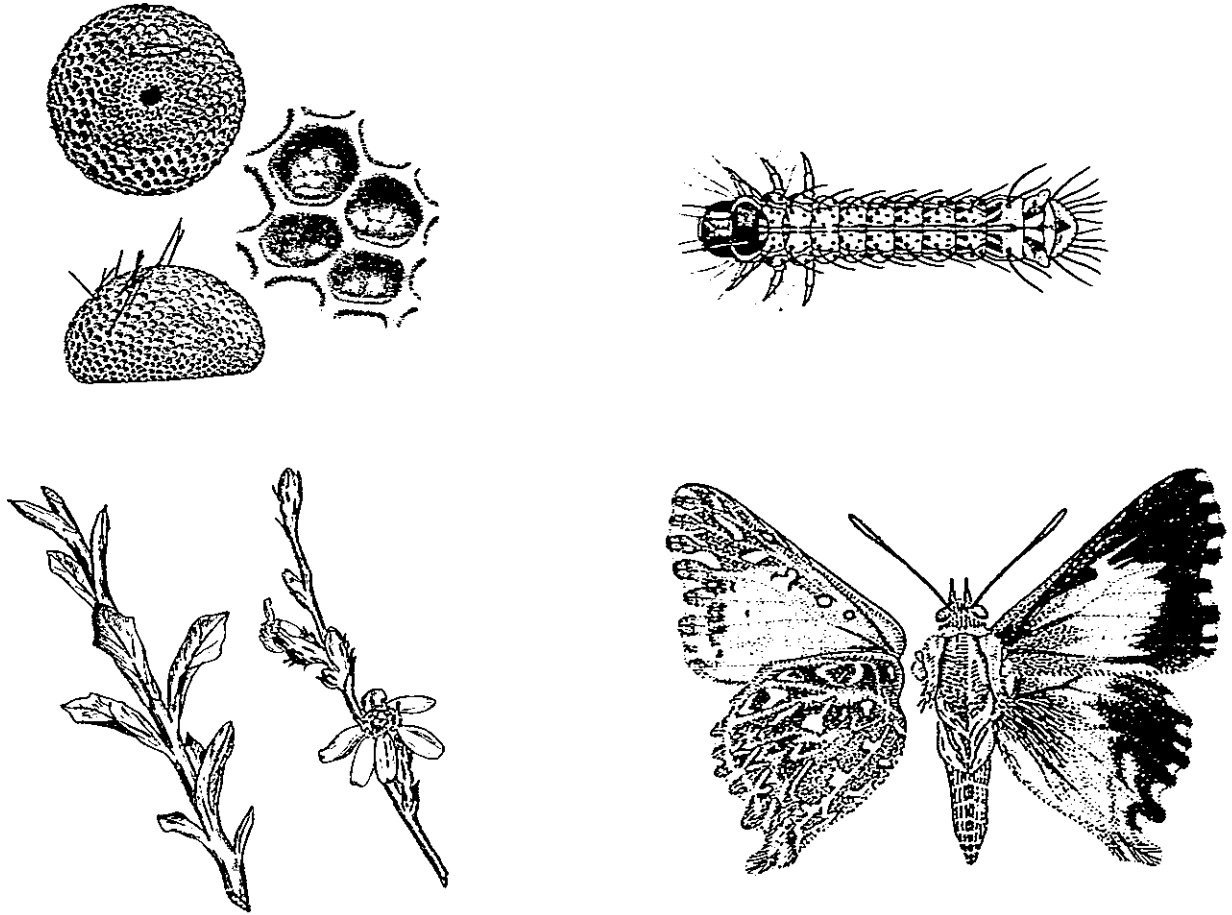


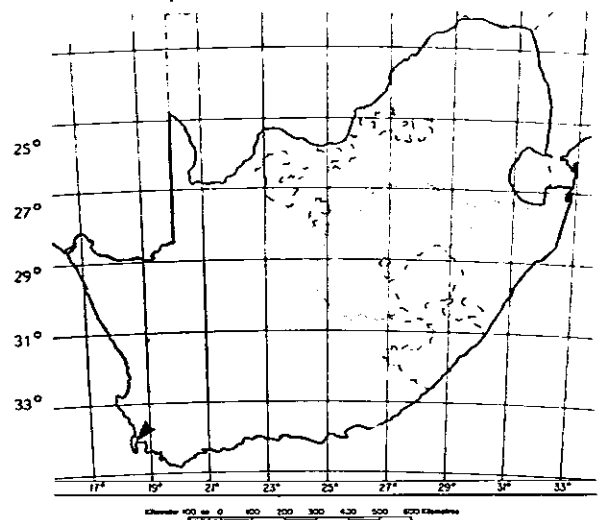
Figure 47. *Trimenia wallengrenii* egg, top, side and enlargement of side (top left); first instar larva with only the more anterior of the fine lateral setae represented (top right); plant, *Senecio* spp., on which eggs have been laid (bottom left); adult male, upper and underside (bottom right) (after Dickson, in Clark & Dickson, 1971).

Eggs have been laid on *Aspalathus* spp. (Fabaceae) and *Trichogyne laricifolia* Less (Compositae) but larvae have refused to eat these plants and are apparently not phytophagous³. The eggs are laid singly on plant hairs on the stems of the plants. As the larvae do not appear to be phytophagous, it has been presumed they are carnivorous. It is believed that the early stages are spent in the ant's nests, underground or beneath stones^{1,3}. The flight period is late January to April. The best time to see this species is from late February to the end of March.

STATUS. *A. malagrida* was discovered by Wahlberg in the 1850's in 'Caffraria', but is definitely the Cape Peninsula. Was found to be reasonably plentiful in the late 1800's. Unrecorded during the early part of the twentieth century, but was rediscovered on 2 February 1935 by Mr C.G.C. Dickson, and was subsequently found in several different localities on the western side of the Cape Peninsula by himself, although in only two main areas. It has since disappeared from most of those habitats and now appears to be in a precarious state. The only known surviving colony is very small. It is believed that mountain fires may eventually have taken their toll through occur-

ring too frequently during the main part of the butterfly's flight period.

DISTRIBUTION. Cape Peninsula. Restricted to one small area the size of a tennis court. It used to occur on the Twelve Apostles near Llandudno, but has not been seen there for a few years.



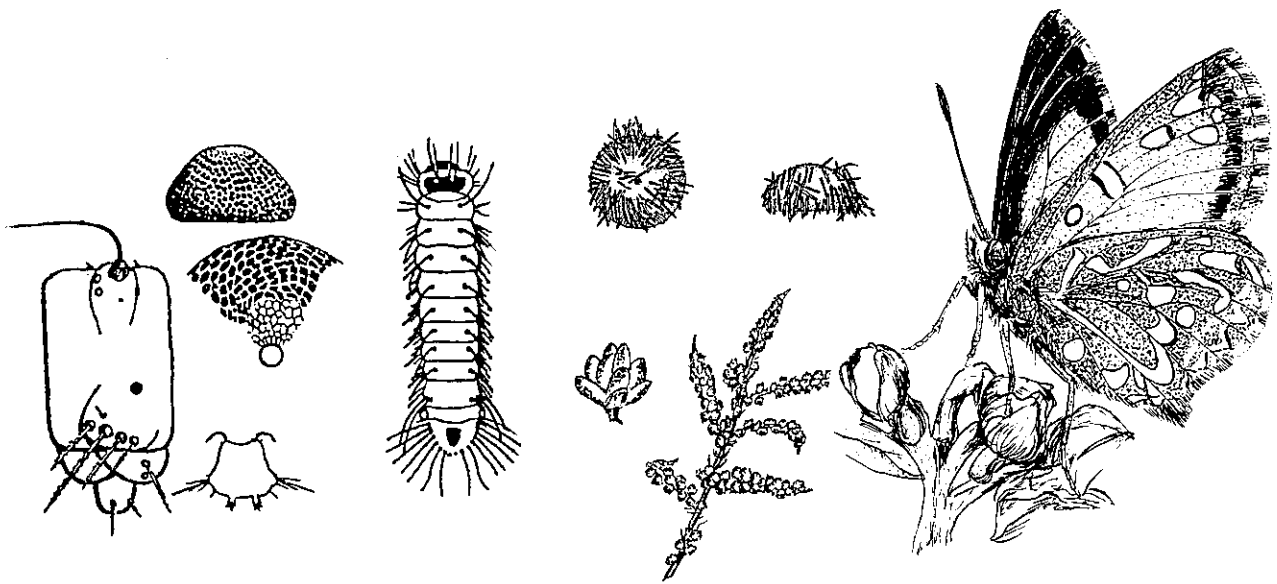


Figure 48. *Argyrocupha malagrida malagrida* egg, top and side view, covered with spinous scales (top centre) (del. C.G.C.Dickson); first instar larva, enlargement of seventh segment, cross section (left) (after Clark & Dickson, 1956); plant on which eggs were laid *Trichagne laricifolia* (bottom centre) (del. C.G.C.Dickson); male underside (right) (del. S.F. Henning).

THREATS. Continued mountain fires during the flight period. Possibly also the invasion by alien vegetation.

CONSERVATION MEASURES. Protected under the Cape Province Ordinance 19 of 1974 Schedule 2 (protected Wild Animals) - amendment with effect from 13 February 1976 and in Table Mountain Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Claassens & Dickson (1980): 53 - adult, life history and habits.
2. Clark & Dickson (1956): 195 - life history.
3. Clark & Dickson (1971): 212 - life history.
4. Pennington (1978): 111 - adult and habits.
5. Swanepoel (1955): 125 - adult and habits.

***Argyrocupha malagrida paarlensis* (Dickson) RARE**

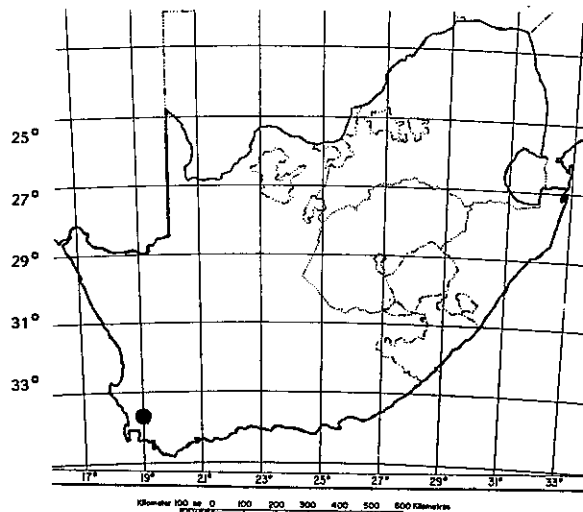
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis malagrida paarlensis Dickson, 1967. *Entomologist's Rec. J. Var.* 79:123. Type Locality: Paarl Mountain, Cape Province.

IDENTIFICATION. The upperside marginal colour of this subspecies is darker than in the nominate subspecies while the orange patches are brighter and more extensive spreading down to the wing bases in both sexes. The LHW has a slightly paler ground colour with the silvery white markings slightly more extensive. The female has rounder wings and a paler ground colour. Forewing lengths: male 13-16mm; female 16-17mm.

Life history. Unrecorded.

DISTRIBUTION. Paarl Mountain and on the Paardeberg, Cape Province.



HABITAT AND ECOLOGY. Dry slopes bearing short vegetation. Its flight is close to the ground and quite brisk under warm conditions, but of short duration, individuals settling on plants. The males show typical territorial behaviour. On Paarl Mountain the males were observed settling on the leaves of shrubs. Neighbouring males will often chase one another as they intrude on each others' territories. They will whirl swiftly over the plants for a few seconds then usually return to their respective spots. The female is scarcer, but appears to frequent the same places. Swanepoel (1953) observed a female laying her eggs. She laid on the stem of the plant and while still wet she clothed them with hairs from her abdomen. She seldom laid more than one egg on the same plant. The eggs are laid on *Aspalathus* spp. (Fabaceae) but the newly emerged larvae refuse to feed on this plant and are apparently not phytophagous. It is believed that the early stages are spent in ants' nests underground or beneath stones. The flight period is end of December to March.

STATUS. First discovered on 15 March 1938 on Paarl Mountain by C.G.C. Dickson and subsequently on Paarlberg on 31 December 1956.

THREATS. None known, although fires are always a hazard.

CONSERVATION MEASURES. The species is probably found within the Paarl Mountain Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 111 - adult and habits.
2. Swanepoel (1953): 126 - habits.

Argyrocupha malagrida cedrusmontana Dickson & Stephen RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

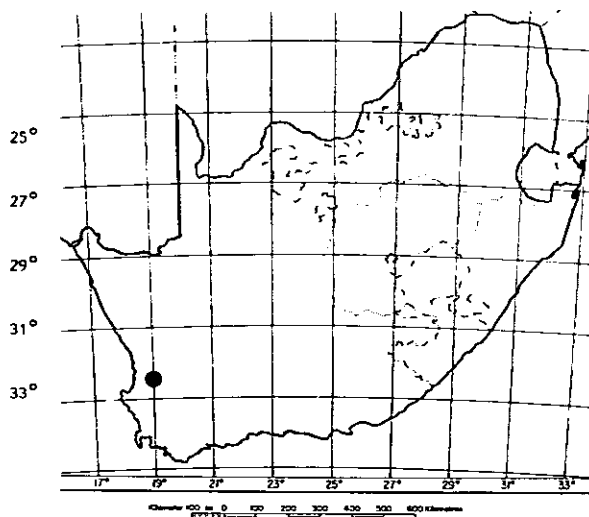
Argyrocupha malagrida cedrusmontana Dickson & Stephen, 1975. *Entomologist's Rec. J. Var.* 87:129. Type Locality: Cedarberg, Cape Province.

IDENTIFICATION. This is the brightest of the *malagrida* subspecies; the upperside marginal colour is almost black and the bright orange-red patches are smaller than in *paarlensis* but not as small as in the nominate subspecies. The LHW is not quite as well marked as the other sub-

species. The female is paler with rounder wings. Forewing lengths: male 12-16mm; female 15-17mm.

Life history. Unknown.

DISTRIBUTION. Cedarberg, Skurweberg and Waaihoek Mountains, Cape Province.



HABITAT AND ECOLOGY. Dry slopes bearing short grass and low shrubs at about 1900 metres. The flight is close to the ground and brisk, but of short duration. The males show territorial behaviour, settling on the leaves of shrubs or on the ground. They chase off intruding males. The females frequent the same places as the males. The foodplant is unknown but is likely to be a species of *Aspalathus* (Fabaceae). The flight period has been recorded as February.

STATUS. First discovered by F. Honiball on 13 February 1971 on Langberg, Cedarberg Mountains. Two small colonies are known (about the size of a football field) about 1-2km apart. A colony has also been found on the Skurweberg to the south of the Cedarberg by Mr A.K. Brinkman. More recently another colony was discovered by Mr C.W. Wykeham high up on the Waaihoek Mountains to the south of the earlier known colonies.

THREATS. None known.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

CONSERVATION MEASURES. The Cedarberg range was proclaimed a wilderness area in the early 1970's which forbids 'development' and exploitation.

REFERENCE.

1. Pennington (1978): 111 - adult and habits.

Argyrocupha malagrida maryae Dickson & Henning
VULNERABLE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Argyrocupha malagrida maryae Dickson & Henning, 1980. *Entomologist's Rec. J. Var.* 92:297. Type Locality: Struys Bay, Cape.

IDENTIFICATION. A brightly coloured subspecies, as bright as *cedrusmontana*, but rather lighter with extensive orange ground colour as in *paarlensis*. The wing-shape of the male is more rounded than in the other subspecies. The female has a paler ground colour and a rounder wing-shape, as regards the forewing distal margin.

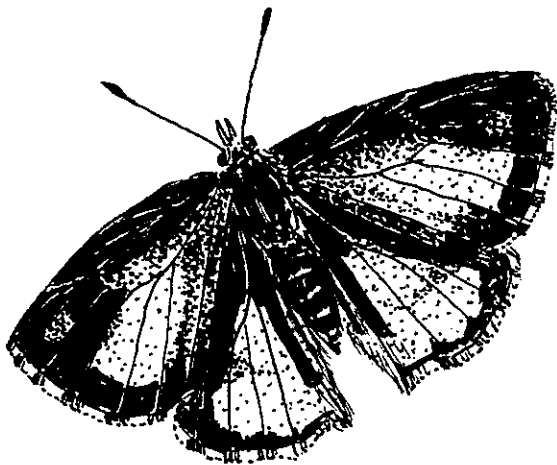


Figure 49. *Argyrocupha malagrida maryae* male upperside. (Del. S.F.Henning)

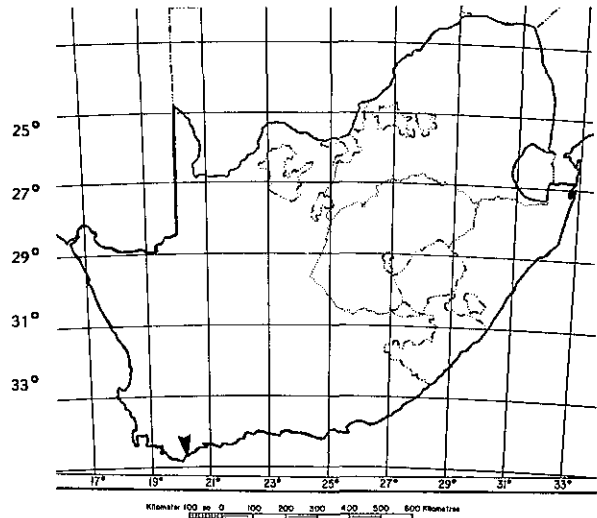
Forewing lengths: male 15-16mm; female 16-18mm.

Life history. Unknown.

HABITAT AND ECOLOGY. I. Bampton first found this butterfly flying on a patch of burnt vegetation situated at the base of a steep, rocky hillside. He also observed the species flying on several rocky outcrops and one or two stoney ridges. The males were usually found when they were settled on the ground or on rocks. The females were only observed when flying among the outcrops or along the sides of the ridges. Adults are on the wing in February.

STATUS. First captured by I. Bampton at Struys Bay, near Cape Agulhas, in February 1977. The discovery of this subspecies at a low altitude near the sea was most unexpected as the species usually flies at much greater altitudes. This subspecies has not been recorded elsewhere. Very few specimens have been recorded in the intervening years since 1977.

DISTRIBUTION. Struys Bay, near Cape Agulhas, Western Cape Province.



THREATS. May possibly be under threat from township development in the Struys Bay area.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X

REFERENCE.

1. Dickson and Henning (1980): 297 - adult and habits.

Genus *Aloeides*.

This is a large genus of small or fairly small butterflies. They are mainly ochreous-orange on the upperside bordered with black or dark brown. In some species the brighter orange colouring is almost completely obliterated by dark brown or blackish-brown. The larvae are, as far as is known, all phytophagous although some species are dependent on the presence of ants to complete their life cycle.

Aloeides kaplani Tite & Dickson INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides kaplani Tite & Dickson, 1977. *Entomologist's Rec. J. Var.* 89(7):211. Type Locality: Sutherland, Cape Province.

IDENTIFICATION. This species is tawny-orange with very broad, inwardly diffuse, black margins on the upperside. The underside of the hindwing is dull reddish-brown to pinkish-red with clearly defined and separate silvery-grey spots. In the opinion of the authors this species is related to *A. caledoni* Tite & Dickson, and not the *A. pallida* (Riley) group.

Forewing lengths: male 17-19mm; female 18,5-22mm.

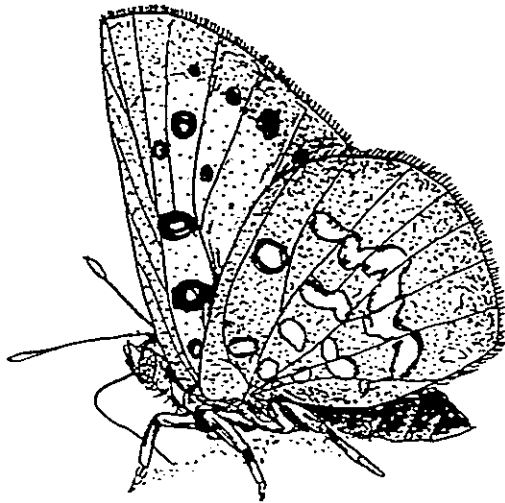
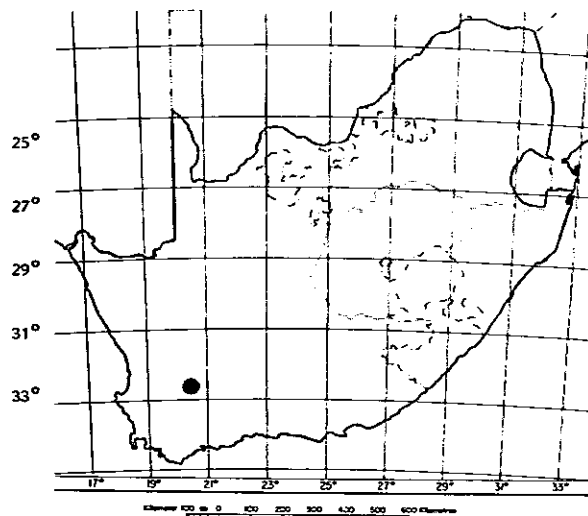


Figure 50. *Aloeides kaplani* male underside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, on the Roggeveld Escarpment, Sutherland district.



HABITAT AND ECOLOGY. Frequents the highest elevations, just below the peaks. It is found in fairly restricted areas on flat ground high up on mountain slopes. Its habits are the same as those of the other members of the genus. The males are territorial and if disturbed, will circle rapidly about, before settling once more on nearby open ground or stones. Any intruding males are vigorously chased off. The females fly at random through the area in search of foodplants on which to lay their eggs. The species has been found on the wing during October, but will naturally have a more extended flight period.

STATUS. Discovered by Dr J. Kaplan on 21 October 1977 on the Swaarweeberg near Sutherland. Subsequently recorded on a number of occasions in the area. Apparently recorded at Matjiesfontein and Beaufort West, although specimens seen by the authors, from Matjiesfontein, appear to be *A. caledoni* or *A. pallida* and those from Beaufort West appear to be *A. pallida*.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X		X	X

REFERENCE.

1. Pennington (1978): 114 - adult and habits.

Aloeides pringlei Tite & Dickson INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides pringlei Tite & Dickson, 1976. *Entomologist's Rec. J. Var.* 88:177. Type Locality: Winterberg, Cape Province.

IDENTIFICATION. A slightly built member of the *A. pallida* group, distinguished by a darker tawny-orange upperside and narrower black margins. The underside is similar to that of *A. pallida grandis* but with smaller markings.

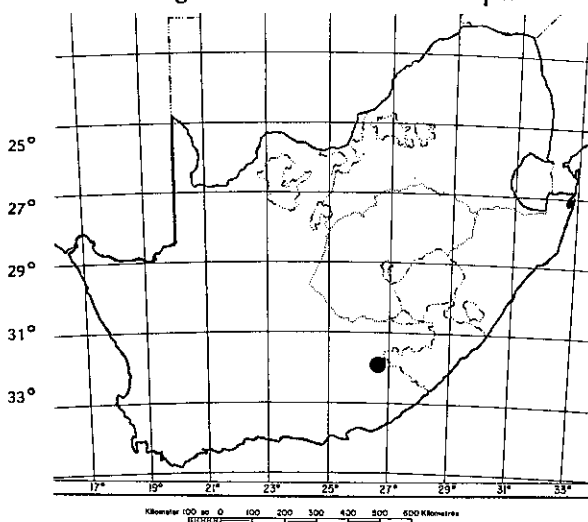
Forewing lengths. male 16-17mm; female 17-18,5mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The following details were described by V. Pringle in the original description; 'K.M. Pennington and I climbed the Great Winterberg as he was anxious to see if any butterflies worked their way to

the top around midday as they so often do. There was not a sign of anything on the top. We then worked our way down to the lower slopes, and it was at an altitude of approximately 6 800 ft, according to the Trigonometrical Survey Map, that K.M.P. caught two specimens of this *Aloeides*.¹ The habitat recorded by V. Pringle is a small area covering a slight depression running down into the valley. The soil is sandy loam and the stone and rock all sandstone, the entire area being overgrown with a coarse *Merxmullera* (*Danthonia*) grass and an encroaching shrub, *Chrysocoma tenuifolia* Berg. (*Asteraceae*). The locality is subject to snow-cover during the winter, and faces the cold west winds. The flight period for this species appears to be November and December.

DISTRIBUTION. Endemic to the Cape, only found on the Great Winterberg mountains in the Eastern Cape.



STATUS. The first specimens were collected by K.M. Pennington on 12 November 1969, in the company of V. Pringle. Further research was conducted by the Pringles.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X

REFERENCE.

1. Pennington (1978): 113 - adult and habits.

Aloeides caledoni Tite & Dickson

RARE

LYCAENIDAE

THECLINAE

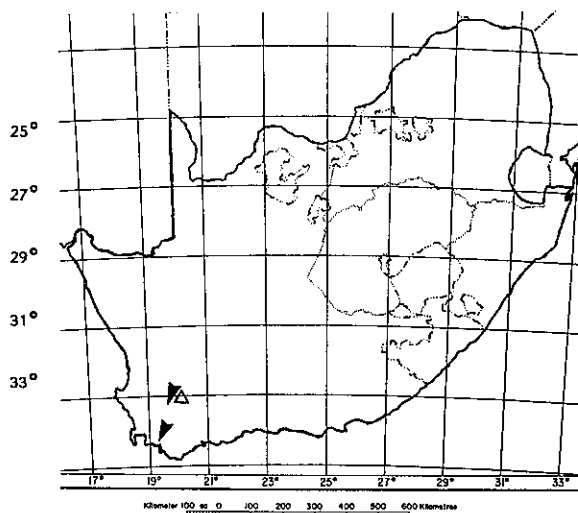
Tribe: APHNAEINI

Aloeides caledoni Tite & Dickson, 1973. *Bull. Br. Mus. nat. Hist. (Ent.)* 29(5):271. Type Locality: Shaws Mountain, Caledon, Cape.

IDENTIFICATION. A bright tawny-orange species with straight relatively narrow black margins on the upperside. The LHW is reddish-brown to pinkish-brown with silvery-grey spots which are separate and distinct. Forewing lengths: male 17-20mm; female 19-21mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, from Shaws Mountain, Caledon District. Other recorded localities are Touws River, Matjiesfontein and near Oudtshoorn.



HABITAT AND ECOLOGY. Recorded on the summits of small rocky hills. It is quick on the wing but soon settles on the edge of the hill. Also seen flying rapidly about a ridge, specimens were evasive and settled on patches of ground between the shrubs and the rocks along the ridge. The flight period appears to be October and November.

STATUS. Recorded on the 3 November 1967 by C.G.C. Dickson on Shaws Mountain, while various other lepidopterists have recorded it on later occasions in the same locality. The species was subsequently recorded by N. Duke at Touws River. An early specimen from Matjiesfontein was collected by R. Badham on 19 October 1954. A still earlier record by Dickson is from near Oudtshoorn on 28 October 1949.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 117 - adult and habits.

Aloeides dentatis dentatis (Swierstra) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis dentatis Swierstra, 1909. *Ann. Transv. Mus.* 1:175. Type Locality: Waterval Onder, Transvaal.

IDENTIFICATION. The upperside is orange with narrow black margins and apical patches, the basal half of the forewing costa is orange. The LHW is crimson-red with silvery-white and black markings. The diagnostic feature is a medial series of small dentate markings with black along their outer edge. A form with a pale brown LHW ground colour, with indistinct markings, is also found. The female is similar to the male but has more rounded wings.

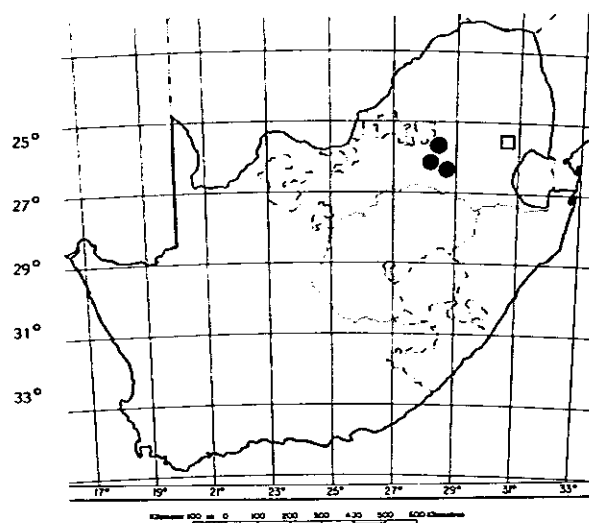
Forewing lengths: male 14-18mm; female 15-19mm.

Life history. The eggs are 0,8mm in diameter by 0,5mm high and are "bun"-shaped with a bold network of ridges. The colour is creamy-white at first, becoming purplish-brown as development proceeds. All six larval instars are similar in appearance. The head is dark brown with light brown setae. The broad neck-shield and small rounded anal shield are dark brown. The body is grey with longitudinal streaks and markings of reddish-brown. The tubercle cases on the eighth segment are black and bear the characteristic protective spines. The retractile tubercles are white; the honey gland is absent. Maximum length of final instar larva is 18 to 19mm. The pupa is 12 to 13mm long, golden-brown in colour and rounded.

HABITAT AND ECOLOGY. Flies in highveld grassland. The adults do not range far from the host plants and ants. The males stake out small territories, on sandy patches amongst the foodplants, in which they can be found throughout most of the day. The females fly at random in the area and are as common as the males^{2,3,4,5,6}. It has been recorded basking in the sun during partly cloudy days by lying down on its side while sitting on a rock. Feeds on a variety of flowers. Its foodplant at Ruimsig Reserve (Witpoortjie) is *Hermannia depressa* N.E.Br.

(Sterculiaceae) at an altitude of about 1500m. The eggs are laid in pairs on the underside of the leaves of the foodplant. The larvae shelter during the day in the nest of the ant *Acantholepis capensis* Mayr. The larvae apparently release a pheromone which appears to mimic the brood pheromone of the ant, thereby misleading the ant into behaving towards them as it does to ant brood. At night the larvae emerge from the nest to feed on the foodplant. During these journeys the larvae apparently release a pheromone which imitates the alarm pheromone of the ant. This excites the attendant ants and provides the larvae with some degree of protection while they are feeding. The larvae pupate within the ants' nests. When they emerge from their pupae the adult runs along the tunnels in the nest with their wings still unexpanded; they only expand their wings once they are outside the ants' nest. Adults are on the wing from August to April with a peak from October to December. The colonies at about 1900m in the Suikerbosrand Nature Reserve feed on *Lotononis erianthe* Benth. (Fabaceae), and the eggs are laid on the stems of the foodplant.

DISTRIBUTION. The highveld of the Transvaal. Waterval Onder, Ruimsig, Pretoria, Springs, Alberton and Suikerbosrand.



STATUS. One female was captured at Waterval Onder in the Transvaal by Dr Breyer in 1907, but no further specimens have been recorded from this area. It has also been recorded from several other localities on the highveld of the Transvaal, but most of these colonies have been destroyed, one by one, through township development and agriculture. One of the last viable colonies at Ruimsig (formerly Witpoortjie) was threatened by further township development but the Roodepoort City Council established South Africa's first butterfly reserve at the spot to protect it. They set aside 12 ha for the reserve. One of the other surviving colonies, which appears to be of this species, is in the Suikerbosrand Nature Reserve⁷.

The taxonomy of the two populations is still to be clearly defined as the Ruimsig colony feeds on a different plant family (Sterculiaceae) from that of the Suikerbosrand

colonies (Fabaceae), and certain other differences have also been noted.

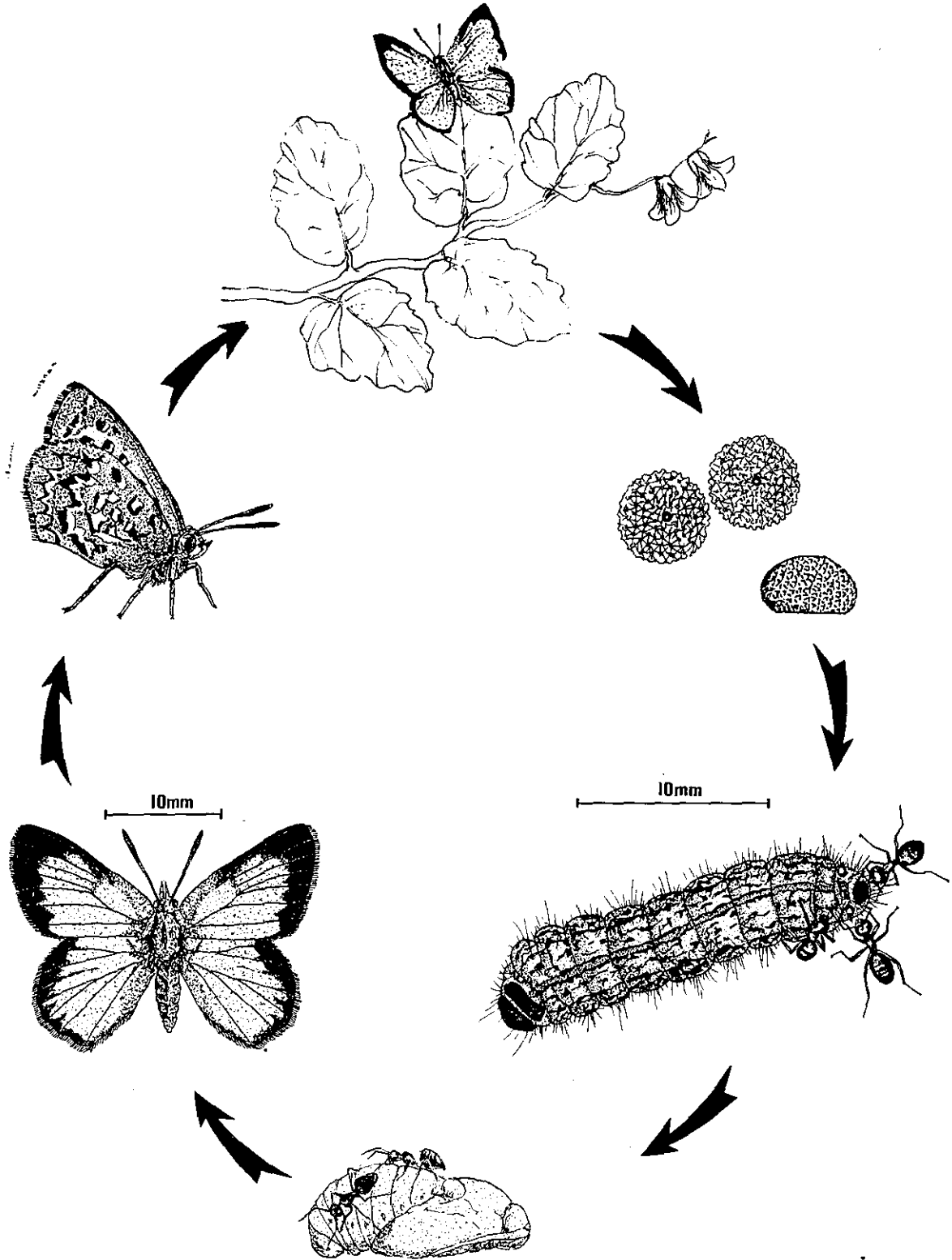


Figure 51. *Aloeides dentatis dentatis* life cycle; adult on foodplant (*Hermannia depressa*); egg, top and side view; final instar larva being investigated by host ants (*Acantholepis capensis*); pupa and host ant; adult upperside and underside. (Del. S.F.Henning)

THREATS. With the establishment of the reserve at Ruimsig and its presence in the Suikerbosrand Nature Reserve, this butterfly is no longer under immediate threat although the status of these colonies will have to be continuously monitored, particularly Ruimsig, as the reserve is so small.

CONSERVATION MEASURES. The Roodepoort City Council established a 12 ha reserve at Ruimsig in 1985 for the protection of this species⁷. The species is also found in the Suikerbosrand Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X			X

REFERENCES.

1. Pennington (1978): 114 - adult and habits.
2. Henning (1983a): 73 - adult, life history and habits.
3. Henning (1983b): 341 - adult, life history and habits.
4. Henning (1984a): 99 - life history and habits.
5. Henning (1984b): 82 - adult, life history and habits.
6. Henning (1987): 219 - adult, life history and habits.
7. Henning & Henning (1985): 16 - adult, life history and habits.
8. Murray (1935): 118 - adult.
9. Tite & Dickson (1968): 376 - adult and habits.
10. Tite & Dickson (1973): 274 - life history.

Aloeides dentatis maseruna (Riley) INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

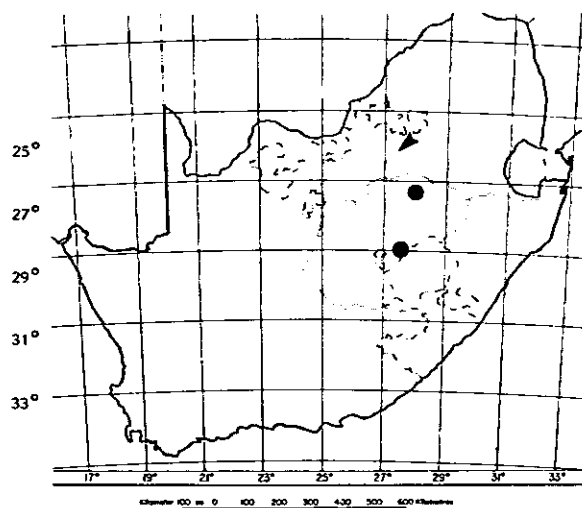
Phasis thyra maseruna Riley, 1938. *Trans. R. ent. Soc. Lond.* 87:239. Type Locality: Maseru, Lesotho.

IDENTIFICATION. This subspecies has a paler tawny-orange upperside than the nominate subspecies with a dark grey border. The LHW is pale brown or pinkish-red with the silvery dentate band more extensive than in the nominate subspecies.

Forewing lengths: male 13,5-18,5mm; female 15-19mm

Life history. The egg is "bun"-shaped with a pronounced network of ridges. The eggs are greyish-white at first, becoming purplish-brown as development proceeds. The remainder of the life history is unrecorded.

DISTRIBUTION. Originally recorded from Maseru, several other localities have been found, through the Orange Free State to the western Transvaal.



HABITAT AND ECOLOGY. Frequents flat grassveld usually near water or marshy areas. The habitats are sparsely grassed, the ground being sandy with gravel. The butterflies sit on sand or gravel patches, the males establishing territories from which to chase intruders and court females. The males fly low and fast and in wide circles, returning to their original spots, the females fly slowly about in the same areas. When a female enters the territory the male approaches from the rear and "shimmies" just behind her; if she is unresponsive to his advances she merely flies away, but if she is interested she immediately settles. The male settles beside her and sidles up to her, but if she is then not interested she turns away from him in a "rejection posture" and he flies off. The actual mating has not yet been recorded. The fertilised female then spends her time searching for foodplant on which to lay her eggs. The foodplant used by subspecies *maseruna* is *Hermannia jacobifolia* Turcz. (Sterculiaceae), which is an erect plant about 20cm high, with long narrow leaves. The female alights on the plant and immediately begins investigating, with her antennae, for the pheromone trails of the ant with which the larvae will live. The female will search the plant from top to bottom and even the ground around the base is investigated. When the female is satisfied she usually lays two eggs, side by side, on the stem of the foodplant. The remainder of the life history has not been fully documented for this subspecies but it will presumably be similar to that of the nominate subspecies. (Refer to *Aloeides dentatis dentatis* (Swierstra) for details and references). This subspecies is on the wing from November to February.

STATUS. First recorded from Maseru, Lesotho. Other localities are Ladybrand and Heilbron in the Orange Free State and Boons in the western Transvaal.

THREATS. Recent records from Maseru are very sparse, most suitable habitats have been used for farming or washed away by erosion. Another recorded locality is Ladybrand, apparently along the banks of a river, and also

not recorded recently. The butterfly has, however, been recently recorded at Heilbron, where it has been found next to the dam in the town and also 10km north on a slight slope above a stream. The locality next to the dam is in the grounds of a recently erected old age home and as development on this property progresses this colony may well be destroyed. The other locality north of Heilbron is apparently safe. The Boons locality is in a large flat, marshy area and is also apparently safe.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS NEEDED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X				X

REFERENCE.

1. Pennington (1978): 114 - adult and habits.

***Aloeides rossouwi* Henning & Henning RARE**

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides rossouwi Henning & Henning, 1982. *J. ent. Soc. sth. Afr.* 45:231. Stoffberg, Transvaal.

IDENTIFICATION. This species has a distinctive rounded forewing shape. The upperside is orange with a broad apical patch which has a couple of orange subapical spots across it to the costa. The LHW is crimson-red with small clearly defined silvery-white, black-edged spots. A form with a brown underside and obscure spots has also been recorded. The female has rounder wings.

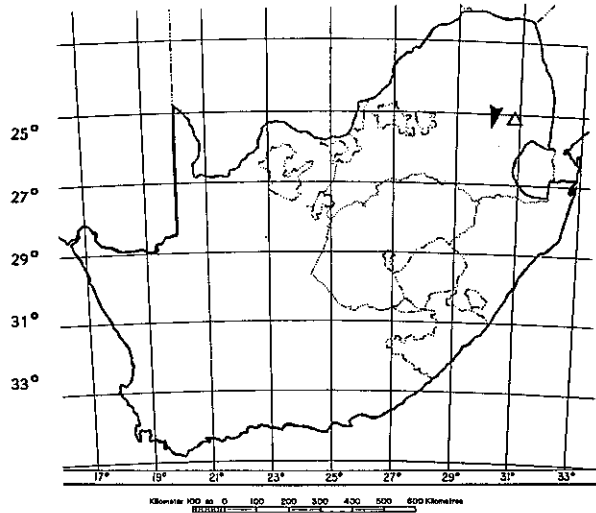
Forewing lengths: male 13-16mm; female 14-16mm.

Life history. The pupae are yellowish-brown and of the usual plain rounded shape of the genus. Length 13mm. The earlier part of the life history is unknown.

HABITAT AND ECOLOGY. This species is found flying along steep rocky gullies below the summit of a high grassy escarpment south-west of Stoffberg. Its flight is similar to that of other members of the genus, being swift and direct, but of short duration. They usually settle on rocks protruding from the grass, or on patches of gravel. Males have been recorded hilltopping but they normally establish their territories at strategic spots in the steep gullies in which they fly up and down searching for females or intruding males. Pupae were found in the tunnels of an ants' nest beneath a stone. The ants belonged to the genus *Acantholepis*. The foodplant is unknown.

Adults are on the wing from October to March.

DISTRIBUTION. Recorded from near Stoffberg in the Transvaal, at about 1800m. One specimen recorded on 'Die Berg', near Dullstroom, at about 2300m.



STATUS. First captured by D.J. Rossouw in January 1979 at Stoffberg; and has been recorded there regularly almost every year since then. The single specimen from 'Die Berg', the highest point in the Transvaal, was found by Hamish Henning.

THREATS. The Stoffberg colony is on a private farm and may face the threat of agricultural development in the future. Further research on 'Die Berg' is required to discover the actual colony concerned.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Henning & Henning (1982); 234 - adult and habits.

***Aloeides nubilus* Henning & Henning RARE**

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides nubilus Henning & Henning, 1982. *J. ent. Soc. sth. Afr.* 45:234. Type Locality: Klipbankspruit, Transvaal.

IDENTIFICATION. A small species with elongate, rounded wings, belonging to the *Aloeides oreas* Tite & Dickson species-group. The upperside is orange with a broad black margin and apical patch. The LHW is reddish-brown with large silvery-white markings coalesced into a cloud-like patch. The submarginal series of spots are complete, clearly defined and consistent in size. The sexes are similar, with the wing-shape of the female rounder distally, and the orange ground colour paler.

Forewing lengths: male 13-15mm; female 16-17mm.

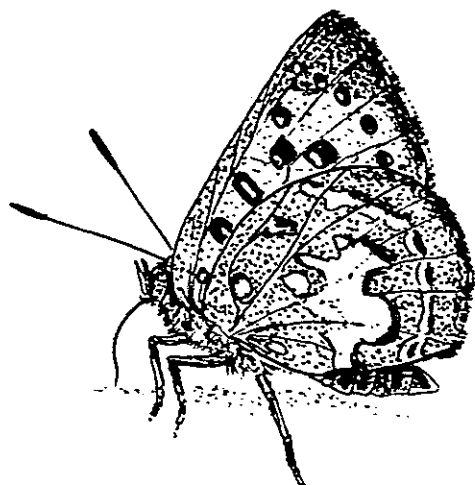


Figure 52. *Aloeides nubilus* male underside. (Del. S.F. Henning)

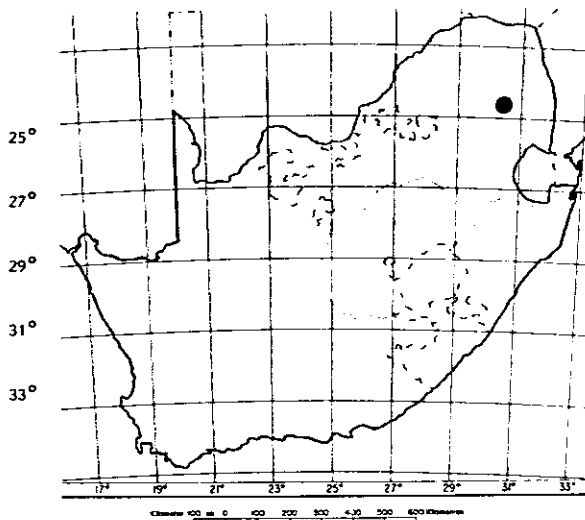
Life history. Unknown.

HABITAT AND ECOLOGY. This species inhabits the moist highland areas of the Eastern Transvaal in the Sabie area. It is found on rocky outcrops in grasslands that occur at high altitude and often near forested areas. It exhibits the usual *Aloeides* habits, sitting on rocks or on the ground. The males usually establish territories at strategic points along a rocky ridge. Also recorded at the highest point. The females fly at random in the area but are particularly fond of sheltered locations. The females spend a great deal of their time on the ground and have been seen to walk for some distance. Both sexes have been recorded on flowers. The adults are on the wing in September and October.

STATUS. The first specimens of this species were captured by D.R. Hull and D.J. Rossouw in September 1973, at Klipbankspruit. Dr A.R. Currie collected representatives near the Mount Sheba Nature Reserve in October 1977 and a further colony near Morgenzon Forestry was found by G.A. Henning and N.K. Owen-Johnston.

THREATS. Not under immediate threat. All three colonies are, however, near forestry operations and should these move nearer, then the situation could quickly change.

DISTRIBUTION. Eastern Transvaal; high altitude in the Sabie area. Colonies recorded at Klipbankspruit (1800m), near Mount Sheba (1900m), and from Morgenzon Forestry (1900m).



CONSERVATION MEASURES. None, but possibly the species will be found in the Mount Sheba Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Henning & Henning (1982): 234 - adult and habits.

Aloeides nollothi Tite & Dickson INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides nollothi Tite & Dickson, 1977. *Entomologist's Rec. J. Var.* 89(7):210. Type Locality: Port Nolloth, Cape Province.

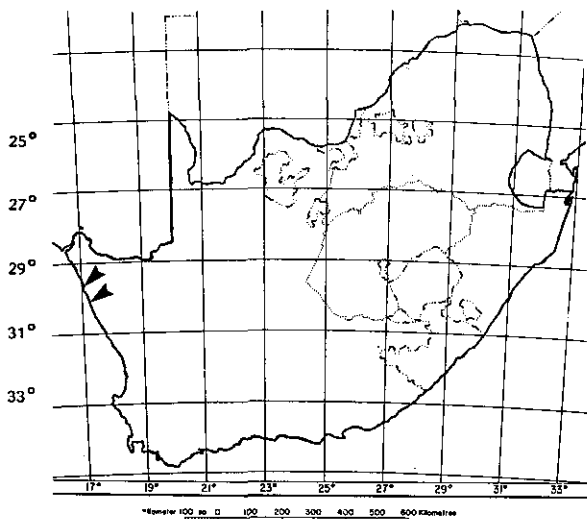
IDENTIFICATION. Male upperside, light tawny-orange with narrow greyish-black margins. The LHW is fuscous-grey with clearly defined dark-ringed greyish-brown spots. Spots in the marginal area tinged with yellow or pink. The female is similar to the male but with rounded wings and a lighter ground colour. Forewing lengths: male 11-15mm; female 14-16,5mm.

Life history. Unknown.

HABITAT AND ECOLOGY. This species occurs in the dry coastal scrub and sand dunes along the northern Nama-

qualand coast. It flies and settles in sandy patches often on the windless side of the bushes. Its flight is low and zigzagging, probably because of the windy conditions often prevailing in that region. The species is on the wing from September to January.

DISTRIBUTION. Endemic to the Western Cape, at McDougall Bay, Port Nolloth and Hondeklip Bay along the Namaqualand coast.



STATUS. A few odd specimens of this species have been recorded over the years but have been associated with *Aloeides simplex* (Trimen). It was only when a number of specimens collected by I. Bampton in December 1974 were studied that it was conclusively proved to be a distinct species.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X	X	X

REFERENCE.

1. Pennington (1978): 115 - adult and habits.

***Aloeides merces* Henning & Henning RARE**

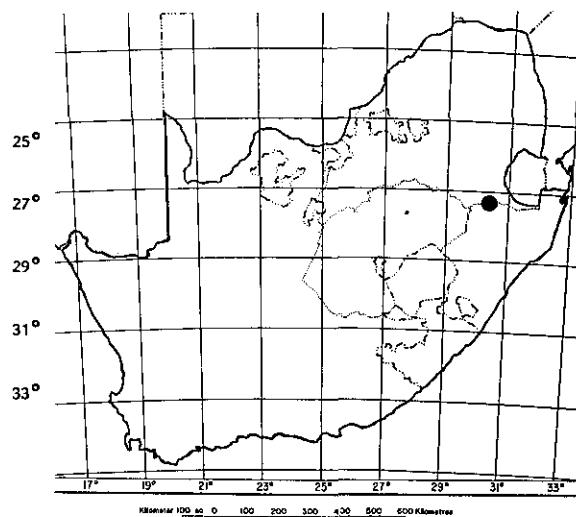
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides merces S.F.Henning and G.A.Henning, 1987. *J. ent. Soc. sth. Afr.* 49:339. Type Locality: Wakkerstroom, Transvaal.

IDENTIFICATION. The wing shape of this species is more rounded than that of related species. It is tawny-orange with even black margins and large white cilia on the upperside. The LHW is pale buff, sometimes with a rufous submarginal suffusion, and with a short row of small silvery-brown transverse spots. The female is similar to the male but with wings more rounded. Forewing lengths: male 12,5-13,5mm; female 14,5-15mm.

Life history. Unknown.

DISTRIBUTION. High elevation mountains above Wakkerstroom in the south-eastern Transvaal and on Majuba, just across the Natal border.



HABITAT AND ECOLOGY. A strangely elusive species, sparsely encountered on the highest peaks, apparently coming up from the very steep north-western facing slope of the mountain concerned and on the steep slope below the edge. Only recorded at an altitude about 2000 metres. Its flight is low and elusive; when disturbed it flies very fast. The species leaves the peaks just after 14h00 in the afternoon. The females fly slower than the males and have been recorded on the peaks, as well as on the steep slopes below the peaks. Very few specimens have been recorded but this species apparently flies in October and November.

STATUS. Discovered by S.F. and G.A. Henning and Dave and Esme Edge, on 4 November 1984. The species was first recorded from the top of Majuba by S.E. Woodhall.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Henning and Henning (1987): 339 - adult and habits.

Aloeides clarki Tite & Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides clarki Tite & Dickson, 1968. *Bull. Br. Mus. nat. Hist. (Ent.)* 21(7):382. Type Locality: Aloes, Coega Flats, Cape Province

IDENTIFICATION. A small species with orange costa and prominent white cilia on the upperside. The LHW is grey-brown with silvery-grey markings edged with black and pale buff patches. The female is similar to the male but with more rounded wings.

Forewing lengths: male 12-12,5mm; female 12,5-13mm.

Life history. The eggs are white to pale greenish-white in colour with a fine reticulated pattern, 0,9mm in diameter by 0,5mm high. Upon emergence the 1st instar larva is 1,25mm long; the body is stone-coloured with reddish-brown longitudinal lines and markings. The last instar recorded was the fourth, which was 6mm long, greyish-green with darker reddish-brown lines and markings. The pupa is unrecorded¹.

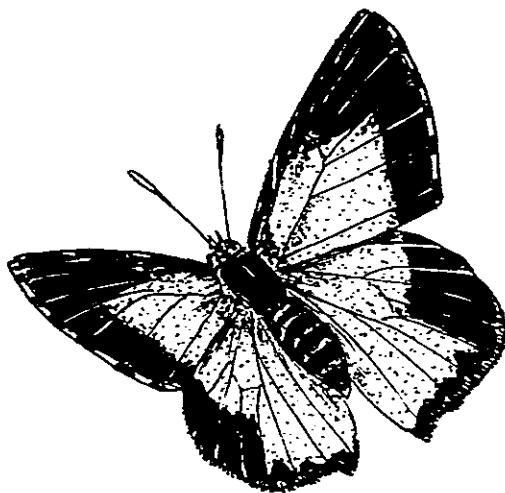
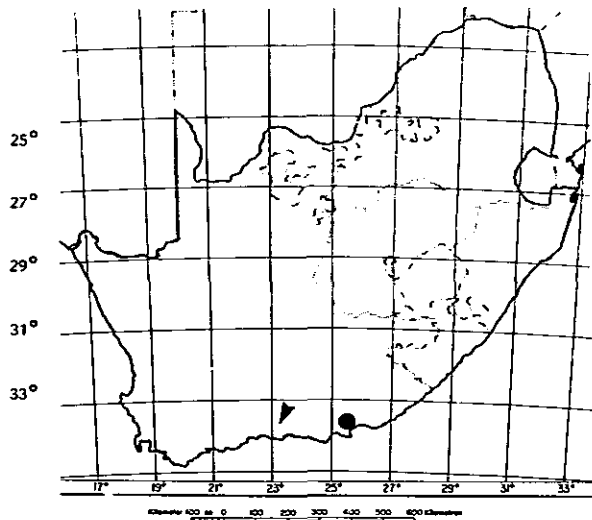


Figure 53. *Aloeides clarki* male upperside. (Del. S.F.Henning)

DISTRIBUTION. Endemic to the Eastern Cape, inhabiting coastal flats to the north of Port Elizabeth. Also recorded along the Sundays River and at Avontuur.



HABITAT AND ECOLOGY. An inhabitant of low altitude, relatively dry bush. It flies around sandy patches. Its habits are similar to those of allied species. It has been recorded from October to April. It can be quite common in the areas that it inhabits. The foodplant is a species of *Aspalathus* (Fabaceae). The eggs are laid singly. The second instar larva spins a small "nest" between the leaves of the foodplant in which to hide. In the study by Clark all the larvae died in the fourth instar. Possibly the larvae needed the presence of ants as has been recorded in some related species.

STATUS. Discovered by D.G. Clark in 1963. The life history was partly depicted by G. Clark in a coloured plate published with the original description.

THREATS. Development of the Aloe flats to the north of Port Elizabeth poses a threat to the well known colonies. The full extent of the threat must still be ascertained.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATION REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Clark and Dickson (1971): 217 - life history.
 2. Pennington (1978): 118 - adult and habits.

Aloeides lutescens Tite & Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

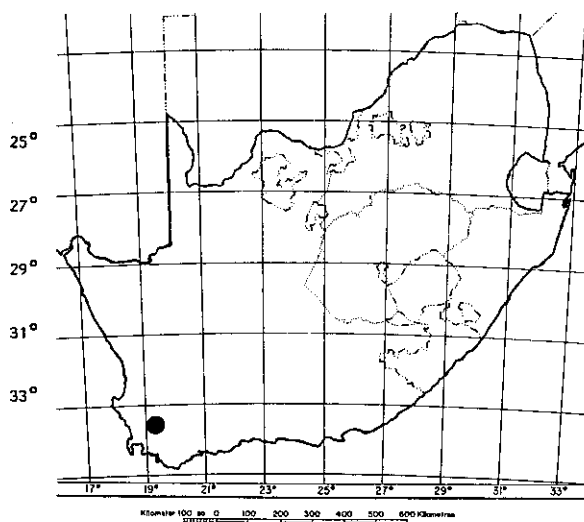
Aloeides lutescens Tite & Dickson, 1968. *Bull. Br. Mus. nat. Hist.* (Ent.) 21(7):385. Type Locality: Brandvlei, Cape Province.

IDENTIFICATION. Upperside orange ground colour pale, margins moderately wide with conspicuous white-chequered cilia. The LHW is pale ochre with silvery-grey markings, and dark brown edging. Female similar to the male but with rounder wings.

Forewing lengths: male 13-14mm; female 14-15mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, found on the low lying areas around Brandvlei Dam and below the Roodeberg in the Robertson Karroo.



HABITAT AND ECOLOGY. This species inhabits the lower slopes of the hills in dry sandy terrain. Its pale colour, in particular the underside, renders it inconspicuous as it settles on the patches of gravel and sand in the area. *A. lutescens* flies close to the ground. The flight is of short duration, but quick and erratic. The foodplant is probably an *Aspalathus* (Fabaceae), a common plant in the habitat of *A. lutescens*. The butterfly is on the wing from October to March.

STATUS. Discovered by C.G.C. Dickson on 10 December 1963 at Brandvlei Dam. Only known from Brandvlei for quite some time until recorded below the Roodeberg by Kaplan and Cottrell.

THREATS. There has been considerable development in the Brandvlei area and as a consequence the localities inhabited by this species appear to have been disturbed.

The butterfly is seldom seen in its original haunts. An assessment of the current status of the colonies at Brandvlei must be made and the viability of the Roodeberg colonies should also be established.

CONSERVATION MEASURES. Listed as a protected wild animal of the Cape Province, 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 120 - adult and habits.

Aloeides carolynnae Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides carolynnae Dickson, 1983. *Entomologist's Rec. J. Var.* 95:4. Type Locality: Goudini, Western Cape.

IDENTIFICATION. Male upperside bright orange with broad apical and outer black margins with some darkening along the veins. LHW reddish-brown with silvery-white spots sometimes joined into indistinct patches. The female has rounder wings than the male but is otherwise similar.

Forewing lengths: male 11-16mm; female 13-16mm.

DISTRIBUTION. Slanghoek Valley near Goudini, Western Cape Province.

HABITAT AND ECOLOGY. Dr J. Ball comments in the original description that the species was found on the slopes of the valley about 200 metres above the valley floor and only at three localised locations. The area consists of Cape "fynbos" with open rocky spaces. Three species of *Aspalathus* were noticed with females of this species on them although no oviposition was observed. Their flight is similar to that of other species in the genus, consisting of short swift flights then settling on vegetation or on the ground, often returning to a preferred spot. The flight period is from November to March.

STATUS. Discovered by Dr J. Ball on 1st March 1980 in the Slanghoek Valley near Goudini.

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Dickson (1983): 4 - adult and habits.

Aloeides egerides (Riley) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis thyra f. *egerides* Riley, 1938. *Trans. R. ent. Soc. Lond.* 87:238. Type Locality: Red Hill, Simon's Town, Cape.

IDENTIFICATION. A relatively small species with broad black margins and bright orange ground colour on the upperside. The LHW is brown to rich reddish-brown with a large silvery-white transverse patch and spots. The female is similar with a rounded wing-shape. Forewing lengths: male 13mm; female 14mm.

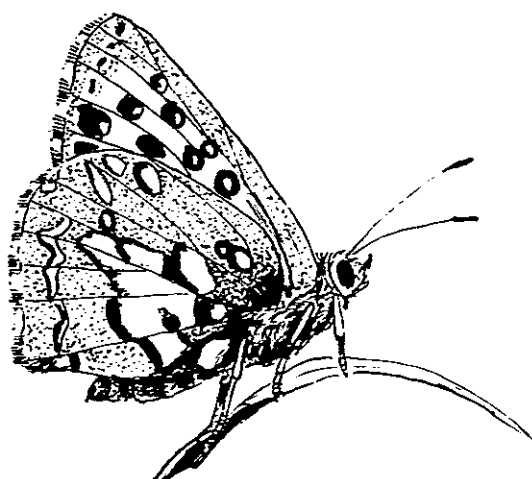
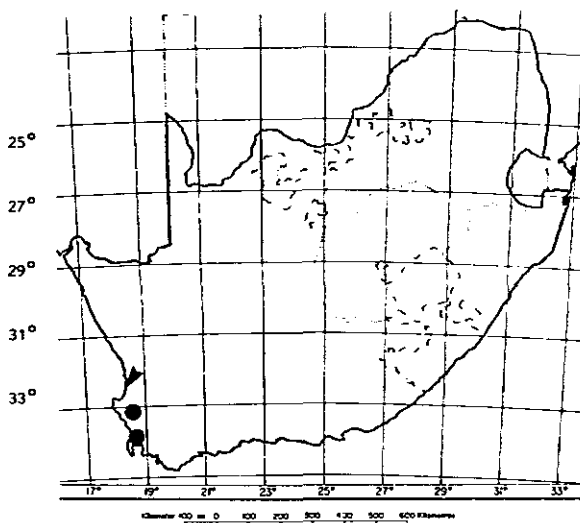


Figure 54. *Aloeides egerides* male underside. (Del. S.F. Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. An inhabitant of sandy ground usually among the fynbos. Not normally a high elevation species; usually found in fairly flat or coastal areas. The type locality, however, is on Red Hill above Simon's Town, which is a decidedly hilly habitat. The males establish territories in open sandy patches while the females fly about at random searching for the foodplant on which to lay their eggs. Recorded from October to April.

DISTRIBUTION. Endemic to the Western Cape. Found originally on the Peninsula it has subsequently been recorded from as far north as Lambert's Bay. Other localities include Philadelphia, near Mamre, Katzenberg Hill and Piquetberg.



STATUS. Discovered by C.G.C. Dickson while collecting with P.R. Robertson on Red Hill above Simon's Town on 5 December 1933. Subsequent specimens collected by Robertson were sent to the British Museum (Natural History) where the butterfly was described by N.D. Riley as a form of *Aloeides thyra* (Linnaeus). It was subsequently raised to specific status by Tite and Dickson² in 1968.

THREATS. Much of the habitat in this area of the Cape has been affected by housing, industry and farming. Some of the localities where this species was formerly plentiful have been affected and the species is becoming difficult to find. It has apparently not been recorded in any of the nature reserves in the area.

CONSERVATION MEASURES. Protected under the Cape Province Ordinance 19 of 1974, Schedule 2 (Protected Wild Animals) - amendment effective from 13 February 1976.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Pennington (1978): 120 - adult and habits.
2. Tite & Dickson (1968): 385 - adult.

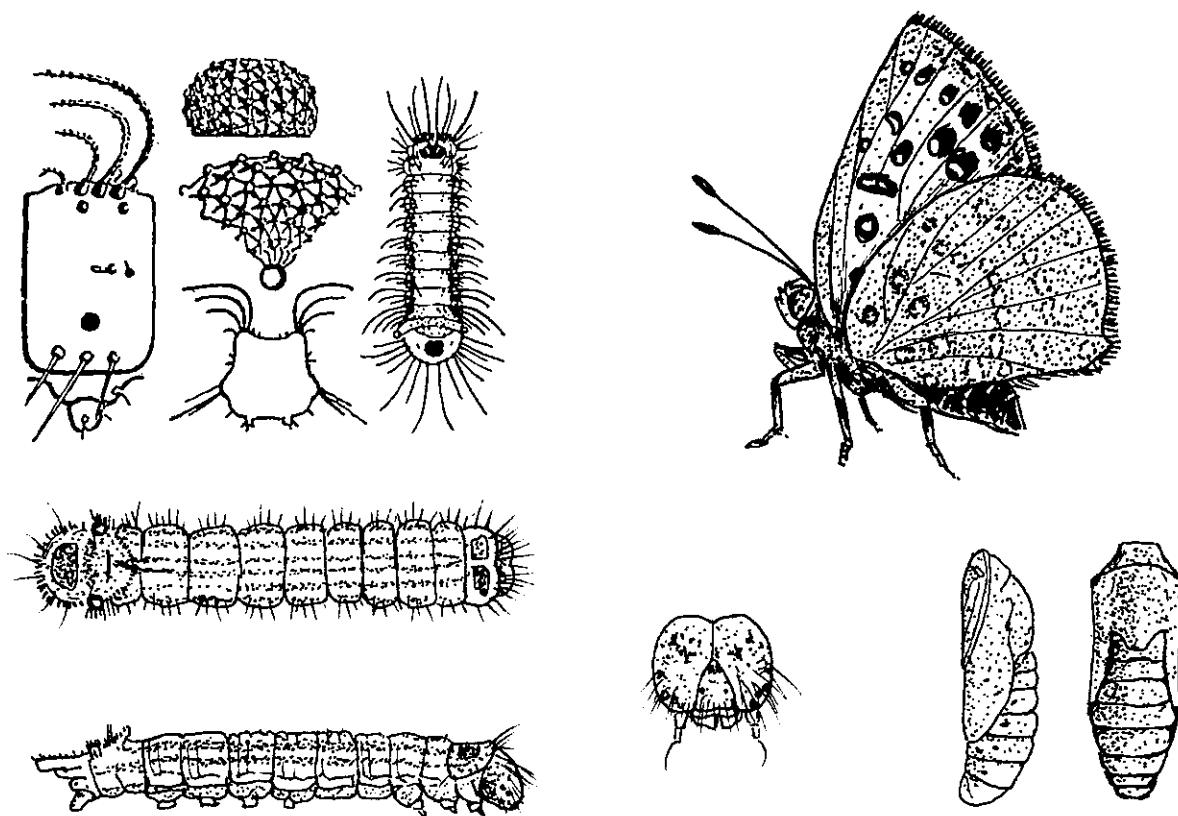


Figure 55. *Aloeides trimeni southeyae* male underside (top right) (Del. S.F.Henning). *Aloeides trimeni trimeni* egg, first instar, enlargement of seventh segment, cross section (top left) (del. Clark in Clark & Dickson, 1956); final instar larva, top and side view (bottom left); pupa (bottom right) (Del. S.F. Henning).

Aloeides trimeni southeyae Tite & Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Aloeides trimeni southeyae Tite & Dickson, 1973. *Bull. Br. Mus. nat. Hist. (Ent.)* 29(5): 260. Type Locality: Mossel Bay, Cape Province.

IDENTIFICATION. The male differs from that of the nominate *A. trimeni* Tite & Dickson by the complete absence of tawny-orange markings on the upperside, thus being uniform dusky brown with a golden sheen. The LHW is greyish-brown with ochre submarginally. The spots are small and dark. The female has a fuscous to orange basal area on the UFW with a duller colour on the UHW.

Forewing lengths: male 12,5-16mm; female 13,5-17,5mm.

Life history. Unknown. The life history of the nominate subspecies is as follows; Egg 0,9mm in diameter by 0,5mm high. Creamy-white when first laid darkening to purplish-brown as development proceeds. The first instar on emergence is 1,25mm long and pale cream with reddish longitudinal stripes. The final (6th or 7th) instar attains a length of 20mm. It is pale green with darker green

longitudinal stripes. Head dark brown with darker markings. Tubercles and a honey-gland are present. The pupa is of the general form for the genus, and is 11mm long¹.

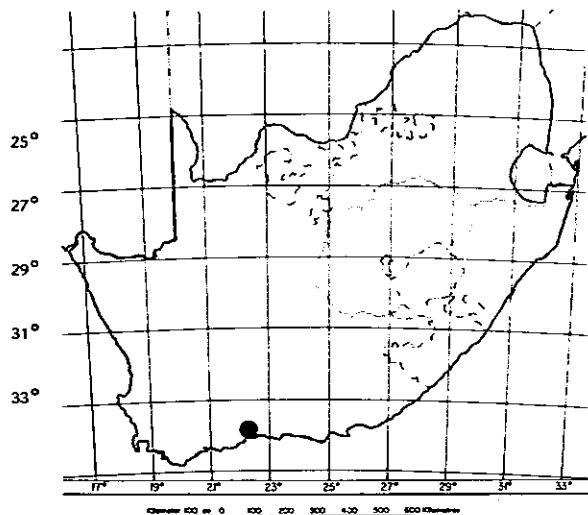
HABITAT AND ECOLOGY. Recorded flying in a stony depression on the side of the national road and on the hills near the Gouritz River. The habits of the nominate subspecies show that the males establish territories on bare rocky patches to which they return time and again after being disturbed or after giving chase to another, intruding male. The flight period is from September to March. The larval foodplant in the Cape has been identified as an *Aspalathus* sp. (Fabaceae)¹ and in the Transvaal it has been bred on *Hermannia depressa* N.E.Br. (Sterculiaceae) from the type locality at Witpoortjie (Ruimsig)³. In the Eastern Cape the eggs are laid on low shrubs. The larvae rest, pressed to a stem, low down on the plant. They are associated with an unidentified species of ant. In the Transvaal the eggs are laid on the buds or fresh leaves of the foodplant.

STATUS. The oldest known record was by R.C. Wood on 2 December 1938 near Mossel Bay. C.G.C. Dickson recorded five males near Mossel Bay on 20 September 1950 and with the one female recorded by him east of the Gouritz River Bridge on 12 March 1965, represent the

type series. The species was named in honour of Mrs R. Southey. Very few records exist of this rare subspecies.

THREATS. This area of the southern Cape is being developed and the known habitats of this butterfly must be monitored to ensure its future.

DISTRIBUTION. Endemic to the Cape, occurring in the Mossel Bay district to the east side of the Gouritz River.



CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X X

REFERENCES.

1. Clark & Dickson (1971): 229- life history and habits of nominate subspecies.
2. Henning (1984): 100 - life history of nominate sub species.
3. Pennington (1978): 124 - adult and habits.
4. Tite & Dickson (1973): 260 - adult, life history and habits.

Chrysoritis oreas (Trimen) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Zeritis oreas Trimen, 1891. *Trans. ent. Soc. Lond.* 1889:176. Type Locality: Mount Niginya, Estcourt District, Natal.

IDENTIFICATION. A small orange species on the upper-side, with broad black margins and postdiscal black spots. The LHW wing is pale ochreous-brown with concentric brown zigzag markings. The sexes are similar, the wing shape of the female is rounder.

Forewing lengths: male 12-13mm; female 13-14mm.

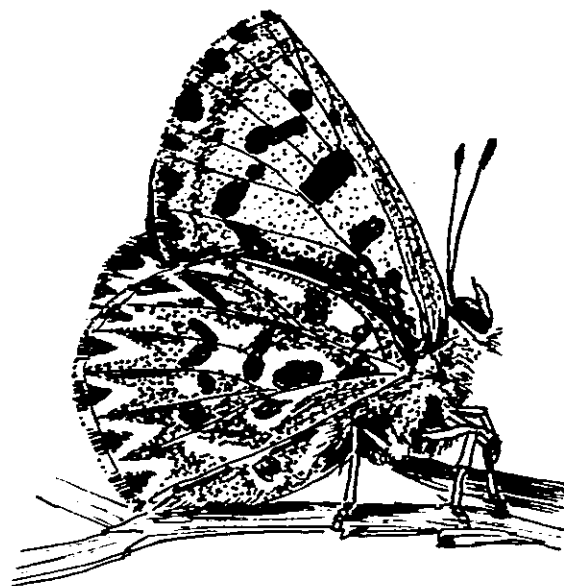


Figure 56. *Chrysoritis oreas* male underside. (Del. S.F.Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. High elevation grassland (2100 metres). The flight is fairly slow, zigzagging or circling about 250-500cm above the ground and frequently settling, usually on bare spots. It is inclined to shelter in tufts of grass if a strong wind is blowing. The males are territorial returning to the same spots time and time again. Neighbouring males often chase each other when one of them intrudes on the others territory. The females usually fly at random, resting here and there on the ground or on a low shrub on which she oviposits. The best time of the day is from about 10h00 to 14h00 but it can still be found as late as 17h00. The flight period is from September to November.

STATUS. First discovered by J.M. Hutchinson in September 1890. The type locality is near the summit of Mount Niginya, Natal, 2130m. Subsequent records show it to be widespread in the foothills of the Natal Drakensberg to Bulwer.

THREATS. None known.

DISTRIBUTION. Mount Niginya, Loteni Valley, Sani Pass, Garden Castle, Bulwer and Bushmansnek, Natal (ie. eastern slopes of the Drakensberg at an elevation of 2100 metres).

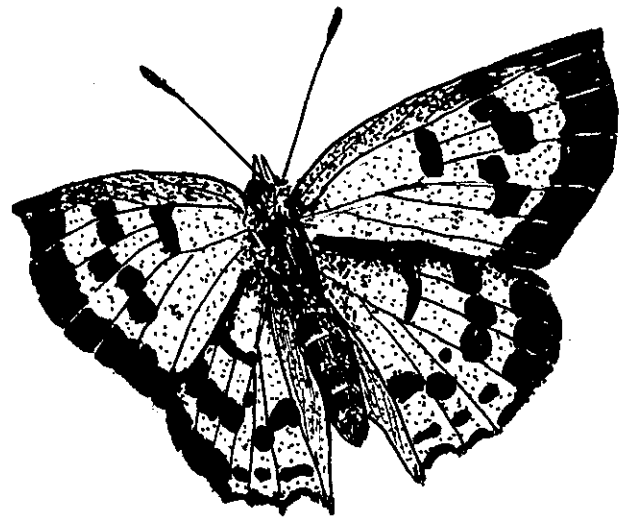
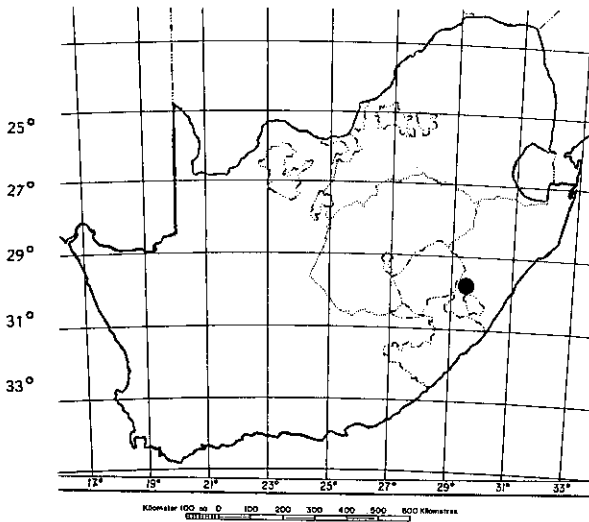


Figure 57. *Chrysoritis cottrelli* male upperside. (Del. S.F.Henning)

CONSERVATION MEASURES. It will be found in various reserves and wilderness areas along the eastern Drakensberg. It has already been recorded in the Loteni Nature Reserve and the Mzimkulwana Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 127 - adult and habits.
2. Swanepoel (1953): 127 - adult and habits.

Chrysoritis cottrelli Dickson ENDANGERED

LYCAENIDAE THECLINAE Tribe: APHNAEINI

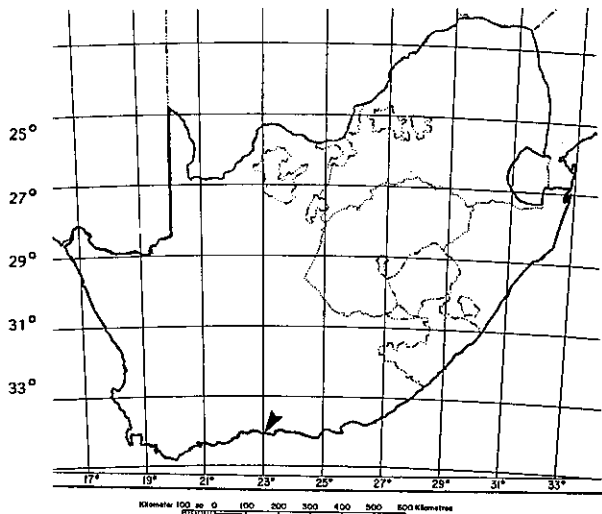
Poecilmitis (Chrysoritis) cottrelli Dickson, 1975. *Entomologist's Rec. J. Var.* 87:225. Type Locality: Buffelsnek Forestry, Knysna, Cape Province.

IDENTIFICATION. The wing-shape is distinctive, having an acutely pointed apex to the forewing. The upperside is coppery-orange with broad brown borders and black post-medial spots. The underside is "flat" brown with roughly circular markings, only slightly darker than the ground colour. Both sexes are similar but the female is larger with rounder wings.

Forewing lengths: male 11-13mm; female 15mm.

Life history. Unknown.

DISTRIBUTION. Inland of Knysna.



HABITAT AND ECOLOGY. The habitat includes *Chrysanthemoides* bushes in forest glades or near forest edges. The imago flies about and settles on the bushes and seldom ventures far from the plant. The flight is not sustained or quick unless the butterfly is disturbed. The foodplant is probably *Chrysanthemoides monilifera* L. (Asteraceae). The flight period includes December.

STATUS. Discovered by J.A. Cottrell on 16 December 1969 near Spitzkop, Buffelsnek Forestry, Knysna. Dr C.B. Cottrell reports that when he visited the area again in 1975 it was being planted with pines and although the little patch of indigenous forest at the stream-head will remain, the borders will by now be pretty well heavily shaded by pines, with the possible exclusion of the *Chrysanthemoides* plants.

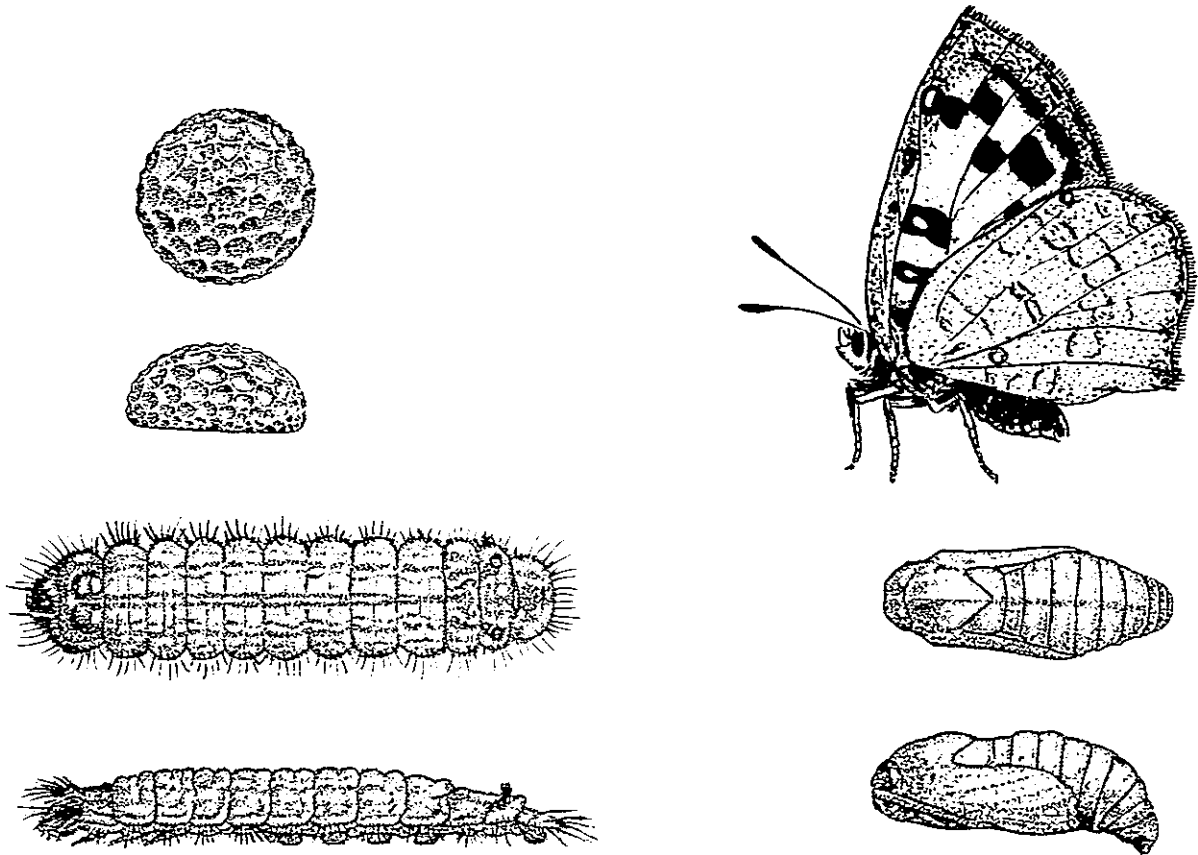


Figure 58. *Poecilmitis pyroeis hersaleki* male underside (top right) (Det. S.F. Henning). *Poecilmitis pyroeis pyroeis* egg (top left); final instar larva, top and side view (bottom left); pupa, top and side views (bottom right) (after Dickson, 1948).

He only saw a single male on this occasion. An early record which could have been of this species was made by G. Clark on the Elands River; the whereabouts of this specimen is unknown. Dr J.B. Ball has been searching suitable streamheads from Knysna to Stormsrivier for some 12 years for this butterfly without success.

THREATS. Deforestation and planting of pines has possibly already destroyed known colonies.

CONSERVATION MEASURES. No conservation measures currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 127 - adult and habits.

Genus *Poecilmitis*

A large endemic genus of small more or less orange-coloured butterflies with black dots on the upperside. Many species have iridescent blue on the uppersides making this one of the most beautiful genera in South Africa. The larvae are entirely phytophagous although most species appear to be dependent on the presence of ants to complete their life cycle.

Poecilmitis pyroeis hersaleki Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis pyroeis hersaleki Dickson, 1970. *Entomologist's Rec. J. Var.* 82:157. Type Locality: Witteklip Mountain, Cape Province.

IDENTIFICATION. Upperside reddish-orange with black spots. Bases of both wings broadly black and densely blue-scaled. In the male a pinkish lustre is found over the reddish-orange of the hindwing and the forewing proximal to the postdiscal spots. UFW with broad outer-marginal border. Underside with costa and apex of fore-wing and whole of hindwing pale ferruginous-brown.

LFW otherwise orange with black spots. LHW often almost spotless, the submarginal row of pale dots sometimes replaced by a faint reddish line; discal row often represented by spots barely distinguishable from the ground colour. Both sexes are similar.

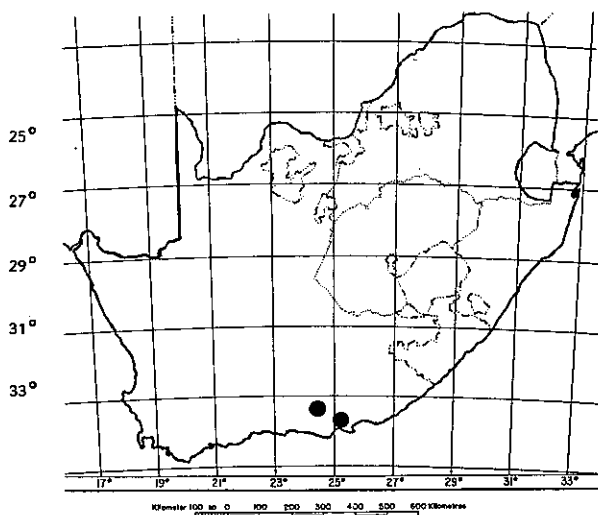
Forewing lengths: male 13-15mm; female 14-16mm.

Life history. Unknown. The nominate subspecies is as follows: The egg has the usual reticulated pattern and is milky white changing to dark grey as development proceeds. It is 0,95mm in diameter and 0,6mm in height. The final instar larvae attain a length of 20mm. The body colour is variable, usually being greyish-brown to reddish-brown, but occasionally even pale green. Longitudinal lines and most of the darker markings on the last few segments are dull vinous to reddish-brown. Tubercles are present in all instars. The honey-gland is present from the second instar. The pupa is 10-13mm long and is fairly stout. The general colour may be various shades of brown or a combination of brown and dull green².

HABITAT AND ECOLOGY. Its habitat is well vegetated, rocky, mountain slopes. It tends to keep to the slopes (up to about 350m) at Witteklip or on slopes of hills caused by a river dissecting a plain (St Albans). *P.p.hersaleki* has a brisk flight, close to the ground, but usually of short duration. Normally it settles on the ground or on low bushes and flies as long as the sun shines despite strong south-westerly winds. The males establish fairly large territories and will chase any other intruding males, but spend long periods at rest on the ground or on low bushes. The female flies at random, feeding on flowers, resting on bushes or laying eggs. The foodplant of the nominate subspecies is *Zygophyllum flexuosum* E. & Z. (Zygophyllaceae) and other species of this genus. A female was observed investigating several bushes. It eventually crawled down to the lower part of one of the plants and laid two eggs, separately, on leaves. The final instar larvae, in association with ants, are found during the day in little chambers at the base of the stems of the foodplants. The larvae are associated with the ant *Camponotus dicksoni* Arnold. The pupa is generally found in shelters made by the host ant or in the small chambers just below ground level at the base of the foodplant. The larvae and pupae are always accompanied by the host ant². The flight period is from September to April.

STATUS. Discovered by C.G.C.Dickson and G.C. Clark on 27 November 1949 on Witteklip Mountain (Lady's Slipper). Specimens collected by L.P. Hersalek on 1 December 1967 led to its being described as a subspecies.

DISTRIBUTION. Endemic to the Cape. On the Vanstadensberg including Witteklip Mountain, at about 300-400m above sea level, and St Albans, west of Port Elizabeth; also recorded from the Baviaanskloof Mountains.



THREATS. The planting of pines in this region is a potential threat.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Clark & Dickson (1971): 168 - life history and habits.
2. Dickson (1948): 50 - life history and habits.
3. Pennington (1978): 130 - adult and habits.

Poecilmitis lyncurium (Trimen) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

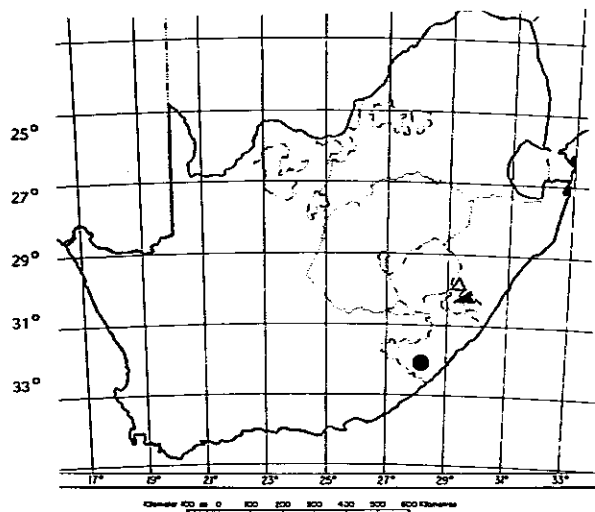
Zeritis lyncurium Trimen, 1868. *Trans. ent. Soc. Lond.* 1868:86. Type Locality: Tsomo River, Caffraria.

IDENTIFICATION. A small brassy-orange species with moderately wide black margins and a single large black spot at the end of the forewing cell, and indistinct

postdiscal spots. The LHW is dusky brown with indistinct brown spots. The female has more rounded wings and a paler orange upperside. Forewing lengths: male 11-13mm; female 13-14mm.

Life history. Unknown.

DISTRIBUTION. Tsomo River, Mbulu Forest, Transkei. Specimens identified as this species have also been recorded from Kokstad and one from Bushmansnek, Natal.



HABITAT AND ECOLOGY. The habitat consists of rocky slopes with stunted bushes. The flight is slower and weaker than that of most other *Poecilmitis*. The males establish territories along the slopes of hills, always in the vicinity of their foodplants. Females were found in numbers feeding on the yellow flowers of a small plant on the slopes, above the "bush", in Mbulu Forest. The foodplant is believed to be *Royena* (Ebenaceae) and *Myrsine* (Myrsinaceae), but this is not yet confirmed. Trimen records the discoverer of the species as saying they were, 'flitting about stunted bushes growing between rocks upon a lofty hill ridge.' The recorded flight period is from December to January.

STATUS. The species was discovered by Colonel Bowker in December 1864 near the Tsoomo River, Transkei. Subsequently recorded in Mbulu Forest near Tsoomo, at Kokstad and in Natal at Bushmansnek.

THREATS. No immediate threats.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976). The Bushmansnek locality is in the Mzimkuluwana Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 128 - adult and habits.
2. Swanepoel (1953): 141 - adult and habits.

Poecilmitis aureus Van Son

RARE

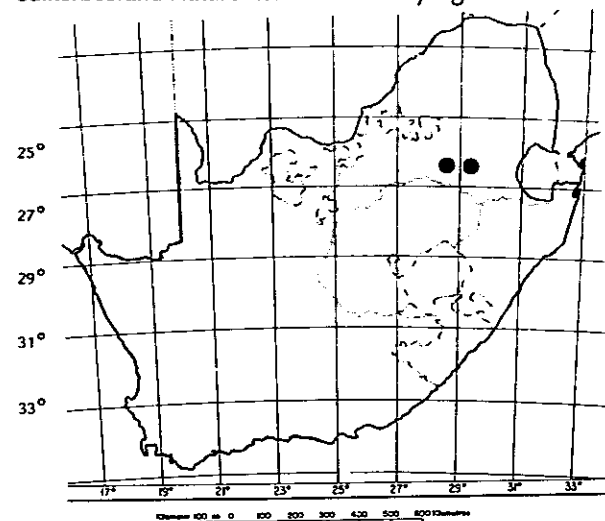
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis aureus Van Son, 1966. *Ann. Transv. Mus.* 25(6):82. Type Locality: Heidelberg, Transvaal.

IDENTIFICATION. This species is coppery-orange on the upperside with narrow black margins and postdiscal spots. The LHW is pale ochreous-brown with small darker brown spots. The LFW has a large black elongated spot, just above the tornus, which is distinctive of this species. The female is larger and paler than the male with more rounded wings. Forewing lengths: male 12-15mm; female 15-17mm.

Life history. The eggs are 0,8mm in diameter by 0,5mm high, with a honey-comb pattern. They are white when first laid developing a pinkish colour within a few hours. The final (sixth) instar larva attains a length of 16mm and is pale yellowish-green with reddish-brown longitudinal lines. The head is black, neck and anal shields are dark brown. Tubercles are present in all instars; the honey-gland appears from the second instar, onwards. The pupa is dark brown and 10mm long, and is attached by the cremastral hooks¹.

DISTRIBUTION. Endemic to the Transvaal; Heidelberg, Suikerbosrand Nature Reserve and Greylingstad.



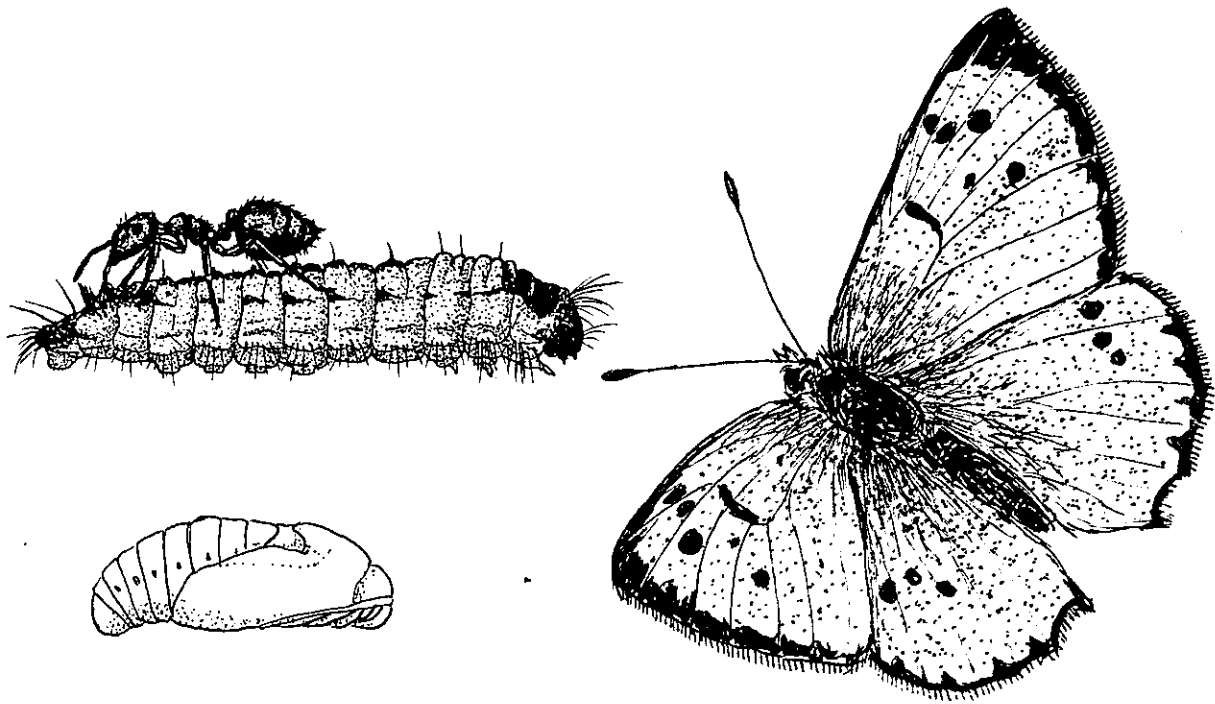


Figure 59. *Poecilmitis aureus* male upperside (right); final instar larva with host ant, *Crematogaster* sp., investigating the honey-gland (top left); pupa (bottom left). (Del. S.F.Henning)

HABITAT AND ECOLOGY. Flies on the slopes of hills, wherever its foodplant and host ant occur together. It settles frequently on rocks or shrubs. The males often establish their territories at the bottom of very large rocks near the tops of hills. Grassy, damp patches in these spots are favoured. The males fly moderately fast, back and forth, in their territories. If one encounters another male, it will chase it away from the territory. The foodplant is *Clusia pulchella* L. (Euphorbiaceae). The females have been observed to oviposit directly on the foodplant and on rocks near the pheromone trails of their host ants. The eggs were laid singly. The young larvae fed on the surface of the leaves, while the older larvae fed on the edges. During the day the older larvae left the foodplant and sheltered under nearby rocks, constantly attended by ants of the genus *Crematogaster*. No pupae have been found in the wild so where they pupate could not be ascertained. The adults are on the wing from September to January.

STATUS. First captured at Heidelberg in the Transvaal by C. Barrett and F. Coetzee in December 1959. This colony remained the only known one of this species until fairly recently; and the butterfly was put on the protected list by the Transvaal Division of Nature Conservation. Several additional colonies of this butterfly have been found both east and west of the original locality. This species was recorded at Greylingstad by G.A. Henning and found in the Suikerbosrand Nature Reserve in September 1986 by members of the Lepidopterists' Society of Southern Africa during a research trip.

THREATS. Being recorded from the Suikerbosrand Nature

Reserve and with the original colony now a proclaimed Natural Heritage Site, sheltered by the South African Defence Force on their property, effectively removes this butterfly from any immediate threat.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Transvaal in 1985 (Ordinance 12 of 1983, Section 45, Schedule 7: Appendix 7). The type locality at Heidelberg is on Military ground as well as being a Natural Heritage Site and consequently enjoys protection. The species has also been recorded in the Suikerbosrand Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Henning (1983): 72 - life history and habits.
2. Pennington (1978): 128 - adult and habits.

Poecilmitis wykehami Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

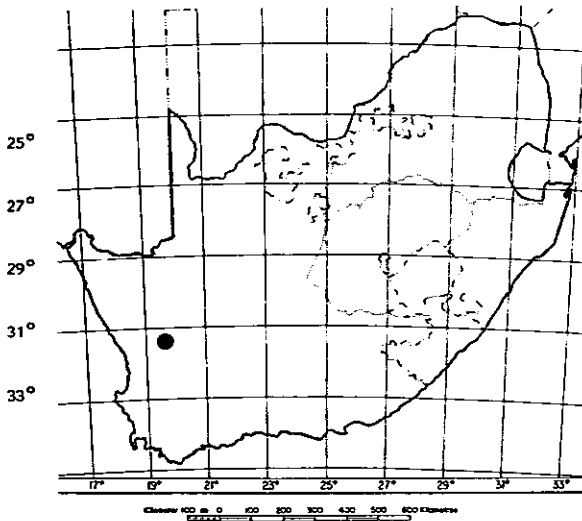
Poecilmitis wykehami Dickson, 1980. *Entomologist's Rec. J. Var.* 92:40. Type Locality: Hantamsberg, Calvinia, Cape Province.

IDENTIFICATION. The upperside is bright orange-red

with a narrow black margin and large black postdiscal spots. The cilia are distinctly checkered black and white. The LHW is sandy-brown with sagittate patches of golden-brown and silvery-white at the base and around the submarginal area. This species is closely related to *Poecilmitis turneri* Riley. The female is paler with more rounded wings.

Life history. Unknown.

DISTRIBUTION. Hantamsberg, Calvinia, Cape Province.



HABITAT AND ECOLOGY. Occurs around rocky ridges on top of the Hantamsberg (1600m) and is very localised. Its flight is very fast, from 60cm to 120cm above the ground, being very difficult to follow among the rocks and shrubs. The males are territorial and often alight on stones or on the ground; more usually they settle on low shrubs. Occasionally, a male can be observed fluttering about its territory. If another male intrudes, the two males whirl around each other for a time before returning to their respective "perches". The female flies at random throughout the area occupied by the males, laying her eggs or feeding. The flight period is from October to March.

STATUS. Discovered by C.W. Wykeham on 4 March 1978 on the Hantamsberg, Calvinia.

THREATS. None known

CONSERVATION MEASURES. No conservation measures currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

- Dickson (1980): 40 - adult and habits.

Poecilmitis brooksi tearei Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis brooksi tearei Dickson, 1966. *Entomologist's Rec. J. Var.* 78:217. Type Locality: Riversdale, Cape Province.

IDENTIFICATION. Male upperside orange-red with costa very dark, the outer margin fairly broad and dentate and with large black spots. Basal blue extends to discal area. LHW pale sandy-brown with discal and postdiscal areas darker and streaked with silver. Female similar to male but upperside basal blue not as extensive, and without the shifting lustre of the male.

Forewing lengths: male 12-14mm; female 13-15mm.

Life history. Unknown. The life history of the nominate subspecies is as follows: The eggs are 0,8mm in diameter, are "bun"-shaped and are sculptured in a coarse honeycomb pattern. They are creamy-white. The full grown larvae are about 16mm in length and are dull greyish-brown with vinous-brown longitudinal stripes and other markings at the anal end. The head is black, and tubercles and a honey-gland are present. The pupae are about 11mm long and are fairly short and broad; they are dark brown in colour¹.

HABITAT AND ECOLOGY. Inhabits fairly low hills, among low bushes. Its flight is rapid and quite low. The specimens recorded by Mr W. Teare were resting on the tops of low bushes. The males are territorial and are usually found sitting on the ground or small stones when the weather is cool. If the weather is very hot they usually select low shrubs on which to sit. They occasionally fly about their territory and will chase any intruders. They are seldom seen feeding on flowers. The females are found in the same areas as the males but they wander about looking for suitable foodplants on which to lay their eggs. The life history habits of subspecies *tearei* are unknown. The habits of the nominate subspecies are briefly as follows: The females lay single eggs on the foodplant, *Aspalathus spinosa* L. (Fabaceae). The larvae live in a miniature ants' nest which is attached to the stem of the foodplant. The larvae are always attended by the ants, *Crematogaster peringueyi* Emery, which have been seen to solicit honeydew from the honey-gland of the larvae. It appears that the ants make the miniature nest especially for the butterfly larvae. The pupae have been found in the long, flimsy, miniature ants' nests attached to the foodplant. The pupae hang almost vertically from a pad of silk woven on the inside of the shelter¹. The flight period is from September to April.

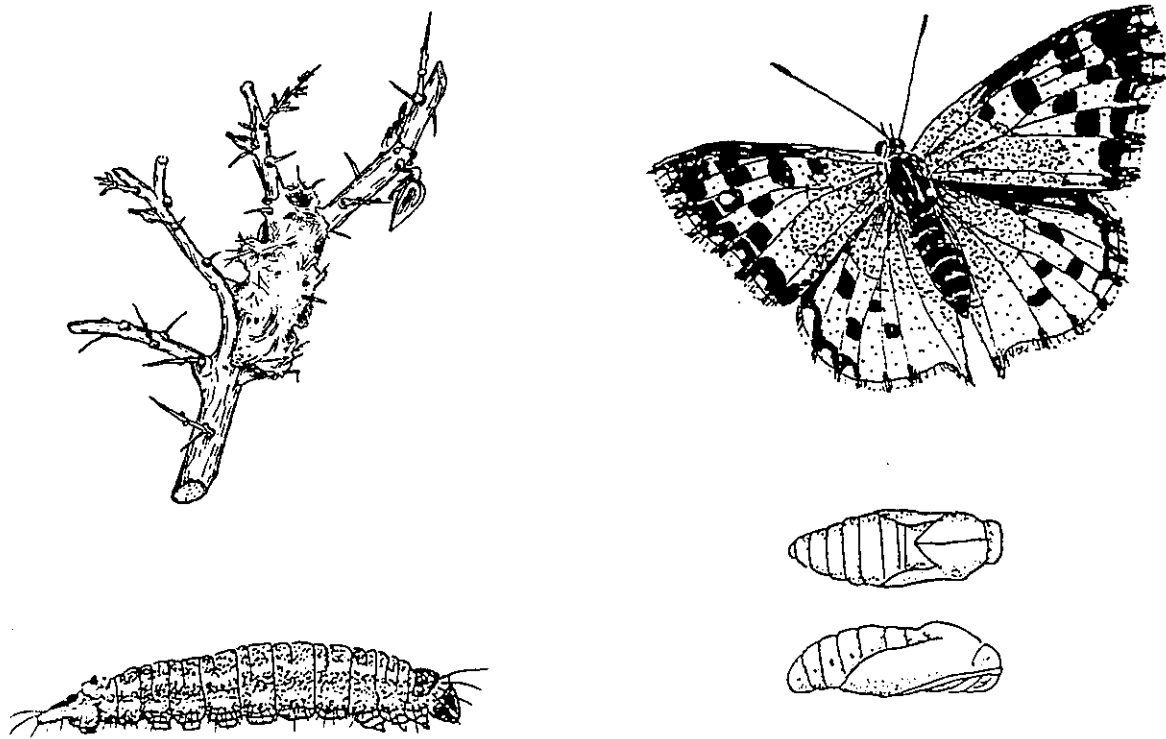
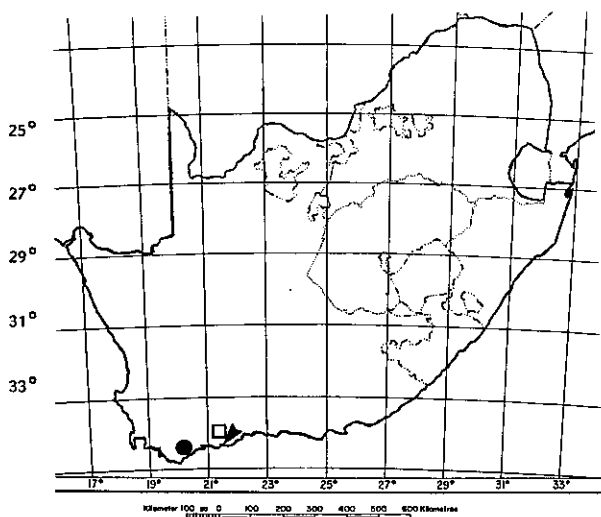


Figure 60. *Poecilmitis brooksi tearei* male upperside (top right). *Poecilmitis brooksi brooksi* final instar larva (bottom left); pupa (bottom right) (Del. S.F. Henning). Structure on foodplant (*Aspalathus spinosa* L.) containing larvae and pupae (top left) (Del. Dickson, 1959).

DISTRIBUTION. Endemic to the Western Cape. From east of Riversdale to the Bredasdorp district, and at Stilbaai on the coast.



STATUS. The first females were caught by Lt Col H.C. Bridges and the first male was seen by C.G.C. Dickson

near Riversdale. Later several specimens were caught by W. Teare on 23 November 1963, east of Riversdale. The localities inhabited by this species must be monitored and any potential threats must be acted upon. It is currently uncertain whether the type locality is still in existence as no recent records are available.

THREATS. Agricultural activities in this region are a possible threat.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

- Dickson (1959): 312 - life history and habits.
- Pennington (1978): 131 - adult and habits.

Poecilmitis rileyi Dickson RARE

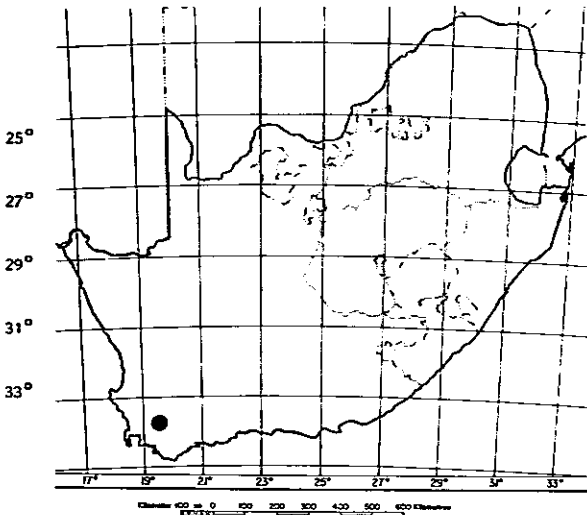
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis rileyi Dickson, 1966. *Entomologist's Rec. J. Var.* 78:241. Type Locality: Brandvlei Dam, Worcester, Cape.

INTRODUCTION. The upperside ground colour of the male is tawny-orange, the margins are quite broad and there are a few postdiscal black spots. There is an extensive pale silvery-blue basal area reaching the base of the postdiscal spots, encompassing the cell and, on the forewing, just reaching the margin at the tornus in some specimens. The female has larger and more numerous black spots and the basal blue is restricted to just the basal quarter of the wings. The LHW is pale ochreous with golden-brown patches and silvery-white sagittate markings.

Life History. Unknown.

DISTRIBUTION. Brandvlei, near Worcester, Cape Province.



HABITAT AND ECOLOGY. The habitat is at a very low elevation inland, being under 300m above sea level. This species occurs on rather sandy ground, somewhat sparsely covered with low bushes. It flies along the gentle, sandy slopes of a hill facing west and in parts of the adjoining area, and is often seen feeding on flowers of *Mesembryanthemum*. It flies rapidly and low. The males with their quick flight are elusive and quite often disappear from the spot in which they were first seen. The foodplant is possibly a species of *Aspalathus* (Fabaceae) (*A. spinosa* L.). The flight period is September to April.

STATUS. It was discovered by C.G.C. Dickson in December 1963 at Brandvlei, near Worcester. Apparently no

other localities have been found. The number of individuals in the only known colony have declined considerably in recent times. A considerable part of the habitat of *P. rileyi* has been destroyed in more recent years through disturbance of the ground in connection with local water works (Brandvlei Dam).

THREATS. Habitat destruction is a serious threat.

CONSERVATION MEASURES. The only hope of preserving this butterfly would be to have what remains of its habitat fully fenced in and proclaimed as a nature reserve. This species was placed on the protected wild animals list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 131 - adult and habits.

Poecilmitis pan Pennington INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis pan Pennington, 1962. *J. ent. Soc. sth. Afr.* 25(2):273. Type Locality: Farm Platrug, Malmesbury District, Cape Province

IDENTIFICATION. A relatively small *Poecilmitis* with an orange upperside and a small area of basal blue. The cilia are inconspicuous and orange in colour, the outer margin of the forewing in the male is quite straight. The LHW is distinctive in that it is "flat" pale brown with a few darker brown spots across it. The female is orange with black spots and very little basal blue; it can be differentiated from its congeners by the "flat" brown underside. Forewing lengths: male 12-15,5mm; female 15-16mm.

HABITAT AND ECOLOGY. Occurs in thick, low altitude macchia. Usually found in the vicinity of its foodplant *Chrysanthemoides incana* (Burm. F.) T. Norf. (Asteraceae). It flies around its foodplant and settles on low bushes or on the ground. When disturbed from its resting place it darts off and flies in a wide circle eventually returning to its original spot. The males are apparently territorial, as they do seem to keep to their own particular spots. The female is found in the same areas as the male but flutters slowly around the foodplant looking for suitable places to lay her eggs. The flight period is from August to December and April to June.

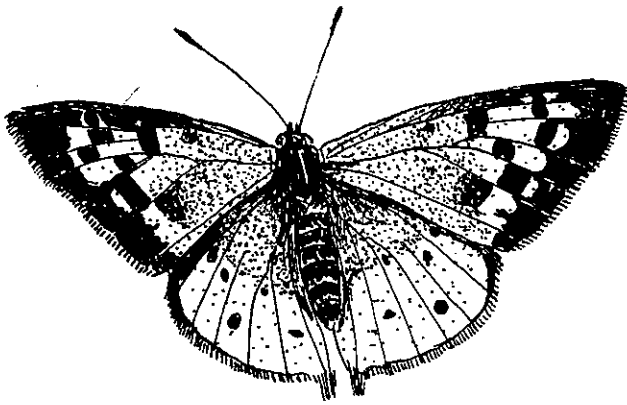
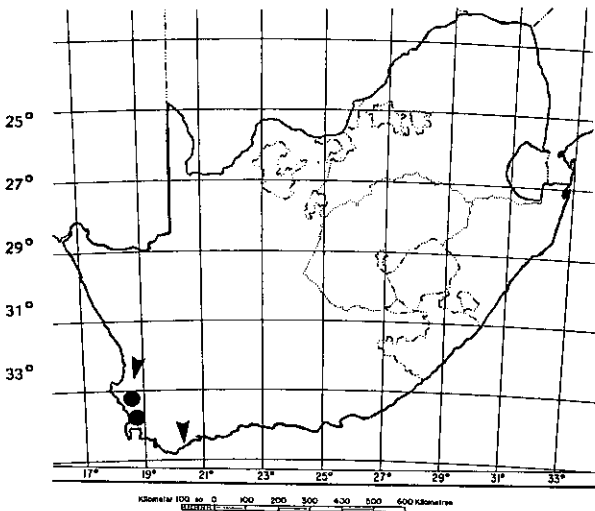


Figure 62. *Poecilmitis pan*, male upperside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, formerly found from the southern slopes of the Tygerberg and in the Melkbosch Strand district northwards to Yzerfontein and Het Kruis. Also recently recorded to the east at Struisbaai.



STATUS. Discovered by C.G.C. Dickson in December 1933. The species was formerly found on the southern slopes of the Tygerberg below the national road and along the road to Mamre in the Melkbosch Strand district. These localities have subsequently been disturbed by agricultural and other development and the species is apparently no longer found there. The other area where the species was formerly abundant was on the farm Platrug between Cape Town and Malmesbury.

THREATS. The locality at Platrug is under threat from exotic plant invaders, such as wattles and gums. An assessment of the future of this locality should be made as soon as possible. Other localities where the species has been

recorded are under no apparent threat.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	X

REFERENCE.

1. Pennington (1978): 132 - adult and habits.

Poecilmitis trimeni Riley INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis thysbe trimeni Riley, 1938. *Trans. ent. Soc. Lond.* 87:240. Type Locality: Port Nolloth, Cape Province.

IDENTIFICATION. Male upperside orange with basal half of wing silvery-blue. UFW with narrow marginal border and the spotting quite small. UHW with very small dots; or the dots may be completely lacking. LHW pale greyish or greenish-buff with brown and buff spots and silvery markings. The female has rounder wings and the blue of the upperside is darker and less extensive than in the male.

Forewing lengths: male 13-15mm; female 13-16mm.

HABITAT AND ECOLOGY. The habitat is vegetated sand dunes. The butterfly inhabits the small depressions between, and sheltered by, sand dunes beyond the high water mark, but does not appear to penetrate very far inland. The depressions possess only scattered shrubby vegetation with large areas of dazzling white sand. Due to the prevailing south-westerly wind, which is nearly always very strong, the insect is normally to be found sheltering on the southern side of any slight depression, in order to obtain some relief from the often, gale-force wind. They can be seen flying very fast and close to the ground, settling on the ground behind the small bushes. The males are territorial and are usually found resting on the ground in the shelter of a small shrub. If an intruder makes an appearance, the resident male will "take off" in pursuit and the pair of them will begin a hectic few seconds of whirling flight, neither of them rising more than 30cm from the ground. Often they will be carried away by the wind, but the victor can soon be observed working its way back to its original resting place. Even against the wind, the males have a very fast, zigzag flight, keeping very close to the ground. The females fly at random throughout the area in search of suitable foodplants.

Both sexes can be observed feeding on small pink or white *Mesembryanthemum* flowers growing only inches above the ground. The foodplant is a *Zygophyllum* species (*Zygophyllaceae*). The egg is laid singly on a shoot or leaf. The larva is associated with *Crematogaster* ants. The flight period is from August to December.

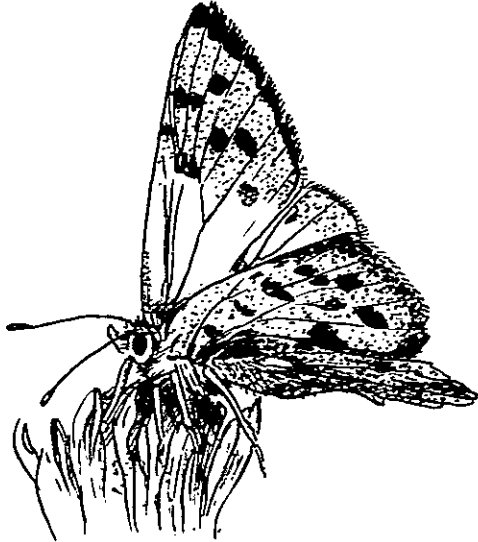
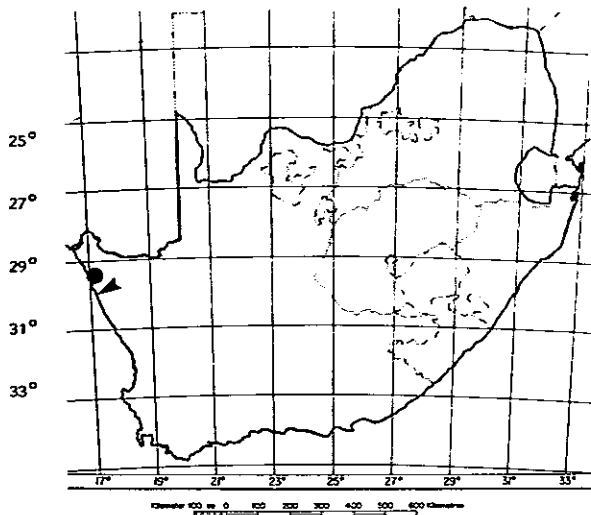


Figure 61. *Poecilmitis trimeni* male upperside. (Del. S.F.Henning)

DISTRIBUTION. McDougall Bay, Port Nolloth to Kleinsee in Namaqualand.



STATUS. The species was discovered by R. Trimen in August 1873, at Port Nolloth, Namaqualand. It was next found by R.M. Lightfoot in August 1890, at Port Nolloth. The taxonomic differences between this species and *P. thysbe* were not, however, appreciated at the time.

THREATS. Future threats are possible mining in the area, for diamonds, on the dunes. This could lead to the destruction of much of this species' habitat and is to be monitored carefully.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X

REFERENCES.

1. Henning (1977): 25 - adult.
2. Pennington (1978): 132 - adult and habits.

Poecilmitis orientalis Swanepoel INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

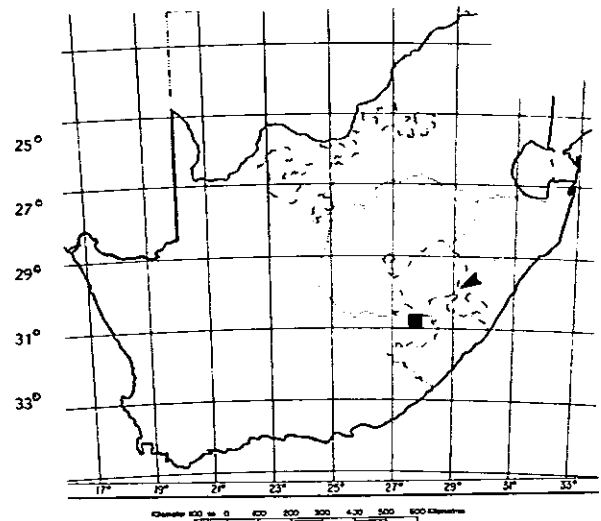
Poecilmitis orientalis Swanepoel, 1976. *Ann. Transv. Mus.* 30:119.
Type Locality: Bushmansnek, Natal.

IDENTIFICATION. A small species with the upperside orange, and the basal violaceous silvery-blue of the male restricted to the basal half of the wings. The distal margin is black and is narrow and there are small black postdisca spots. The female has practically no basal blue evident. The LHW is rich golden-brown with dark brown patches and bright silvery-white marks. This species is closely related to *Poecilmitis pelion* Pennington from which it differs in having somewhat larger dark markings and the basal blue, more extensive.

Forewing lengths: male 11-14mm; female 13-14mm.

Life history. Unknown.

DISTRIBUTION. Natal side of the Drakensberg at Bushmansnek to the west of Underberg, at about 2100m above sea level.



HABITAT AND ECOLOGY. The species' habitat is the rocky summits with 'fynbos' type of vegetation, above the grassy slopes. The flight is rapid but they frequently settle. The males establish territories around the bases of rocky ridges or in eroded gullies near the summit of the mountain concerned. They usually rest on the ground or on rocks, and will vigorously chase off any intruding males. The females fly at random just below the ridges looking for foodplants on which to lay their eggs. The flight period is from October to January.

STATUS. This butterfly was discovered by D.A. Swanepoel on 24 December 1975 at Bushmansnek, Natal. Specimens from Lundean's Nek and Naude's Nek are somewhat transitional between *P. orientalis* and *P. pelion* and require further investigation.

THREATS. No immediate threats seem to exist.

CONSERVATION MEASURES. Found in the Mzimkulwana Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 134 - adult and habits.

Poecilmitis penningtoni Riley RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

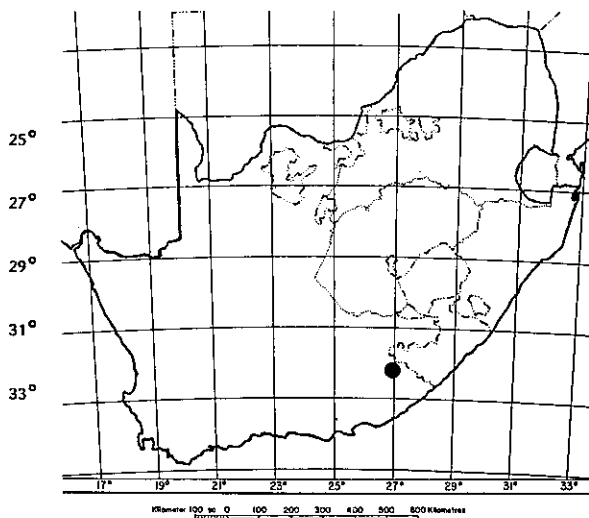
Poecilmitis penningtoni Riley, 1938. *Trans. ent. Soc. Lond.* 87:239. Type Locality: Gaika's Kop, Eastern Cape Province.

IDENTIFICATION. Upperside of male bright orange with silvery-blue basally. Marginal border narrow. The spots on the upperside are usually only just discernable on the UHW. The vivid blue sheen reaches the tornus of the forewing and the discal spots on the hindwing, thus extending beyond the "solid" silvery-blue basal area. LHW ochreous-brown with brown shading and large silvery-white, somewhat sagittate markings. The female is similar to the male but lacks the blue sheen and the blue basal area is dull and is restricted to the basal third of the wings; the upperside spots are well developed. Forewing lengths: male 11-14mm; female 12-15mm.

Life history. Unknown.

DISTRIBUTION. Gaika's Kop in the Amatola Range,

Mount Kubusie, near Stutterheim, on the Hogsback and on the Elandsberg above Seymour - Eastern Cape Province.



HABITAT AND ECOLOGY. This species' habitat embodies the rocky outcrops covered with low plants and shrubs at elevations of over 1500m. The insect flies rapidly and low about the plants, resting on the ground or on low shrubs. The males are territorial and rest on the ground or low shrubs, occasionally skipping about the plants. The flight period is from October to January.

STATUS. The butterfly was first caught by K.M. Pennington himself, on 16 January 1933 on Gaika's Kop in the Amatola range, Eastern Cape Province. Earlier specimens were, however, taken at the end of the last century by Colonel Bowker but were considered variations of *P. thysbe* at that time.

THREATS. None known.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 134 - adult and habits.
2. Swanepoel (1953): 137 - adult and habits.

Poecilmitis irene Pennington RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis irene Pennington, 1968. *Novos Taxa ent.* 56:3-8. Type Locality: Du Toit's Kloof, Western Cape Province.

IDENTIFICATION. Upperside orange with the basal blue fairly extensive, the marginal border is wide and the cilia are small, and orange. The LHW is distinctive, being pale brown with faint markings. The female has less blue on the upperside than the male.

Forewing lengths: male 13,5-15mm; female 14,5-15,5mm.



Figure 63. *Poecilmitis irene* male upperside. (Del. S.F.Henning)

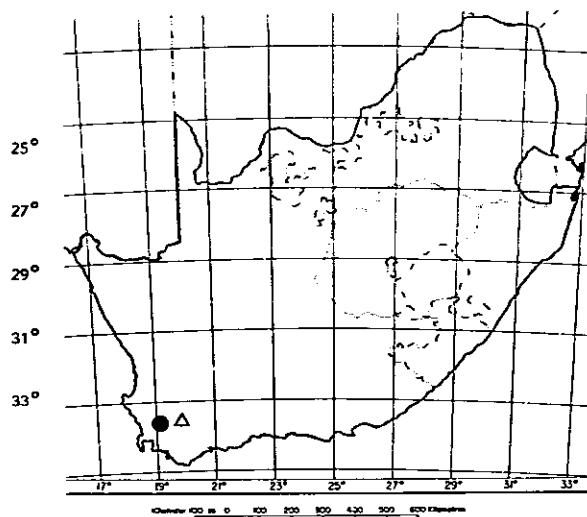
Life history. Unknown.

HABITAT AND ECOLOGY. Males have been recorded hilltopping on the southern summit above the top of Du Toit's Kloof Pass; others have been recorded from the lower slopes in the valley. An unusual territorial habit is that males establish territories along the base of cliffs in the pass. The males fly back and forth for short distances along the southern base of cliffs jutting out across the valley. They sit on the ground, on the grass or on other vegetation growing in this area. The males apparently come down the cliffs which indicates that the species breeds at a high altitude. Only a few females have been recorded. The species flies from October to February.

STATUS. Discovered by C.G.C. Dickson who collected two males on 21 December 1961. Swanepoel subsequently found he had collected a specimen at Bosch Kloof on 13 November 1952. A single specimen from the Rivierzonderend Mountains has also been recorded. Specimens are found regularly in Du Toit's Kloof but the apparent inaccessibility of its habitat has prevented the breeding

localities from being discovered.

DISTRIBUTION. Endemic to the Western Cape, found in the Du Toit's Kloof pass and Bosch Kloof near Worcester and the Rivierzonderend Mountains near Greyton.



THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X

REFERENCE.

1. Pennington (1978): 134 - adult and habits.

Poecilmitis swanepoeli Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

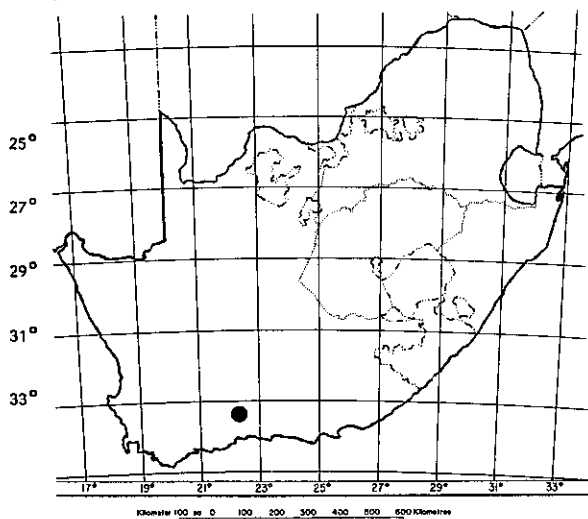
Poecilmitis swanepoeli Dickson, 1965. *J. ent. Soc. sth. Afr.* 27(2):160. Type Locality: Prince Albert, Cape Province.

IDENTIFICATION. Male upperside with a very restricted basal blue area, reduced black spots on the hindwing and small white cilia on the upperside. The LHW is variegated ochreous-brown with dark brown areas and silvery-white flecks. The female is similar to the male but with slightly less basal blue and a rounded wing-shape.

Forewing lengths: male 14-16mm; female 15,5-16,5mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, in the lower kloofs at the entrance to the Swartberg Pass on the Prince Albert side; and in Schoemanskloof, between the Congo Caves and Oudtshoorn.



HABITAT AND ECOLOGY. Inhabits low lying, rocky kloofs at the foot of the mountains. Flies along dry gullies and river beds settling on rocks or on the sand. The males establish small territories to which they will repeatedly return if disturbed. Its flight is swift and low. It also feeds on small flowers on bushes growing in the gullies. The females frequent the same places as the males but fly more slowly. Swanepoel stated that, 'The species has the same habits as its congeners, displaying a fast irregular flight near the ground, often settling on open stony places among shrubs and not infrequently selecting low shrubs to rest on.' The flight period is from October to January. The life history is unknown.

STATUS. This insect was discovered by D.A. Swanepoel in October 1962. The Schoemanspoort locality was found by R.D. Stephen in 1968. The emergence is apparently erratic, so some years can go by without the species being recorded.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 134 - adult and habits.

Poecilmitis hyperion Dickson

RARE

LYCAENIDAE

THECLINAE

Tribe: APHNAEINI

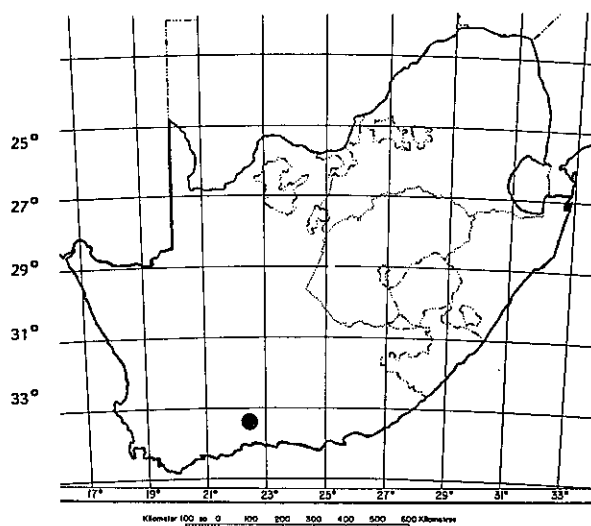
Poecilmitis hyperion Dickson, 1975. *Entomologist's Rec. J. Var.* 87:229. Type Locality: Swartberg Pass, Cape Province.

IDENTIFICATION. Upperside orange-red with reduced basal blue and very broad, dark margins, confluent with the submarginal spots. The LHW is bright variegated brown and orange with conspicuous silvery-grey lituræ. It is closely related to *P. swanepoeli*. The females exhibit much the same characters as the males but have the basal blue less extensive.

Forewing lengths: male 12,5-14,5mm; female 14-17mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape; occurs below the highest peaks of the Swartberg range of mountains, near the top of the Swartberg Pass.



HABITAT AND ECOLOGY. An inhabitant of high altitude macchia, growing in the steep gullies leading down from the highest peaks, on the southern side of the mountains. The males frequently establish territories on bushes around the base of large rocks or small cliffs. They will return to their favourite "perch" if disturbed, after darting off and flying round in wide circles. They settle on bushes or rocks. The species has a low, fast flight as it patrols up and down the steep grassy gullies. It often settles on a pale grey species of fynbos. The females fly at random in the area, and their flight is slower than that of the males. The species has been recorded in December and January.

STATUS. Discovered by Dr C.B. Cottrell at the end of December, in 1969. Other lepidopterists have since found other colonies in the area.

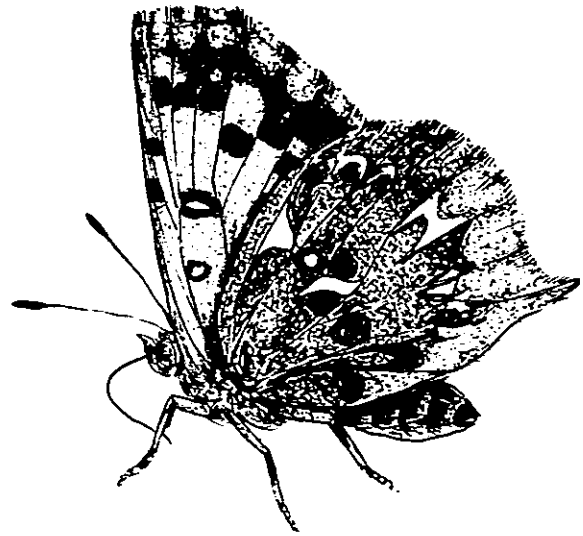
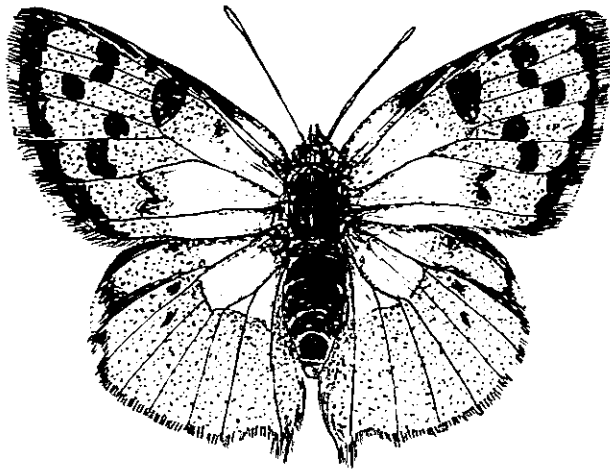


Figure 64. *Poecilmitis hyperion* male upperside and underside. (Del. S.F. Henning)

THREATS. No known threats. The Swartberg range is controlled by the Department of Forestry.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	X

REFERENCE.

1. Pennington (1978): 135 - adult and habits.

Poecilmitis henningi Bampton RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

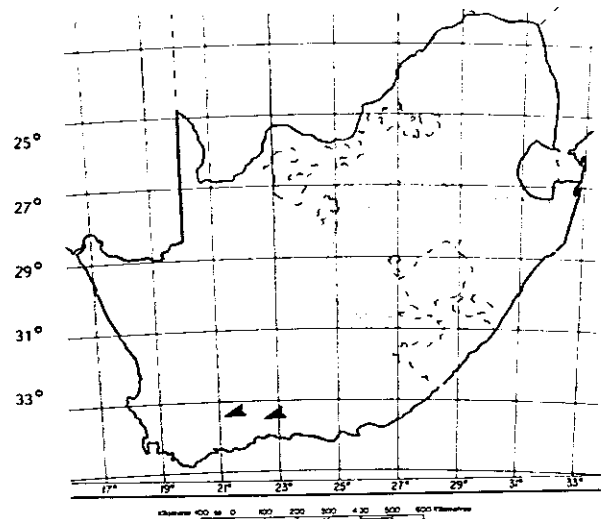
Poecilmitis henningi Bampton, 1981. *Entomologist's Rec. J. Var.* 93:189. Type Locality: Huis River Pass, Calitzdorp, Cape Province

IDENTIFICATION. The males have a "square" wingshape. The UFW, with large black spots on the orange ground colour; and the pale basal blue extends as far as the end of the cell, along the costa and along the inner margin almost to the tornus. The UHW has very small black spots, or none at all. The cilia are greyish-ochre. The LHW is relatively "flat" sandy-brown with some slightly darker markings. The female has hardly any basal blue on the upperside.

Forewing lengths male 12-15mm; female 13-15mm.

Life history. Unknown.

DISTRIBUTION. Western Cape Province, Huis River Pass near Calitzdorp, and south of Oudtshoorn.



HABITAT AND ECOLOGY. On the Huis River Pass this insect flies along the steep sides of a rocky gully running horizontally to the main road, in arid country with thick Karoo type vegetation. Most specimens were observed feeding on a tiny insignificant flower appearing in the leaf axils of a small shrub, while the odd specimen was seen to settle on the stony ground. Their flight at this time was not very swift but this could perhaps be attributed to the fact that they were intent on feeding and were reluctant to leave the food source after being disturbed. It may also have been due to the windy conditions prevailing at the time. Adults are on the wing from October to December.

STATUS. A couple of specimens were captured by K.M. Pennington, but apparently misidentified as a high

altitude form of *P. lysander* Pennington. G.A. Henning and I. Bampton visited the same area in December 1975 and caught sufficient specimens to show that this was in fact a new species. Another locality was found by J. Ball and later R. Warren about 15km south of Oudtshoorn, also in a gully. J. Ball also captured a single male on a small hill about 2km north-east of Calitzdorp.

THREATS. Under no immediate threat.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

- Bampton (1981): 189 - adult and habits.
- Pennington (1978): 132 - adult (see under *P. trimeni*).

Poecilmitis lyndseyae Henning INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis lyndseyae Henning, 1979. *J. ent. Soc. sth. Afr.* 42:155.
Type Locality: Wallekraal, Namaqualand.

IDENTIFICATION. The male upperside of this species has an orange ground colour which is largely obscured by a light silvery-blue colour which extends, on the forewing, to the large rounded subapical spots and, on the hindwing, to the postdiscal area and with the bluish-violet sheen sometimes extending to the outer margin. The LHW is sandy-brown, with patches of darker brown, and silvery-white sagittate markings. The female is orange with black spots on the upperside and with the basal blue restricted to a third of the wing. The LHW is paler than that of the male.

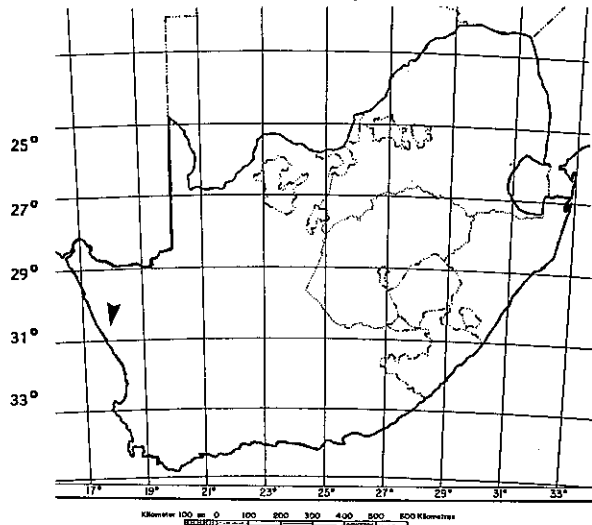
Forewing lengths: male 11-14mm; female 13-15mm.

Life history. Unknown.

HABITAT AND ECOLOGY. Inhabits vegetated sandy ridges, usually being found high up in hollows below the summits. The males establish territories in these hollows and attack any intruding males. Only once were any males found away from a hollow, and in this case they were on the slopes of a dune leading up to a hollow. These males were seen to be flying swiftly down the slope for about 100m, then circling round and flying up again, and at the same time, engaging in combat with any other males, they encountered *en route*. The flight of the

males is extremely swift and direct, and they must be considered to be one of the fastest of the *Poecilmitis*. They fly between 1 and 1,5m above the ground and can often be found sitting on the sand between plants, returning time and again to the same spot. The females were much scarcer than the males and were found only in the vegetation around the hollows. They are much slower and more leisurely in their movements, although they have a good turn of speed when disturbed. The adults are on the wing from September to December.

DISTRIBUTION. Endemic to the North Western Cape, 10km north of Wallekraal, Namaqualand.



STATUS. This species was first caught by Miss Lyndsey Smith in September 1977 near Wallekraal in Namaqualand. To date it has only been recorded from this area.

THREATS. Under no immediate threat.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

- Henning (1979): 155 - adult and habits.

Poecilmitis kaplani Henning RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis kaplani Henning, 1979. *J. ent. Soc. sth. Afr.* 42:153.
Type Locality: Wolfhok, near Garies, Namaqualand.

IDENTIFICATION. The male upperside is bright orange-red with relatively broad black margins and large black spots; the blue is restricted to the basal third of the wings. The underside is well marked with a pale fawn ground colour and golden brown patches. On the LHW there are a number of large, clearly defined silvery-white sagittate markings. The female is paler than the male on the upperside with less basal blue, and the underside is lighter in colour.

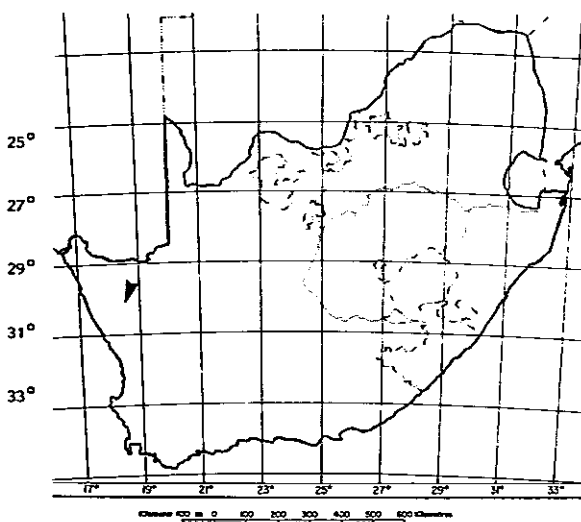
Forewing lengths: male 11-13mm; female 13-17mm.



Figure 65. *Poecilmitis kaplani* male upperside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the North Western Cape, only being recorded from Wolfhok, near Garies, in Namaqualand.



HABITAT AND ECOLOGY. This insect does not fly on the peaks of mountains, but on the slopes. All the localities in which it was found were on the shoulders of the mountain, where the ground was relatively flat. These flattish

areas between ridges and outcrops of rocks consisted of hard-packed sand with a single plant species, *Dimorphotheca cuneata* (Thunb.) Less. (Asteraceae), growing thereon. It was around this plant that the females were found in numbers. Several females appeared to be ovipositing on the plant, although no eggs were found. It was assumed that *D. cuneata* was the foodplant, being the only plant present; and the behaviour of the females was also suggestive of this being so. A number of females were found in the bushes, where they were walking about amongst a species of *Crematogaster* ant common in the area. The male of *P. kaplani* flies rapidly but settles frequently on the ground and does not usually fly far from the area where *D. cuneata* is growing. The female is more leisurely in its flight, especially when apparently searching for plants on which to lay eggs. Although *P. kaplani* has so far been captured only in September, October and December, it seems likely that it flies throughout the summer months.

STATUS. First captured near Wolfhok by Dr J. Kaplan in 1975, the butterfly was not recorded again until 1977. The actual colony was not near the road where the first specimen was captured but was high up on the slopes of the surrounding mountains. To date this species has only been recorded from this area.

THREATS. Under no immediate threat.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Henning (1979): 153 - adult and habits.

Poecilmitis stephensi Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis stephensi Dickson, 1978. *Entomologist's Rec. J. Var.* 90:293. Type Locality: Hantamsberg, Calvinia, Cape Province.

IDENTIFICATION. The UFW of the male has broad black margins; the ground colour of the wings is orange with the usual black spots. On the UFW the basal blue reaches up to the cell along the costa and to the outer margin at the tornus. The UHW basal blue is restricted to a third of the wing. The LHW is pale fawn with darker patches and several silvery-white liturae. The female has very little

basal blue on the upperside.
Forewing lengths: male 14-15mm; female 15-16mm.

Life history. Unknown.

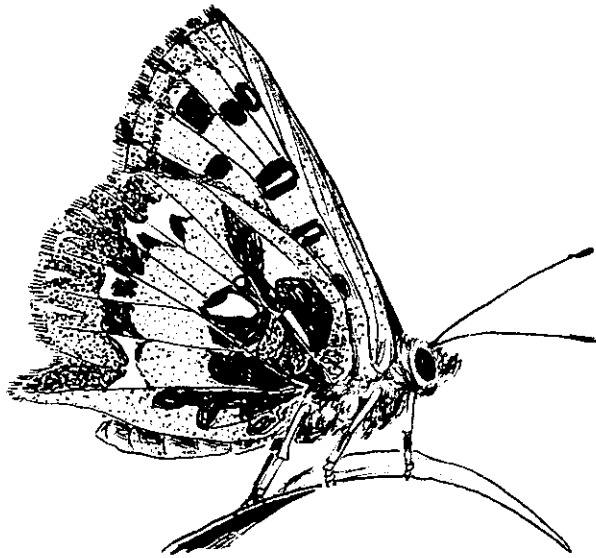
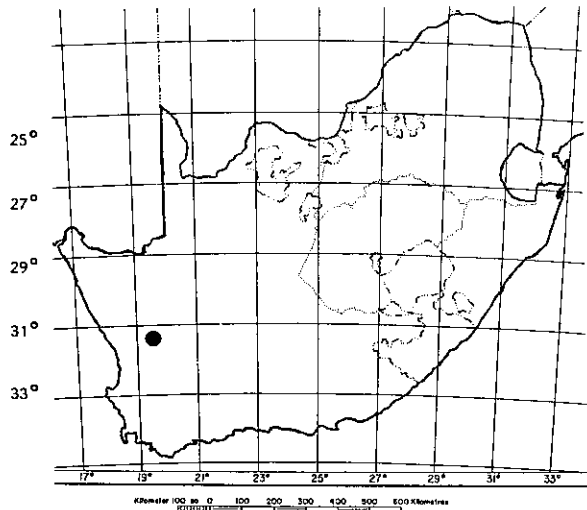


Figure 66. *Poecilmitis stepheni* male underside. (Del. S.F.Henning)

DISTRIBUTION. Hantamsberg, Calvinia, Cape Province.



HABITAT AND ECOLOGY. The butterfly's habitat comprises the rocky ridges on top of the Hantamsberg. It flies rapidly, but settles frequently on the ground. The males establish territories in restricted areas, presumably near the foodplants. The females patrol the areas where the males are found, looking for places in which to lay their eggs. The flight period is from September to October.

STATUS. It was first observed by R.D. Stephen on 20 September 1970, on the Hantamsberg, Calvinia, Cape Province, and subsequently caught there by C.W.

Wykeham.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Dickson (1978): 293 - adult and habits.

Poecilmitis endymion Pennington RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

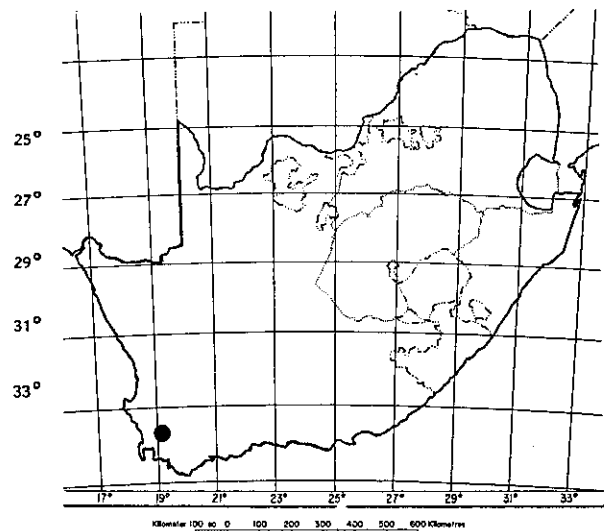
Poecilmitis endymion Pennington, 1962. *J. ent. Soc. sth. Afr.* 25(2):274. Type Locality: Du Toit's Kop. Cape Province.

IDENTIFICATION. A very bright orange species with restricted basal silvery-blue and reduced spots on the upperside. The LHW is bright variegated ochreous-brown with pale silvery-buff flecks. It is related to *P. swanepoeli*. The female has almost no basal blue on the upperside and it has a more rounded wing shape.

Forewing lengths: male 14-15,5mm; female 13-15,5mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape. Occurs on the summit of Du Toit's Kop, above the top of the Fransch Hoek Pass. It is also recorded from the summit above the top of Du Toit's Kloof Pass and on Jona's Kop.



HABITAT AND ECOLOGY. The species inhabits the highest peaks of the mountains (1300-1400m a.s.l.). Its colonies are usually just off the summit along small rocky ridges, but specimens can be observed on the extreme summits. The males establish their territories along the ridges or around large rocks. They fly swiftly about their favourite spot and if disturbed will dart quickly away, but will usually return after a short time. Males have been seen to descend to slightly lower peaks. Their flight is swift and low, perhaps because of the strong winds which are often blowing around these lofty heights. The butterflies settle on rocks or on grass. The females inhabit the same places as the males, but they fly more slowly and are inclined to wander away from the colony. The flight period is from November to January, but is probably more extended.

STATUS. Discovered by C.G.C. Dickson on 2 January 1946. The colonies are well established and relatively inaccessible to all but the keenest lepidopterists.

THREATS. No known threats.

CONSERVATION MEASURES. On protected wild animals list of the Cape Province 1976 (Ordinance 19 of 1974 amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 135 - adult and habits.

Poecilmitis pyramus Pennington RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis pyramus Pennington, 1953. *J. ent. Soc. sth. Afr.* 16(2):105. Type Locality: Swartberg Pass, Cape Province.

IDENTIFICATION. Upperside orange-red, with the brilliant basal blue extensive, and usually with a dark outer edge; the blue extends along the inner margin to join the outer margin. The LHW is dark ochreous-brown, strongly variegated with silvery-white flecks. The female has the basal blue less extensive than in the male. Forewing lengths: male 14,5-17,5mm; female 16-18mm.

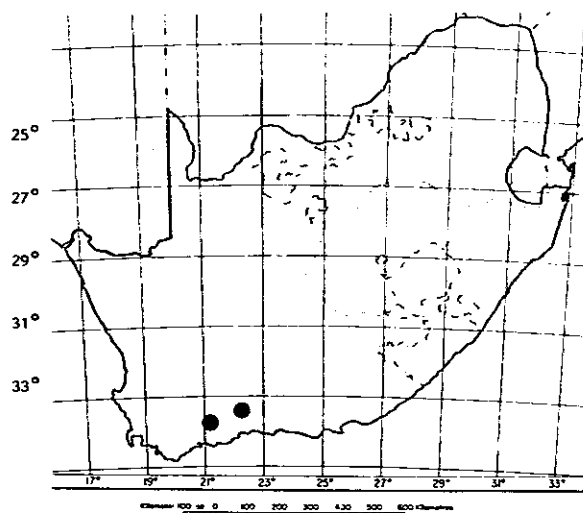
Life history. Unknown.

HABITAT AND ECOLOGY. This butterfly occurs along the

highest peaks of the Swartberg. Males fly up to the summits of the peaks and establish territories there. On the slopes below the peaks, they may also establish territories near the base of large rocks or small cliffs. They are often found on the windless side of the rocky ridges. Their flight is swift and elusive. They have a strong flight, sometimes flying off for a considerable distance after being disturbed, and not always returning to the same territory. They settle on rocks or on the ground. The female is not often seen; she flies about the mountain slopes in search of foodplants. The species is on the wing from October to January, according to present records.

STATUS. Discovered by K.M. Pennington near the summit of the Swartberg Pass on 9 November 1946. The colony on the Langeberg above Grootvaders Bosch was found by C.W. Wykeham in 1970. Specimens from this area are less dark on the upperside.

DISTRIBUTION. Endemic to the Western Cape, from the Swartberg and also recorded on the Langeberg above Grootvaders Bosch.



THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force. The Swartberg range is under the control of the Forestry Department.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 135 - adult and habits.

Poecilmitis daphne Dickson RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

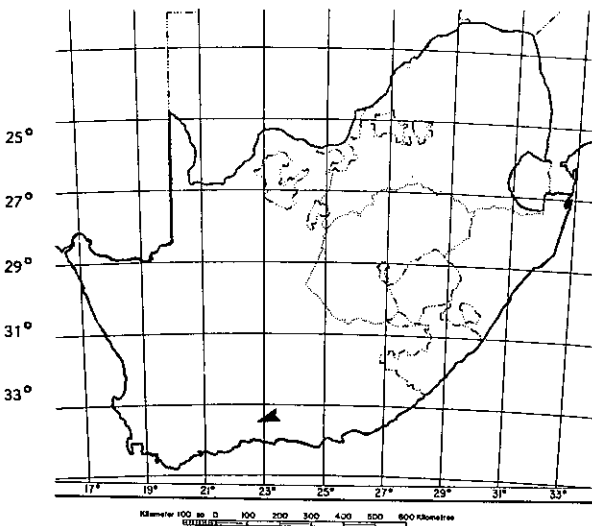
Poecilmitis daphne Dickson, 1975. *Entomologist's Rec. J. Var.* 87:227. Type Locality: Kammanassie Mountains, Cape Province.

IDENTIFICATION. Male UFW with blue basal area reduced, leaving an orange patch at the end of the cell. The UHW basal blue is as extensive as in the forewing. The female is orange with black spots and has broad black margins, and with the basal blue colouring reduced. The underside of both sexes is pale variegated buff and reddish-brown with silvery *lituræ* characteristic of this group.

Forewing lengths: male 11-14,5mm; female 13-15,5mm.

Life History. Unknown.

DISTRIBUTION. Endemic to the Cape, only found on the Kammanassie Mountains.



HABITAT AND ECOLOGY. Inhabits the steep grassy gullies below the peaks. Does not favour the summits of the mountains. It flies up and down these steep gullies settling on rocks or on the vegetation. Males establish their territories at the base of cliffs, settling on the bushy vegetation; their flight is fast and elusive but they settle frequently. The flight period is from November to February.

STATUS. This butterfly was discovered by Dr C.B. Cottrell on 22 December 1969. The species has been recorded a number of times since its discovery.

THREATS. No known threats. The inaccessibility of this habitat renders it very safe.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	X

REFERENCE.

1. Pennington (1978): 135 - adult and habits.

Poecilmitis balli Dickson & Henning RARE

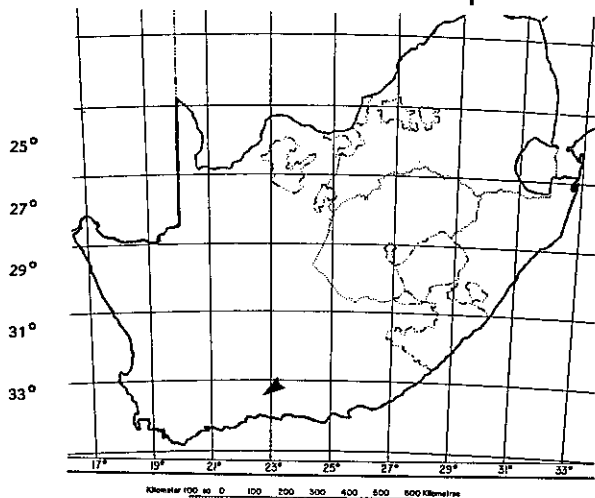
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis balli Dickson & Henning, 1980. *Entomologist's Rec. J. Var.* 92:294. Type Locality: Kammanassie Mountains, Cape Province.

IDENTIFICATION. The male upperside is bright orange with moderately wide black margins, and postdiscal black spots. The basal blue is restricted to a third of the forewing and a quarter of the hindwing. The LHW is brownish-ochre with dark brown patches and silvery-white sagittate markings. The female has less basal blue and the underside is generally paler.

Forewing lengths: male 14-16mm; female 16-17mm.

DISTRIBUTION. Kammanassie Mountains, east south east of Oudtshoorn in the south western Cape Province.



Life history. Unknown.

HABITAT AND ECOLOGY. This species flies on the summits of the mountains, or within 200 metres of the highest points where the vegetation is more sparse. The males are often observed resting on the dry flower-heads of a grass. Dr J.B. Ball observed two females flying around

a very prickly composite plant, although he did not see them laying eggs. Males are usually found in their own territories, often quite some distance apart. The male is easily disturbed and will fly away very swiftly but, in due course, it will return to its favourite spot within the territory. The adults are on the wing from November to March.

STATUS. This insect was first captured by Dr J.B. Ball on the Kammanassie Mountains, near Oudtshoorn, south western Cape Province in December 1978. To date it has not been recorded elsewhere.

THREATS. No immediate threat; the peaks of the Kammanassie Mountains are fairly inaccessible.

CONSERVATION MEASURES. None.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X	X	X

REFERENCE.

1. Dickson & Henning (1980): 294 - adult and habits.

Poecilmitis azurius Swanepoel RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis azurius Swanepoel, 1975. *Entomologist's Rec. J. Var.* 87:123. Type Locality: Sutherland, Cape Province.

IDENTIFICATION. The basal silvery-blue on the UFW of the male of this species is extensive while the apical black spots are often large and coalescent with the apical portion of the dark border. In some specimens the blue basal area meets the black tip with none of the orange ground colour still evident. The UHW has very small spots or the spots may be absent. The LHW has a central creamy-white area with dark patches round about and silvery-white flecks. This species is related to *P. psyche* Pennington and *P. lysander* Pennington. The female is orange with black spots on the upperside; the basal blue is virtually absent. On the underside it is similar to the male. The female is very similar to that of *P. beaufortia* Dickson, which is found in the same localities.

Forewing lengths: male 15-17mm; female 16-18mm.

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape, along the Roggeveld Escarpment, including the Swaarweeberg, in

the Sutherland district. It has also been recorded from Nieuwoudtville.

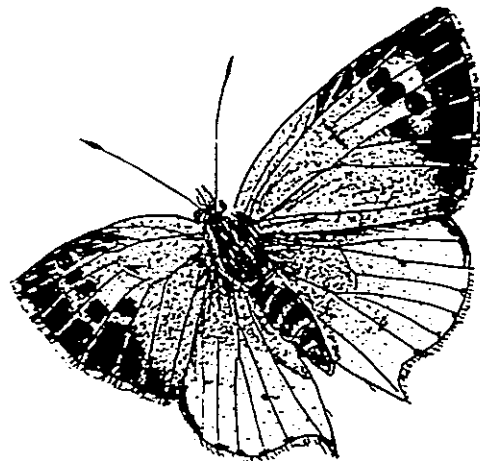
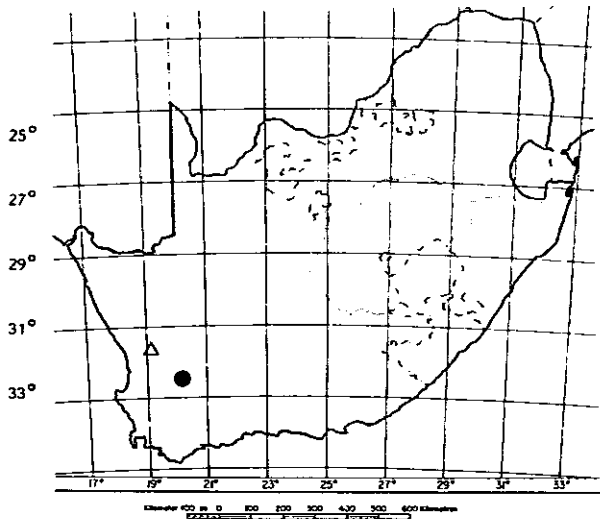


Figure 67. *Poecilmitis azurius* male upperside. (Del. S.F. Henning)

HABITAT AND ECOLOGY. Usually found in sandy gullies at the foot of the higher peaks. The males establish territories on sandy patches along the bottom of the dry gullies and also around the tops of these gullies. The males fly fast and low among the fynbos; they settle on the sand, on rocks or low bushes. The females inhabit the same areas but are more widespread. They fly more slowly than do the males and spend their time searching for foodplants on which to lay their eggs. The species has not been found in any numbers, as may be the case with other species of this genus. Its flight period is from October to December.

STATUS. The first recognised specimen was collected by C.G.C. Dickson on 22 November 1969 at Quaggafontein on the Roggeveld Escarpment. Further research and collection of material by D.A. Swanepoel led to its eventual description as a distinct species. The first specimen recorded by Dickson was "frequenting a very large, spread-

ing bush with fine leaves, about which two or three other lycaenids were flying in the late morning". [An earlier specimen was subsequently found in the Transvaal Museum from Nieuwoudtville which was collected by K.M. Pennington on 8 October 1949].

THREATS. No known threats.

CONSERVATION MEASURES. Recorded in the Nature Reserve at Nieuwoudtville.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 136 - adult and habits.

Poecilmitis nigricans nigricans (Aurivillius)
INDETERMINATE

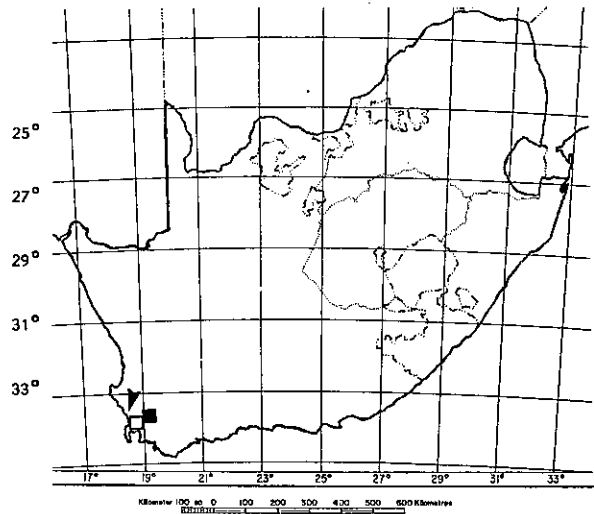
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Phasis thysbe var. *nigricans* Aurivillius, 1924. Seitz' Macrolepidoptera of the World 13: 430. Cape Colony.

IDENTIFICATION. Male UFW brilliant silvery-blue except for a broad black apical patch and outer marginal border. UHW, basally blue, to beyond middle of wing; distally black with the anal-angular projections orange-red and some orange submarginal marks. LHW pale ochreous-brown clouded and streaked with dark brown, with small silver to silvery-ochre sagittate markings. The female upperside is orange with black spotting and the silvery blue area restricted to the basal third of the upperside. Forewing lengths: male 11-15mm; female 12-17mm.

Life history. The egg is 0,95mm diameter by 0,45mm high. Dull white, changing to chocolate as development proceeds. Laid singly on young shoots or leaves. The larva is at first brownish, but later instars are green, turning duller with each moult. There are six instars. Final instar maximum length 17mm. It is bright green with a comparatively broad dark green mid-dorsal line and a pattern of reddish-brown markings on the last few segments. The neck and anal shields are dark brown. The head is black. Tubercles are present in all instars, but the honey-gland only appears in the second and subsequent instars. The pupa, 9,5mm in length, is secured to its shelter by cremastral hooks. Pupa fairly thick in proportion to its length, yellowish brown in colour^{2,3}.

DISTRIBUTION. Red Hill, Kalk Bay, Muizenberg, Steenberg, Tokai Mountains and the Silver Mine Plateau. It may still occur on the Table Mountain Range.



HABITAT AND ECOLOGY. Prefers higher mountains, often found just below the summit. The flight is fast and erratic, but it frequently settles on low bushes or the ground or feed at suitable flowers. The males are territorial, resting on low plants, sometimes on the ground. It occasionally circles around the shrubs in its territory, looking for intruders and if one is encountered, it gives chase. They whirl through the air among the bushes or above them until one retires. The female is more sluggish than the male, settling anywhere on the shrubs or hovering about in search of plants on which to lay its eggs. Both sexes are fond of feeding at flowers, but are not often observed at them. The foodplants are *Osteospermum polygaloides* L. (Asteraceae) and *Zygophyllum fulvum* L. (Zygophyllaceae). The eggs are laid singly on young shoots and leaves. In the early instars, the larvae feed on the younger leaves and rest where they are feeding. Later, larvae rest in ant shelters and crawl about to feed. The larvae nearly always eat into the leaves from the ends or edges. Smaller larvae shelter in little hollow structures formed of silken web, withered leaves which are still attached to the plant, and numerous fragments of debris including grains of light coloured sand. Many of these pieces of material are apparently placed in position by the host ants. The larger larvae are at the base of the stem, just under the ground, and are protected by a similar covering. The larvae also pupate in this shelter. *P. nigricans nigricans* is associated with an undescribed species of *Crematogaster* ant^{2,3}. The flight period is September to April.

STATUS. First collected by W. Burchell in 1815 in the Cape Colony. Found particularly on the Muizenberg Mountains. Subsequent records include a number of localities in mountainous terrain in the Cape Peninsula. Today *nigricans* is extremely difficult to locate in the

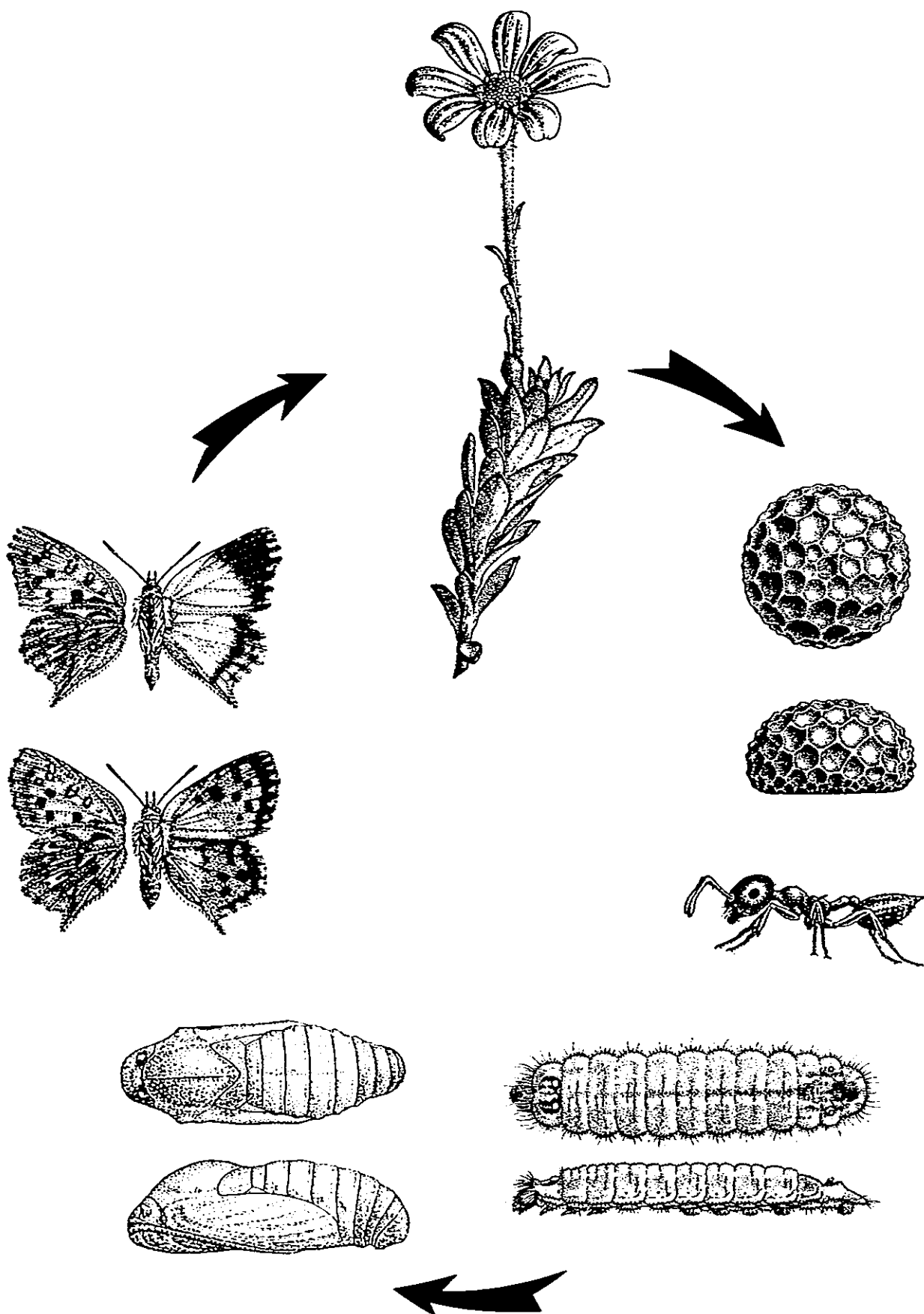


Figure 68a. *Poecilmitis nigricans nigricans* life cycle: Foodplant, *Osteospermum polygaloides*; egg, top and side view; host ant, *Crematogaster* sp.; final instar larva, top and side view; pupa, top and side view; adult male and female, upper and underside. (Del. Dickson, 1947).

Peninsula and although apparently not altogether extinct, it would appear to be in a most precarious position. The species seems to be fairly secure in the meantime in certain colonies in the South Western Cape away from the Peninsula. A few of these colonies contain specimens which are at least very close to the true nominate subspecies. One population is in the sandveld-belt to the north of Cape Town and well beyond Melkbosch Strand, and thus at quite a low altitude. This population contains specimens which bear a very close resemblance to the toptypical Peninsula insect. This particular colony seems, in recent years, to have been affected by veld fires, apparently seriously, and there is a danger of the habitat being eventually over run by australian acacias. It is believed that the frequency of mountain fires has been the chief cause of its decline on the Peninsula. The habitats have, on the whole, remained free of alien vegetation (C.G.C. Dickson, pers. comm.)

THREATS. Fires and invading alien vegetation. In the Cape Peninsula *nigricans* is now so scarce that any attempt to preserve the insect there might very well be quite ineffective.

CONSERVATION MEASURES. This species was placed on the protected wild animals list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
					X

REFERENCES.

1. Claassen & Dickson (1980): 65 - adult, life history and habits.
2. Clark & Dickson (1971): 179 - life history and habits.
3. Dickson (1947): 178 - life history and habits.
4. Pennington (1978): 136 - adult and habits.
5. Swanepoel (1953): 138 - adult and habits.

Poecilmitis nigricans zwartbergae Dickson
INDETERMINATE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Poecilmitis nigricans zwartbergae Dickson, 1982. *Entomologist's Rec. J. Var.* 94:41. Swartberg Pass, Cape Province.

IDENTIFICATION. The male differs from the nominate subspecies by the reduced basal silvery-blue on the UHW, leaving a broader black outer border. LHW with

deeper and more prominent brown colouring as a "zone" beyond the middle of wing. Female with forewing more rounded distally than in nominate *nigricans*. Upperside with basal blue deeper and more restricted, dark marginal border broader.

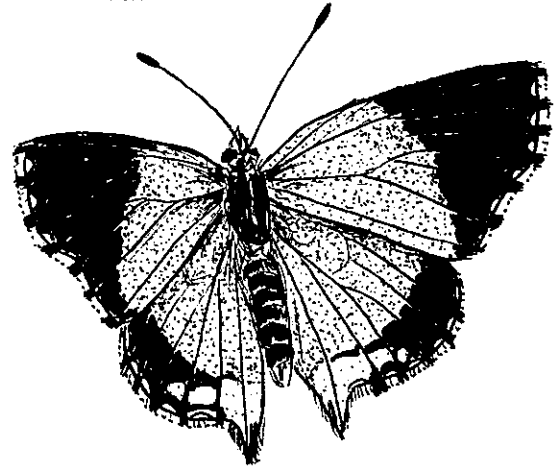
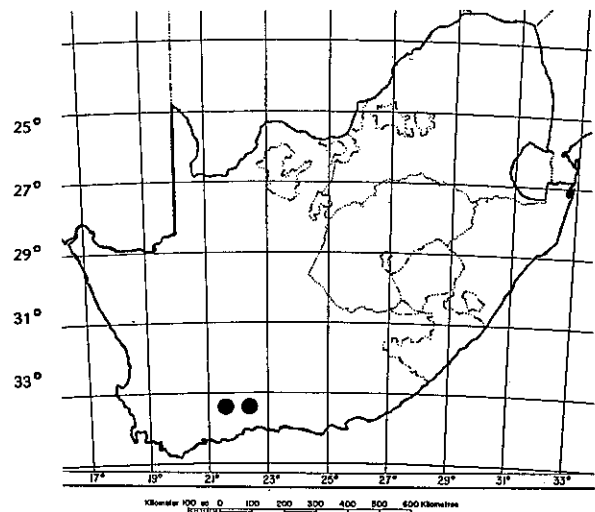


Figure 68b. *Poecilmitis nigricans zwartbergae* male upperside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the Western Cape; found on the Klein and Groot Swartberg, at Swartberg Pass and Seven Weeks Poort.



HABITAT AND ECOLOGY. Inhabits gullies and grassy slopes well below the peaks of the mountains. The males establish small territories to which they return if disturbed. They fly fast and settle on low bushes or on the ground. The females are found in the same areas as the males but tend to wander more. October to March is the butterflies' flight period, with December apparently the best time.

STATUS. C.G.C. Dickson noticed the differences between the Swartberg populations of *nigricans* and those from the Cape Peninsula.

THREATS. No known threats.

CONSERVATION MEASURES. The Swartberg Range is under the control of the Forestry Department.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 136 - adult and habits. (in part)

Poecilmitis adonis Pennington RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

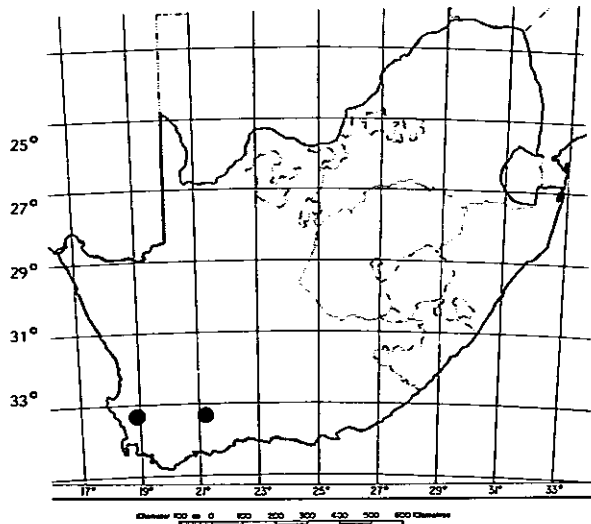
Poecilmitis adonis Pennington, 1962. *J. ent. Soc. sth. Afr.* 25(2):277. Type Locality: Gydo Mountain, Western Cape Province

IDENTIFICATION. The basal half of the male UFW is silvery-blue, while the outer half is black with perhaps some slight orange ground colour apparent therein. The UHW basal half is blue while the outer half is orange. The LHW is variegated and streaked with reddish-brown, and with the usual silvery-white liturae. The female upperside is orange, with black spotting and with a small amount of basal blue. The spotted forewing margins are broad and the spots on the hindwing are placed well away from the margin. The underside is similar to that of the male. Forewing lengths: male 14-17mm; female 14,5-17,5mm.

Life history. The eggs are 0,85mm in diameter by 0,6mm high. They are white when first laid becoming slightly yellowish later. The shape of the larva is onisciform. It is greyish to greenish-white in the earlier instars, with longitudinal lines darker than the ground colour. In the final instar it is greyish-green with the longitudinal lines and other markings varying in colour, but mostly tawny-orange. The final instar attains a length of 16mm. The honey-gland is present in the second to final instars, while the tubercles are present in all instars. The pupa is about 10mm long, brown in colour, inclining towards grey, and is attached by the cremastral hooks^{1,2}.

DISTRIBUTION. Endemic to the Western Cape, found on the north side of Gydo Mountain and the adjacent ranges,

also recently recorded from the Klein Swartberg.



HABITAT AND ECOLOGY. Inhabits montane macchia, at an altitude of 1400-1500m above sea level. Does not frequent the summits of the mountains but establishes colonies below the peaks, in a flat depression among rocky ridges or along rocky slopes. Males establish their territories on small rocky eminences or ridges about which they can be observed flying rapidly during the warmer part of the day. The males generally settle on the ground or on rocks within their territories and dart off from here to chase off intruding males. In windy weather they may often be found on the leeward side of the ridges, providing the sun is warm enough for them to remain active. The males usually remain in their territories for long periods. A mating pair was once observed in the shelter of a clump of grass². A number of males may be found in one general area, each in its own territory. Their flight is swift and they settle on rocks, bushes, grass or on sandy patches. The female range more widely than the males, but can often be seen around the perimeter of the area where the males have established their territories. The female lays its eggs singly on the foodplant, a species of *Zygophyllum* (Zygophyllaceae). The first instar larva is very flat and resembles a blemish on a stalk. The larvae choose a secluded spot to rest in and crawls away to feed, always returning to their silk-matted resting place. Ants are generally in attendance and may help to build a shelter as in other members of the genus¹. The larva pupates in a shelter among the roots of the foodplant. The life history has a duration of about two months during the flight period. The flight period is from November to February.

STATUS. Discovered by C.G.C. Dickson on 18 December 1945, when he collected a male and a female. It was not until January 1957 that more were found by Dickson and Pennington which established that it was a distinct species. Recently the species has been recorded on the Klein Swartberg by E. Pringle.

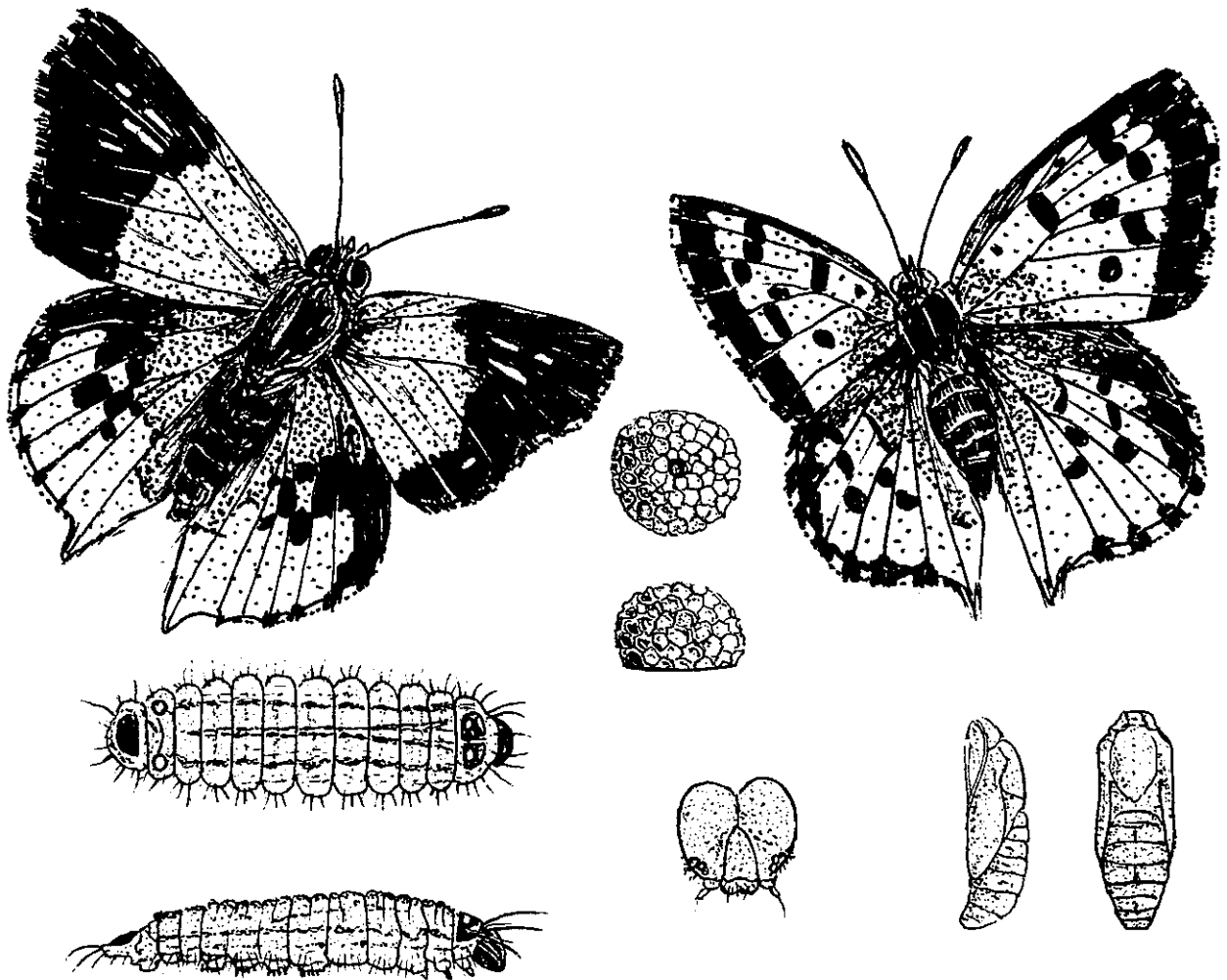


Figure 69. *Poecilmitis adonis* male upperside (top left); female upperside (top right) (Del. S.F.Henning); egg, top and side view (top centre); final instar larva, top and side view (bottom left); final instar larva head (bottom centre); pupa, top and side view (bottom right) (after Clark, in Clark & Dickson, 1971, Del. S.F.Henning)

THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Clark & Dickson (1971): 184 - life history.
2. Henning (1984b): 83 - adult, life history, and habits.
3. Pennington (1978): 137 - adult and habits.

Bowkeria phosphor phosphor (Trimen) RARE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Zeritis phosphor Trimen, 1866. *Rhop. Afr. Aust.* 2:269. Type Locality: Bashee River, Caffraria.

IDENTIFICATION. The male UFW has a broad black tip and a reddish-orange base; and there is a single black spot at the end of the cell. The UHW is reddish-orange, with a single thick tail; there is a series of black spots across the apex. The LHW is pale ochreous-brown with numerous silvery-white dark ringed dots. The female is similar to the male but is paler orange with more rounded wings.

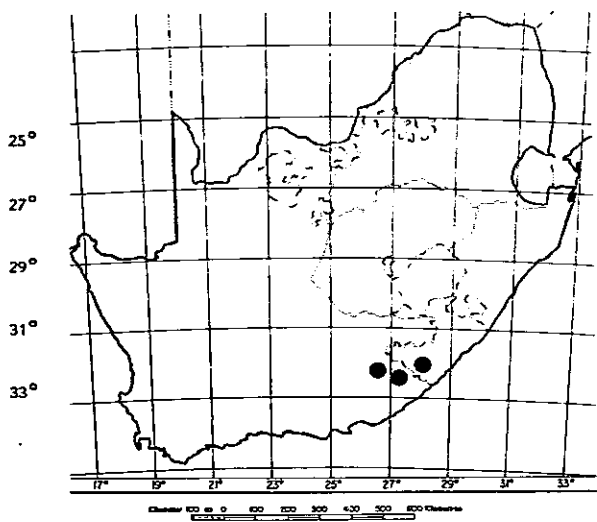
Forewing lengths: male 11-13mm; female 13,5-15,5mm.

Life history. Unknown.

HABITAT AND ECOLOGY. A montane forest species, this butterfly spends its time above the canopy of the forest. The male will select a perch on one of the higher forest

trees and from there it will chase all intruders away from its territory. The female flies at random about the canopy. Its flight is rapid and it is extremely wary. These characters coupled with its small size and preference for the canopy makes the species very difficult to see and the records are few and far between. Both sexes are attracted to damp sand or mud, and to flowers. The species has been recorded along wooded streams, away from the thick forest. J.C. McMaster recorded a specimen near Fort Beaufort about 25km from the forests of the Katberg. The species has been seen in most months of the year.

DISTRIBUTION. The nominate subspecies occurs in the Transkei and the Eastern Cape Province. Recorded from the Bashee River, Boolo Forest on the Tsomo River [Mbulu], Stutterheim, Amatola Mountains and the Katberg. One record is from Fort Beaufort.



STATUS. This insect was discovered by Col. J.H. Bowker in about 1864 along the edge of a forest on the Bashee River. He collected a single female. Two more females were recorded by Bowker from the "Boolo" forest on the Tsomo River, in December, 1865. The first male was recorded by L. Schroder in 1962, near Stutterheim.

THREATS. The forests in the Eastern Cape which still support this species are in no immediate danger, although a great deal of forest has already been destroyed, particularly in the Transkei. The scarcity of this species in its habitat makes it difficult to assess whether the populations are being affected or not.

CONSERVATION MEASURES. No conservation measures currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Murray (1935): 109 - adult.
2. Pennington (1978): 137 - adult and habits.
3. Quickelberge (1972): 90 - adult and habits.
4. Swanepoel (1953): 147 - adult and habits.

Bowkeria phosphor borealis Quickelberge RARE

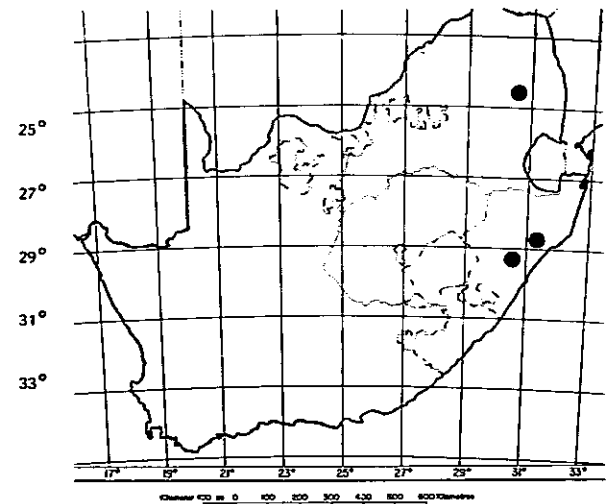
LYCAENIDAE THECLINAE Tribe: APHNAEINI

Bowkeria phosphor borealis Quickelberge, 1972. *Entomologist's Rec. J. Var.* 84:90. Type Locality: "Yellowwoods", Balgowan, Natal.

IDENTIFICATION. The wingshape is more pointed in this subspecies than in the nominate one, the hindwing tail is longer and the mark at the end of the cell, on the UFW of the male, is in the form of a streak and not a dot as in the nominate insect. The discal stripe and subapical spots on the LFW are also nearer to the outer margin. Forewing lengths: male 13,5-14mm; female 14-14,5mm.

Life history. Unknown.

DISTRIBUTION. Occurs in Natal and the Eastern Transvaal. Localities include: Eshowe, Balgowan "Yellowwoods" and the Karkloof Falls in Natal, and Graskop (Kowyn's Pass) in the Transvaal.



HABITAT AND ECOLOGY. The habitat and habits of this subspecies are similar to those of the nominate sub-

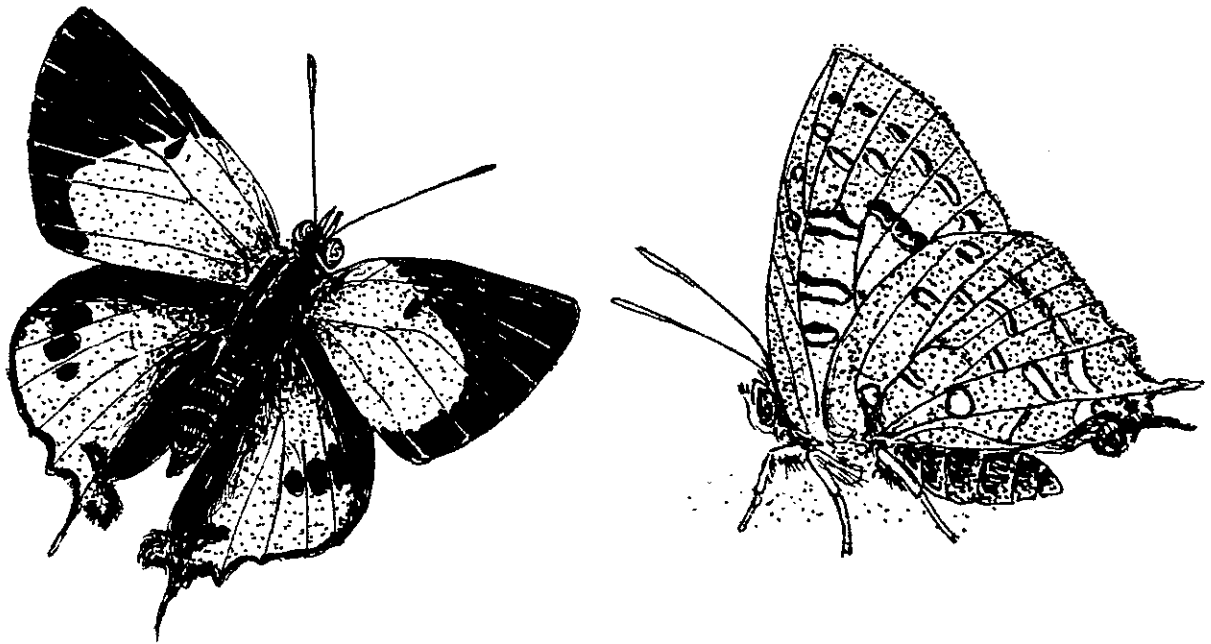


Figure 70. *Bowkeria phosphor borealis* male upperside (left) and underside (right). (Def. S.F.Henning)

species. A montane forest species which is normally very seldom seen. K.M. Pennington lived at "Yellowwoods", near Balgowan, and observed this species in his garden feeding on flowers. He stressed the wariness and speed of the species in taking flight at the slightest movement and disappearing into the treetops, not to be seen again. Pennington says that the numbers of *borealis* seen, fluctuated year by year. In Natal the species appears to have a stronger April/May brood, than a midsummer one. The population at Graskop is apparently stronger during late September and early October, and the butterfly can be seen feeding on bramble flowers at this time. Swanepoel states as regard this subspecies, that, 'it never settled in one place, but every now and again darted off to a new resting place. It constantly returned to the leaves of a low tree' and 'one came from a high tree, circled about, as if spying the place, and darted back to the tree disappearing behind it. Another appeared a little later alighting on the bramble flowers to which it returned time and again.' The April brood is apparently very small. The females are equally as rare as the males and inhabit the same places.

STATUS. The first record of subspecies *borealis* was made by Dr L.G.Higgins at Eshowe in 1921. Pennington subsequently found the Balgowan locality in 1933. The first record from Graskop was made by J. Coetzee on 4 October 1947 while in company of D.A. Swanepoel. The butterfly was also well known to the late H.H. Millar, from the Natal Midlands.

THREATS. Deforestation, to replant with pine trees, has affected many likely localities for this species. The species may be present in the Karkloof Nature Reserve but no

investigations in this connection have been made; it has, however, been found at Karkloof Falls. The Transvaal locality of Kowyn's Pass, near Graskop, requires special attention as this locality is especially rich in butterfly species and is apparently under the control of the Forestry Department. Only one record apparently exists from Eshowe and the exact locality is not known.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Murray (1935): 109 - adult.
2. Pennington (1978): 137 - adult and habits.
3. Quicquelberge (1972): 90 - adult and habits.
4. Swanepoel (1953): 147 - adult and habits.

Erikssonia acraeina Trimen VULNERABLE

LYCAENIDAE THECLINAE Tribe: APHNAEINI

Erikssonia acraeina Trimen, 1891. Proc. zool. Soc. Lond. 1891:91.
Type Locality: Ovamboland.

IDENTIFICATION. The upperside is orange with a narrow

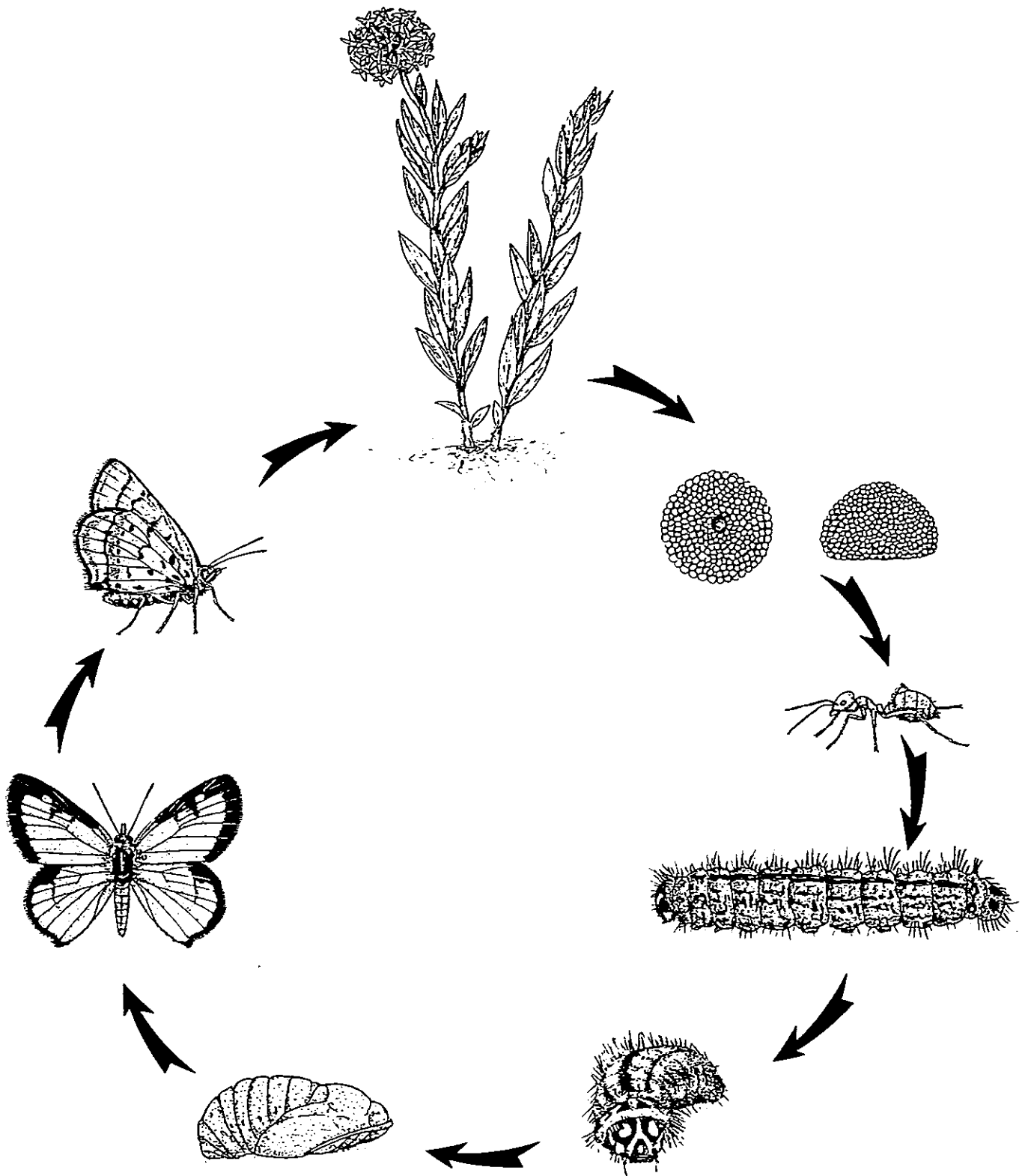
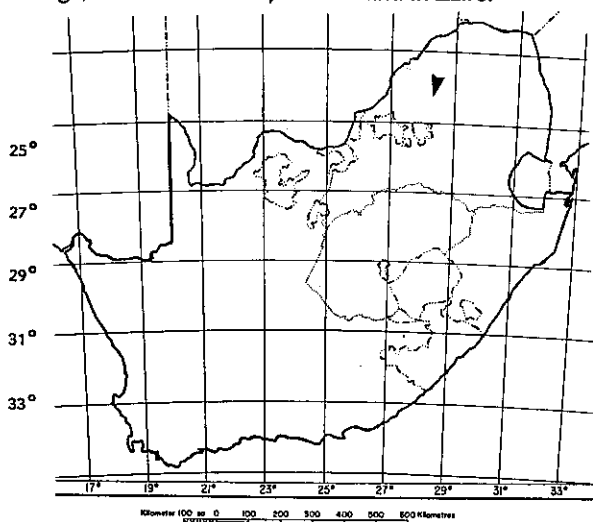


Figure 71. *Erikssonia acraeina* life cycle: Foodplant, *Gnidia kraussiana*; egg, top and side view; host ant, *Acantholepis* sp.; final instar larva, side view and anterior view showing head; pupa; male upperside and female underside (after Henning, 1984).

black marginal border, a black subcostal discal patch on the forewing and a thin black postdiscal band on the hindwing. The underside is orange with thin post-discal black lines and scattered black spots. The female is similar to the male but with a more rounded wing-shape. Forewing lengths: male 15-18mm; female 16-21mm.

Life history: The egg is dome-shaped with irregular raised convolutions except at the micropyle which is large, round and deeply indented. When first laid it is yellowish-ochre in colour, later darkening to grey or greyish-brown. It is similar in appearance to a truffle. All larval instars are similar in appearance. The body is pinkish-grey with a maroon longitudinal line down the centre of the dorsal surface, flanked on either side by a bluish-green area. Laterally the larvae are marked with regular reddish-brown markings. The honey-gland on the seventh segment is well developed and the retractile tubercles on the eighth are white. The sixth (or final) instar reaches a maximum length of 35mm. The pupa is at first bright yellow darkening to a deep ochre with a brownish dorsal line within 48 hours. Length about 15mm².

DISTRIBUTION. Ovamboland, South West Africa (Namibia) and Waterberg mountains west of Nylstroom (1700m above sea level), Transvaal. Also recorded from Mongu, Barotse Province, Zambia and in Zaire.



HABITAT AND ECOLOGY. Flies in open grassy areas of open patches and scattered shrubs and trees with a sandy soil, wherever its foodplant and host ant occur together. *E. acraeina* does not range far from its host plants and ants. The males stake out small territories amongst the foodplants in which they can be found throughout most of the day. The females fly at random in the area and are as common as the males. When basking on a sandy patch in the sun specimens have been seen to lay down on their side to get the full benefit of the sun on the underside. They settle on the ground, on small plants

or on grass. Specimens are often seen feeding on flowers. *E. acraeina* flies slowly and weakly, the bright colour and slow flight indicate that the species is probably unpalatable due to the toxic nature of the foodplant (Gifbossie). It does not mimic an *Acraea* as the name implies but has developed its aposomatic colours independently, the closest related genus is probably the *Aloeides* which, in most species, have tawny-orange colouring. Its foodplant is *Gnidia kraussiana* Meisner (Thymelaeaceae). The eggs are laid into the coarse sand at the base of the foodplant near the entrance to the ants' nest. The larvae shelter in the nest of an ant belonging to the genus *Acantholepis* during the day. At night the larvae emerge from the nest to feed on the foodplant. The larvae pupate within the ants' nest. Adults are on the wing from November to February².

STATUS. First taken in Ovamboland, by the explorer and hunter, A.W. Eriksson, in 1889. After that it apparently remained unrecorded until December 1955 when Dr. C.B. Cottrell discovered a small colony at Mongu, Barotse Province, Zambia. In December 1980 it was discovered by D. Edge in the Waterberg mountains west of Nylstroom, Transvaal. This colony is very strong, while there are no recent reports from the colony in Zambia. It has not been recorded from Ovamboland since the capture of the type series. The species has also been recorded from Zaire.

THREATS. The Waterberg colony is on a private farm and may face the threat of agricultural development in the future.

CONSERVATION MEASURES. The status of this species is currently being investigated by the Transvaal Nature Conservation Department with the aid of the Lepidopterists' Society of Southern Africa.

INVESTIGATIONS REQUIRED.

 Taxonomy Distribution Habitat Habits Food Reproduction

X

REFERENCES.

1. Pennington (1978): 139 - adult and habits.
2. Henning (1984): 337 - adult, life history and habits.

Subfamily POLYOMMATINAE

A large subfamily made up of several tribes. Hindwing tornus, or anal angle, rounded with a vestigial lobe in a few genera, tailless or with a single small filamentous tail.

Life history: Egg flattened or depressed, usually widest in the middle and not wider at base than at top. The larvae are onisciform and are often ornamented with small protuberances of various shapes. The larvae, at least in the early instars, feed on dicotyledons and have a varied association with ants. The pupae are girdled, except when reclining or sheltered (Eliot, 1973).

The two tribes found in South Africa are the Lycaenesthini and Polyommataini.

Tribe LYCAENESTHINI

Hindwing tailless, but with cilia almost always elongated into three tail-like tufts. Life history: Egg flattened or depressed. The larvae are onisciform. The pupae are attached by cremastral hooks and a girdle.

Anthene minima (Trimen) RARE

LYCAENIDAE POLYOMMATINAE Tribe:LYCAENESTHINI

Lycaenesthes minima Trimen, 1893. *Trans. ent. Soc. Lond.* 1893:135. Type Locality: Malvern, Natal.

IDENTIFICATION. A very small brown *Anthene* with a coppery sheen on the upperside. The underside is greyish-brown with creamy-white striations. Easily identified in the male by virtue of its small size and brown upperside. The female is similar to that of other small *Anthene* females but may be distinguished by careful comparison of the underside markings which are similar to that of the male.

Forewing lengths: male 10-12mm; female 11-12,5mm.

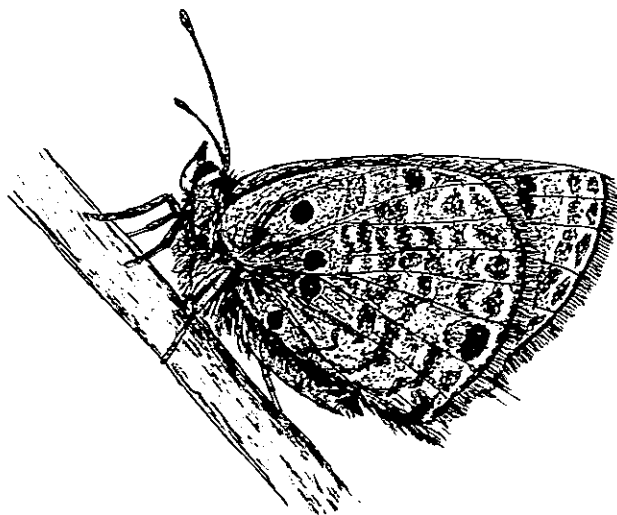
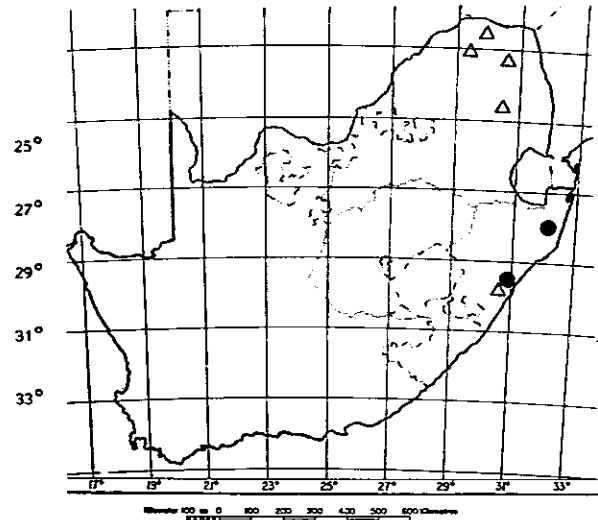


Figure 72. *Anthene minima* male underside. (Del. S.F.Henning)

DISTRIBUTION. A marginal species recorded from Northern Natal with odd records southwards to Durban. Also recorded in Swaziland and Botswana. Odd records exist for the Transvaal including Lydenburg, Letaba, Saltpan and Dendron.



Life history. Unknown.

HABITAT AND ECOLOGY. An inhabitant of thornveld, it whirrs above the thorn trees with other little "blues"; it settles on the leaves on the tops of the trees. Its small size and swift elusive flight make it very difficult to observe. It has been seen to feed on flowers, often close to the ground. The female flies about throughout the habitat, feeding on flowers or looking for foodplants on which to lay its eggs. Its flight period is from September to April.

STATUS. Discovered by C.N. Barker at Malvern, Natal, in November 1890. He recorded a further two the next year at Sinkwazi River. Another early record is by H. Millar from Northdene in April 1933.

THREATS. A great deal of the thornveld still exists in northern Natal despite the ravages of farming. However, *A. minima* is seldom seen, perhaps it prefers the somewhat wetter areas around Hluhluwe which have been destroyed by farming. The current distribution of this butterfly must be ascertained before any threats can be evaluated.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X

REFERENCES.

1. Pennington (1978): 141 - adult and habits.
2. Swanepoel (1953): 121 - adult and habits.

Tribe POLYOMMATINI

Hindwing tailed or tailless. Life history; egg flattened or depressed. Larvae onisciform. The larvae have a variety of feeding habits, some are entirely phytophagous and usually attended by ants, while others are carnivorous. The major genus in South Africa is the *Lepidochrysops*.

Cyclyrius babaulti (Stempffer) INDETERMINATE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

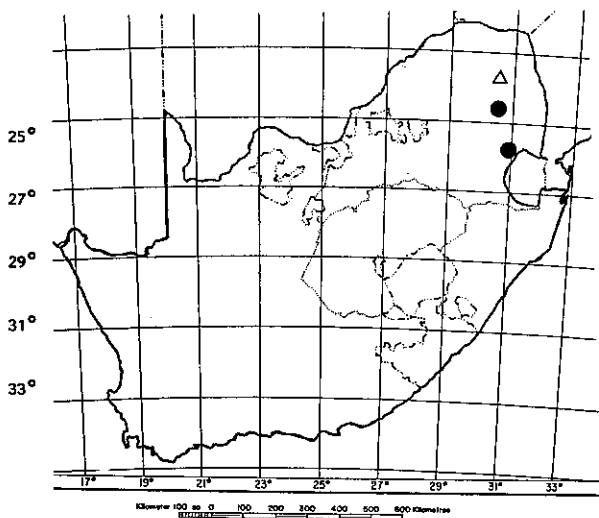
Syntarucus babaulti Stempffer, 1935. *Mém. Mus. natn. Hist. nat., Paris* (2)12:235.

IDENTIFICATION. Only positively identifiable by dissecting the genitalia. The distinctive genitalic character is the broad valves, obliquely truncate with numerous fine serrations across the end. The male is dark purplish-blue on the upperside, the female white with black spots and a blue basal area. The underside is white with numerous short black parallel lines.

Forewing lengths: male 10-14mm; female 12,5-14mm.

Life history. Unknown.

DISTRIBUTION. A marginal species, ranging widely through to East Africa. Recorded from South Africa only in the Eastern Transvaal. Localities include; Barberton, Noordkaap, Lydenburg, Morgenzon Forestry and Blyderivierspoort Nature Reserve.



HABITAT AND ECOLOGY. Usually found in well wooded, relatively moist, habitats, although the range of habitats recorded varies widely from riverine bush on the west side of Mariepskop at 1600m above sea level, to bushveld at Barberton at 1000m above sea level, to high altitude grassveld at Morgenzon at 1900m above sea level. A male has been seen to establish a territory in a wooded gully. It was perched on a long dried flower stalk, it took frequent flights around its territory but was not overly aggressive towards intruders. After these brief flights it always returned to its perch on the flower stalk. In some places it flies with the other similar members of the genus and cannot be separated until dissected. D.J. Rossouw recorded all four of the similar species flying together at the same time at Lydenburg; they are *C. jeanneli* (Stempffer), *C. pirithous* (Linnaeus), *C. brevidentatis* (Tite) and *C. babaulti*. The species is a tree dweller sometimes recorded on flowers. It is possible that the species is more plentiful than current records indicate owing to its similarity to the other, more common, species of the genus.

STATUS. Apparently first recorded in South Africa by G.A. Henning at Barberton on 28 October 1972. The paucity of records, as stated above, may be misleading as to the scarcity of this species.

THREATS. No known threats.

CONSERVATION MEASURES. The species has been recorded in the Blyderivierspoort Nature Reserve by G.A. Henning.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	X

REFERENCES.

1. Kroon (1973): 57 - adult.
2. Pennington (1978): 503 - adult and habits.

Tuxentius melaena griqua (Trimen) RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lycaena griqua Trimen, 1887. *S.A.Butt.* 2:84. Type Locality: Vaal River, Griqualand West.

IDENTIFICATION. A small white species with black margins and dots. Differs from the nominate *T. melaena* (Trimen) by virtue of its smaller size, proportionately smaller hindwings, somewhat variable tail length,

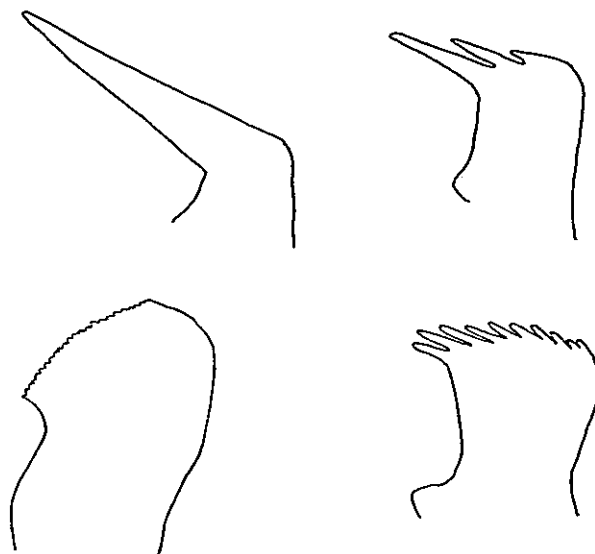
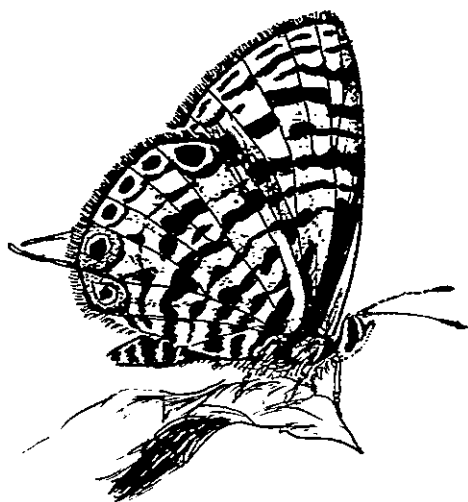


Figure 73. *Cyclyrius babaulti* male underside (left) (Del. S.F. Henning); Genitalia of male *Cyclyrius*, distal portion of valves; *C. pirithous* (top left), *C. babaulti* (bottom left), *C. jeanneli* (top right) and *C. brevidentatus* (bottom right) (Del. G.A. Henning).

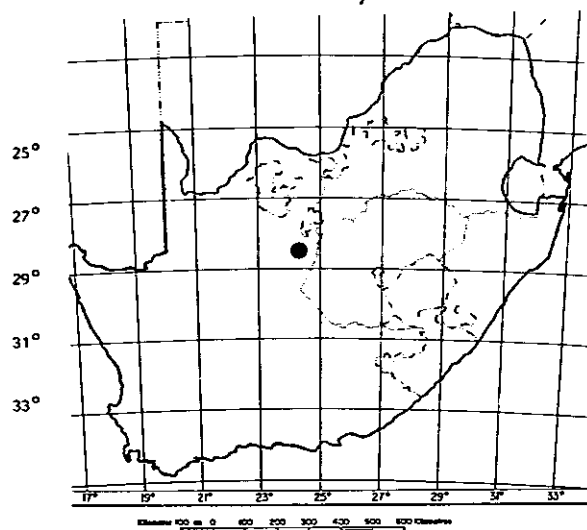
generally more extensive dark markings on the upperside, smaller underside spots and its habitat and habits. In most of these characters it is closer to *T. hesperis* (Vári) but this species generally has no underside markings and consistently shorter tails. Both sexes are similar. Forewing lengths: male 9,5-12mm; female 10,5-12,5mm.

Life history. Unknown. The life history of the nominate subspecies is as follows: Egg, 0,6mm in diameter by 0,3mm high, white with a latticework of ridges and intersections with protuberances. Final instar larva very flat and oval, pale green in colour with a brown mid-dorsal strip and numerous lateral setae. The larva attains a length of 12mm, the honey-gland and tubercles are present in the 3rd and 4th instars. Pupa, greyish-brown with darker grey markings, length 8mm.

HABITAT AND ECOLOGY. Occurs in thick bush on the banks of the Vaal River, where its presumed foodplant *Zizyphus mucronata* Willd. (Rhamnaceae) occurs. Another particularly prominent tree in its habitat is *Acacia albida* Del. (Fabaceae). It is only found in the narrow strip of bush growing along the banks of the river through this arid region. The species flies around the *Zizyphus* and the *Acacia*, the male flying fast and erratically, usually quite high up on the trees. The female flies slower and more sedately but can put on a burst of speed if disturbed. They have been recorded feeding on flowers growing in the grass and on damp ground. Specimens have been seen fluttering in the shade apparently searching for foodplant on which to lay its eggs. In the nominate subspecies the eggs are laid singly on the fresh shoots. The lateral setae act as a shadow-breaker. The larvae feed on the surface of the leaf leaving a fibrous skeleton. The larva pupates under a leaf or on a twig, the

pupa is attached by the cremastral hooks and a girdle. The flight period is from October to February.

DISTRIBUTION. Endemic to the Cape, only found on the banks of the Vaal River from Barkly West to Windsorton.



STATUS. Discovered by Colonel Bowker in 1871 on the Vaal River, Griqualand West. Trimen states in his original description of *griqua* that, 'they were accompanied by a single ordinary example of *L. melaena*, but by no specimens of a character in between the two forms.' He was referring to the extent of the dark markings and length of the tails, which in recent captures has proved possibly somewhat variable. This possibly gives some credence to the hypothesis that perhaps an unstable hybrid population is involved. *T. hesperis* has been recorded from Groblershoop on the Orange River which is about 250km from the *griqua* locality on the Vaal. The habits and habitat of both *hesperis* and *griqua* are similar

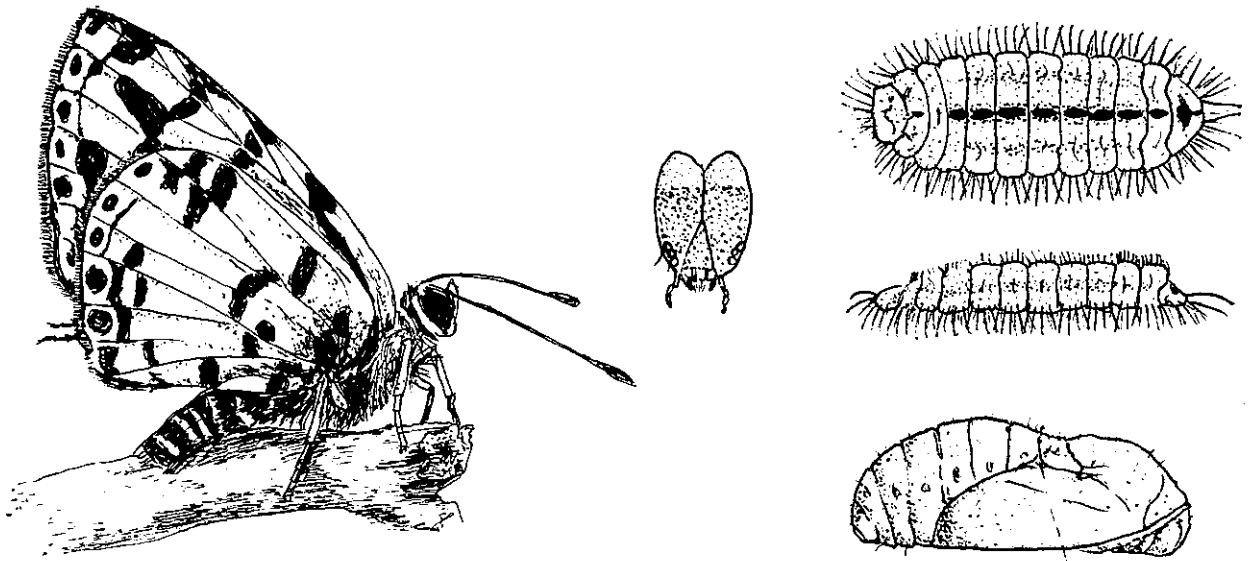


Figure 74. *Tuxentius melaena griqua* male underside (left). *Tuxentius melaena melaena* final instar larva, top and side view (top right): final instar head (top centre); pupa (bottom right). (Del. S.F.Henning)

as opposed to that of *melaena* which occurs more widely in a variety of habitats. Both *hesperis* and *griqua* inhabit the high *Zizyphus* and *Acacia* trees along the river banks in relatively arid areas.

THREATS. The entire length of the Vaal River inhabited by this species is under threat by alluvial diamond mining operations, and, in certain spots by the development of pleasure resorts and housing.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X			X	X

REFERENCES.

1. Pennington (1978): 144 - adult and habits.
2. Swanepoel (1953): 63 - adult and habits.
3. Vári (1976): 133 - adult.

Genus *Lepidochrysops*.

A large genus of medium sized species. The hindwing is tailed or tailless. The uppersides of the males predominantly blue or violet, but sometimes brown. The underside is often specifically characteristic. Life history: This genus probably has one of the most interesting and remarkable life history of all butterflies. The larvae are

phytophagous (plant feeding) for the first two instars, they then induce ants to carry them into their nest where they feed on the ant brood. The ants continually attend to them and they are treated as if they were ant brood. They pupate in the tunnels of the ant nest and when the adults emerge they must run, with the wings still folded, through the tunnels until they find the exit. The wings are expanded outside the nest.

***Lepidochrysops methymna dicksoni* Tite**

ENDANGERED

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops methymna dicksoni Tite, 1964. *Entomologist* 97:7. Type Locality: Tygerberg Hills, South Western Cape.

IDENTIFICATION. Both sexes have dark brown upper-sides with a blue suffusion on all wings. Underside brown, with white ringed black dots and an outer white zigzag row of amalgamated spots. Forewing with a discal row of dark brown spots running together. Forewing lengths: male 16-20mm; female 17-22mm.

Life history. Unknown. The nominate subspecies has pale blue eggs with white ribbing and is 0,7mm in diameter by 0,4mm high. The fourth (or final) instar is creamy-white to amber in colour with numerous, fine, short dark hair-like setae along the lateral ridge and around the extremities. It attains a length of 16mm. The pupa is blunt anteriorly and thick for most of its length. Well developed ribbon-like setae are arranged in a definite pattern and the colour is amber to brown, frequently darker in places. The pupa is 13-15mm long.

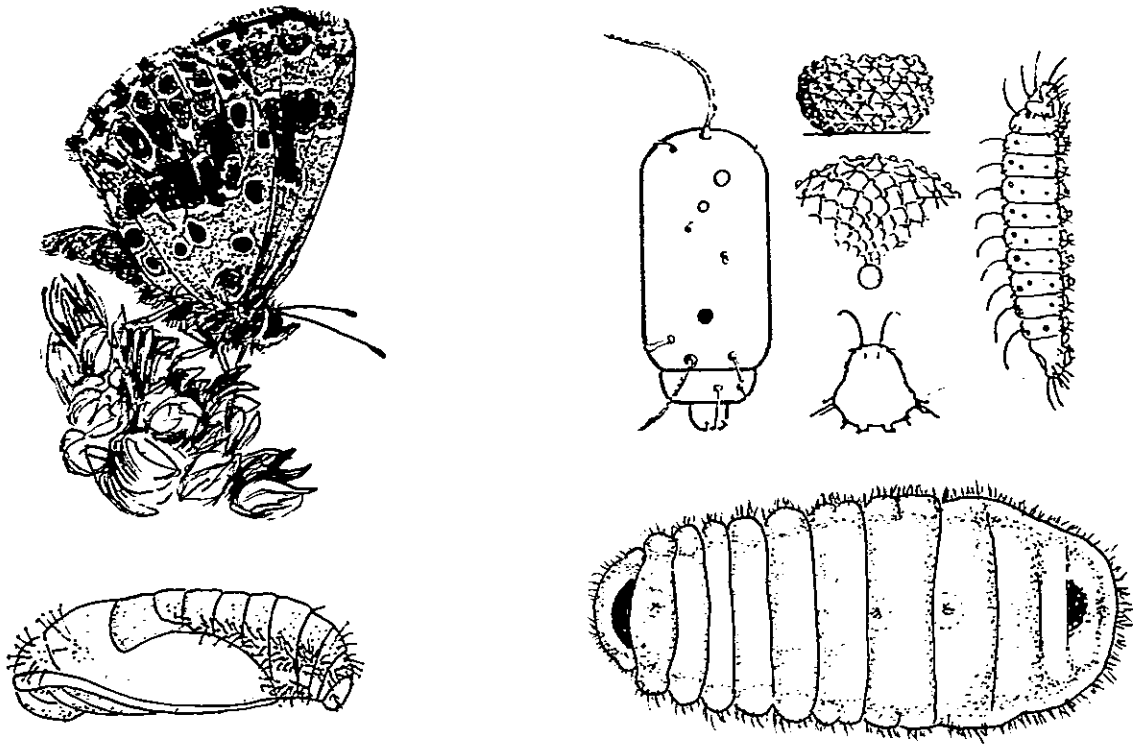
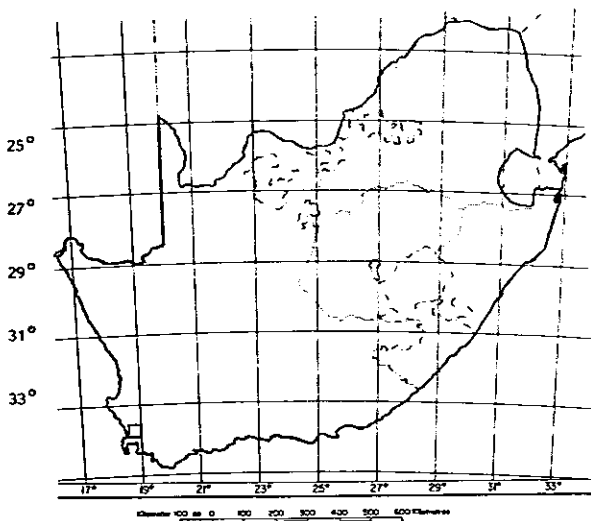


Figure 75. *Lepidochrysops methymna dicksoni* male underside (Del. S.F.Henning). *Lepidochrysops methymna methymna* egg, first instar larva, enlargement of seventh segment, cross section (top right) (Del. Clark in Clark & Dickson, 1956); final instar larva (bottom right); pupa (bottom left) (Del. S.F.Henning).

DISTRIBUTION. Endemic to the Cape, only found on the Tygerberg Hills in the South Western Cape.



HABITAT AND ECOLOGY. Found on the summit and slopes among the fynbos. The males have a strong and rather fast flight usually close to the ground. They show "hill-topping" behaviour, ascending to the summit of the hill or rocky ridge where they establish their territories. The females fly slower than the males and they are usually found frequenting the food plants (*Selago* sp.). Both sexes feed on flowers. The life history of *dicksoni* is unknown,

the foodplant of the nominate subspecies is *Selago fruticulosa* Rolfe (Selaginaceae). Other foodplants recorded are *Selago serrata* Berg. and *S. spuria* L. The life history of the nominate subspecies was described in full detail by Claassens (1974, 1976). The female will lay on the foodplant if the pheromone trail of the host ant (*Camponotus maculatus* Fabricius) is present. The eggs are laid singly and take about five or six days to hatch. The first two instars of the larva feed on the buds and flowers. These two stages last for about two weeks. The third instar larva apparently releases a brood pheromone to attract an ant. The larva curls itself up and releases its grip on the foodplant, allowing the ant to pick it up and carry it into the ant nest. The remainder of the life history is spent in the ant's nest where the larva feeds on the ant brood. After two months the larvae are very sluggish, feeding sporadically, but for most of the time apparently in a state of diapause, resting motionless in the nest. At the end of winter, after the larvae have been in the ants' nest for about nine months, they commence regular feeding before pupating in spring. They pupate in the tunnels of the ant's nest. The imago emerges after about three weeks¹. The recorded flight period for this species is October to December.

STATUS. Discovered by C.G.C. Dickson on 9 October 1936 on the Tygerberg Hills. The subspecies has not been recorded for some thirty years.

THREATS. Apparently the extinction of the only known colony was due to the cultivated lands on the hillsides eventually extending up the hill and encompassing the breeding grounds, thereby destroying the ant colonies and foodplants. It has not been found on any of the other summits of the Tygerberg range.

CONSERVATION MEASURES. No conservation measures are currently in force as there are no known colonies.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Claassens & Dickson (1980): 137 - life history and habits.
2. Pennington (1978): 147 - adult and habits.

Lepidochrysops badhami Van Son RARE

LYCAENIDAE POLYOMMATINAE Tribe: POLYOMMATINI

Lepidochrysops badhami Van Son, 1956. *Ann. Transv. Mus.* 22:508. Type Locality: Springbok, Namaqualand.

IDENTIFICATION. A medium sized species with a dark brown upperside and inconspicuous white cilia. The LHW is greyish-brown and has the basal black spots enlarged, while those of the medial brown series are smaller; some of the white markings are more extensive than in related species. The female is similar to the male.

Forewing lengths: male 16-21mm; female 21-22mm.

HABITAT AND ECOLOGY. This insect flies round short dark bushes in flat country at the base of the hills to the east of Springbok. Its swift and erratic flight makes it difficult to follow, as it darts about amongst the bushes; it may suddenly disappear as it goes round a bush, and may not be seen again thereafter. It settles on rocks or on the bushes. A female was observed by Cottrell to oviposit on *Pelargonium dasyphyllum* E. Mey. ex Knuth (Geraniaceae), a fine-leaved plant with small flowers. Pennington says, 'it flies restlessly around the tops of short shrubs in flat country, occasionally stopping at certain white flowers that abound there in a good season. Its emergence is erratic, in that dry area.' The life history is unknown but the larvae are presumed to be phyto-predaceous, feeding on

the host plant and then the brood of the host ant.

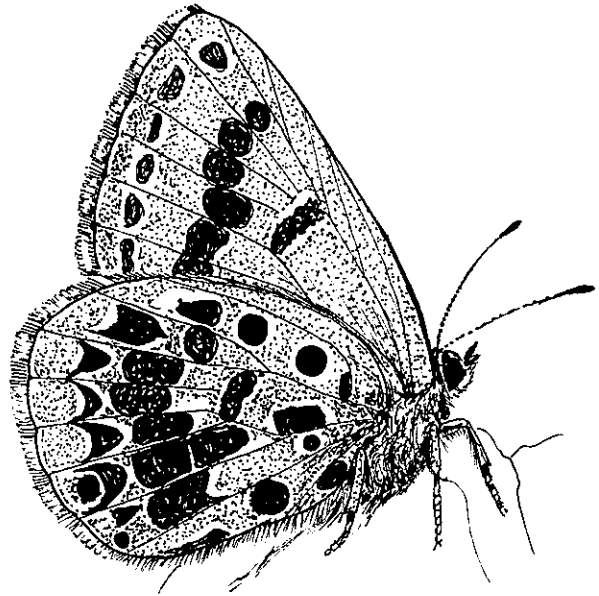
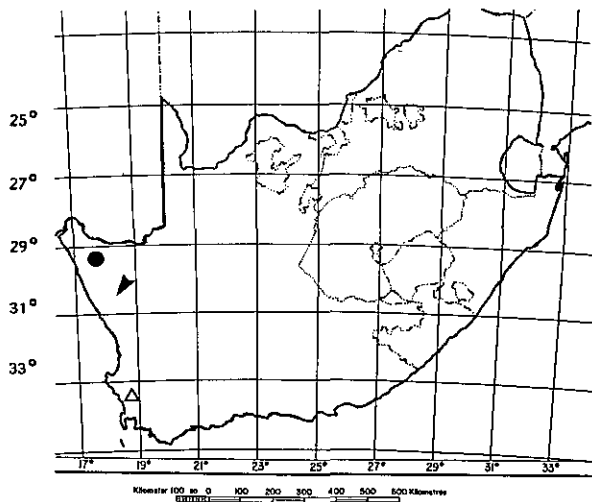


Figure 76. *Lepidochrysops badhami* male underside (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to the north western Cape, occurring in Namaqualand at Springbok; also recorded from Wolfhok, near Garies. There is a single record from the south-east of Mamre, by C.W. Wykeham.



STATUS. Discovered by Dr G. van Son and R. Badham in October 1954 at Springbok, and has been recorded there consistently since that time. C.W. Wykeham recorded the single male at Mamre on 10 December 1966. A couple of specimens were recorded at Wolfhok near Garies by G.A. Henning on 25-26 October 1975.

THREATS. No known threats.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

CONSERVATION MEASURES. None currently in force.

REFERENCES.

- Cottrell (1965): 76 - adult and habits.
- Pennington (1978): 149 - adult and habits.

Lepidochrysops bacchus Riley RARE

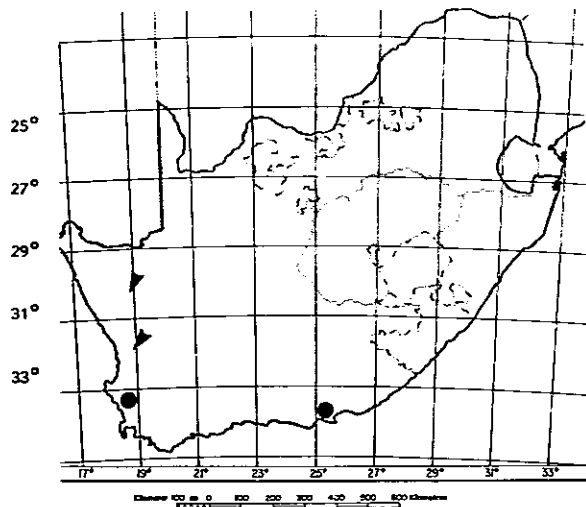
LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops bacchus Riley, 1938. *Trans. R. ent. Soc. Lond.* 87:243. Type Locality: Tygerberg Hills, Cape Peninsula.

IDENTIFICATION. Upperside dull brown with a silky golden sheen and conspicuously spotted fringe. Underside dark grey-brown with white ringed black dots and an outer zigzag row on hindwing; in the centre of the hindwing is a row of dark brown amalgamated spots. LFW with an outer row of black confluent spots. The female is larger and darker than the male.

Forewing lengths: male 13-14mm; female 13-15mm.

DISTRIBUTION. Endemic to the Cape, Tygerberg Hills, Malmesbury, Piketberg, Gydo Mountain, Bitterfontein, Garies, Kamieskroon, Uitenhage and Coega near Port Elizabeth.



Life history. The egg is 0,6mm in diameter by 0,3mm high

and is white with a hexagonal netting pattern of white ridges. The first two instars are green with grey setae. The second instar is about 2mm long. The third instar leaves the foodplant and will not feed further on it. The remainder of the life history is unknown¹.

STATUS. First recognised as a distinct species by C.G.C.Dickson in September/October 1935. Old records by Trimen in the eighteen sixties were placed as a variation of *Lepidochrysops methymna* (Trimen).

HABITAT AND ECOLOGY. The habitat is bush covered slopes, shrubby Macchia, in areas receiving between 50 and 75mm annual rainfall. The flight is active to medium fast, while flying among the plants and circling around. The males patrol slowly in zigzag fashion near the ground around the bushes, others fly swiftly over the bushes changing direction slightly every few yards in their up or downward flights. They occasionally ascend to the top of hills. In some areas they are observed to settle frequently on the ground. The female flies at random, presumably in search of mates, flowers and plants to lay its eggs on. She lays on or close to unopened flowers of the foodplant. The foodplants are *Selago fructiculosa* L and *Walafrida geniculata* Rolfe L.F. (Selaginaceae). The eggs are laid singly on or near flowers. The larva feeds on the buds and flowers of the foodplant up to the third instar, then becomes fully associated with ants as in other species of *Lepidochrysops*. The host ant is unknown. The flight period has been recorded from September to December, depending on locality. There are records from Uitenhage for January and February.

THREATS. The colonies are generally quite restricted, the full taxonomic implications of the far flung, and very isolated, colonies are still to be investigated.

CONSERVATION MEASURES. This species was placed on the protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

- Clark & Dickson (1971): 37 - life history (in part) and habits.
- Cottrell (1965): 72 - adult, life history (in part) and habits.
- Pennington (1978): 148 - adult and habits.
- Swanepoel (1953): 100 - adult and habits.

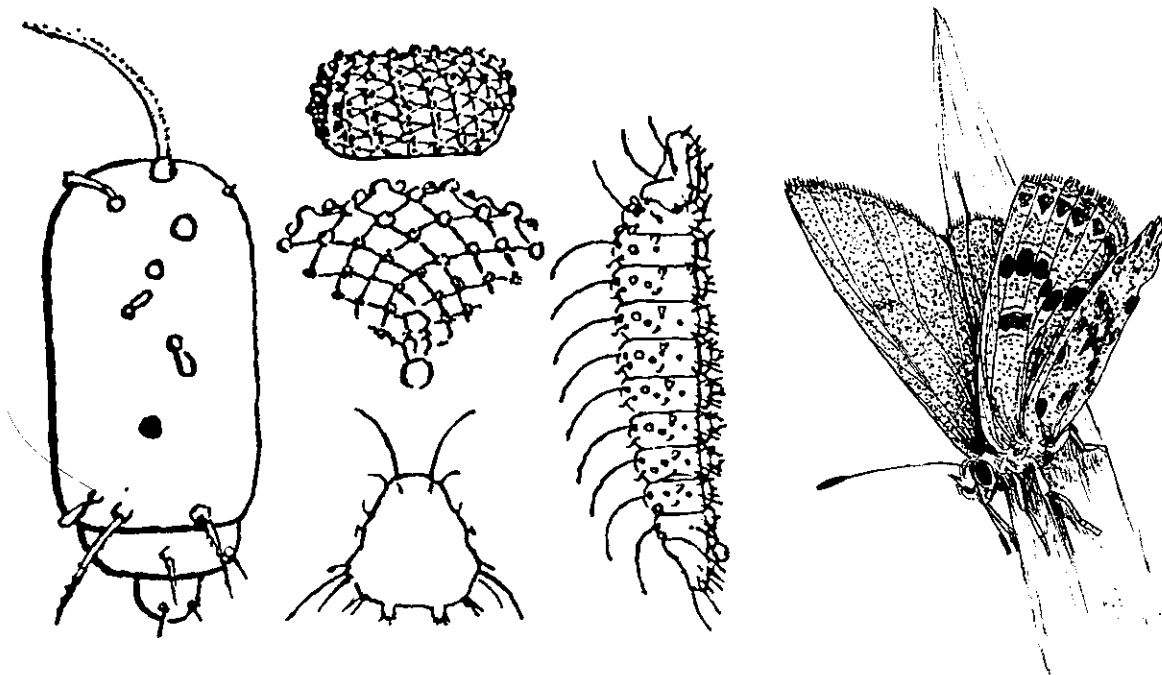


Figure 77. *Lepidochrysops bacchus* egg, first instar larva, enlargement of seventh segment, cross section (left) (Del. Clark, in Clark & Dickson, 1956); male upper and underside (right). (Del. S.F.Henning)

Lepidochrysops penningtoni Dickson RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops penningtoni Dickson, 1969. *Entomologist's Rec. J. Var.* 81:97. Type Locality: Steinkopf, Namaqualand.

IDENTIFICATION. The wings of *penningtoni* are more elongated than in some of the allied *Lepidochrysops*. The male upperside is bronzy-brown, being darker at the base and towards the outer margin, which is edged with black. LHW brownish-grey with white-ringed dark brown spots and an irregular row of white sagittate markings. In the centre of the wing there is a row of brown confluent spots. The LFW postdiscal spots are very indistinct. The female is similar to the male. This species is related to *L. bacchus* Riley.

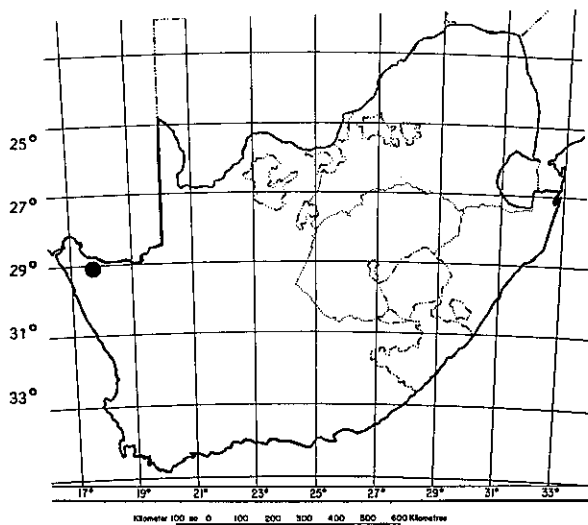
Forewing lengths: male 14-17mm; female 17-18mm.

Life history. Unknown.

HABITAT AND ECOLOGY. This butterfly inhabits a very flat, stony and dry area, that is covered with mesembryanthemums and other low shrubs. The altitude is about 680 metres. Pennington observed the species flying low among the vegetation and specimens were not easy to follow if the wind was blowing. The males were observed to fly slowly among the scrub, and were confined to a small area. Their life history is presumably phyto-

predaceous, as are other species of *Lepidochrysops*. The flight period is from August to September.

DISTRIBUTION. North of Steinkopf and Spektakel, northern Namaqualand.



STATUS. This insect was first discovered by Mrs R. Pennington on 25 September 1967, 6,4km north of Steinkopf, Namaqualand. Also recorded from Spektakel. *L. penningtoni* has been very elusive for a number of years but a couple of specimens have recently been recorded from near the type locality.

THREATS. None known.

CONSERVATION MEASURES. None currently in force

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 149 - adult and habits.

Lepidochrysops jamesi jamesi Swanepoel RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

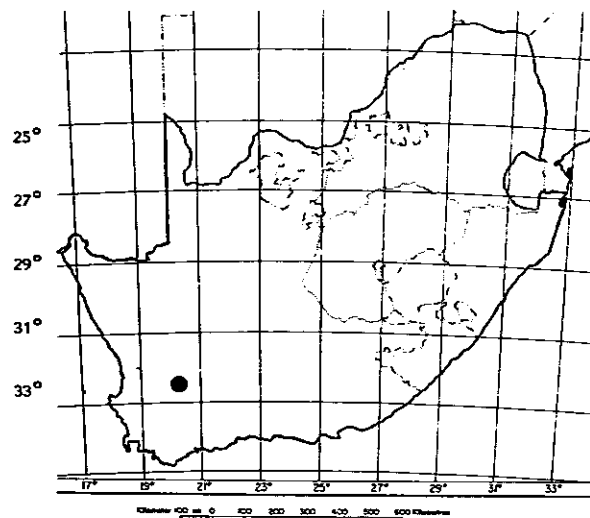
Lepidochrysops jamesi, Swanepoel, 1971. *Entomologist's Rec. J. Var.* 83:97. Type Locality: Roggeveld Mountains, Cape Province.

IDENTIFICATION. Upperside dark brown with coppery sheen, fringes greyish-white clearly chequered with dark brown. UHW, tomal spot black with orange ring. Underside dark brownish-grey, LFW with a lunular discocellular mark and six dark brown discal spots on the forewing. LHW with white-ringed blackish-brown spots and an outer white sagittate row, in the centre is a series of confluent discal spots. The female is similar to the male but the coppery sheen is brighter and inclined to be more yellow.

Forewing lengths: male 17-18mm; female 17-18mm.

Life history. Unknown.

DISTRIBUTION. Roggeveld Escarpment north west of Sutherland and in the adjacent mountains to the west, in the Cape Province.



HABITAT AND ECOLOGY. The habitat of *L. jamesi jamesi* is the summit of the Roggeveld Mountains. It has been recorded flying among tall bushes. The males fly fairly rapidly, sometimes slowly in circles or zigzags among the tall bushes, or over low shrubs. They seem to be confined to a comparatively small area where they visit all types of flowers. Now and then they would rest on the ground when clouds came over. Life history presumably also phyto-predaceous. The flight period is from September to November.

STATUS. It was discovered by D.A. Swanepoel on 6 October 1970, on the Roggeveld Mountains, 56km north of Sutherland.

THREATS. None known.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 149 - adult and habits.

Lepidochrysops jamesi claassensi Dickson RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops jamesi claassensi, Dickson, 1982. *Entomologist's Rec. J. Var.* 94:32. Type Locality: Hantamsberg, Cape Province.

IDENTIFICATION. Male upperside golden-brown with a narrow blackish-brown marginal line and some indistinct submarginal markings on the hindwing. Underside greyish-brown but considerably overlaid with white scaling. All markings are similar to the other species of the *L. methymna* group but reduced in size and distinctness. The female is similar to the male but the upperside colouring is lighter and more golden, and the underside markings are even more reduced.

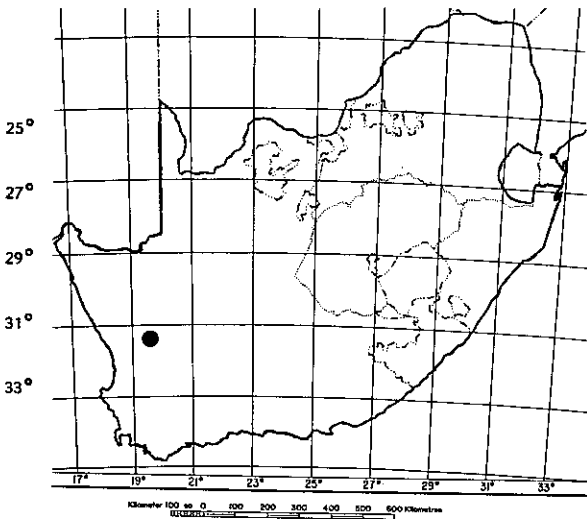
Forewing lengths: male 15-17mm; female 15-18mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The butterfly's habitat comprises rocky mountain peaks up to 1800 metres. The flight is fairly rapid, as the insect dodges about among the tall bushes growing in the area that is frequented. The life history is presumed to be phyto-predaceous as in the other species of the genus. The flight period is from Sep-

tember to November.

DISTRIBUTION. Hantamsberg, Calvinia, Cape Province.



STATUS. This taxon was discovered by C.W. Wykeham on 14 October 1976 on the Hantamsberg, north of Calvinia.

THREATS. None known.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Dickson (1982): 32 - adult and habits.

Lepidochrysops loewensteini (Swanepoel) RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Cupido (Lepidochrysops) loewensteini Swanepoel, 1951. *J. Ent. Soc. sth. Afr.* 14(1):57. Type Locality: Mokhotlong, Basutoland.

IDENTIFICATION. Male upperside dark greyish-brown with bronzy-brown scales on forewing, mainly along costa and cell. UHW with similar scales along the inner margin and an indistinct submarginal black spot and orange-yellow lunule. Underside yellowish-brown. LFW with darker brown discocellular, marginal and postdiscal spots. LHW with distinct black basal spots broadly ringed with white; the seven discal spots are fused with broad white scaling proximally and distally; marginal row of spots indistinct; distinct black and silvery-blue submar-

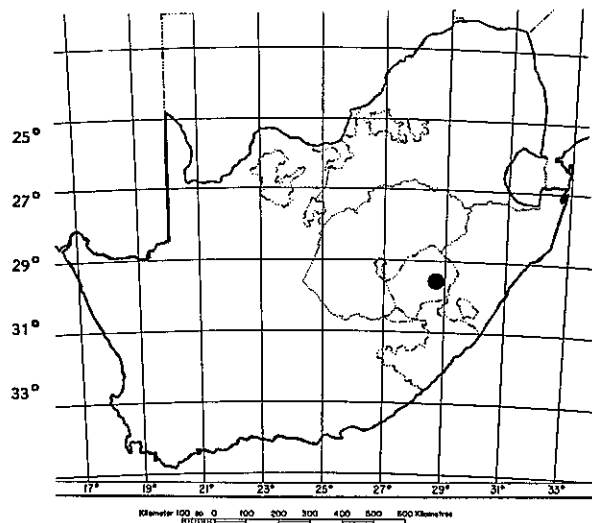
ginal spot bordered inwardly by orange-yellow. The female is similar to the male.

Forewing lengths: male 18-19mm; female 19-20mm.

Life history. Unknown.

HABITAT AND ECOLOGY. *L. loewensteini* inhabits grassy mountain slopes. Its flight is usually slower than most *Lepidochrysops*, but the butterfly has an amazing turn of speed if disturbed. It usually flies 20-50cm above the ground. The males establish territories along the mountain slopes among the food plants, usually resting on the ground. They are often observed frequenting flowers but have not been observed going up to the peaks. The females are less active than the males and frequent the same places. This insect's life history is probably phytopredaceous. The flight period has been recorded from January to February.

DISTRIBUTION. Mokhotlong, Rafolatesane, Lesotho.



STATUS. The species was first discovered by D.A. Swanepoel in January 1949 at Mokhotlong, Lesotho. Many years passed before it was rediscovered by the Pringles at Rafolatsane. A recent record from the northern Cape - southern Lesotho border requires confirmation.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 149 - adult and habits.
2. Swanepoel (1953): 95 - adult and habits.

Lepidochrysops victori Pringle RARE

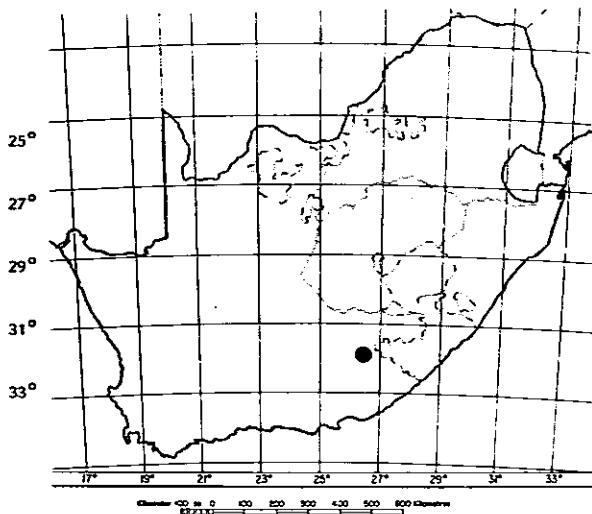
LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops victori Pringle, 1984. *Entomologist's Rec. J. Var.* 96:137. Type Locality: Bedford, Cape Province.

IDENTIFICATION. Upperside of male dark greyish-brown with a faint dusting of yellow at base of costa of forewing. UHW with faint black submarginal spots. Underside greyish-brown. LFW with distinct black spots ringed with white; the seven discal spots are fused with broad white scaling, proximally and distally; marginal row of spots indistinct; distinct black and silvery-blue submarginal spot bordered inwardly by orange-yellow. Female similar to male but upperside ground colour deep brown. Forewing lengths: male 16-17mm; female 18-19mm.

Life history. Unrecorded.

DISTRIBUTION. Foothills of the Great Winterberg near Bedford, Eastern Cape Province.



HABITAT AND ECOLOGY. This insect's habitat is at a high altitude on the foothills of the Great Winterberg. It flies in a fairly restricted area where it appears to be associated with a species of *Selago*. The males do not show hill-topping behaviour, but establish territories along the slopes where the supposed foodplant occurs. The foodplant is probably the above *Selago* species. The larvae are probably phyto-predaceous, feeding on the foodplant for two instars and then being carried by the host ant into its nest where they feed on the ant brood. The flight period is from February to March.

STATUS. Discovered by V. Pringle in February 1973 at "Huntly Glen", Bedford, Eastern Cape.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pringle (1984): 137 - adult and habits.

Lepidochrysops pephredo (Trimen) RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lycaena pephredo Trimen, 1889. *S.A.Butt.* 3:389. Type Locality: Estcourt, Natal.

IDENTIFICATION. Upperside dark greyish-brown and rather glossy. Fringes conspicuously white with a dark brown base. Underside ash-grey with a curved white postdiscal stripe on the forewing and a very conspicuous broad curved white postdiscal band on the hindwing. Normal brown markings associated with this group are indistinct or absent. The female is similar to the male. Forewing lengths: male 16-19mm; female 19-20mm.

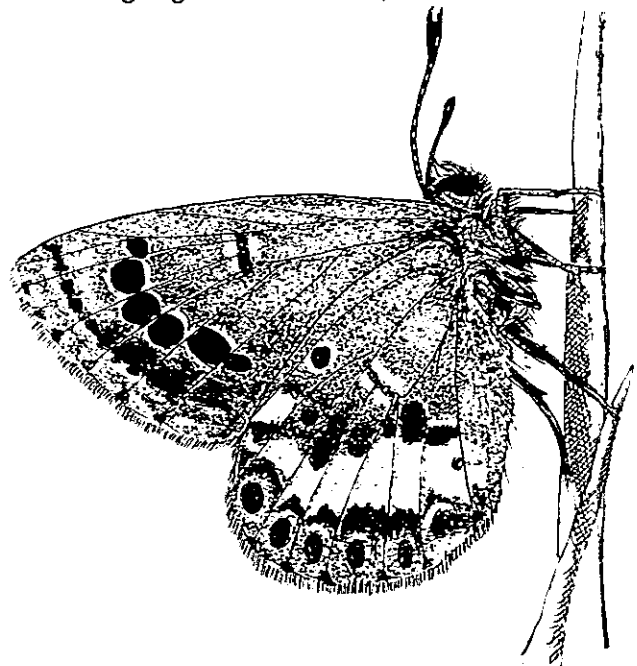
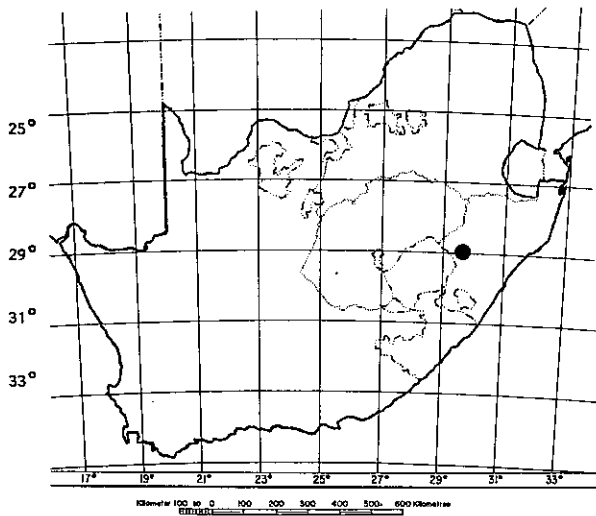


Figure 78. *Lepidochrysops pephredo* male underside. (Del. S.F.Henning)

Life history. Unrecorded.

HABITAT AND ECOLOGY. *L. pephredo* inhabits grassy slopes. A fast flyer, flying near the ground in zigzags, sometimes circling about or flying fairly straight. The males establish territories at the highest points (hilltopping). They rest for long periods on the ground and will occupy the same territory for hours. When other males pass, they chase each other far across the veld, but soon return to their respective territories. At times they are to be found feeding on *Becium* flowers around the rocks. The much rarer female is more likely to be met on patches of the foodplant, which is *Becium obovatum* (Labiatae), down the slopes. The egg is laid on the flower buds. The larva feeds on the flowers and buds of *Becium obovatum* up to the third instar, when it is carried into the nest of the host ant and where it feeds on ant brood. The species of ant has not been identified. The flight period is from October to November

DISTRIBUTION. Natal; inhabiting an area covering the high hills from Willow Grange to Mount Arrochar, on the road from Mooi River, to Rietvlei and also to the south.



STATUS. It was discovered by C.W. Morrison in 1888 at Estcourt in Natal. Subsequently recorded from Highlands, Rosetta and Rietvlei road.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Murray (1935): 185 - adult.
2. Pennington (1978): 150 - adult and habits.
3. Swanepoel (1953): 98 - adult and habits.

Lepidochrysops swanepoeli Pennington RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops swanepoeli Pennington, 1948. *J. ent. Soc. sth. Afr.* 10(2):164. Barberton, Transvaal.

IDENTIFICATION. The male upperside fuscous-brown with blue reflection. Viewed at certain angles this produces a suggestion of pinkish-violet. Both wings with thin discocellular spots, which tend to be obscured by the blue reflection, and with a narrow dark brown marginal line. There is a faint orange lunule near the anal angle of the hindwing. The underside is light brownish-grey with much darker discocellular, discal and marginal spots, delineated by a narrow white line. LHW has a conspicuous white band postdiscally on the outer part of the wing. The female upperside is dark brown with a blue sheen from the base to the postdiscal area leaving a broad outer marginal and costal border.

Forewing lengths: male 18-20mm; female 19-21mm.



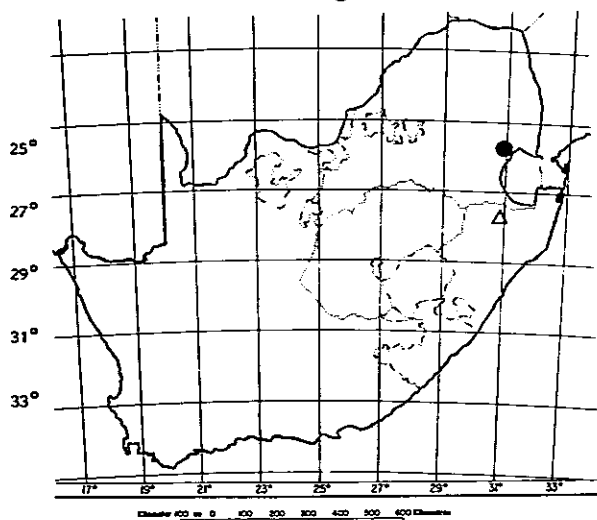
Figure 79. *Lepidochrysops swanepoeli* male underside. (Del. S.F.Henning)

Life History. Unknown.

HABITAT AND ECOLOGY. Inhabits grassy summits or slopes of hills. Its flight is relatively slow for a *Lepidochrysops* and they usually hover about for a few seconds when looking for a resting place. The males are strongly territorial. It establishes territories on the grassy summits (hilltopping) and is quick to chase other butterflies out of its chosen spot. It rests at times on shrubs,

but more frequently on low stones. The females are more likely to occur on the slopes. Often observed feeding on *Becium* flowers. They only ascend to the peaks to look for males. The males may play about the same peaks for many hours, arriving there usually from 09h00 when the weather is warm and sunny to as late as 17h00. The foodplant is *Becium* sp. (Labiatae). The larvae are probably phyto-predaceous; in other recorded species of the genus the first two instars feed entirely on the foodplant, but after the second moult they are carried by the host ant into the ants' nest where they feed on the ant brood. The larvae pupate in the tunnels of the ants' nest and when they emerge they run along the tunnels until they reach the outside before they expand their wings. The flight period is from September to November.

DISTRIBUTION. Barberton - At the Sheba and Fairview mines, Transvaal. Also Mount Ngwibi in northern Natal.



STATUS. It was discovered by D.A. Swanepoel in October 1945 at Fairview mine near Barberton. It has been recorded on Mount Ngwibi, near Vryheid in northern Natal.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
----------	--------------	---------	--------	------	--------------

	X	X	X	X	X
--	---	---	---	---	---

REFERENCES.

1. Pennington (1978): 150 - adult and habits.
2. Swanepoel (1953): 105 - adult and habits.

***Lepidochrysops jefferyi* (Swierstra)**

RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lycaena jefferyi Swierstra, 1907. *Ann. Transv. Mus.* 1:176. Type Locality: Barberton, Transvaal.

IDENTIFICATION. Male upperside olive-brown with strong violaceous gloss. Underside pale grey-brown with white-ringed brown spots; hindwing with black costal and basal dots ringed with white. Female upperside brownish-grey with a dark violaceous-blue disc leaving fairly broad dark outer marginal borders; the hindwing is usually crossed by a row of dark brown spots. The underside of the female is lighter than that of the male. Forewing lengths: male 19-22mm; female 21-23mm.

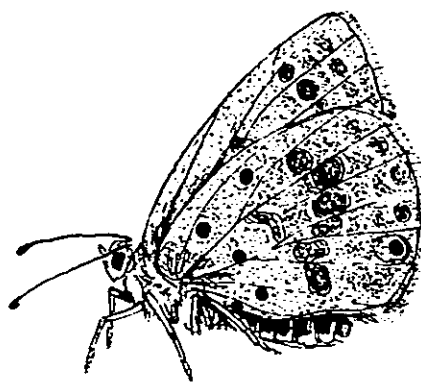
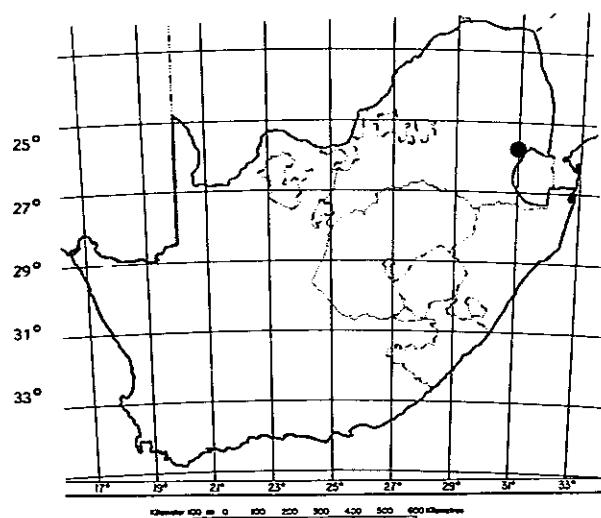


Figure 80. *Lepidochrysops jefferyi* male underside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. Barberton - Sheba, Fairview and Ulundi Mines and Noordkaap.



HABITAT AND ECOLOGY. The habitat is grassy hilltops and slopes with scattered trees. Its flight is fast and irregular, usually about 15-60 cm above the ground. The males show hilltopping behaviour. It rests for long periods, sometimes on a stem of grass, or a stone or on the ground. It will usually circle or zigzag slowly about until another male enters its territory then it will chase it vigorously about. It chases it far from the territory, after which it soon returns. The males rarely feed on flowers. The females fly at random about the slopes in search of flowers to feed on and *Becium* plants on which to lay her eggs. Freshly emerged females come to the hilltops in search of males, usually in the afternoon. The foodplant is *Becium obovatum* (Labiatae). The life history is probably phyto-predaceous as are related species. The flight period is from October to December.

STATUS. It was discovered by G.W. Jeffrey in October 1906 at Ulundi Mine, near Barberton. Subsequent records are Noordkaap, Sheba and Fairview mines.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	X

REFERENCES.

1. Murray (1935): 188 - adult.
2. Pennington (1978): 152 - adult and habits.
3. Swanepoel (1953): 106 - adult and habits.

Lepidochrysops hypopolia (Trimen) EXTINCT

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lycaena hypopolia Trimen, 1887. *S.A.Butt.* 2:30. Type Locality: Ladysmith, Natal.

IDENTIFICATION. Male upperside dull violaceous-blue with a narrow brown margin. UFW has a distinct median spot while the UHW has a narrow black spot bordered by a yellow-ochre lunule above the anal angle. Underside hoary-grey with relatively indistinct white ringed brown spots; hindwing with black costal and basal spots also ringed with white. No female has been recorded.

Forewing lengths: male 19-20mm

Life history. Unknown.

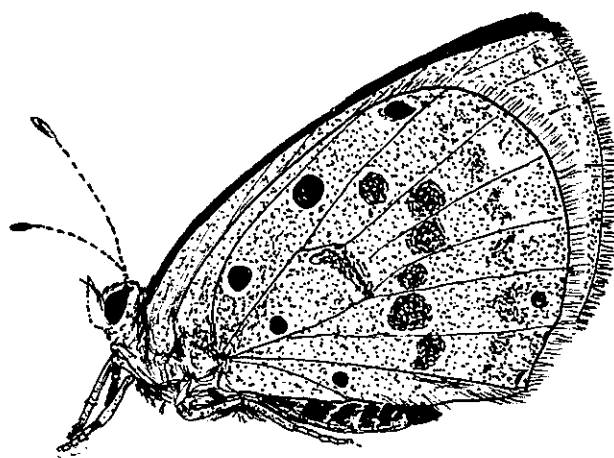
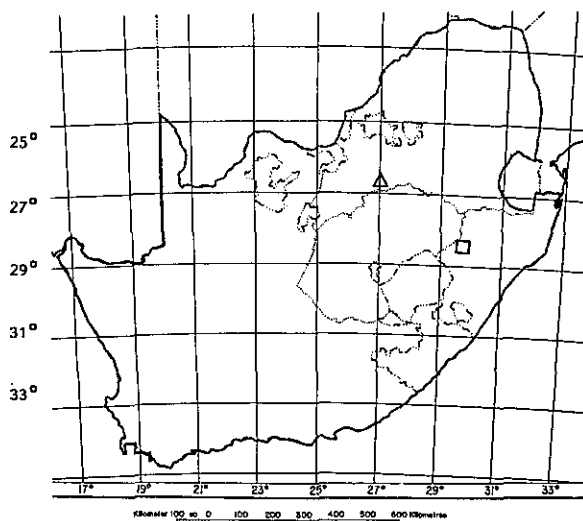


Figure 81. *Lepidochrysops hypopolia* male underside. (Del. S.F.Henning)

DISTRIBUTION. Blue Bank near Ladysmith, Natal and Potchefstroom, Transvaal.



HABITAT AND ECOLOGY. Its habitat was probably grassveld. Only recorded in September.

STATUS. It was discovered by W. Morant on 21 September 1870 at Blue Bank near Ladysmith, Natal, near the Drakensberg. One specimen from Potchefstroom was recorded by T. Ayres in 1879. This species is probably extinct and the reason for its decline is unknown. The closely related species *L. praeterita* Swanepoel has replaced it at Potchefstroom and has also been widely recorded in the south western Transvaal and northern Orange Free State. The two Morant specimens are in the British Museum (Natural History) and the Ayres specimen is in the South African Museum in Cape Town.

THREATS. Possibly already extinct.

CONSERVATION MEASURES. None in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Murray (1935): 165 - adult.
2. Pennington (1978): 152 - adult.
3. Swanepoel (1953): 88 - adult.

Lepidochrysops lotana Swanepoel VULNERABLE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops lotana Swanepoel, 1962. *J. ent. Soc. sth. Afr.* 25(2): 292. Type Locality: Rietvlei, Pietersburg District, Transvaal

IDENTIFICATION. A large *Lepidochrysops* with broad, rounded wings. The upperside of the male is dark greyish-blue, the underside is brownish-grey with postdiscal spots of dark brownish-grey. The female has broad brown margins on the upperside but is otherwise similar to the male. It is closely related to *L. hypopolia* (Trimen) and *L. praeterita* (Swanepoel),
Forewing lengths: male 21-22mm; female 21-23mm.

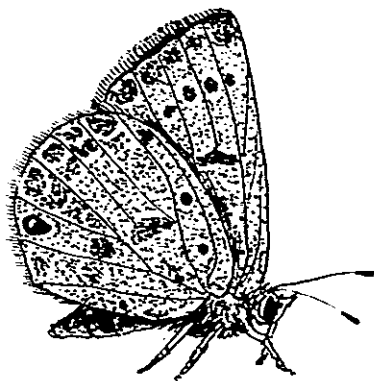


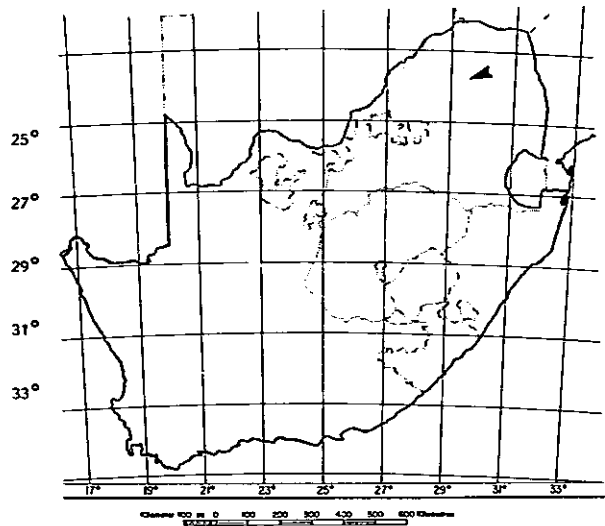
Figure 82. *Lepidochrysops lotana* male underside. (Del. S.F. Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. The species flies slower than its relatives and close to the ground. It inhabits grassy slopes on the west side of the Ysterberg and on the opposite east facing slope. Belongs to a group whose young larvae feed on *Becium obovatum* (E. Mey. ex Benth.) N.E. Br. (Labiatae) before going into ant nests to feed on the ant brood from the third instar. Flight period is October and November.

DISTRIBUTION. Endemic to the Transvaal, only being recorded from the farm Rietvlei 20km south west of

Pietersburg.



STATUS. Discovered by D.A. Swanepoel in October 1959, it was subsequently found quite frequently during the ensuing years but has apparently not been seen in recent years.

THREATS. The habitat has apparently not changed dramatically but is currently being used to graze cattle. The butterfly has become very scarce and only a couple are seen each year. During the past couple of years it apparently has not been seen at all. The *Becium* may be affected by recent dry spells in the area or perhaps grazed by the cattle. Whatever the cause, the *Becium* is currently quite sparse.

CONSERVATION MEASURES. The species is currently being investigated by Transvaal Nature Conservation to assess the status of the colony. So far no specimens have been seen during their research.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 155 - adult and habits.

Lepidochrysops titei (Dickson) INDETERMINATE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

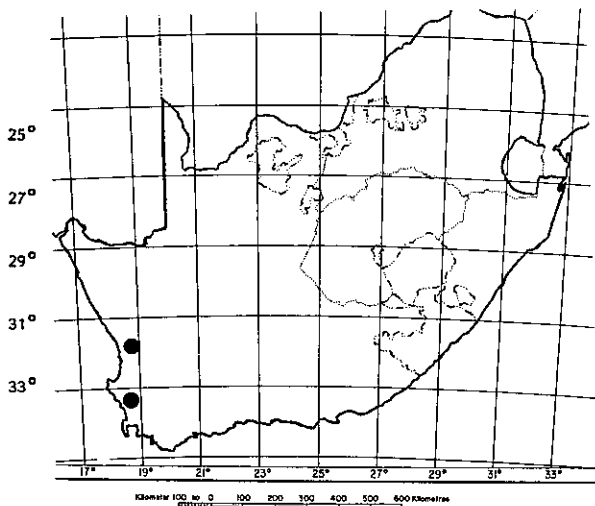
Lepidochrysops titei Dickson, 1976. *Entomologist's Rec. J. Var.* 88:273. Type Locality : Porselein Berg, Western Cape.

IDENTIFICATION. Male upperside somewhat brighter and slightly more violaceous-blue than that of *L. oreas*. UFW with black crescent at end of cell and a broadish black border. UHW has a broad dark marginal line with blue-ringed black submarginal spots. Cilia clearly chequered black and white. LFW dark brownish-grey with white band before outer margin enclosing a row of brown spots and a white-ringed spot at the end of the cell. LHW with an irregular band of brown spots across the middle; there are black basal and costal spots, marginal and submarginal spots on both wings. The female has the blue restricted to the bases on both wings.

Forewing lengths: male 16-19mm; female 18-20mm.

Life history, Unknown.

DISTRIBUTION. From the Malmesbury area to Van Rhyn's Pass, Western Cape.



HABITAT AND ECOLOGY. The habitat of *L. titei* is the slopes of hills with scattered bushes. The males usually establish territories on the higher points of hills during the warmer hours of the day, occasionally on the slopes. They rarely settle, but patrol restlessly about the summits, occasionally resting for a short period only before moving to some other spot. The females fly at random, usually over the lower slopes of the hills in search of foodplants. Will occasionally be found on the summits or higher up, presumably looking for a male with which to mate. The foodplant is *Selago* sp. The larvae are presumably phyto-predaceous. The flight period is from September to November.

STATUS. This species was discovered by C.G.C. Dickson on 13 September 1946. Several of the earliest discovered colonies have been destroyed as a result of ploughing and cultivation in the area. The reason for their decline is agricultural development. Recently recorded, on Van Rhyn's Pass, and on the Gifteberg by C.W. Wykeham.

THREATS. Further agricultural development in the south, the further northern localities are under no threat.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 153 - adult and habits.

Lepidochryps wykehami (Tite) INDETERMINATE

LYCAENIDAE POLYOMMATINAE Tribe: POLYOMMATINI

Lepidochryps wykehami Tite, 1964. *Entomologist's Rec. J. Var.* 97:5. Type Locality: Kamieskroon, Namaqualand.

IDENTIFICATION. Male upperside more violaceous-blue than *L. oreas* Tite with somewhat variable dark margins. The underside is of a relatively dark dusky brown, with dark brown spots with narrow, clear cut, white borders. LHW has a row of sagittate white markings basad of the submarginal spots. The female upperside is distinctive as it is plain brown.

Forewing lengths: male 18-22mm; female 21-23mm.

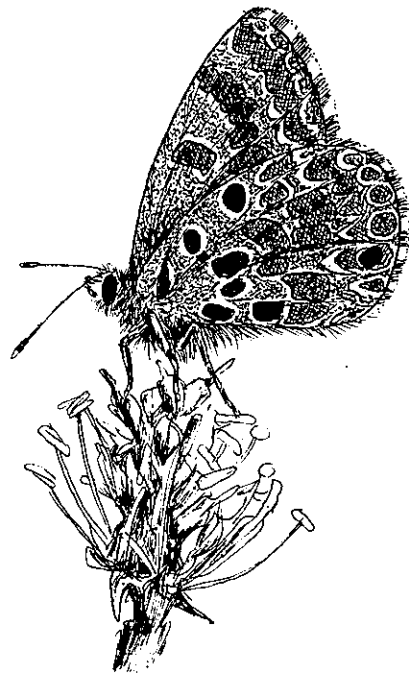
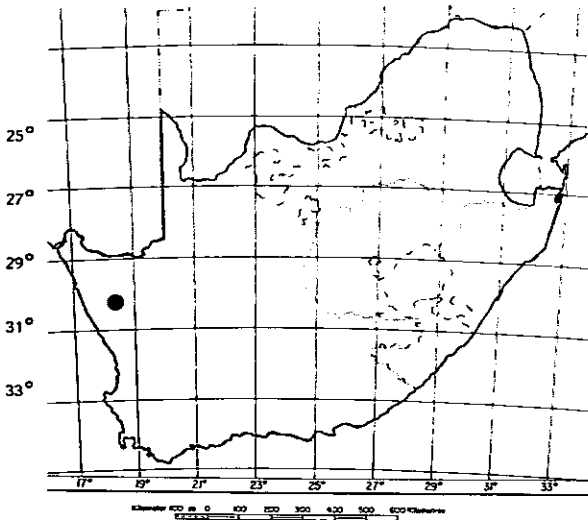


Figure 83. *Lepidochryps wykehami* male underside. (Del. S.F. Henning)

Life history. Unknown.

HABITAT AND ECOLOGY. The habitat embraces slopes and summits of low ridges and koppies, covered with shrubby vegetation. Fast and irregular flyers, the males establish territories along steep slopes and summits of ridges and koppies. They sometimes rest on the leaves of low plants. They will chase intruding males round or over bushes and rocks. The unique brown female is difficult to detect, as it flies low, often in the shade. It flies on slopes below the summits. The foodplant is *Selago* (Selaginaceae) species or *Aspalathus* (Fabaceae) species. A female was observed by I. Bampton laying eggs on the flower buds. It briefly flew off and returned again to the same plant. The larvae are presumably phyto-predaceous. The flight period has been recorded from September to October.

DISTRIBUTION. Garies and Kamieskroon in Namaqualand. (Hills of Namaqualand in North Western Cape).



STATUS. The species was first found by C.W. Wykeham.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 153 - adult and habits.

Lepidochrysops oreas oreas Tite

RARE

LYCAENIDAE POLYOMMATINAE Tribe: POLYOMMATINI

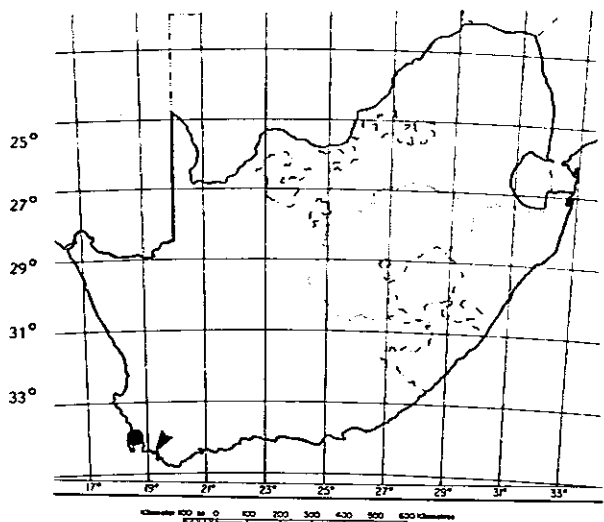
Lepidochrysops oreas Tite, 1964. *Entomologist's Rec. J. Var.* 97:4.
Type Locality: Cape Peninsula.

IDENTIFICATION. Male upperside bright violaceous-blue. UFW with black crescent at end of cell and a narrow black border. Underside brown with spots and lunules usually present in this group. All the white marginal markings are extensive. The female upperside is heavily clouded with dusky scales with a broad blackish-brown border.

Forewing lengths: male 15-19mm; female 18-19mm.

Life history. The eggs are white to pale blue with a white compressed hexagonal netting pattern, 0,6mm in diameter by 0,4mm high. The first instar is pale green and attains a length of 0,8mm. The second and third instars are similar in appearance being whitish to buff with yellow longitudinal lines. Fourth (or final) instar is pale straw-coloured, relatively broad and flattened dorsally and with an extremely small dark brown head normally fully withdrawn into the first segment. Along the lateral ridge are numerous fine and short dark brown setae. The honey-gland is present in the second and subsequent instars. There are no tubercles. The final instar attains a length of 16mm. The pupa is amber-brown and about 12mm long^{1,2}.

DISTRIBUTION. Restricted to the Cape Peninsula, and to the east apparently as far as Hermanus.



HABITAT AND ECOLOGY. The habitat is vegetated slopes of mountains. *L. oreas* is a medium fast flier, circling clusters of *Selago* on the slopes of the mountains and sometimes the higher points. The males appear to be territorial. They rest on grass stems or on leaves of stunted

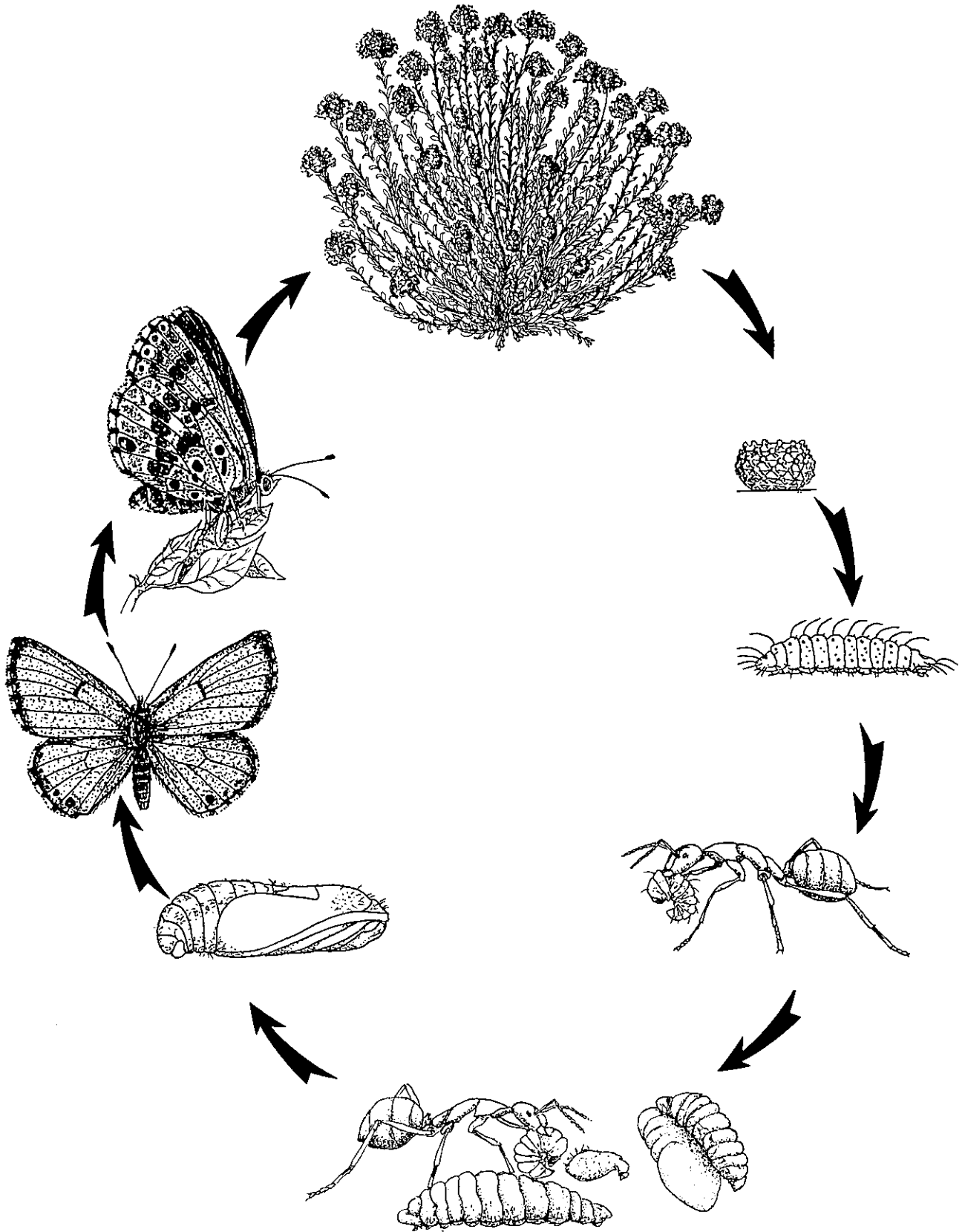


Figure 84. *Lepidochrysops oreas oreas* life cycle: Foodplant, *Selago spuria*; egg (after Clark, 1971); first instar larva (after Clark, 1971); third instar larva being carried into the nest by the host ant, *Camponotus niveosetosus*; representation of final instar larva feeding on ant brood inside the nest and being tended by the host ant; pupa (after Claassens, 1980); male upperside; female underside (Det. S.F.Henning).

plants. Intruding males are vigorously chased, going around in wide circles until one departs off down the slope. The females do not fly far away from their breeding ground. Mostly found resting on a grass stem or on the ground. Both sexes often observed feeding on the flower heads of *Selago*. The foodplants are *Selago serrata* Bery and *S. spuria* L (Selaginaceae). The eggs are laid singly on the flower buds. The larvae are phyto-predaceous, the first two instars feeding entirely on the foodplant, which last approximately eight days. The third instar is carried to the host ants' nest where it lives on the ant brood. The host ant is *Camponotus niveosetosus* Mayr. The larvae pupate in the ants' nest, the adults on emergence run through the tunnels until they get outside before they expand their wings^{1,2}. The flight period is October to February with very occasional records for September and March.

STATUS. Recorded on the Cape Peninsula. The Holotype was collected in October 1893. Further recorded near Hermanus.

THREATS. Future threats are habitat destruction and the invasion of alien plants.

CONSERVATION MEASURES. Recorded in the Table Mountain Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
				X	X

REFERENCES.

1. Claassens & Dickson (1980): 94 - adult, life history and habits.
2. Clark & Dickson (1971): 32 - life history.
3. Pennington (1978): 154 - adult and habits.

Lepidochrysops quickelbergei Swanepoel RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops quickelbergei Swanepoel, 1969. *Novos Taxa ent.* 64:9. Type Locality: Cydo Mountain, Western Cape.

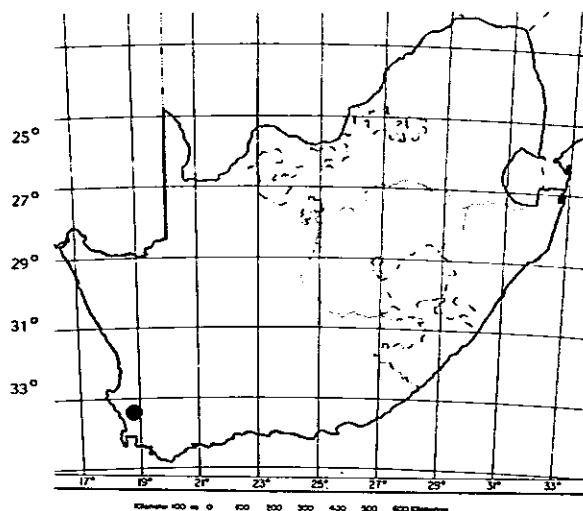
IDENTIFICATION. Male upperside silvery-blue with very narrow dark brown outer margin. Underside light grey; LHW with white-ringed black spots, a series of brown discal spots which are very elongated in the centre and an outer row of white sagittate markings. The female has less extensive, more violaceous, blue on the upperside. Forewing lengths: male 16-18mm; female 18-19mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The habitat of *L. quickelbergei* is high on the northern slopes of the mountain and the butterfly stays near places where its foodplant grows. Its flight is rather fast and the silvery-blue colour of the wings can be seen from quite a distance when the insect is in flight. The males establish territories around rocky knolls where they can be observed patrolling for hours on end. The flight period is from November to December.

STATUS. The insect was discovered by C.D. Quickelberge on 1 November 1965 on Cydo Mountain, Western Cape.

DISTRIBUTION. Cydo Mountain north of Ceres, Western Cape Province.



THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 154 - adult and habits.

Lepidochrysops pringlei (Dickson) RARE

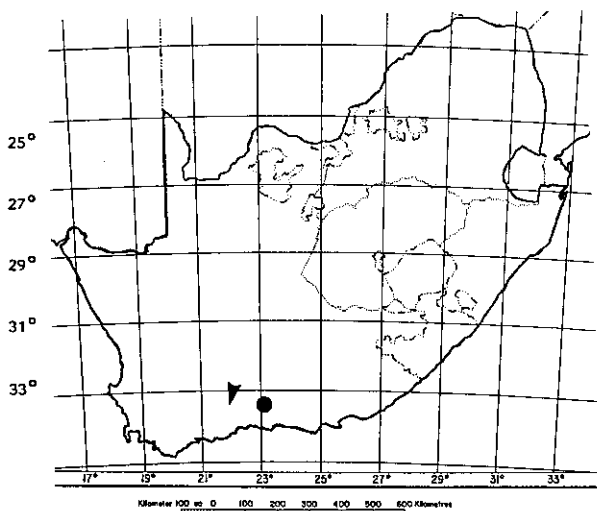
LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops pringlei Dickson, 1982. *Entomologist's Rec. J. Var.* 94:222. Type Locality: Toverwater, Cape Province.

IDENTIFICATION. The male upperside ground colour is violaceous-blue, with a broad black marginal border. Similar to *Lepidochrysoptis oreas oreas* Tite but with a deeper and richer ground colour and broader marginal border. The underside is dark brownish-grey with dark brown markings with a distinct narrow white edging. The female has the blue ground colour restricted to the base of the wings. The blue area is more restricted than in *L. oreas oreas* and the dark marginal area is black. Forewing lengths: male 15-17mm; female 18-19mm.

Life history. Unknown.

DISTRIBUTION. Toverwater, eastern end of Swartberg Mountains, also on the Swartberg Pass and at Seven Weeks Poort, Cape Province.



HABITAT AND ECOLOGY. The butterfly's habitat comprises steep rocky slopes covered in short bushes and in places dense scrub; the males fly along the ridges and also up to the peaks. The species occurs at an altitude of some 1,600 metres. Its flight is swift and restless. The males appear suddenly, circle, and dash around swiftly, and then disappear as suddenly as they appeared. The larvae are probably phyto-predaceous. The flight period has been recorded as November.

STATUS. It was discovered by V.L. and E.L. Pringle on 21 November 1979 at Toverwater, Cape Province. This insect had previously been recorded from the main portion of the Swartberg.

THREATS. No known threats.

CONSERVATION MEASURES. None currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Dickson (1982): 222 - adult male and habits.
2. Dickson (1985): 4 - description of female adult.

***Lepidochrysoptis balli* Dickson**

RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

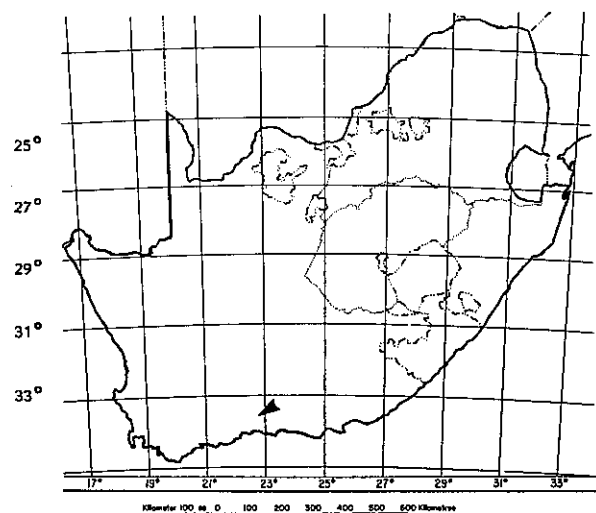
Lepidochrysoptis balli Dickson, 1985. *Entomologist's Rec. J. Var.* 97:1. Type Locality: Kammanassie Mountains, Cape Province.

IDENTIFICATION. The male upperside is violaceous-blue with a black marginal border. It is similar to *Lepidochrysoptis braueri* Dickson but without the silvery tone to the ground colour and the marginal borders are wider. The underside is brownish-grey with dark brown markings edged with white. It is similar to that of *L. braueri* but the transverse sagittate markings on the LHW are more clearly defined. The female has broader margins encroaching on the violaceous-blue ground colour.

Forewing lengths: male 16-17mm; female 17-18mm.

Life history. Unknown.

DISTRIBUTION. Kammanassie Mountains, South West-ern Cape Province.



HABITAT AND ECOLOGY. The habitat of *L. balli* is on the steep mountainsides covered with thick vegetation, at an altitude of approximately 1600m. Its flight is very fast and restless. The larvae are probably phyto-predaceous. The

flight period is from November to February.

STATUS. It was discovered by Dr J.B. Ball on 3 February 1979 in the Kammanassie Mountains, South Western Cape Province.

THREATS. None known.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
----------	--------------	---------	--------	------	--------------

X	X	X	X	X	X
---	---	---	---	---	---

REFERENCE.

1. Dickson (1985): 1 - adult and habits.

Lepidochrysops littoralis Swanepoel & Vári RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops littoralis Swanepoel & Vári, 1983. *Ann. Transv. Mus.* 33:328. Type Locality: Still Bay, Riversdale District.

IDENTIFICATION. Male upperside is violaceous-blue with broad black margin on the forewing, but no broad margin on the hindwing. Underside dark brownish-grey with white ringed markings of darker brown; and on the hindwing there are disjointed white sagittate markings. The female upperside is similar to that of the male but has broader black borders and a darkened costa on both fore and hindwings. There is also a series of black or blackish spots down the centre of the forewing. The underside is similar to that of the male.

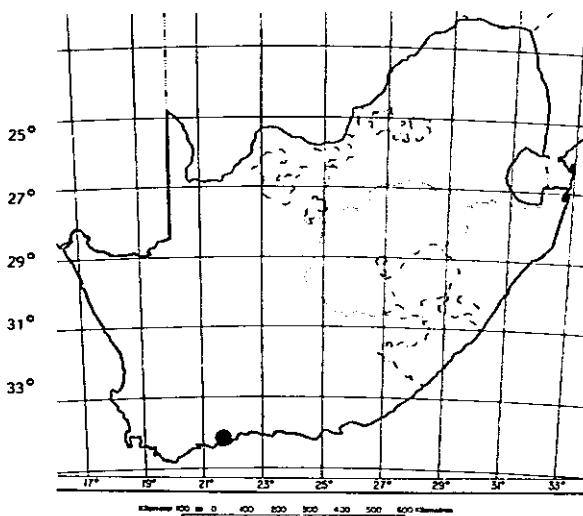
Forewing lengths: male 17-18mm; female 18-19mm.

Life history. Unknown,

HABITAT AND ECOLOGY. A coastal species found in the bushes above the beach at Still Bay and adjacent areas. Its flight is similar to that of its congeners. The larvae are probably phyto-predaceous. The recorded flight period is from September to November.

STATUS. The first recorded specimens were those of Dr G. van Son who discovered the species at Still Bay in November 1940. The balance of the type series were collected by D.A. Swanepoel. Trimen (1887: 27) mentioned a "Blue" that was different from the others he knew and which came from Mossel Bay; this was possibly *L. littoralis*.

DISTRIBUTION. Endemic to the Cape, at Still Bay and adjacent southern Cape coast, including De Hoop Reserve, Breede River Mouth and Mossel Bay.



THREATS. No known threats. The development of the areas above the beaches in many areas poses a threat but it is not known if these circumstances prevail at Still Bay.

CONSERVATION MEASURES. No conservation measures are currently in force; apart from the protection afforded in the De Hoop Reserve and which is, at least partly, now under military control.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
----------	--------------	---------	--------	------	--------------

X	X	X	X	X	X
---	---	---	---	---	---

REFERENCE.

1. Swanepoel & Vári (1983): 328 - adult and habits.

Lepidochrysops outeniqua Swanepoel & Vári RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops outeniqua Swanepoel & Vári, 1983. *Ann. Transv. Mus.* 33:330. Type Locality: Avontuur, Outeniqua Mountains, Cape Province.

IDENTIFICATION. The upperside of the male is violaceous-blue with broad black margins on all wings. The cilia are white with their tips continuously black. The underside is brown with dark brown or blackish markings edged with white. There is a row of white sagittate postdiscal markings on the hindwing. The female has

broad black margins with medial spotting on the upper-side. The underside is similar to that of the male. Forewing lengths: male 17-19mm; female 18-20mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The species occurs on the highest peaks of the mountains. Its flight is fast and erratic. The females are frequently found on the peaks together with the males. The larvae are probably phytopredaceous. The recorded flight period covers November.

STATUS. The type series was collected by D.A. Swanepoel, who found the species in November 1970.

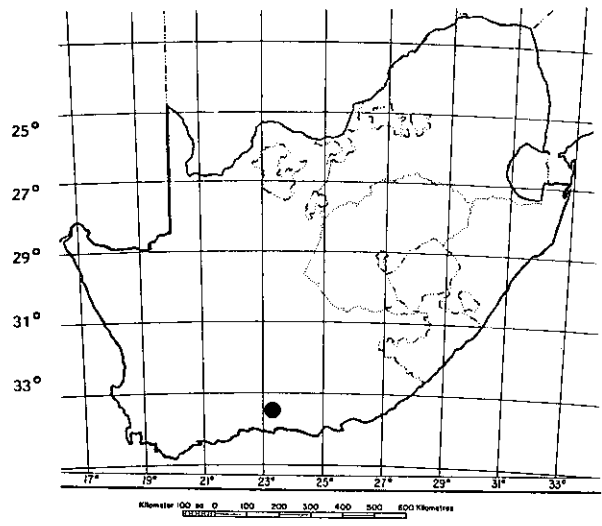
THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

DISTRIBUTION. Endemic to the Cape; found on the Outeniqua Mountains above Avontuur, in the Uniondale District.



REFERENCE.

1. Swanepoel & Vári (1983): 330 - adult and habits.

Lepidochrysops oosthuizeni Swanepoel & Vári RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops oosthuizeni Swanepoel & Vári, 1983. *Ann. Transv. Mus.* 33:325. Type Locality: Lundean's Nek, Eastern Cape Province.

IDENTIFICATION. The upperside of the male is dark violaceous-blue with a broad black border, particularly on the forewing. The underside is dark greyish-brown with very dark brown markings edged with white and a series of white postdisical sagittate marks on the hindwing. The female has a dark brown to black upperside with blue on the basal half, often with a series of dark medial spots down the wings.

Forewing lengths: male 17-20mm; female 18-23mm.

Life history. Unknown.

HABITAT AND ECOLOGY. The butterfly is found on the lower ridges near the peaks, sometimes venturing up to the peaks, but it does not appear to stay there for any length of time. *L. oosthuizeni* flies round the bushes darting around swiftly and elusively. If disturbed it tends to fly away, straight and fast, and does not return. It settles on the rocks or low bushes. The larvae are presumably phyto-predaceous. The foodplant has been recorded as *Selago galpinii* Schltr. (Selaginaceae). The flight period is from November to January.

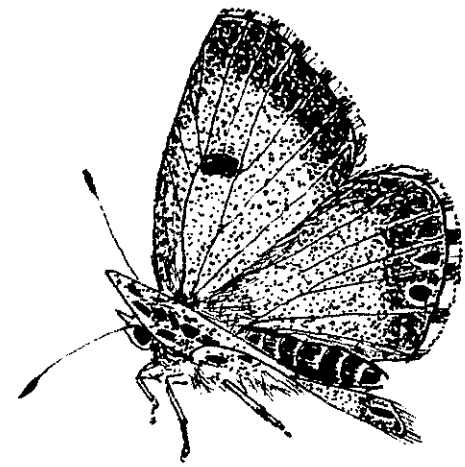
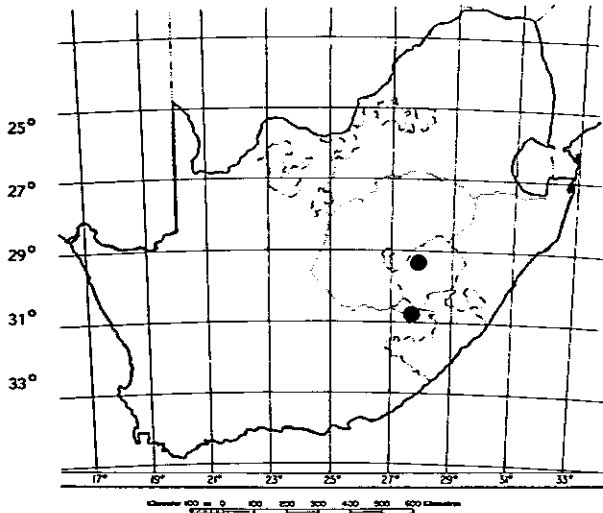


Figure 85. *Lepidochrysops oosthuizeni* male upperside. (Del. S.F.Henning)

STATUS. Discovered by Dr P. Oosthuizen at Lundean's Nek who took the first specimen on 28 November 1979. The Bushman's Pass locality was found later by Dr. I. Coetzer.

DISTRIBUTION. Found in the north eastern Cape, in the Witteberg Mountains in the Barkly East district, at Lundean's Nek. Also recorded in Lesotho on the Bushman's Pass, east of Maseru.



THREATS. No known threats.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

- Swanepoel and Vári (1983): 325 - adult and habits.

Lepidochrysops poseidon Pringle RARE

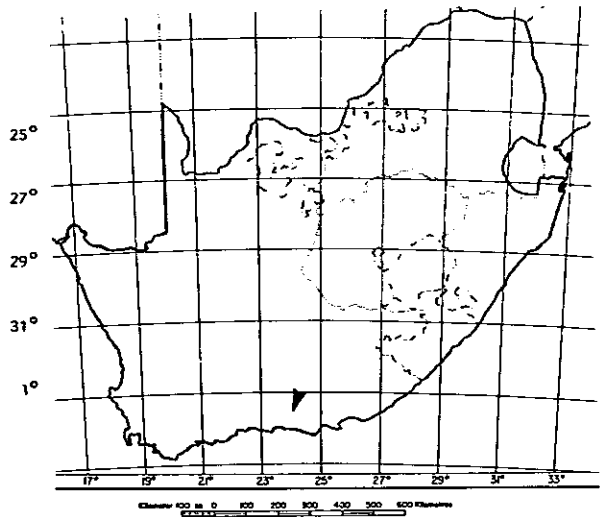
LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lepidochrysops poseidon Pringle, 1987. *Entomologist's Rec. J. Var.* 99:1. Type Locality: Baviaanskloof Mountains, Cape Province.

IDENTIFICATION. Male upperside is violaceous-blue with very broad, dark margins. The disco-cellular mark on the UFW is much broader than in any related species. The underside, ground colour is rather dark grey-brown with black and dark brown markings, edged with white. Female upperside is brownish-black with the violaceous-blue area restricted to the basal two-thirds of the wings. Forewing lengths: male 17-20mm; female 20-22mm.

Life history. Unknown.

DISTRIBUTION. The species is known to occur, so far, on the highest peaks of the Baviaanskloof Mountains at the source of the Baviaans River, Eastern Cape Province.



HABITAT AND ECOLOGY. The habitat comprises the high rocky ridges of the Baviaanskloof Mountains. Total numbers observed - 12 males caught on 24 November 1984; 7 females caught on 8 December 1984. The males fly rapidly and show hilltopping behaviour. They have been encountered singly, flying rapidly about rocky ridges and peaks in the area concerned. The females are rare. The larvae are probably phyto-predaceous, feeding on the foodplant for two instars then entering the host ants' nest where they presumably feed on the ant brood. The flight period is from November to December.

STATUS. The butterfly was discovered by E. Pringle and P. Liversidge on 23 November 1984, at Baviaanskloof, Eastern Cape Province. To date it has only been recorded from the type locality. The colony at the type locality is still strong.

THREATS. None known.

CONSERVATION MEASURES. No conservation measures currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

- Pringle (1987): 1 - adult and habits.

Orachrysops niobe (Trimen) VULNERABLE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Lycaena niobe Trimén, 1862. *Trans. ent. Soc. Lond.*(3)1:282.
Type Locality: Knysna, Cape Province.

IDENTIFICATION. Male upperside, dull violet-blue with broad dark brown outer border, which merges gradually into the violet-blue area; no spot at the end of the cell. Underside dark brownish-grey with a curved row of black spots followed by a white stripe in the outer part of each wing. The female is dark brown with a brighter violet-blue sheen from the base to the middle of the wings.
Forewing lengths: male 13-19mm; female 11-21mm.

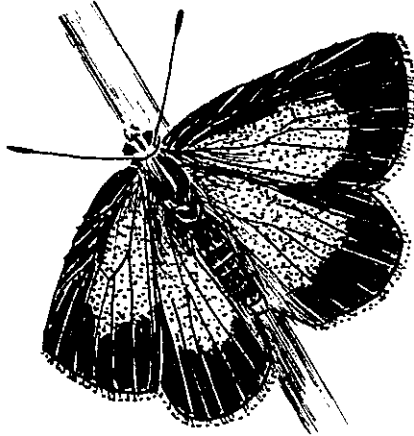
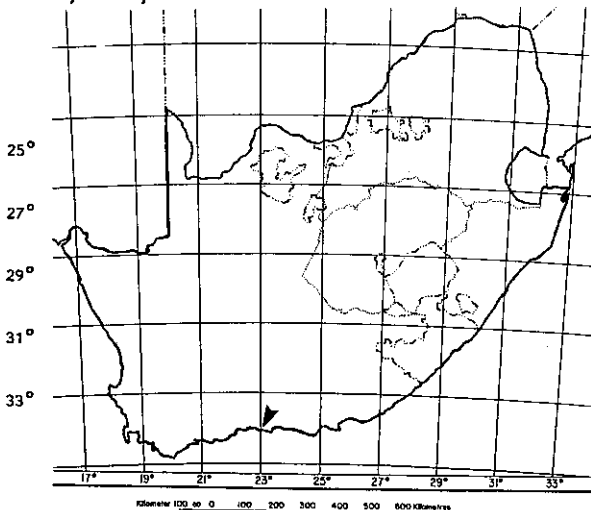


Figure 86. *Orachrysops niobe* female upperside. (Del. S.F.Henning)

Life history. Partially known. The eggs are 0,6mm in diameter by 0,4mm high. The egg is pure white. The first and second instars are yellowish in colour and resemble other species of the genus. The remainder of the life history is unknown. (J. Ball, pers. comm.).

DISTRIBUTION. Endemic to the Cape, only found in the vicinity of Knysna.



HABITAT AND ECOLOGY. The species inhabits sandy coastal fynbos close to the sea where it is found in small colonies. It flies quite slowly but can fly faster if disturbed. The females inhabit the same areas as the males, but are slower. The breeding areas are in sandy soil near the sea with the males venturing up nearby slopes. This species has been recorded laying their eggs on *Indigofera* spp.; the earlier stages of the larva feed on this plant before presumably, entering the ant's nest to feed on the ant brood from about the third instar. The colony at Nature's Valley is peculiar in that there are two distinct sizes of this species; a small one and a normal sized variety. This disparity occurs in the Autumn brood and is most marked after a dry summer when the food supply in the ants' nest is affected (J.B. Ball, pers. comm.). The flight period is from October to March.

STATUS. The species was discovered by R. Trimén at Knysna, in March and October 1858. He recorded only three specimens. Previously thought to inhabit a much larger region, up on the mountains to the east to as far as Natal; but these populations have been found to represent a different species from that which Trimén described. It was rediscovered after not having been recorded for 119 years, in 1977 by Dr J.B. Ball. It was first found in sandy coastal fynbos some 200m from the sea, at Nature's Valley. It was he who first realised that what was at that time regarded as being *L. niobe* from the Hogsback region eastwards, was not the same insect. Intensive searching of suitable localities over a 10 year period has only revealed one other locality near Knysna. No specimens have been seen at Nature's Valley for 3 years due to housing development. Housing development also threatens the Knysna locality and Dr Ball fears that it may suffer the same fate as the U.S.A. coastal butterfly species, *Glaucopsyche xerces*, now extinct.

THREATS. The colonies at Nature's Valley and Knysna are threatened by housing development. It appears that the colony at Nature's Valley is no longer viable.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCE.

1. Pennington (1978): 151 - adult and habits.

Orachrysops ariadne (Butler)

RARE

LYCAENIDAE POLYOMMATINAE Tribe:POLYOMMATINI

Catachrysops ariadne Butler, 1898. *Proc. zool. Soc. Lond.* 1898:193. Type Locality: Karkloof, Natal.

IDENTIFICATION. This species has rounded wings, the males are dull violaceous-blue on the upperside with narrow dark brown margins. The underside is dark greyish-brown with black spots and a distinct line of clearly defined white postdiscal marks. The female is brown on the upperside with the blue areas reduced to the basal half of the wings; the underside is similar to that of the male.

Forewing lengths: male 13-17mm; female 13-19mm.

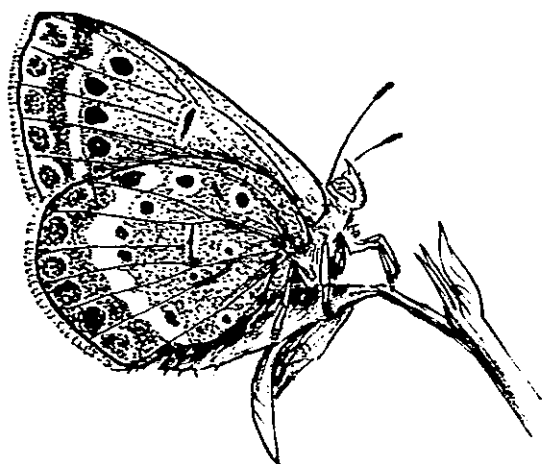


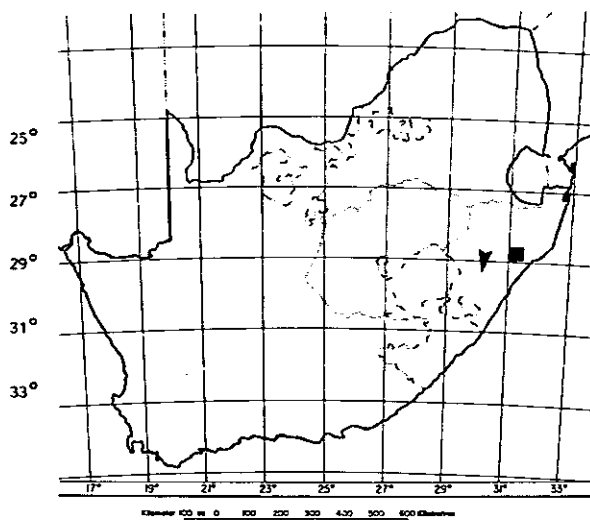
Figure 87. *Orachrysops ariadne* male underside. (Del. S.F.Henning)

Life history: Unknown.

HABITAT AND ECOLOGY. This species inhabits steep grassy slopes often near forests. It occurs in tall grass on the north side of the stream running down to the top of the falls. The kloof where it occurs is on the farm, "The Start". On the south facing steep slope tall Tamboekie grass grows, and among this grass the foodplant *Indigofera astragalina* DC. (Fabaceae) is found. *O. ariadne* flies, fast and low but it may fly to a height of two metres to clear the Tamboekie grass. The males patrol up and down the kloof, dodging in and out of the tall grass, sometimes venturing into the adjacent valley across the stream, but always returning to where the foodplant grows. They do not appear to be strongly territorial. The area inhabited is about a hectare in extent. Recent reports from this locality indicate that it is very densely overgrown and that the foodplant is not as abundant as it was previously reported to be. The females spend their time looking for foodplants on which to lay their eggs. They fly more slowly than the males and are always found in the

vicinity of the foodplant. *O. ariadne* is on the wing from 10h00 to 14h30. The foodplant is apparently used by the early instar larvae before they go down into an ants' nest to feed on the ant brood, from the third instar.

DISTRIBUTION. Endemic to Natal and only found in the Karkloof District although previously recorded near Balgowan. A species similar to *O. ariadne* has been recorded near Nkandhla and Eshowe.



STATUS. This butterfly was discovered by a Mr Ball in the Karkloof District in September 1897. It was not seen again until K.M. Pennington found one male above the Karkloof Falls in March 1928. In March 1936 Pennington and R.C. Wood discovered the breeding grounds on the farm "The Start" near Karkloof. In March 1941 D. Clark found a second colony 2km south of "Michaelhouse" near Balgowan. This colony had disappeared by 1945. The colony near Karkloof, while under the protection of the owners of the farm, is not as viable as before. The taxonomic status of the Nkandhla and Eshowe colonies are still to be determined.

THREATS. The colony on the farm, "The Start", is being overgrown. Perhaps the absence of herbivores, which, until recently, kept the grass under some control, has had its effect. The locality is under the protection of the owners of the farm and this has prevented the area being burnt. This, too, has probably contributed to the changes in the habitat. Careful monitoring of the area and perhaps active management is advisable to prevent this colony disappearing. The ant species associated with this *Orachrysops* may also be affected by the change in habitat and may leave the vicinity of the foodplant, thereby effectively eliminating the butterfly colony.

CONSERVATION MEASURES. No conservation measures are currently in force besides the protection provided by

the owners of the farm "The Start".

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Murray (1935): 181 - adult.
2. Pennington (1978): 151 - adult and habits.
3. Swanepoel (1953): 111 - adult and habits.

singly while others lay them in batches of fifty or more. The larvae are long and slim with a smooth skin, sometimes with two spikes at the rear end. The pupae are fastened either horizontally or vertically by the rear end to a pad of silk, and are supported by a silken girdle. The head is produced into a single pointed projection which is sometimes forked at the tip. The body of the pupa may be angular or spined, or the wings may be produced ventrally into a "keel". They are usually green, white, yellow or black..

There are 46 species of pierid in South Africa, of which two are represented in this book.

Family PIERIDAE

Most species are medium-sized butterflies, having either white or yellow wings with black margins, sometimes with red and yellow patterns beneath. They never have tails on the hindwings.

The eggs are usually narrow and spindle-shaped with a flattened base and vertical and longitudinal ribs. They are white or yellow when laid. Some species lay their eggs

Colotis doubledayi angolanus (Talbot) RARE

PIERIDAE PIERINAE Tribe: PIERINI

Teracolus aurigineus angolanus Talbot, 1929. *Bull. Hill Mus.* 3:72. Type Locality: Lobito Bay, Angola.

IDENTIFICATION. A light yellowish-ochre species on the upperside, faintly yellowish-white at the bases and black along the veins. There is a dark margin and a broad post medial irregular stripe on the forewing and only faintly on

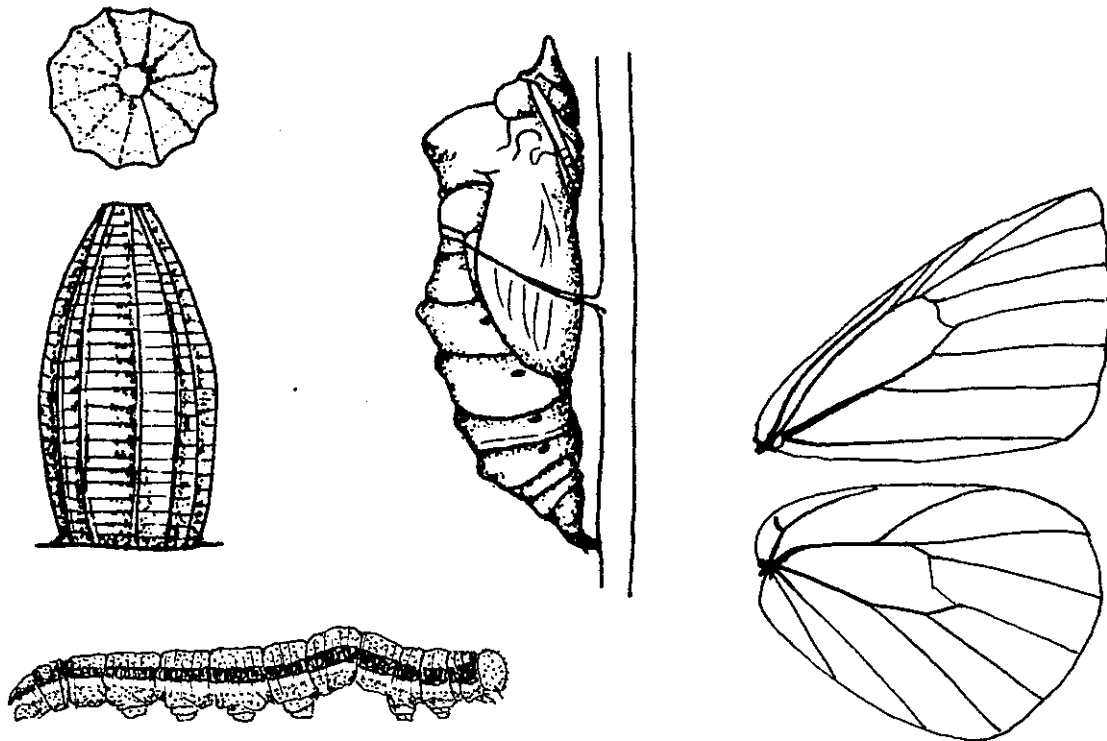


Figure 88. Family Pieridae: Typical wing-shape and venation (right); egg, top and side view (top left); final instar larva (bottom left); pupa (top centre). (Del. S.F.Henning)

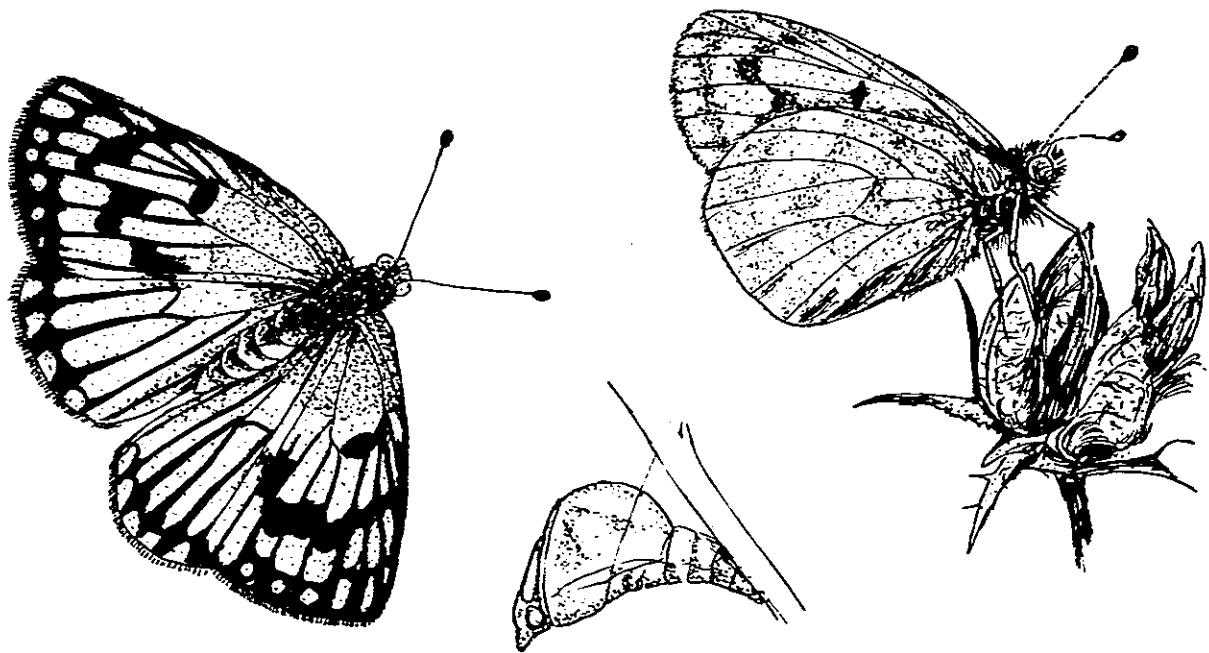


Figure 89. *Colotis doubledayi angolanus* male upperside (left) and underside (right); pupa (bottom). (Del. S.F. Henning)

the hindwing. The underside is bright yellow with faint markings on the hindwing and black spots on the forewing. The female is similar to the male but without the whitish bases and the line on the hindwing is distinct with the darkened veins reduced.

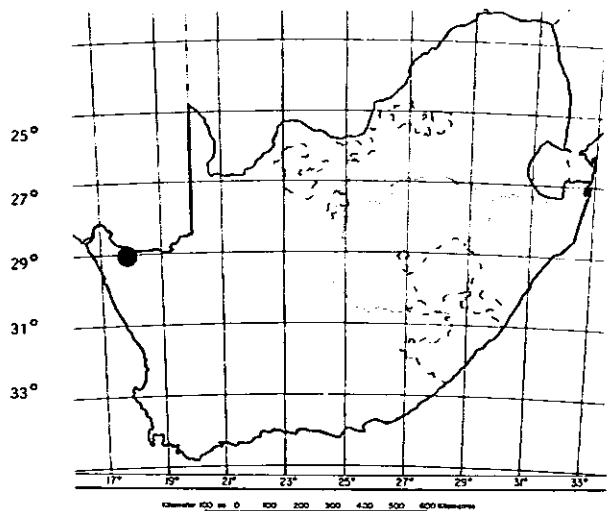
Forewing lengths: male 19,5-22mm; female 19,5 -23mm.

Life history. Egg elongate, attenuate towards the micropylar end, longitudinally keeled and pale yellow in colour. The larvae are slim and bluish-green in colour with a broad pinkish or creamy-white dorsal stripe. The stripe broadens noticeably in the middle of each segment. The edges of the stripe can be quite irregular. The stripe ends on top of the headshield in a rounded dull patch. The pupa is pale-sandy brown with patches of fine brown spots, the wing-cases are moderately pronounced into a keel. It is attached by the cremastral hooks at the anal end and is encircled by a silken girdle.

HABITAT AND ECOLOGY. This species occurs in the dry stony valleys that run into the Orange River at Viool's Drift. It flies up and down the valleys and along dry stream beds, close to the ground, and resembles the common *C. vesta* (Reiche) when in flight. Its flight is relatively slow and is easy to follow. The butterfly is plentiful at times. The females fly in the same places as the males and have been recorded laying their eggs on *Maerua schinzii* Pax (Capparaceae). The species is often recorded feeding on flowers. *C. d. angolanus* probably flies

throughout the year but may be scarce during the winter months.

DISTRIBUTION. Only recorded from the Viool's Drift area of northern Namaqualand. Also from South West Africa and Angola. The nominate subspecies occurs in West Africa from Zaire to Sierra Leone and Equatorial Guinea.



STATUS. First recorded in Southern Africa by Dr G. van Son who recorded a male at Naiam Hills, near Keetmanshoop in South West Africa in April 1933. The first

specimens from Viool's Drift were probably taken in the early sixties.

THREATS. No immediate threats are apparent but it is felt by some conservationists that the area around Viool's Drift is valuable enough to warrant the proclamation of a nature reserve. Should this venture come to fruition *Colotis doubledayi angolans* will then be assured of a place in which to live where future generations may see the butterfly.

CONSERVATION MEASURES. No conservation measures currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
		X	X	X	

REFERENCES.

1. Pennington (1978): 166 - adult and habits.
2. Van Son (1949): 108 - adult and habits.

Appias sabina phoebe (Butler) RARE

PIERIDAE PIERINAE Tribe: PIERINI

Phrissura phoebe Butler, 1900. *Proc. Zool. Soc.* 77:936.
Type Locality: Nairobi Forest, Kenya.

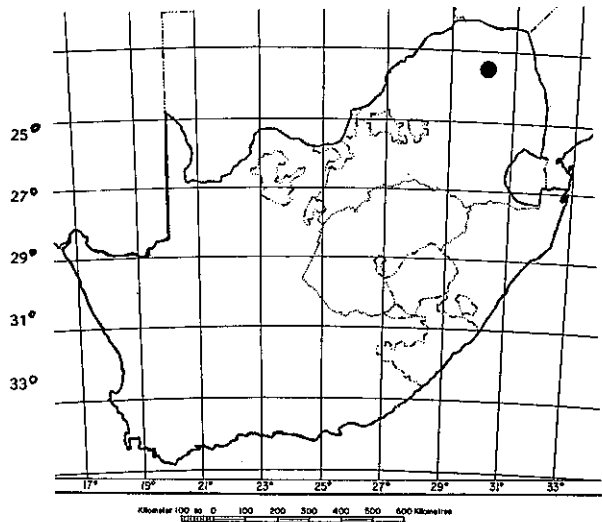
IDENTIFICATION. The male is plain white with distinct black marginal spots on the UHW and on both wings below. The female has a variety of forms but can be distinguished by the large orange basal patch on the fore-

wing below.

Forewing lengths: male 30-36mm; female 28-36mm.

Life history. Unrecorded.

DISTRIBUTION. A marginal species, only found in the montane forests of the Wolkberg in the northern Transvaal; Woodbush Forest and Malta Forest. The subspecies *phoebe* occurs from Zimbabwe to Kenya. The nominate subspecies is from West Africa.



HABITAT AND ECOLOGY. A montane forest species. It can be found flying along the forest edges. Its flight is not particularly fast and it stops frequently to feed on flowers or suck at damp places. The females can be observed flying in the densest parts of the forest in search of food-plants on which to lay her eggs. The foodplants recorded in East Africa are *Drypetes ungandensis*, *D. gerrardii* Hutch. (Euphorbiaceae) and *Ritchia fragrans*.

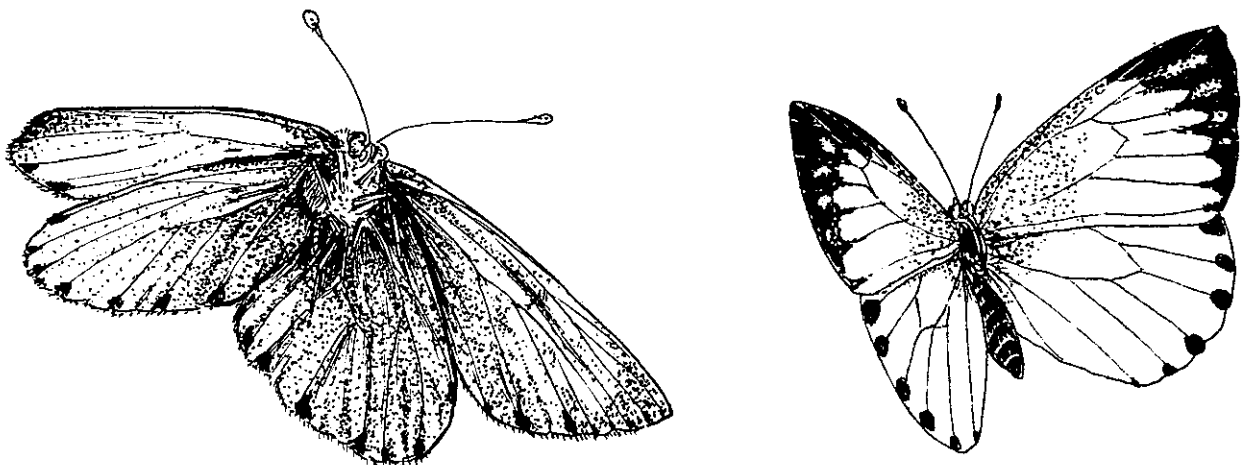


Figure 90. *Appias sabina phoebe* male in flight (left) and female upperside (right). (Del. S.F.Henning)

STATUS. Some confusion has arisen over the taxonomic status of this subspecies. Dr van Son dropped the subspecies designation which had been given by Talbot, which was based on Suffert's *A. udei* (1904, *Iris* 17:75. Locality - Dar-es-Salaam). In Pennington's *A. sabina udei* was resurrected but this was subsequently replaced by Carcasson (1981) with the oldest available name which is *phoebe*.

THREATS. No immediate threat.

CONSERVATION MEASURES. Recorded in the Woodbush State Forest.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Pennington (1978): 173 - adult and habits.
2. Van Son (1949): 201 - adult and habits.

Family PAPILIONIDAE

Large butterflies with broad wings. The hindwing can be tailed or tailless, but without a fold for the abdomen on the inner margin. The tails in the genus *Papilio* are short and thick, when present, while in the genus *Graphium* the tails are long and slender. Certain species, particularly the genus *Graphium*, have been recorded migrating. The males usually adopt a patrolling behaviour in mate location. They follow a path, through their territory, which they repeat continuously through the warmer parts of the day. The female, when she crosses his path, is courted by the male before mating takes place. The males of the genus *Graphium* have large patches of hair in the anal fold which they use to disperse pheromones when courting. The eggs are spherical and smooth, they are laid either singly or in small clusters on the leaves of the foodplant. The larvae are usually smooth with the thoracic segments swollen. When disturbed the larva bends its head and fore-body backwards and extrudes a curious forked organ, called the osmeterium, from just behind the head. This organ is brightly coloured and when

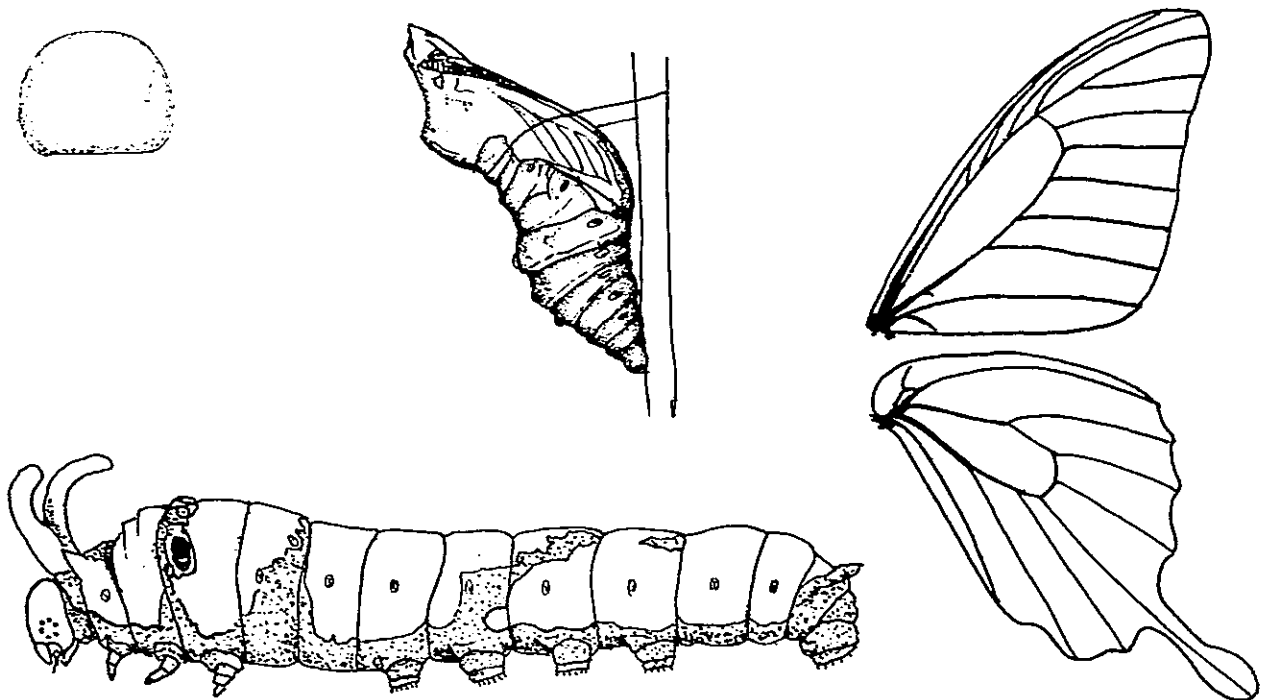


Figure 91. Family Papilionidae: Typical wing-shape and venation (right); typical egg - side view (top left); typical final instar larva with osmeterium extruded (bottom left); typical pupa (centre). (Del. S.F. Henning)

extruded releases a strong citric odour which apparently deters enemies from interfering with the larva. The pupa usually has two horns on the head and sometimes other angular projections. It is attached upright, to twigs or leaves supported by a silken girdle and at the anal end is affixed by cremastral hooks to a pad of silk spun on the substratum. In South Africa the larvae feed primarily on Rutaceae (ie. in the genus *Papilio*) and Annonaceae (ie. in the genus *Graphium*).

There are 15 species of *Papilio* in South Africa, 1 of which is included in this book.

Papilio (Papilio) euphranor Trimen
 INDETERMINATE

PAPILIONIDAE PAPILIONINAE Tribe: PAPILIONINI

Papilio euphranor Trimen, 1868. *Trans. ent. Soc. Lond.* 1868:70.
 Type Locality: Tsomo River, Caffraria.

IDENTIFICATION. A large black swallowtail with a yellow transverse band. On the underside the black ground colour of the upperside is replaced by an almost flat chocolate-brown. The male lacks submarginal spots on the forewing. The species also has one, unmarked, tail on each hindwing.

Forewing lengths: male 42-52mm; female 51-61mm.

Life history. The eggs are yellow when first laid becoming green later. They are spherical and have a diameter of 1,2mm. The larvae are black and white with pairs of protuberances on each segment in the first instar, turning to brown and white, during the next two instars. In the fourth instar the larva changes to green and is now found on the uppersides of the leaves. In the final instar the larva is smooth with only a protuberance at the anal end and is olive green in colour with a white lateral stripe on each side. The larva attains a length of 36mm. The pupa is attached by the cremaster and is supported by a silken girdle round the middle. It is leaf-like, being a darker green on the upperside. The pupa is broadest across the centre, tapering towards the ends. The thoracic portion is raised, and there are two short protuberances anteriorly. The pupa is about 40mm long⁴.

HABITAT AND ECOLOGY. An inhabitant of high montane forest, the males of which establish territories round the highest trees, often sailing at considerable height in sunny clearings above valleys and waterfalls. The males remain in their territories for many days until ousted by a stronger rival. They glide back and forth with only an occasional flapping of wings and they have a favourite perch on which they rest. Any intruder into the male's territory

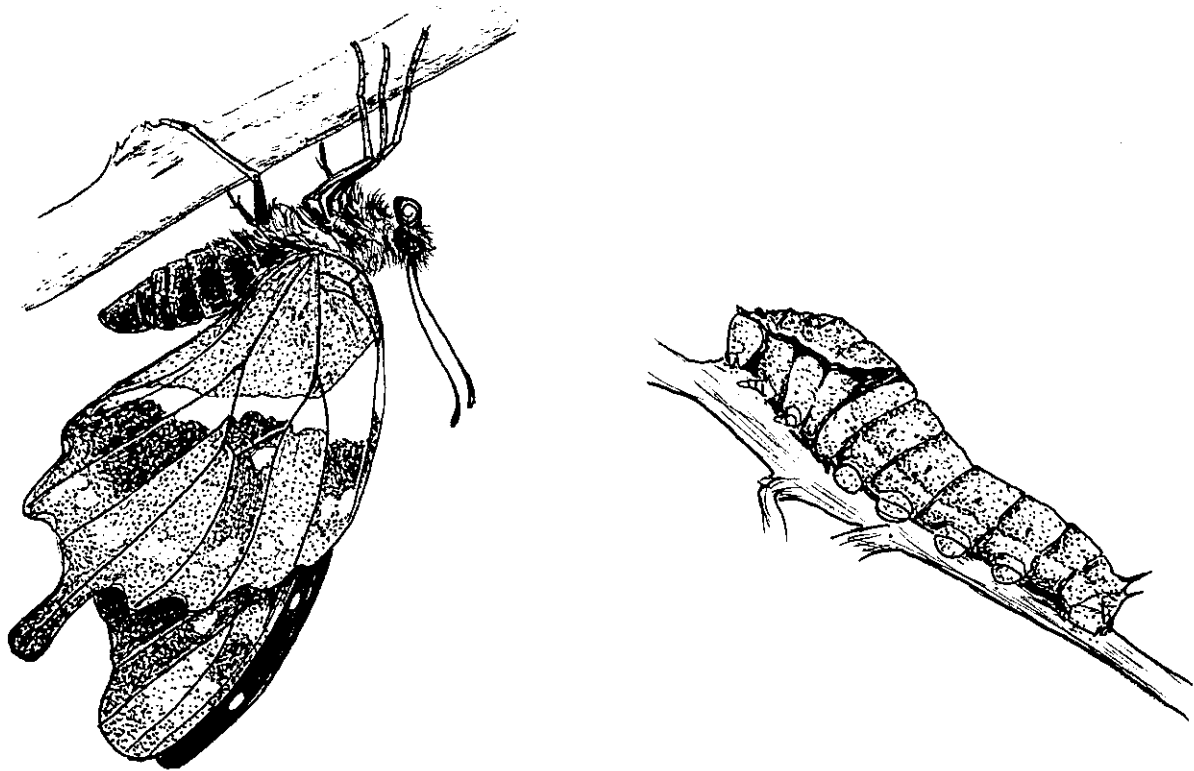
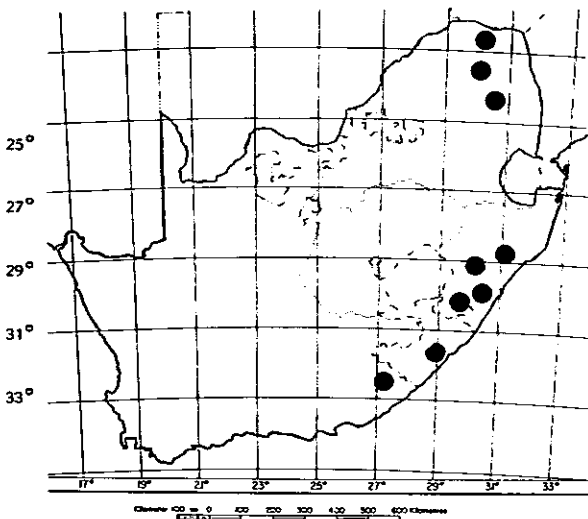


Figure 92. *Papilio (P.) euphranor* male underside (left); final instar larva (right). (Del. S.F.Henning)

is pursued with vigor, and having despatched the inter-loper the male will resume its patrol. The species is often seen feeding on flowers; the males usually feed high up in the canopy on some flowering creeper, the females lower down on the forest edge and even in gardens. Feeding mostly takes place early in the morning or late in the afternoon. Both sexes can sometimes be seen on banks of flowering brambles growing on the roadsides through the forest, presumably when no flowers are available in the canopy for the males. The females fly about in the forest searching for foodplants on which to lay their eggs. *P. euphranor* flies from September to April with two peaks, September to October and February to April. The foodplant is *Cryptocarya woodii* Eng. (Lauraceae). The eggs are laid on the undersides of the leaves. The larvae are at first black and white and rest on the undersides of the leaves; and they resemble a bird dropping. If this disguise fails they have a defensive osmeterium which may be everted suddenly, frightening the predator away with its bright colour and strong smell. The final instar larvae and the pupae are green and well camouflaged amongst the leaves of the foodplant.

DISTRIBUTION. This is the only endemic *Papilio* species in South Africa. It occurs from Eastern Cape, through central Natal to the Transvaal Drakensberg, the Wolkberg and Zoutpansberg. Only recorded, on the coast, at Port St Johns.



STATUS. *P.(P.) euphranor* was discovered by Colonel J.H. Bowker near the Tsomo River, a tributary of the Kei, in the Transkei at the end of 1865. He also found it abundant in the Boolo [Mbulu] forest at the same time. Trimen recorded it in Natal, in the Tunjumbili forest, early in March 1867.

THREATS. This being the only endemic swallowtail its preservation is essential. The population is still relatively stable in the remaining forests in which it occurs. The continued deforestation of our mountains is always a

potential threat but the conservation bodies and the Forestry Department are aware of our natural heritage and perhaps, in the future, more discretion will be exercised before any more valuable natural habitats are destroyed.

CONSERVATION MEASURES. The species has been recorded in the Woodbush State Forest and may possibly be found in the Karkloof Nature Reserve. Other localities where it may be protected to a certain extent are at Karkloof Falls in Natal, Kowyn's Pass, Mariepskop and Malta Forest in the Transvaal.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X		

REFERENCES.

1. Pennington (1978): 177 - adult and habits.
2. Swanepoel (1953): 47 - adult and habits.
3. Van Son (1949): 17 - adult, life history and habits.
4. Wells (1957): 117 - life history.

Family HESPERIIDAE

The skippers are small to medium sized butterflies, with thick bodies and relatively short wings. The head is very broad with prominent smooth eyes and antennae widely separated at the base. Towards the tips the antennae are gradually thickened to form a club that is usually strongly curved or hooked. The wing patterns are usually sombre, often consisting of yellow, white or hyaline spots on a brownish-black ground colour. A few species are brightly coloured. All three pairs of legs are fully developed for walking. The eggs are usually hemispherical, in their general shape, with a micropylar depression above. The surface may be smooth, slightly roughened or, more frequently, with vertical ribs. They are deposited singly on, or close to, the foodplants. The larvae have a prominent head, usually of characteristic shape, and a body that tapers towards each end. The skin may be smooth or finely spinulose. The larvae feed mainly at night and hide during the day in a shelter of some kind. This is often formed by means of the margins of the leaves of the foodplant being folded over, or two or more leaves being drawn together, with silk. Sometimes the larvae shelter in a curled-up dead leaf, near the base of the plant. The pupae are elongate, more or less cylindrical in shape, or with the abdomen tapering posteriorly. Sometimes the surface of the pupa is partly clothed in short dense, erect, hairs. In most species a white waxy powder may cover

the pupa and the inside of the shelter. Pupation usually occurs in a shelter of some kind previously prepared by the larva and lined with silk. The pupa is attached to the silk lining of the shelter by the cremaster, and often by a silk girdle. A large number of South African hesperiid larvae feed on monocotyledons, especially grasses (Poaceae). Others feed on dicotyledons such as the Sterculiaceae.

There are 87 hesperiids in South Africa, of which 14 are included herein.

Coeliades anchises (Gerstaecker) RARE

HESPERIIDAE COELIADINAE

Ismene anchises Gerstaecker, 1871. *Arch. Naturgesch.* 37:358.
Type Locality: Zanzibar.

IDENTIFICATION. The largest of the hesperiids in South Africa. The very dark grey ground colour and the small white patch on the hindwing underside makes this species appear very dark when in flight. There is a single black spot at the bottom of the white patch. Both sexes are similar but the female has rounder wings and a

stouter abdomen.

Forewing lengths: male 25-32mm; female 31-33mm.

Life history. The larva of *C. anchises* is orange-red to dark reddish-brown with bright white transverse bands, the head is orange-red. The egg and pupa are apparently unrecorded.

HABITAT AND ECOLOGY. The habitat in which specimens have been recorded varies widely, from bushveld to lush riverine and coastal forest. This adds credence to it possibly being a migrant. No actual migration has ever been recorded in South Africa but it has apparently been recorded in migrations in East Africa. One record goes that a collector while on the deck of an ocean liner about 160 kilometres out to sea was astonished to see a specimen of *C. anchises* slowly circling around him before flying off over the sea. Single records exist from riverine forest in the Natal midlands and the eastern Transvaal, bushveld areas of northern Natal and the northern Transvaal. Pennington records a number of worn specimens feeding on flowers in the Natal coastal bush and Swanepoel record it regularly from Mokeetsi in the northern Transvaal and found it plentiful one year near Potgietersrust in dry thornveld. *C. anchises* goes to the hilltops early in the morning and remains there until

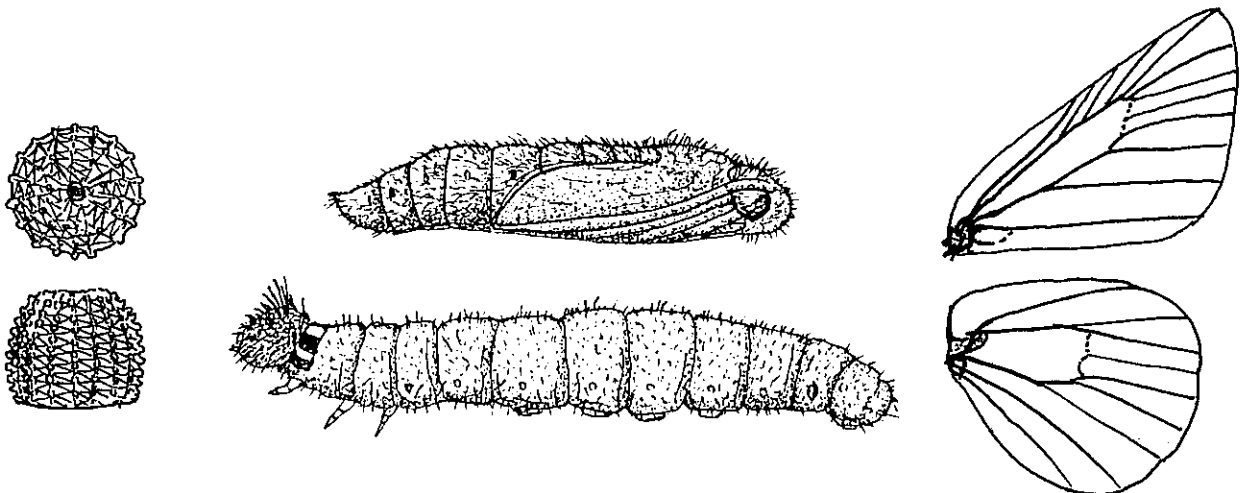


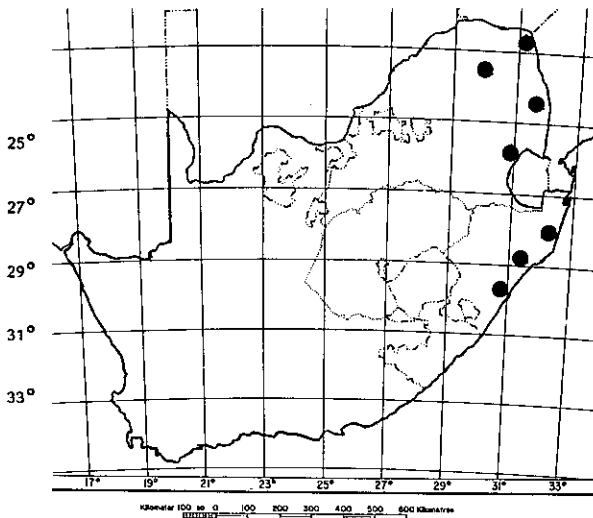
Figure 93. Family HesperIIDae: Typical wing-shape and venation (right); typical egg - top and side view (left); typical final instar larva (bottom centre); typical pupa (top centre). (Del. S.F. Henning)

IDENTIFICATION. Recognisable by its total lack of markings, being a uniform brown on the upperside. The underside is paler brown on the hindwing submarginal area. The sexes are similar.

Forewing lengths: male 21-24mm; female 22,5-25mm.

Life history. Unrecorded.

DISTRIBUTION. Marginal species. Transvaal and Natal. Widespread throughout sub-Saharan Africa.



HABITAT AND ECOLOGY. *C. libeon* is well known as a migrant having been recorded migrating regularly in east and central Africa and in Zimbabwe by Pennington in 1957. It was recorded in numbers at Pietersburg by Swanepoel in January one year and never seen again. It is normally a forest species but it was recorded in the desert along the Skeleton Coast of South West Africa. *C. libeon* is alert and wary with a swift and elusive flight. It has been recorded feeding on flowers and sucking at damp patches along the banks of streams. The foodplant is *Drypetes gerrardii* Hutch. (Euphorbiaceae). The species flies throughout the year in its normal habitat.

STATUS. *C. libeon* is a migrant which at times could establish itself temporarily in South Africa. There have been several records of the species from the Manguzi Forest in northern Natal. This is possibly a temporary population but further research is necessary.

THREATS. The species is not a true resident in South Africa and no established population is known.

CONSERVATION MEASURES. This species is found in the Manguzi Forest which is under the protection of the Kwazulu Bureau of Natural Resources.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Evans (1937): 12 - adult.
2. Pennington (1978): 181 - adult and habits.
3. Swanepoel (1953): 286 - adult and habits.

Sarangesa ruona Evans RARE

HESPERIIDAE PYRGINAE

Sarangesa ruona Evans, 1937. *Cat. Afr. Hesper.* :45. Type Locality: Ruo Valley, Malaŵi.

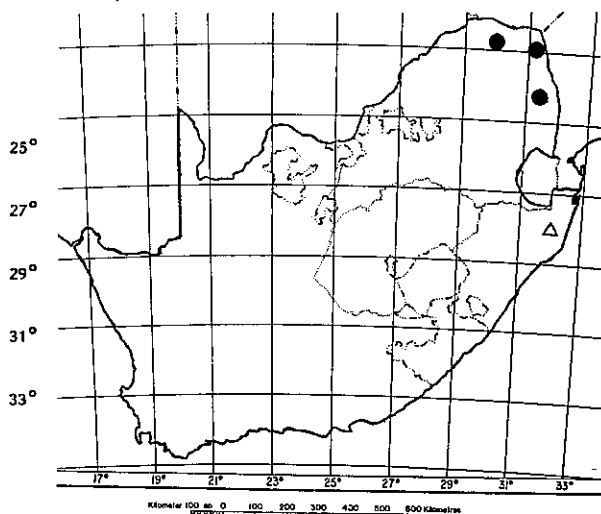
IDENTIFICATION. A dull ochreous brown species with hyaline spots and markings on the forewing. *S. ruona* is similar to *S. motozi* but lacks the hyaline cell-spot on the hindwing.

Forewing lengths: male 15-18,5mm; female 19-20mm.

Life history. Unknown.

HABITAT AND ECOLOGY. Inhabits thick bush, flying elusively in the shade of the trees. Sits on small plants in the undergrowth with wings held flat. The seasonal broods do not differ unlike *S. motozi* which has very distinctive seasonal forms. It has probably been overlooked many times due to its close resemblance to the plentiful *S. motozi*. *S. ruona* flies from September to May.

DISTRIBUTION. Marginal species. Northern Transvaal, from Louis Trichardt to Pafuri and one record from Satara, and Natal, one record from Mhlosinga. Also in Zimbabwe, Moçambique, and Malaŵi.



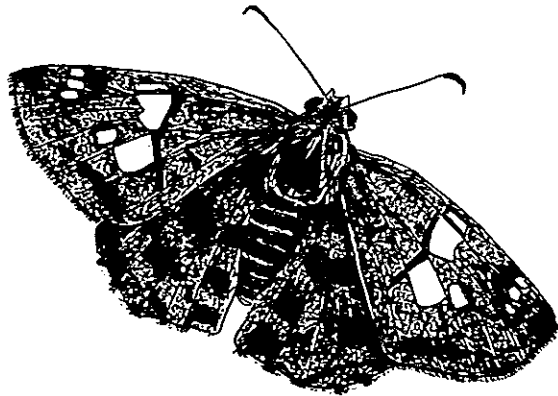


Figure 95. *Sarangesa ruona* male upperside. (Del. S.F. Henning)

STATUS. The first specimen recorded in South Africa was a female taken by J. Kloppers at Satara on 7 December 1965. It is apparently not uncommon in the northern Kruger National Park.

THREATS. No known threats.

CONSERVATION MEASURES. The species has been recorded in the Kruger National Park.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Evans (1937): 45 - adult.
2. Pennington (1978): 185 - adult and habits.

Abantis bicolor (Trimen) RARE

HESPERIIDAE PYRGINAE

Leucochitonea bicolor Trimen, 1864. *Trans. ent. Soc. Lond.* (3):180. Type Locality: Kaffraria.

IDENTIFICATION. Male upperside golden-yellow with black margins. UFW with four large black patches. Under-side deep yellow with only a very narrow black edging. LHW with a short black submarginal line above the anal

angle. The female is not as bright as the male but is otherwise similar with a rounder wing-shape.

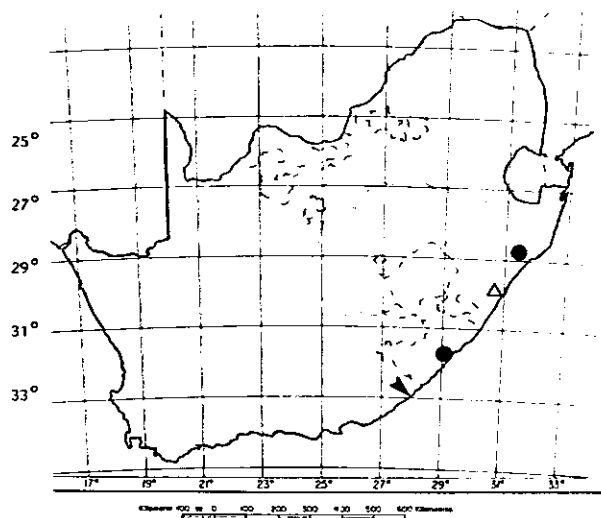
Forewing lengths: male 18-19mm; female 22-23mm.



Figure 96. *Abantis bicolor* male upperside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. Endemic to South Africa. Eastern Cape to northern Natal.



HABITAT AND ECOLOGY. Inhabits lush coastal forest. Usually occurring singly around the upper branches of trees on hilltops along the coast. Males sit on prominent twigs or branches and defend their territory against any intruders, and will fly off at speed around the trees but return in a minute or so. They usually sit with wings held flat and open. Recorded in numbers in the Ngoye Forest in northern Natal in April 1952 while feeding on white scabious flowers. Most of those seen were females sitting with wings open feeding on the flowers. It is double brooded, the first brood being rather sparse but during the autumn brood it can be quite plentiful in good years. The best time to see *A. bicolor* is during April and May.

STATUS. Discovered by Colonel Bowker on the forest edge along the Bashee River in 1863. The most southerly

record is East London, first recorded by G. Clark on 29 April 1947.

THREATS. It has disappeared from many of its original haunts, such as Durban. It does, however, inhabit some fairly inaccessible forests along the wild coast in Transkei and is not uncommon at Port St Johns.

CONSERVATION MEASURES. Found in the Ngoye Forest, Kwazulu, which is under the control of the Kwazulu Bureau of Natural Resources.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Evans (1937): 52 - adult.
2. Pennington (1978): 186 - adult and habits.
3. Swanepoel (1953): 279 - adult and habits.

Spialia confusa confusa (Higgins) RARE

HESPERIIDAE PYRGINAE

Hesperia transvaaliae var. *confusa* Higgins, 1925. *Trans. ent. Soc. Lond.* 1935:90. Type Locality: Nyasaland.

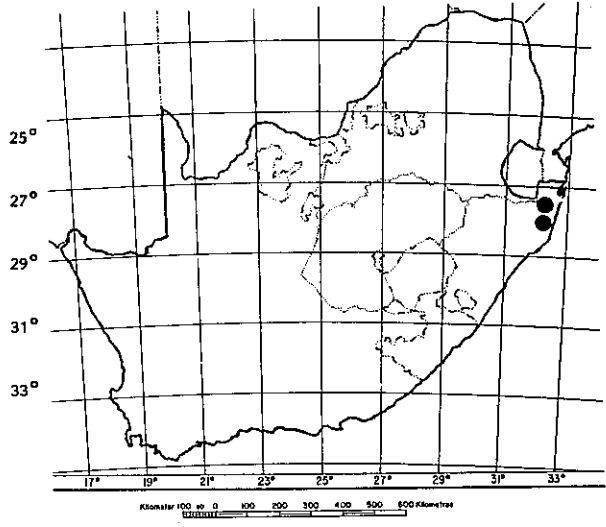
IDENTIFICATION. Male with costal fold. Upperside black with white spots. UFW with subbasal cell spot present. LHW with discal pale band unbroken. Can be identified by its small size, rounded wing shape and well defined transverse spots on the hindwing underside. Forewing lengths: male 9-11mm; female 11-12mm.



Figure 97. *Spialia confusa confusa* male underside. (Del. S.F.Henning) Life history. Unknown.

DISTRIBUTION. A marginal species. Northern Natal and above Waterval Onder in the Eastern Transvaal; also

occurs in Swaziland, Moçambique, Zimbabwe, MalaWi and Zambia.



HABITAT AND ECOLOGY. Occurs in thick lowland and coastal bush. It is seldom seen in numbers, normally less than ten in any one area on any one day. It has a very fast low buzzing flight, settling frequently. Males are to be found flying around sandy patches between the thick bush, or on paths or roads. They settle on grass, small bushes or on the ground. The male selects a territory a couple of metres across usually at a conspicuous spot such as a large sandy patch or where the road or path enters the thick bush. Here it buzzes about during the warmer hours of the day, either basking in the sun or investigating intruders. The various territories in an area are usually situated far apart often on different paths or separated by large patches of thick bush. Favourite territories are used continuously over a number of years by successive generations. The small size and swift flight render this species difficult to follow when it flies in the shade amongst the bushes. The females can be found anywhere in the area but are seldom seen. Both males and females feed on flowers. Pennington recorded a male on the top of a koppie in Swaziland and other records from neighbouring territories record it on the slopes of hills. Most South African records, however, record it on the flat areas between False Bay and the Makatini Flats. *S. confusa* has been recorded throughout the year. The life history and foodplant in South Africa is not known but in east Africa it has been recorded breeding on *Melhamia* sp. (Sterculiaceae).

STATUS. Apparently first recorded in South Africa by K.M. Pennington on 11 December 1939 where he 'spotted a little colony on the side of the road from the village of Hluhluwe, in Zululand, to the shores of False Bay, about a mile from the shore'. Many small colonies have subsequently been found in similar habitats on the area. Two specimens have been recorded on a hilltop above Waterval Onder in the Eastern Transvaal by Mr N.K. Owen-

Johnston.

THREATS. The few remaining patches of bush which are inhabited by this species have fairly robust populations. The destruction of much of the thick bush in northern Natal for farming, and the ongoing chopping of bush for firewood is always an imminent danger. These scattered patches of bush may only be a few acres in extent so that even small farming activities can lead to some of these localities being destroyed. *S. confusa* has apparently not been recorded in any of the northern Natal reserves. It could possibly be found in the False Bay Reserve and steps should be taken to ascertain if this is so. Failing the finding of the species in this or any other reserve the conservation bodies in Natal should be contacted and shown existing colonies with the view that some habitat conservation measures be adopted.

CONSERVATION MEASURES. No conservation measures currently in force, but the species is probably found in the False Bay Park.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Evans (1937): 60 - adult.
2. Pennington (1978): 188 - adult and habits.
3. Swanepoel (1953): 307 - adult and habits.

***Spialia paula* (Higgins)** INDETERMINATE

HESPERIIDAE PYRCINAE

.....
Hesperia paula Higgins, 1925. *Trans. ent. Soc. Lond.* 1925:77.
 Type Locality: Bulawayo, Zimbabwe.

IDENTIFICATION. The upperside is black with white dots, the underside is variegated ochre and brown with white spots and patches. The small size and shiny white patch on the LHW readily distinguish *S. paula*.
 Forewing lengths: male 10-12mm; female 11-13mm.

Life history. Unknown.

DISTRIBUTION. A marginal species. Transvaal; Munnik, Pietersburg, Swartuggens, Rustenberg, Morgenzon and Potchefstroom. Northern Orange Free State; Parys and Viljoenskroon. Northern Cape; Windsorton and Kuruman. Also eastern Botswana and Zimbabwe.

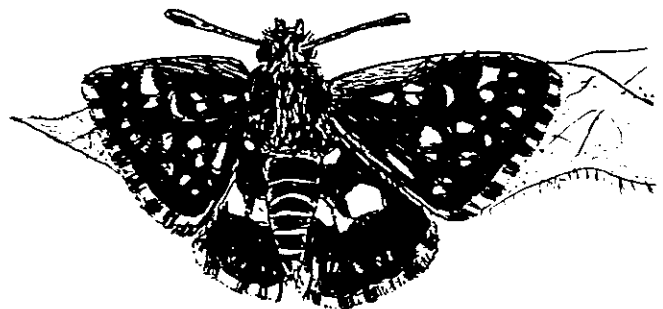
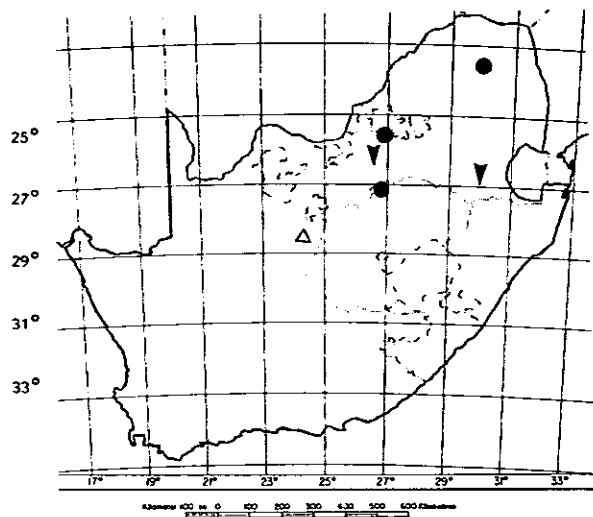


Figure 98. *Spialia paula* male upperside. (Del. S.F.Henning)

HABITAT AND ECOLOGY. *S. paula* is a savannah species. Usually occurring on the slopes of hills where it flies about at speed. Its small size renders it difficult to observe as it flies about in the grass. The males usually select a small patch of gravel from which they will chase intruders from their territory. The female flies about the habitat searching for foodplants on which to lay her eggs. The species is very scarce where it flies, usually only a couple of specimens recorded in a season. *S. paula* is apparently on the wing from August to April; the records from the southern portion of its range show it to be more prevalent from August to October. The spring brood is slightly different from the summer one. They are often seen feeding on flowers and are seldom seen on the peaks, preferring the higher slopes for their territories. Pennington² says, 'I have seen it on hilltops and slopes, visiting small flowers or just sporting about.' The single specimen from Windsorton in the northern Cape was uncharacteristically recorded from the banks of the Vaal River. Apparently only two Transvaal localities have been found where more than a couple of specimens have been recorded, and these are Munnik and Potchefstroom.

STATUS. This scarce little species is more plentiful in Zimbabwe than in South Africa, but is still a scarce insect.

The single specimen from Windsorton is slightly different from the normal.

THREATS. Most of the recorded localities are far from industrial or urban development, although agricultural and mining activities are possible threats. At this time however, there appears to be no danger. The species is also fairly widely distributed.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
X	X	X	X	X	X

REFERENCES.

1. Evans (1937): 63 - adult.
2. Pennington(1978): 189 - adult and habits.
3. Swanepoel (1953): 304 - adult and habits.

Metisella meninx (Trimen) INDETERMINATE

HESPERIIDAE HESPERIINAE

.....
Cyclopides meninx Trimen, 1873. *Trans. ent. Soc. Lond.* 1873:121. Type Locality: Transvaal.

IDENTIFICATION. The male upperside is velvety black with a coppery reflection. The LHW has white and yellow radiating stripes. The small size and distinctive white stripes on the hindwing underside make this species very easy to identify. The female has a yellow costal spot on the UFW.

Forewing lengths: male 12,5-13mm; female 13-14mm.

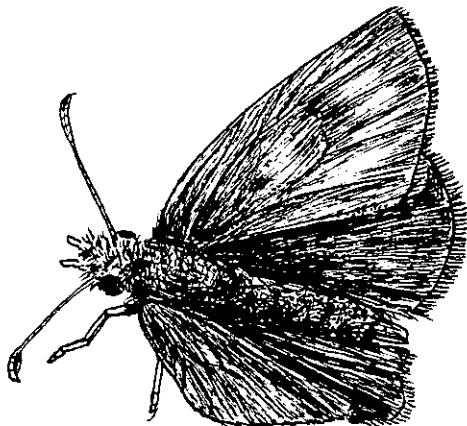
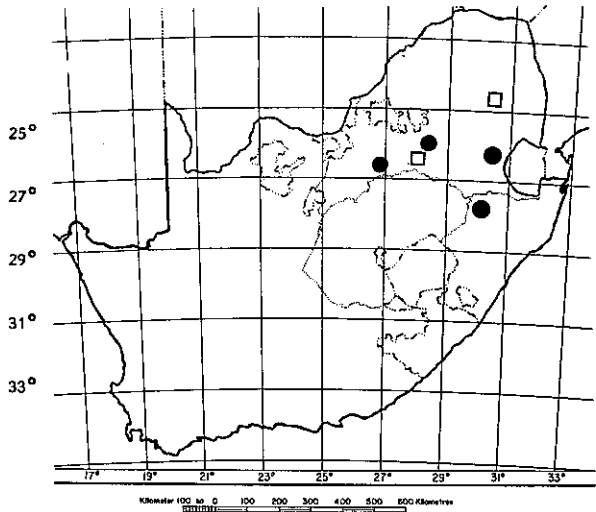


Figure 99. *Metisella meninx* male upperside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. Northern Natal, southern and eastern Transvaal and the northern Orange Free State. Also apparently recorded from Angola.



HABITAT AND ECOLOGY. A typical marsh species formerly found in many localities in the southern Transvaal and northern Natal, however, many of these habitats have subsequently been destroyed. A marsh habitat is one of the most easily disrupted habitats and the apparent plight of this species brings this sharply into focus. Where found it usually occurs in some numbers, flying slowly in the grass. It can be seen on flowers or settled on the blades of grass. It may fly around for some time skipping and darting around the thick clumps of marsh grass which characterises its habitat. It is not noticeably territorial but does appear to be evenly dispersed around its habitat. December to March appears to be its flight period.

STATUS. It was discovered by W. Morant near Potchefstroom in December 1868. Some of the localities where it was formerly recorded on the Witwatersrand but which have now been recently destroyed are; Emmarentia, Florida Lake and Honeydew. A locality at Lydenberg has also recently been destroyed. Swanepoel³ says, 'but what will happen when these marshy streams are dried up one day? I am afraid to say, as the butterfly does not seem to inhabit any other place.'

THREATS. As mentioned above this marsh species, which requires thick clumps of marsh grass and an unpolluted environment, has disappeared from many of its earlier haunts. It has yet to be ascertained whether *M. meninx* occurs in any of the nature reserves in the Transvaal or Natal.

CONSERVATION MEASURES. No conservation measures are currently in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Evans (1937): 74 - adult.
2. Pennington (1978): 191 - adult and habits.
3. Swanepoel (1953): 309 - adult and habits.

Metisella syrinx (Trimen) RARE

HESPERIIDAE HESPERIINAE

Cyclopides syrinx Trimen, 1868. *Trans. ent. Soc. Lond.* 1868:93.
 Type Locality: Gaika's Kop, Amatola Mountains, Cape Province.



Figure 100. *Metisella syrinx* male underside. (Del. S.F. Henning)

IDENTIFICATION. The upperside is dark greenish-brown with pale yellow spots. The LHW is yellowish-brown with one very broad and one thinner radiating creamy-yellow stripes. The spotted upperside and broad stripe on the hindwing are its distinguishing features.

Forewing lengths: male 15-16mm; female 15-17,5mm.

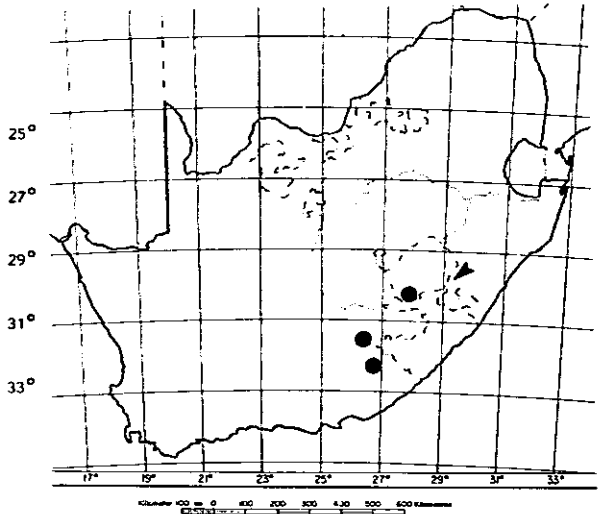
Life history. Unrecorded.

HABITAT AND ECOLOGY. This species is entirely associated with Mountain Bamboo on which the larvae feed. This plant only grows at high elevations on certain mountains. It flits around the stands of bamboo which grow among the rocks on the peaks. When found *M. syrinx* can sometimes be seen in their hundreds. The species flies in January and February. The foodplant is *Thamnocalamus tessallatus* (Nees) Soderstrom & Ellis (Poaceae) (Mountain Bamboo). The life history has not been fully documented.

STATUS. It was first discovered by Colonel Bowker, at the summit of Gaika's Kop in the Amatola Mountains of the eastern Cape, on the 19th of January 1867. Recorded in

Natal on Bamboo Mountain, Drakensberg Gardens by Dr D.M. Kroon. There are a few other places in the eastern Cape where this species, and its foodplant, can be found.

DISTRIBUTION. Endemic to South Africa. Eastern Cape and adjacent Lesotho and Natal highlands.



THREATS. No known threats. The inaccessibility of its habitat precludes the possibility of any threats at this time.

CONSERVATION MEASURES. It is found in the Mzimkulu Wilderness in the southern Natal Drakensberg. Also on Protected Wild Animal list of the Cape Province 1976 (Ordinance 19 of 1974, amendment of schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
			X		X

REFERENCES.

1. Evans (1937): 75 - adult.
2. Pennington (1978): 191 - adult and habits.
3. Swanepoel (1953): 310 - adult and habits.

Tsitana dicksoni Evans RARE

HESPERIIDAE HESPERIINAE

Tsitana dicksoni Evans, 1955. *Ann. Mag. nat. Hist.* (12)8:882.
 Type Locality: Fransch Hoek Pass, Western Cape.

IDENTIFICATION. The upperside is dark brown and the underside is brown with a creamy-white radial line. The

ochreous-brown ground colour of the LHW and certain genitalic differences were noted in the original description. Both sexes are similar, the female has slightly rounder wings and a stouter abdomen. Forewing lengths, male 17-18mm; female 19-20mm.

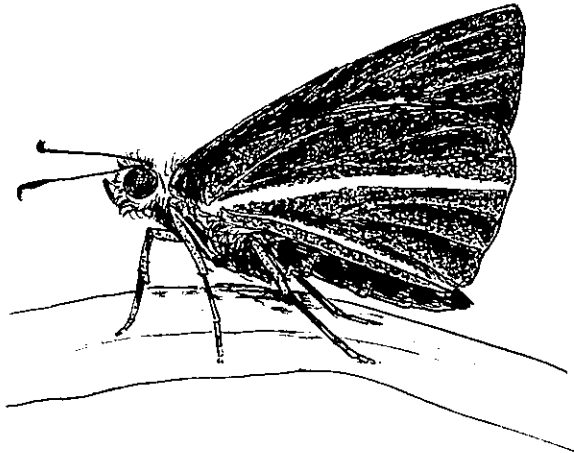
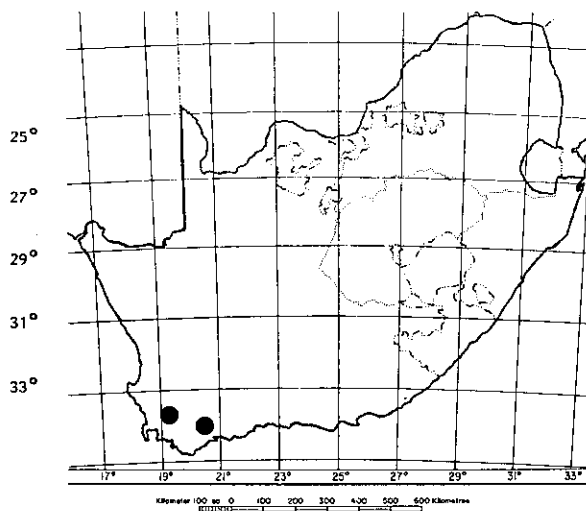


Figure 101. *Tsitana dicksoni* female underside. (Del. S.F. Henning)

DISTRIBUTION. Endemic to the Western Cape, above Du Toit's Kloof, the Fransch Hoek Pass and the Klein Drakenstein Mountains. Also recorded on the Garcia and Robinson Passes; although the last two records possibly require full confirmation.

HABITAT AND ECOLOGY. Inhabits partly grassy slopes where the species flies quite fast, skipping around the bushy shrubs that grow in its habitat. It rests frequently on the ground or on rocks and is rarely seen feeding on flowers. The foodplant is recorded as a species of grass, probably *Pseudopentameris macrantha* (Schrad.) Conert (Poaceae). Dickson (1953) records that the eggs are laid singly on the leaves of this plant.



STATUS. The species was first brought to the attention of Evans by C.G.C. Dickson, who collected specimens near the top of Fransch Hoek Pass on 27 November 1946.

THREATS. These high grassy or shrub-covered slopes are fairly inaccessible, so that the possibility of deliberate habitat destruction is remote. It is considered, however, that the all too frequent mountain fires do constitute a real hazard to the survival of this localised species where it may still occur.

CONSERVATION MEASURES. Placed on protected wild animal list of the Cape Province in 1976 (Ordinance 19 of 1974, amendment of Schedule 2 in 1976).

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 192 - adult and habits.

Andronymus caesar philander (Hopffer)

INDETERMINATE

HESPERIIDAE

HESPERIINAE

Pamphila philander Hopffer, 1855. *Mber. dt. Akad. Wiss. Berl.* 1855:643. Type Locality: Moçambique.

IDENTIFICATION. A dark brown, long winged, species with white spots and patches. UHW has discal area white and a large hyaline spot in the cell. Can be distinguished from its nearest relative, *A. neander*, by the conspicuous dark border of the hindwing underside. Differs from nominate *caesar*, which occurs in West Africa, by virtue of the underside being white and not ochreous tinted. Forewing lengths: male 16,5-19mm; female 19-21,5mm.

Life history. The egg is creamy-white with some reddish-brown shading. The larva is creamy-white in colour with an orange head with big black spots on it. The pupa is long and thin, tapering posteriorly, and is pale brown in colour. Length 18-20mm.

DISTRIBUTION. A marginal species only recorded in the furthest north eastern corner of the Kruger National Park at Pafuri. A sight record exists for the Blyderivierspoort Nature Reserve. It is common and widespread in Zimbabwe and Moçambique, and northwards to east and central Africa to Sudan.

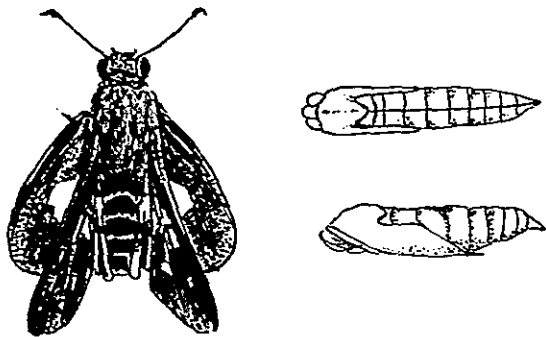
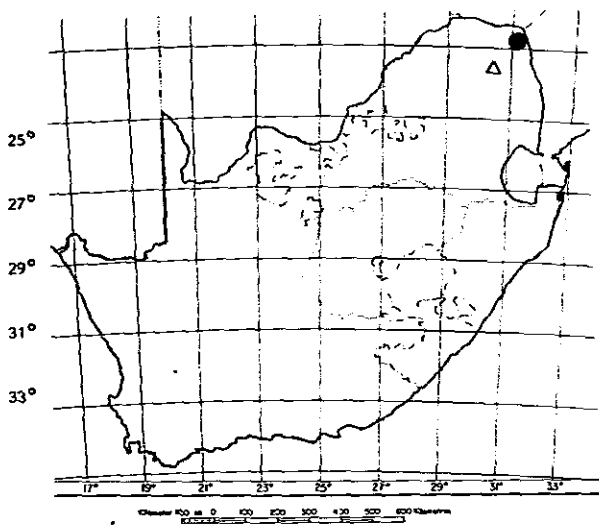


Figure 102. *Andronymus caesar philander* male upperside (left), pupa top and lateral view (right). (Def. S.F. Henning)

HABITAT AND ECOLOGY. Occurs in savannah and in lush riverine forest as is found along the Levubu and Limpopo rivers at Pafuri. The altitude here is only about 220 metres above sea level even though it is some 500 kilometres from the sea. Only a pair were recorded at Pafuri but it is plentiful in neighbouring Mozambique. In Malawi it is found in deciduous woodland and is common on flowers in gardens. It settles with wings erect. It has been recorded in migrations from north of our borders. Its flight is fast and direct. The recorded foodplants are *Julbernardia globiflora* (Benth.) Troupia (Fabaceae), *Blighia unijugata* Bak. (Sapindaceae) and *Philodiscus zambesiacus*. The egg is laid singly on very fresh young shoots of the foodplant. The fresh leaves of the foodplants are a bronze colour. The larva curls up the leaf of the foodplant and creates a silken tunnel. Only the edge of the leaf is curled in the earlier instars and in later instars the entire leaf is curled up. The larva pupates in the curled up leaf and is attached by its cremaster and a silken girdle around the base of the thorax. *A. caesar philander* flies throughout the year in Mozambique and

Zimbabwe but the pair recorded at Pafuri were collected in May. The sight record in Blyderivierspoort was in October.

STATUS. A pair of *A. caesar philander* were collected at Pafuri by J. Kloppers on 14 May 1967. No others have as yet been recorded, however, Pafuri being in the Kruger National Park is not a place often frequented by butterfly collectors. The unique nature of the habitat at Pafuri, which is found nowhere else in South Africa, indicates that *philander* is probably resident in the area and not merely a migrant. Future research at Pafuri is necessary to establish its true status in South Africa. It is fortunately under no threat as Pafuri is in the Kruger National Park. A single sight record early in October 1987 was made in Blyderivierspoort Nature Reserve by J. Joannou.

THREATS. No threats known.

CONSERVATION MEASURES. Kruger National Park and Blyderivierspoort Nature Reserve.

INVESTIGATIONS REQUIRED.

Taxonomy Distribution Habitat Habits Food Reproduction

X X X X X

REFERENCES.

1. Evans (1937): 130 - adult.
2. Pennington (1978): 196 - adult and habits.

Platylesches tina Evans

RARE

HESPERIIDAE

HESPERIIDAE

Platylesches tina Evans, 1937. *Cat. Afr. Hesper.* :170. Type Locality: Mlanje, Malawi.

IDENTIFICATION. The forewings are elongated and the hindwings are proportionately smaller. The upperside is dark brown with a median row of white spots on the forewing usually with a single subapical spot in the male, possibly two in the female. The underside is pale greyish-brown with scattered small white spots. LHW is violet-brown with very faint spots. The small size and pinkish sheen on the LHW distinguish this species. Forewing lengths: male 12-13mm; female 13-14mm.

HABITAT AND ECOLOGY. Bushveld and riparian bush seem to be the habitats favoured by this elusive little skipper. It was first recorded in South Africa by D.A. Swanepoel at Sibasa in the north eastern Transvaal. They were flying around grey-apple trees, *Parinari curatellifolia*

Planchon ex Benth. (Chrysobalanaceae), which is possibly the foodplant. They established territories around special perches and they would dart off and pursue interloper only to be pursued in turn as they invaded a neighbour's territory. They were observed feeding on the flowers of the trees at a considerable height. The females fly about at random resting on leaves or feeding on flowers. The species is very fast on the wing and coupled with its small size this makes it very difficult to observe. It has also been recorded in riparian bush. Having established its territory around a bush in a clearing, the male sits on a prominent leaf and chases all who come near. It flies throughout the warmer months, from September to April.

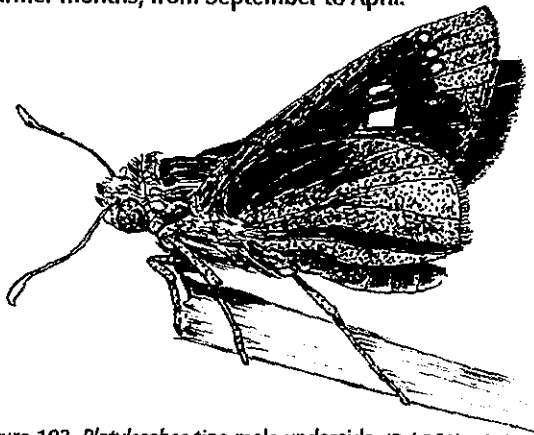
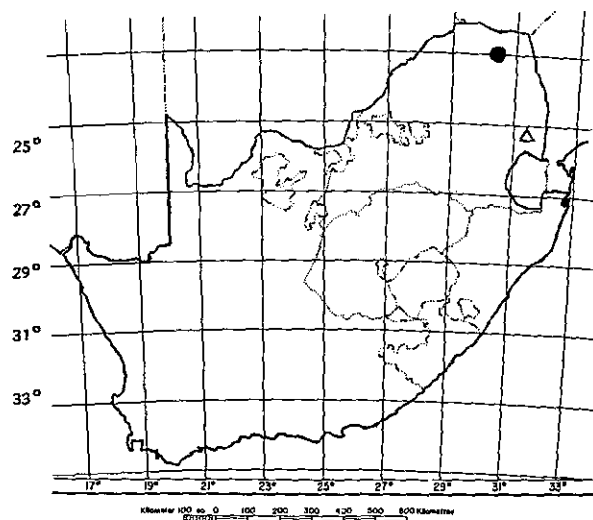


Figure 103. *Platylesches tina* male underside. (Del. S.F. Henning)

Life history. Unknown.

DISTRIBUTION. A marginal species found in the north-eastern Transvaal, near Sibasa, and a single record from the eastern Transvaal. Also found in the Caprivi strip, Zimbabwe and Malawi.



STATUS. *P. tina* was first recorded in South Africa by D.A. Swanepoel. His records seem to be the only ones available, besides a single record from the eastern Transvaal by Dr I. Coetzer.

THREATS. The species appears to be very rare throughout its range. Due to the paucity of records no established existing locality appears to be available.

CONSERVATION MEASURES. No conservation measures are in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X	X	X	X	X

REFERENCES.

1. Evans (1937): 170 - adult.
2. Pennington (1978): 198 - adult and habits.
3. Swanepoel (1953): 301 - adult and habits.

Borbo micans (Holland) INDETERMINATE

HESPERIIDAE

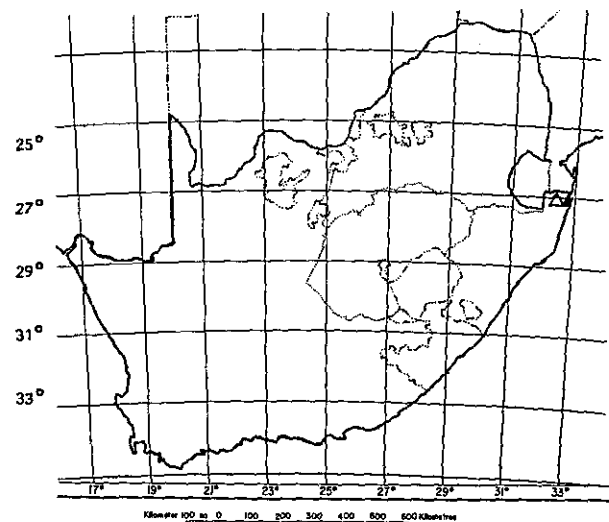
HESPERIINAE

Parnara micans Holland, 1896. *Proc. zool. Soc. Lond.* 1896:63. Type Locality: Ogowe.

IDENTIFICATION. The upperside of the male is ochreous-brown suffused with a bright golden colour which obscures the spots. UFW with yellow hyaline discal spots. Underside indistinctly as above. Female quite distinctly spotted, hyaline spots of UFW large with a non-hyaline discal spot near the inner margin. Forewing lengths: male 15-17mm; female 18-18,5mm.

Life history. Unknown.

DISTRIBUTION. A marginal species. Widespread throughout Africa but only one specimen recorded in South Africa, near Kosi Bay, northern Natal.



HABITS AND HABITAT. Occurs in marshes, swamps and along rivers. It flies low around clumps of grass and settles readily.

STATUS. K.M. Pennington recorded the only specimen from South Africa flying in grass in a large swamp on the north side of the entrance to Kosi Bay on 10 July 1929.

THREATS. As no established colony is available no possible threat can be commented on. However, little research has been done in the swamp where the specimen was caught so perhaps a colony still exists; further research is necessary.

CONSERVATION MEASURES. No conservation measures are in force.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCES.

1. Evans (1937): 182 - adult.
2. Pennington (1978): 200 - adult and habits.

Borbo ferruginea dondo Evans INDETERMINATE

HESPERIIDAE HESPERIINAE

Borbo ferruginea dondo Evans, 1955. *Ann. Mag. nat. Hist.* (12)2:885. Type Locality: Dondo, Moçambique.

IDENTIFICATION. A dark brown species with small white spots. The distinctive ferruginous LHW is a distinguishing characteristic.

Forewing length: male 17-18,5mm; female 19,5-22mm.

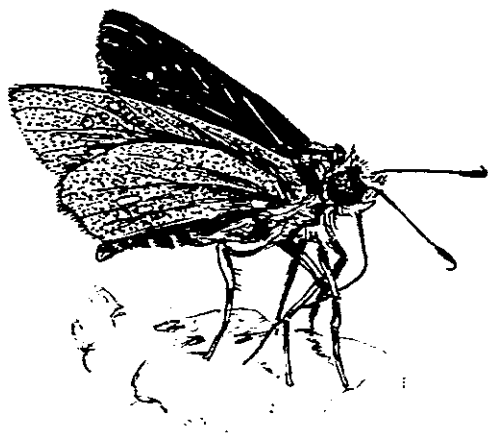
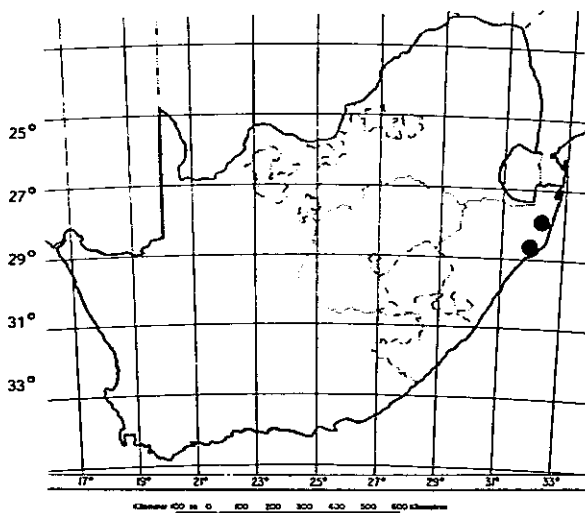


Figure 104. *Borbo ferruginea dondo* male underside and part of upperside. (Del. S.F.Henning)

Life history. Unknown.

DISTRIBUTION. This is a marginal subspecies recorded at Richards Bay, Dukuduku and Cape Vidal in northern Natal.



HABITAT AND ECOLOGY. Recorded in the Enseleni Forest near Richards Bay and in similar forests up the coast. It flies in thick forest, probably descending from the canopy in the early morning and late afternoon. The males establish territories in sunny glades. They select a low perch and will chase all intruders. Recorded in April but can probably be found at any time of the year.

STATUS. The species was first recorded in South Africa by D.A. Swanepoel.

THREATS. *Borbo ferruginea dondo* probably occurs in the Enseleni Nature Reserve and other conservation areas in Natal so is apparently quite safe from the threat of habitat destruction.

CONSERVATION MEASURES. The species may be found in the Enseleni Nature Reserve and other areas under the control of the Natal Parks Board and Kwazulu Bureau of Natural Resources.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
	X		X	X	X

REFERENCE.

1. Pennington (1978): 200 - adult and habits.

Gegenes hottentota (Latreille) INDETERMINATE

HESPERIIDAE

HESPERIINAE

Hesperia hottentota Latreille, 1823. *Encycl. Méth. d'Hist. Nat.* (Zool.) 9:777. Type Locality: Cape of Good Hope.

IDENTIFICATION. The male upperside is golden ochre, the underside is ochre with pale brown markings. The UFW of the male has a large black androconial patch. The female is brown with pale yellow markings on the upper-side; the underside is the same as that of the male. Forewing lengths: male 14,5-16mm; female 14-17mm.

HABITAT AND ECOLOGY. This species inhabits marshes and swamps, preferring thickly grassed areas in valleys. They fly about at speed, settling on blades of grass. They are territorial and pursue other species vigorously. They have been recorded feeding on flowers. The records indicate that it may be found throughout the year but is probably more plentiful in April and May. The species has been bred on *Ehrharta erecta* Lam. and *Pennisetum clandestinum* Chiov. (Poaceae).

Life history. Unrecorded.

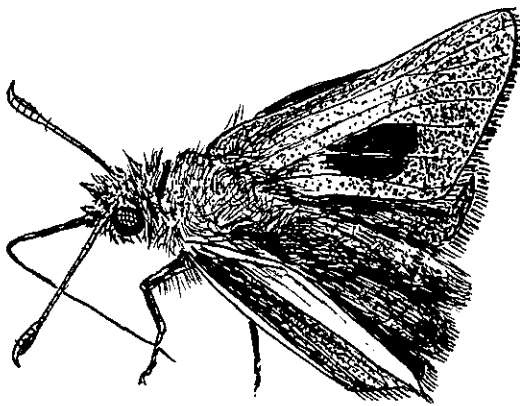
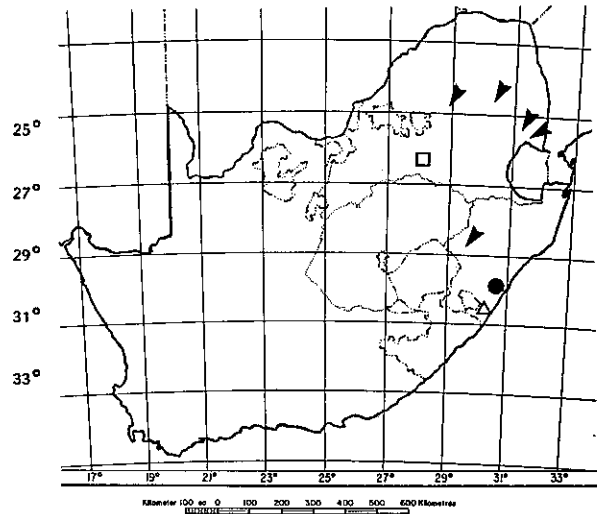


Figure 105. *Gegenes hottentota* male upperside. (Del. S.F.Henning)

DISTRIBUTION. *G. hottentota* is a marginal species found in the Transvaal and Natal. Widespread throughout sub-Saharan Africa. South African records include Honeydew, Nylstroom, Louws Creek, Nelspruit, Lydenburg and Makande in the Transvaal; in Natal it has been recorded from Margate, Nagle Dam, Winklespruit and Ladysmith.

STATUS. Early records of this species include those of H.G. Breijer from Nelspruit in May 1910. The lack of records hampers any determination of population strengths. The similarity of this species to the common *G.*

niso is a contributing factor. The southernmost limit for this species is Margate, Natal, recorded by G.A. Henning.



THREATS. All marsh species are easily susceptible to changes in their habitats. The records in South Africa are few and far between. One locality on the Witwatersrand has already been destroyed. Most records have been of single specimens but Honeydew on the Witwatersrand yielded several, in a couple of years, before it was destroyed to make way for electricity pylons. The preference for marshy habitats in relatively flat areas has added to the problem as these areas are the first to be developed. The locality at Margate, for example, where a single specimen was recorded, is in the middle of a housing development.

TAXONOMY. The type locality of Cape of Good Hope is probably faulty as were many localities at that time. True *hottentota* has never again been recorded in the western Cape. Evans described *G. hottentota oca* in 1937, from Dordrecht in the Cape, which lacked the black androconial patch on the forewing upperside. Dickson (in Pennington, 1978) reports that genitalic dissections of *oca* have turned out to be identical to those of the widespread *G. niso*. There are also numerous intermediates linking the more ochreous *oca* to typical *niso*. The distribution of *oca*, as recorded in the original description, overlaps that of *hottentota* in Natal and Mozambique. If it were a subspecies this would not be the case. Therefore *oca* is without doubt only a yellow form of *G. niso*.

CONSERVATION MEASURES. No conservation measures are in force although a specimen has been recorded in the Gustav Klingbiel Nature Reserve at Lydenburg.

INVESTIGATIONS REQUIRED.

Taxonomy	Distribution	Habitat	Habits	Food	Reproduction
----------	--------------	---------	--------	------	--------------

X		X	X		X
---	--	---	---	--	---

REFERENCES.

1. Evans (1937): 189 - adult.
2. Pennington (1978): 201 - adult and habits.

NON-RESIDENT AND OTHER SPECIES.

REQUIRING FURTHER INVESTIGATION.

DANAIDAE

Tirumala petiverana (Doubleday & Hewitson)

Danais limniace var. *petiverana* Doubleday & Hewitson, 1847.
Gen. Diurn.

Van Son (1955) records a specimen of this species in the Transvaal Museum collection said to have been taken at the farm Vaalboslaagte, near Chuniespoort, Transvaal by Capt. R.H.R. Stevenson in May 1921. We were unable to find this specimen in the Transvaal Museum collection but found one labelled Oliphants Valley, Tvl., 2.2.22, R.H.R. Stevenson. Danaids are well known as migrants and this would probably account for the odd record of this species in South Africa.

SATYRIDAE

Ypthima condamini condamini Kielland

Ypthima condamini Kielland, 1982. *Tijdschrift voor Entomologie* 125(5):115.

A recently described species, one specimen of which has been recorded at Wolkberg Farm, Letaba Drift, Transvaal. The only certain way of identifying this species from the common *Y. asterope asterope* (Klug) is by genitalic dissection. This species could be incorporated in the Red Data Book when some details of its distribution are confirmed.

NYMPHALIDAE

Eunica (Sallya) rosa (Hewitson)

Crenis rosa Hewitson, 1877. *Entomologist's mon. Mag.* 14:82. Delagoa Bay.

E.(S.) rosa has been recorded in Natal on a few isolated occasions. Miller recorded two males and a female at Northdene, 19 January 1898. K.M. Pennington (1952, *J. ent. Soc. sth. Afr.* 15:91) recorded a migration into Natal in 1915. Worn specimens were recorded by his father and himself at Kranskop, while others were seen at Durban. H. Cookson recorded a fresh male at Muden in October 1951. Another record is St Lucia. All these records are possibly as a result of migrations. *E.(S.) rosa* has been recorded migrating more than once. Such a record was made by A.C. D'aintree at Maputo (Lourenço Marques) in January 1942. He recorded observing thousands of *rosa*, 'flying in a southerly direction. Their numbers which filled valleys, surrounding buildings and trees, looked for all the world like a snow storm of silvery-blue flakes.' Species recorded in the odd migration and having no apparent resident population should not be included as a Red Data species. Hence this species is regarded as a rare migrant.

Charaxes violetta violetta Grose-Smith

Charaxes violetta Grose-Smith, 1885. *Entomologist's mon. Mag.* 21:217.

There is a single record for this species from the Dukuduku Forest near Mtubatuba, northern Natal. Considered a migrant species at this time until further records become available.

LYCAENIDAE

Cnodontes vansoni Stempffer & Bennett

Cnodontes vansoni Stempffer & Bennett, 1956. *Entomologist* 89:115.

A single specimen collected by Dr G. van Son at the Saltpan, north of Pretoria, was submitted to Bennett at the British Museum (Natural History). The genitalia of this specimen were so different that it was described as a good species. The specimen is now in the Transvaal Museum, Pretoria. The locality at the Saltpan has been extensively worked and many *Cnodontes penningtoni* Bennett have come from there. The external appearance of *C. vansoni* is the same as that of the dark form of *C. penningtoni*. The genitalia have the tegumen lobes dramatically reduced and the valves elongated, as compared with those of *C. penningtoni*. A specimen of *C. penningtoni* from the Zoutpansberg, which was dissected

by G.A. Henning, has one side of the tegumen lobes almost entirely reduced, and the remainder of the genitalia is perfect. Is it possible then that the specimen of *C. vansoni* is in actuality a *C. penningtoni* with deformed genitalia? The species has not been included in the main part of this work but should additional information become available then this position could change. The genitalia of the two taxa are reproduced below in an endeavour to find the solution to this problem. [Figure 106 below].

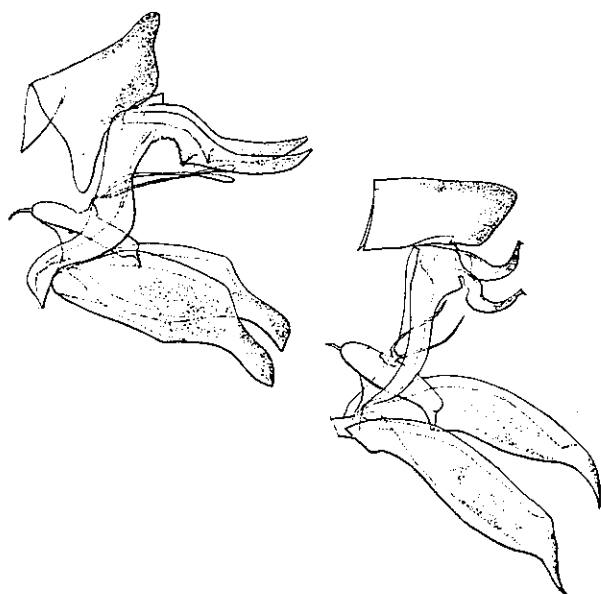


Figure 106. Genitalia of male *Cnodontes*; *C. penningtoni* (left) and *C. vansoni* (right). (After Stempffer & Bennett, 1956).

Iolaus (Epamera) nasisii Riley

Iolaus aphnaeoides nasisii Riley, 1928. *Novit. zool.* 34:391.

Specimens of this species have been reported from the Buffelsberg near Munnik; the specimens are apparently badly damaged and have not as yet been positively identified. The locality in question has been extensively worked and beside those recorded during that one day no more have been taken. The specimens could have migrated although they are not recognised migrants. The Buffelsberg locality is the same place where *A. machequena*, another possible migrant, was recorded in great numbers. Due to the lack of information this species is not considered a possible resident, for the time being, although it has also apparently recently been recorded at Messina.

Spindasis apelles (Oberthür)

Aphnaeus apelles Oberthür, 1878. *Etud. d'Ent.* 3:48.

A single specimen of this species was taken by Mrs M. Nagle at Lower Mkuze in October 1983. This specimen is possibly a migrant and has not been considered a resident species. Should more evidence come to light then the species can be included in the future.

Crudaria wykehami Dickson

Crudaria wykehami Dickson, 1983. *Entomologist's Rec. J. Var.* 95:1. Fraserburg, Cape Province.

A recently described species discovered by C.W. Wykeham on the 5 January 1982 on the Teekloof Pass near Fraserburg, Western Cape Province. Further investigation is required before the full distribution of this species and its rarity can be assessed. Should it prove to be restricted to this remote region of the Cape Province then it must be incorporated in future editions of this book.

PIERIDAE

Belenois ogygia (Trimen)

Pieris ogygia Trimen, 1883. *Trans. ent. Soc. Lond.* 1883:356. Pinetown, Natal.

This species was described from a male and a female. The male was caught by W. Morant at Pinetown, apparently in 1869. The female was collected at Durban in 1866 by M.J. M'Ken. This designated female has been examined by G.A. Henning and it is without a doubt a male. It has been suggested that these odd specimens represent a possible hybrid between the closely related *B. thysa* and *B. zochalia*. C.D. Quickelberge discussed the position in 1982 in *Systematic notes on southern African butterflies - 6*, where he compared *ogygia* in relation to another possible *Belenois* hybrid recorded by D. Whiteley in Natal. The Whiteley specimen is a possible hybrid between *B. thysa* and *B. creona*. The conclusions reached by Quickelberge were tentative but it appears that *B. ogygia* may possibly constitute hybrid specimens between *B. thysa* and *B. zochalia*.

Appias lasti natalensis Neustetter

Appias lasti var. *natalensis* Neustetter, 1927. *Int. ent. Z.*:14. Natal.

Carcasson 1986 lists *natalensis* as a subspecies of *Appias lasti*. The type is allegedly from Natal. No further specimens have been recorded in Natal, nor have any been recorded in neighbouring Moçambique; in fact, the nearest known locality is northern Moçambique. This record is therefore unlikely even to be due to migration and it must be considered that the origin of the specimen is possibly at fault. There being no known population of *A. lasti* in southern Africa we suggest that the taxa be taken off the list of southern African species.

HESPERIIDAE

Platylesches affinissima Strand

Platylesches affinissima Strand, 1920. *Arch. Naturgesch.* 86 A (7):164.

Two specimens have been recorded from Manguzi Forest in northern Natal. Further research is necessary to establish whether this population is permanent. This species is very similar to *P. moritili* (Wallengren) but is smaller, has more elongated wings and smaller spots. Positive identification, however, requires the dissection of the genitalia. Further records are preferable before this species can be considered a resident in South Africa.

Andronymus neander (Plötz)

Apustus neander Plötz, 1884. *Stettin. ent. Ztg.* 45:154.

A well known migrant from Moçambique and Zimbabwe which has also been recorded within our borders, but no established population has been found. Specimens have been recorded from the eastern Transvaal and Natal. It must be considered a migrant until a permanent population is found.

GLOSSARY

ABERRATION	A relatively rare form that can be distinguished from the normal in any species.
ANDROCONIA	Specialized wing scales in male butterflies which are adapted to produce pheromones.
ANTENNAE	Feelers on the head which are sensitive to smell; club-tipped in butterflies.
CREMASTER	Constricted anal segments of pupa bearing hooked hairs used for attaching the posterior end of the pupa to the silk pad spun by the larva.
CREMASTRAL HOOKS	Minute hooks beneath the anal segment of the pupa in most Lycaenidae, or on the cremaster in other families, attaching it to a pad of silk spun by the larva.
DIAPAUSE	A period when growth and development are suspended, usually accompanied by a greatly decreased metabolism, permitting survival during unfavourable periods, such as winter or adverse weather.
DIMORPHIC	The occurrence of the butterfly in two different forms. When the sexes are different they are called sexually dimorphic.
EXTIRPATION	The extinction of a butterfly in a part of its range.
FAMILY	An assemblage of related genera, which are separated from related similar units (families) by a decided gap.
FORM	Colour or shape variation within a species.
GENUS	A group of related butterflies.
GROUND COLOUR	The dominant colour of the wing contrasted to that of the pattern.
HAIR-PENCIL	A dense tuft of long hairs on the wings or bodies of male butterflies which are displayed during courtship and may carry pheromones.
HONEY-GLAND	A shallow, usually transverse, slit or depression on the top of the 7 th abdominal segment, into which several glands discharge a fluid which is imbibed by ants attending to lycaenid larvae.
HILL-TOPPING	Behaviour exhibited by certain insects whereby they fly to hill-tops or elevated points.
HYBRID	The result of interbreeding between two species.
INSTAR	The period between the hatching of the egg and the first larval moult, and the period between each successive moult until pupation.
LARVA	Caterpillar; the feeding sexually immature, development stage of an insect with a complete metamorphosis.
METAMORPHOSIS	The transformation from larval to adult form; referred to as complete in those insects, including butterflies, in which there is a non-feeding pupal stage.
MICROPYLE	Pore in top of egg through which sperm reaches and fertilizes it.
MIGRATION	A mass movement of butterflies, or other animals, in one direction at any one time.
MYRMECOPHILOUS	Associated with ants.

OSMETERIUM	A forked eversible scent-producing organ arising from the anterior margin of the prothorax in larvae of the Papilionidae.
OVIPOSIT	To lay an egg.
PATROLLING	Mate-location behaviour in which males fly almost constantly in search of females.
PERCHING	Mate-locating behaviour in which males sit at characteristic sites and dart off at passing objects.
PHEROMONE	A chemical substance secreted by an individual which produces a response in other butterflies of the same species, or, as in the case of mymecophilous butterflies, to produce a response in other insects.
PHYTOPHAGOUS	Plant-eating.
PHYTO-PREDACEOUS	First plant-eating then changing to a predatory diet of other insects.
POLYMORPHISM	The existence of more than two forms in the same interbreeding population.
PREDATOR	An animal that uses two or more other animals for food.
PUPA	The non-feeding, post larval immature stage in development.
SCALE	A flattened hair forming the characteristic clothing of Lepidoptera.
SEGMENT	A ring-like or tubular section of the body or its appendages.
SETA (pl. SETAE)	A hair, arising from a socket.
SEX-BRAND, SEX-PATCH	A patch of dense androconia scales on the male wing.
SPECIES	A population of interbreeding organisms sharing a common mate recognition system.
SPHRACIS	A hardened male secretion deposited around the ostium bursae (female copulatory opening) during mating, in certain butterflies.
SUBFAMILY	A section of a family, containing genera more closely related to one another than to other genera of the family.
SUBSPECIES	One or more taxonomically distinct populations within a species, occurring in different geographical areas to each other.
SUPERFAMILY	A group of related families.
TAIL	An outgrowth from the outer margin of the hind wing.
TERRITORIALITY	Mate-location behaviour in which males remain in an area, which they defend against intruding males, while waiting for the arrival of a female with which to mate.
TERRITORY	The area defended by an animal against other members of its species and occasionally members of other species.
TUBERCLES	Paired, eversible organs on the eighth abdominal segment of many lycaenid larvae, and functioning in ant association.

BIBLIOGRAPHY

- BAMPTON, I., 1981. Description of a new species of *Poecilmitis* Butler (Lepidoptera: Lycaenidae) from the South Western Cape Province of South Africa. *Entomologist's Rec. J. Var.* **93**:189-191.
- BETHUNE-BAKER, G.T., 1910. A revision of the African species of the *Lycaenesthes* group of the Lycaenidae. *Trans. ent. Soc. Lond.* **1910**:1-84
- 1923. Monograph of the genus *Catochrysops* Boisduval, *Trans. ent. Soc. Lond.* **1922**:275-366.
- 1925. A revision of the Liphyrinae, together with a description of the puparium of *Liphyra brassolis* and of the pupae of *Aslauga vininga* and *A. lamborni* (Lepidoptera). *Trans. ent. Soc. Lond.* **1925**:199-238.
- CARCASSON, R.H., 1981. *Butterflies of Africa*. In: Collins Handguides - xix + 188pp., 100 col. pls. Collins, London.
- CLAASSENS, A.J.M., & DICKSON, C.C.C., 1980. *The Butterflies of the Table Mountain Range*. 160pp., frontispiece, map, 24 col. pls. C. Struik Publishers, Cape Town.
- CLAASSENS, A.J.M., 1976. Observations on the myrmecophilous relationships and the parasites of *Lepidochrysops methymna* (Trimen) and *L. trimeni* (Bethune-Baker) (Lepidoptera:Lycaenidae). *J. ent. Soc. sth. Afr.* **39**:279-289.
- CLARK, G.C., 1940-1943. On the life histories of some South African Lepidoptera. *J. ent. Soc. sth. Afr.* Part 1, **3**:42-56; Part 2, **5**:111-118; Part 3, **6**:140-146.
- CLARK, G.C., & DICKSON, C.C.C., 1952. *Some South African Butterflies*. 44pp., 4 pls (2 col.). Longmans, Green & Co. Ltd. Cape Town.
- 1956. Proposed classification of South African Lycaenidae from the early stages. *J. ent. Soc. sth. Afr.* **19**:195-215.
- 1971. *Life histories of the South African Lycaenid Butterflies*: The entomological work of: v-xvi + 272pp., map, 125 col. pls. Purnell & Sons, Cape Town.
- COLLINS, N.M. & MORRIS, M.G., 1985. *Threatened Swallowtail Butterflies of the World*. The IUCN Red Data Book. IUCN, Gland, Switzerland.
- COTTRELL, C.B., 1965. A study of the *methymna* group of the genus *Lepidochrysops* Hedicke (Lepidoptera:Lycaenidae). *Mem. ent. Soc. sth. Afr.* **9**:1-110.
- 1978. Aspects of the biogeography of southern African butterflies. 100pp. Supplement to *Zambezia*. University of Rhodesia, Salisbury.
- 1981. A revision of the genus *Aslauga*. *Systematic Entomology* (1981) **6**(1):5-45.
- DICKSON, C.C.C., 1947. The life history of *Phasis thysbe* L. var. *nigricans* Aurivillius (Lepidoptera:Lycaenidae). *J. ent. Soc. sth. Afr.* **9**:178-192.
- 1948. The life-history of *Phasis pyroeis* Trimen (Lepidoptera:Lycaenidae). *J. ent. Soc. sth. Afr.* **11**:50-62.
- 1959. Notes on the early stages of *Poecilmitis brooksi* Riley (Lepidoptera:Lycaenidae). *J. ent. Soc. sth. Afr.* **22** (2):312-315.
- 1975. Three new *Poecilmitis* Butler (Lepidoptera:Lycaenidae) from the South Western Cape. *Entomologist's Rec. J. Var.* **87**:228-231.
- 1977. A new species of the *Phasis thero* (L.) group (Lepidoptera:Lycaenidae) from the Roggeveld Escarpment. *Entomologist's Rec. J. Var.* **89**:317-319.
- 1978. Two new *Poecilmitis* Butler (Lepidoptera:Lycaenidae) from the Hantam's Berg, Western Cape Province. *Entomologist's Rec. J. Var.* **90**:293-296.
- 1979-1980. Six further new butterflies from Southern Africa. *Entomologist's Rec. J. Var.* **91**:85-91; **92**:1-6, 38-44.
- 1981-1982. Four new South African butterflies. *Entomologist's Rec. J. Var.* **93**:219-221; **94**:32-35, 41-44.
- 1982-1983. Three new lycaenid butterflies from the South Western Cape Province. *Entomologist's Rec. J. Var.* **94**:222-224; **95**:1-6.
- 1985. A new *Lepidochrysops* Hedicke (Lepidoptera:Lycaenidae) from the South Western Cape Province. *Entomologist's Rec. J. Var.* **97**:1-5.
- DICKSON, C.C.C., & HENNING, G.A., 1980. A new species of *Poecilmitis* Butler (Lepidoptera:Lycaenidae) from the Western Cape Province. *Entomologist's Rec. J. Var.* **92**:294-297.
- DICKSON, C.C.C., & HENNING, W.H., 1980. A new race of *Argyrocupha malagrida* (Wallengren) (Lepidoptera:Lycaenidae) from the Western Cape Province. *Entomologist's Rec. J. Var.* **92**:297-300.

- DICKSON, C.G.C., & STEPHEN, R.D., 1975. An additional new race of *Argyrocupha malagrida* (Wallengren) (Lepidoptera:Lycaenidae). *Entomologist's Rec. J. Var.* **87**:129-132.
- ELIOT, J.N., 1973. The higher classification of the Lycaenidae (Lepidoptera); a tentative arrangement. *Bull. Br. Mus. nat. Hist. (Ent.)* **28**:371-505.
- ELTRINGHAM, H., 1912. A monograph of the African species of the genus *Acraea* Fabricius, etc. *Trans. ent. Soc. Lond.* **1912**:1-374.
- EVANS, W.H., 1937. *A catalogue of the African Hesperidae in the British Museum (Natural History)*.
- GIFFORD, D., 1965. *A list of the Butterflies of Malawi*. The Society of Malawi. 155pp., 9 pls in colour.
- HENNING, G.A., 1977. Observations on the early stages of Ethiopian *Charaxes* with notes on life histories. (Lepidoptera:Nymphalidae). *Ann. Transv. Mus.* **30**(19):219-230.
- HENNING, G.A., & HENNING, S.F., 1982. Descriptions of three new species of *Aloeides* Hübner (Lepidoptera:Lycaenidae) from the Transvaal, South Africa and South West Africa (Namibia). *J. ent. Soc. sth. Afr.* **45**(2):231-238.
- 1984. A new species of *Dingana* Van Son (Lepidoptera:Satyridae) from the eastern Transvaal. *Durban Mus. Novit.* **13**(12): 149-154.
- 1988. Revisional notes on the genus *Capys* Hewitson (Lepidoptera:Lycaenidae) with descriptions of seven new species and two new subspecies. *Durban Mus. Novit.* (In Press).
- HENNING, S.F., 1979. Descriptions of two new species of *Poecilmitis* Butler (Lepidoptera:Lycaenidae) from Namaqualand, South Africa. *J. ent. Soc. sth. Afr.* **42**(2):153-159.
- 1983a. Biological groups within the Lycaenidae (Lepidoptera). *J. ent. Soc. sth. Afr.* **46**(1):65-85
- 1983b. Chemical communication between lycaenid larvae (Lepidoptera:Lycaenidae) and ants (Hymenoptera:Formicidae). *J. ent. Soc. sth. Afr.* **46**(2):341-366.
- 1984a. The effect of ant association on lycaenid larval duration (Lepidoptera:Lycaenidae). *Entomologist's Rec. J. Var.* **96**:99-102.
- 1984b. *Southern African Butterflies*, with illustrations by Clare Abbott. Macmillan South Africa, 24 colour plates.
- 1984c. Life history and behaviour of *Eriksonia acraeina* Trimen. (Lepidoptera:Lycaenidae). *J. ent. Soc. sth. Afr.* **47**(2):
- 1987a. Myrmecophilous Lycaenidae (or how ants help butterflies). *S. Afr. J. Sci.* **83**:8-9.
- 1987b. Myrmecophily in lycaenid butterflies (Lepidoptera:Lycaenidae). *Entomologist's Rec. J. Var.* **99**:215-222, 261-267.
- 1989. *The Charaxinae butterflies of Africa*. Aloe Books, Johannesburg. (In Press).
- HENNING, S.F., & HENNING, G.A., 1985. South Africa's Endangered Butterflies. *Quagga* **10**:16-17.
- 1986. Notes on the genus *Aloeides* Hübner (Lepidoptera:Lycaenidae) with a description of a new species from the Transvaal. *J. ent. Soc. sth. Afr.* **49**(2):337-341.
- HENNING, W.H., 1977. New species of *Poecilmitis* Butler (Lepidoptera:Lycaenidae) from Namaqualand, Cape, South Africa. *Entomologist's Rec. J. Var.* **89**:25-30.
- HINTON, H.E., 1949-1950. Myrmecophilous Lycaenid and other Lepidoptera - a summary. *Proc. Trans. S. Lond. ent. Nat. Hist. Soc.* 1949-1950: 111-175.
- JACKSON, T.H.E., 1937. The early stages of some African Lycaenidae (Lepidoptera), with an account of the larval habits. *Trans. R. ent. Soc. Lond.* **86**:201-238.
- KLOPPERS, J., & VAN SON, G., 1978. *The Butterflies of the Kruger National Park*. National Parks Board of Trustees, Pretoria.
- KROON, D.M., 1973. Notes on Southern African Rhopalocera (Lepidoptera). *Entomologist's Rec. J. Var.* **85**:57-61.
- MIGDOLL, I., 1987. *Field Guide to the butterflies of Southern Africa*. C.Struik, Cape Town.
- MONTEIRO, R., 1891. *Delagoa Bay: Its Natives and Natural History*. XI + 274pp.
- MURRAY, D.P., 1935. *South African Butterflies: A Monograph of the Family Lycaenidae*. John Bale, Sons and Danielsson. Ltd., London. 195pp.
- OWEN, D.F., 1971. *Tropical Butterflies*. Clarendon Press, Oxford.
- OPLER, P.A., 1979. Insects of American chestnut: possible importance and conservation concern. *The American Chestnut Symposium*, ed. W. McDonald:83-85. Morgantown: West Va. Univ. Press.

- PENNINGTON, K.M., 1946. Notes on some rare South African butterflies. *J. ent. Soc. sth. Afr.* 3:128-130.
- PENNINGTON, K.M., 1978. *Pennington's Butterflies of Southern Africa*. Edited by C.G.C. Dickson, with the collaboration of D.M. Kroon. Ad. Donker (Pty) Ltd, Johannesburg.
- PINHEY, E., 1965. *Butterflies of Southern Africa*. Nelson, Cape Town.
- PRINGLE, E.L., 1984. A new species of *Lepidochrysoptera* from the Eastern Cape, South Africa. *Entomologist's Rec. J. Var.* 96:137-140.
- 1987. Two new lycaenid butterflies from the Eastern Cape Province. *Entomologist's Rec. J. Var.* 99:1-6.
- PYLE, R.M., BENTZIEN, M.M., & OPLER, P.A., 1981. Insect Conservation. *Ann. Rev. Entomol.* 26:233-258.
- PYLE, R.M., & OPLER, P.A., 1975. Interview on the role of the Office of Endangered Species in insect conservation. *Atala* 3:2-3.
- QUICKELBERGE, C.D., 1972. A study of *Poecilmitis phosphor* (Trimen) (Lepidoptera:Lycaenidae). *Entomologist's Rec. J. Var.* 84:85-94.
- 1982. Systematic notes on Southern African butterflies - 6. *Durban Mus. Novit.* 13(11):139-148.
- 1986. *Familiar South African Butterflies*. Natal Branch of the Wildlife Society of Southern Africa, Durban.
- RILEY, N.D., 1938. Descriptions of new or little known South African Rhopalocera (Lepidoptera). *Trans. R. ent. soc. Lond.* 87:233-245.
- STEMPFER, H., 1967. The genera of the African Lycaenidae (Lepidoptera:Rhopalocera). *Bull. Br. Mus. nat. Hist. (Ent.)*, Suppl. 10:1-322.
- SWANEPOEL, D.A., 1953. *Butterflies of South Africa: Where, when and how they fly*. Maskew Miller Ltd, Cape Town.
- SWANEPOEL, D.A., & VÁRI, L., 1983. Three new species of *Lepidochrysoptera* Hedecke from the Cape Province (Lepidoptera:Lycaenidae). *Ann. Transv. Mus.* 33:323-336.
- SWIERSTRA, C.J., 1909. Descriptions of three new species of Lepidoptera - Rhopalocera in the Transvaal Museum. *Ann. Transv. Mus.* 1:175-178.
- TITE, G.E., 1964. The *Lepidochrysoptera ortygia* complex (Lepidoptera:Lycaenidae). *Entomologist* 97:1-7.
- TITE, G.E., & DICKSON, C.G.C., 1968. The *Aloeides thyra* complex (Lepidoptera:Lycaenidae). *Bull. Br. Mus. nat. Hist. (Ent.)* 21:367-388.
- 1973. The genus *Aloeides* and allied genera (Lepidoptera:Lycaenidae). *Bull. Br. Mus. nat. Hist. (Ent.)* 29:225-280.
- TRIMEN, R., 1862-1866. *Rhopalocera Africae Australis*, Parts 1-2, iv + 353 numbered pp.
- 1887-1889. *South African Butterflies*, Vols. 1-3. Trüber and Co., London.
- VAN SOMEREN, V.C.L., 1963-1975. Revisional notes on African *Charaxes* (Lepidoptera:Nymphalidae), Parts 1-10. *Bull. Br. Mus. nat. Hist. (Ent.)*. First and Final parts in Vols 13 and 32 respectively.
- VAN SOMEREN, V.C.L., & JACKSON, T.H.E., 1957. The *Charaxes etheocles-ethalion* complex (Lepidoptera:Nymphalidae). *Ann. Transv. Mus.* 23:42-58.
- VAN SOMEREN, V.C.L., & ROGERS, K. St A., 1925-1939. The Butterflies of Kenya and Uganda. *J. E. Africa Uganda nat. Hist. Soc.*
- VAN SON, G., 1949. *The Butterflies of Southern Africa*, Part 1. Papilionidae and Pieridae. *Transv. Mus. Mem.* 3:1-237, 41pls.
- 1955. *The Butterflies of Southern Africa*, Part 2. Nymphalidae: Danaeinae and Satyrinae. *Transv. Mus. Mem.* 8:1-166, 37pls.
- 1963. *The Butterflies of Southern Africa*, Part 3. Nymphalidae: Acraeinae. *Transv. Mus. Mem.* 22:1-130, 29pls.
- 1979. *The Butterflies of Southern Africa*, Part 4. Nymphalidae: Nymphalinae. *Transv. Mus. Mem.* 22:1-286, 76pls. [Revised and edited by L. Vári].
- VANE-WRIGHT, R.I., ACKERY, P.R., 1984. *The Biology of Butterflies*. Published for The Royal Entomological Society, London, by Academic Press, pp. 429.
- VÁRI, L., 1971. South African Lepidoptera, 5. Revision of the genus *Tarsocera* Butler, 1898, and descriptions of new Satyrinae (Lepidoptera:Nymphalidae) *Ann. Transv. Mus.* 27:193-223.
- VÁRI, L., 1976. Descriptions and notes on new taxa of Rhopalocera. *Ann. Transv. Mus.* 30:122-143.
- VÁRI, L., & KROON, D.M., 1986. *Southern African Lepidoptera: A series of cross-referenced indices*. The Lepidopterists' Society of Southern Africa & The Transvaal Museum, Pretoria.
- VRBA, E.S., (Editor) 1985. *Species and Speciation*. Transvaal Museum Monograph No. 4, pp. 176.
- WELLS, R.W., 1957. The life-history of *Papilio euphranor* Trimen (Lepidoptera:Papilionidae). *J. ent. Soc. sth. Afr.* 20:117-119.

INDEX - SCIENTIFIC NAMES

- Abantis bicolor* 7,9,15, 153-154
achlys, *Euriphene* 7,9,11, 32-34
Acraea machequena 8,10,11, 29-30
 rabbaiae 8,10,11, 30-31
 satis 8,10,11, 31-32
 Acraeidae 11,17, 28-32
acraeina, *Erikssonina* 1,7,8,14, 116-118
affinissima, *Platylesches* 165
alaedeus, *Dingana* 7,9,11, 22-23
Alaena margaritacea 1,7,8,11, 43-44
albescens, *Durbanina amakosa* 7,9,12, 45-46
Aloeides 76-89
Aloeides caledoni 7,9,12, 78-79
 carolynnae 7,9,13, 86-87
 clarki 7,9,13, 85
 dentatis dentatis 1,7,9,12, 79-81
 dentatis maseruna 2,8,10,13, 81-82
 egerides 7,9,13,16, 87
 kaplani 8,10,12, 77
 lutescens 7,9,13,16, 86
 merces 7,9,13, 84-85
 nollothi 8,10,13, 83-84
 nubilus 6,7,9,13, 82-83
 penningtoni 2
 pringlei 8,10,12, 77-78
 rossouvi 7,9,13, 82
 trimeni southeyae 7,9,13, 88-89
amakosa albescens, *Durbanina* 7,9,12, 45-46
amakosa flavida, *Durbanina* 8,10,12, 46-47
anchises, *Coeliades* 7,9,15, 150-151
Andronymus caesar philander 8,10,15, 158-159
 neander 165
angolanus, *Colotis doubledayi* 7,9,14, 144-146
Anthene minima 7,9,14, 119-120
apelles, *Spindasis* 164
Aphnaeini 68, 118
aphnaeoides, *lolaus* (*Epamera*) 7,9,12, 63-65
Appias lasti natalensis 165
 sabina phoebe 7,9,14, 146-147
Argyrocupha malagrida cedrusmontana 7,9,12, 75-76
 malagrida malagrida 3,7,8,12,16, 72-74
 malagrida maryae 7,8,12, 76
 malagrida paarlensis 7,9,12, 74-75
ariadne, *Orachrysops* 7,9,14, 143-144
Aslauga australis 7,9,12, 48-49
 aureus, *Poecilmitis* 1,8,9,13,16, 93-94
 australis, *Aslauga* 7,9,12, 48-49
 azota, *Charaxes protoclea* 8,10,11, 35-36
 azurius, *Poecilmitis* 8,9,13, 109-110

babaulti, *Cyclyrius* 8,10,14, 126
bacchus, *Lepidochrysops* 7,9,14,16, 125-126
badhami, *Lepidochrysops* 7,9,14, 124-125
balli, *Lepidochrysops* 7,9,14, 138-139
balli, *Poecilmitis* 8,9,13, 103-109
Belenois ogygia 164
bella, *Dingana bowkeri* 8,10,11, 21-22
bicolor, *Abantis* 7,9,15,153-154
Borbo ferruginea dondo 8,10,15, 161
 micans 8,10,15,17, 160-161
borealis, *Bowkeria phosphor* 7,9,14, 115-116
bowkeri bella, *Dingana* 8,10,11,21-22
Bowkeria phosphor borealis 7,9,14, 115-116
 phosphor phosphor 7,9,14, 114-115
brachycerus, *Thestor* 8,10,12, 57-58
brooksi brooksi, *Poecilmitis* 3, 95-96
brooksi tearei, *Poecilmitis* 8,9,13, 95-96

caesar philander, *Andronymus* 8,10,15, 158-159
caledoni, *Aloeides* 7,9,12, 78-79
camdeboo, *Pseudonympha* 8,9,11, 27
Capys penningtoni 7,9,12, 66-67
 carolynnae, *Aloeides* 7,9,13, 86-87
 cedarbergae, *Phasis thero* 8,9,12, 68-69
 cedrusmontana, *Argyrocupha malagrida* 7,9,12, 75-76
 Charaxes etesipe tavetensis 8,10,11, 37-38
 marieps 7,9,11, 40-42
 pondoensis 7,9,11, 39-40
 protoclea azota 8,10,11, 35-36
 violetta violetta 163
 xiphares xiphares f. *occidentalis* 16
 Charaxinae 35-42
Chrysothrix cottrelli 7,8,13, 90-91
 oreas 7,9,13, 89-90
claassensi, *Lepidochrysops jamesi* 7,9,14, 127-128
clarki, *Aloeides* 7,9,13, 85
Cnodontes penningtoni 163-164
 vansonii 163-164
Coeliades anchises 7,9,15, 150-151
 libeon 8,10,15, 151-152
Colotis doubledayi angolanus 7,9,14, 144-146
compassbergae, *Thestor* 8,10,12, 54
condamini condamini, *Ypthima* 163
confusa confusa, *Spialia* 8,9,15, 154-155
cottrelli, *Chrysothrix* 7,8,13, 90-91
Crudaria wykehami 164
Cyclyrius babaulti 8,10,14, 120
Cyrestis pantheus sublineatus 7,9,11, 34-35

 Danaidae 17, 163
daphne, *Poecilmitis* 8,9,13, 108
Deloneura immaculata 7,8,12, 47-48
dentatis dentatis, *Aloeides* 1,7,9,12, 79-81
dentatis maseruna, *Aloeides* 2,8,10,13, 81-82
 Deudorigini 66-67
 diametra natalica, *lolaus* (*Epamera*) 7,9,12, 65-66
 dicksoni, *Lepidochrysops methymna* 7,8,14, 122-124
 dicksoni, *Oxychaeta* 2,7,8,12,16, 70-71
 dicksoni, *Stygionympha* 8,9,11,16, 27-28
 dicksoni calviniae, *Thestor* 8,9,12, 52-53
 dicksoni dicksoni, *Thestor* 8,9,12,16, 51-52
 dicksoni, *Tsitana* 8,9,15,16, 157-158
Dingana alaedeus 7,9,11, 22-23
 bowkeri bella 8,10,11, 21-22
Dira jansei 8,10,11, 20-21
 swanepoeli isolata 7,9,11, 19-20
 swanepoeli swanepoeli 19
dondo, *Borbo ferruginea* 8,10,15, 161
doubledayi angolanus, *Colotis* 7,9,14, 144-146
dryburghi, *Thestor* 8,10,12, 50
Durbanina amakosa albescens 7,9,12, 45-46
 amakosa flavida 8,10,12, 46-47

egerides, *Aloeides* 7,9,13,16, 87
endymion, *Poecilmitis* 8,9,13,16, 106-107
Erikssonina acraeina 1,7,8,14, 116-118
etesipe tavetensis, *Charaxes* 8,10,11, 37-38
Eunica (*Sallya*) *rosa* 163
Euphranor, *Papilio* 8,10,15, 148-149
Euriphene achlys 7,9,11, 32-34

ferruginea dondo, *Borbo* 8,10,15, 161

Gegenes hottentota 8,10,15, 162-163
griqua, *Tuxentius melaena* 8,9,14, 120-122

henningi, *Poecilmitis* 8,9,13, 103-104
hersaleki, *Poecilmitis pyrois* 8,9,13, 91-92
 Hesperidae 15, 149-163, 165
 HESPERIOIDEA 15
hottentota, *Gegenes* 8,10,15, 162-163
hyperion, *Poecilmitis* 8,9,13, 102-103
Hypolycaena lochmophila 8,10,12, 61-62
Hypolycaenini 61-62
hypopolia, *Lepidochrysops* 7,8,14, 132-133

immaculata, *Deloneura* 7,8,12, 47-48
lolaini 62-66
lolaus (*E.*) *aphnaeoides* 7,9,12, 63-65
 diametra natalica 7,9,12, 65-66

- nasisii* 164
lolaus (*P.*) *lulua* 7,9,12, 62-63
irene, *Poecilmitis* 8,9,13, 101
isolata, *Dira swanepoeli* 7,9,11, 19-20

jefferyi, *Lepidochrysops* 7,9,14, 131-132
jamesi claassensi, *Lepidochrysops* 7,9,14, 127-128
jamesi jamesi, *Lepidochrysops* 7,9,14, 127
jansei, *Dira* 8,10,11, 20-21

kaplani, *Aloeides* 8,10,12, 77
kaplani, *Poecilmitis* 8,9,13, 104-105
kaplani, *Thestor* 8,9,12,16, 55-56

lasti natalensis, *Appias* 165
Lepidochrysops 122-141
Lepidochrysops bacchus 7,9,14,16, 125-126
badhami 7,9,14,124-125
balli 7,9,14, 138-139
hypopolia 7,8,14, 132-133
jamesi claassensi 7,9,14, 127-128
jamesi jamesi 7,9,14, 127
jefferyi 7,9,14, 131-132
littoralis 7,9,14, 139
loewensteini 7,9,14, 128-129
lotana 1,7,8,14, 133
methymna dicksoni 7,8,14, 122-124
oosthuizeni 7,9,14, 140-141
oreas oreas 7,9,14, 135-137
outeniqua 7,9,14, 139-140
penningtoni 7,9,14, 126-127
pephredo 7,9,14, 129-130
poseidon 8,10,14, 141
pringlei 7,9,14, 137-138
quickelbergei 7,9,14, 137
swanepoeli 7,9,14, 130-131
titei 8,10,14, 133-134
victori 7,9,14, 129
wykehami 8,10,14, 134-135
libeon, *Coeliades* 8,10,15, 151-152
Liphyrinae 48-49
Lipteninae 42-48
littoralis, *Lepidochrysops* 7,9,14, 139
lochmophila, *Hypolycaena* 8,10,12, 61-62
loewensteini, *Lepidochrysops* 7,9,14, 128-129
lotana, *Lepidochrysops* 1,7,8,14, 133
lulua, *lolaus* (*Pseudiolaus*) 7,9,12, 62-63
lutescens, *Aloeides* 7,9,13,16, 86
Lycaenesthini 119-120
Lycaenidae 11,17, 42-144, 163, 164
lyncurium, *Poecilmitis* 8,9,13,16, 92-93
lyndseyae, *Poecilmitis* 8,10,13, 104

machequena, *Acraea* 8,10,11, 29-30
malagrida cedrusmontana, *Argyrocupha* 7,9,12, 75-76
malagrida malagrida, *Argyrocupha* 3,7,8,12,16, 72-74
malagrida maryae, *Argyrocupha* 7,8,12, 76
malagrida paarlensis, *Argyrocupha* 7,9,12, 74-75
marieps, *Charaxes* 7,9,11, 40-42
margaritacea, *Alaena* 1,7,8,11, 43-44
maryae, *Argyrocupha malagrida* 7,8,12, 76
maseruna, *Aloeides dentatis* 2,8,10,13, 81-82
melaena griqua, *Tuxentius* 8,9,14, 120-122
meninx, *Metisella* 2,8,10,15, 156-157
merces, *Aloeides* 7,9,13, 84-85
methymna dicksoni, *Lepidochrysops* 7,8,14, 122-124
Metisella meninx 2,8,10,15, 156-157
syrinx 7,9,15,16, 157
micans, *Borbo* 8,10,15,17, 160-161
Miletinae 49-61
minima, *Anthene* 7,9,14, 119-120
montanus pictus, *Thestor* 8,10,12, 53-54

nasisii, *lolaus* (*Epamera*) 164
natalensis, *Appias lasti* 165
natalica, *lolaus* (*E.*) *diametra* 7,9,12, 65-66

neander, *Andronymus* 165
nigricans nigricans, *Poecilmitis* 3,8,10,13,16, 110-112
nigricans zwartbergae, *Poecilmitis* 8,10,13, 112-113
niobe, *Orachrysops* 7,8,14, 142
nollothi, *Aloeides* 8,10,13, 83-84
nubilus, *Aloeides* 6,7,9,13, 82-83
Nymphalidae 11,17, 32-42, 163

occidentalis, *Charaxes xiphares xiphares* f. 16
ogygia, *Belenois* 164
oosthuizeni, *Lepidochrysops* 7,9,14, 140-141
orangica, *Torynesis* 8,9,11, 24
oreas, *Chrysoritis* 7,9,13, 89-90
oreas oreas, *Lepidochrysops* 7,9,14,135-137
orientalis, *Poecilmitis* 8,10,13, 99-100
outeniqua, *Lepidochrysops* 7,9,14, 139-140
Orachrysops ariadne 7,9,14, 143-144
niobe 7,8,14, 142
Ornipholidotos peucetia penningtoni 7,9,12, 44-45
Oxychaeta dicksoni 2,7,8,12,16, 70-71

paarlensis, *Argyrocupha malagrida* 7,9,12, 74-75
palmus, *Poecilmitis* 3
pan, *Poecilmitis* 3,8,10,13, 97-98
pantheus sublineatus, *Cyrestis* 7,9,11, 34-35
Papilio (*P.*) *euphranor* 8,10,15, 148-149
Papilionidae 15,17, 147-150
PAPILIONOIDEA 11
paragaika, *Pseudonympha* 8,9,11, 25-26
paula, *Spialia* 8,10,15, 155-156
penningtoni, *Aloeides* 2
penningtoni, *Capys* 7,9,12, 66-67
penningtoni, *Cnodontes* 163-164
penningtoni, *Lepidochrysops* 7,9,14, 139-140
penningtoni, *Ornipholidotos peucetia* 7,9,12, 44-45
penningtoni, *Poecilmitis* 8,9,13, 100
pephredo, *Lepidochrysops* 7,9,14 129-130
petiverana, *Tirumala* 163
peucetia penningtoni, *Ornipholidotos* 7,9,12, 44-45
Phasis pringlei 7,9,12, 69-70
thero cedarbergae 8,9,12, 68-69
philander, *Andronymus caesar* 8,10,15, 158-159
phoebe, *Appias sabina* 7,9,14, 146-147
phosphor borealis, *Bowkeria* 7,9,14, 115-116
phosphor phosphor, *Bowkeria* 7,9,14, 114-115
pictus, *Thestor montanus* 8,10,12, 53-54
Pieridae 14, 144-147, 164
Platylesches affinisima 165
tina 8,9,15, 159-160
Poecilmitis 91-114
Poecilmitis adonis 8,9,14, 113-114
aureus 1,8,9,13,16, 93-94
azurius 8,9,13, 109-110
balli 8,9,13, 108-109
brooksi brooksi 3, 95-96
brooksi tearei 8,9,13, 95-96
daphne 8,9,13, 108
endymion 8,9,13,16, 106-107
henningi 8,9,13, 103-104
hyperion 8,9,13, 102-103
irene 8,9,13, 101
kaplani 8,9,13, 104-105
lyncurium 8,9,13,16, 92-93
lyndseyae 8,9,13,104
nigricans nigricans 3,8,10,13,16, 110-112
nigricans zwartbergae 8,10,13, 112-113
orientalis 8,10,13, 99-100
palmus 3
pan 3,8,10,13, 97-98
penningtoni 8,9,13, 100
pyramus 8,9,13, 107
pyrois hersaleki 8,9,13, 91-92
rileyi 2,8,9,13,16, 97
stepheni 8,9,13, 105-106
swanepoeli 8,9,13, 101-102
trimeni 8,10,13, 98-99

wykehami 8,9,13, 94-95
 Polyommatae 118-144
 Polyommataini 120-144
pandoensis, *Charaxes* 7,9,11, 39-40
poseidon, *Lepidochrysops* 8,10,14, 141
pringlei, *Aloeides* 8,10,12, 77-78
pringlei, *Lepidochrysops* 7,9,14, 137-138
pringlei, *Phasis* 7,9,12, 69-70
pringlei, *Thestor* 8,9,12, 56-57
pringlei, *Torynesis* 8,9,11, 24-25
protoclea azota, *Charaxes* 8,10,11, 35-36
Pseudonympha camdeboo 8,10,11, 27
 paragaika 8,9,11, 25-26
 swanepoeli 8,9,11, 26-27
pyramus, *Poecilmitis* 8,9,13, 107
pyrois hersaleki, *Poecilmitis* 8,9,13, 91-92

quickelbergei, *Lepidochrysops* 7,9,14, 137

rabhaiae, *Acraea* 8,10,11, 29-30
rileyi, *Poecilmitis* 2,8,9,13,16, 97
rosa, *Eunica (Sallya)* 163
rossouwii, *Aloeides* 7,9,13, 82
rossouwii, *Thestor* 8,10,12, 54-55
ruona, *Sarangesa* 8,9,15, 152-153

sabina phoebe, *Appias* 7,9,14, 146-147
Sarangesa ruona 8,9,15, 152-153
satis, *Acraea* 8,10,11, 31-32
 Satyridae 11,17, 18-28, 163
southeyae, *Aloeides trimeni* 7,9,13, 88-89
Spialia confusa confusa 8,9,15, 154-155
 paula 8,10,15, 155-156
Spindasis apelles 164
stepheni, *Poecilmitis* 8,9,13, 105-106
stepheni, *Thestor* 8,10,12, 60-61
strutti, *Thestor* 8,9,12, 50-51
Stygionympha dicksoni 8,9,11,16, 27-28
sublineatus, *Cyrestis pantheus* 7,9,11, 34-35
swanepoeli, *Lepidochrysops* 7,9,14, 130-131
swanepoeli, *Poecilmitis* 8,9,13, 101-102
swanepoeli, *Pseudonympha* 8,9,11, 26-27
swanepoeli, *Thestor* 8,10,12, 53
swanepoeli isolata, *Dira* 7,9,11, 19-20
swanepoeli swanepoeli, *Dira* 19
syrinx, *Metisella* 7,9,15,16, 157

tavetensis, *Charaxes etesipe* 8,10,11, 37-38
tearei, *Poecilmitis brooksi* 8,9,13, 95-96
tempe, *Thestor* 8,9,12, 60
 Theclinae 61-118
thero cedarbergae, *Phasis* 8,9,12, 68-69
Thestor brachycerus 8,10,12, 57-58
 compassbergae 8,10,12, 54
 dicksoni calviniae 8,9,12, 52-53
 dicksoni dicksoni 8,9,12,16, 51-52
 dryburghi 8,10,12, 50
 kaplani 8,9,12,16, 55-56
 montanus pictus 8,10,12, 53-54
 pringlei 8,9,12, 56-57
 rossouwii 8,10,12, 54-55
 stepheni 8,10,12, 60-61
 strutti 8,9,12, 50-51
 swanepoeli 8,10,12, 53
 tempe 8,9,12, 60
 yildizae 8,9,12, 58-59
tina, *Platylesches* 8,9,15, 159-160
Tirumala petiverana 163
titei, *Lepidochrysops* 8,10,14, 133-134
Torynesis orangica 8,9,11, 24
 pringlei 8,9,11, 24-25
trimeni southeyae, *Aloeides* 7,9,13, 88-89
trimeni, *Poecilmitis* 8,10,13, 98-99
Trimenia wallengrenii 8,9,12,16, 71-73
Tsitana dicksoni 8,9,15,16, 157-158
Tuxentius melaena griqua 8,9,14, 120-122

vansoni, *Cnodontes* 163-164
victori, *Lepidochrysops* 7,9,14, 129
violetta violetta, *Charaxes* 163

wallengrenii, *Trimenia* 8,9,12,16, 71-73
wykehami, *Crudaria* 164
wykehami, *Lepidochrysops* 8,10,14, 134-135
wykehami, *Poecilmitis* 8,9,13, 94-95

xiphares xiphares f. occidentalis, *Charaxes* 16

yildizae, *Thestor* 8,9,12, 58-59
Ypthima condamini condamini 163

RECENT TITLES IN THIS SERIES

120. The impact of climate and weather on the activities of the building and construction industry in South Africa. G. du Toit de Villiers (compiler). 1986. 40pp.
121. Ecological research on South African rivers - a preliminary synthesis. J.H. O'Keeffe. 1986. 121 pp.
122. A description of the Karoo Biome Project. R.M. Cowling. 1986. 42pp.
123. *SANCOR: Summary report on marine reserach 1985. 1986. 57pp.
124. The karoo biome: a preliminary synthesis. Part I - Physical environment. R.M. Cowling, P.W. Roux & A.J.H. Pieterse (editors). 1986. 114pp.
125. South African Red Data Book - Terrestrial Mammals. R.H.N. Smithers. 1986. 216pp.
126. A bibliography of sandy beaches and sandy beach organisms on the African continent. R. Bally. 1986. 179pp.
127. Activities of the National Programmes for Ecosystems and Aquaculture Research, 1983-1985. E.W. Auret. 1986. 68pp.
128. Historical sites at the Prince Edward Islands. J. Cooper & G. Avery. 1986. 80pp.
129. Richards Bay effluent pipeline. D.A. Lord and N.D. Geldenhuys. 1986. 30pp.
130. An assessment of the state of the estuaries of the Cape and Natal 1985/86. A.E.F. Heydom (editor). 1986. 39pp.
131. The conservation of South African rivers. J.H. O'Keeffe (editor). 1986. 117pp.
132. SIBEX - II: Report of the South African study in the sector (48-64°E) of the Southern Ocean. D.G.M. Miller (editor). 1986. 47pp.
133. The regional landscape: Nylsvley in perspective. P.G.H. Frost. 1987. 30pp.
134. South African Southern Ocean Research Programme. SASCAR. 1986. 58pp.
135. Disturbance and the dynamics of fynbos communities. R.M. Cowling, C.D. Le Maitre, B. McKenzie, R.P. Prys-Jones and B.W. van Wilgen (editors). 1987. 70pp.
136. SANKON: Opsommingsverslag oor mariene navorsing. SANKOR. 1987. 45pp.
137. South African Red Data Book - Fishes. P.H. Skelton. 1987. 199pp.
- 138E. *Report of the Main Research Support Programme. September 1984-June 1987. 1987. 23pp.
- 138A. Verslag van die Hoofprogram vir Navorsingondersteuning. September 1984-Junie 1987. 1987. 23pp.
139. Marine research in Natal. A.P. Bowmaker, D. van der Zee & H. Ridder (editors). 1987. 184pp.
140. Environmental impact assessment of the proposed emergency landing facility on Marion Island - 1987. G. Heyman, T. Erasmus, B.J. Huntley, A.C. Liebenberg, C. de Retief, P.R. Condy & O.A. van der Westhuizen. 1987. 209pp. (Available only from Department of Environment Affairs).
141. A preliminary synthesis of pollination biology in the Cape flora. A.G. Rebelo (editor). 1987. 254pp.

142. The karoo biome: a preliminary synthesis. Part II - vegetation and history. R.M. Cowling & P.W. Roux (editors). 1987. 133pp.
143. The Vaal River catchment: Problems and research needs. E. Braune & K.H. Rogers. 1987. 36pp.
144. Atlas of alien and translocated aquatic animals in southern Africa. 1988. I. de Moor & M.N. Bruton. 320pp.
145. A description of the Research Programme for Wetlands. R.D. Walmsley. 1988. 26pp.
146. The River Research Programme. A.A. Ferrar, J.H. O'Keeffe and B.R. Davies. 1988. 28pp.
147. *Dictionary of forest structural terminology. C.J. Geldenhuys, R.S. Knight, S. Russell and M.L. Jarman (editors). 1988. ...pp.
148. SANCOR Summary Report on Marine Research 1987. SANCOR. 1988. 60pp.
149. Final Report of the Bagasse Programme. J.C. Patterson-Jones (editor). 1988. 250pp.
150. Atmospheric pollution and its implications in the Eastern Transvaal Highveld. P.D. Tyson, F.J. Kruger and C.W. Louw. 1988. 150pp.
151. South African Red Data Book - Reptiles and Amphibians. W.R. Branch (editor). 1988. 235pp.
152. Remote sensing in the marine environment. L.V. Shannon and L.Y. Shackleton. 1988. 54pp.
153. The culture of sharptooth catfish, *Olarias gariepinus* in southern Africa. T. Hecht, W. Uys and P.J. Britz (editors). 1988. 106pp.
154. *A forest map of southern Africa with the aid of landsat imagery. D.W. van der Zel. 1988. 79pp.
155. Research needs in the Transkei and Ciskei coastal zone. Report on a workshop held at Mpekweni, Ciskei on 3 March 1988. G.M. Branch and L.Y. Shackleton (editors). 1988. 56pp.
156. The Swartkops Estuary. Proceedings of a symposium held on 14-15 September 1987 at the University of Port Elizabeth. D. Baird, J.F.K. Marais and A.P. Martin (editors). 1988. 107pp.
157. Long-term data series relating to southern Africa's renewable natural resources. I.A.W. Macdonald and R.J.M. Crawford (editors), 1988. 497pp.
158. Henning, S.F. & Henning, G.A., 1989. South African Red Data Book: Butterflies. South African National Scientific Programmes Report No. 158. CSIR, Pretoria. 175pp.

*Out of Print.