

BIOTA AFRICA Congress 2008

Abstract submission

Presentation	Poster presentation	A)
Title	Biodiversity Monitoring in Europe: The EU FP7 EBONE project European Biodiversity Observation Network	B)
Short title	EBONE - European Biodiversity Observation Network	C)
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Keywords	Biodiversity Monitoring, EBONE FP7, Europe, Mediterranean, South Africa	F)

Biodiversity Monitoring in Europe: The EU FP7 EBONE project European Biodiversity Observation Network

On April 1st, 2008 the EU FP7 project EBONE (<http://www.ebone.wur.nl/>) was launched. The aim of the project is the development of a (cost-effective) biodiversity data collection and monitoring system based on local field data, landscape metrics and remote sensing data to assess biodiversity at a regional, national and European level.

The objective of the project is:

1. The provision of a sound scientific basis for the production of statistical estimates of stock and change of key indicators that can then be interpreted by policy makers responding to EU Directives regarding threatened ecosystems and species;
2. The development of a system for estimating past change but also for forecasting and testing policy options and designing mitigating management strategies for threatened ecosystems and species.

The end product should therefore be *a biodiversity observation network that is spatially and topically prioritized and a structure for an institutional framework allowing European monitoring including projections on trends based on reliable data and indicators.*


This is elaborated in the following working objectives:

- 1) Development of a monitoring concept including common indicators for biodiversity
- 2) Stratification of Europe and other regions involved for monitoring purposes

- 3) Development and testing of standard field–site observations and databasemanagement
- 4) Intercalibrate field data with earth observation data
- 5) Development of a cost effective framework for European and world-wide biodiversity monitoring including suggestions for an institutional setting.

Even if the focus of the project is recently on European biodiversity, non-European Mediterranean test sites in South Africa and Israel are included as a first step towards a global approach. An overview of the EBONE project and possible synergistic linkages to the BIOTA-South project will be presented.


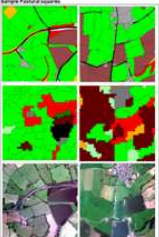
Keywords: Biodiversity Monitoring, EBONE FP7, Europe, Mediterranean, South Africa






EBONE

European Biodiversity Observation Network: a project to design and test a biodiversity observing system, integrated in time and space

Intercalibration Species – Habitat-EO


In space and time

The objective of the EU FP7 project EBONE project is to develop and implement a terrestrial biodiversity observation network that is spatially and topically prioritized and a structure for an institutional framework allowing European and world wide terrestrial monitoring and projections on trends based on reliable data and indicators.

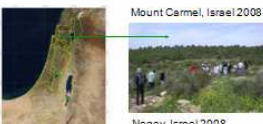
This objective has been elaborated in seven steps:

1. Design a biodiversity observation hierarchy based predominantly on existing capability.
2. Develop techniques for upscaling between site, networks of sites, habitats and remotely sensed data for detecting and interpreting changes in key indicators and ecosystems.
3. Validate the observation hierarchy by testing the system with field and earth observation (EO) data.
4. Recommend refinements to the observation system.
5. Make recommendations for the implementation of the system in Europe.
6. Propose how data can be integrated in existing structures and data management systems.
7. Develop and test the world wide compatibility of the system in Mediterranean regions outside Europe.




The EBONE project intends to be the basis of a cost effective data collection system for biodiversity including extant data, both past and present, at national, regional and European level. It will form the basis for the continued development of a European Biodiversity Observation System and in this way provide a common European basis or reporting on biodiversity, and access to indicator data for CBD reporting against the 2010 target. The system contributes to the GEOSS 10 year implementation plan, especially EBONE to the GEOSS tasks EC-07-02 and BI-07-01.


The project will deliver a European contribution to the development of a global biodiversity observation system that is spatially and topically prioritised. It will build on existing information and intercalibrate species, habitat and EO-data. Therefore a link will be made between the methods, data and observation sites available in different countries and regions including the Mediterranean regions and its gradient into the desert in Israel, Northern Africa and South Africa. A link will be made with various ongoing projects and available databases as well as observation and monitoring systems.



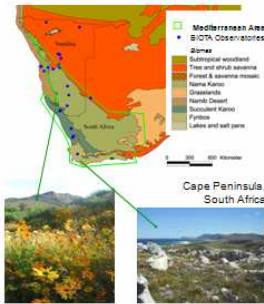
Mount Carmel, Israel 2008




Negev, Israel 2008



High Tatras, Slovakia 2006



Namaqualand, South Africa



Cape Peninsula, South Africa

Data that will be included are from representative LTER (Long-term Ecosystem Research) sites, BIOTA-Southern Africa sites and Natura 2000 sites. These will be linked to data from nation-wide habitat monitoring and EO monitoring programmes. Power analysis at different levels (species, habitat, ecosystems) are carried out to test the representativeness and in this way the usefulness of sampling schemes and data sets. The approach builds on recent European research projects and networks such as AlterNet, BioHab, BioPress and EuMon assessing representativeness of sites and integrating national monitoring systems. Its final product will be a proposal for a cost effective procedure for biodiversity monitoring.

Contribution to Global Earth Observation System of Systems (GEOSS) & WCA

Integrated Assessment across scales

More intensive process based monitoring

Systemic survey

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FP7-Collaborative Project
Theme 6, Environment
project nr 21322

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EC-Joint Research Centre, JRC, Ispra (Italy)
Umweltbundesamt (Austria)
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To be cited as:

Vogel, M., Jongman, R. 2008: "Biodiversity monitoring in Europe: The EU FP7 EBONE project – European Biodiversity Observation Network". Poster & Proceedings at the International Congress Biodiversity in Africa – Observation and Sustainable Management for the Future, 29 Sept. - 3 Oct. 2008 in Spier/Stellenbosch, South Africa, p.109.