

A unified open portal to biodiversity data for research, dissemination and planning





















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Biodiversity

"Biological diversity means the variability among living organisms from all sources including, inter alia, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems."

- ➤ Biodiversity is a key asset for human communities, and a direct subsistence resource for half of the world's population;
- ➤ Primary biodiversity data (e.g., direct observations of species) are abundant, but badly organized;
- ➤ Good quality primary biodiversity data are needed for conservation, planning and scientific research.











Use of Biodiversity data

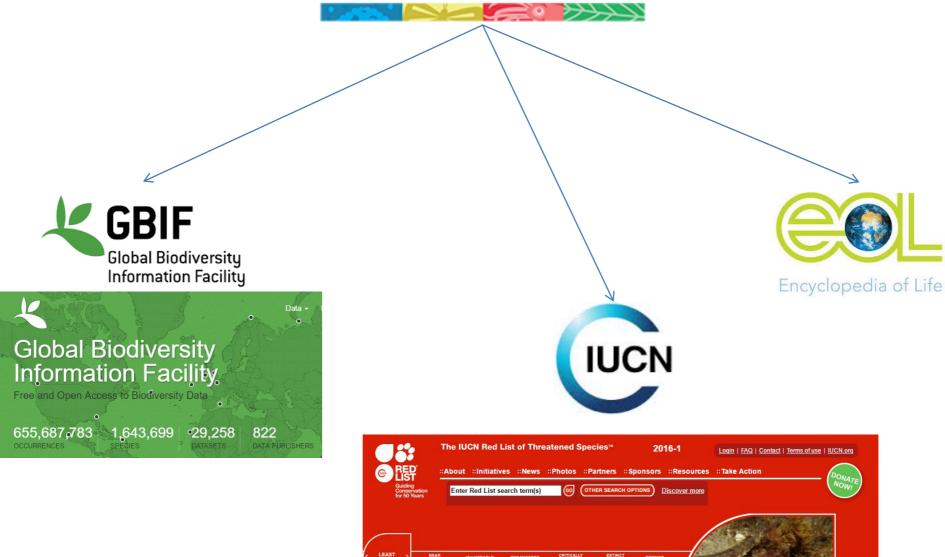
- Reporting to International Conventions (e.g. CBD)
- Elaboration of conservation strategies for endangered species or management strategies for alien species
- Assessing the conservation status of endangered species according to IUCN Categories and Criteria
- Participation to international projects and initiatives
- Data archives for future research/management projects





















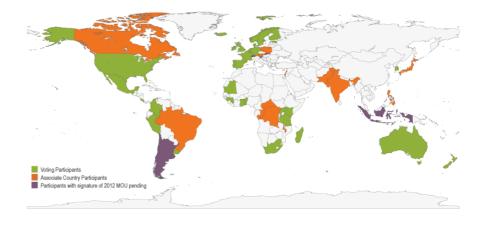


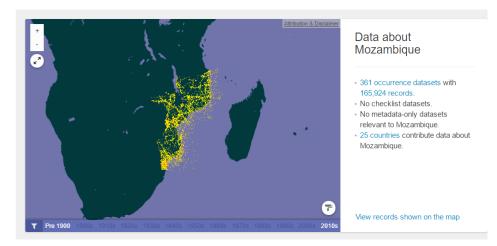
The Global Biodiversity Information Facility (GBIF) is an international open data infrastructure, funded by governments.

It provides a single point of access to hundreds of millions of records, shared freely by hundreds of institutions worldwide.

More than 1,400 peer-reviewed research publications have cited GBIF as a source of data,

Many GBIF Participant countries have set up national portals using tools, codes and data freely available through GBIF to better inform their citizens and policy makers about their own biodiversity.

















The Biological Collection Access Service (BioCASE) is a transnational network of primary biodiversity repositories. It links together specimen data from natural history collections, botanical/zoological gardens and research institutions worldwide with information from huge observation databases.

One of the main uses cases for the BioCASE Provider Software is data provision to the Global Biodiversity Information Facility (GBIF). Currently roughly 35 million specimen and observation records are fed into the GBIF network, which can be accessed and downloaded through the GBIF data portal.

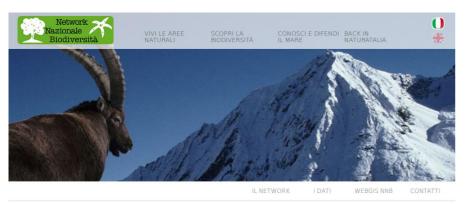






Previous experiences





Il Network | I Dati

I DATI



Italian National Biodiversity Network (NNB)









SECOSUD II











Biodiversity National Network of Albania (BioNNA)



BIODIVERSITY NATIONAL NETWORK OF ALBANIA



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Proper organization of biodiversity data and its accessibility is of great importance for the elaboration of policies and strategies, strategies, strategie assessments and identification of intervention priorities, both at global and national level. Electronic access to biodiversity information is a priority task worldwide, especially since the Earth Summit in Rio in 1992. This interest led to a strong progress in the field of Biodiversity Informatics, which produced important results, such as the creation of global federated networks of biodiversity data (the GBIIF - http://www.biocase.org/), as well as several national initiatives.

While Albania hosts a rich biodiversity heritage, the corresponding biodiversity data in the digital form is still limited mainly due to the lack of resources and an absence of the long-term vision and strategy. In the framework of the project "<u>Institutional Support to the management of Protected Areas in Albania</u>" financed by the <u>Italian Development Cooperation</u> and implemented by <u>International Union for Conservation of Nature (IUCN)</u>, the experience gained through global and local initiatives has been transferred to Albania to create an infrastructure for the standardization, integration and dissemination of national biodiversity information.

The national biodiversity data is now available through the website Biodiversity National Network of Albania (BioNNA) that represents an important point of entry for any initiative aiming to support decisions related to biodiversity conservation and ecosystem management. The BioNNA offers the information on the species occurrences through an open source Web-GIS system developed according to the standards defined by the EU INSPIRE Directive.











Conservation and equitable use of biological diversity in the SADC region

Structure and data flow





Web portal linked from MITADER website

Direct data provisioning to GBIF





Ministério da Terra, Ambiente e Desenvolvimento Rural



Data retrieval and aggregation























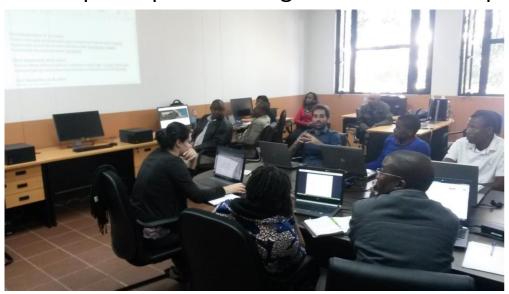






Activities – What we have done

- 3 training courses (2 introductory, 1 advanced) held at the UEM Departments of Biology and Informatics
- √ 30 participants among technicians from partner institutions and UEM students



Introductory course Round 1: Jul 21 – 29, 2016 Introductory course Round 2: Oct 20 – 28, 2016 Theory:

- Data Base Management Systems (MySQL, PostgreSQL)
- Digitalization of biological collections
- Table creation and linkage
- Data georeferencing
- Web systems to search and analyze data

Practice:

- Data analysis with Free Software
- Field data collection with Free Mobile Software
- Use of georeferenced data for mapping and management



Advanced course: Nov 22 – Dec 01, 2016







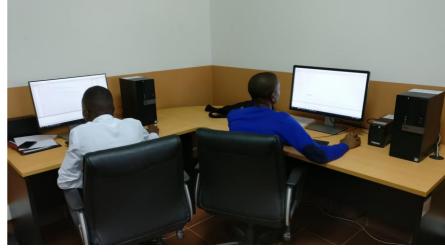


Activities – What we have done

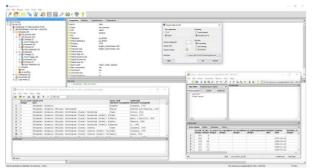
Provision of equipments and establishment of digitalization teams at partner

institutions

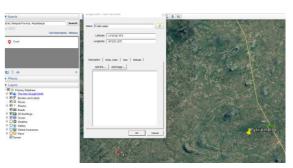




- Data digitalization, maintenance, updating and quality control
 - Georeferencing
 - > Taxonomy update
 - > Information mapping compliant with international standards (ABCD, DwC)

















Activities – What we have done



Bio No Mo Web Portal (pilot version)



DADOS PROVENIENTES DE INSTITUIÇÕES PARCEIRAS





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Activities – Next steps

- Continue uploading / updating existing field / collection data
- Improve the functionalities of BioNoMo portal
- Training local experts on the statistical analysis of biodiversity data
- Inclusion of new data providers in the network
- Linking with Southern African and International initiatives (SANBI, BioCASE, GBIF)











Thank you for your attention

