



BID-REX

Interreg Europe



European Union
European Regional
Development Fund

Capacity building for biodiversity conservation in Slovenia

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NATIONAL INSTITUTE OF BIOLOGY

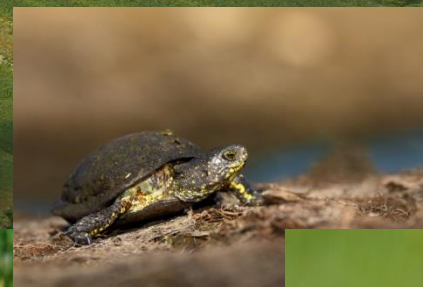
21.6.2018 | Norwich, UK

Biodiversity of Ljubljana Marsh

Do we know it?



**Giovanni A.
Scopoli
(1723-1788)**



Natura 2000 species – species of EU conservation concern

53 species (Habitat in Bird EU Directive)

14 species (Programe of measures Natura 2000)



An EU framework for biodiversity conservation!

Endemic species and species of local importance

Eurasian Curlew (*Numenius arquata*)



isolated south
European population

2/3 of global population
on Ljubljana Marsh

restricted
range species

New species of sculpin fish
(*Cottus metae* Freyhof, Kottelat, Nolte
2005)



Adriatic Marbled Bush-cricket
(*Zeuneriana marmorata*)



ENDANGERED!

Extinct species at Ljubljana Marsh

Montagu's Harrier
Circus pygargus



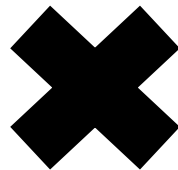
1950



Short-eared Owl
Asio flammeus



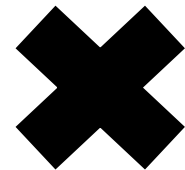
1936



Great Gray Shrike
Lanius excubitor



1912

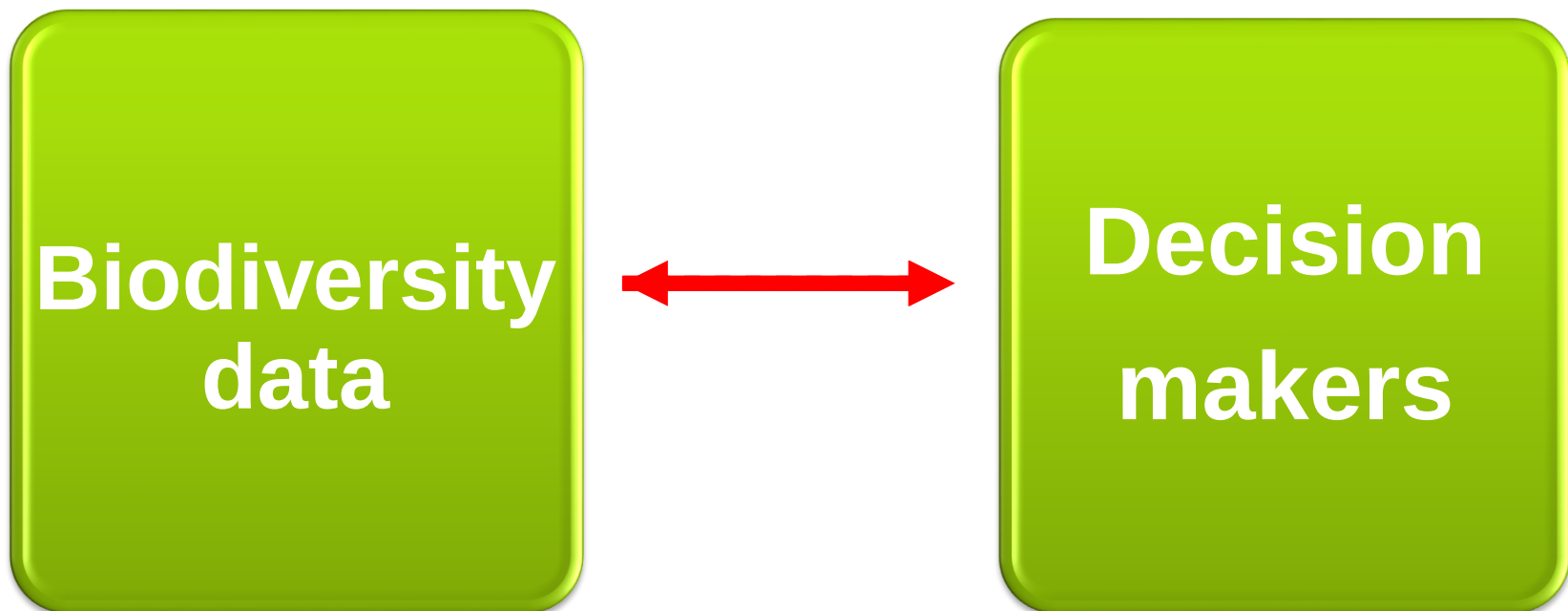


Environment is changing



SUSTAINABLE DEVELOPMENT?





Initial situation analysis

Governmental organizations

decision makers and managers

Ministry of the Environment and Spatial Planning
Directorate for the Environment - Nature Conservation Department

Environmental Agency
Nature Conservation Department
Department for Ecological Status of Water

Institute of the Republic of Slovenia for Nature Conservation

Fisheries Research Institute of Slovenia

Ljubljana Marsh Nature Park management body

7 Municipalities

Research organizations

basic and applied research

Slovenian Museum of Natural History

Slovenian Academy of Sciences and Arts

University of Ljubljana

National Institute of Biology

Slovenian Forestry Institute

NGOs & private companies

mostly inventories

BirdLife Slovenia

Centre for cartography of fauna and flora

Slovenian society for odonata

Association for the study and conservation of butterflies

Slovenian entomological society ŠM LJ

Zospeum

Societas herpetologica slovenica

Slovenian association for bat research and conservation

Slovenian native fish society

Botanical society of Slovenia

Mycological society Ljubljana

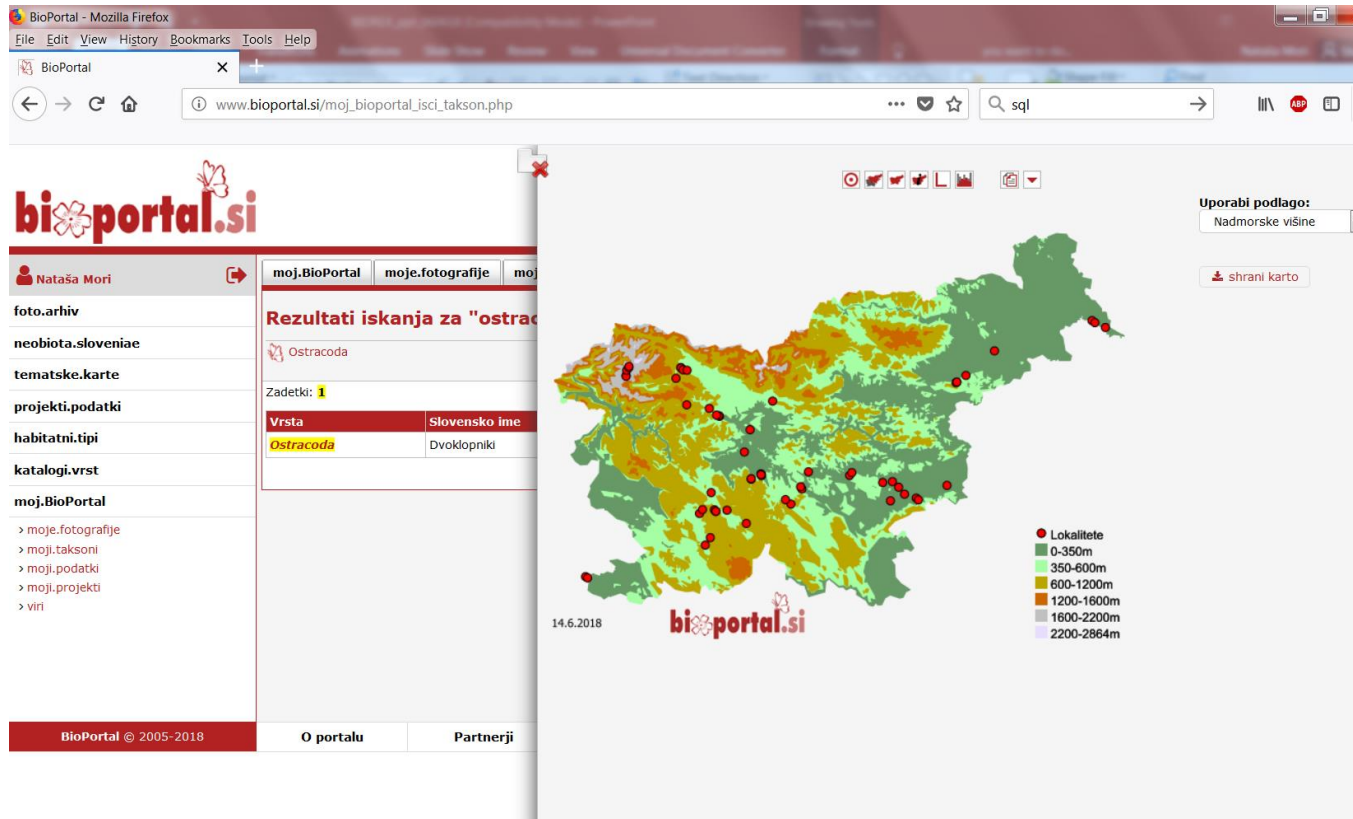
Decisions, management and conservation plans, field data collecting, data storage, monitoring

Field data collecting, data storage, development of monitoring schemes, monitoring, basic research

Field data collecting – voluntary work or subcontractors (mostly species inventories), data storage, development of monitoring schemes, monitoring

Biodiversity data

Centre for cartography of
fauna and flora



4447 species
48 000 records

	number of records
Tracheophyta	18705
Rhopalocera	8585
Aves	5163
Amphibia	3266
Coleoptera	1607
Odonata	1533
Mammalia	847
Macroheterocera	828
Hemiptera	738
Pisces	697
Reptilia	641
Chiroptera	459
Diptera	453
Bryophyta	447
Copepoda	417
Acarina	394
Hymenoptera	333
Gastropoda	326
Algae	289
Crustacea	219
Microlepidoptera	218
Araneae	163
Fungi	125
Trichoptera	124
Ostracoda	115
Isopoda	98
Annelida	87
Myriapoda	80
Siphonaptera	67
Bivalvia	58
Lichenes	57
Plecoptera	56
Oligochaeta	56
Orthoptera	55
Decapoda	40
Ephemeroptera	35
Neuropteroidea	32
Opiliones	31
Hymenoptera	30
Myxogastria	27
Collembola	27
Nemathelminthes	19

Biodiversity data

Institute of the Republic of
Slovenia for Nature

- only Natura 2000 species!
- SQL data base, access to data on request
- 400 species for Ljubljana Marsh
- 2383 localities
- Data are not updated

	number of records
Amphibia	2116
Birds	1855
Plants	1472
Butterflys	1094
Reptilia	310
Fish	263
Bats	104
Molluscs	101

For Ljubljana Marsh - A great need for central database that will be comprehended and will include updated biodiversity information!!!



Data collectors

Result of joint work of BID-REX and BioBlitz Slovenia teams in 2017:

- **122** data collectors
- **30** organizations
- 24 hours of work within 2.5 km²
- 5538 records
- 1588 species



BID-REX LSMs

4 LSMs until now

Identification of problems

- Scattered data – no central biodiversity database for Ljubljana Marsh
- Lack of taxonomists for certain groups
- Lack of funding
- Lack of communication with decision makers



1st STEP: To gather all biodiversity data for Ljubljana Marsh

Biodiversity catalogue

- 1. Common paper published in international journal (SCI)**
- 2. On-line availability – website of Regional park Ljubljansko barje**
- 3. Catalogue as a starting point for next biodiversity audit steps for nature conservation purposes**
- 4. Benefits of collaboration**
(novel approach in nature conservation, renewal of the Red list, development of new efficient guidelines for conservation management (action plan), collaboration in a consortium, publications, new possibilities of financing)



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Thank you!



www.interreg.eu/bid-rex