EBONE

European Biodiversity Observation Network: Design of a plan for an integrated biodiversity observing system in space and time

D7.2: Tested web portal for data access based on technical and functional specification and tested with the EBONE field data and EO data

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EBONE

Cooperation by sharing and viewing data and joint outputs

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Forest resources and Climate Unit

http://www.ebone.wur.nl

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EBONE

Overview

EBONE data management:

- the field database
- the data warehouse
- data analysis with Geomondrian
- meta data presentation: GeoPortal
- data presentation
  - EBONE service WFS
  - map viewer web portal

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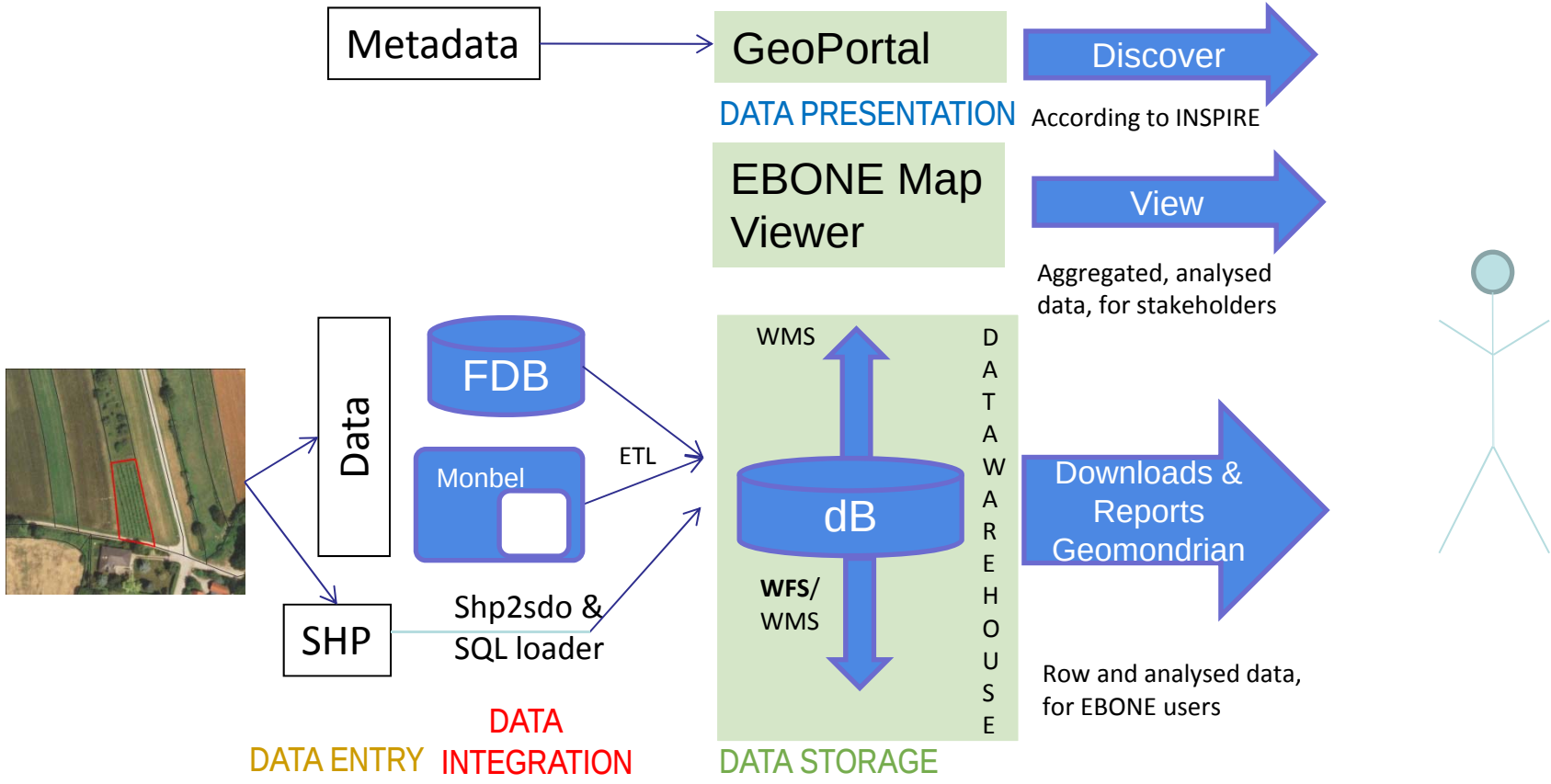
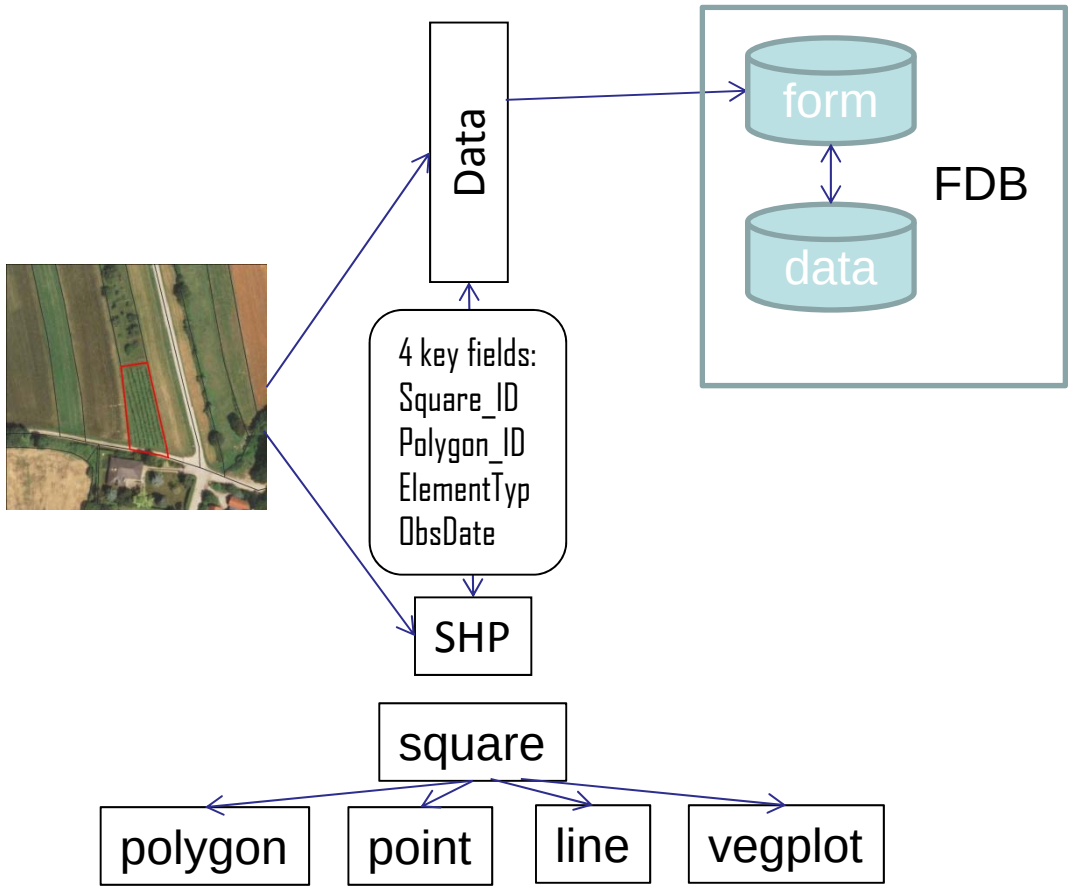
Data Management EBONE



EBONE developed a prototype with freeware and existing components

- components are not fully integrated at the moment but consistent workflow is developed
- file upload and file check done by the central data managment
- no complete framework for the implementation of the consistent data flow

The EBONE field database



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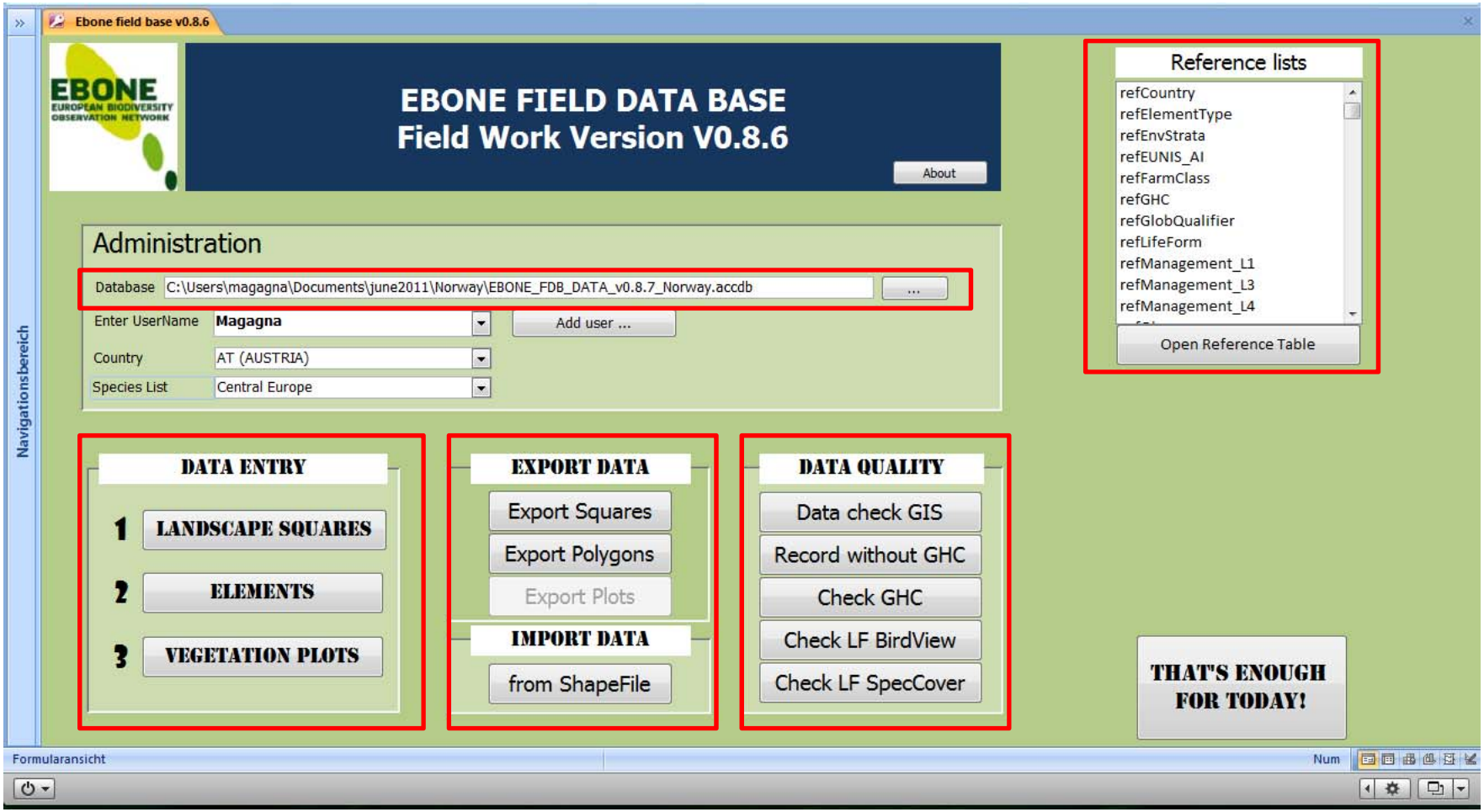
The form database



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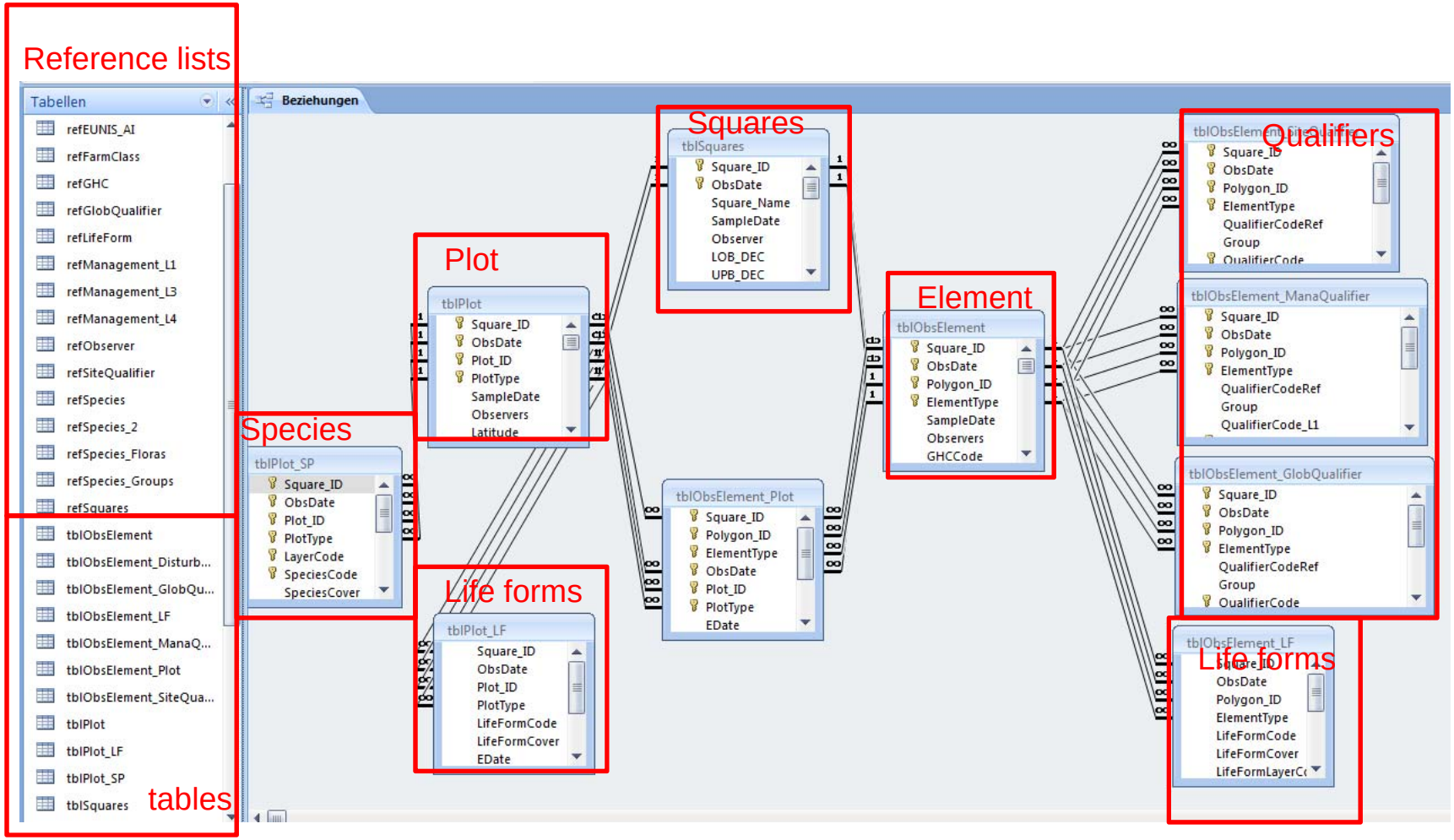
The data database ERM



The field database

1. *Draw the element on the photo*
2. *Label the element*
3. *Record the element*
   - *In the shapefile*
   - *In the database*

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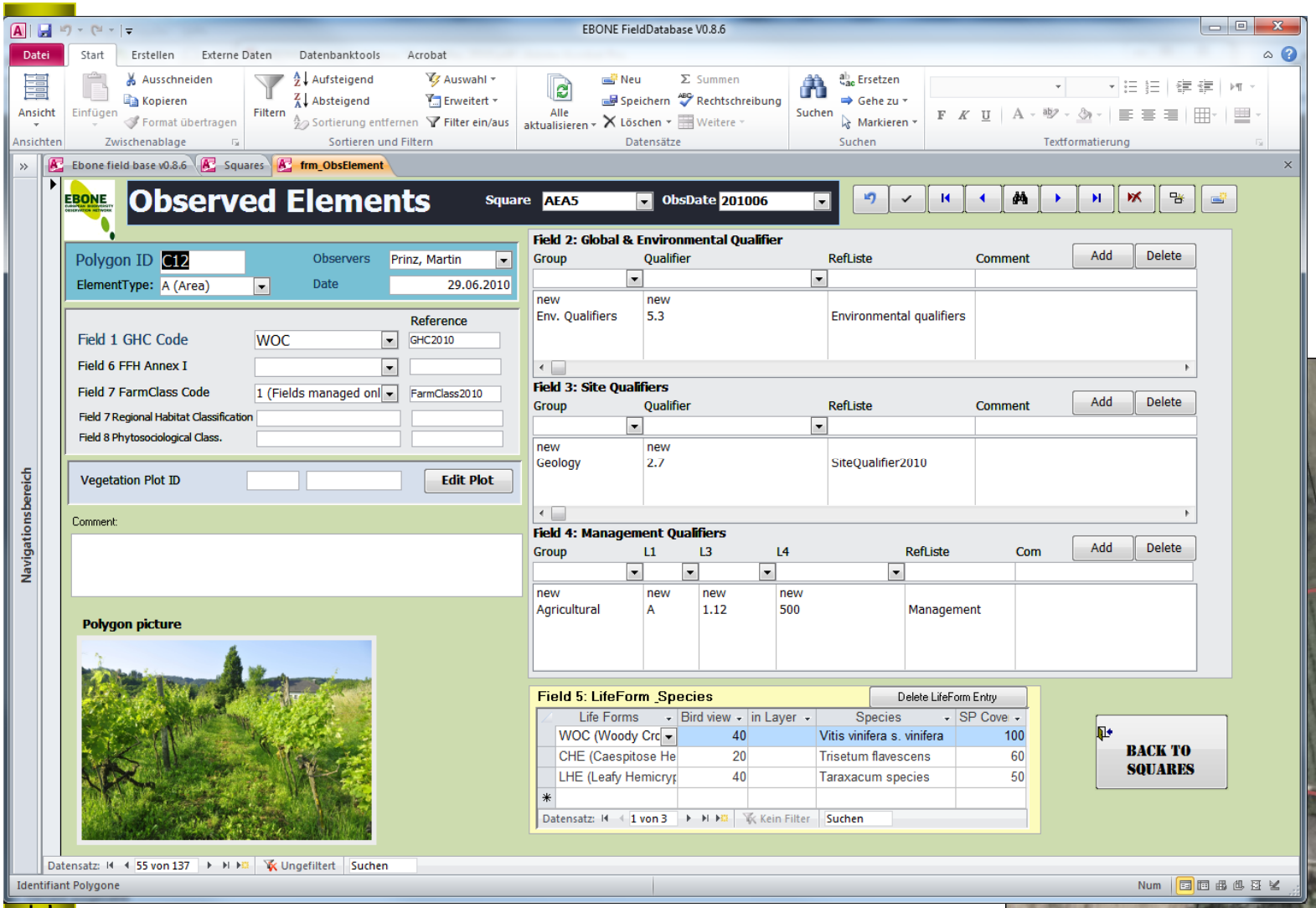

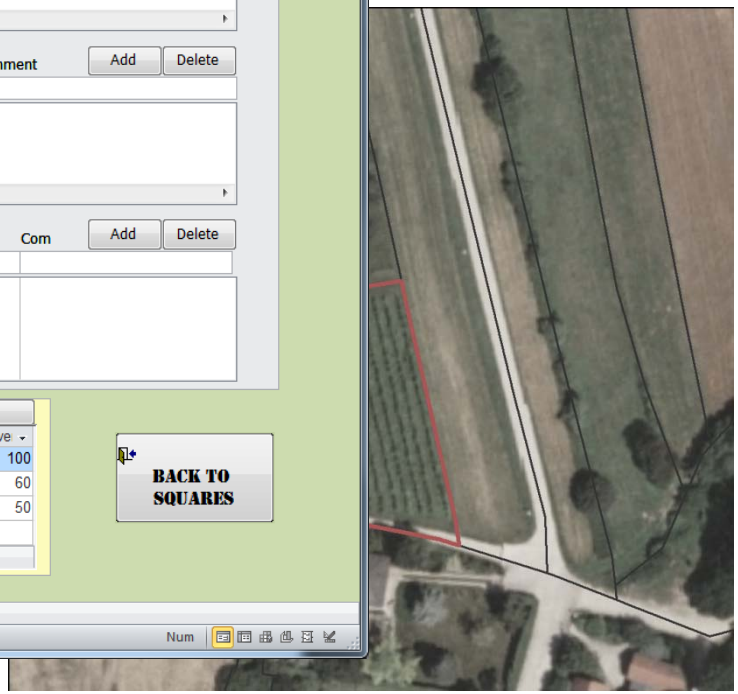

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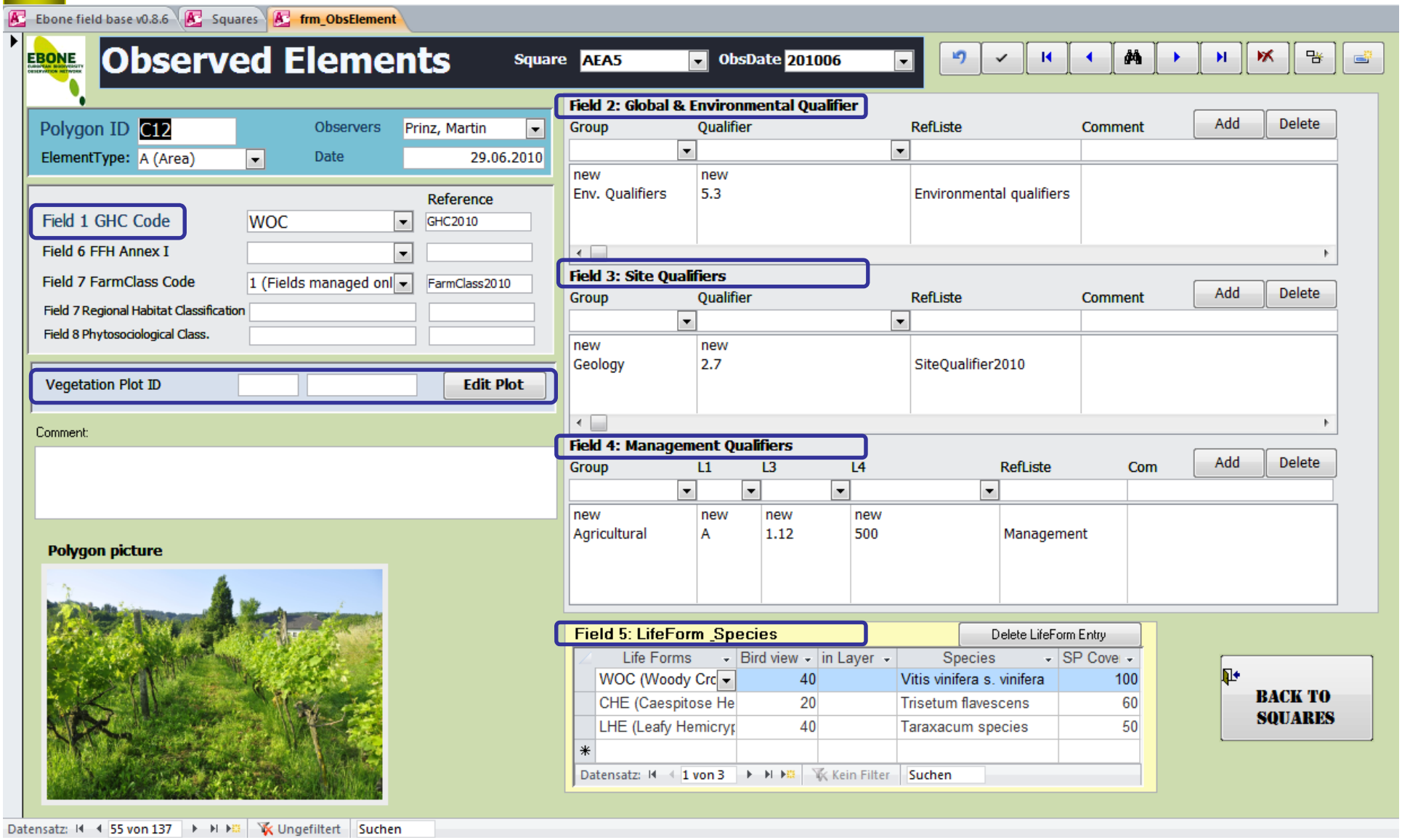
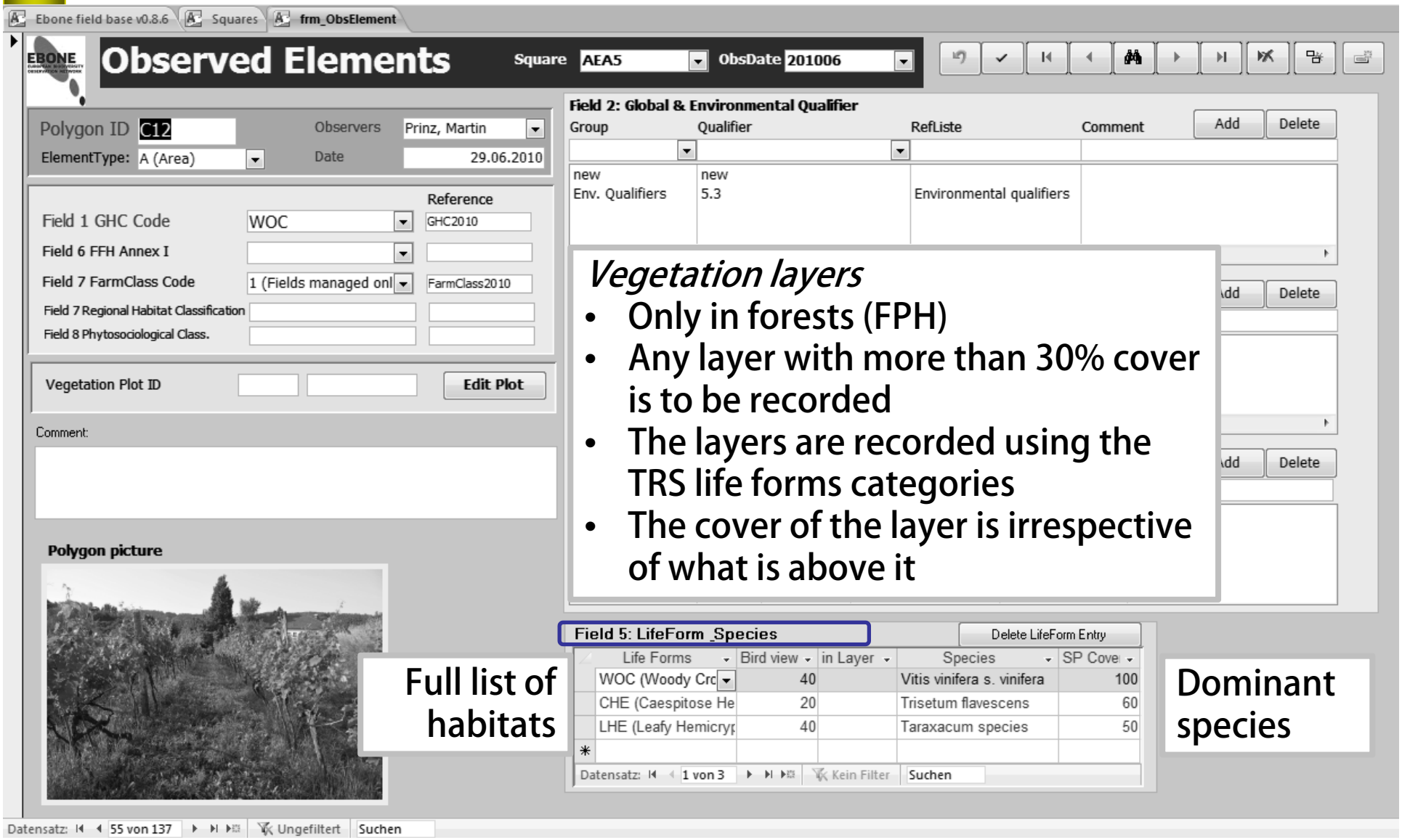
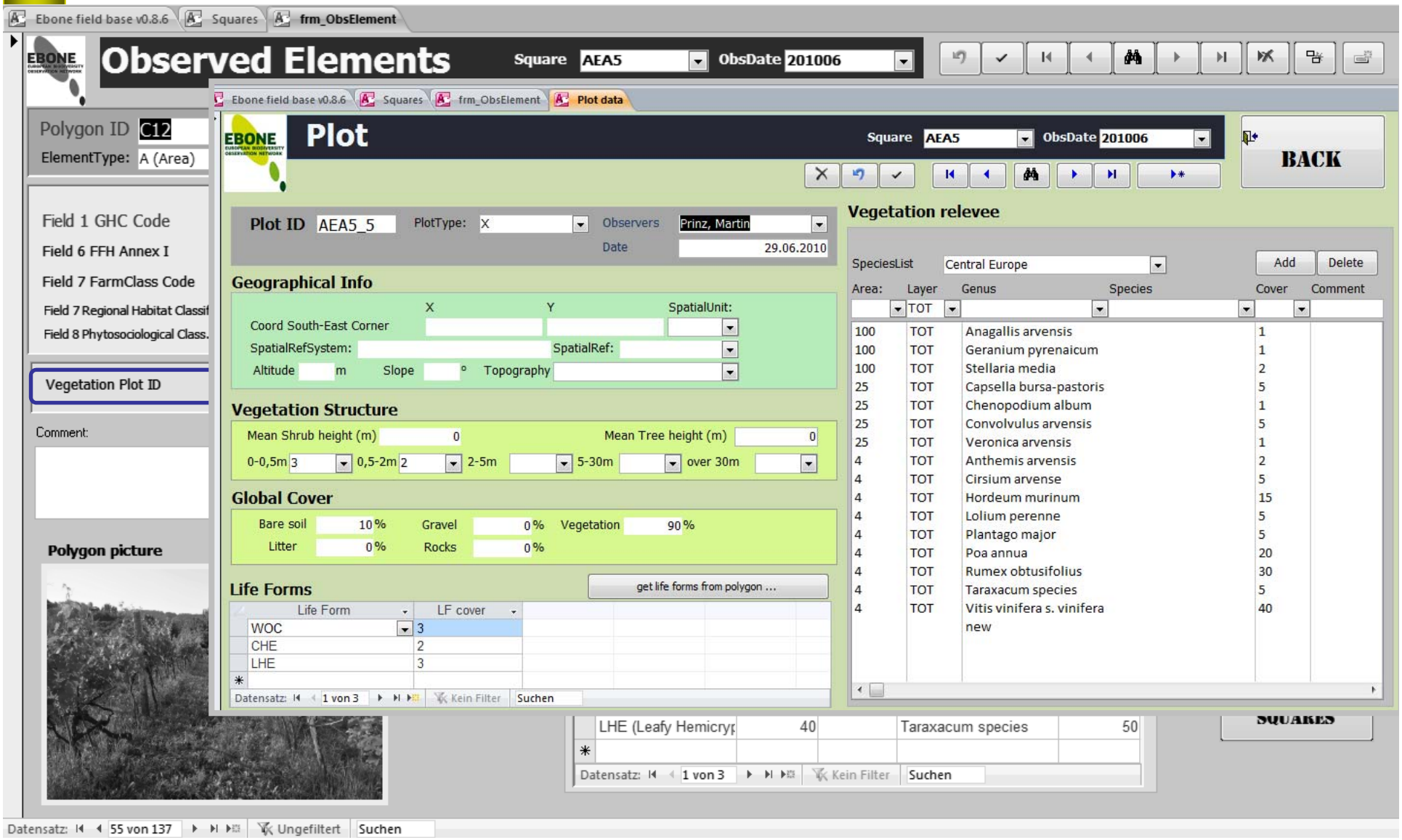
The field database



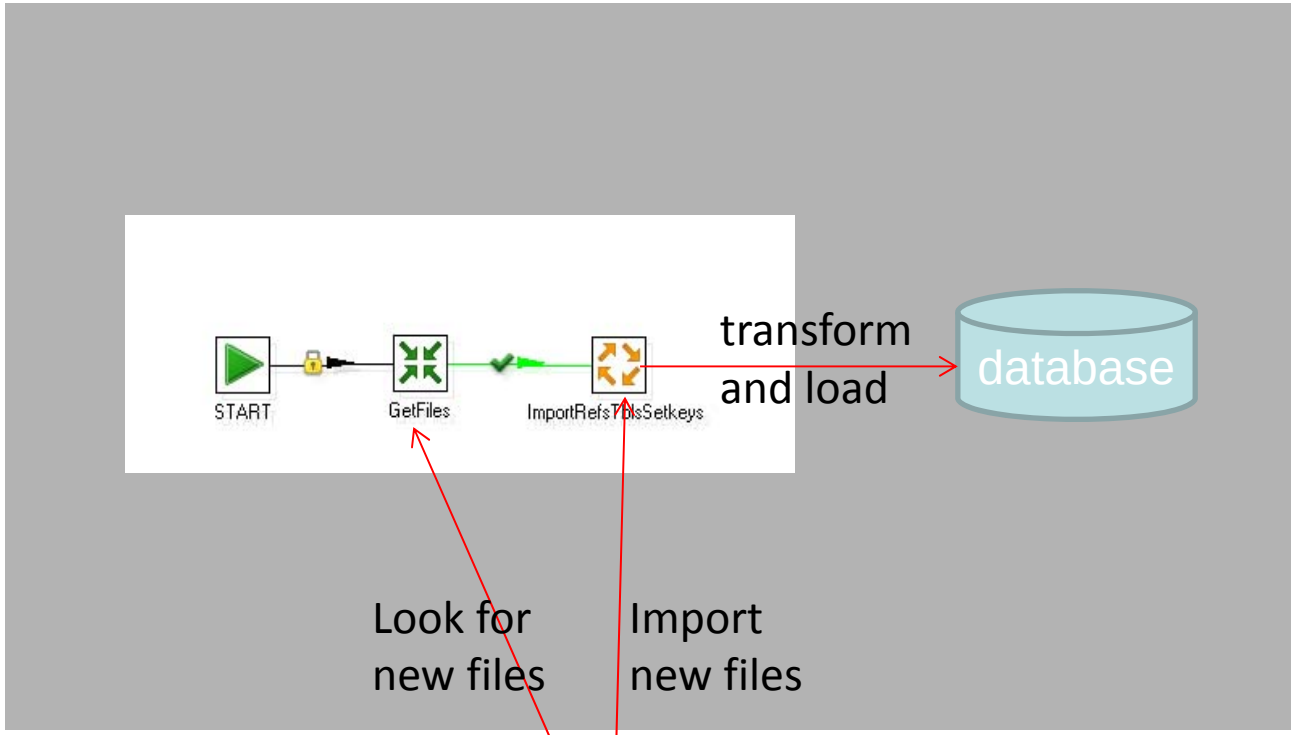
The field database



The field database



Elements of Datawarehouse



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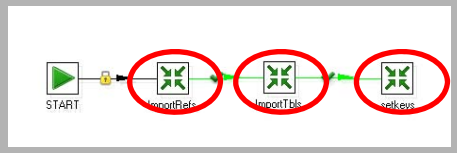
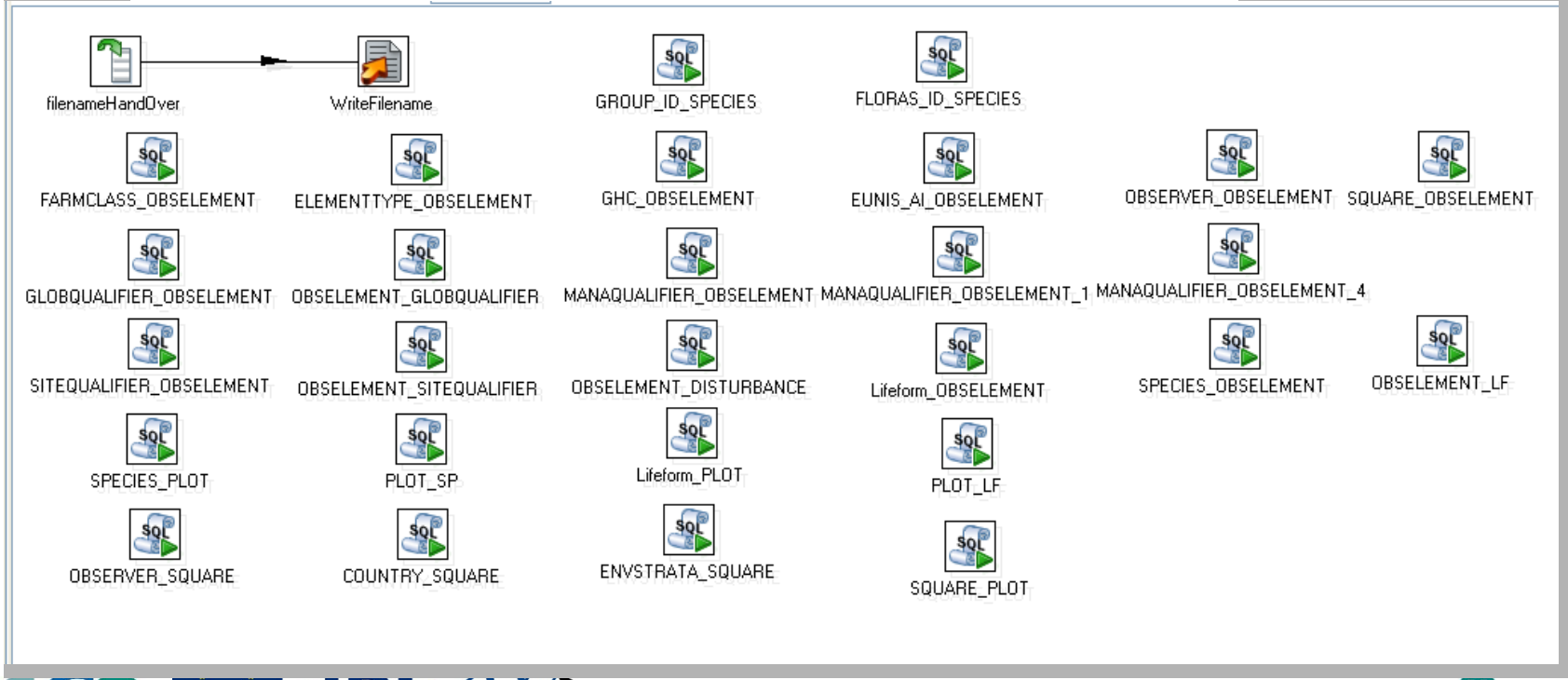
Elements in Detail





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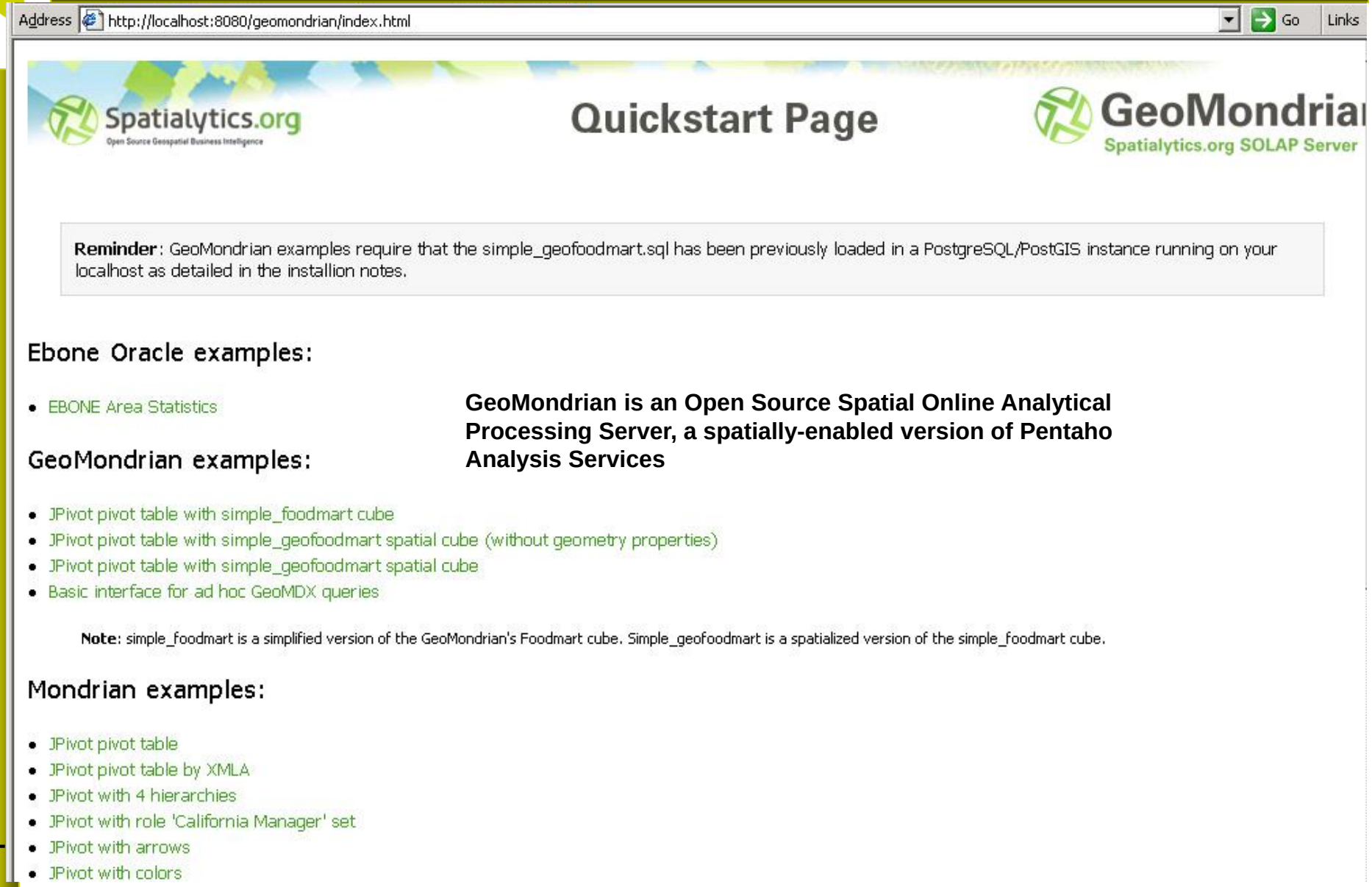

GeoMondrian is an Open Source Spatial Online Analytical Processing Server, a spatially-enabled version of Pentaho Analysis Services

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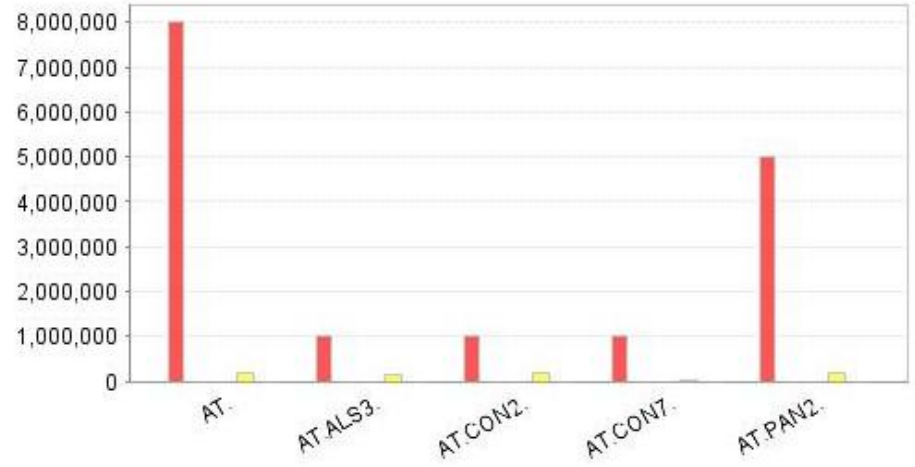
Address http://localhost:8080/geomondrian/testpage.jsp

Test Query uses EBONE data with Oracle connection

	Measures				
Squares	Total Area	Mean Area	Minimum Area	Maximum Area	Counts of Area
−AT	7,999,592	4,944	0	185,545	1,618
+ALS3	1,000,009	6,173	65	140,959	162
+CON2	999,583	5,778	0	175,071	173
+CON7	1,000,000	3,067	0	38,984	326
+PAN2	5,000,000	5,225	15	185,545	957

Slicer:



Slicer:

Total Area. Mean Area. Minimum Area. Maximum Area. Counts of Area.

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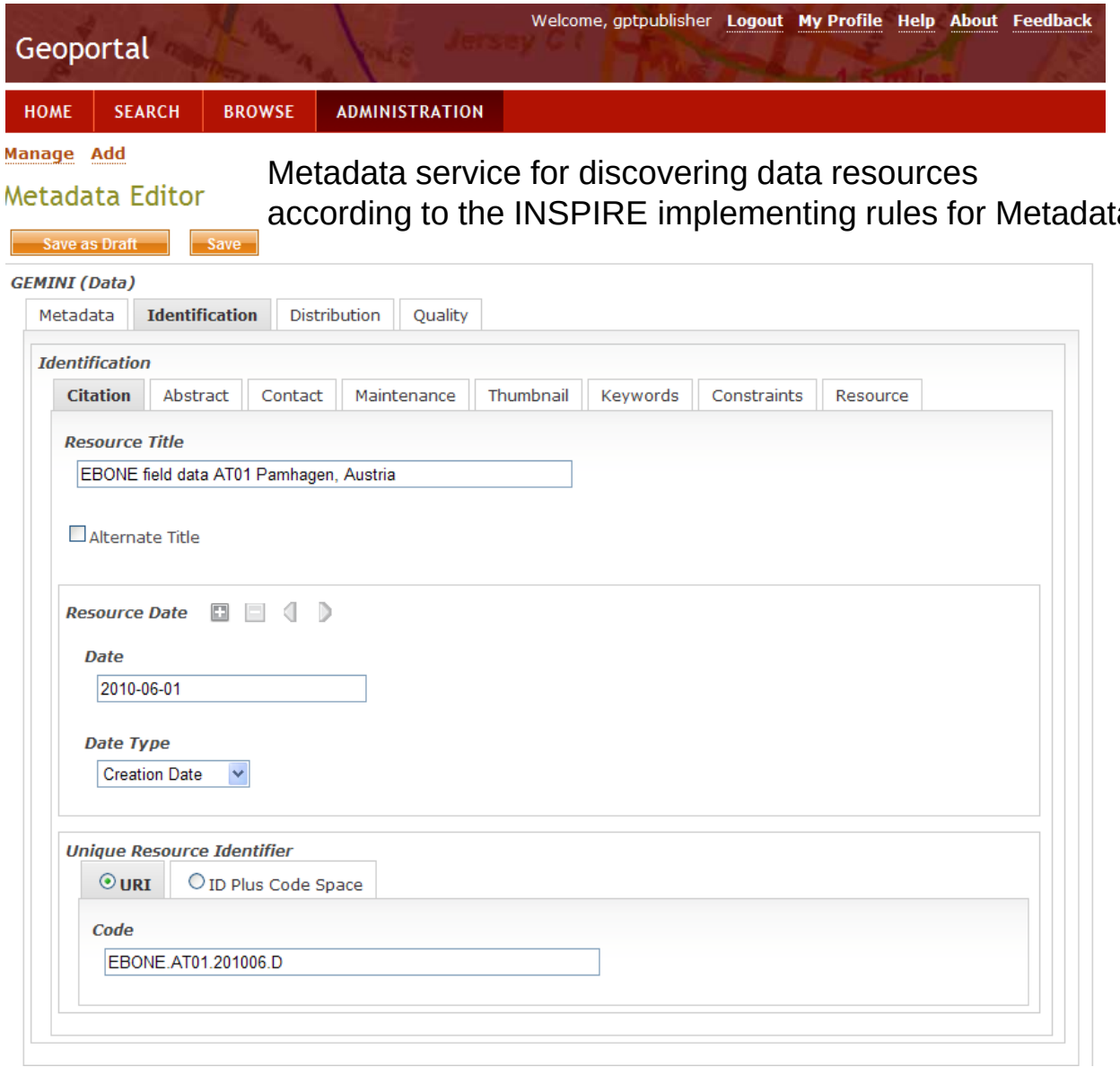

Metadata service for discovering data resources according to the INSPIRE implementing rules for Metadata

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Geoportal

Welcome, gptadmin Logout My Profile Help About Feedback

HOME SEARCH BROWSE ADMINISTRATION

Details Review Relationships

https://secure.umweltbundesamt.at/geoportal

EBONE field data AT01 Pamhagen, Austria

Metadata

File Identifier: EBONE.AT01.201008.MD
Metadata Language: English
Resource Type: Dataset
Responsible Party:
Organisation Name: Umweltbundesamt GmbH
Role: Point Of Contact
Contact Info:
E-Mail Address: barbara.magagna@umweltbundesamt.at
Metadata Date: 2012-03-07
Metadata Standard Name: UK GEMINI
Metadata Standard Version: 2.1

Data Identification

Abstract: Habitat mapping data based on life forms collected during the EBONE field compaign 2010/2011. The method is based on the General Habitat Category (GHC) concept where a habitat is defined as an element of land that can be consistently defined spatially in the field in order to determine the principal environments in which organisms live. The GHC approach is mainly based on Life Forms (Raunkiaer, 1934), qualifiers on environment, site, management and species composition, 140 GHC containing Life Form and Non-Life Form habitats e.g. sparsely vegetated land, rocks, bare ground, ...) and a lowest common denominator for each mapped unit.
Language: English
Citation:
Title: EBONE field data AT01 Pamhagen, Austria
Date:
Date: 2010-06-01
Date Type: Creation Date
Identifier: EBONE.AT01.201006.D
Point Of Contact:
Individual Name: Prinz, Martin
Organisation Name: University of Vienna
Role: Originator

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EBONE: OGC Spatial WFS

- Mapping data are published as OGC WFS (web feature service)
  - which can be used in any standard GIS client, e.g. Quantum GIS, ArcGIS, or web portal
- WFS provides spatial data as vector format. Spatial operations can be applied (e.g. intersect).

- Specification
  - Server: ArcGIS Server 10.0
  - Version: OGC WFS 1.1.0
  - Supported operations
    - GetCapabilities – summarises the content of the WFS service (e.g. possible operations and defined layers)
    - DescribeFeatureType
    - GetFeature

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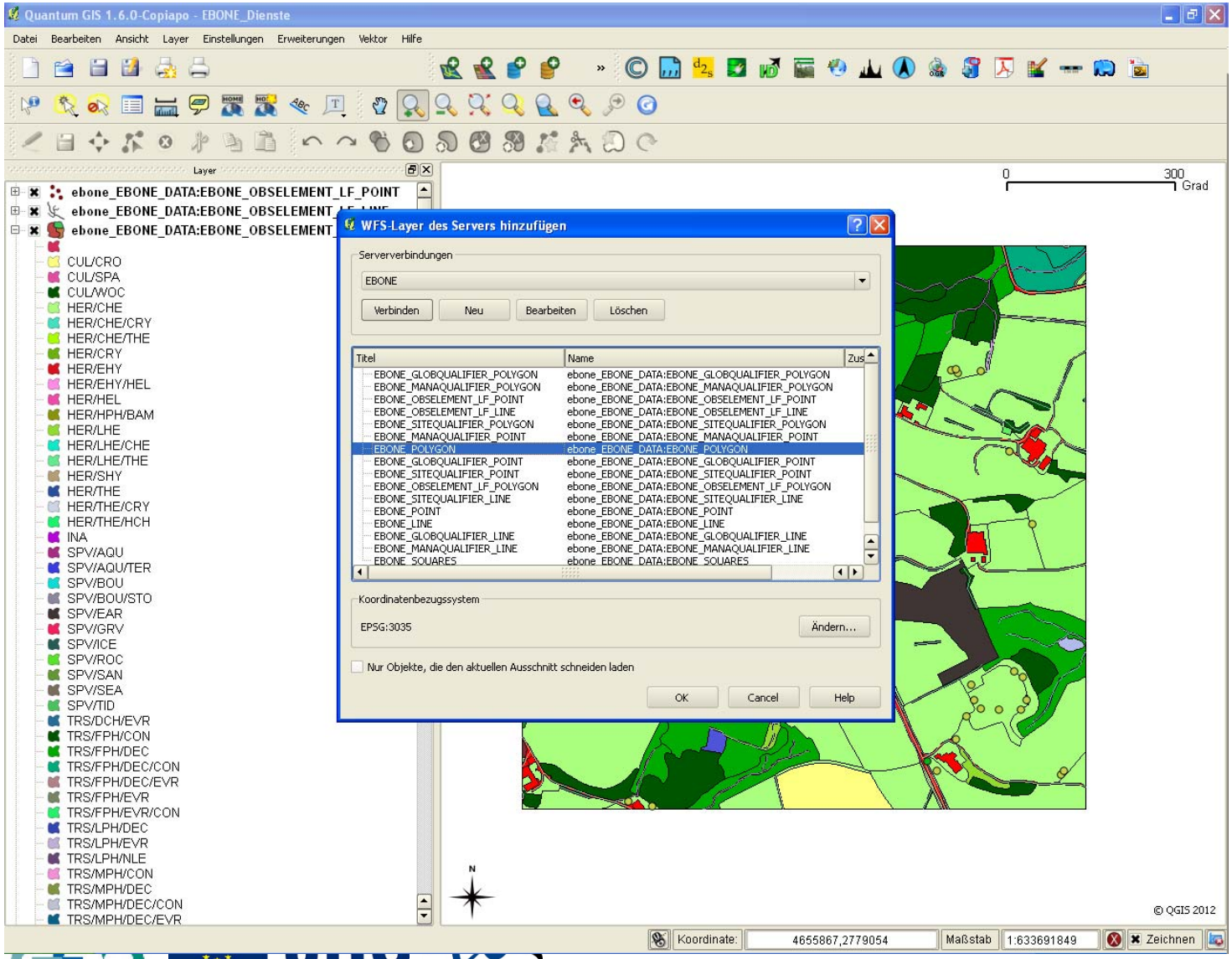
EBONE OGC Spatial WFS

Data provided via …/ebone/mapping/… - mapping results during the field campaign 2010/2011

- **Basic spatial data**
  - EBONE_SQUARES: outline of the mapped squares
  - EBONE_POLYGON: mapped elements only with identifier information
  - EBONE_LINE: mapped linear elements only with the identifier information
  - EBONE_POINT: mapped point elements only with the identifier information
- **Thematic data**
  - EBONE_OBSELEMENT_LF_POLYGON, _LINE, _POINT: observed characteristics on the level of the landscape element (e.g. GHC, EUNIS, FarmClass, etc.) including the LifeForm information (cross tabulated)
  - EBONE_GLOBQUALIFIER_POLYGIN, _LINE, _POINT: observed global qualifiers for the landscape element (cross tabulated)
  - EBONE_SITEQUALIFIER_POLYGON, _LINE, _POINT: observed site qualifiers for the landscape element (cross tabulated)
  - EBONE_MANAQUALIFIER_POLYGN, _LINE, _POINT: observed management qualifiers for the landscape element (cross tabulated)

Connection to the EBONE Spatial WFS

https://secure.umweltbundesamt.at/spatial-ws/ebone/mapping/GeoDataServer/WFSServ



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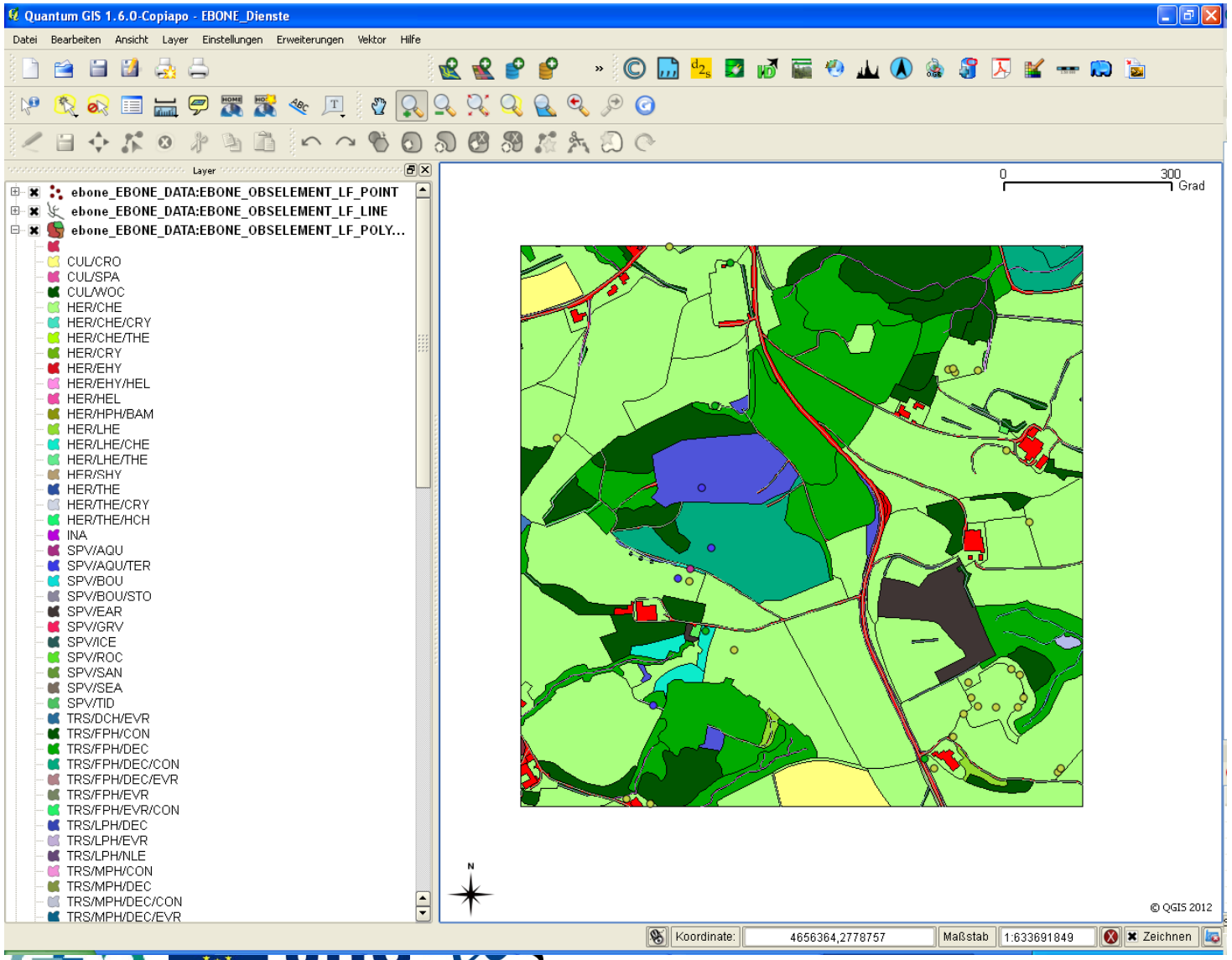
Connection to the EBONE Spatial WFS

https://secure.umweltbundesamt.at/spatial-ws/ebone/mapping/GeoDataServer/WFSServ



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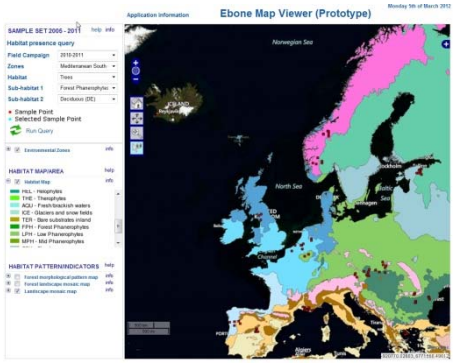

Data presentation component of the EBONE data management system

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Forest resources and Climate Unit
http://forest.jrc.ec.europa.eu

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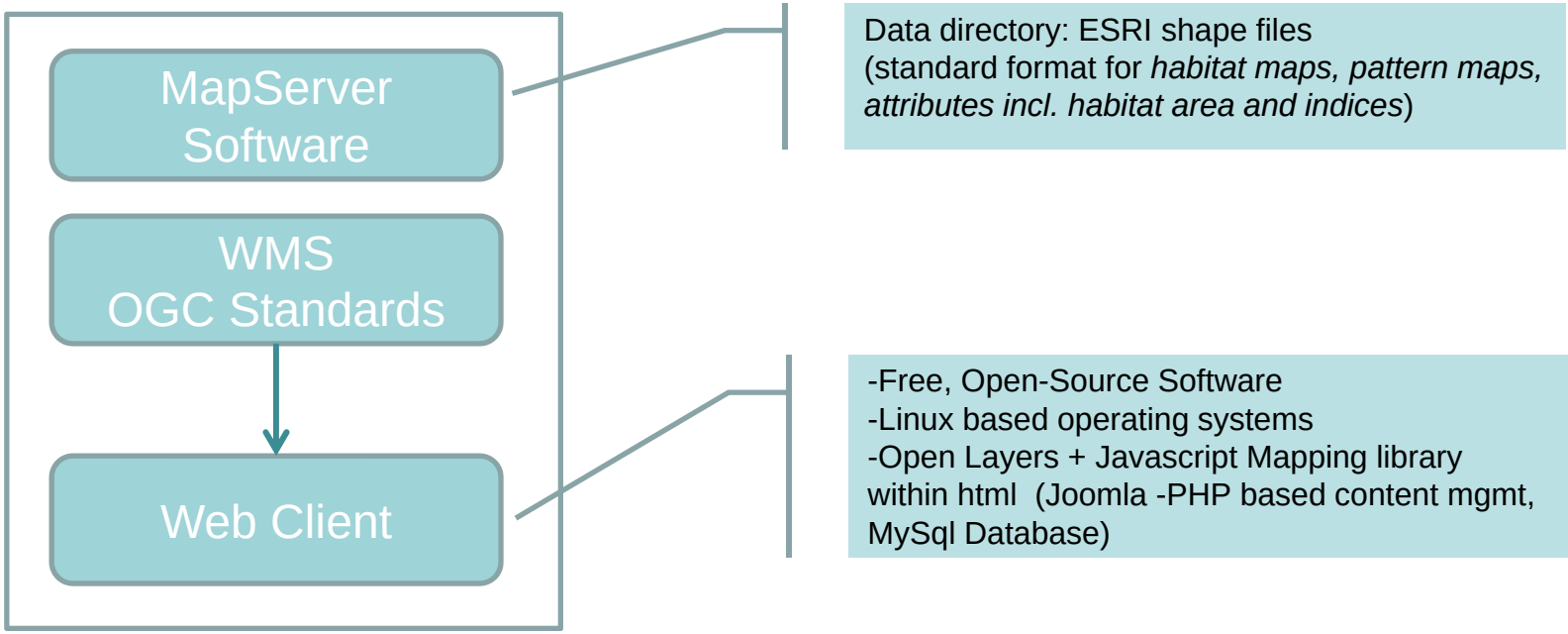
http://www.ebone.wur.nl

Prototype map viewer web portal (beta version): http://forest.jrc.ec.europa.eu/ebone allows to

- view the location of EBONE field squares ('historical' campaign -66 samples- and 2010-11 new campaign 91 samples)
- view habitat maps and query the presence and extent (area) of habitats per sample and per environmental zones,
- view habitat pattern maps and query indices on pattern and connectivity.



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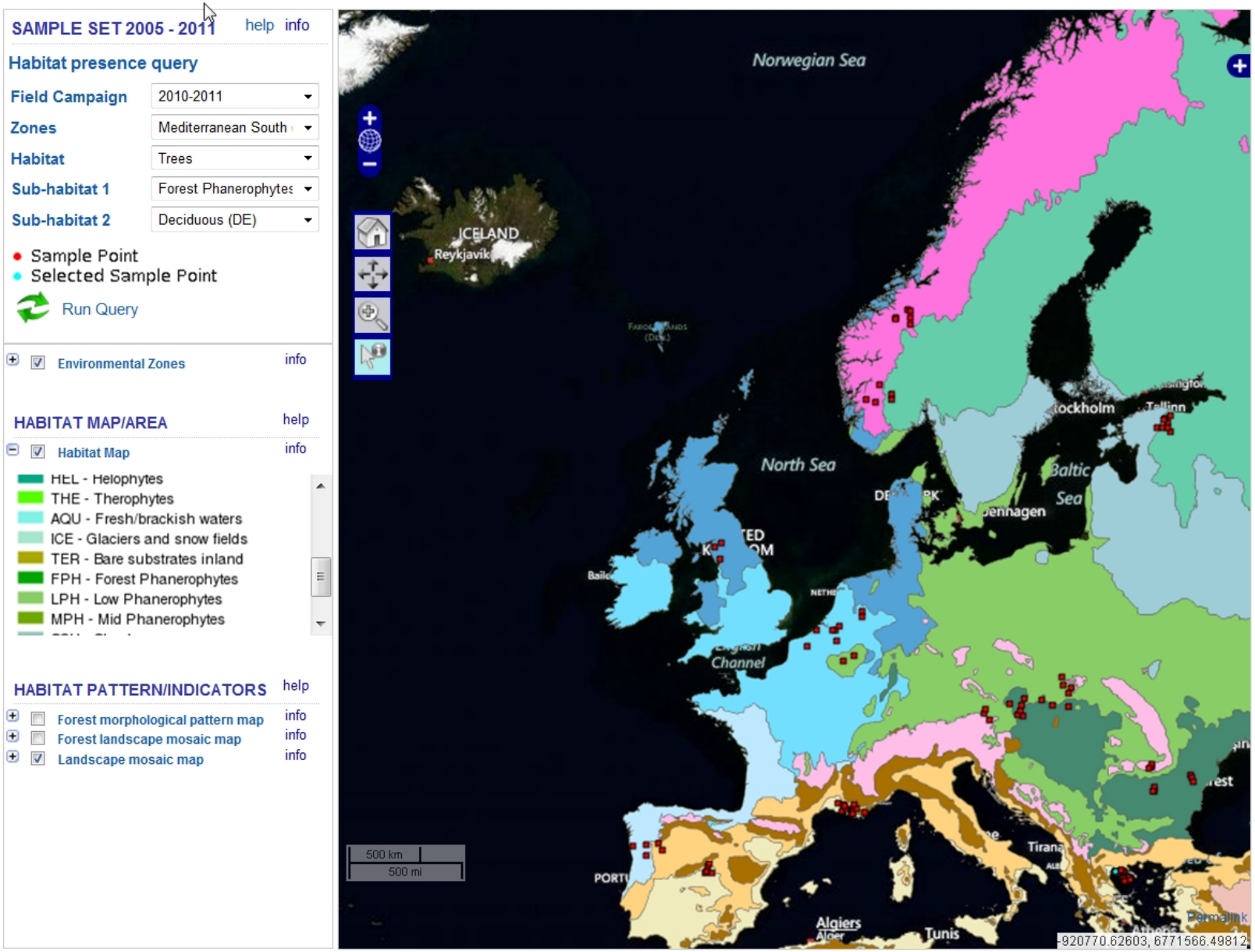
First page view

Application information

Monday 5th of March 2012

Ebone Map Viewer (Prototype)



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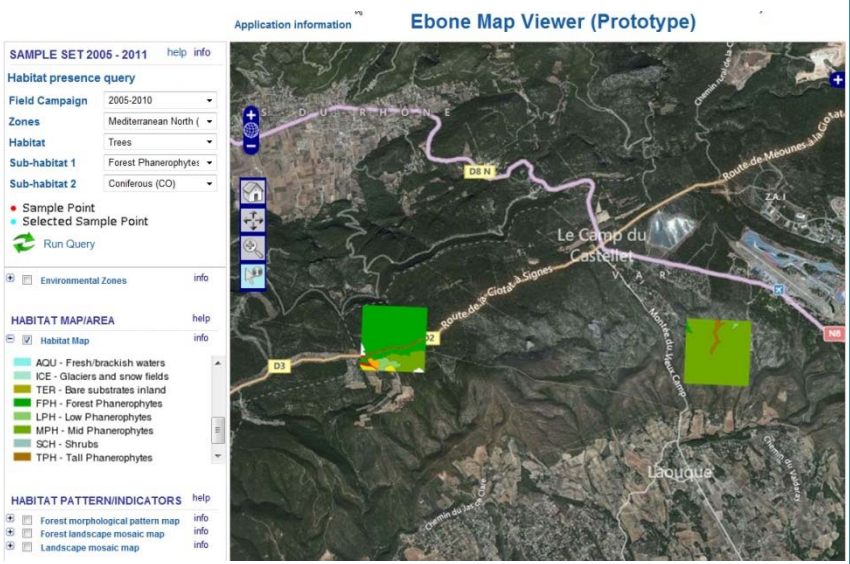
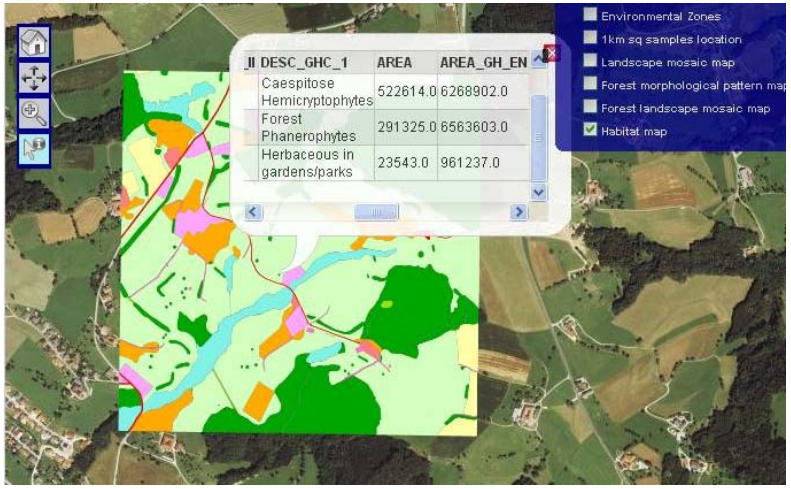
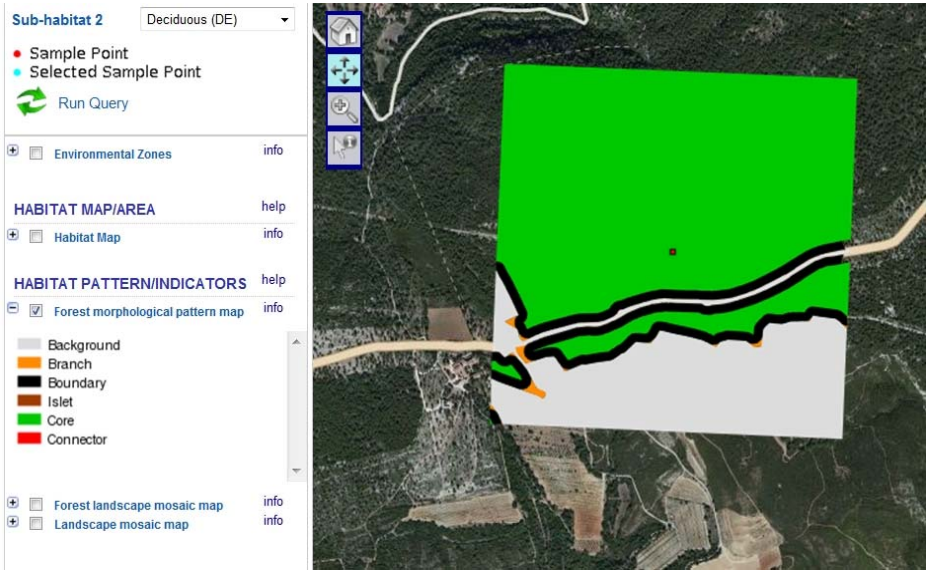
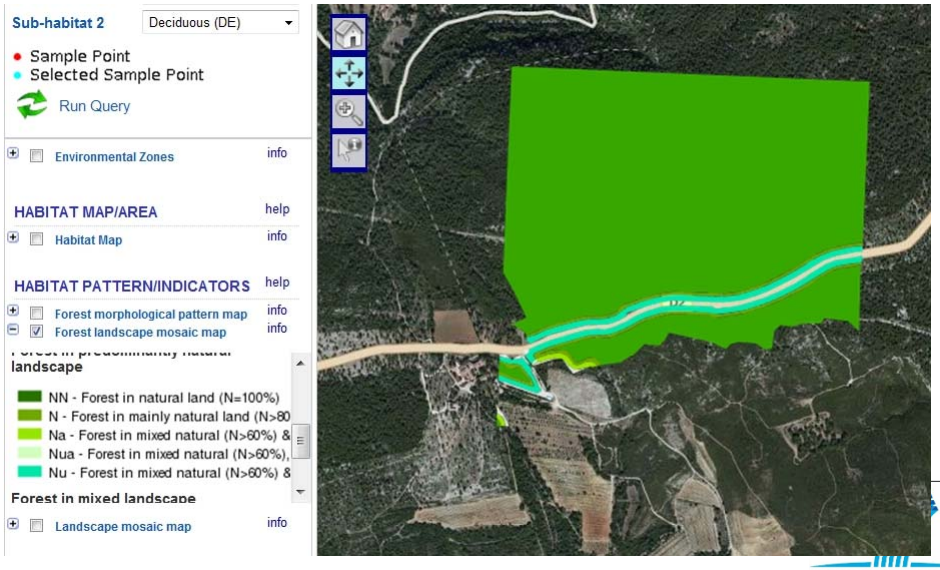
Habitat presence query and view habitat maps





View habitat pattern maps





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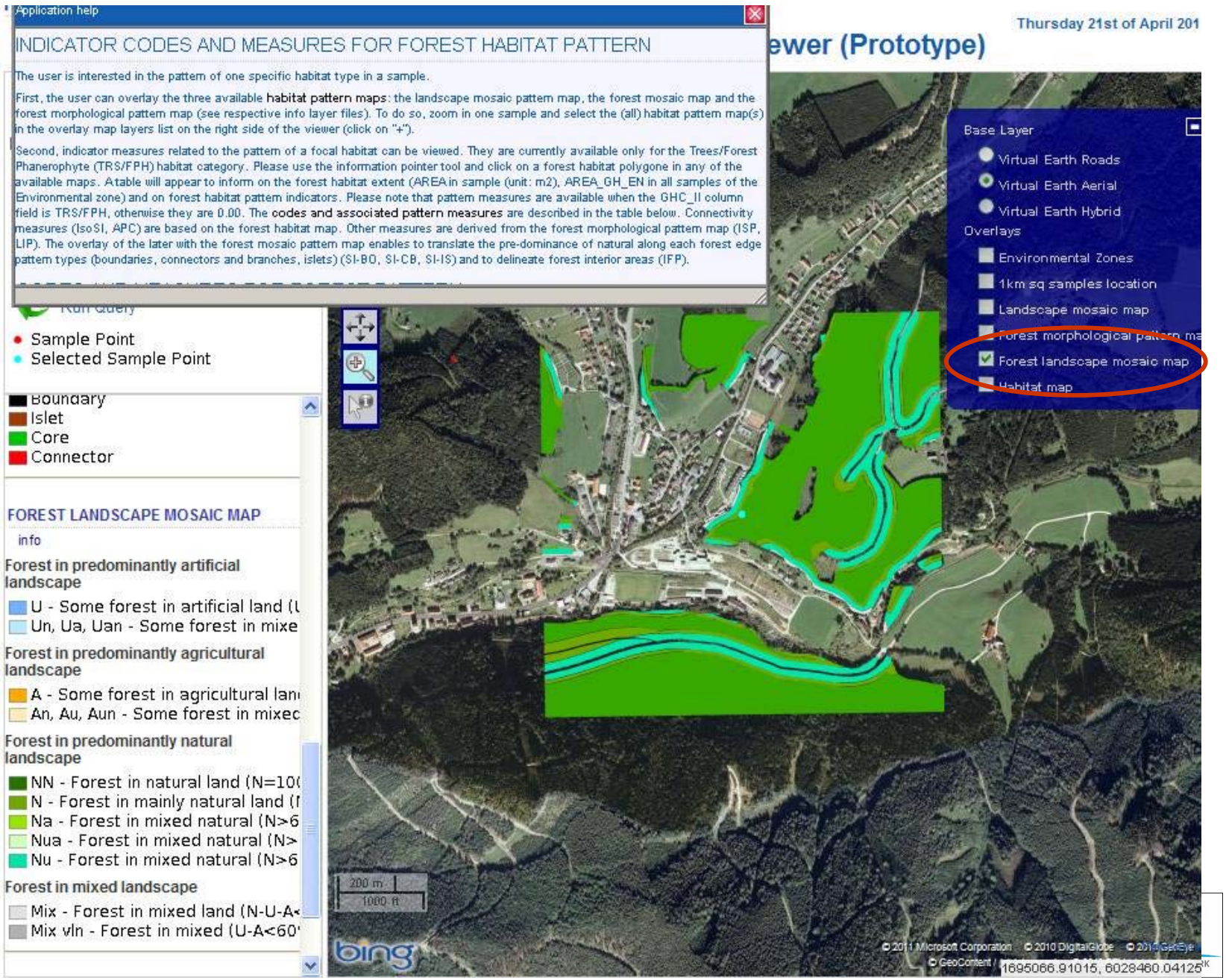
View the 'forest landscape mosaic' pattern map and click on HABITAT PATTERN/INDICATOR help



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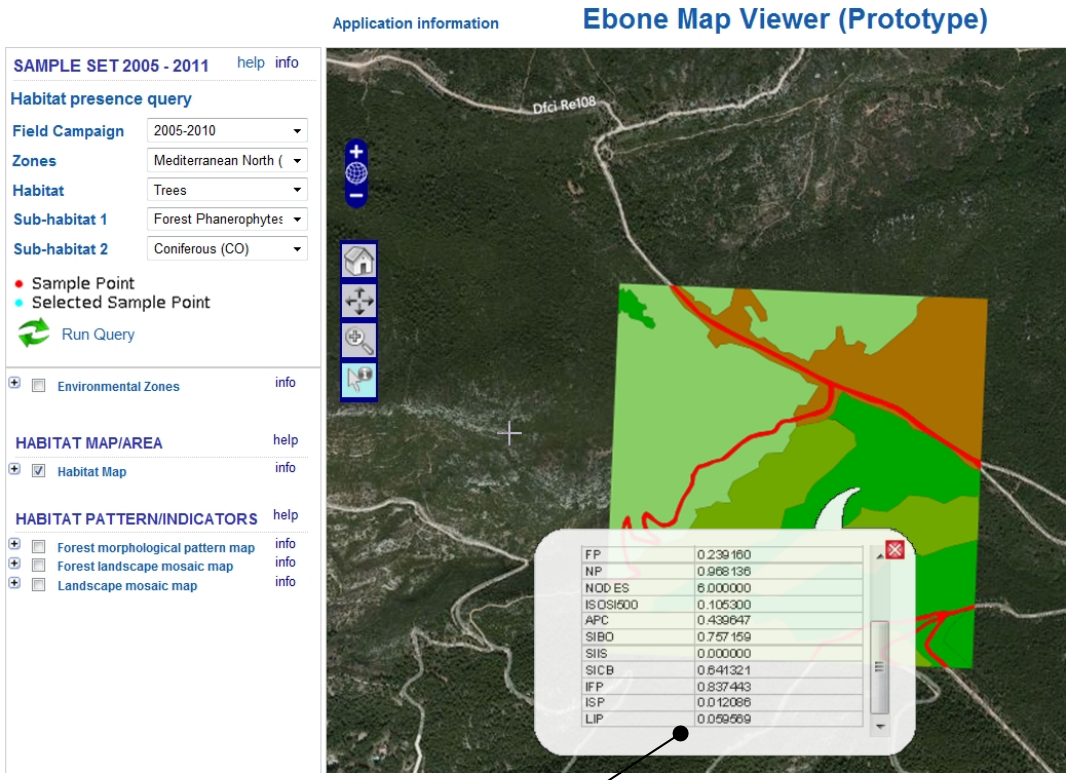
View habitat map and query (FPH) habitat area and pattern indices

Habitat area in sample (m2)
Habitat area in samples of Environmental Zone (m2)



FP: forest share in sample
NP: natural habitat share
NODES: Number of forest patches

<u>Connectivity</u> (species dispersal 500m)
IsoSI500: inter and intra-patch connectivity, matrix friction
APC: inter-patch landscape permeability (proxy)

<u>Habitat morphology and landscape mosaic surroundings</u>
SI-BO , SI-IS, SI-CB: forest boundaries along natural/semi-nat habitats
IFP, ISP, LIP: forest in interior area of patches, in islets, in linear elements

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