



From the map browser to multi-source data integration for ecosystem monitoring

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with contributions by UNSW, EURAC, CSIC, UFZ, DLR, ESL, CERTH, FORTH, BGU, CSIR, ISPRA, UAB, EAA, TdV, Deltares, Starlab, MLU, UPS, UNS





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This project has received funding from the *European Union's Horizon 2020 research and innovation programme* under grant agreement No 641762

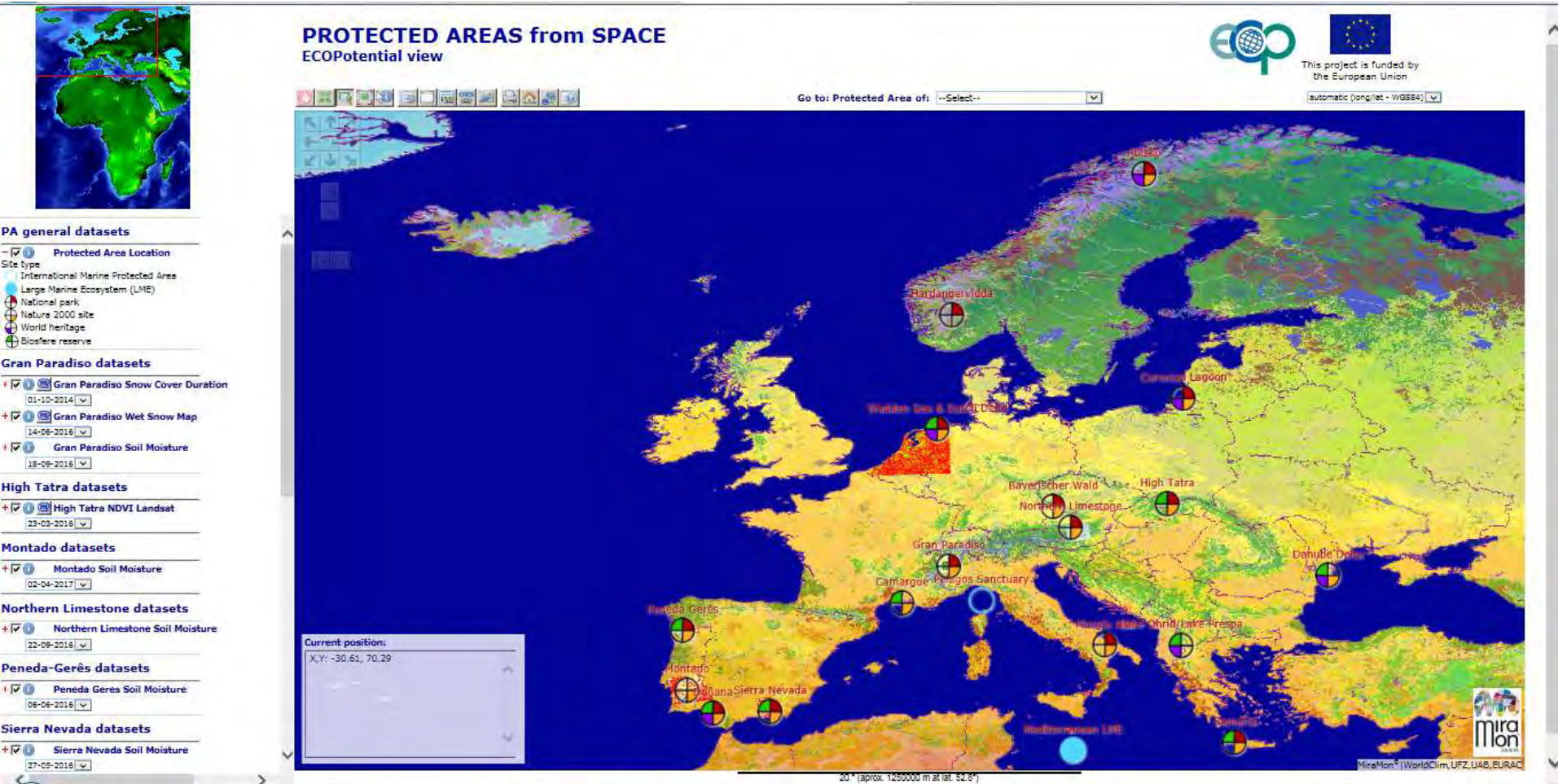


SPACED Workshop: Using Earth Observations to Protect Natural Landscapes. Brussels 10.01.2018



<http://maps.ecopotential-project.eu/>





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PROTECTED AREAS from SPACE
ECOPotential view

Go to: Protected Area of:

- Select--
- Alaska
- Bayerischer Wald
- Carnegie
- Curonian Lagoon
- Danube Delta
- Doñana National Park**
- Gran Paradiso National Park
- Har HaNegev
- Hardangervidda
- High Tatras Mountains
- Kruger National Park
- La Palma Island
- Lake Ohrid and Prespa
- Montado
- Murgis Alts
- Northern Limestone National Park
- Paraiso-Gerês
- Samaria
- Sierra Nevada National Park
- Swiss National Park
- Wadden Sea and Dutch Delta

PA general datasets

Protected Area Location

Site type

- International Marine Protected Area
- Large Marine Ecosystem (LME)
- National park
- Nature 2000 site
- World heritage
- Biosphere reserve

Doñana datasets

Doñana Limits

Doñana Global Bare Ground Circa 2010

%

| | | | |
|----|----|----|----|
| 3 | 26 | 53 | 76 |
| 8 | 33 | 58 | 83 |
| 13 | 38 | 63 | 88 |
| 18 | 42 | 68 | 93 |
| 23 | 46 | 73 | 98 |

Doñana Hydroperiod

total days an area is covered by water within the period from 2 to 20/12/2016

| | | | |
|----|-----|-----|-----|
| 16 | 101 | 192 | 283 |
| 26 | 119 | 210 | 301 |
| 46 | 137 | 228 | 319 |
| 65 | 154 | 247 | 338 |
| 83 | 174 | 265 | 356 |

Doñana Hydroperiod Seasonality

Doñana LULC

Land use/cover

- Artificial Surface
- Cultivated Aquatic Vegetated
- Cultivated Terrestrial Vegetated
- Natural Aquatic Vegetated
- Natural Surface
- Natural Terrestrial Vegetated
- Natural Water

Pheno Metrics Product (MODIS)

- Method DLogistic, Aqua
- Method DLogistic, Terra
- Method LinIP, Aqua
- Method LinIP, Terra

Montado datasets

Montado Limits

Current position:
X,Y: -6.53, 37.66

0.5° (approx. 40000 m at lat. 37.0°)



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Consulta - Internet Explorer
http://www.ogc3.uab.cat/ECOPotential2/consulta_de_cop.htm

Point X,Y: 4.72, 43.43

Protected Area Location

PA name: Camargue
More information: <http://www.ecopotential-project.eu/2016-05-24-14-52-12/protected-areas/29-camargue>
Picture:



Abstract: The Tour du Valat (TdV) is a private research centre located on a 2 600 ha estate (of which 1 800 ha are classified in natural reserve) in the Camargue (Rhône delta), south of France. Created in 1954 and legally recognised as a non-profit-making association, it has set itself the mission to halt and reverse the destruction and degradation of Mediterranean wetlands and their natural resources, and promote their wise use.

National park:

PA Datasets

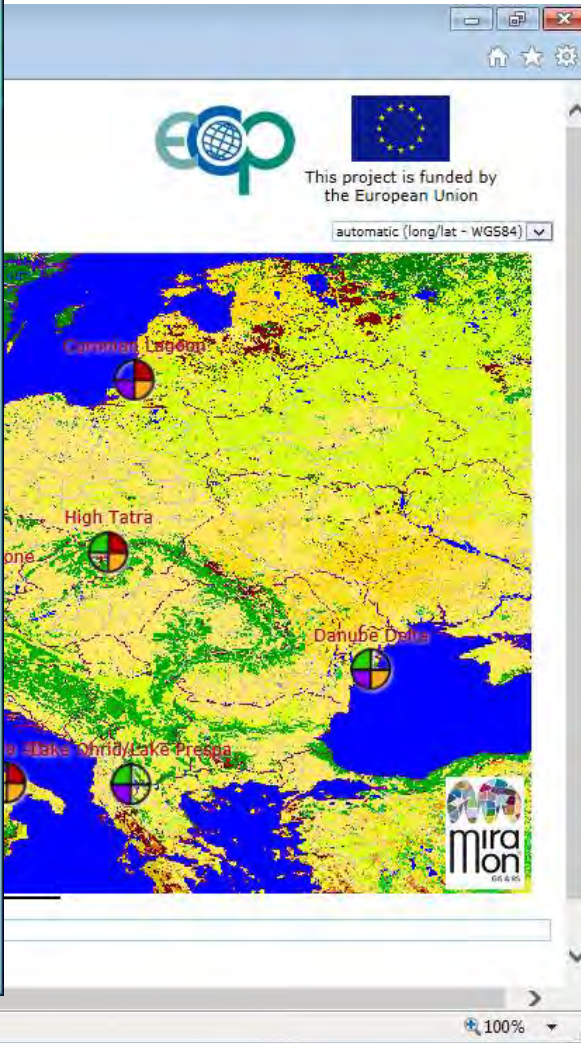
Protected Area Location

Site type

- International Marine Protected Area
- Large Marine Ecosystem (LME)
- National park
- Natura 2000 site
- World heritage
- Biosphere reserve

Reference datasets

- Zero level boundaries (coastline)
- First level boundaries (land cover)
- Land Cover GLCC 30"
- International Geosphere Biosphere Programme
- USGS Land Use/Land Cover System
- Simple Biosphere Model
- Simple Biosphere 2 Model
- Biosphere Atmosphere Transfer Model
- Vegetation Lifeforms
- Blue Marble 2002



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automatic (long/lat - WGS84)


Mira

Consulta - Internet Explorer
http://www.ogc3.uab.cat/ECOPotential2/consulta_de_cop.htm

Point X,Y: 23.97, 35.40

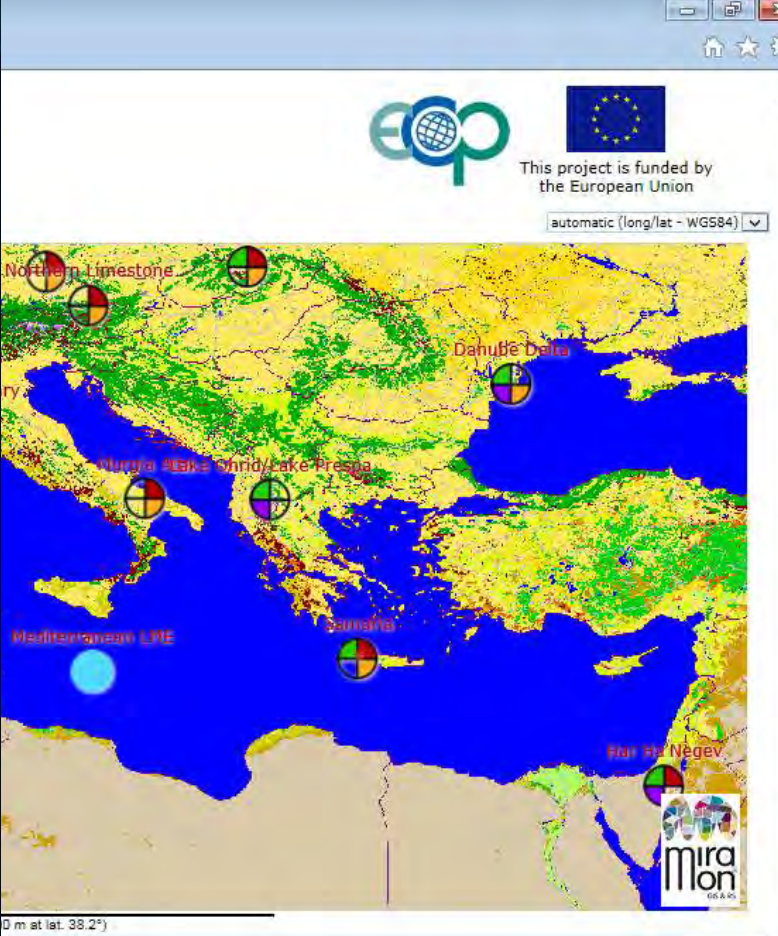
Protected Area Location

PA name: Samaria
More information: <http://www.ecopotential-project.eu/2016-05-24-14-52-12/protected-areas/18-crete>
Picture:



Abstract: Samaria (White Mountains) National Park is located on the West part of island of Crete and was declared as a National Park via a Royal Decree in 1962. It is a multi-designated area and specifically a National Park, Landscape of Outstanding Beauty, Natura 2000 site coded GR 4340008 and GR4340014 and Biosphere Reserve in the framework of the «Man and Biosphere» Programme of UNESCO.

National park: true
Biosphere reserve: true
World heritage: true
Natura 2000 site: true
Large Marine Ecosystem (LME):



EOPO logo and European Union flag. Text: "This project is funded by the European Union".

Map labels: Northern Limestone, Dahufte Delta, Niyra, Lake Ohrid/Lake Prespa, Mediterranean LME, Samaria, Harat Negev.

Scale: 0 m at lat. 38.2°

Zoom: 100%

http://www.og3.uab.cat/ECOPotential2/

ECOPOTENTIAL from ABOVE

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automatic (long/lat - WG584)

Scale: 5,00 (1:250,000)

Har Ha Negev

0.2° (aprox: 20000 m at lat. 30.8°)

Go to: Protected Area of: Har HaNegev Coord: X,Y: 34,35, 30,78

100%

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http://www.ogc3.uab.cat/ECOPotential2/

ECOPOENTIAL from ABOVE

Scale: 5:00 (1:250,000)

0.2° (aprox. 20000 m at lat. 30.8°)

Go to: Protected Area of: Har HaNegev Coord: X,Y: -15.60, 35.00

100%

http://www.og3.uab.cat/ECOPotential2/

ECOPOTENTIAL from ABOVE

Historiama 1, Har Ha Negev Sentinel 2

True color

True color

True color

Go to: Protected Area of: Har Ha Negev Coord: X,Y: -1.17, 31.31

automatic (long/lat - WGS84)

Har Ha Negev

miramon

100%

http://www.og3.uab.cat/ECOPotential2/

ECOPOTENTIAL from ABOVE

View 1

Go to: Protected Area of: Har HaNegev Coord: X,Y: 669173, 3418739; Har Ha Negev

02-12-2016

- Band 1
- Band 2
- Band 3
- Band 4
- Band 5
- Band 6
- Band 7
- Band 8
- Band 8A
- Band 9
- Band 11
- Band 12
- NDVI
- True color
- False color
- RGB(12,11,2) Geology

PA Datasets

Protected Area Location

Site type

- International Marine Protected
- Large Marine Ecosystem (LME)
- National park
- Natura 2000 site
- World heritage
- Biosphere reserve
- Har Ha Negev Limits
- Har Ha Negev 36RXV Ser

Histograma 1, Har Ha Negev Sentinel 2

NDVI

of cells

0 2000 4000 6000 8000 10000 12000

0.01 0.255 0.5

ECOPOTENTIAL from ABOVE

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automatic (UTM33N - ETRS89)

PA Datasets

- Protected Area Location
- Site type
 - International Marine Protected Area
 - Large Marine Ecosystem (LME)
 - National park
 - Natura 2000 site
 - World heritage
 - Biosphere reserve
- Northern Limestone Limits
- Northern Limestone Sentinel 2

07-04-2017
unfold legend

- NDVI
- Band 2
- Band 3
- Band 4
- Band 5
- Band 6
- Band 7
- Band 8
- Band 8A
- Band 9
- Band 11
- Band 12
- SAVI
- NDWI
- MTCI
- SIPI
- MSI
- LAI-SAVI
- PSRI
- True color
- False color
- RGB(12,11,2) Geology
- RGB(11,8,2) Agriculture

Go to: Protected Area of: Northern Limestone National Park Coord: X,Y: 419700, 5278905; Northern Limestone Sentinel 2 - Band 1 (Coastal aerosol (0.443µm)): 5389

http://www.ogc3.uab.cat/ECOPotential2/ ECOPTENTIAL from ABO...

from ABOVE

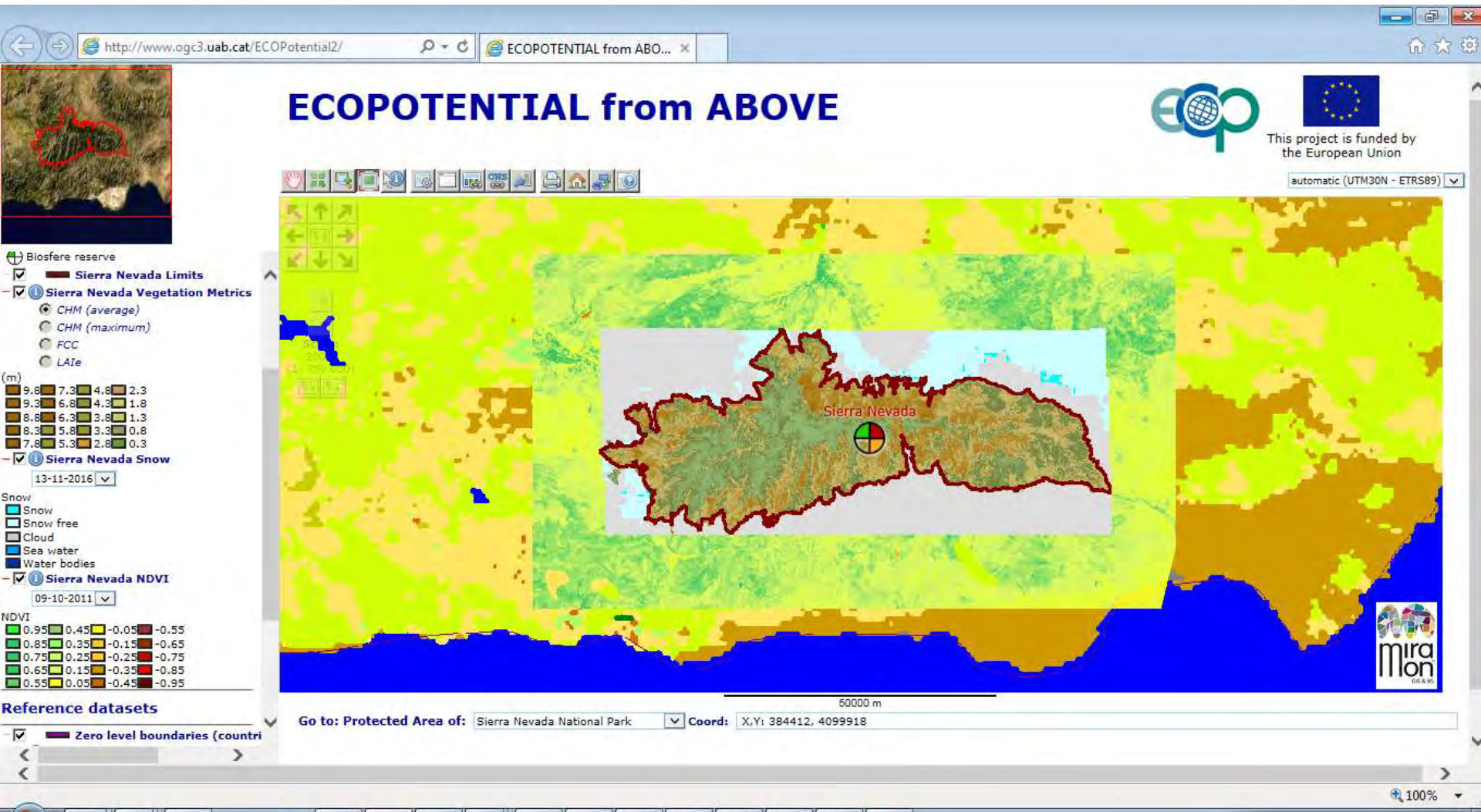
PA Datasets

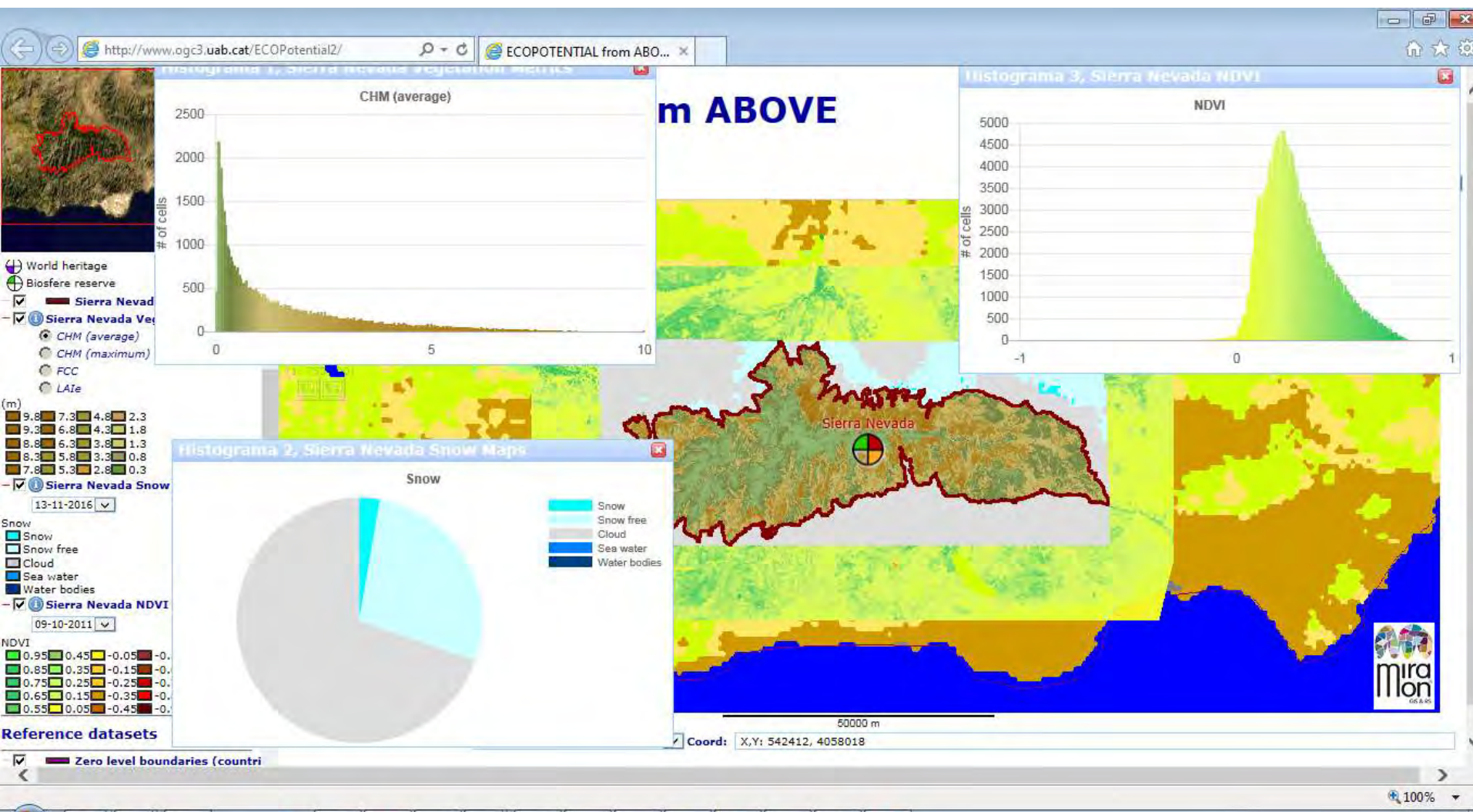
- Protected Area Location
- Site type
 - International Marine Protected Area
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 - Natura 2000 site
 - World heritage
 - Biosphere reserve
- Northern Limestone Limits
- Northern Limestone Sentinel 2
 - 07-04-2017
 - Band 1
 - Band 2
 - Band 3
 - Band 4
 - Band 5
 - Band 6
 - Band 7
 - Band 8
 - Band 8A
 - Band 9
 - Band 11
 - Band 12
 - NDVI
 - SAVI
 - NDWI
 - MTCI
 - SIPI
 - MSI
 - LAI-SAVI
 - PSRI
 - True color
 - False color
 - RGB(12,11,2) Geology
 - RGB(11,8,2) Agriculture

20000 m

Coord: X,Y: 440760, 5299185; Northern Limestone Sentinel 2 - False color: 3.683

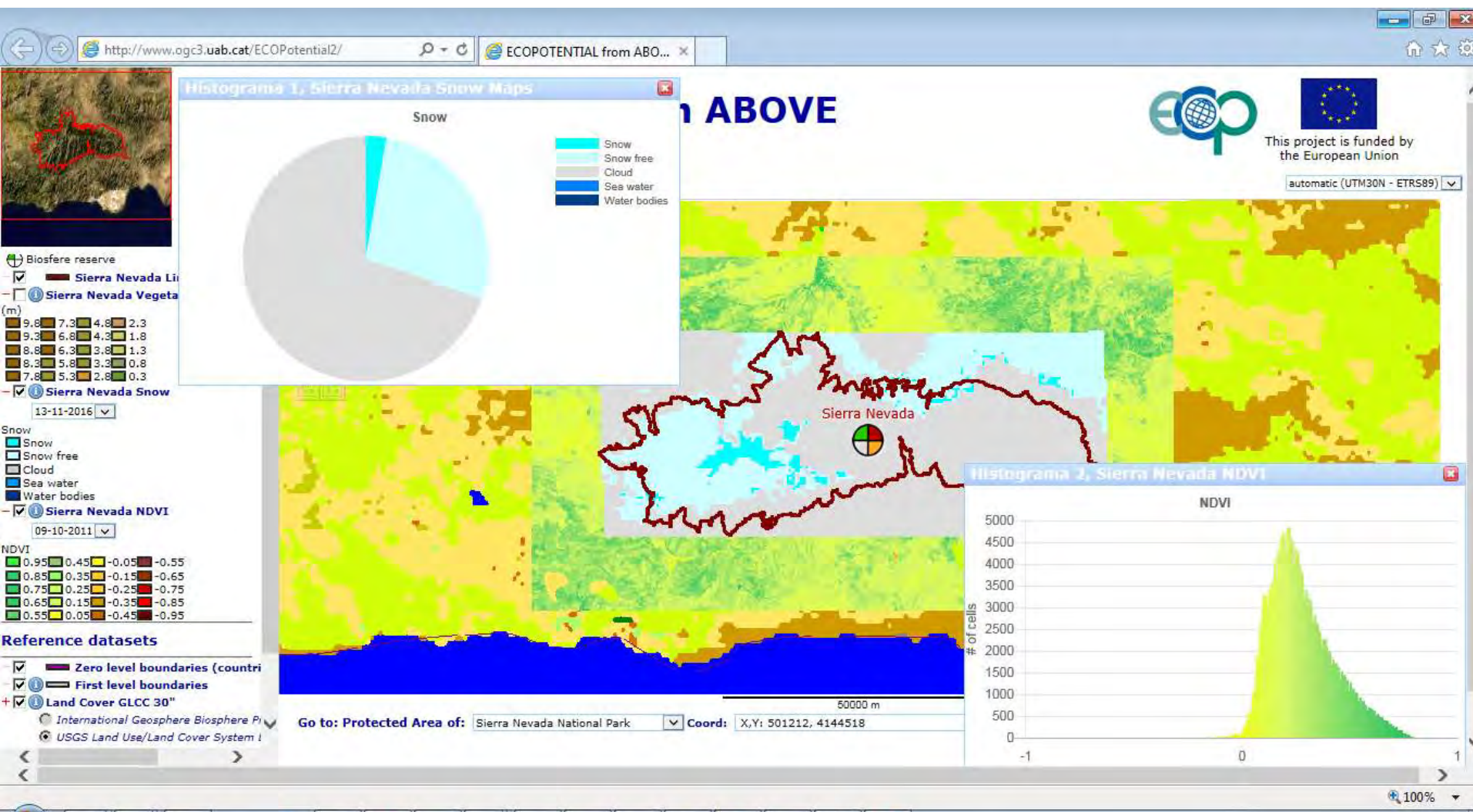






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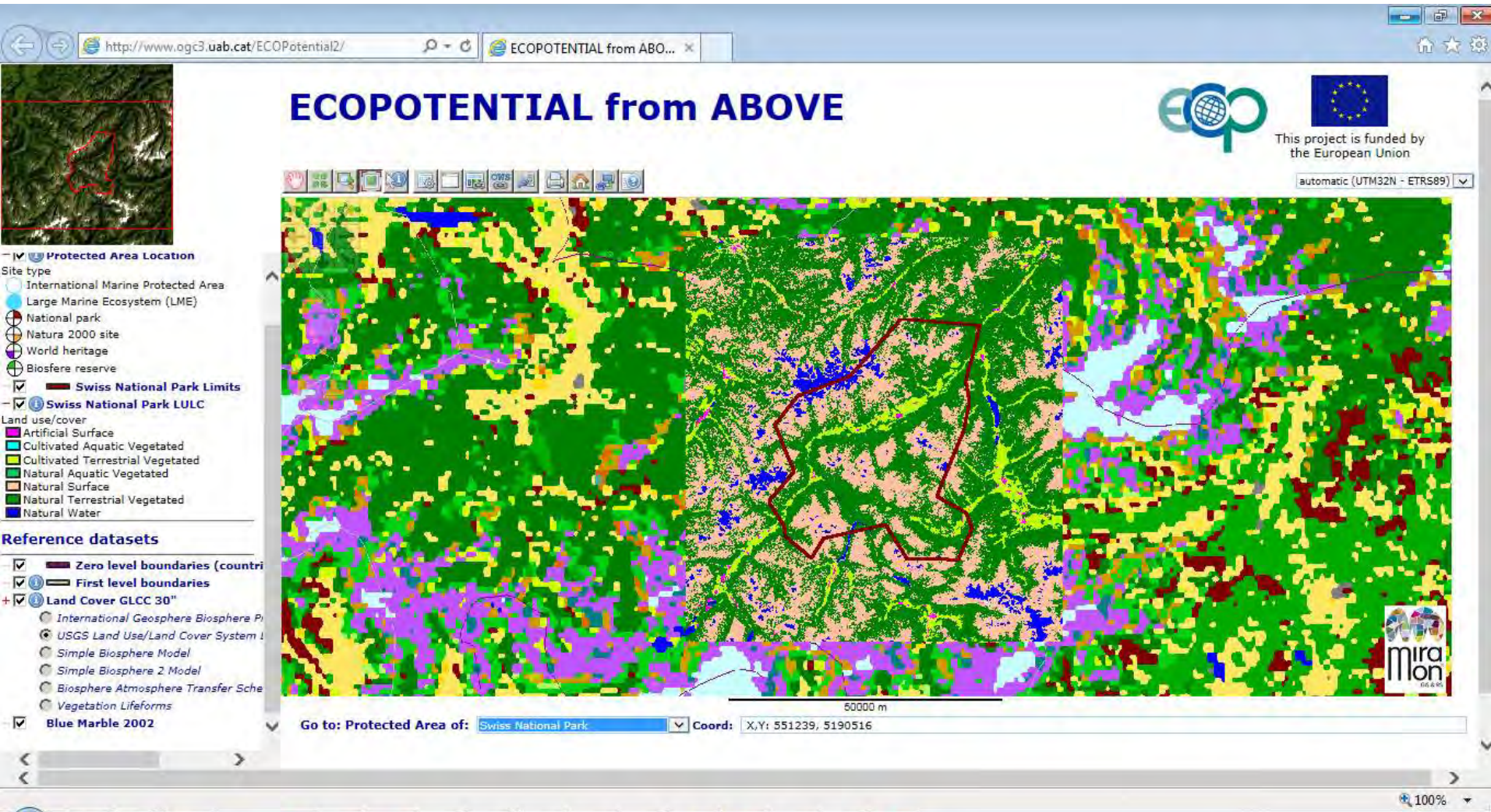
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The screenshot displays a web-based GIS application interface. The browser address bar shows <http://www.ogc3.uab.cat/ecopotential2/>. The main window features a central map of the Swiss National Park with a red boundary. Three histograms are overlaid on the map, each titled "Histograma X, Swiss National Park NDVI Landsat" (where X is 1, 2, or 3). The histograms show the distribution of NDVI values (x-axis, ranging from -1 to 1) across the park area (y-axis, ranging from 0 to 20 km²). The "Selection by condition" dialog box is open, showing the following configuration:

- Layer: Swiss National Park LULC
- Field: LULC
- Operator: =
- Value: Cultivated Terrestrial Vegetated
- Radio buttons: constant layer

The "constant" radio button is circled in orange. The dialog also includes an "OK" button and a "Nexus with next condition" section with options for none, and, or.





http://www.ogc3.uab.cat/ECOPotential2/ ECOPTENTIAL from ABO...

ECOPOTENTIAL from ABOVE

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automatic (UTM32N - ETRS89)

PA Datasets

- Protected Area Location
- Site type
 - International Marine Protected Area
 - Large Marine Ecosystem (LME)
 - National park
 - Natura 2000 site
 - World heritage
 - Biosphere reserve
- Swiss National Park Limits
- Swiss National Park LULC

Histograma 1, Swiss National Park Land Use/Land

LULC

- Artificial Surface
- Cultivated Aquatic Vegetated
- Cultivated Terrestrial Vegetated
- Natural Aquatic Vegetated
- Natural Surface
- Natural Terrestrial Vegetated
- Natural Water

20000 m

National Park Coord: X,Y: 562159, 5191406; Swiss National Park LULC (Land use/cover): Natural Terrestrial Vegetated

100%



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