



Surveillance network of Reoviruses, Bluetongue and African Horse Sickness, in the Mediterranean basin and Europe.

SIXTH FRAMEWORK PROGRAMME PRIORITY 8.1

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Overall coordination

WP7

Regional surveillance of virus activity & vaccination
WP1

Regional surveillance of vector
WP2

Molecular epidemiology
WP3

Database & GIS

WP4

Risk assessment

WP5

Meetings

WP6

Tools: diagnostic

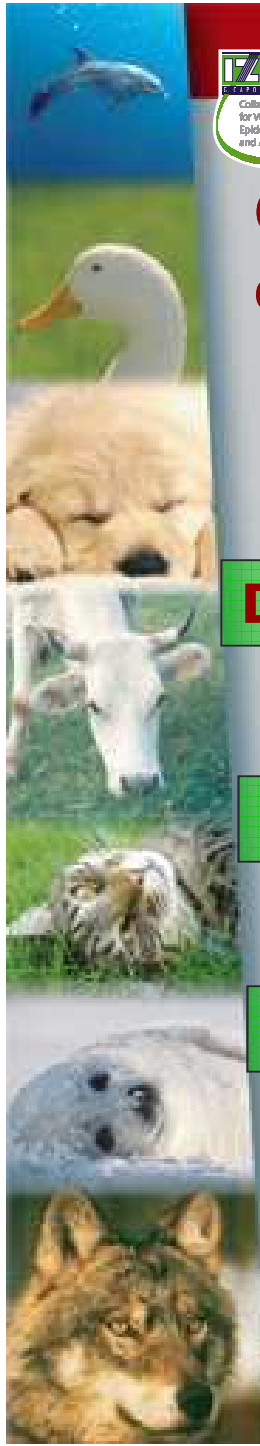
Data and protocol

vaccination

Tools: diagnostic

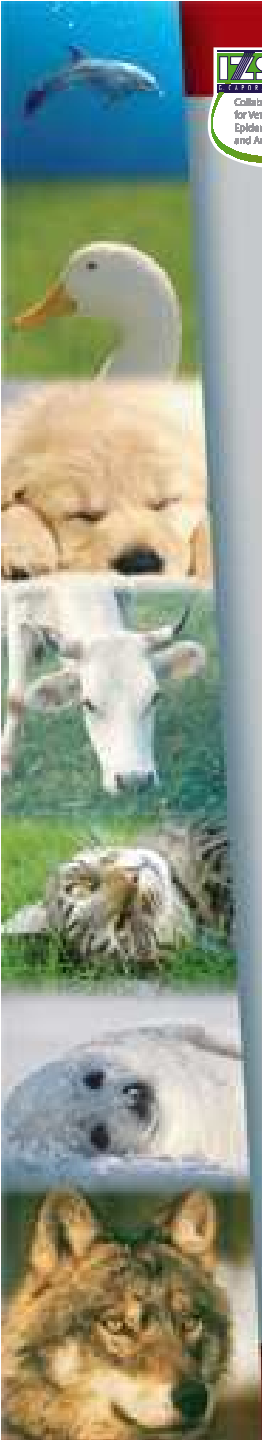
Data and protocol

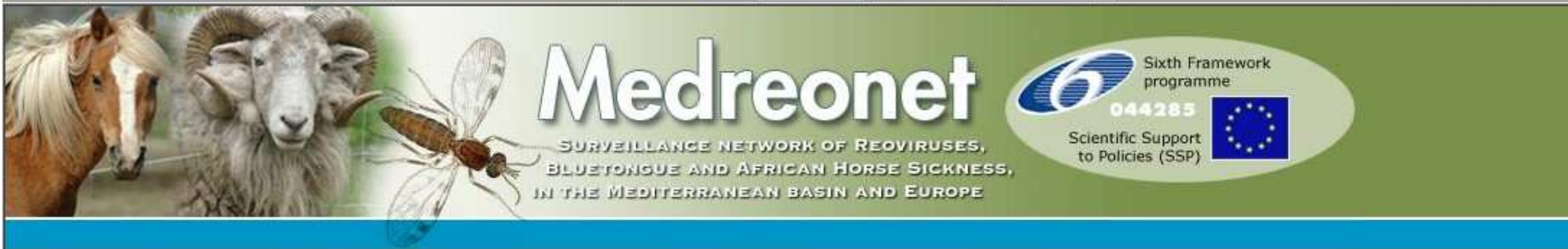
vaccination



WP4 - WEB-GIS objective

- ❑ To develop web-GIS services in order to:
 - ❖ Display and spread information related to BT, AHS, EHD
 - ❖ Provide an interactive, dynamic mapping system





You are here: Home > Medreonet

■ Medreonet

Medreonet is a EU funded coordination action aimed at the enhancement of surveillance of Culicoides- transmitted diseases: E Horse Sickness and Epizootic Haemorrhagic Disease.

Medreonet is focusing on **sharing** and **exchanging** data, expertise, experiences and information via regular meetings, maintain an systems, setting a **European database** including surveillance, disease occurrence, virus isolation and vaccine use.

It will also focus on diagnostic and control tools and ensure wide dissemination of information to all concerned parties.

Note that Medreonet is neither funding research activities nor substituting to national surveillance framework.



As pointed out by Dr P Mellor (IAH, EU reference lab) during Medreonet Kick off Meeting (02/02/2007), 11 introductions of BT strains were recorded since 1998 around Mediterranean: analysis of the strains involved showed that there exist different serotypes that have been introduced inside the group formed by a serotype different strains can be identified. This highlights the exchange of strains between research institutes allowing more in depth analysis of the strains, origins.

Medreonet

Context

Objectives

Partners

Workpackages

Maps

Links

News

Connection

Password

>>>

Available maps

Maps

Bluetongue

African horse sickness

Epizootic haemorrhagic
disease

Bluetongue

Available maps on Bluetongue Survey

- map of outbreaks distribution
- map of entomological distribution
- map of serological distribution

African Horse Sickness

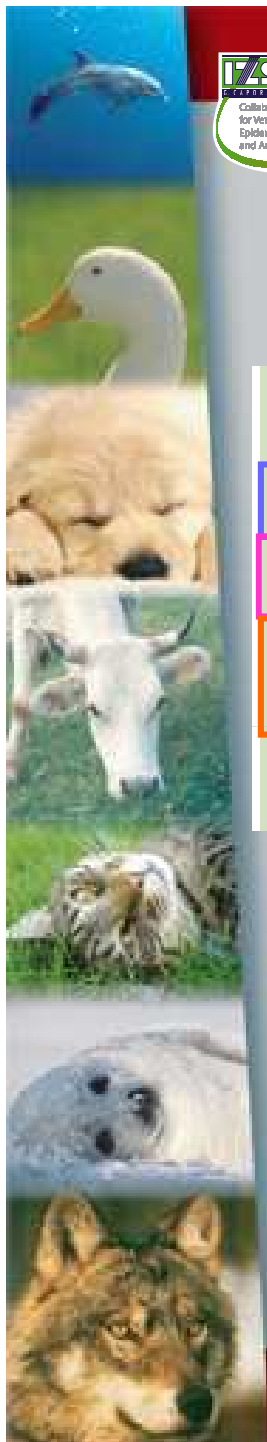
Available maps on African Horse Sickness Survey

- map of entomological distribution
- map of outbreaks

Epizootic Haemorrhagic Disease

Available maps on Epizootic Haemorrhagic Disease Survey

- map of entomological distribution
- map of outbreaks



Bluetongue (outbreaks)



The interface features a central map of Europe with red markers indicating outbreak locations. On the left is a vertical toolbar with icons for map navigation and information. On the right is a 'Layers' panel with a 'Visible Active' section containing several options: 'countries' (checked), 'disease distribution' (checked), 'administrative units' (unchecked), 'river and lakes' (unchecked), and 'elevation map' (checked). Below the 'Visible Active' section is an 'Insert data' checkbox (unchecked) and a 'Refresh Map' button. At the bottom left, there is a 'HELP' button with a book icon. A scale bar at the bottom right of the map indicates 0-12km. A small inset map in the top left corner shows the location of the main map area within the context of the Mediterranean region.

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African Horse Sickness (outbreaks)

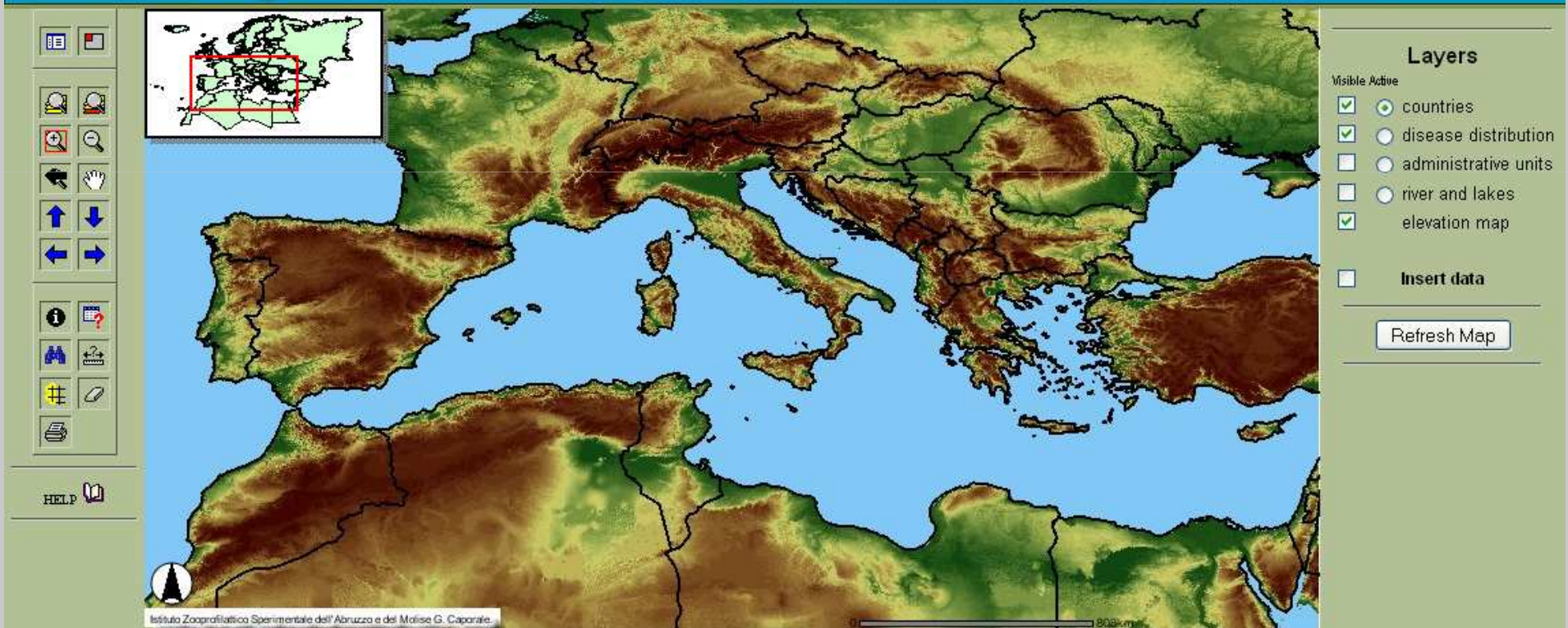


Medreonet
SURVEILLANCE NETWORK OF REOVIRUSES,
BLUES TONGUE AND AFRICAN HORSE SICKNESS,
IN THE MEDITERRANEAN BASIN AND EUROPE



Sixth Framework
programme
044285
Scientific Support
to Policies (SSP)

AHS OUTBREAKS
African Horse Sickness



Layers

Visible Active

- countries
- disease distribution
- administrative units
- river and lakes
- elevation map

Insert data

Refresh Map

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800km

Epizootic Haemorrhagic Disease (outbreaks)



Layers

Visible Active

- countries
- disease distribution
- administrative units
- river and lakes
- elevation map

Insert data

HELP

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500 km

Map interaction: standard navigation tools

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African Horse Sickness

Example data

Layers
Visible Active

- countries
- disease distribution
- administrative units
- river and lakes
- cities
- elevation map

Insert data

Refresh Map

Italy
Sardinia

0 92km

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HELP

Map interaction: active/visible layers

The screenshot displays the Medreonet AHS OUTBREAKS web application interface. At the top, the header includes the Medreonet logo (Surveillance Network of Reoviruses, Bluetongue and African Horse Sickness in the Mediterranean Basin and Europe), the Sixth Framework Programme logo (044285 Scientific Support to Policies (SSP)), and the African Horse Sickness logo. The main map area shows a topographic map of Italy with a red shaded region labeled 'serotype'. An inset map shows the location of Italy within Europe. On the right side, a 'Layers' panel is visible, containing a 'Visible active' section with a pink box around it. Below this, several layers are listed with checkboxes and radio buttons: 'countries', 'disease distribution' (checked), 'administrative units', 'river and lakes', 'cities', and 'elevation map'. A 'Refresh Map' button is located at the bottom of the layers panel. A red diagonal text 'Example data' with two pink arrows points to the 'Visible active' section and the 'disease distribution' layer. The bottom left corner features a 'HELP' icon and the text 'Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise G. Caporale'. A scale bar at the bottom right indicates 0 to 92km.

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AHS OUTBREAKS
African Horse Sickness

Visible active

- countries
- disease distribution
- administrative units
- river and lakes
- cities
- elevation map

Insert data

Refresh Map

Italy

serotype

0 92km

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Example data

Map interaction: query layers

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African Horse Sickness

Example data

Layers
Visible Active
 countries
 disease
distribution
 administrative
units
 river and lakes
 cities
 elevation map
 Insert data
Refresh Map

disease distribution

Rec	Country	Admin. Unit	Year	Owner
1	Italy	Bari	2005	IZS

Map and database interaction: insert outbreak data

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African Horse Sickness

Example data

Layers
Visible Active
 countries
 disease distribution
 administrative units
 river and lakes
 cities
 elevation map
 Insert data
Refresh Map

Italy
Bari type

0 92km

Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise G. Caporale.

disease distribution

Rec	Country	Admin. Unit	Year	Owner
1	Italy	Bari	2005	IZS

Map and database interaction: insert outbreak data

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AHS OUTBREAKS
African Horse Sickness

Example data

Layers

Visible Active

- countries
- disease distribution
- administrative units
- river and lakes
- cities
- elevation map

Insert data

Refresh Map

Italy

Sardinia

0 92km

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HELP

Map and database interaction: insert outbreak data

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African Horse Sickness

Example data

Layers
Visible Active
 countries
 disease distribution
 administrative units
 river and lakes
 cities
 elevation map
 Insert data
Refresh Map

Italy
Sicily

0 92km

HELP

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insert new data

Rec	Country	Admin. Unit
1	Italy	Lecce

Map and database interaction: insert outbreak data

The screenshot shows a web browser window titled "ANS disease - Microsoft Internet Explorer". The address bar contains the URL: `http://gis1.izs.it/website/medreonet_ahs/password.asp?in`. The browser window displays a login form with the following fields:

- Username: **Carla**
- Password: *********
- OK button

The background of the browser window shows a website titled "AHS OUTBREAKS African Horse Sickness". The website header includes the "Sixth Framework programme 044285" logo and the European Union flag. Below the header is a map of Italy with a red shaded region in the south. To the right of the map is a "Layers" panel with the following options:

- Visible Active
- countries
- disease distribution
- administrative units
- river and lakes
- cities
- elevation map
- Insert data**

Below the "Layers" panel is a "Refresh Map" button. At the bottom of the browser window, a status bar shows "Operazione completata" and "Internet".

Below the browser window, there is a section titled "insert new data" with a table:

Rec	Country	Admin. Unit
1	Italy	Lecce

Map and database interaction: insert outbreak data



No serotype present in the Administrative Unit selected!

Insert new data for the Administrative Unit

Admin. Unit

Year

Map and database interaction: insert outbreak data



Verify Data before final submission!

Your entry looks like presented below:

Year 2008
Admin. Unit Lecce

If all this is correct, then please click on **Submit Entry**, to enter your data in the db. If you want to change the information you have entered, then please use the **Back** button of your browser.

Submit entry!

Map and database interaction: insert outbreak data



Data inserted!

Year 2008
Admin. Unit Lecce

Map and database interaction: insert outbreak data

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African Horse Sickness

Example data

Layers
Visible Active
 countries
 disease distribution
 administrative units
 river and lakes
 cities
 elevation map
 Insert data

Refresh Map

insert new data

Rec	Country	Admin. Unit
1	Italy	Lecce

Entomological data

The screenshot displays the Medreonet web application interface. At the top, there is a banner with images of a horse, a ram, and a fly, alongside the text "Medreonet SURVEILLANCE NETWORK OF REOVIRUSES, BLUEFONGUE AND AFRICAN HORSE SICKNESS, IN THE MEDITERRANEAN BASIN AND EUROPE". To the right of the banner are logos for the "Sixth Framework programme 044285" and "Scientific Support to Policies (SSP)" with the European Union flag.

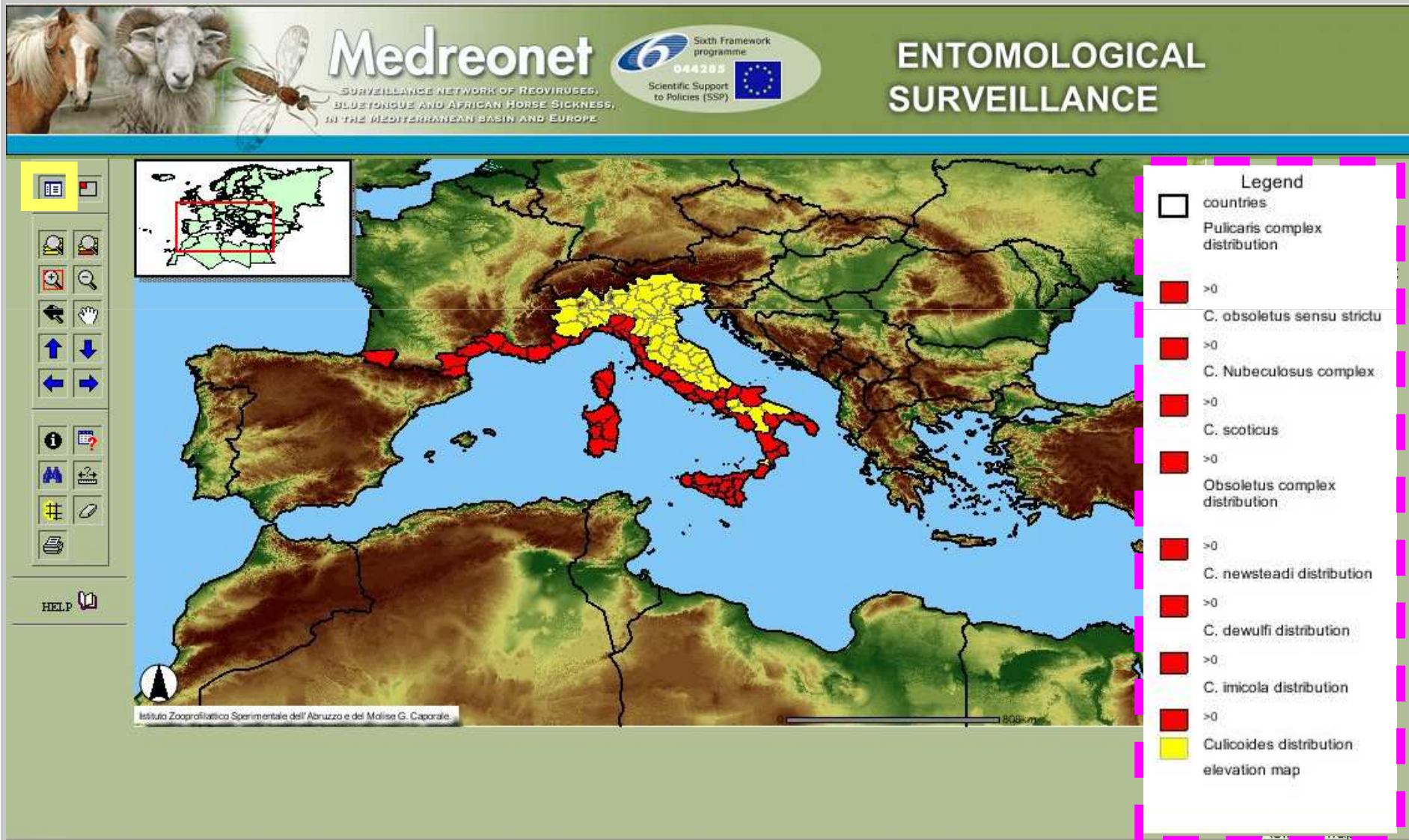
The main area features a map of Europe with a red box highlighting the Mediterranean region. The map shows administrative units colored in yellow and red. On the left side, there is a vertical toolbar with various navigation and map control icons, including a "HELP" button. At the bottom left, a small text box reads "Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise G. Caporale".

On the right side, there is a "Layers" panel with a "Visible Active" section. It contains a list of layers with checkboxes and radio buttons:

- countries
- Pulicaris complex distribution
- C. obsoletus sensu strictu
- C. Nubeculosus complex
- C. scoticus Obsoletus complex distribution
- C. newsteadi distribution
- C. dewulfi distribution
- C. imicola distribution
- Culicoides distribution
- administrative units
- river and lakes
- elevation map

At the bottom right, there is an "Insert data" checkbox and a "Refresh Map" button.

Entomological data



Entomological: insert new data

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ENTOMOLOGICAL SURVEILLANCE

Layers

Visible Active

- countries
- Pulicaris complex distribution
- C. obsoletus sensu strictu
- C. Nubeculosus complex
- C. scoticus
- Obsoletus complex distribution
- C. newsteadii distribution
- C. dewulfi distribution
- C. imicola distribution
- Culicoides distribution
- administrative units
- river and lakes
- elevation map

Insert data

Refresh Map

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Entomological: insert new data



Results for the Administrative Boundary selected: Teramo

COUNTRY	ADMINISTRATIVE UNIT	YEAR	MONTH	NUMBER OF SITES	NUMBER OF CATCHES	VECTOR	MAX NUMBER OF VECTORS
Italy	Teramo	2001	1	2	2	C. imicola group	0
Italy	Teramo	2001	1	2	2	Culicoides spp	0
Italy	Teramo	2002	1	6	31	C. imicola group	0
Italy	Teramo	2002	1	6	31	Culicoides spp	4
Italy	Teramo	2003	1	2	19	C. imicola group	0
Italy	Teramo	2003	1	2	19	Culicoides spp	22770

Insert new data for the Administrative Unit

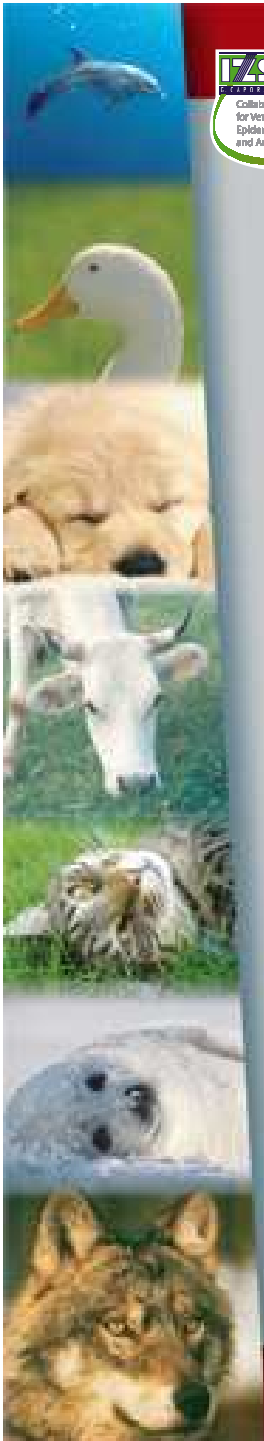
Month: 1
Year: 1998
Number of sites:
Number of catches:
Vector: C. imicola group
Max number of vectors:
Admin. Unit: Teramo

- C. imicola group
- C. imicola group
- Obsoletus complex
- Pulicaris complex
- Culicoides spp
- C. obsoletus sensu strictu
- C. scoticus
- C. Nubeculosus complex
- C. dewulfi
- C. newsteadi

Activities

Help pages are now available for each map

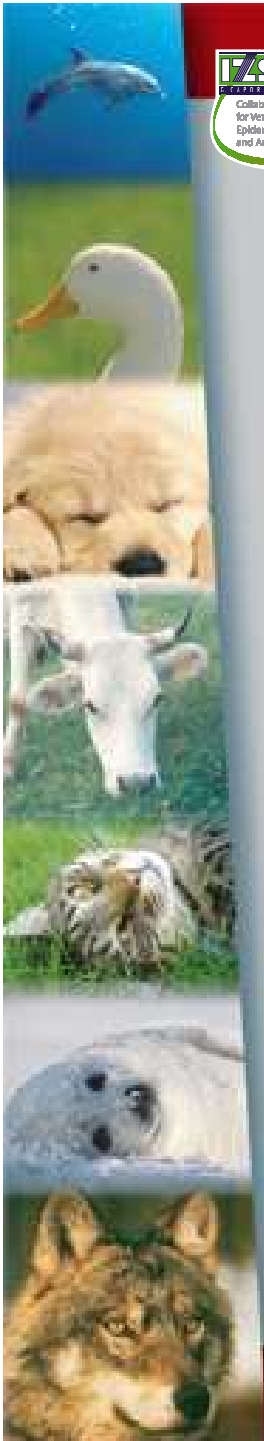
HELP



Activities

- In collaboration with WP1 -
Regional surveillance of virus
activity & vaccination -

a new map
was created showing the results
of the analyses on BT
serological surveillance data



Bluetongue Serological Results



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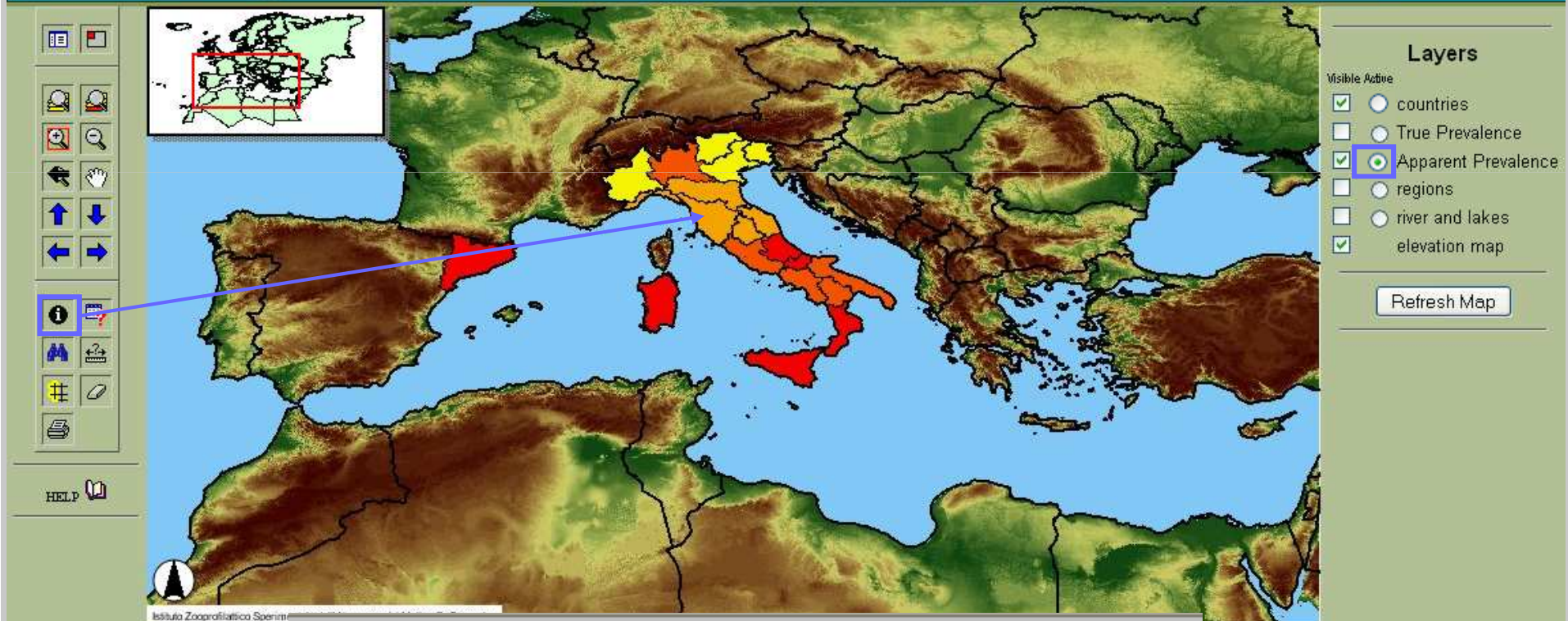
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BT SEROLOGICAL SURVEILLANCE



Bluetongue Serological Results

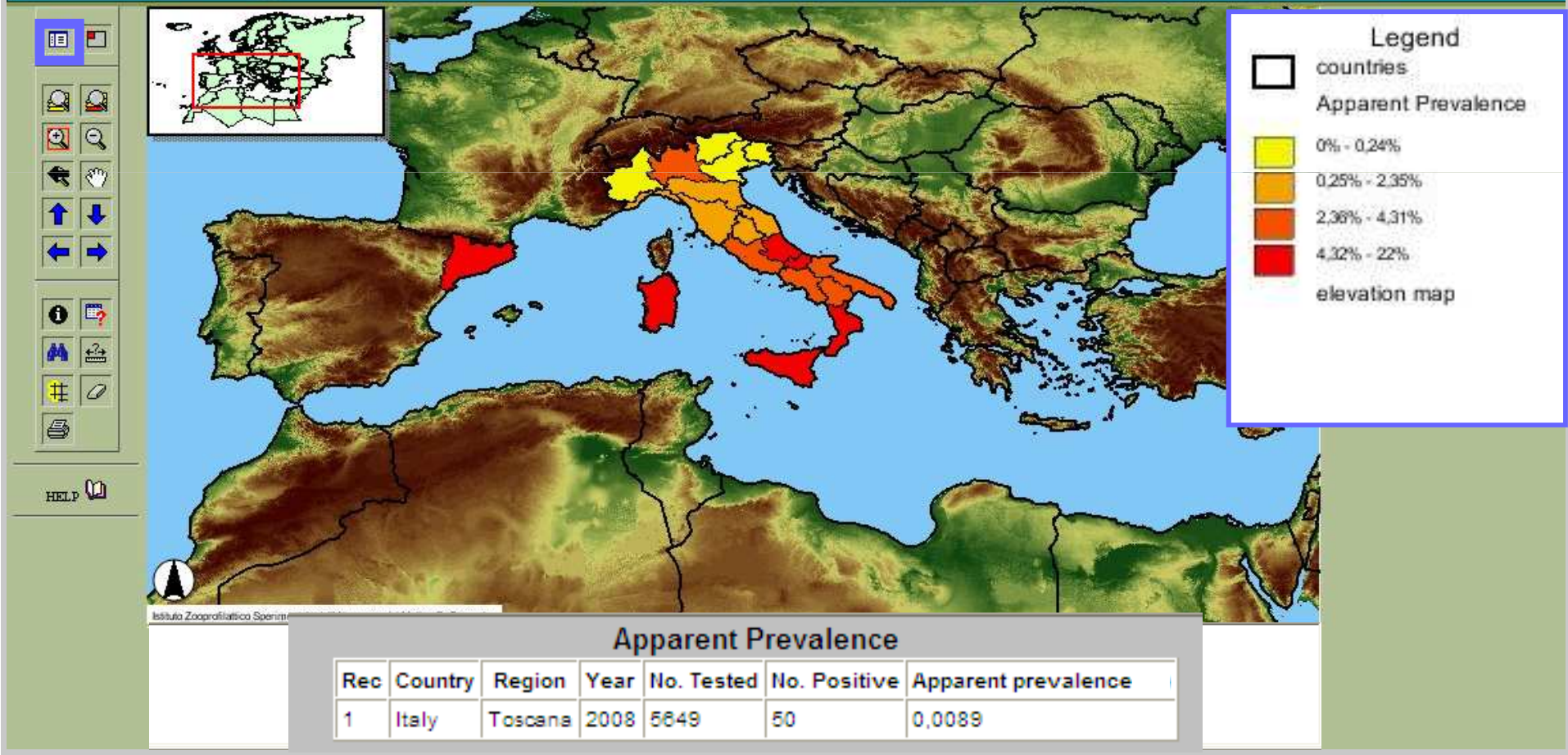


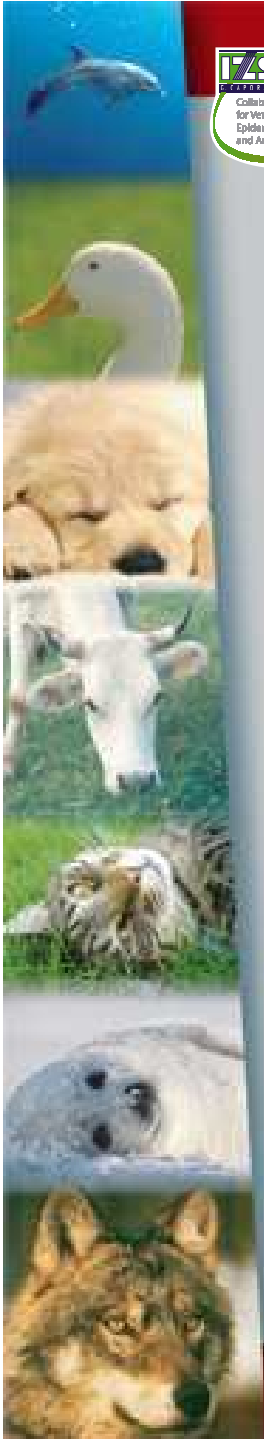
Istituto Zooprofilattico Sperimentale

Apparent Prevalence

Rec	Country	Region	Year	No. Tested	No. Positive	Apparent prevalence
1	Italy	Toscana	2008	5649	50	0,0089

Bluetongue Serological Results





In the future

The container is available to be filled in with the information and the results that the other WPs think are relevant to share



Thank you
for your attention

