L. Savini, Carla Ippoliti, Sandro Pelini, Annamaria Conte, Paolo Calistri. Bluetongue entomological surveillance in East European and Balkan countries: collection and display of geographical data

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Within the project "Cooperation for the implementation of a bluetongue surveillance network in the Balkan area" a web site was developed to provide East European Veterinary Services with an effective tool for data management, analysis and exchange of information on bluetongue, an infectious, arthropod-borne disease of ruminants.

The site was designed and implemented by the Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise (Italy) in collaboration with the Joint Research Center of the European Commission (Ispra, Italy).

Following new needs of veterinary services and the evolution of the disease, the site was structurally modified using different GIS technologies for the system optimization.

Furthermore, geographical data and relevant attributes were organized in a sole Information System (IS) integrated with a relational geographic database and a new function allowing to retrieve information on the spread of the vector causing the disease.

The Geographic Information System is based on ESRI products. In particular, an ArcSde was used to connect to Oracle 8.i database while Java and VB script procedures were applied to prepare Asp and Html pages in ArcIms. A multi-user access was implemented, by activating different working sessions, in order to allow a simultaneous geographical data query and map display to different users.

Features in the maps displayed may correspond to a polygon (representing the administrative boundaries in which the event of interest occurred) or to a point (farms where data relevant to the event of interest were collected).

The querying system allows one to select one or more polygons or points present on the map and to retrieve by the spatial query all the relevant information on the epidemiological status in alphanumerical form; at the same time the ArcIms server shows on the map the selected territory or farms. By linking to the reference database, the alphanumerical database of any country, present in the table shown, can be accessed (Administrative Boundaries) and new data can be entered directly on-line.