# Research program IZS VE 12/13

**GIS toolbox for entomological surveillance activities**

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Entomological surveillance of Vector-Borne Diseases (VBDs), such as West Nile Virus (WNV), allows gaining greater insight into the arthropod vector populations. The presence of arthropod vectors may determine the circulation of the disease; therefore the characterisation of the vector population in an area is paramount to define its risk of being affected by VBDs.

The main purpose of the project will be to develop a Geographic Information System (GIS) toolbox to support the drafting of entomological surveillance plans by integrating Expert Opinion techniques and Analytic Hierarchic Process (AHP) methods into a GIS environment. The output will be a framework that will allow defining suitable patterns of sampling sites to optimise the entomological surveillance activities. The selection will be based on the experience of entomologists, who will be interviewed on their opinion about the effect of land use on the presence of arthropod vectors.

The project will be initially focused on WNV, although the resulting framework will be easily adapted to other diseases and entomological studies.