

## Swedish LifeWatch – an e-infrastructure for biodiversity research

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Not long ago, a researcher wishing to explore, e.g. how the distribution of long-horn beetles depend on climate or forest qualities, or how their populations have developed over time, had to begin with a tedious work to access, assemble, clean and transform data before any analysis could be commenced. With the development of the Global Biodiversity Information Facility, access to, in particular, historic but also current species occurrences was radically improved, and today GBIF is an important source of species data over the world.

Swedish LifeWatch has widened the scope, not only by providing federated data in taxonomically unambiguous format from databases remaining the primary source, but also by offering access to, e.g. environmental and climatic data and an array of tools for selecting, exploring, visualizing, analyzing and downloading data and results in many formats. The SLW Analysis Portal [www.Analysisportal.se](http://www.Analysisportal.se) is a main access point to these facilities. SLW is founded on a number of web services constituting an e-infrastructure, underlying not only the functionalities of the Analysis Portal but also is accessible to researchers and other users wishing to apply selected features in own contexts. For instance, today all 21 Swedish county administration boards, many municipalities and some governmental agencies, have the SLW data integrated in their GIS handling tools, enabling faster and better decisions, e.g. about suggested exploitation of natural resources or in land use planning. Currently, SLW provides free access to 67 million species observations of 30,000 different species in Sweden federated from 15 primary databases. The data is continuously updated and the numbers grow constantly.

SLW is a consortium of four universities (SLU – having the lead, Lund, Gothenburg and Umeå), the Swedish Museum of Natural History and the Swedish Meteorological and Hydrological Institute. The construction has been funded as a research infrastructure by the Swedish Research Council.