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THE SILVAE PORTAL PROVIDES ACCESS TO ECOLOGICAL AND FORESTRY MAPS FOR FRANCE

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This paper is the English translation of: « Le portail Web SILVAE met à disposition des informations écologiques et forestières spatialisées » – Revue forestière française, 4-2014. <http://documents.irevues.inist.fr/handle/2042/4752>.

The SILVAE portal is an open geographical information system for plants, trees and their environment which can be accessed by a wide range of users. It was developed by AgroParisTech Nancy and the LERFoB laboratory for Forest Wood resource studies, a joint AgroParisTech-INRA research unit. It provides digital maps of forest plant species, mainly trees, and information on the main ecological factors determining their ecology, at scales ranging from the whole of France to local forests. The portal (<http://silvae.agroparistech.fr/home/>) was funded by the French Ministry of Agriculture, Agrifood and Forestry and the Lorraine Regional Council.

The data is classified into seven categories. The first category contains bibliographical references from the Agroparistech-Nancy resource center related to geographical areas, whose limits are vectorized. The second category provides 4500 georeferenced phyto-ecological measurements from the EcoPlant database created by LERFoB (Gégout *et al.*, 2005), providing information on the forest type, the soil, and species found. SILVAE also includes geographical information mainly organized in raster cells representing spatial variations, taken from the LERFoB Digitalis database. These Geographic Information System (GIS) layers are organized into 5 categories: climate, climate change, soil, forest type and forest species distribution. There are, for example, maps describing the spatial variation of solar radiation or soil water reserves (Piedallu *et al.*, 2013).

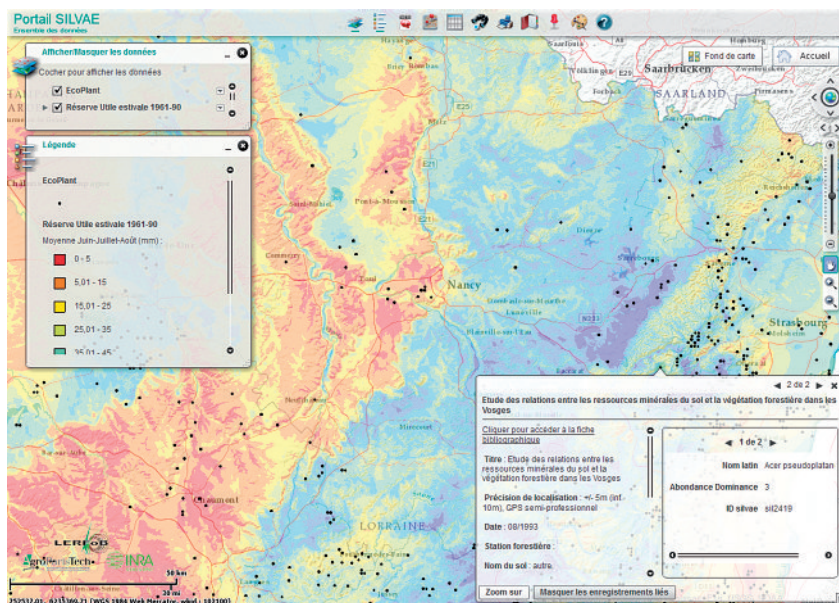
The “data description” menu is used to access the documentation describing the 30 layers currently available in these 5 categories, explaining the calculation method used, estimating uncertainties and limitations of use, and giving their technical characteristics. The bibliographical references related to these GIS layers are also available.

The “access to maps” menu is used to access the data directly using a map interface. When the portal conditions of use have been accepted, various menus are available, to select the maps to be displayed, change the scale, find the location displayed, select the background, and extract values from the layers or locate specific information (figure 1, p. 182). There is a Help file to guide users. Most of the information can be downloaded and managed using a GIS. Users must first set up an account. When this has been approved, users can access a secure download center.

The SILVAE portal will be regularly updated to include new data from AgroParisTech or LERFoB as and when it becomes available. The existing resources were created within a specific framework, and

FIGURE 1

MAP INTERFACE FOR SILVAE DATA:
SUMMER SOIL WATER RESERVES NEAR NANCY, FRANCE



each resource has specific limits of use of which users need to be aware. It is important for users to ensure that they have all the information necessary about the data they use, by reading the fact sheets provided and the scientific articles that can be downloaded.

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REFERENCES

GÉGOUT (J.-C.), COUDUN (C.), BAILLY (G.), JABIOL (B.). — EcoPlant: A forest site database linking floristic data with soil and climate variables. — *Journal of Vegetation Science*, vol. 16, n° 2, 2005, pp. 257-260.
PIEDALLU (C.), GÉGOUT (J.-C.), PEREZ (V.), LEBOURGEOIS (F.). — Soil water balance performs better than climatic water variables in tree species distribution modelling. — *Global Ecology and Biogeography*, vol. 22, n° 4, 2013, pp. 470-482.