

WebGIS: the intelligent “link” between people and data

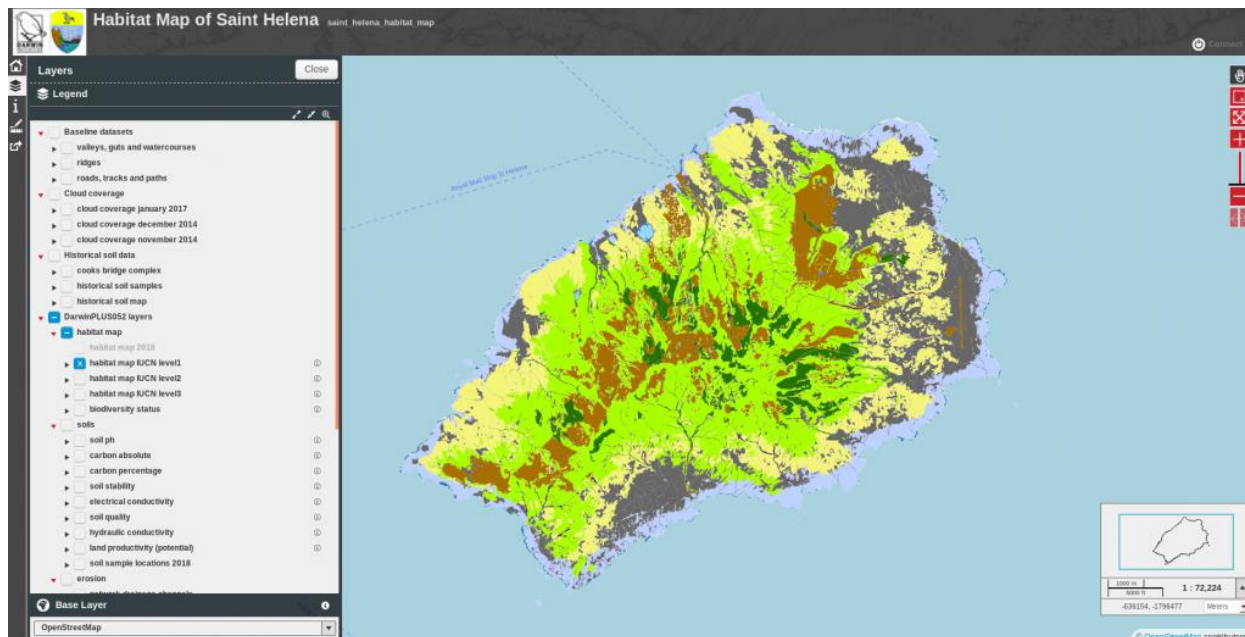
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First published 27th August 2018

Publicly funded projects require that their data are made accessible and available to the public. In order to do this there needs to be some sort of infrastructure which is able to check that the data are up-to-date and quality assured, and that the dissemination tools are intuitive and reliable.

WebGIS systems are interactive maps and one of the commonest tools for conveying spatial data and information to people. The main advantage of using webGIS is that they do not require the audience to be technically skilled or knowledgeable about the IT which underlies them. These systems are in fact designed to have a user-friendly and clear interface, so that the data and information are provided in a straightforward way. Too many options and buttons have been shown to confuse users and ultimately put them off from using the system.

The IMS-GIS data centre supported the “Mapping St Helena’s Biodiversity and Natural Environment (ref no: 052)” Darwin Plus (DPLUS) project through both data management and the development of a webGIS system which includes all the data collected and derived throughout the project. The webGIS is entirely based on open source software: QGIS (desktop and server), Lizmap (web mapping application) and PostgreSQL/PostGIS (spatial database).



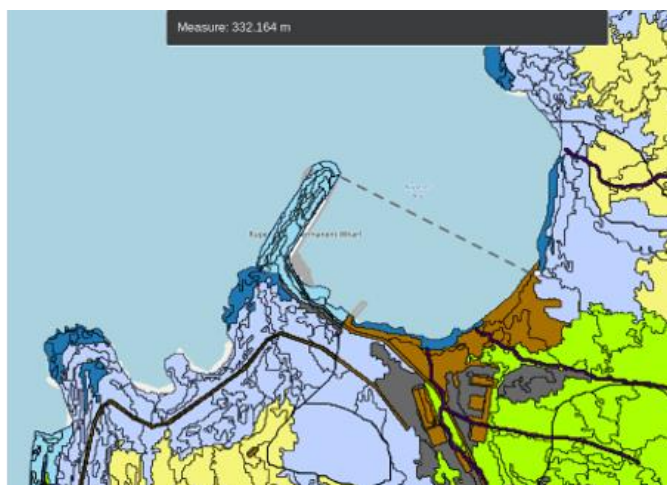
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The interactive map is focussed around the habitat and soil maps developed by the DPLUS052 project. The various datasets come as layers that can be switched on and off, and zoomed in and out by the user. Additionally, distances/areas can be measured on the map and some of the datasets provide the associated attribute table, which is retrievable by simply clicking directly on the features.

Popup Close

habitat map IUCN level1

Field	Value
gid	6023
iucn1	3. Shrubland
maptip	Level1



A very important element of the webGIS is the information linked to each dataset which is accessed by clicking on the small “i” close to each dataset. This is presented as a pdf file, and allows the user to better understand what the map shows, how it has been created, and limitations of the data.

Habitat Map of Saint Helena saint_helena_habitat_map

Layers Close

Legend

- Baseline datasets
 - valleys, guts and watercourses
 - ridges
 - roads, tracks and paths
- Cloud coverage
 - cloud coverage january 2017
 - cloud coverage december 2014
 - cloud coverage november 2014
- Historical soil data
 - cooks bridge complex
 - historical soil samples
 - historical soil map
- DarwinPLUS052 layers
 - habitat map
 - habitat map 2018
 - habitat map IUCN level1

i Information

Name
habitat map IUCN level1

Type
Layer

Zoom to layer extent

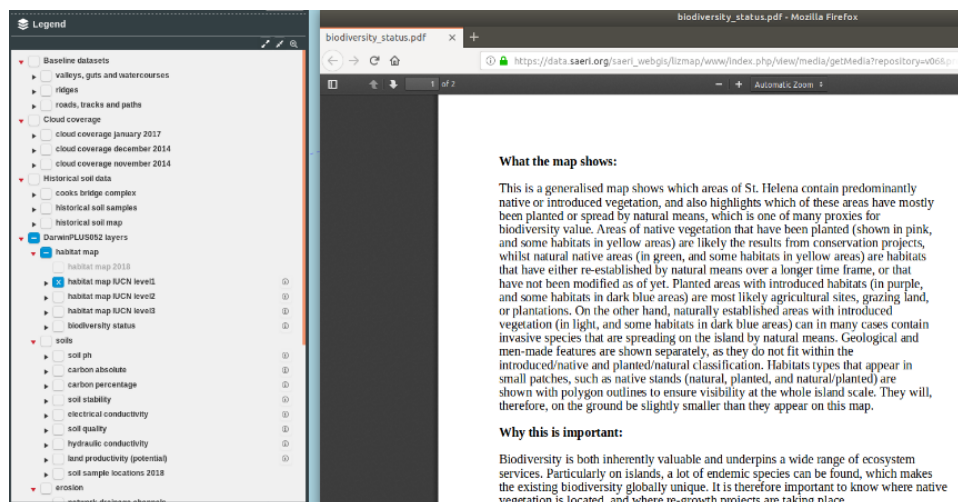
Opacity
20 40 60 80 100

Description
The layer describes IUCN level1 habitat classification for Saint Helena habitat map. The map was derived from the Pleiades satellite imagery dated 2017 and it is the outcome of the Darwin Plus052 project. Please read the DOCUMENTATION for further information on the datasets and possible caveats.

[Documentation](#)

Close

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The webGIS is the result of a working collaboration between the DPLUS project manager, who provided the style, data and content of the documentation, and the IMS-GIS data centre which, collated and entered data into the spatial database and set up the system including the user interface and long-term maintenance of the service.

It is worth noting that the webGIS service for the DPLUS052 is provided from a server which is remote to Saint Helena, and managed directly by the IMS-GIS data centre. Off-island storage of the data has multiple advantages for the St Helena Government; it reduces the risk of data loss due to human error or natural disaster and it allows data to be provided to future users without using up the limited internet bandwidth of the island.

WebGIS systems are a tool that links people to data in an intelligent way. It is a powerful and useful approach to make data and information accessible to spatial planners and decision makers by providing reliable, up-to-date and quality data through a user-friendly interface. For all these reasons, webGIS offer the best solution for making Darwin Plus project data open and public.

In summary SAERI, through the IMS-GIS data centre, has been pleased to provide assistance to the Government of Saint Helena and the DPLUS052 project with:

- central management of spatial and non-spatial data;
- quick and easy access to information from the central server;
- visualisation of data through interactive maps;
- training on open source software (GIS and spatial databases);
- full interoperability among applications (GIS, spatial databases and web technologies);
- full documentation of data (metadata published online);
- no loss of data and information on hand-over between project officer and project participants.