Tailor-made Web Portals for the Biodiversity Science Community in Belgium

www.formicidae-atlas.be

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Introduction

The Belgian Biodiversity Platform develops and hosts customised web portals, which are user-friendly websites that showcase occurrence data and allow users to make the most efficient use of data. These websites are crafted by our IT expertise on databases development, geographic information system (GIS) and web design. The following are examples of customised web portals developed by the Belgian Biodiversity Platform that showcase biodiversity data (data portals, taxonomy portals, and lists of species):

- Portuguese
- Vascular Plants
- African rodentia
- Afrotropical moths
- Invasive Species
- Central African Plants
- Freshwater diversity
- Paraguayan Ants
- European datasets

Ants Data Mobilisation

The Belgian Biodiversity Platform supported the print publication of the Belgian Ant Atlas and in so doing accelerated the digital publication of the dataset used for that atlas. Also, the development of a customised web portal and co-producing a data paper was proposed by the Belgian Biodiversity Platform.

The Flemish Ant working group “Formicidae” and the Walloon Ant working group “FourmisWalBru” on occurrences of Ants pertaining to Belgium: the “FORMIDABEL” database.

The “FORMIDABEL” dataset, provided by the two Belgian ant working groups, was subjected to quality control by experts of the Belgian Biodiversity Platform. The dataset was checked on taxonomical inconsistencies, geographical errors, typo’s and errors on dates; the curator of the dataset was interviewed to obtain exhaustive metadata. Later, taxonomy was added to the database, a suitable license was given (CC BY-NC 3.0) and the different languages were translated into English.

Data Publication

Together with the release of the printed atlas of Belgian Ants, a special issue (Dekoninck et al., 2012) of the Bulletin of the Royal Belgian Entomological Society, the cleaned dataset was published on the GBIF network through the IPT of the Belgian Biodiversity Platform. The dataset served as the data source for the www.formicidae-atlas.be website and the metadata is published as a data paper in Zookeys. FORMIDABEL: The Belgian Ants Database. (Brosens et al, 2013).

Data Flow

This figure shows how the original FORMIDABEL database is used to develop the digital Belgian Ants Atlas. The upper part (data capture, curating, digitisation) is in the hands of the Belgian ant working groups. The lower part (data publishing, cleansing, data portal) represents the support offered by the Belgian Biodiversity Platform. The end product is a medley of ants enthusiasts, scientists and IT experts.

The portal conception was developed in close collaboration with the curator of the “FORMIDABEL” database and designed for potential re-use. Django CMS was used, hence, members of the Ant working groups can edit portal content. The website source code is open access under the New BSD license and available at GitHub.

Acknowledgements

The Belgian Biodiversity Platform especially like to thank the volunteers of the Ant working groups Formicidae and Fourmiswalbru for making this project worthwhile. The Flemish Ant working group “Formicidae” and the Walloon Ant working group “FourmisWalBru” for providing access to their database.

Bibliography


PostgreSQL; Bootstrap; Leaflet; Backbone.js

Django; Django CMS; Tailor

Django; Django CMS;

Belgian Biodiversity Platform

This data portal was used to produce a data paper in the scientific journal Zookeys. A published Data paper in the scientific journal Zookeys. A customised webportal using Django, Django CMS, PostgreSQL, Bootstrap; Leaflet; Backbone.js.

All the data is published on the GBIF network through the Belgian Biodiversity Platform IPT.

Conclusions

The creation of a customised web portal on Belgian Ants and support for the printed atlas proved to be a good incentive for data publication. However, taking the extensive workload into account, this approach is only valuable if the dataset has a substantial value for the biodiversity research community itself.

Nowadays, volunteers of both the Belgian Ants working groups use the website in the planning of their field recording sessions. Distribution maps are easily generated and the data is freely available on the internet.

Due to the success of this method the Belgian Biodiversity Platform will apply a similar approach for other taxonomical groups.

The Belgian Biodiversity Platform especially like to thank the volunteers of the working groups Formicidae and FourmisWalbru for making this project worthwhile.