

A Gbif friendly citizen Science platform



The citizen science platform Natusfera (http://natusfera.gbif.es/)- officially launched in June 2016 at the Royal Botanic Garden of Madrid - is a fork of iNaturalist. It works as a web platform and mobile application and it is one of the main sources of citizen science biodiversity data for the Spanish GBIF Node (GBIF.ES). During this time, new developments have been made in Natusfera and a new design is being implemented in order to have an improved branding for the Spanish platform. Some of the functionalities specific to Natusfera are: the adaptation of the record fields to the Darwin Core standard so that the publication through GBIF is easier and more automatic; and the possibility to download records from Natusfera in Darwin Core Archive format. We aim to adapt Natusfera to the needs of the Spanish user community, but also keep a broad vocation for the Latin American community.

Natusfera **

Authors: Villaverde C¹, Castilla F¹, Cezón K¹, Claramunt-López B².⁵, Guzmán P², Lujano C¹, Martínez de la Riva S⁴, Piera J³ & Vega MA¹
1 GBIF.ES. Royal Botanic Garden-CSIC. cvillaverde@rjb.csic.es, 2 CREAF. Center for Ecological Research and Forest Applications. contacte@creaf.uab.cat, 3 ICM. Institute of Marine Sciences-CSIC. info@icm.es
4 BINEO Consulting. +34 912 798 841 santiagomrv@bineo-consulting.com, 5 Ecology Unit, BABVE, Autonomous University of Barcelona (UAB) bernat@creaf.uab.cat

Recent developments in Natusfera



1.- Adapted to the Darwin Core standard. Natusfera has incorporated some of the Darwin Core fields in its backend so a list with the Darwin Core terms is displayed when the user is preparing a project or adding a new observation. Using Darwin Core simplifies the process of publishing open-access biodiversity data through GBIF.

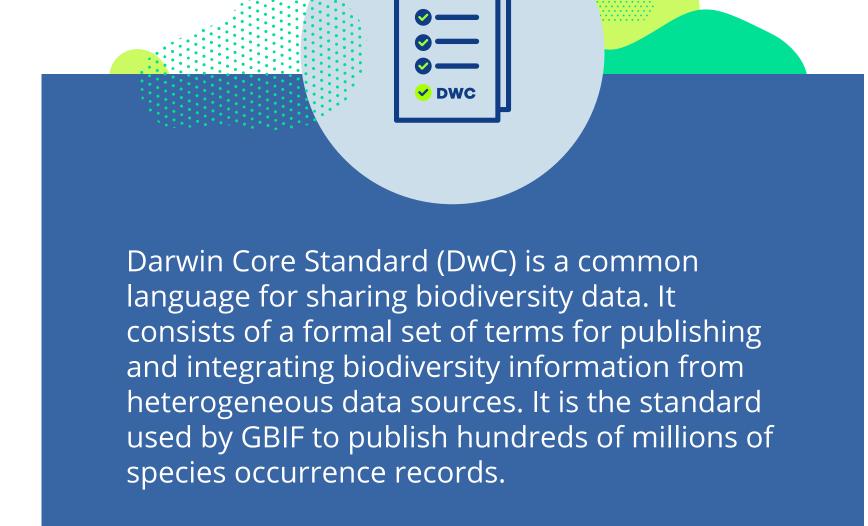


2.- Direct download in Darwin Core format. It is possible to download the entire Natusfera dataset as a Darwin Core Archive, a standardized format for sharing biological diversity information used by GBIF.



3.- Highlighting data available in GBIF.

A counter in the front end of each project is displayed to show the proportion of records that a project has published in GBIF. This greater visibility reinforces the importance of data available through GBIF.



Data from Natusfera available through GBIF

Natusfera Citizen Science Observation Dataset

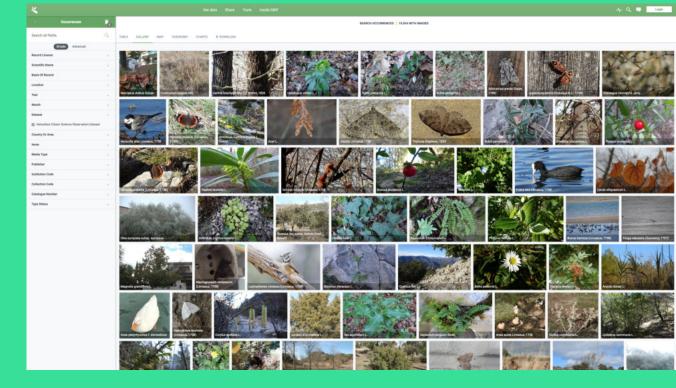
19,973
Ocurrences

DOI: 10.15470/lex4ip



This dataset gathers licensed research-grade observations uploaded in Natusfera by citizens with general interest in learning about biodiversity, with or without knowledge of biology and taxonomy.





Distribution of occurrence records and images from Natusfera dataset available at: https://www.gbif.org/dataset/e58dbe2f-cfc0-40c2-a04d-e45a7e876980

Training and outreach



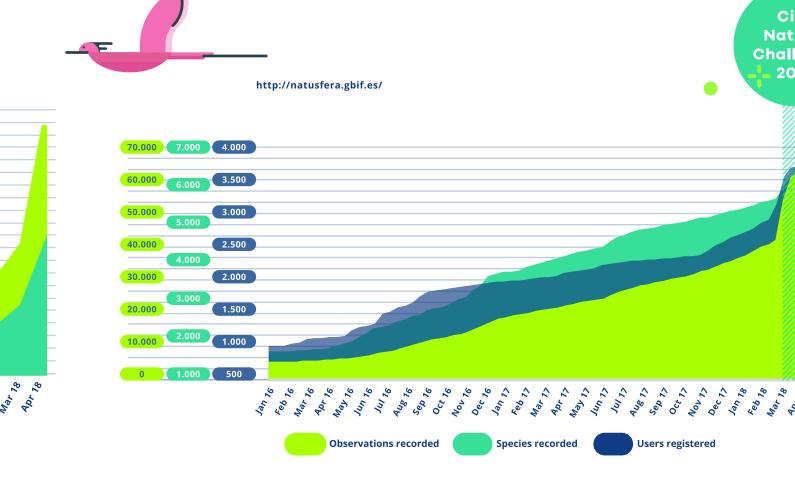




Several activities have helped establish Natusfera within the biodiversity community since it was launched in 2016. National and international workshops, guided nature walks, seminars, etc. have contributed to a wider use of the platform (see Graph 1). Furthermore, our participation in the City Nature Challenge greatly helped increase the number of occurrence records and registered users in Natusfera. After such an event, observations recorded in the citizen platform increased by nearly 25% (15.612), species increased by 7% (500) and users increased by 8% (300). See Graph 2.

http://natusfera.gbif.es/ 10.500 10.000 9.500 9.500 8.500 6.500 6.500 6.500 4.500 2.500 2.500 2.500 1



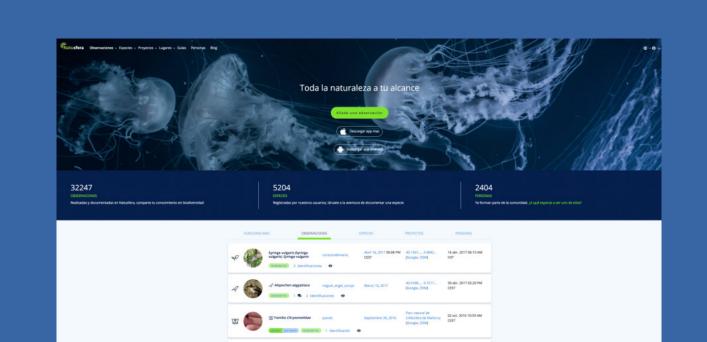


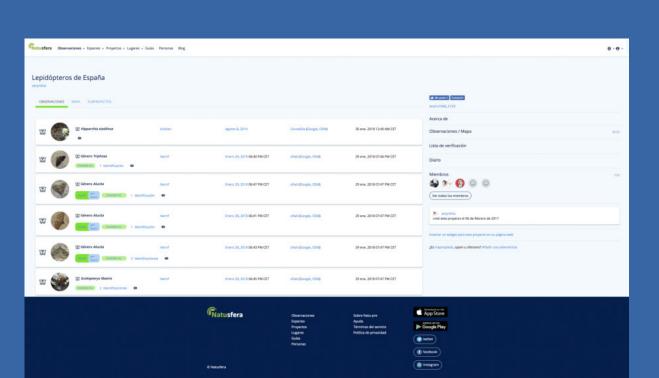
Graph 2. Number of observations, species and users in Natusfera

aws

Coming soon

New interface. The new branding of Natusfera is more attractive and provides an easier access to the platform's functionalities. The web design is based of two colors, green and blue, symbols of life, and has typography that is easier to read.





Reliable hosting

Natusfera has been recently moved to a new hosting provider. The whole infrastructure is now hosted by the Amazon Elastic Compute Cloud which provides a highly reliable, secure and scalable environment. Hence, Natusfera is supported by very powerful servers that guarantee and ensure the storage and management of all observations. More security! More protection! Quality guaranteed!



Wish list

- We aim to incorporate the GBIF Backbone Taxonomy as the reference scientific names list for Natusfera that will allow taxonomic search in a consistent way. It is the taxonomic base used by GBIF to integrate name based information and it is based on Catalogue of Life and 56 more sources.
- Ability to ingest also environmental observations not only living beings.
- Using an open source viewer such as OpenLayers or Leaflet instead of commercial provider.
- Analyzing how to align Natusfera project with the implementation of the INSPIRE Directive (Directive 2007/2 / CE).



















