

Spectral databases: from acquisition to data exchange.
Two examples: data papers/datasets and new interoperable standards





## Data Paper:

"A specific, stand-alone publication describing a particular dataset or a collection of datasets"

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Una publicación independiente que describe un juego de datos o una colección de ellos (publicados en línea)

## Artículo de datos. ¿Qué?

- Artículo académico que describe uno o varios conjuntos de datos.
- Formato legible (y entendible).
- Pone de manifiesto la existencia de estos datos (URL → DOI).
- Repositorio público y bajo licencia.

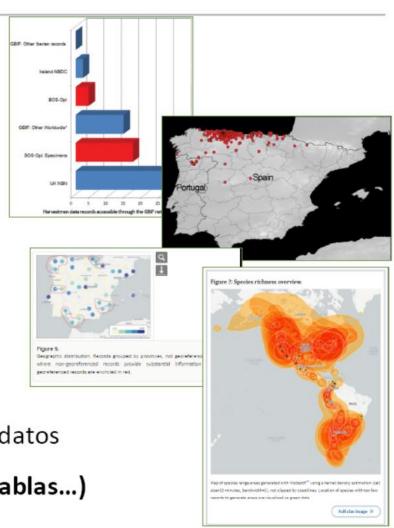
## What?



## How?

## Artículo de datos. Estructura

- Título e información de los autores
- Resumen y palabras clave
- Detalles del proyecto
- Cobertura taxonómica
- Cobertura geográfica
- Metodología
- Dónde están los datos
- Descripción del conjunto de datos
- Otros (apéndices, gráficos, tablas...)
  - Referencias





# SCIENCE Journal

## Welcome to the CODATA Data Science Journal

#### Home

#### Current Issue

Special Issue: CRIS for European e-Infrastructure

Special Report: GEOSS Data Sharing Principles

Essay: Information Gulags, Intellectual Straightjackets, and Memory Holes

Previous Volumes

Submission Instructions

Scope of the Journal

Submission Terms & Conditions

Sample Submission Paper [PDF]

For Reviewers

The Data Science Journal is a Journal of the Committee on Data for Science and Technology (CODATA) of the International Council for Science (ICSU)

The CODATA Data Science Journal Volume 12 (2013) is now available.

ISSN 1683-1470

The Data Science Journal is a peer-reviewed, open access, electronic journal publishing papers on the management of data and databases in Science and Technology. The scope of the Journal includes descriptions of data systems, their publication on the internet, applications and legal issues. All of the Sciences are covered, including the Physical Sciences, Engineering, the Geosciences and the Biosciences, along with Agricultural and the Medical Sciences.

The Journal publishes data or data compilations, if the quality of data is excellent or if significant efforts are required in compilation.

## Where?



## About

▼Aims and Scope ▼Contacts ▼Advisory and Editorial Board ▼Supported by ▼FAQ

Launching in May 2014 and open now for submissions, Scientific Data is a new open-access, online-only publication for descriptions of scientifically valuable datasets, initially focusing on the life, biomedical and environmental science communities.

Scientific Data exists to help you publish, discover and reuse research data and is built around six key principles:

- · Credit: Credit, through a citable publication, for depositing and sharing your data
- · Reuse: Complete, curated and standardized descriptions enable the reuse of your data
- · Quality: Rigorous community-based peer review
- Discovery: Find datasets relevant to your research
- Open: Promotes and endorses open science principles for the use, reuse and distribution of your data, and is available to all through a Creative Commons license
- · Service: In-house curation, rapid peer-review and publication of your data descriptions

-http://www.nature.com/scientificdata/about/

## Where?



Q Geranium America

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About





Feec

\*CSIC A Distribution and Taxonomic Reference Dataset of Geranium (Geraniaceae) in...

search.datacite.org

Updated Jun 5, 2017



Ridgefield - Shiny Geranium and Fragrant Water Lily

catalog.data.gov data.doi.gov +1more

Updated Oct 25, 2018



Data from: Earthworm invasion. white-tailed deer and seedling establishment...

datadryad.org

Published Nov 25, 2014



GBIF Occurrence Download search.datacite.org

Updated 28 jul. 2017



GBIF Occurrence Download search.datacite.org







A Distribution and Taxonomic Reference Dataset of Geranium (Geraniaceae) in the New World



Dataset created Apr 29, 2015 Dataset updated Jun 5, 2017 Dataset published 2015

#### Dataset provided by

Spanish National Research Council DataCite

#### Authors

Carlos Aedo: Francisco Pando

#### License

http://creativecommons.org/licenses/by/4.0/legalcode

#### Description

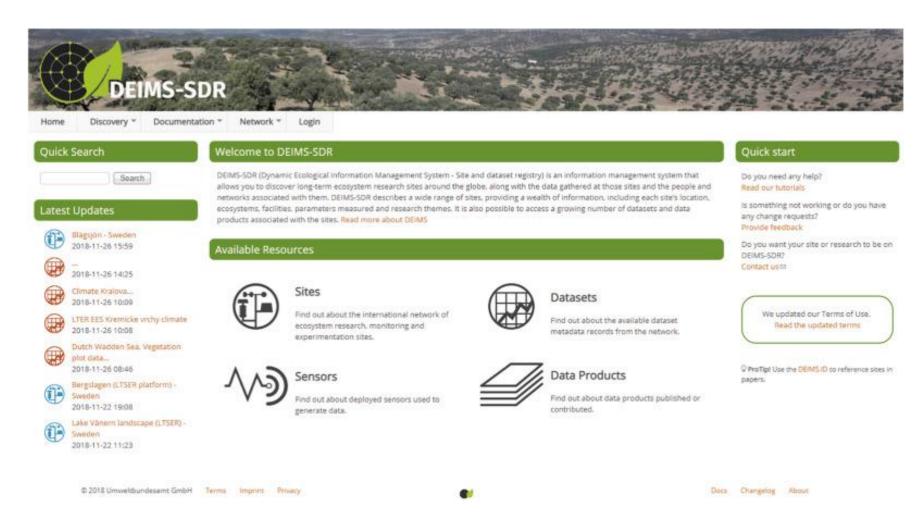
The dataset includes 8937 records that covers genus Geranium the New World, providing an updated, taxonomically consistent and a sound geographical distribution of the 137 species of Geranium in America. These are the studied specimens on which following monograph was based:

Aedo, Carlos (2012). Revision of Geranium (Geraniaceae) in the New World. Systematic Botany Monographs 95: 550p.



## DEIMS-SDR: A similar approach from ecological datasets & eLTER





https://deims.org/

## Metadata model (EML)

#### General characteristics

Site Name\* Short Name DEIMS.ID\*\*

Size

General Site Description Purpose of Site

Images

Parent Site Name Sub Site Name(s) EnvThes Keywords

#### Contact Details

Site Manager \*
Site Owner
Funding Agency
Web Address

#### Metadata Details

Metadata Provider

Metadata Update Date\*\*

## Geographic Location

Country\*

Center coordinates

Site boundaries Shapefile Elevation Average

From To

## Status and History

Site status Year site established Year site closed

History of site

## Ecosystem and environmental characteristics

Temperature

Average

From

Precipitation

Average

From To

Biomes

Biome Geo-Bon-Biome

Ecosystem and land use

Biogeographic region (only for Europe)

EUNIS habitat Geology

Hydrology Soil

Vegetation

## Site Classification

Site Type (Spatial Design)

#### Network affiliation

Networks/Projects Network specific ICP Forests Code Site classification ExpeER

## Focus, design and scale

Research topics
Parameters
Observation design
Scale of observation
Design of observation
Experimentation design
Scale of experimentation
Design of experimentation

## Protection status and resource management

Protection program Protection program

Cover

Management of resources

Management of resources

Cover

### Infrastructure and operation

Infrastructure

Infrastructure value Infrastructure notes

Accessible all year

All parts of site accessible

Access type

Permanent power supply Infrastructure collection

Operation

#### Permanent operation

Operation costs Operation notes Sampling interval Maintenance interval

## Data Sharing Policy

**Data Request Format** 

General Data Policy Data Policy Notes

## Data management

**Data storage location** 

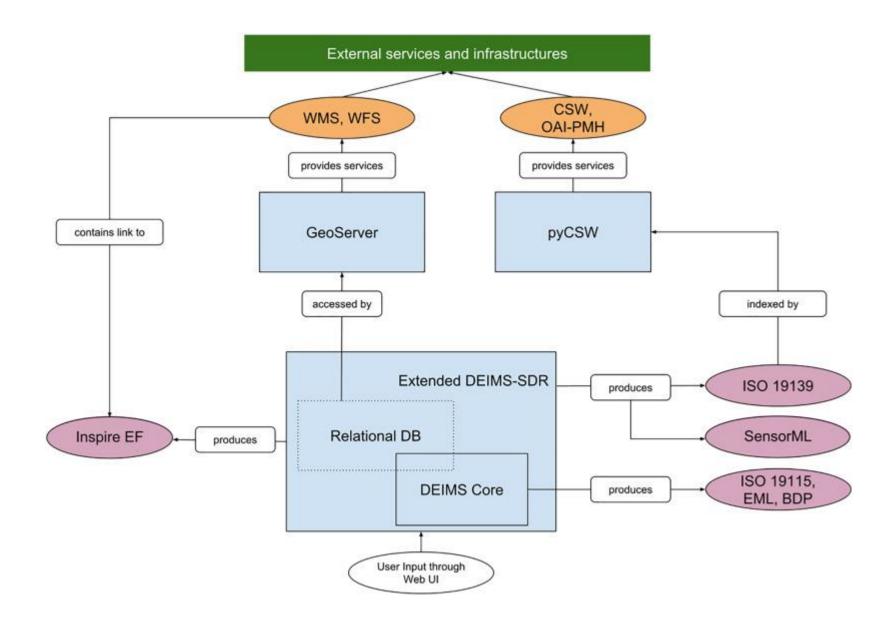
Data storage format Data services Data notes

Mandatory\*

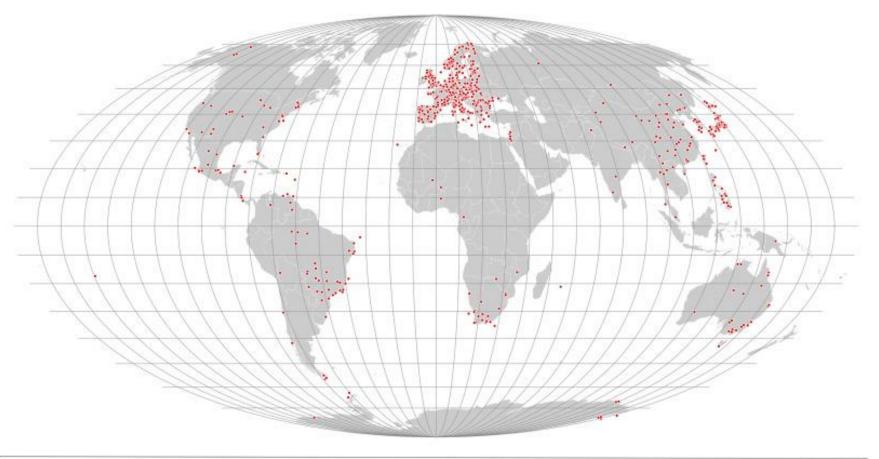
Automatically generated\*\*

Recommended (and used for calculating completeness of a record)

## Services



## Contributing sites (1019) since 2014



Legend

· Site registered on DEIMS-SDR

Sources: Administrative boundaries: gadm.org Site locations: DEIMS-SDR

Projection: EPSG:54009

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## Doñana since 2014

