



# GBIF for research stations

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GBIF Scientific Officer



Photo: skoppelo , Kilpisjärvi station, Finland  
<https://www.flickr.com/photos/skoppelo/45281740/in/photolist-ijHSPg-515FE>

# The research data lifecycle

Generate / Access

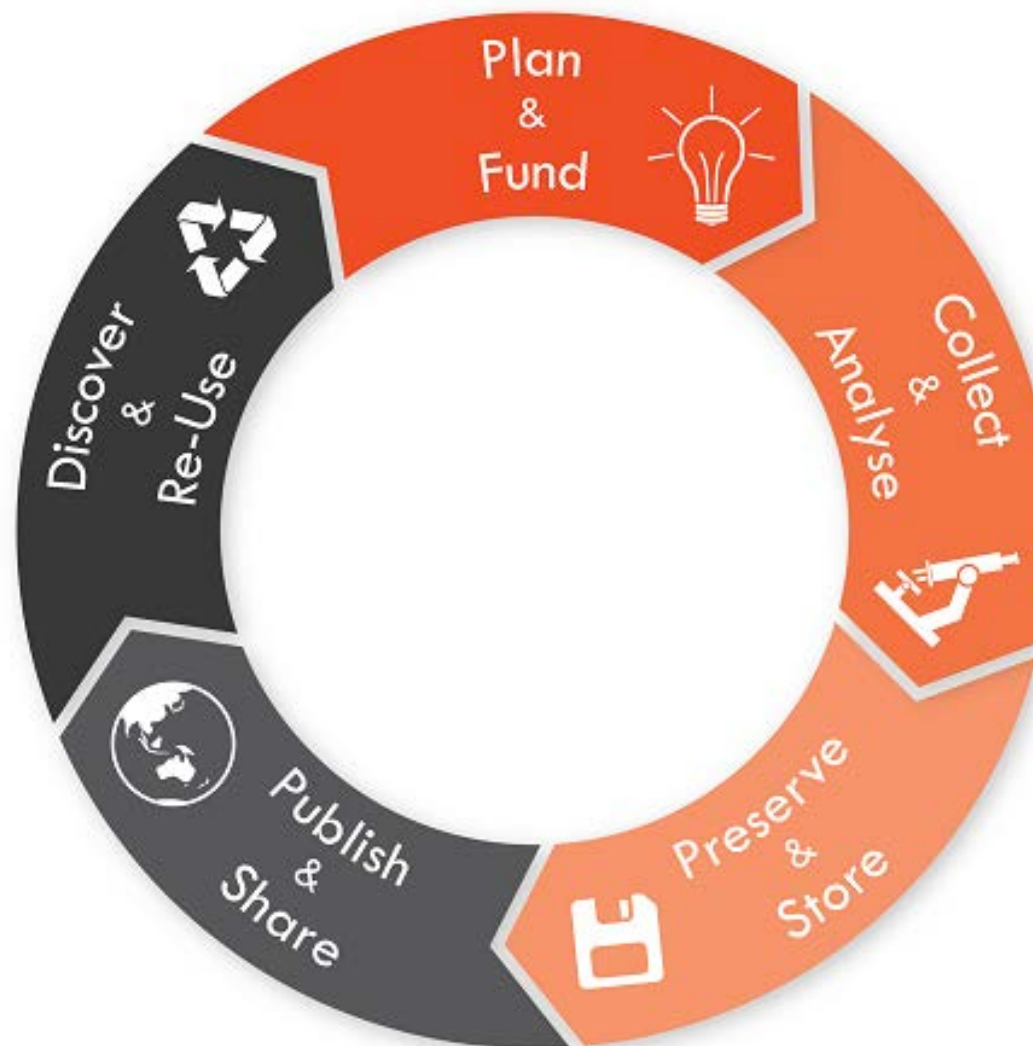
(re)Organize

Modify

Analyze

Archive

Cite

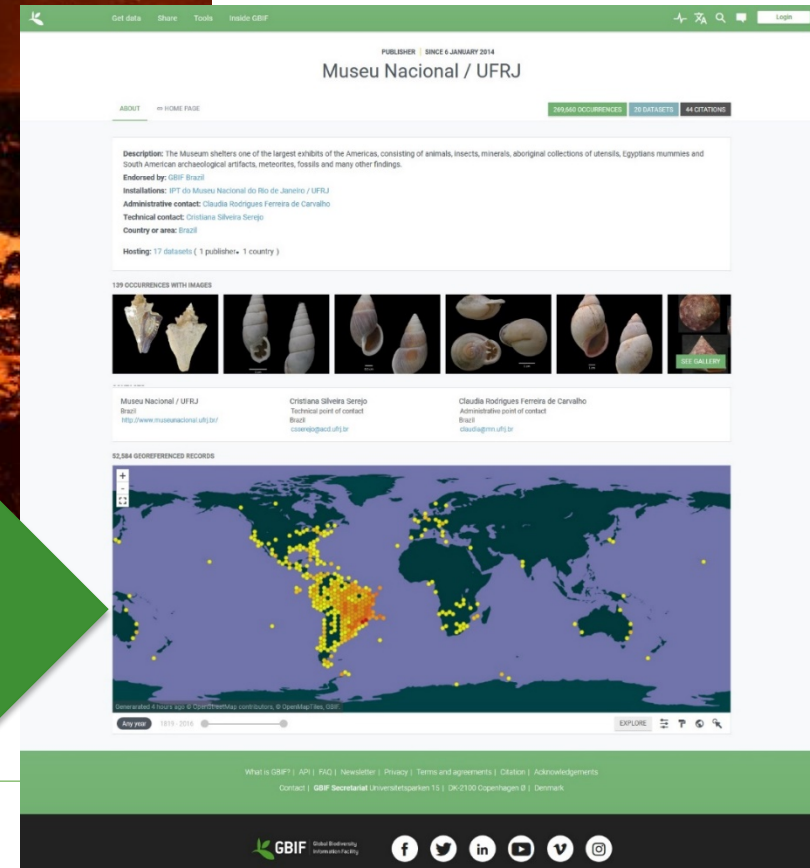


All samples and specimens will be destroyed at some point  
maybe data, too, but digitization increase the use and lifetime



Photograph by Fabio Teixeira, Picture Alliance via Getty Images

... but digitization and data  
publishing is also form of digital  
**security** for heritage knowledge





GBIF | Global Biodiversity Information Facility

# Free and open access to biodiversity data

OCCURRENCES

SPECIES

DATASETS

PUBLISHERS

RESOURCES

Search



WHAT IS GBIF?

ABOUT GBIF RUSSIAN FEDERATION

Occurrence records  
1,335,543,292

Datasets  
45,635

Publishing institutions  
1,439

Peer-reviewed papers using data  
3,758



News

Belarus extends GBIF's European membership map eastward  
16 July 2019



Data use

Minimizing biodiversity loss in the Brazilian Cerrado  
2 July 2019



Data use

Science Review 2019  
Stay up to date on the latest research investigations enhanced and supported by free and open access to biodiversity data.



News

Programme seeks Biodiversity Open Data Ambassadors to expand best practices  
10 July 2019



News

BIFA funds nine Asian data mobilization projects  
26 June 2019



Taxonomy

Atlantodesmus sierwaldae sp. nov.  
Cladistic analysis and description of a new species of the Brazilian genus *Atlantodesmus* Hoffman, 2000 (Diplopoda: Polydesmida: Chelodesmidae)



Tool

The GBIF network  
Dozens of countries and organizations working together to make species data findable, accessible, interoperable and reusable.



Guidance

Establishing a national biodiversity information facility in Chile  
Experiences of setting up and running a node in Latin America



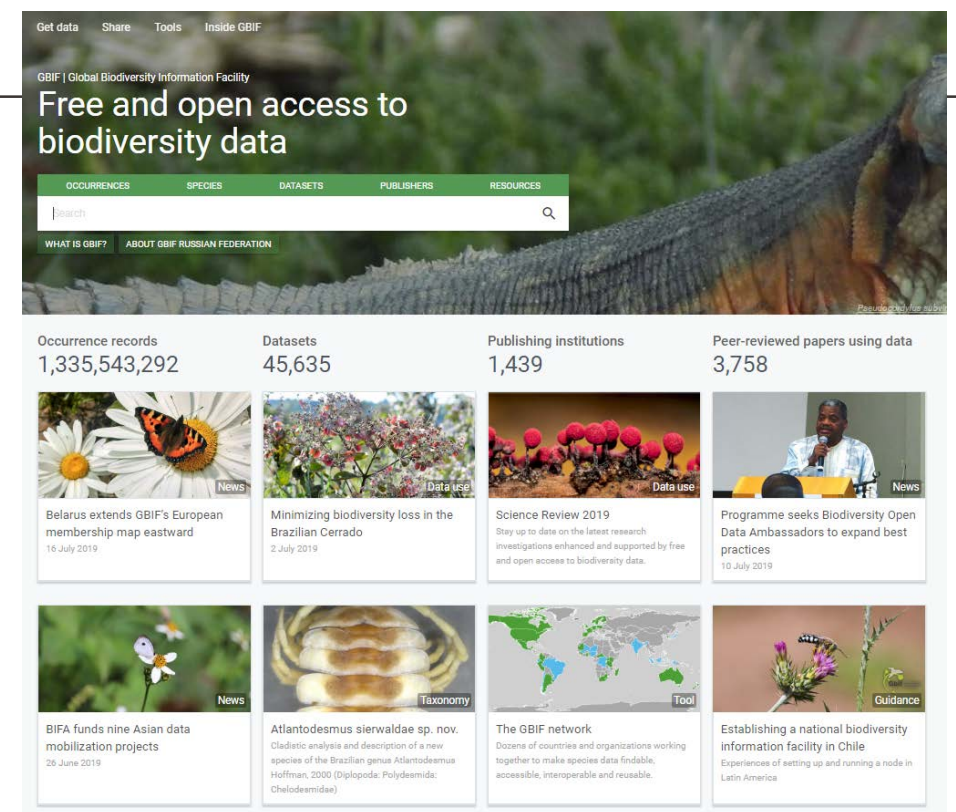
Intergovernmental open data infrastructure

Funded by the governments  
of the participant countries

Network for free and open access  
to biodiversity data

96 participants:

58 countries and 38 organisations



**What species?**

**Where was it found?**

**When was it found?**

**What is the evidence?**

Specimen data

Sampling event information

Sequences, images, etc.

## Data richness levels supported by GBIF

**1.**

Catalogue of collections

Collection Metadata

**2.**

Species in countries and areas

Species Checklists

**3.**

Species with dates and coordinates

Species Occurrences

**4.**

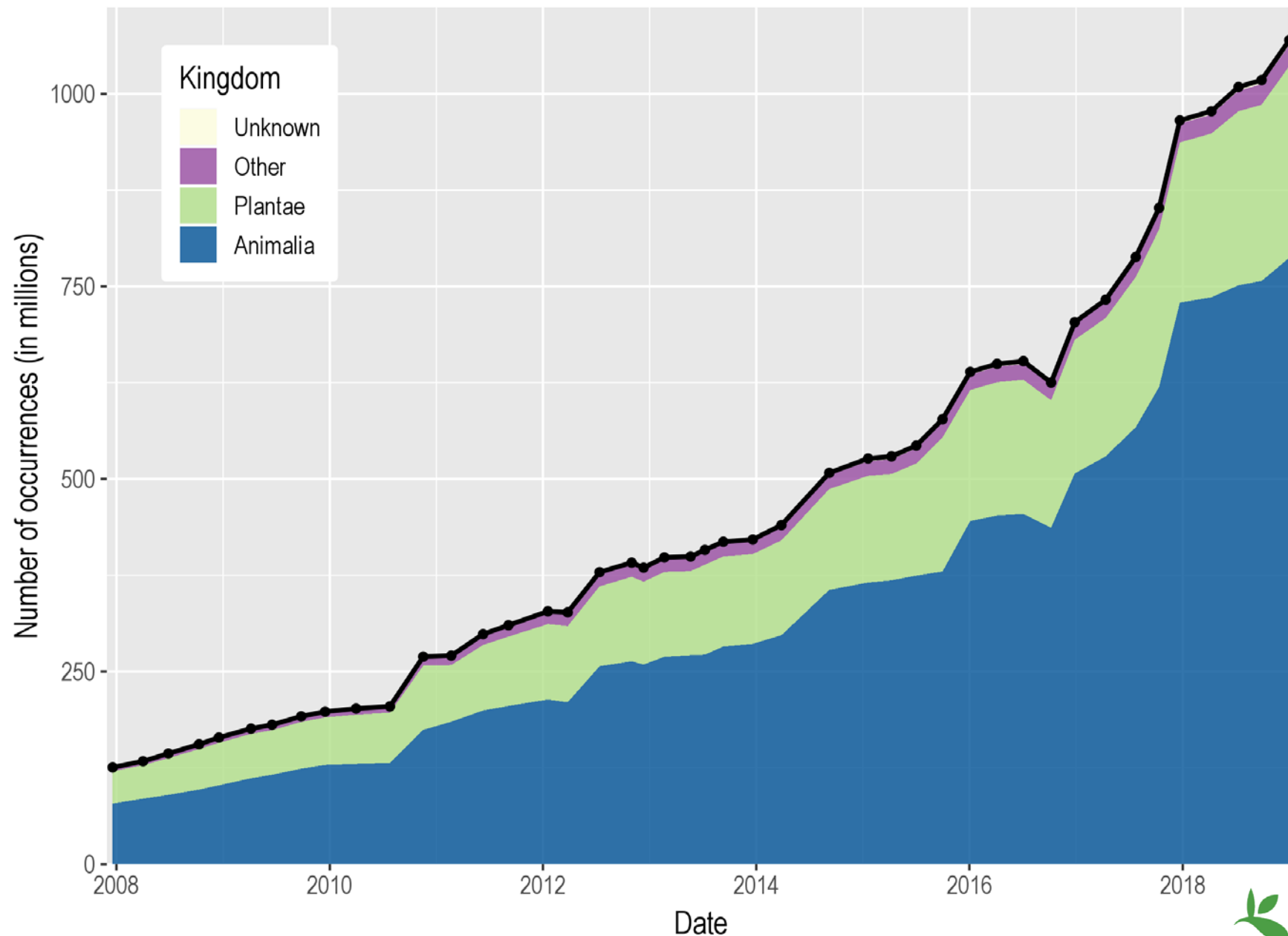
Species with dates, coordinates, methods, abundance and absence etc.

Sampled Organisms

# Data published through GBIF.org

data availability

Species occurrence records accessible through GBIF over time



[www.gbif.org/analytics/global](http://www.gbif.org/analytics/global)





## BY THE NUMBERS

29 Aug 2019

*Species occurrence records*

1,338,052,443

*Datasets*

45,921

*Country  
Participants*

58

*Organizational  
Participants*

38

*Publishers*

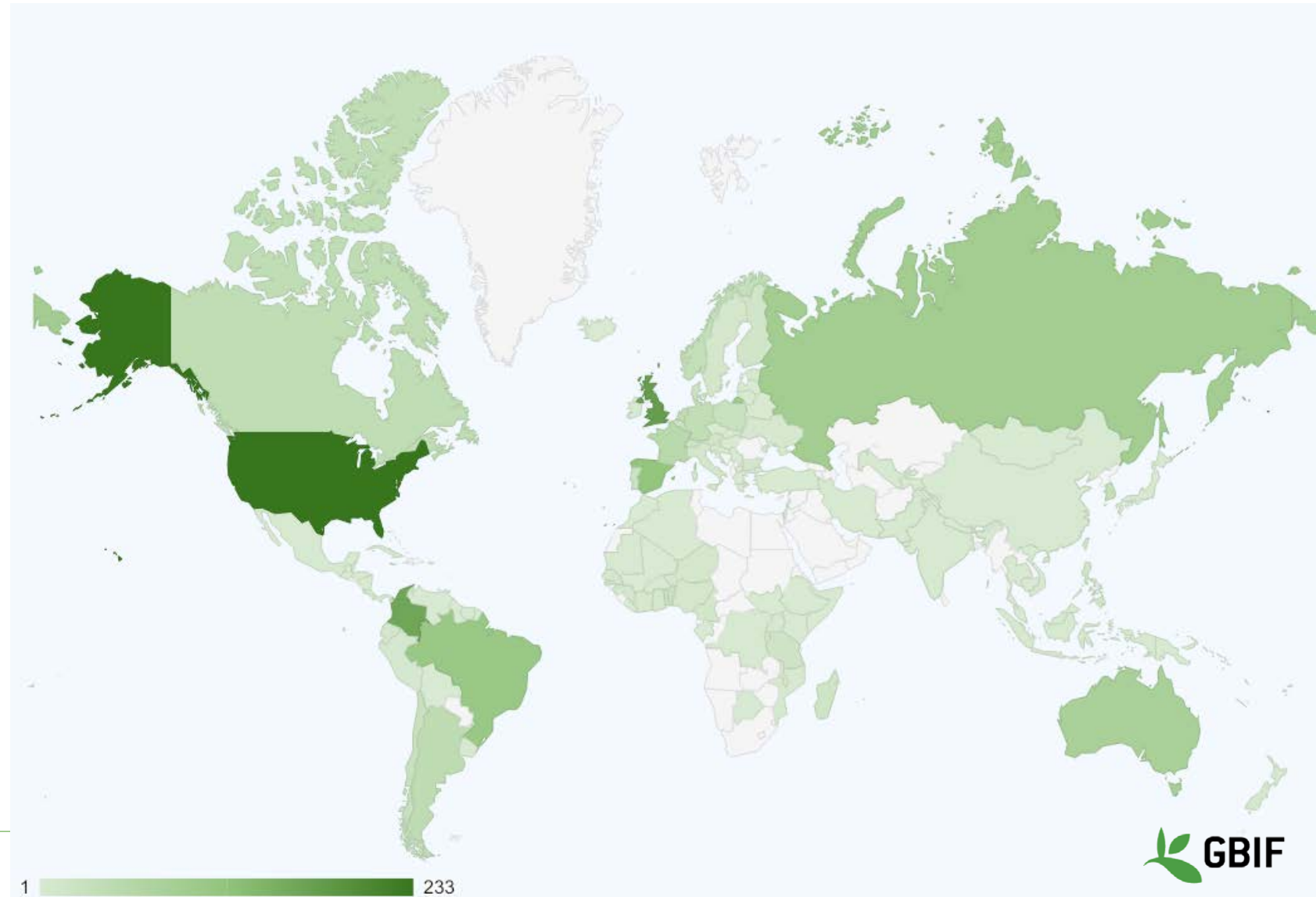
1,445

# GBIF data publishers: organizations

*30 Aug 2019*

129 countries and territories  
with GBIF publishers

115 countries and territories  
publish data





# Data citation: tracking and display

data access and use

[Get data](#) [Share](#) [Tools](#) [Inside GBIF](#)

OCCURRENCE DATASET | REGISTERED 13 OCTOBER 2016

NMNH Extant Specimen Records

Read more about literature, how it's discovered and linked to GBIF-mediated data. [Citation](#)

**Leptodactylus mystaceus (Spix, 1824): Distribution extension for the Brazilian Cerrado (Anura: Leptodactylidae)**

Journal Article

Andreani, T. Borges, R. Santos, L. (2017) Herpetology Notes  
Fifty-seven species of anurans belonging to the genus Leptodactylus are registered and widely distributed throughout Brazil (Sá et al., 2014; SBH, 2016). Among these species, Leptodactylus mystaceus (Spix, 1824) spreads throughout the whole Northern region and some areas of northeastern and central ...

Data used in study [DOI: 10.15468/dl.s1xtf6](#)

**DO ENVIRONMENTAL FACTORS AFFECT THE TAXONOMIC RELIABILITY OF LEAF CUTICULAR MICROMORPHOLOGICAL CHARACTERS? A CASE STUDY IN PODOCARPACEAE**

Journal Article

Clugston, J. Jeffree, C. Ahrends, A. Mill, R. (2017) Edinburgh Journal of Botany  
Leaf cuticle micromorphology has been cited as an important set of taxonomic characters in gymnosperms, but previous studies have largely been based on small sample sizes. The premise of this study was to understand whether external factors affect cuticular micromorphology of Podocarpaceae. Two exam...

Data used in study [DOI: 10.15468/6e8nje](#) [DOI: 10.15468/bkzv1l](#) [DOI: 10.15468/dgbpla](#) [DOI: 10.15468/dlwwhz](#) [DOI: 10.15468/hja69f](#) [DOI: 10.15468/hnhrg3](#) [DOI: 10.15468/i9bj5r](#) [DOI: 10.15468/ib5ypt](#) [DOI: 10.15468/ky60bx](#) [DOI: 10.15468/mug7kr](#) [DOI: 10.15468/nc6rxy](#) [DOI: 10.15468/ucmdij](#) [DOI: 10.15468/vtfbe3](#) [DOI: 10.15468/x5ucvh](#) [DOI: 10.15468/xy0eoi](#) [DOI: 10.15468/yo3mmu](#) [DOI: 10.15468/ypoir](#) [DOI: 10.15468/z77ps7](#)

**One for each ocean: revision of the Bursa granularis (Röding, 1798) species complex (Gastropoda: Tonnoidea: Bursidae)**

Journal Article

Sanders, M. Merle, D. Bouchet, P. Castelin, M. Beu, A. Samadi, S. ... - (2017) Journal of Molluscan Studies  
Bursa granularis (Röding, 1798) is a tonnoidean gastropod that is regarded as broadly distributed throughout the Indo-Pacific and tropical western Atlantic. Because of its variable shell it has received less than thirteen names, now all synonymized under the name B. granularis. We sequenced a fra...

Data used in study [DOI: 10.15468/dl.ma8dle](#)

6,483,107 OCCURRENCES

6 CITATIONS

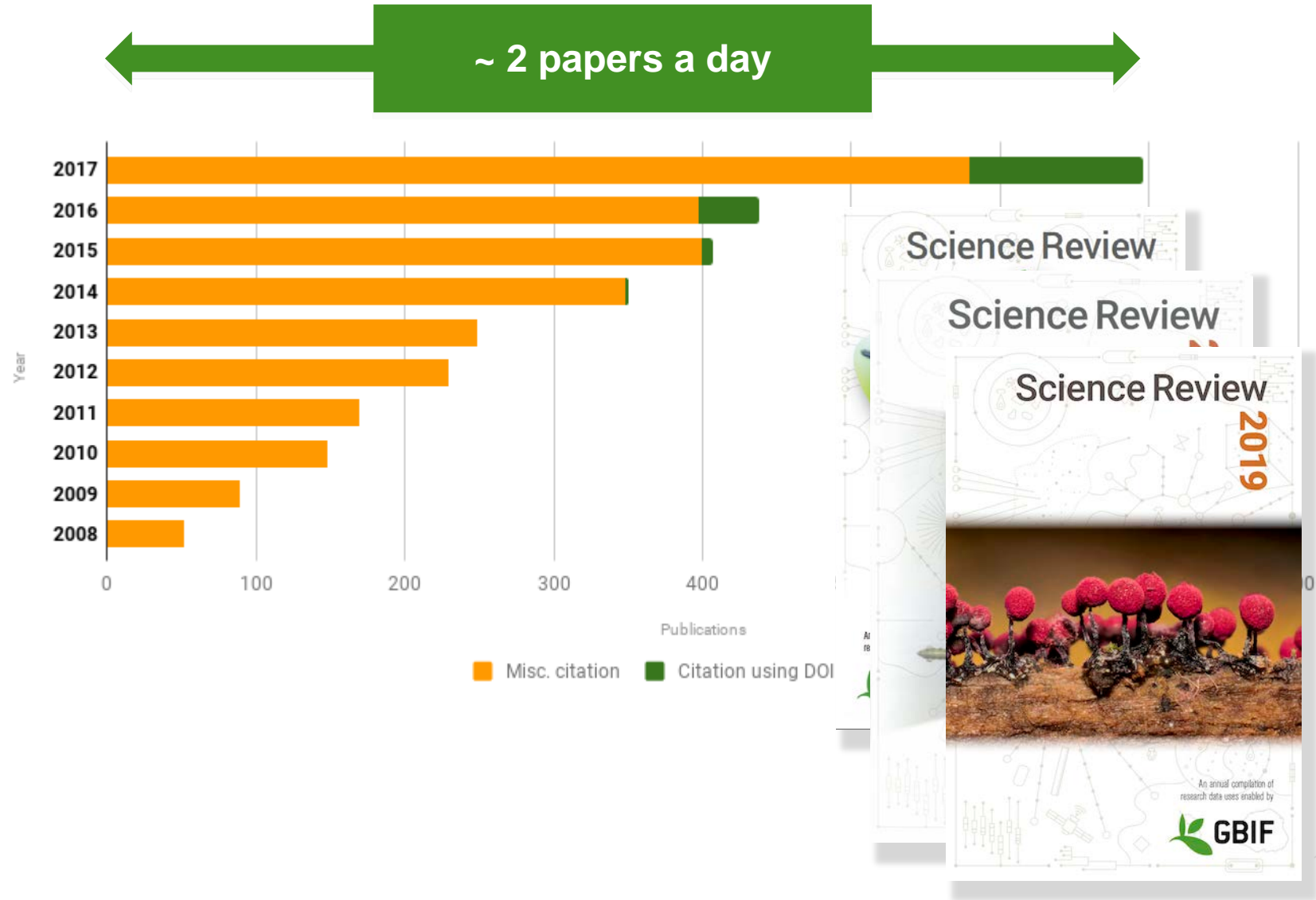
Smithsonian Institution  
National Museum of Natural History  
Last modified: 2 June 2017  
License: CC0  
How to cite: [10.15468/hnhrg3](#)

78%  
With year

# GBIF enabled science today: peer-reviewed publications

data access and use

Agriculture  
Aliens and invasives  
Biogeography  
Citizen science  
Climate change  
Conservation  
Data management  
Ecology  
Ecosystem services  
Evolution  
Human health  
Species distributions  
Phylogenetics  
Taxonomy





# Benefits of openness



Increases the efficiency of research

Promotes scholarly rigor and quality of research

Enables tracking of data use and data citation through DOIs

Expands the spectrum of academic products through data papers

Enhances visibility and scope for engagement

Enables researchers to ask new research questions

Enhances collaboration and community-building

Increases the economic and social impact of research

International conventions and requirements from funding agencies

# Research stations in GBIF: increase **visibility**, **collaboartion**, **impact** through **data**

Only <50 stations represented in  
GBIF worldwide

Masses of high-quality and long-  
term data

Opportunity to get discovered  
through data searches

Measure research value also  
through data products and data  
citation

## Archbold Biological Station

Joined 2 years ago

The mission of Archbold Biological Station is to build and share the scientific knowledge needed to protect the life, lands, and waters of the heart of Florida and beyond. Archbold is located in Venus...

1 dataset United States of America 2 citations

## Biological Field Station of Paimpont, University Rennes 1

New publisher

Joined 2 months ago

Located in a rural, agricultural region in continental Brittany, North-West France, the Biological Field Station of Paimpont (Station Biologique de Paimpont, SBP) offers since 1967 an excellent outdoo...

1 dataset France

## Station d'Ecologie de Lamto

Joined 2 years ago

The Ecology Station of Lamto is an ecological research station located in the center of Côte d'Ivoire. It is attached to Nangui Abrogoua University of Abidjan. Since its foundation, this station has b...

1 dataset Côte d'Ivoire

## Taiwan Forestry Bureau

Joined 4 years ago

In order to manage the country's national forest and achieve the goal of management for multiple uses, the Bureau headquarters consists of five division and four offices. Responding to changes in the ...

4 datasets Taiwan 3 citations

## Nikolai Pertsov White Sea Biological Station

Joined a year ago

WSBS MSU (Nikolai Pertsov White Sea Biological Station) is an educational and research centre, created for conducting marine scientific research and field student practices at the White Sea. WSBS is a...

Russian Federation

## Charles Darwin Research Station



# Research stations in GBIF

## Nikolai Pertsov White Sea Biological Station

[ABOUT](#)[HOME PAGE](#)

0 OCCURRENCES

0 DATASETS

## Archbold Biological Station

[ABOUT](#)[METRICS](#)[HOME PAGE](#)

34,692 OCCURRENCES

1 DATASET

2 CITATIONS

**Description:** The mission of Archbold Biological Station is to build and share the scientific knowledge needed to protect the life, lands, and waters of the heart of Florida and beyond. Archbold is located in Venus, south-central Florida. Since inception in 1941, Archbold Biological Station has prioritized the development and curation of an on-site, multi-taxon, specimen-based, natural history collection. The collection of specimens is necessary for research at the Station and for outside investigators, emphasizing two essential activities – the identification of species and documentation of biodiversity. After decades of steady growth the Archbold collection includes more than 250,000 well-preserved, and well-labeled specimens of plants, birds, fish, herptiles, mammals and arthropods. The Archbold collection is probably unrivalled in scope and size among biological field station collections in North America, and is likely one of the largest on-site collections encompassing the taxonomic diversity of a single (3,577-ha) site in the U.S.A. Our diverse natural history reference collection is a key component of the Station's infrastructure, serving a broad community of staff researchers, visiting investigators and students, and supplying collection material and information to outside investigators. Plant specimens have been used in studies of community ecology, such as the response of vegetation to fire. The vertebrate collection was designed for studies of variation, growth patterns, life histories, and population dynamics of local vertebrates. The arthropod collection contributes to numerous studies needing insect identification, as well as providing large numbers of specimens with ecological data.

**Endorsed by:** [U.S. Geological Survey](#)

**Administrative contact:** [Stephanie Leon](#)

**Technical contact:** [Vivienne Sclater](#)

**Country or area:** [United States of America](#)

# INTERACT: how to be visible in GBIF and publish data?

## 1. Work with CAFF and get your data published through CAFF: professional help

Kári Fannar Lárusson

Point of contact Administrative point of contact  
kari@caff.is

OR

## 1. Register own GBIF account and go ahead: independent statistics and citations

<https://www.gbif.org/publishing-data>

PUBLISHER | SINCE SEPTEMBER 28, 2015

### Conservation of Arctic Flora and Fauna

ABOUT METRICS HOME PAGE

390,361 OCCURRENCES 70 DATASETS 39 CITATIONS

**Description:** CAFF is the biodiversity working group of the Arctic Council and consists of National Representatives assigned by each of the eight Arctic Council Member States, representatives of Indigenous Peoples' organizations that are Permanent Participants to the Council, and Arctic Council observer countries and organizations. The CAFF Working Group operates by the Arctic Council Rules of Procedures. CAFF's mandate is to address the conservation of Arctic biodiversity, and to communicate its findings to the governments and residents of the Arctic, helping to promote practices which ensure the sustainability of the Arctic's living resources. It does so through various monitoring, assessment and expert group activities. CAFF's projects provide data for informed decision making to resolve challenges arising from trying to conserve the natural environment and permit regional growth. This work is based upon cooperation between all Arctic countries, indigenous organizations, international conventions and organizations, and is guided by the CAFF Strategic Plan for the Conservation of Arctic Biological Diversity and biennial Work Plans. To successfully conserve the natural environment and allow for economic development, comprehensive baseline data is required, including the status and trends of Arctic biodiversity, habitats and ecosystem health. CAFF is developing the framework and tools necessary to create a baseline of current knowledge, and to provide dynamic assessments over time. This evolving, sustainable and responsive approach can produce more regular, timely and flexible analyses.

**Endorsed by:** Participant Node Managers Committee

**Installations:** CAFF IPT

**Administrative contact:** Kári Fannar Lárusson

**Technical contact:** Hólmgrímur Helgason

**Hosting:** 70 datasets ( 1 publisher • 0 countries )

#### CONTACTS

Conservation of Arctic Flora and Fauna Borgir Norðarsíða Akureyri 600 http://www.caff.is	Hólmgrímur Helgason Technical point of contact hodo@caff.is +354-4622350	Kári Fannar Lárusson Point of contact • Administrative point of contact kari@caff.is +354-4622350
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Inside GBIF

SHARE

## Become a publisher

*Organizations wishing to share data through GBIF can register here to request endorsement as a data publisher*

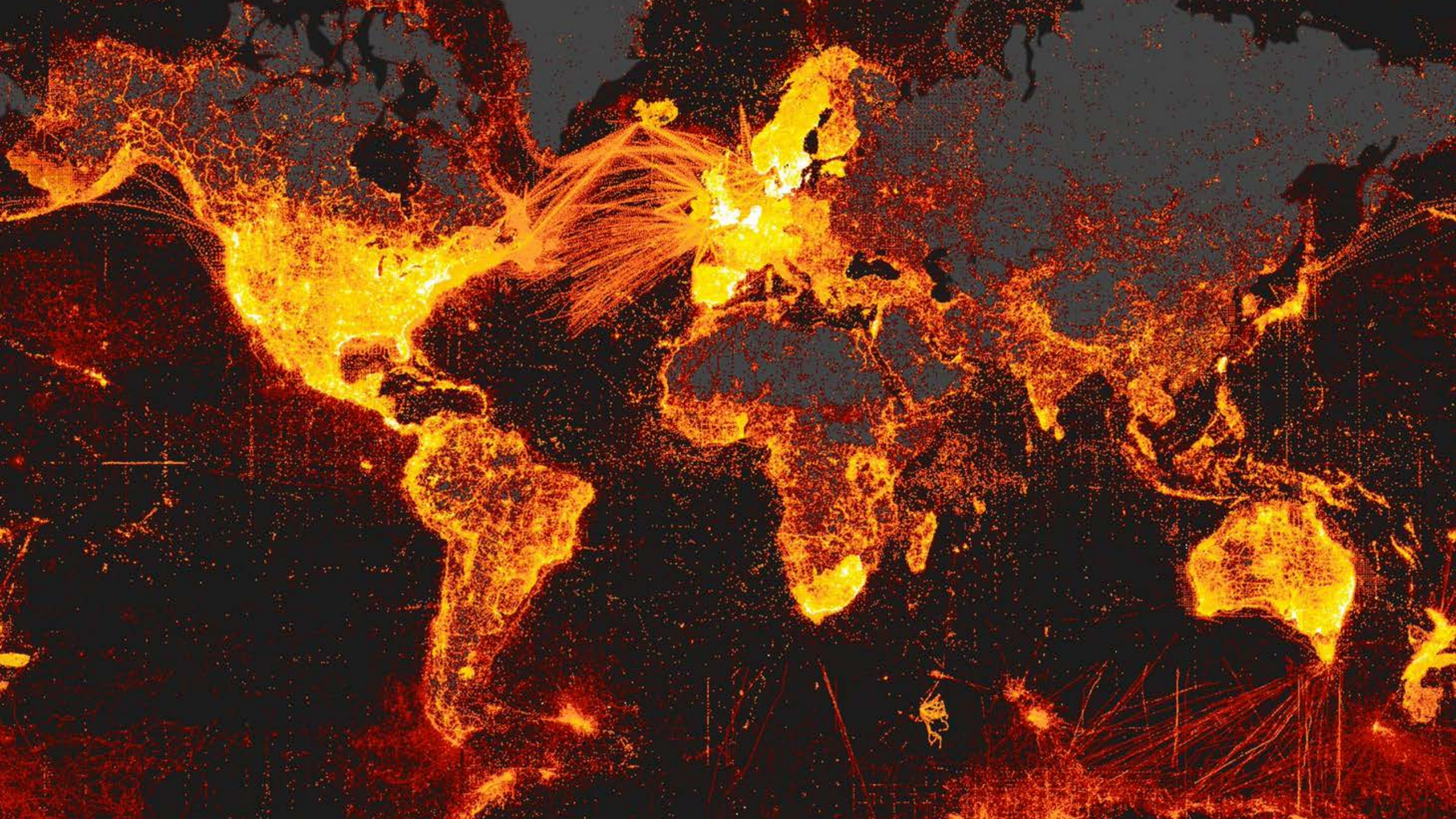
To prepare for publishing data through GBIF, we ask prospective new publishers to complete the online form below.

Your answers will help us to give proper credit and attribution for the datasets you share. They will also help users to understand more about the provenance of data shared through the GBIF network.

Before GBIF indexes your datasets, your institution must [receive endorsement as a data publisher](#) from one of the Participant nodes that coordinate activities of the [national and organizational Participants in the GBIF network](#). If your country is not yet participating in GBIF, we will seek endorsement on your behalf from the GBIF community.











# Thank you

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風の谷のナウシカ