



EUDAT User Forum  
London 11-12 March 2013

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## Metadata in the GBIF network

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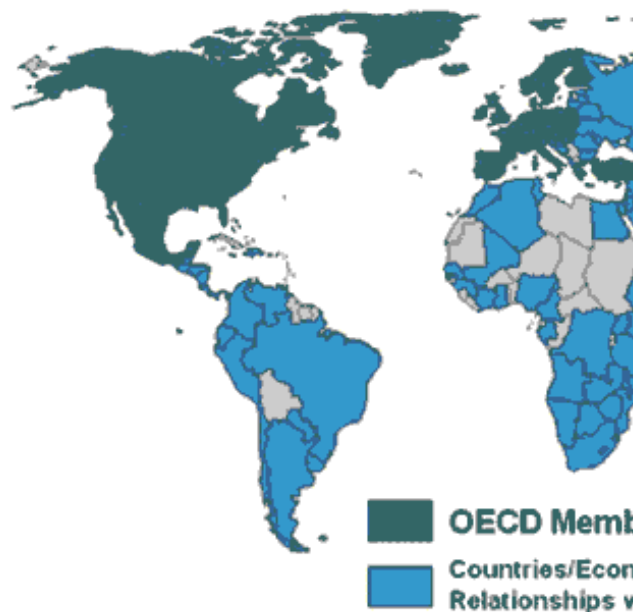
Éamonn Ó Tuama  
Senior Programme Officer  
Global Biodiversity Information Facility (GBIF)

# The OECD origin...



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

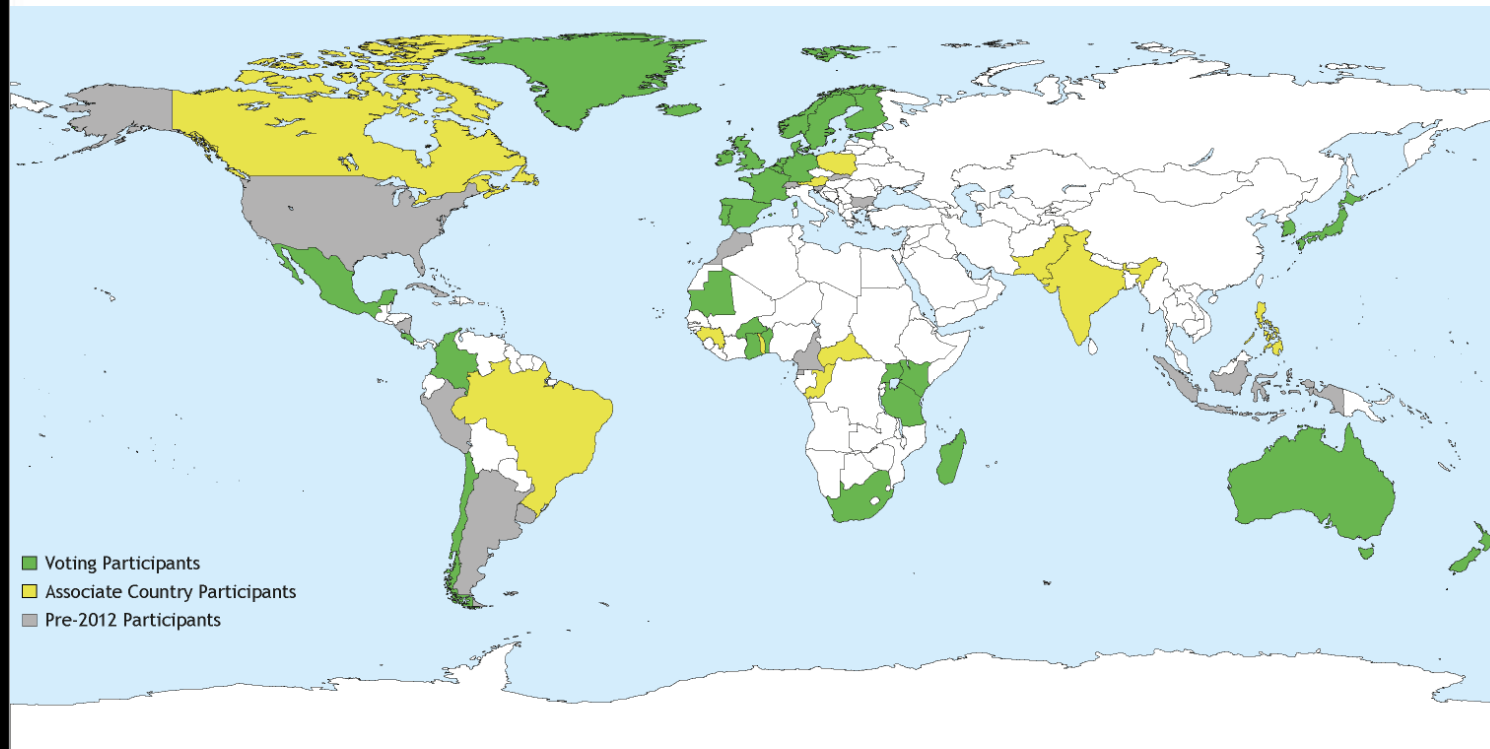
OECD Global Science Forum recommendation (1999):  
*“Establish and support a distributed system of interlinked and interoperable modules (databases, software and networking tools, search engines, analytical algorithms, etc.) that together will form a **Global Biodiversity Information Facility (GBIF)**”*



*“This facility will enable users to navigate and put to use vast quantities of biodiversity information, thereby:*

- *advancing **scientific research...***
- *serving the **economic...***
- *providing a basis from which our **knowledge of the natural world can grow rapidly...**”*

# GBIF Participation



- 31 voting participants
- 11 associate country participants
- + 33 participant organisations

Last updated: 2013-03-04

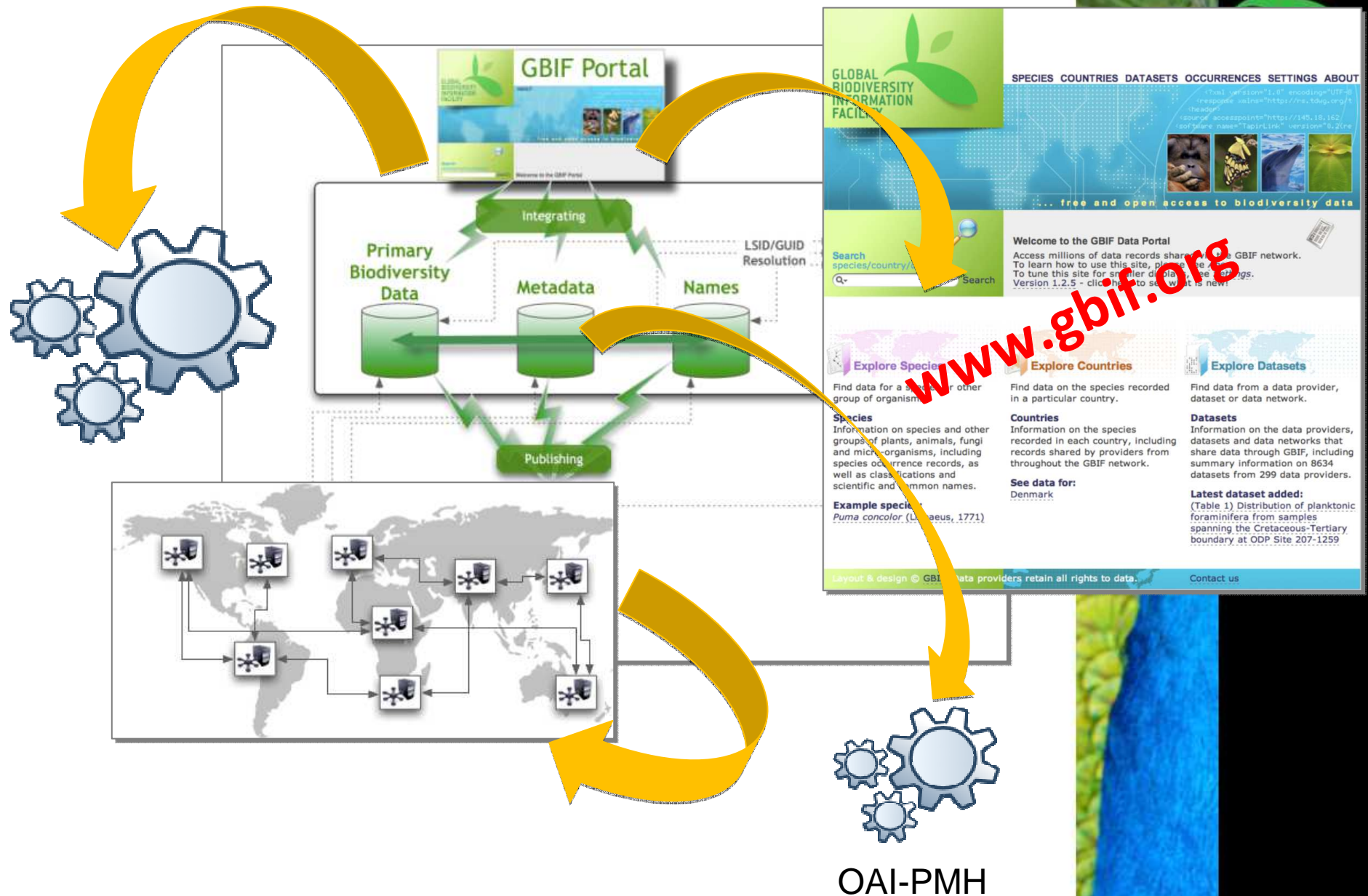


# What does GBIF do?

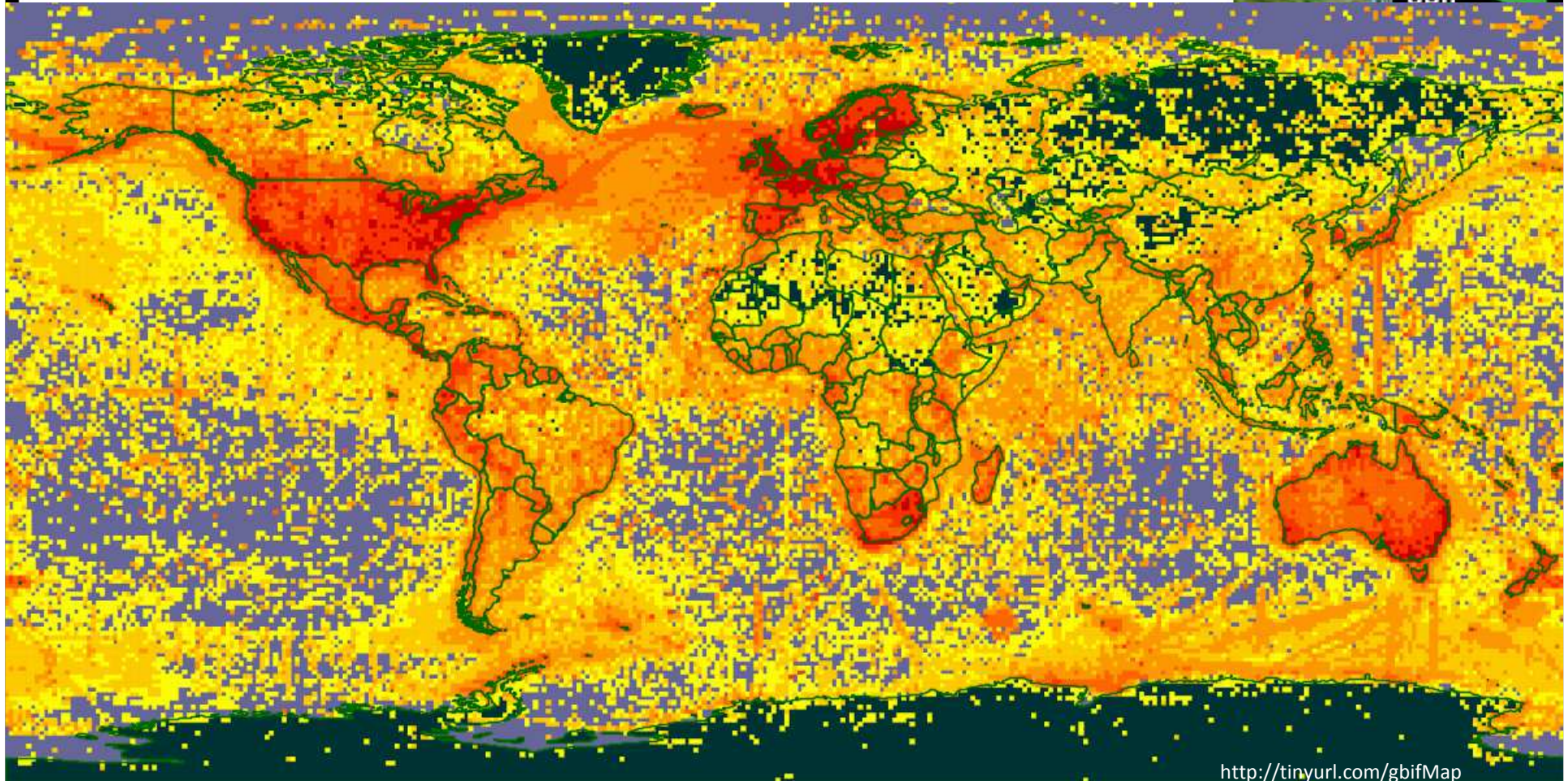
- Builds a global informatics **infrastructure** for biodiversity science
- Supports and promotes common **standards** for data capture and sharing
- Promotes global **participation, capacity building**
- Encourages and enables **publication of data** on biodiversity (manuals, training, collaboration between participants)



# The GBIF informatics infrastructure

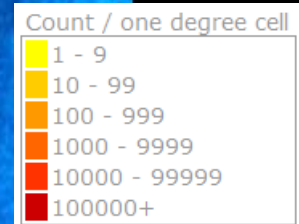


# Current GBIF-Network Data Coverage



<http://tinyurl.com/gbifMap>

As of March 2013: **396,026,747** indexed records from **10,004** datasets from **464** publishers and spanning a wide range of geospatial, temporal and taxonomic coverages.





# Darwin Core

## – a glossary of terms

Biodiversity  
Information  
Standards  
T D W G



continent  
taxonRank basisOfRecord kingdom  
institutionCode scientificNameID family institutionID  
vernacularName coordinatePrecision recordedBy taxonID  
verbatimTaxonRank originalNameUsage nomenclaturalCode  
nameAccordingTo higherClassification namePublishedInID  
classparentNameUsage occurrenceID originalNameUsageID nameAccordingToID  
order higherGeographyID associatedTaxa verbatimCoordinateSystem datasetID  
minimumElevationInMeters coordinateUncertaintyInMeters parentNameUsageID  
infraspecificEpithet acceptedNameUsageID genus scientificNameAuthorship behavior  
collectionCode previousIdentifications maximumDepthInMeters taxonConceptID  
geodeticDatum reproductiveCondition decimalLongitude namePublishedIn phylum  
catalogNumber acceptedNameUsage nomenclaturalStatus taxonRemarks  
specificEpithet higherGeography decimalLatitude subgenus  
taxonomicStatus scientificName islandGroup  
lifeStage locationID collectionID waterBody



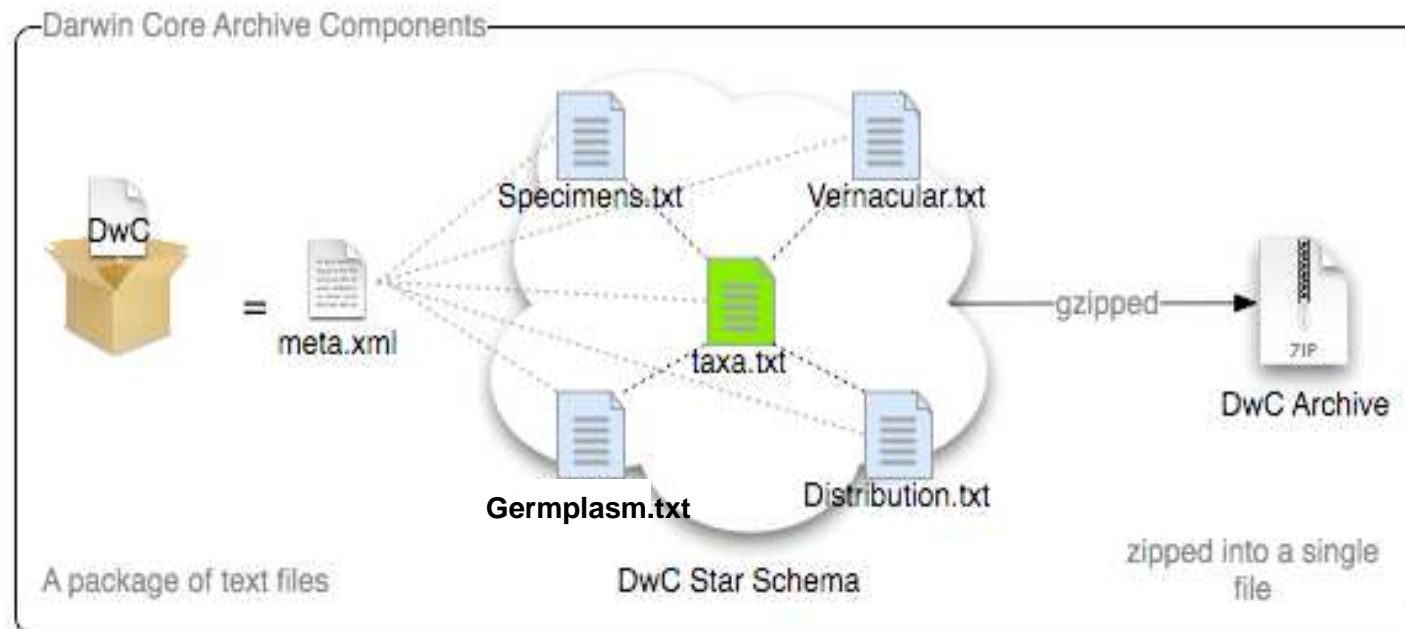
**associatedSequences:** A list (concatenated and separated) of identifiers (publication, global unique identifier, URI) of genetic sequence information associated with the Occurrence.





# Darwin Core Archive (DwC-A)

- A package of DwC records including extensions
- Simple text based format
- Zipped single file archive



**+ metadata file in Ecological Metadata Language format**



- Home
- Manage Resources**
- Administration
- About

Resource Title [Animal Observations in Amboseli Demo](#)

### Basic Metadata

The resource title and description are required. The resource's three main contact's must also be described here: Resource contact, resource creator and metadata provider. For each contact you must supply at least a last name, a position or an organisation before you can make the resource public. The person(s) or organisation(s) responsible for the creation of the resource as it appears in the IPT and for effectively publishing the resource should add themselves as an associated party with role 'publisher'.

Title\*

Animal Observations in Amboseli Demo

Description\*

A set of animal observations made in Amboseli National Park, Kenya in February 2013.

Metadata Language

English

Resource Language

English

Type

Occurrence

Subtype

Select a subtype

### Resource Contact

First Name

Kyle

Last Name\*

Braak

Position\*

Organisation\*

GBIF

Address

City

### Section

#### Basic Metadata

[Geographic Coverage](#)

[Taxonomic Coverage](#)

[Temporal Coverage](#)

[Keywords](#)

[Associated Parties](#)

[Project Data](#)

[Sampling Methods](#)

[Citations](#)

[Collection Data](#)

[External links](#)

[Additional Metadata](#)

Output  
in RTF for  
Data Paper





Login or Create a new account

Data - Community - About GBIF -

# Global Biodiversity Information Facility

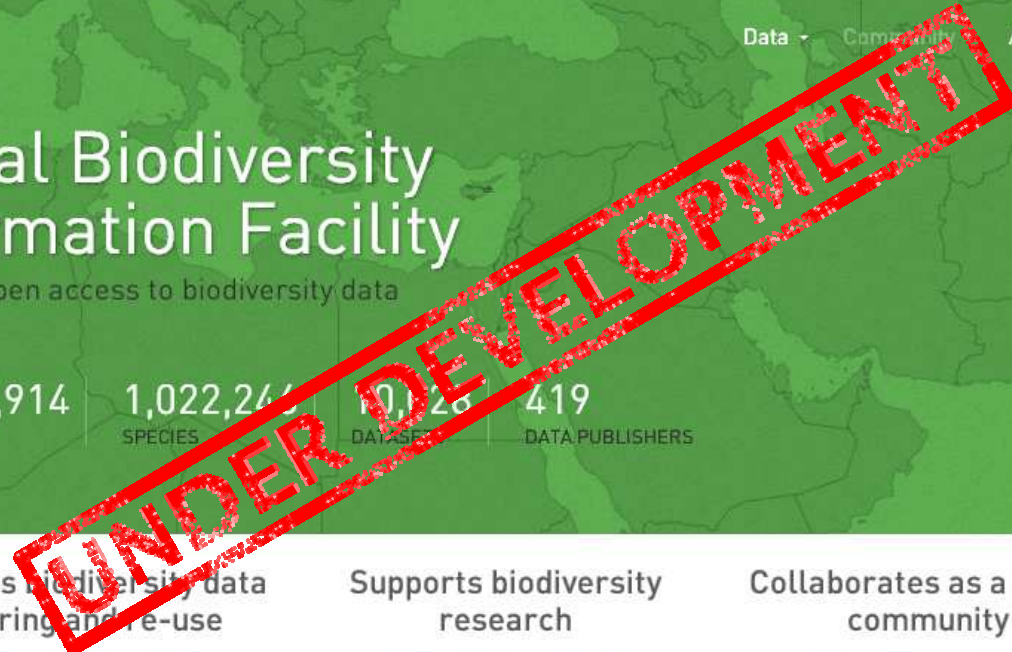
Free and open access to biodiversity data

377,177,914  
OCCURRENCES

1,022,244  
SPECIES

10,268  
DATABASES

419  
DATA PUBLISHERS



Enables biodiversity data sharing and re-use

- [Why publish your data?](#)
- [How to publish your data](#)
- [Data from citizen scientists](#)

Supports biodiversity research

- [Why publish your data?](#)
- [How to publish your data](#)
- [Data from citizen scientists](#)

Collaborates as a global community

- [Why publish your data?](#)
- [How to publish your data](#)
- [Data from citizen scientists](#)



## Latest GBIF news

[Go to GBIF Newsroom](#)

### FEATURED STORY

**GBIF Finland demonstrates digitization 'assembly line'**



### LATEST NEWS

- 15 August 2012  
[Conference targets priorities for biodiversity 'intelligence'](#)
- 15 August 2012  
[Conference targets priorities for biodiversity 'intelligence'](#)

### UPCOMING EVENTS

- SEP 19 Lillehammer, Norway\*  
[GBIF Science Symposium 2012](#)
- SEP 19 Lillehammer, Norway\*  
[GBIF Science Symposium 2012](#)





## Search datasets



### 6 results for "craneflies"

OCCURRENCE DATASET

#### [Craneflies of Ireland](#)

3,311 records published by National Biodiversity Data Centre  
... database for the *craneflies* of Ireland

OCCURRENCE DATASET

#### [Catalogue of \*Craneflies\* of the World](#)

0 records published by The Catalogue of Life Partnership  
... Catalogue of the *Craneflies* of the World (CCW) covers all genera,...

OCCURRENCE DATASET

#### [Biological Records Centre - \*Cranefly\* \(Diptera; Tipuloidea\) records ...](#)

109,452 records published by UK National Biodiversity Network

OCCURRENCE DATASET

#### [Zoological Museum Amsterdam, University of Amsterdam \(NL\) - Diptera...](#)

9,216 records published by Netherlands Biodiversity Information Facility (NLBIF)  
...ion of Tipulidae (*craneflies*) from the Netherlands is one of the m...

OCCURRENCE DATASET

#### [Zoological Museum Amsterdam, University of Amsterdam \(NL\) - Diptera...](#)

8,328 records published by Netherlands Biodiversity Information Facility (NLBIF)  
...ion of Tipulidae (*craneflies*) in ZMAN is one of the most important...

EXTERNAL DATASET

#### [Flying insect abundance monitoring](#)

Originates from The Knowledge Network for Biocomplexity (KNB)  
Search matched [Cached EML](#)

### Refine your search

#### TYPE

- External dataset (1)
- Occurrence dataset (5)

#### ORIGIN

- The Knowledge Network for Bio... (1)
- GBIF Network (5)

#### KEYWORD

- 1975-01-01 (1)
- flying insects, biological mo... (1)

#### OWNER

- Netherlands Biodiversity Info... (2)
- UK National Biodiversity Netw... (1)
- National Biodiversity Data Ce... (1)
- The Catalogue of Life Partner... (1)

#### HOST

- Netherlands Biodiversity Info... (2)
- UK National Biodiversity Netw... (1)
- National Biodiversity Data Ce... (1)



## Summary

**FULL TITLE**

Craneflies of Ireland

**DESCRIPTION**

A complete database for the craneflies of Ireland

**ADDITIONAL INFORMATION**

P. Ashe, J. P. O'Connor, K. N. A. Alexander, P. J. Chandler and P. Oosterbroek. Additions, with some corrections, to the records of the craneflies of Ireland (Diptera: Cylindrotomidae, Limoniidae, Pediciidae and Tipulidae): pp 6-20. P. Ashe, J. P. O'Connor, P. J. Chandler, A. E. Stubbs, R. I. Vane-Wright and K. N. A. Alexander. The craneflies (Diptera) of Ireland. Part 5. Tipulidae: pp 296-357.

**LANGUAGE OF DATA**

ENGLISH

**PRIMARY CONTACTS****ORIGINATOR**

Paddy Ashe

c/o Dr. Jim O'Connor, National Museum of Ireland, Kildare Street, Dublin 2,  
patrick.ashe@upcmail.ie

**ORIGINATOR**

Paddy Ashe

IrishBiogeographicalSociety

c/o Dr. Jim O'Connor, National Museum of Ireland, Kildare Street, Dublin 2,  
patrick.ashe@upcmail.ie

**METADATA AUTHOR**

Beechfield house, Carriganore WIT West  
Campus, County Waterford, Ireland  
info@biodiversityireland.ie +353 (0)51 306 240

**METADATA AUTHOR**

National Biodiversity Data Centre, Ireland  
Beechfield house, Carriganore WIT West  
Campus, County Waterford, Ireland  
info@biodiversityireland.ie +353 (0)51 306 240

**PUBLICATION DATE**

11-Oct-2011

**PUBLISHED BY**

[National Biodiversity Data Centre](#)

**LINKS**

• [Dataset homepage](#)

**ALTERNATIVE IDENTIFIERS**

• [GBIF Portal ID](#)  
[http://data.gbif.org/datasets/...](http://data.gbif.org/datasets/)

• [Alternative Identifier](#)  
CranefliesOfIreland

**EXTERNAL DATA**

• [Darwin Core Archive](#)

**METADATA DOCUMENTS**

• [GBIF EML](#)  
• [Cached EML](#)



**3,311 Georeferenced  
occurrences**

[VIEW RECORDS](#)

# Stable Metadata Schema



Name	Last modified	Size	Description
 Parent Directory		-	
 IPT-Metadata-Profile-Additions_v3.doc	30-Aug-2012 12:50	104K	
 Required NCD elements.doc	30-Aug-2012 12:50	37K	
 annotations.xml	30-Aug-2012 12:50	2.0K	
 dc.xsd	30-Aug-2012 12:50	724	
 eml-gbif-profile.xsd	30-Aug-2012 12:50	42K	
 eml.xsd	30-Aug-2012 12:50	1.5K	
 eml2iso19139.xml	30-Aug-2012 12:50	18K	

GBIF EML Profile: <http://rs.gbif.org/schema/eml-gbif-profile/1.0.2/>

EML specification: <http://knb.ecoinformatics.org/software/eml/eml-2.1.1/index.html>



# Interdisciplinary catalogues



- Registries and catalogues are key components of the GEOSS Common Infrastructure
- Supporting several GEOSS Societal Benefit Areas



# Main Facets

- Taxonomic
- Spatial
- Temporal
- Institutional
- Keywords
- ...





# Thank you



GBIF Secretariat  
Universitetsparken 15  
DK-2100 Copenhagen Ø  
Denmark

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

E-mail: [info@gbif.org](mailto:info@gbif.org)  
Phone: +45 3532 1470  
Fax: +45 3532 1480

