



GBIF

Global Biodiversity
Information Facility



Preserving Evidence of Biodiversity Patterns

GBIF and Persistent Biodiversity Data Management

Donald Hobern, GBIF Executive Secretary

Stilbopteryx sp., Wyperfeld National Park, Victoria, Australia, 24 January 2017



DATA PUBLISHING: 1 - METADATA-ONLY

Metadata

FULL TITLE

Natural History Museum of Denmark Amphibia Collection

DESCRIPTION

Amphibian specimens collected in Denmark since 1814. All specimens are preserved at the Natural History Museum of Denmark in Copenhagen. These materials are open to visiting researchers but are not yet databased.

RESOURCE TYPE

Metadata

CONTACT

Email: snm@snm.ku.dk

GEOGRAPHIC SCOPE

Denmark (DK)

TAXONOMIC SCOPE

Class: Amphibia

Data

N/A

DATA PUBLISHING: 2 - CHECKLIST

Metadata

FULL TITLE

Checklist of the frogs of Denmark

DESCRIPTION

Species checklist of frog species recorded in Denmark to December 2015.

RESOURCE TYPE

Checklist

CONTACT

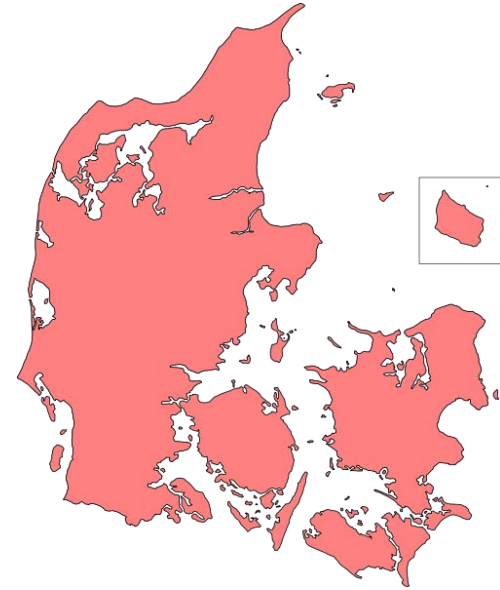
Email: frogs_dk@gmail.com

GEOGRAPHIC SCOPE

Denmark (DK)

TAXONOMIC SCOPE

Order: Anura



Checklist Data

Classification	Species	Status in DK
Ranidae	<i>Rana arvalis</i>	Native
Ranidae	<i>Rana dalmatina</i>	Native
Ranidae	<i>Rana temporaria</i>	Native
Ranidae	<i>Pelophylax ridibundus</i>	Native
Hylidae	<i>Hyla arborea</i>	Introduced
...

DATA PUBLISHING: 3 – OCCURRENCE DATA

Metadata

FULL TITLE

Natural History Museum of Denmark Amphibia Collection

DESCRIPTION

Amphibian specimens collected in Denmark since 1814. All specimens are preserved at the Natural History Museum of Denmark in Copenhagen. These materials are open to visiting researchers but are not yet databased.

RESOURCE TYPE

Occurrence

CONTACT

Email: snm@snm.ku.dk

GEOGRAPHIC SCOPE

Denmark (DK)

TAXONOMIC SCOPE

Class: Amphibia



Occurrence Data

Classification	Species	Locality	Coordinates	Date
Ranidae	<i>Rana arvalis</i>	Utterslev	55.717N 12.517E	10 July 1964
Ranidae	<i>Rana arvalis</i>	Bagsvaerd	55.767N 12.467E	17 August 1964
Ranidae	<i>Rana temporaria</i>	Bagsvaerd	55.767N 12.467E	12 May 1972
Ranidae	<i>Rana temporaria</i>	Aarhus	56.150N 10.217E	17 May 1972
Ranidae	<i>Rana arvalis</i>	Utterslev	55.717N 12.517E	25 June 1972
Ranidae	<i>Rana temporaria</i>	Odense	55.400N 10.383E	5 May 1978
Ranidae	<i>Rana arvalis</i>	Utterslev	55.717N 12.517E	16 August 1979
Ranidae	<i>Rana temporaria</i>	Utterslev	55.717N 12.517E	16 August 1979
...

PRESERVING BIODIVERSITY INFORMATION

Biodiversity

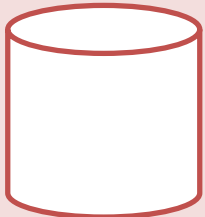


PRESERVING BIODIVERSITY INFORMATION

Biodiversity

Research

Outputs



Database



Spreadsheet



Paper



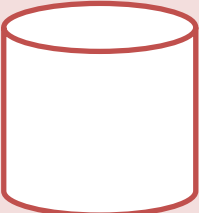

FULL TITLE

BOS Arthropod Collection of University of Oviedo (Spain): Op events subset

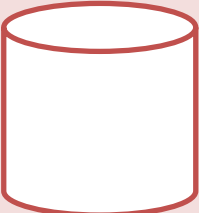

DESCRIPTION

In this study, we analyse the relevance of harvestmen distrib opportunistic, unplanned, and non-standardised collection ev of the Iberian Peninsula. Using specimens deposited in the BC the University of Oviedo, we compared these data with data f and periodic collections with pitfall traps in several locations i Arthropod Collection, begun in 1977, includes specimens deri types, and its recent digitisation allows for this type of compa

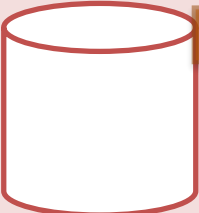
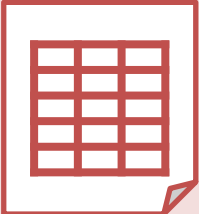

PRESERVING BIODIVERSITY INFORMATION

		Outputs	Digitise	Publish	Integrate	Augment	Curate	
Biodiversity	Research	 Database	Sample	Event Core Darwin Core++	IPT DwC-A	GBIF Data Index	Normalisation DQ Checks	Feedback
			Occurrence	Darwin Core ABCD	IPT BioCASE DwC-A ...	GBIF Data Index	Normalisation DQ Checks	Feedback
			Checklist	Species Core	IPT DwC-A	GBIF Checklist Bank	Normalisation DQ Checks	Feedback
			Metadata	EML	IPT	GBIF Registry	Normalisation DQ Checks	Feedback
		 Paper	UNAVAILABLE					

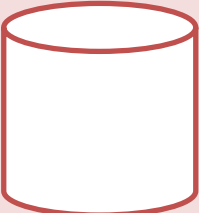






1D.II – COLLECTION METADATAA

		Outputs	Digitise	Publish	Integrate	Augment	Curate	
Biodiversity	Research	 Database	Sample	Event Core Darwin Core++	IPT DwC-A	GBIF Data Index	Normalisation DQ Checks	Feedback
			Occurrence	Darwin Core ABCD	IPT BioCAsE DwC-A ...	GBIF Data Index	Normalisation DQ Checks	Feedback
			Checklist	Species Core	IPT DwC-A	GBIF Checklist Bank	Normalisation DQ Checks	Feedback
			Metadata	EML	IPT	GBIF Registry	Normalisation DQ Checks	Feedback
		 Paper	UNAVAILABLE					

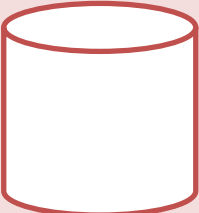






3B.I – PROMOTE SAMPLING-EVENTS

		Outputs	Digitise	Publish	Integrate	Augment	Curate
Biodiversity	Research	 Database	Event Core Darwin Core++	IPT DwC-A	GBIF Data Index	Normalisation DQ Checks	Feedback
			Darwin Core ABCD	IPT BioCASE DwC-A ...	GBIF Data Index	Normalisation DQ Checks	Feedback
		 Spreadsheet	Species Core	IPT DwC-A	GBIF Checklist Bank	Normalisation DQ Checks	Feedback
			 Paper	EML	IPT	GBIF Registry	Normalisation DQ Checks
			UNAVAILABLE				

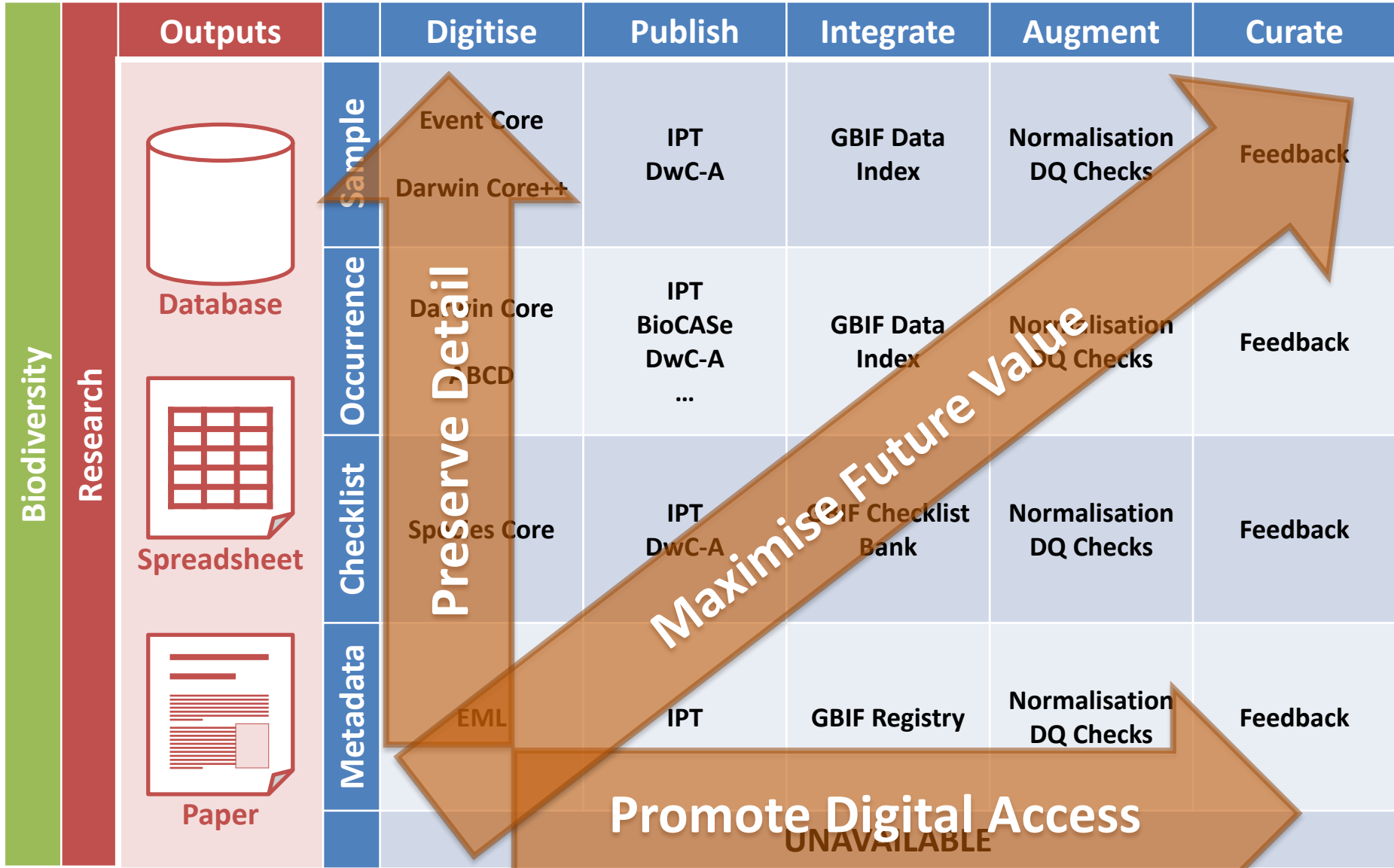
3D – RESCUE DATASETS

		Outputs	Digitise	Publish	Integrate	Augment	Curate	
Biodiversity	Research	 Database	 Event Core Darwin Core++	IPT DwC-A	GBIF Data Index	Normalisation DQ Checks	Feedback	
		 Spreadsheet	 Darwin Core ABCD	IPT BioCAsE DwC-A ...	GBIF Data Index	Normalisation DQ Checks	Feedback	
		 Checklist	 Species Core	IPT DwC-A	GBIF Checklist Bank	Normalisation DQ Checks	Feedback	
		 Paper	Metadata	EML	IPT	GBIF Registry	Normalisation DQ Checks	Feedback
		UNAVAILABLE						

4C – ENABLE DATA CURATION

		Outputs	Digitise	Publish	Integrate	Augment	Curate
Biodiversity	Research	 Database	Sample Event Core Darwin Core++	IPT DwC-A	GBIF Data Index	Normalisation DQ Checks	
		 Spreadsheet	Occurrence Darwin Core ABCD	IPT BioCASE DwC-A ...	GBIF Data Index	Normalisation DQ Checks	
		 Paper	Checklist Species Core	IPT DwC-A	GBIF Checklist Bank	Normalisation DQ Checks	
		Metadata EML	IPT	GBIF Registry	Normalisation DQ Checks		
		UNAVAILABLE					

OVERCOMING DATA LOSS













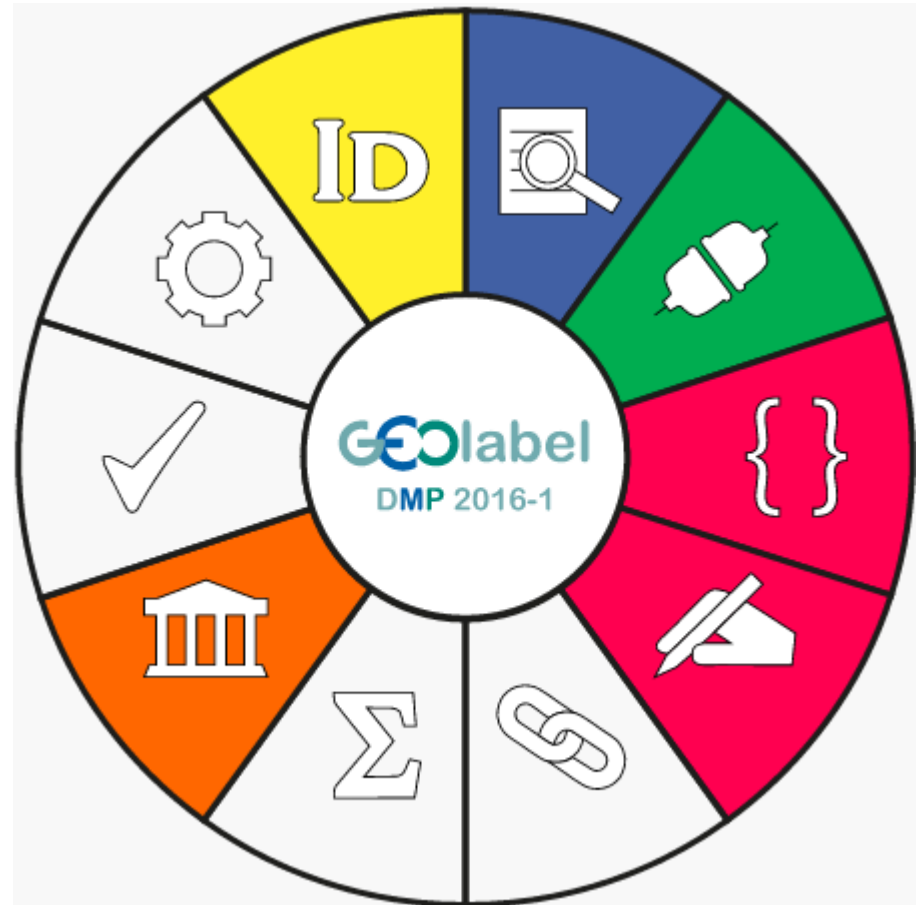


Thank you

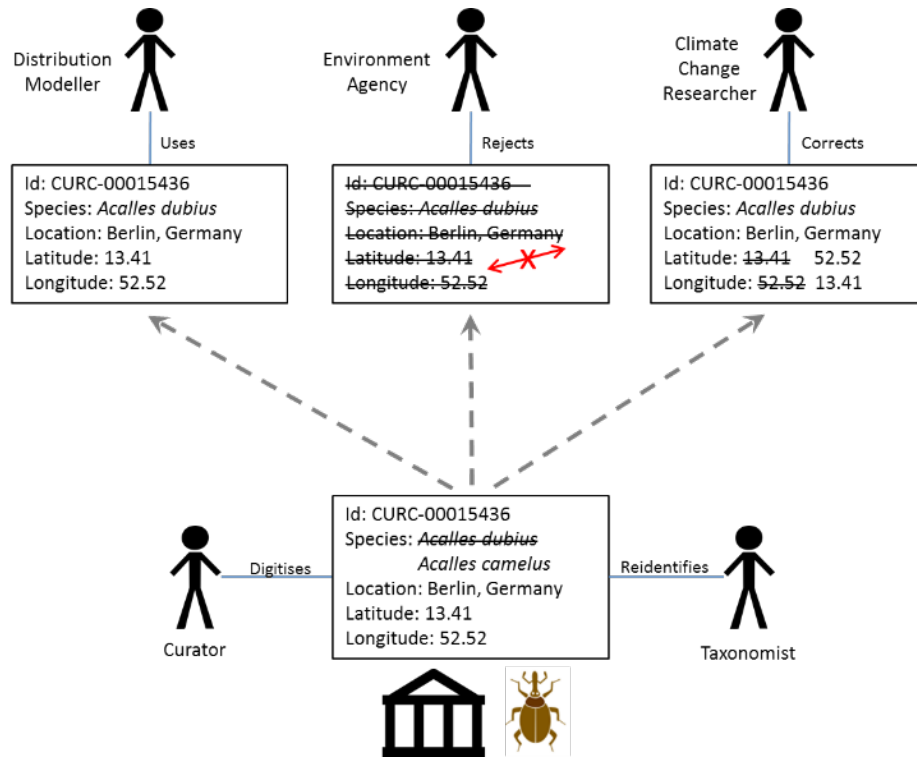
Donald Hobern
GBIF Executive Secretary
dhobern@gbif.org

GEO DATA MANAGEMENT PRINCIPLES

DMP label			
	Discoverable	1	D
	Accessible	2	A
	Standard encoding using	3	Usability
	Well documented metadata	4	
	Traceable	5	
	Quality documented	6	
	Preserved	7	Preservation
	Periodically verified	8	
	Reviewed and refreshed	9	Curation
	Tagged with permanent ID	10	

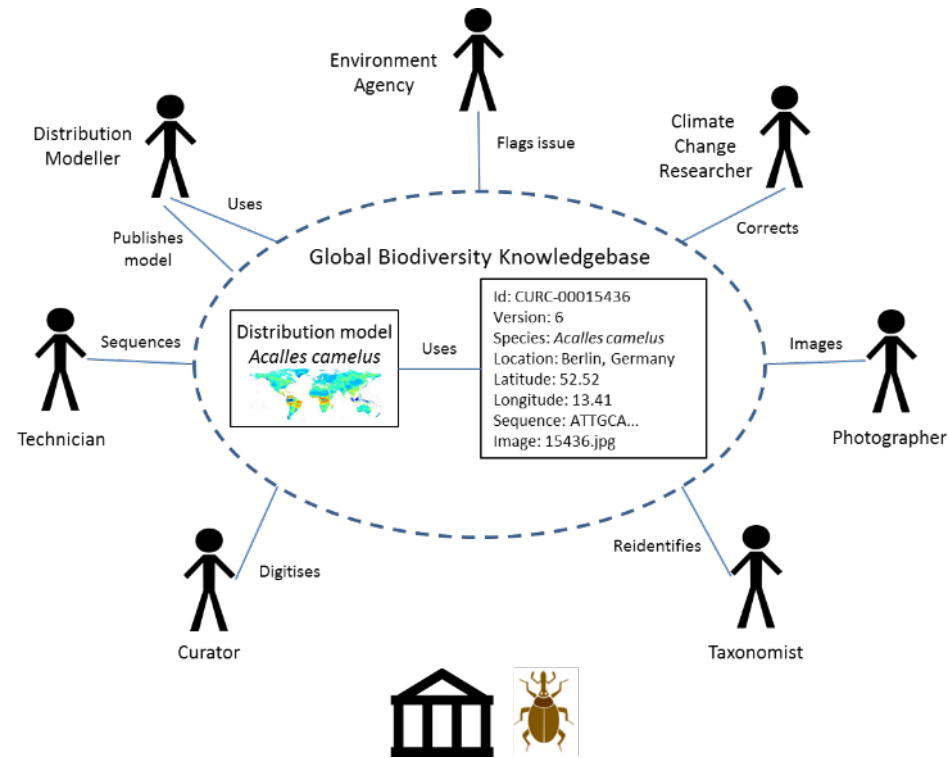


COMMUNITY CURATION OF DATA



Today

- Disconnected publishing and use
- Limited feedback
- Poor ability to reference data



Future?

- Stable, connected data from all sources
- Collaborative management
- Continuous step-wise improvement