

# Protocolos y herramientas para integrar y publicar información de biodiversidad

## Hojas electrónicas e IPT



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# Agenda

- Contexto.
- Flujos de datos.
- Estándares para compartir datos
  - Darwin Core (DwC)
  - Plinian Core (PliC)
  - Ecological Metadata Language (EML)
- Publicar estos datos
  - Hojas de cálculo.
  - Herramienta integrada de publicación (IPT).

# Contexto

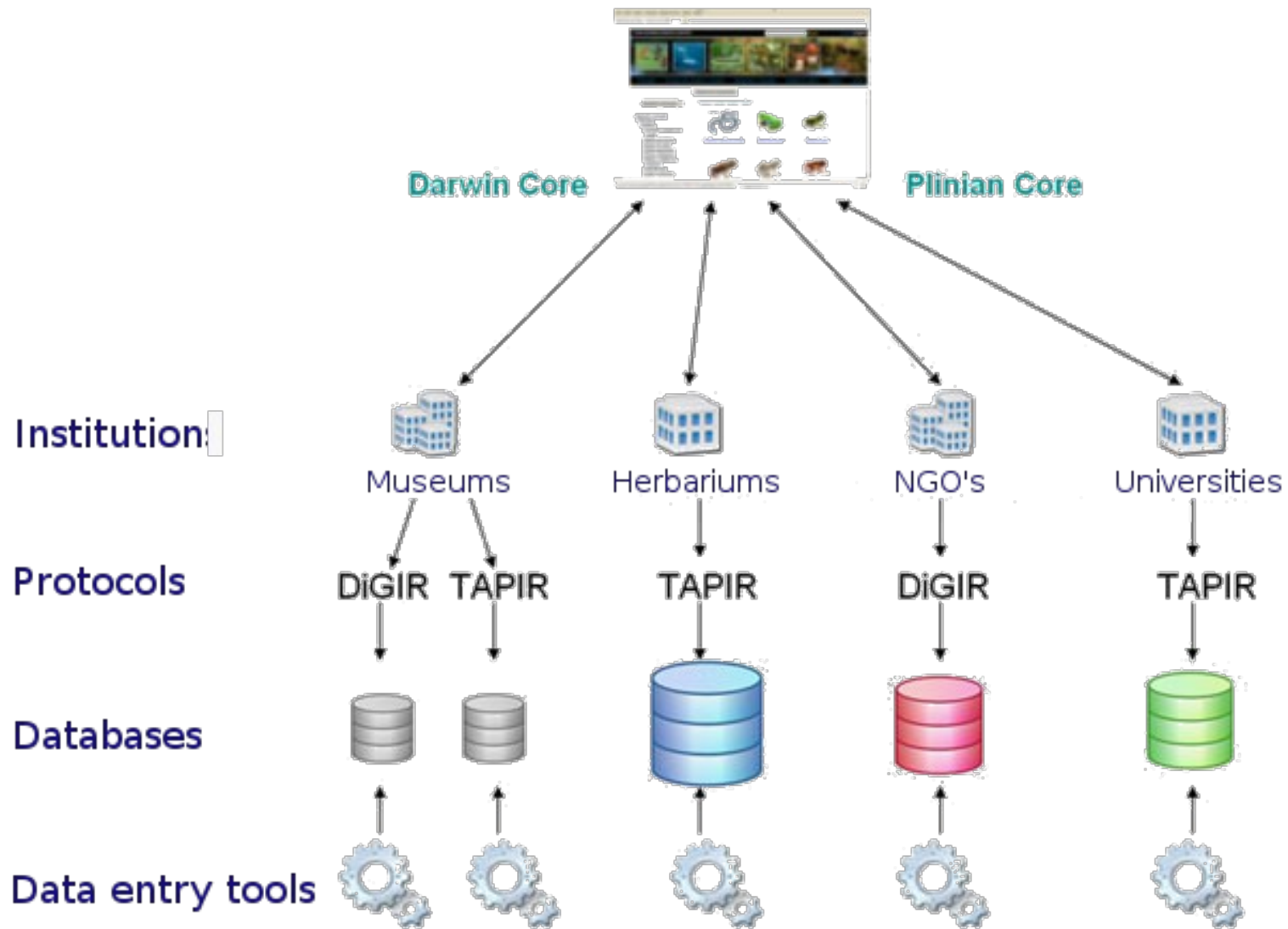
- Proveedores de datos
- Metadatos.
- Datos de observaciones y especímenes.
- Descripciones de especies.
- Datos taxonómicos.
- Registros de datos.



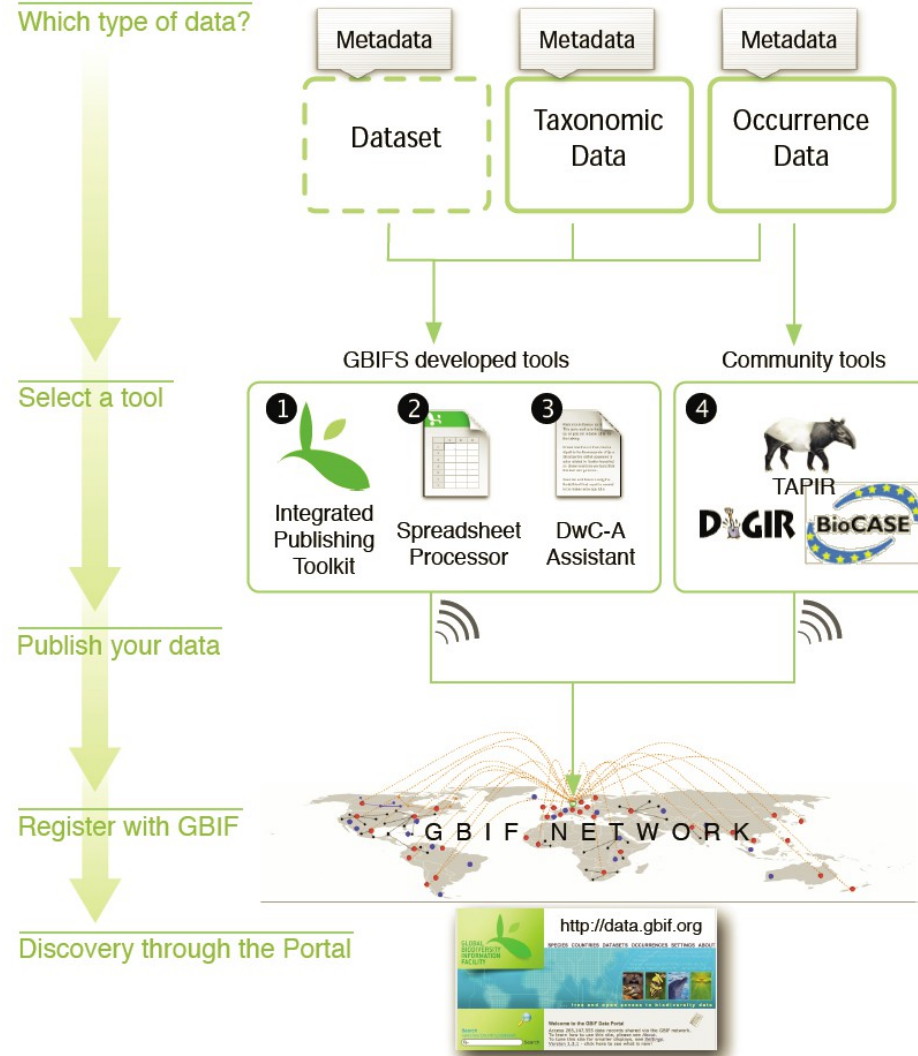
蝶類標本館  
*Eudocima homaena* (Hubner, 1823)  
Female  
27.01.2008, Siakijyen,  
Sindian, Taipei City, Taiwan  
Identified by: Bellemant



# Flujos de datos



# Flujos de datos



# Estándares para compartir datos

- Darwin Core (DwC)
- Plinian Core (PliC)
- Ecological Metadata Language (EML)

# Darwin Core

- Incluye un glosario de términos con la intención de facilitar el compartir información acerca de biodiversidad mediante la publicación de definiciones de referencia, ejemplos y comentarios para estos términos.
- El glosario promueve el uso consistente de términos a través de aplicaciones y disciplinas.

# Darwin Core

## **ABCD (Estándar TDWG)**

- > 1200 conceptos
- XML
- Utilizado en BioCASE y TapirLink

## **Darwin Core (pre-estándar v. 1.2, 47 versiones distintas)**

- 48 conceptos, especímenes
- XML
- Utilizado en DiGIR

## **Darwin Core (pre-estándar v. 1.4)**

- 46 conceptos (mas extensiones), especímenes
- XML
- Utilizado en TapirLink

## **Darwin Core (Estándar TDWG )**

- 172 conceptos (156 presentes en el “Darwin Core Simple”), información de biodiversidad.
- CSV, XML, RDF, JSON, ...
- Utilizado en texto plano, TapirLink, Archivos Darwin Core...



# Plinian Core

Es un conjunto de conceptos que define los atributos básicos necesarios para integrar y recuperar la información acerca de especies que usuarios especializados en biodiversidad o de otras áreas requieren.

# Plinian Core

- Última versión: 2.3 Flat
- Nueva versión (en curso): 3.0
  - Esquema conceptual.
  - Diferentes implementaciones (más simples).

# Ecological Metadata Language

- Es una especificación de metadatos desarrollado dentro del campo de la ecología.
- Mayormente diseñado para describir recursos digitales.
- Permite el uso de subconjuntos o “perfiles”

# Ecological Metadata Language

Para describir recursos de datos  
Incluso si no estan publicados.



EML.xml

- Título y resumen (Abstract)
- Cita y Atribución
- Contactos y Autores
- Alcance geográfico
- Métodos de muestreo.
- Bibliografía
- Y mucho más...

# Hojas de cálculo

**Basic Metadata**

UUID

\* Title Spider Classification

\* Publication Date (MM/DD/YYYY) 1/24/2010

\* Expected Citation Shorthouse, David P. A sample spider classification for parsing into the Global Names Architecture Classification and List Repository.

\* Abstract This is a sample classification used as a template for inclusion in the Global Names Architecture Classification and List Repository.

Additional information Please be aware...

Resource Language Metadata Language

Resource URL Resource Logo URL

Creative Commons Licensing publicdomain

- cc0
- ✓ publicdomain
- by
- by-nc-sa
- by-sa

Order	Family	Genus	Species	Authorship	Synonyms
				Linnaeus, 1758	
				Latreille, 1829	
				Heymons, 1901	
				Cuvier, 1812	
				Clerck, 1757	
				Sundevall, 1833	
				C. L. Koch, 1847	
Araneae	Lycosidae	Pardosa	Pardosa moesta	Banks, 1892	Pardosa diffusa Emerton, 1909
Araneae	Lycosidae	Pardosa	Pardosa xerampelina	(Keyserling, 1877)	Lycosa xerampelina Keyserling, 1877 Lycosa impavida Thorell, 1877 Lycosa tachypoda Thorell, 1878 Pardosa montana Emerton, 1885 Lycosa intrepida Marx, 1890 Pardosa tachypoda Emerton, 1894 Pardosa tristic Keyserling, 1887 Pirata procurus Montgomery, 1902
Araneae	Lycosidae	Pardosa	Pardosa mackenziana	(Keyserling, 1877)	Pardosa metakatioides Schenkel, 1951
Araneae	Thomisidae	Acentroscelus		Sundevall, 1833	
Araneae	Thomisidae	Acentroscelus	Acentroscelus gallinii	Simon, 1886	
Araneae	Thomisidae	Acentroscelus		Mello-Leitão, 1843	



# Hojas de cálculo

The screenshot displays a spreadsheet application window with a menu bar (Archivo, Editar, Ver, Insertar, Formato, Herramientas, Datos, Ventana, Ayuda) and a toolbar. The active cell is A1, containing the text 'occurrenceID'. The spreadsheet contains a table with the following columns:

	A	B	C	D	E	F	G	H	I	J
1	occurrenceID	institutionCode	collectionCode	accessionCode	catalogNumber	sex	kingdom	phylum	class	order
2										
3										
4										
5										
6										
7										
8										

A tooltip is displayed over the 'institutionCode' column, containing the text: "The name (or acronym) in use by the institution having custody of the object(s) or information referred to in the record."

The spreadsheet interface includes a status bar at the bottom showing "Hoja 3 / 4" and "PageStyle\_Occurrence". The sheet tabs at the bottom are labeled "Readme", "Metadata", and "Occurrence".

# <http://tools.gbif.org/spreadsheet-processor/>



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**Darwin Core Archive Spreadsheet Processor**



[home](#) [tools](#)

Language: English ▼

## Directions:

1. Review the available spreadsheet templates
2. Download and complete the templates according to the user guidelines
3. Click the "Choose File" button on the right to upload the completed spreadsheet or
4. Email it to [spreadsheets@tools.gbif.org](mailto:spreadsheets@tools.gbif.org)
5. Receive a validated Darwin Core Archive file or EML metadata document.
6. To publish, put the Darwin Core Archive file and EML metadata document online, with a stable URL.
7. Follow the [GBIF data registration guidelines](#) to register the data files with GBIFS.

**Note:** The processor does NOT publish a datafile to GBIF. It provides a publication-ready file.

Available Spreadsheet Templates – The processor currently only supports a set of pre-configured spreadsheet 'template' files. Each is available in the older XLS format and the new XLSX format, which supports more than 64,000 rows.

Upload File:

or

mail to:  
[spreadsheets@tools.gbif.org](mailto:spreadsheets@tools.gbif.org)

A small icon of an envelope with a postage stamp, indicating an email option.

## The following templates are available:



**Metadata** - Use this template to describe a database or other data resource. Processor output is an Ecological Metadata Language Document that conforms to a GBIF metadata profile. [\[XLSX format\]](#)

**Species Occurrence** - Use this template to record or store basic species collections or observational data. [\[XLSX format\]](#)

**Species Checklists** – These templates provide different methods for recording and storing simple annotated species checklists. The different versions offer different methods for recording classification information.

---

**Checklist 1** - Supports a 'normalised' classification where the classification is stored in two spreadsheet columns: one stores the ID of the taxon and another stores the ID of the parent taxon. [\[XLSX format\]](#)

**Checklist 2** - Classification in columns where the user can define the specific higher taxon groups. Useful when using super- or sub- ranks or other ranks outside the core Linnaean ranks. [\[XLSX format\]](#)

**Checklist 3** - Classification in columns is limited to the basic Linnaean ranks of Kingdom, Phylum, Class, Order, Family, Genus, etc. [\[XLSX format\]](#)

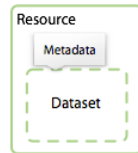


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**GBIF INTEGRATED PUBLISHING TOOLKIT (IPT)**



# Herramienta integrada de publicación (IPT)



- Servidor(es)
- IPT(s)
- Recursos(s)



# Herramienta integrada de publicación (IPT)



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## Hosted resources available through this IPT

Public resources available through this IPT installation.

<u>Logo</u>	<u>Name</u>	<u>Organisation</u>	<u>Type</u>	<u>Records</u>	<u>Last modified</u>
	<a href="#">bigdbtest</a>	---	checklist	24,000,000	2011-04-07
	<a href="#">Catalog of Living Whales</a>	GBIF Demo IPT Organisation	dwc:Taxon	1,458	2011-02-15
	<a href="#">diego</a>	---	checklist	0	2011-03-31
	<a href="#">Mass Wildlife</a>	GBIF Demo IPT Organisation	dwc:Taxon	59	2011-02-15
	<a href="#">Mass Wildlife</a>	GBIF Demo IPT Organisation	dwc:Taxon	59	2011-04-10
	<a href="#">IndFauna, electronic catalogue of known Indian fauna</a>	GBIF Demo IPT Organisation	---	0	2011-03-17
	<a href="#">Waarneming.nl Aves List</a>	GBIF Demo IPT Organisation	taxonomic	0	2011-04-12
	<a href="#">World Register of Marine Species (Sample DarwinCore Archive profile)</a>	GBIF Demo IPT Organisation	dwc:Taxon	25	2011-02-15

The most recently updated resources are also available as an [RSS feed](#).

Version 2.0.2-SNAPSHOT-r3126

[About the IPT Project](#)

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# Herramienta integrada de publicación (IPT)

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## MVZ Egg/Nests

This is the overview page for the *MVZ Egg/Nests* resource. Please start by filling in at least the mandatory metadata. Then you can upload and map source data to generate and publish a Darwin Core archive. Published resources can be registered with the GBIF Network. Registered resources can be removed, but they cannot be reverted to a private state.

### Metadata

[Edit](#)

MVZ Egg and Nest specimens.

### Source Data

[Choose File](#) No file chosen[Clear](#)[Connect to DB](#)

Your data sources for generating a Darwin Core Archive. You can upload delimited text files (csv, tab, and files using any other delimiter) either directly or compressed (zip or gzip). To (re)upload a file, please select the local file then click "Add".

Alternatively, you can configure *SQL views* to databases in your local network. To create a new SQL source, please click "Connect to DB" without any file chosen.

**mvzforvn [file]** 2.4 MB, 5,255 rows, 39 columns. 16/06/11 [Edit](#)

### Darwin Core Mappings

[Darwin Core Occurrence](#) ▼[Add](#)

Your mapping between the source data and Darwin Core terms.

**Darwin Core Occurrence** 39 terms mapped to mvzforvn [Edit](#)

### Visibility *Private*

[Public](#)

This resource is private to managers. To make this resource available to everyone, please make it public.

### Published Release

[Publish](#)

When publishing a new release, a new EML version and a Darwin Core Archive (DwC-A) will be created. A DwC-A bundles all data sources with mappings and metadata in one zipped archive.

#### Last Publication

Version 1 from 16/06/11 [Publication Log](#)

#### Darwin Core Archive

[download](#), 5,255 records

#### A new EML version has been published

[download view](#)

RTF

[download](#)



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**A new EML version has been published** [download](#) [view](#)  
**RTF** [download](#)



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## Basic Metadata: *MVZ Egg/Nests*

You must fill in at least these basic metadata before you can make this resource public.

For each contact you must supply at least a last name, a position, or an organisation. Title and Description are required.

Title

Description

Metadata Language



Resource Language



Subtype



---

## Resource Contact

First Name

Last Name

Position

Organisation

Address

City

## Section

### Basic Metadata

[Geographic Coverages](#)

[Taxonomic Coverages](#)

[Temporal Coverages](#)

[Other Keywords](#)

[Associated Parties](#)

[Project Data](#)

[Sampling Methods](#)

[Citations](#)

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[External links](#)

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## Darwin Core Occurrence

The category of information pertaining to evidence of an occurrence in nature, in a collection, or in a dataset (specimen, observation, etc.).

Link: <http://rs.tdwg.org/dwc/terms/index.htm#Occurrence>

[back to resource overview page](#)

## Mapping Source mvzforvn

For each property you can assign a dynamic value taken from the specified column of your data source mvzforvn or provide a fixed, static value that is used for all records.

[Hide Unmapped Fields](#)

**occurrenceID**

i

The column in your source that holds a unique key for every record/row, also known as the "core id". If you want to map other sources, this identifier is required and will be used to link your source rows together.

Source Sample : MVZ:Egg:1219 | MVZ:Egg:1220 | MVZ:Egg:1222 | MVZ:Egg:1221 | MVZ:Egg:1223

**Filter**

i

You can define a filter to exclude records from the generated archive. Specify the criterion that matches the records to be included.

[Record Level](#) [Occurrence](#) [Event](#) [Location](#) [GeologicalContext](#) [Identification](#) [Taxon](#)

### Record Level

**type**

i

**modified**

i





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<b>occurrenceID</b>	<input type="text" value="occurrenceID"/>	<input type="text"/>
<p>The column in your source that holds a unique key for every record/row, also known as the "core id". If you want to map other sources, this identifier is required and will be used to link your source rows together.</p> <p><i>Source Sample</i> : MVZ:Egg:1219   MVZ:Egg:1220   MVZ:Egg:1222   MVZ:Egg:1221   MVZ:Egg:1223</p>		
<b>Filter</b>	<input type="text"/>	<input type="text"/>
<p>You can define a filter to exclude records from the generated archive. Specify the criterion that matches the records to be included.</p>		
<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Cancel"/>		

[Record Level](#) [Occurrence](#) [Event](#) [Location](#) [GeologicalContext](#) [Identification](#) [Taxon](#)

### Record Level

<b>type</b>	<input type="text"/>	<input type="text" value="Physical Object"/>
<b>modified</b>	<input type="text"/>	<input type="text"/>



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The category of information pertaining to evidence of an occurrence in nature, in a collection, or in a dataset (specimen, observation, etc.).



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<b>occurrenceID</b>	 <input type="text" value="occurrenceID"/>	<input type="text"/>
	<p>The column in your source that holds a unique key for every record/row, also known as the "core id". If you want to map other sources, this identifier is required and will be used to link your source rows together.</p> <p>Source Sample : MVZ:Egg:1219   MVZ:Egg:1220   MVZ:Egg:1222   MVZ:Egg:1221   MVZ:Egg:1223</p>	
<b>Filter</b>	 <input type="text"/>	<input type="text"/>
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<input type="button" value="Save"/> <input type="button" value="Delete"/> <input type="button" value="Cancel"/>		

[Record Level](#) [Occurrence](#) [Event](#) [Location](#) [GeologicalContext](#) [Identification](#) [Taxon](#)

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MVZ Egg and Nest specimens.

Edit

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Choose File No file chosen

Clear

Connect to DB

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**mzvforvn [file]** 2.4 MB, 5,255 rows, 39 columns. 16/06/11 [Edit](#)

### Darwin Core Mappings

Your mapping between the source data and Darwin Core terms.

Darwin Core Occurrence

Add

**Darwin Core Occurrence** 39 terms mapped to mvzforvn [Edit](#)

### Visibility *Private*

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Public

### Published Release

Publish

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# Recurso de datos publicado

✓ RTF published successfully!  
Publishing resource version 1.

## My Occurrence Resource

### Publishing Status

May 28, 2011 5:49:50 PM

✓ Archive generated!

Continue to [resource overview](#).

Download the complete [Publication Log](#)

#### Log Message

Archive generation started for resource myoccurrenceresource 5:49:49 PM

Start writing data file for Darwin Core Occurrence 5:49:49 PM

Data file written for Darwin Core Occurrence with 12 records and 23 columns 5:49:49 PM

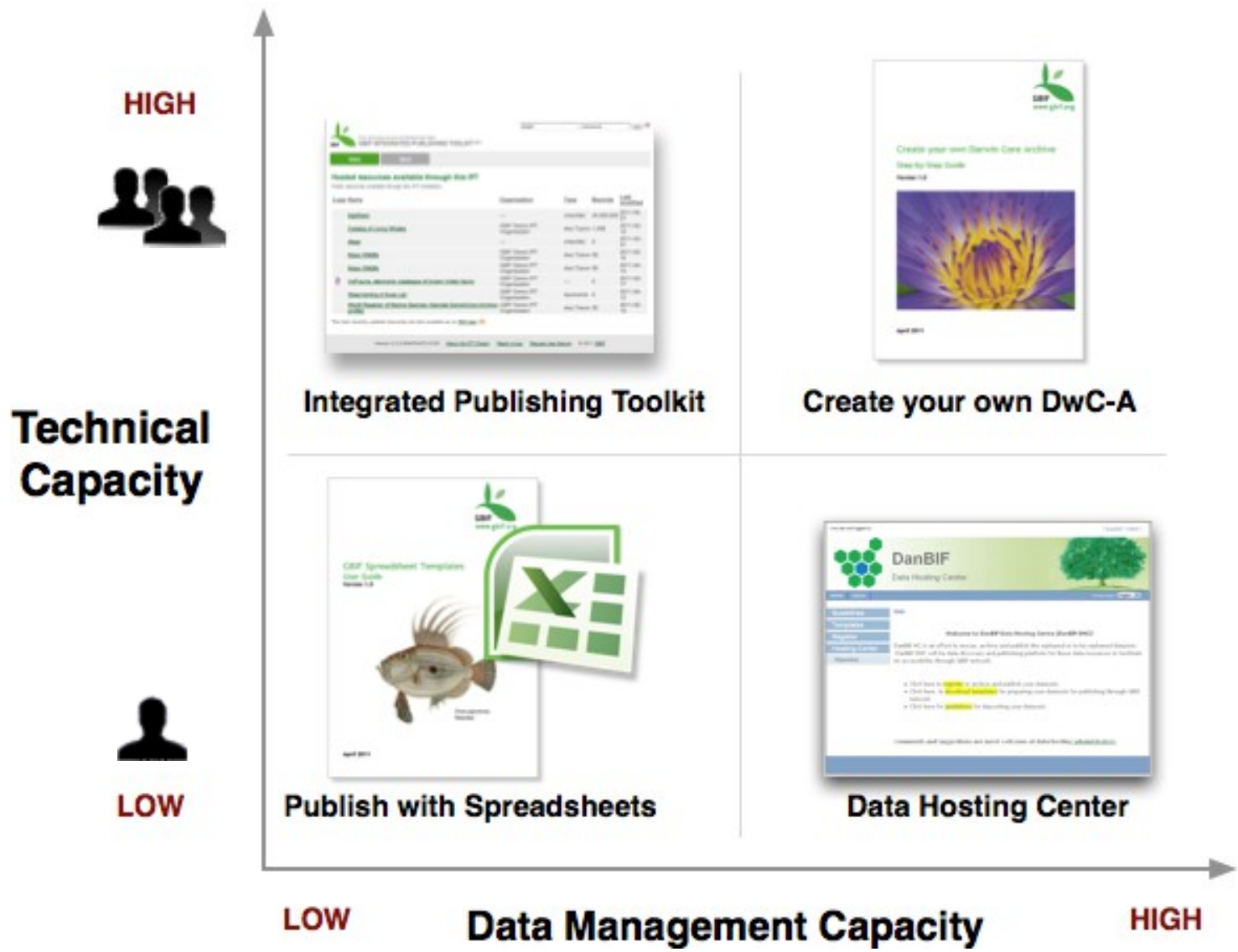
All data files completed 5:49:49 PM

EML file added 5:49:49 PM

meta.xml archive descriptor written 5:49:49 PM

Archive compressed 5:49:49 PM

Archive generated successfully! 5:49:49 PM

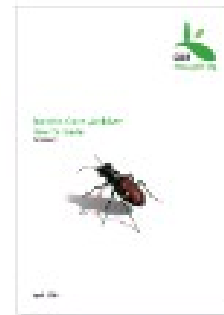


# Documentación

- <http://www.pliniancore.org>
- <http://www.tdwg.org/activities/darwincore/>
- <https://code.google.com/p/pliniancore/>
- <http://knb.ecoinformatics.org/software/eml/>



GBIF Metadata  
Profile, How-to guide



GBIF Darwin Core  
Archive, How-to  
Guide