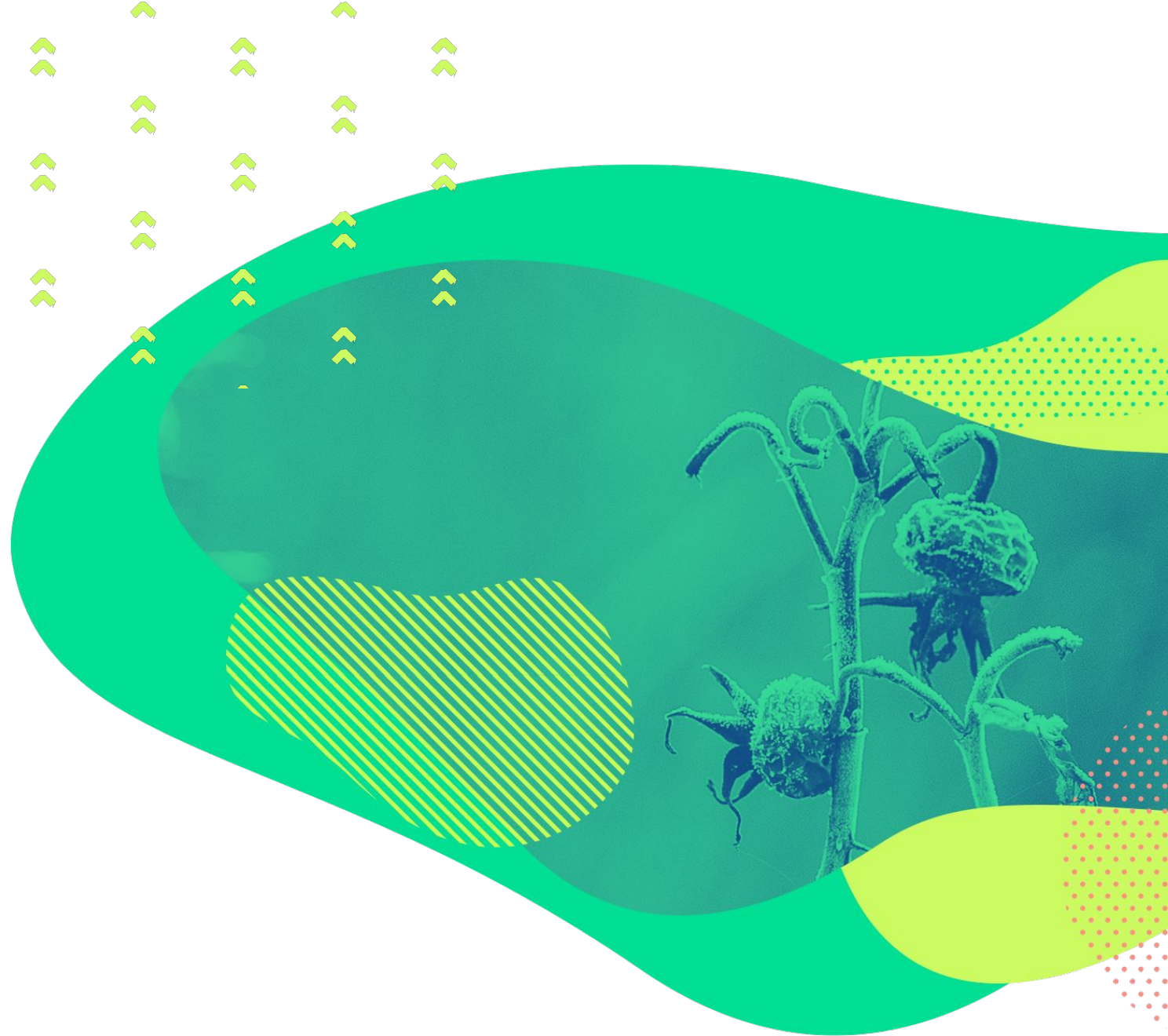


Estándares de biodiversidad Darwin Core

Paula Zermoglio
VertNet

Gbif.es



Taller online GBIF.es

Calidad en bases de datos de biodiversidad

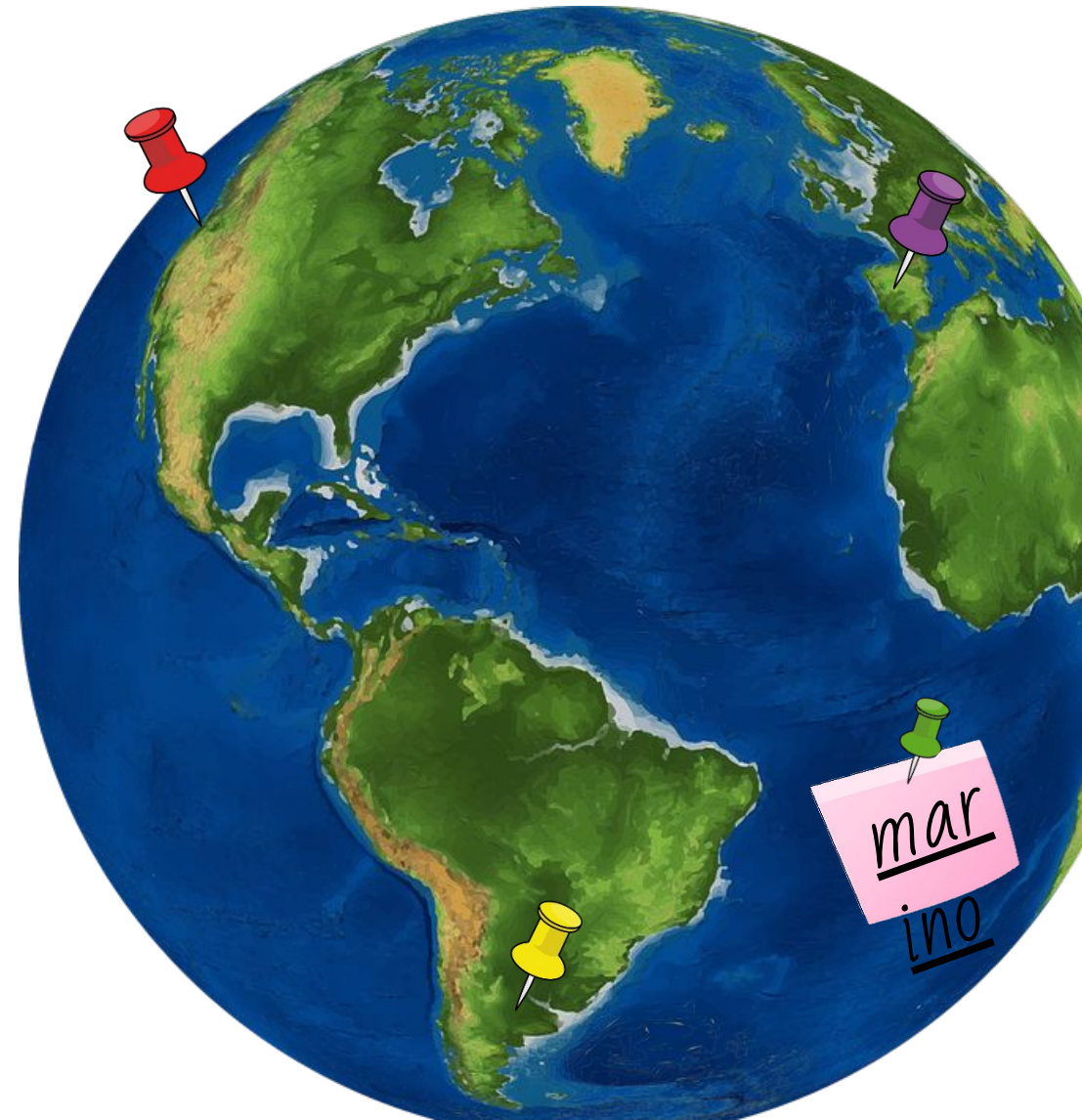
¿Qué estándares utilizamos para datos de biodiversidad?

Estándares globales

ampliamente utilizados
por la comunidad

Estándares restringidos

locales, regionales,
temáticos, etc.





**Estándares propios
de la comunidad**

**Estándares de otras
disciplinas**

Biodiversity
Information
Standards
TDWG

Basic Standards Recommendations

The TDWG community's priority is the development of standards for the exchange of biological/biodiversity data.

The most widely deployed formats for biodiversity occurrence data are [Darwin Core](#) and [ABCD](#).

The TDWG [GUID Applicability Statement](#) provides guidance on the assignment of Globally Unique Identifiers to biodiversity information resources.

TDWG's activities within the biodiversity informatics domain can be found in the [Activities](#) section of this website.

TDWG 2018 in Dunedin, New Zealand, 25 Aug - 1 Sep

In 2018, TDWG will hold it's annual conference jointly with the [Society for the Preservation of Natural History Collections \(SPNHC\)](#), from August 25 - September 1, in Dunedin, New Zealand. The conference hosts are the [Otago Museum](#) and the [University of Otago](#). The theme of this year's conference is "[Collections and Data in an Uncertain World](#)." Please see:

- [Conference web site \(with key dates and](#)



Latest News

Call for Tender: Website Development

04-Jun-2017

TDWG seek a contract with a motivated and experienced web developer to revise the TDWG.org website. TDWG needs a website to communicate and support its outputs and activities. One that 1) provides a clear overview of what TDWG...[\[more\]](#)

[\[more\]](#)

TDWG Community Support Fund - Call for Proposals 2017

06-Feb-2017

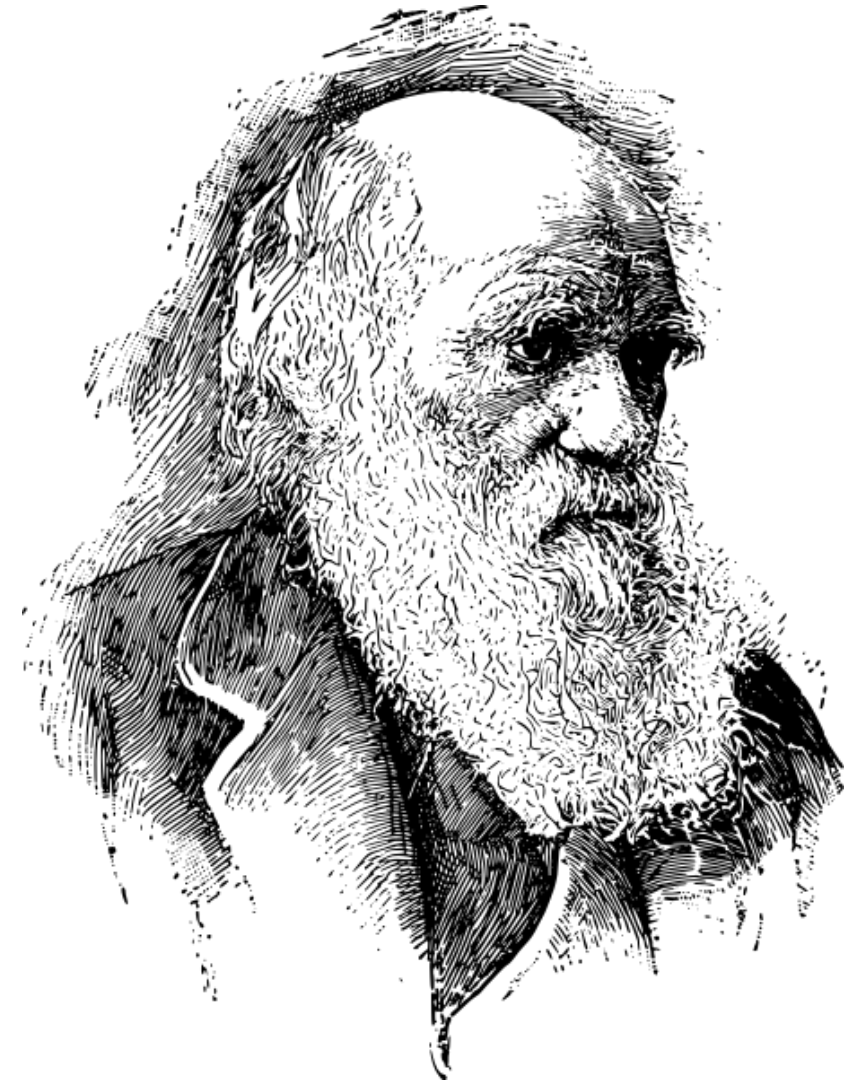
TDWG Interest (IG) and Task (TG) Groups undertake the core business of our organization: developing the standards and guidelines that enable us to integrate vast amounts of biodiversity information. TDWG is committed

[Login](#)[SEARCH](#)You are here: [Home](#) > Standards

TDWG Standards

TDWG's standards are listed below. For information about current work within TDWG, we would suggest that you look at the page linked in the Activity column or the [Activities](#) page. For further information, please [contact us](#).

Title	Activity (Task or Interest Group)	Category	Status	Date Published
TDWG Standards Documentation Standard	Vocabulary Maintenance Specification Task Group	Technical Specification	Current	25-Apr-2017
Vocabulary Maintenance Standard	Vocabulary Maintenance Specification Task Group	Best Current Practice	Current	25-Apr-2017
Audubon Core Multimedia Resources Metadata Schema	Multimedia Resources Task Group	Technical Specification	Current	28-Oct-2013
GUID and Life Sciences Identifiers Applicability Statements	Technical Architecture Group	Applicability Statements	Current	30-Jan-2011
Darwin Core	DarwinCore Task Group (DwC)	Technical Specification	Current	09-Oct-2009
TAPIR - TDWG Access Protocol for Information Retrieval	TAPIR Task Group	Technical Specification	Current	09-Sep-2009
Access to Biological Collection Data - version 2.06	Access to Biological Collections Data	Technical Specification	Current (2005)	16-Sep-2005
Structured Descriptive Data	Biological Descriptions Interest	Technical	Current	16-Sep-2005



Darwin Core

¿Qué es Darwin Core?

Lista de términos (campos),
y sus definiciones,
relacionados con datos de
biodiversidad

Gobierno
<http://www.tdwg.org>

Estándar
<http://rs.tdwg.org/dwc>

datasetID Record-level Terms collectionID Organism previousIdentifications individualCount Occurrence sex occurrenceStatus earliestEpochOrLowestSeries
dcterms:type dynamicProperties ownerInstitutionCode organismName behavior establishmentMeans occurrenceID organismQuantity associatedTaxa geologicalContextID
dcterms:language dcterms:modified dcterms:rightsHolder organismRemarks associatedOccurrences catalogNumber occurrenceRemarks recordNumber member bed
dcterms:license dcterms:accessRights institutionID basisOfRecord organismID organismQuantityType associatedReferences associatedMedia lifeStage recordedBy latestEonOrHighestEonothem formation
dcterms:references dcterms:bibliographicCitation identificationRemarks identificationQualifier associatedSequences otherCatalogNumbers lithostratigraphicTerms latestEraOrHighestErathem
datasetName collectionCode informationWithheld identificationID identifiedBy identificationVerificationStatus preparations earliestEonOrLowestEonothem earliestPeriodOrLowestSystem
LivingSpecimen FossilSpecimen dataGeneralizations identificationReferences typeStatus eventID fieldNumber Event latestPeriodOrHighestSystem earliestAgeOrLowestStage group
MaterialSample materialSampleID preservedSpecimen coordinatePrecision month parentEventID MachineObservation HumanObservation endDayOfYear earliestEraOrLowestErathem
Location decimalLongitude country countryCode minimumDepthInMeters verbatimEventDate verbatimEventDate day eventRemarks highestBiostratigraphicZone
minimumElevationInMeters verbatimLocality verbatimCoordinateSystem footprintSpatialFit sampleSizeUnit year eventDate measurementType measurementID GeologicalContext
verbatimElevation locationRemarks pointRadiusSpatialFit sampleSizeValue startDayOfYear samplingProtocol measurementDeterminedDate measurementAccuracy measurementValue
geodeticDatum locationAccordingTo decimalLatitude georeferenceProtocol class scientificNameID specificEpithet taxonRank measurementMethod measurementRemarks ResourceRelationship
municipality minimumDistanceAboveSurfaceInMeters higherGeographyID island nameAccordingToID taxonID taxonConceptID measurementDeterminedBy relationshipAccordingTo relationshipEstablishedDate
verbatimSRS footprintSRS locality footprintWKT namePublishedIn namePublishedInID order acceptedNameUsage scientificName parentNameUsageID relatedResourceID
continent georeferencedDate georeferenceSources stateProvince waterBody namePublishedInYear namePublishedInID order acceptedNameUsage scientificName parentNameUsageID relatedResourceID
verbatimLatitude georeferencedBy islandGroup county kingdom nomenclaturalCode higherClassification scientificNameAuthorship nomenclaturalStatus vernacularName relationshipOfResource resourceID

Organización de los términos

Clases de Términos

Simple Darwin Core

- Record & Dataset
- Occurrence
- Organism
- Material Sample
- Event
- Location
- Geological Context
- Identification
- Taxon

Clases Auxiliares

- ResourceRelationship
- MeasurementOrFact

datasetID Record-level Terms collectionID Organism previousIdentifications individualCount Occurrence sex occurrenceStatus earliestEpochOrLowestSeries
dcterms:type dynamicProperties ownerInstitutionCode organismName behavior establishmentMeans occurrenceID organismQuantity associatedTaxa bed geologicalContextID
dcterms:language dcterms:modified dcterms:rightsHolder organismRemarks associatedOccurrences catalogNumber occurrenceRemarks occurrenceID organismQuantity associatedTaxa recordNumber member geologicalContextID
dcterms:license dcterms:accessRights institutionID basisOfRecord organismID organismQuantityType lifeStage associatedReferences recordedBy latestEonOrHighestEonothem formation
dcterms:references dcterms:bibliographicCitation informationWithheld identificationRemarks identificationQualifier associatedMedia reproductiveCondition disposition otherCatalogNumbers latestEraOrHighestErathem
datasetName collectionCode dataGeneralizations identificationID identifiedBy identificationVerificationStatus preparations associatedSequences earliestEonOrLowestEonothem earliestPeriodOrLowestSystem latestAgeOrHighestStage
LivingSpecimen FossilSpecimen materialSampleID preservedSpecimen coordinatePrecision typeStatus eventID fieldNumber Event HumanObservation latestPeriodOrHighestSystem earliestAgeOrLowestStage group
MaterialSample Location decimalLongitude country countryCode minimumDepthInMeters footprintSpatialFit sampleSizeUnit year eventDate measurementType measurementID measurementAccuracy measurementValue
minimumElevationInMeters verbatimLocality verbatimCoordinateSystem verbatimCoordinates georeferenceProtocol scientificNameID specificEpithet taxonID taxonRank taxonConceptID acceptedNameUsage scientificName relationshipAccordingTo relationshipEstablishedDate relatedResourceID
verbatimElevation locationRemarks pointRadiusSpatialFit decimalLatitude higherGeographyID namePublishedIn namePublishedInYear namePublishedIn order originalNameUsage family acceptedNameUsageID parentNameUsageID relationshipRemarks relationshipOfResource resourceID
geodeticDatum locationAccordingTo georeferenceVerificationStatus island coordinateUncertaintyInMeters footprintWKT maximumElevationInMeters waterBody kingdom nomenclaturalCode higherClassification taxonomicStatus originalNameUsageID vernacularName
municipality verbatimSRS footprintSRS locality stateProvince islandGroup county higherGeography subgenus genus parentNameUsage nomenclaturalStatus
maximumDepthInMeters georeferencedDate georeferenceRemarks verbatimLongitude georeferencedBy verbatimLatitude georeferencedBy

datasetID Record-level Terms collectionID Organism previousIdentifications individualCount Occurrence sex occurrenceStatus earliestEpochOrLowestSeries geologicalContextID latestEpochOrHighestSeries
dcterms:type dynamicProperties ownerInstitutionCode organismName behavior establishmentMeans occurrenceID organismQuantity associatedTaxa bed member geologicalContextID latestEonOrHighestEonothem formation
dcterms:language dcterms:modified dcterms:rightsHolder organismRemarks associatedOccurrences catalogNumber occurrenceRemarks occurrenceID organismQuantity associatedReferences recordedBy latestEonOrHighestErathem
dcterms:license dcterms:accessRights institutionID basisOfRecord organismID organismQuantityType lifeStage associatedMedia reproductiveCondition disposition otherCatalogNumbers lithostratigraphicTerms earliestPeriodOrLowestSystem latestAgeOrHighestStage
dcterms:references dcterms:bibliographicCitation informationWithheld identificationRemarks identificationQualifier identificationVerificationStatus preparations associatedSequences earliestEonOrLowestEonothem earliestEraOrLowestErathem latestPeriodOrHighestSystem earliestAgeOrLowestStage
datasetName datasetName FossilSpecimen LivingSpecimen collectionCode dataGeneralizations identificationID identifiedBy dateIdentified Identification eventID fieldNumber Event HumanObservation latestPeriodOrHighestSystem earliestAgeOrLowestStage group
MaterialSample materialSampleID preservedSpecimen coordinatePrecision typeStatus parentEventID MachineObservation endDayOfYear eventRemarks highestBiostratigraphicZone lowestBiostratigraphicZone GeologicalContext
Location decimalLongitude country countryCode minimumDepthInMeters footprintSpatialFit sampleSizeUnit year eventDate measurementType measurementID measurementAccuracy measurementValue
minimumElevationInMeters verbatimLocality verbatimCoordinateSystem verbatimCoordinates sampleSizeValue startDayOfYear samplingProtocol measurementUnit measurementDeterminedDate measurementRemarks relationshipAccordingTo relationshipEstablishedDate relationshipRemarks relatedResourceID
verbatimDepth locationRemarks locationAccordingTo decimalLatitude higherGeographyID island namePublishedIn namePublishedInYear namePublishedIn order acceptedNameUsage scientificName parentNameUsageID vernacularName relationshipOfResource resourceID
geodeticDatum georeferenceVerificationStatus georeferenceProtocol georeferenceSources locality footprintWKT maximumElevationInMeters waterBody kingdom nomenclaturalCode higherClassification taxonomicStatus originalNameUsageID nomenclaturalStatus
municipality minimumDistanceAboveSurfaceInMeters coordinateUncertaintyInMeters stateProvince islandGroup county higherGeography parentNameUsage taxonomicStatus originalNameUsageID nomenclaturalStatus vernacularName relationshipOfResource resourceID
verbatimSRS footprintSRS georeferencedDate georeferencedBy verbatimLatitude verbatimLongitude verbatimDepth verbatimElevation verbatimLocality verbatimCoordinateSystem verbatimCoordinates verbatimElevation verbatimDepth
continent georeferencedDate georeferencedBy verbatimLatitude verbatimLongitude verbatimDepth verbatimElevation verbatimLocality verbatimCoordinateSystem verbatimCoordinates verbatimElevation verbatimDepth
continent georeferencedDate georeferencedBy verbatimLatitude verbatimLongitude verbatimDepth verbatimElevation verbatimLocality verbatimCoordinateSystem verbatimCoordinates verbatimElevation verbatimDepth

Página Web Darwin Core:

<http://rs.tdwg.org/dwc>

Biodiversity
Information
Standards
TDWG

Record-level

Occurrence

Organism

MaterialSample

LivingSpecimen

PreservedSpecimen

FossilSpecimen

Event

HumanObservation

MachineObservation

Location

GeologicalContext

Identification

Taxon

MeasurementOrFact

ResourceRelationship

UseWithIRI

Darwin Core quick reference guide

This page provides a list of all currently recommended terms of the Darwin Core standard. Categories such as [Occurrence](#) , [Event](#) correspond to Darwin Core classes, which group other terms. Convenient [files of these terms](#) and [their full history](#) can be found in the [Darwin Core repository](#).

Record-level

type	modified	language	license	rightsHolder	accessRights	bibliographicCitation	references	institutionID	collectionID	datasetID	institutionCode
collectionCode	datasetName	ownerInstitutionCode	basisOfRecord	informationWithheld	dataGeneralizations	dynamicProperties					

type Property	
Identifier	http://purl.org/dc/terms/type
Definition	The nature or genre of the resource.
Comments	For Darwin Core, recommended best practice is to use the name of the class that defines the root of the record. Examples: StillImage , MovingImage , Sound , PhysicalObject , Event , Text . For discussion see http://terms.tdwg.org/wiki/dwc:type .

modified Property	
Identifier	http://purl.org/dc/terms/modified
Definition	The most recent date-time on which the resource was changed.
Comments	For Darwin Core, recommended best practice is to use an encoding scheme, such as ISO 8601:2004(E). Examples: 1963-03-08T14:07-0600 is 8 Mar 1963 2:07pm in the time zone six hours earlier than UTC, 2009-02-20T08:40Z is 20 Feb 2009 8:40am UTC, 1809-02-12 is 12 Feb 1809, 1906-06 is Jun 1906, 1971 is just that year, 2007-03-01T13:00:00Z/2008-05-11T15:30:00Z is the interval between 1 Mar 2007 1pm UTC and 11 May 2008 3:30pm UTC, 2007-11-13/15 is the interval between 13 Nov 2007 and 15 Nov 2007. For discussion see http://terms.tdwg.org/wiki/dwc:modified .

language Property	
Identifier	http://purl.org/dc/terms/language
Definition	A language of the resource.
Comments	Recommended best practice is to use a controlled vocabulary such as RFC 5646. Examples: en for English, es for Spanish. For discussion see http://terms.tdwg.org/wiki/dwc:language .

license Property	
Identifier	http://purl.org/dc/terms/license
Definition	A legal document giving official permission to do something with the resource.
Comments	Examples: http://creativecommons.org/publicdomain/zero/1.0/legalcode , http://creativecommons.org/licenses/by/4.0/legalcode . For discussion see

Record-level

Occurrence

Organism

MaterialSample

LivingSpecimen

PreservedSpecimen

FossilSpecimen

Event

HumanObservation

MachineObservation

Location

GeologicalContext

Identification

Taxon

MeasurementOrFact

ResourceRelationship

UseWithIRI

country

Property

Identifier <http://rs.tdwg.org/dwc/terms/country>


Definition The name of the country or major administrative unit in which the Location occurs.

Comments Recommended best practice is to use a controlled vocabulary such as the Getty Thesaurus of Geographic Names. Examples: Denmark , Colombia , España . For discussion see <http://terms.tdwg.org/wiki/dwc:country>.

dwc:country



Country: The name of the country or major administrative unit in which the Location occurs. Recommended best practice is to use a controlled vocabulary such as the Getty Thesaurus of Geographic Names.

Notes: For discussion see <http://code.google.com/p/darwincore/wiki/Location> 

Example(s): "Denmark", "Colombia", "España"

Translations

Español (Spanish)

País: El nombre del país o unidad administrativa de mayor jerarquía de la ubicación. La práctica recomendada es utilizar un identificador persistente de un lenguaje controlado como el Tesoro Getty de Nombres Geográficos.

Ejemplo: "Denmark", "Colombia", "España"

中文 (简体) (Simplified Chinese)

国家 (also sasdlasd): 发现地点的国家或主要行政区划名称。建议最好使用控制性词汇，如盖提地理名称索引。


日本語 (Japanese)

Country: その位置が存在する国名、あるいは主要な行政単位。the Getty Thesaurus of Geographic Names などの管理された語彙の使用を推奨。

Français (French)

Pays: Le nom du pays ou de l'unité administrative principale où a été localisé le sujet. Il est conseillé d'utiliser un vocabulaire contrôlé tel que le Thésaurus Getty des noms géographiques.


Exemple: "Danemark", "Colombie", "Espagne"

Notes: Voir la page <http://code.google.com/p/darwincore/wiki/Location> 

Norsk bokmål (Norwegian)

Land: Navnet på landet eller større administrativ enhet for lokaliteten. Anbefalt praksis er å bruke et kontrollert vokabular, for eksempel Getty Thesaurus of Geographic Names.

Example: Danmark, Colombia, Spania

Notes: For discussion see <http://code.google.com/p/darwincore/wiki/Location> 

Scheme: Darwin Core 

Collection: Darwin Core Location 

Country


- *URI:* <http://rs.tdwg.org/dwc/terms/country> 
- *is defined by* <http://rs.tdwg.org/dwc/terms/> 
- *skos:* *has close match*
<http://terms.tdwg.org/wiki/abcd:DataSets/DataSet/Units/Unit/Gathering/Country/Name> 

Status: recommended

Issued: 2008/11/19

Modified: 2009/04/24

RDF feed  | Browse properties  | SMW-prop. 

Search for values 

Record-level

Occurrence

Organism

MaterialSample

LivingSpecimen

PreservedSpecimen

FossilSpecimen

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GeologicalContext

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Para algunos términos se recomienda
el uso de **vocabularios controlados**



**Mejora la calidad de los datos, permitiendo
encontrar la información más fácilmente**

Record-level

Occurrence

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Identifier	http://purl.org/dc/terms/license
Definition	A legal document giving official permission to do something with the resource.
Comments	Examples: http://creativecommons.org/publicdomain/zero/1.0/legalcode , http://creativecommons.org/licenses/by/4.0/legalcode . For discussion see

Algunas preguntas



Algunas preguntas

¿Es necesario utilizar TODOS los términos de Darwin Core?

NO

Ejemplo:

- Si los datos son sobre especímenes preservados, posiblemente no tenga sentido utilizar los términos incluidos en la clase Geological Context.



Algunas preguntas

¿Es necesario utilizar TODOS los términos de Darwin Core?

NO

¿Qué términos de Darwin Core debo utilizar?

Utilizar tantos como sea posible,
dentro de lo razonable



Darwin Core y calidad de datos



Requerimientos de Calidad de Datos

<http://www.gbif.org/publishing-data/quality>

Term	Status
occurrenceID	Required
basisOfRecord	Required
scientificName	Required
eventDate	Required
countryCode	Required
taxonRank	Strongly recommended
kingdom	Strongly recommended
decimalLatitude & decimalLongitude	Strongly recommended
geodeticDatum	Strongly recommended
coordinateUncertaintyInMeters	Strongly recommended
individualCount, organismQuantity & organismQuantityType	Strongly recommended
informationWithheld	Share if available
dataGeneralizations	Share if available
eventTime	Share if available
country	Share if available

Algunas preguntas

¿Cuándo debo utilizar Darwin Core?

En la fuente

(e.g., en la base de datos de mi colección)

Al compartir los datos

Debe ser útil a los usos diarios.

Ejemplos:

- Distintos idiomas (e.g., año)
- Campos internos (e.g., N° estante)

Nos permite intercambiar información de modo que todos entendamos de qué estamos hablando.

Algunas preguntas

¿Cuándo debo utilizar Darwin Core?

En la fuente

(e.g., en la base de datos de mi colección)



Al compartir los datos



No Darwin Core

Darwin Core

MAPEO

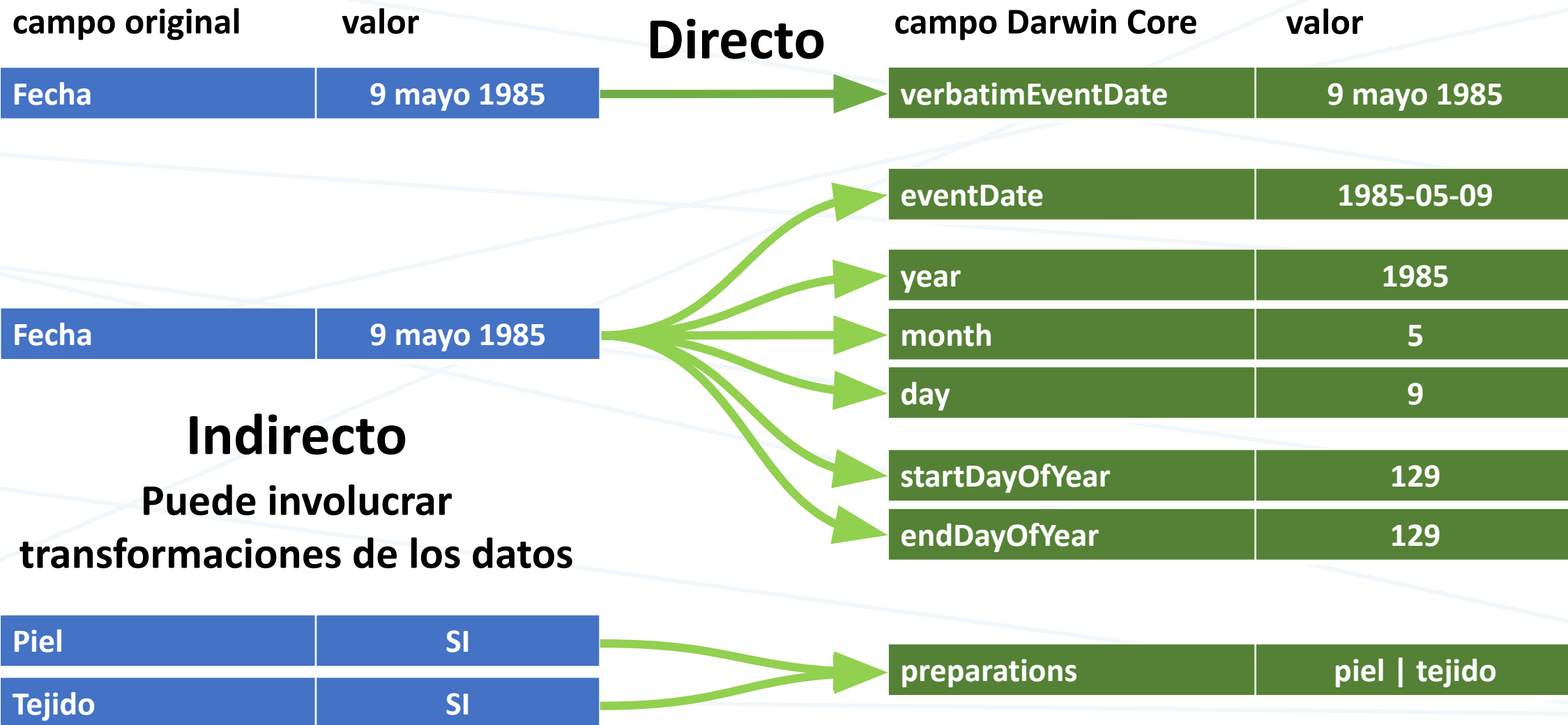


Si:

=>

Ejemplo

Mapeo a Darwin Core



Mapeo a Darwin Core

➔ **Para mapear correctamente es necesario:**

**Conocer los
datos originales**

**Conocer
el estándar**

¿Qué hacer con campos que no mapean?

(directa ni indirectamente)

No incluir, no compartir

Incluir en campos generales, si corresponde (xxxxRemarks, dynamicProperties)

Compartir los datos utilizando extensiones a Darwin Core



<https://vimeo.com/245787301> (desde minuto 12:36)

¿Preguntas sobre Darwin Core...?



Darwin Core Hour

<https://github.com/tdwg/dwc-qa/wiki/Webinars>

Darwin Core Questions & Answers Site

<https://github.com/tdwg/dwc-qa>



¿Cómo enviar preguntas?

<https://tinyurl.com/dwchourqa>



Estándares de biodiversidad

Darwin Core

Taller online GBIF.es

Calidad en bases de datos de biodiversidad