

EOL Taxon Resource Transfer Schema

Version: 0.2

Schema Location: http://services.eol.org/schema/content_0_2.xsd

taxon Elements

Element	Reference	Cardinality	Type	Required
dc:identifier	http://dublincore.org/documents/dcmi-terms/	1	string	yes
dc:source	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
dwc:Kingdom	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:Phylum	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:Class	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:Order	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:Family	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:Genus	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	0..1	string	no
dwc:ScientificName	http://wiki.tdwg.org/twiki/bin/view/DarwinCore	1	string	yes
commonName		0..∞	string	no
synonym		0..∞	string	no
dcterms:created	http://dublincore.org/documents/dcmi-terms/	0..1	dateTime	no
dcterms:modified	http://dublincore.org/documents/dcmi-terms/	0..1	dateTime	no
reference		0..∞	string	no
dataObject		0..∞	dataObject	no

dataObject Element

Element	Reference	Cardinality	Type	Required
dc:identifier	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
dataType	http://dublincore.org/documents/dcmi-terms/	1	string	yes
contentType		0..1	string	no
agent		0..∞	string	no
dcterms:created	http://dublincore.org/documents/dcmi-terms/	0..1	dateTime	no
dcterms:modified	http://dublincore.org/documents/dcmi-terms/	0..1	dateTime	no
dc:title	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
dc:language	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
license	http://creativecommons.org/licenses/	0..1	string	no
dc:rights	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
dcterms:rightsHolder	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
dcterms:bibliographicCitation	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
audience		0..∞	string	no
dc:source	http://dublincore.org/documents/dcmi-terms/	0..1	string	no
subject	http://rs.tdwg.org/ontology/voc/SPMInfotems	0..∞	string	*text

dc:description	http://dublincore.org/documents/dcmi-terms/	0..1	string	*text
mediaURL		0..1	xsd:anyURI	*nontext
thumbnailURL		0..1	xsd:anyURI	no
location		0..1	string	no
geo:Point	http://www.w3.org/2003/01/geo/	0..1	geo:Point	no
reference		0..∞	string	no

**these required elements are not enforced in the XSD as they are conditionally required depending on the dataType. DataObjects that do not include these elements will not appear on EOL species pages.*

<taxon>

<dc:identifier>

Required. Recommended to use a globally unique identifier (GUID) to unambiguously refer to the taxon. If an identifier is not provided it will be very difficult to update a resource and preserve linked information. For example, if a taxon's metadata is changed, there will not be enough information to determine the newer taxon is an updated form of an older taxon unless they share a dc:identifier. It will be assumed the older taxon was removed and a new one was added, and any annotations associated with the original taxon will be lost.

<dc:source>

The URL of a web page that describes the taxon. This URL will be used to create outlinks from EOL species pages into our providers' web sites.

<dwc:Kingdom>

The name of the kingdom in which the taxon is classified.

<dwc:Phylum>

The name of the phylum (or division) in which the taxon is classified.

<dwc:Class>

The name of the class in which the taxon is classified.

<dwc:Order>

The name of the order in which the taxon is classified.

<dwc:Family>

The name of the family in which the taxon is classified.

<dwc:Genus>

The name of the genus in which the taxon is classified.

<dwc:ScientificName>

Required. The full name of the lowest level taxon to which the organism has been identified in the most recent accepted determination, specified as precisely as possible, including name-author, year or authorship, sensu or sec. (according to or following) author, and indication of uncertainty. Conceptually equivalent to a full taxonomic identification as given by the identifier (verbatim). Does not include the identifier name or date of identification. See

<http://wiki.tdwg.org/twiki/bin/view/DarwinCore/DarwinCoreDraftStandard> for more information on this and other Darwin Core elements.

<commonName

xml:lang="">

A common (vernacular) name by which the taxon is known. Strongly recommended to include a language. Recommended to use ISO 639-2 or ISO 639-1 codes for languages. See http://www.loc.gov/standards/iso639-2/php/code_list.php for more information on these language standards.

<synonym

relationship="">

An alternate scientific name by which the taxon is known. Strongly recommended to include a relationship.

relationships:

- ambiguous synonym
- anamorph
- basionym
- heterotypic synonym
- homotypic synonym
- junior synonym
- misapplied name
- nomenclatural synonym
- objective synonym
- senior synonym
- subjective synonym
- synonym
- teleomorph
- unavailable name
- valid name

<dcterms:created>

Date of creation of the taxon record.

<dcterms:modified>

Date on which the taxon record was changed.

<reference

bici=""

coden=""

doi=""

eissn=""

handle=""

isbn=""

issn=""

lsid=""

oclc=""

sici=""

url=""
urn="">

A related resource that references, cites, or otherwise points to the taxon. Recommended to use well-formed bibliographic citations. Strongly recommended to include identifiers that unambiguously refer to the specified resource when available.

<dataObject>

A text description or multimedia resource that describes the taxon.

<dc:identifier>

Recommended to use a globally unique identifier (GUID) to unambiguously refer to the resource. If an identifier is not provided it will be very difficult to update a resource and preserve linked information. For example, if an object's metadata is changed, there will not be enough information to determine the newer object is an updated form of an older object unless they share a dc:identifier. It will be assumed the older object was removed and a new one was added, and any annotations associated with the original object will be lost.

<dataType>

Required. Describes the nature of the resource using the DCMI Type vocabulary. See <http://dublincore.org/documents/dcmi-terms/> for more information on this controlled list of data types.

dataTypes:

- <http://purl.org/dc/dcmitype/MovingImage>
- <http://purl.org/dc/dcmitype/Sound>
- <http://purl.org/dc/dcmitype/StillImage>
- <http://purl.org/dc/dcmitype/Text>

<contentType>

Describes the file format of the resource. Recommended for use with media resources, but not needed for text descriptions.

mimeTypes:

- audio/mpeg
- audio/x-ms-wma
- audio/x-pn-realaudio
- audio/x-realaudio
- audio/x-wav
- image/bmp
- image/gif
- image/jpeg
- image/png
- image/svg+xml
- image/tiff
- text/html
- text/plain
- text/richtext
- text/rtf
- text/xml
- video/mp4

video/mpeg
video/quicktime
video/x-flv
video/x-ms-wmv

<agent
homepage=""
logoURL=""
role="">

Examples of an agent include a person, organization, and software agent that has contributed to the creation of the resource. Strongly recommended to include the role the agent played in the creation of the resource. Agents should appear in the order they are to be displayed. For example, the primary author should be listed first with all subsequent authors following.

roles:

animator
author
compiler
composer
creator
director
editor
illustrator
photographer
project
publisher
recorder
source

<dcterms:created>
Date of creation of the resource.

<dcterms:modified>
Date on which the resource was changed.

<dc:title
xml:lang="">
A name given to the resource. Recommended for use with all text descriptions as well as sound and video media. Detailed captions for media should be included in the description element below. For text descriptions, this title will appear above the text in preference to the subject element below. Recommended to use ISO 639-2 or ISO 639-1 codes for languages. See http://www.loc.gov/standards/iso639-2/php/code_list.php for more information on these language standards.

<dc:language>
Primary language of the resource. Recommended to use ISO 639-2 or ISO 639-1 codes for languages. See http://www.loc.gov/standards/iso639-2/php/code_list.php for more information on these language standards.

<license>

License under which the resource is provided. To the greatest extent possible, the Encyclopedia of Life promotes an open-source, open-access approach. Review the EOL Licensing Policy at http://www.eol.org/files/pdfs/docs/EOL_Licensing_Policy.pdf. See <http://creativecommons.org/licenses/> for more information about these Creative Commons licenses.

licenses:

<http://creativecommons.org/licenses/publicdomain/>
<http://creativecommons.org/licenses/by/3.0/>
<http://creativecommons.org/licenses/by-nc/3.0/>
<http://creativecommons.org/licenses/by-sa/3.0/>
<http://creativecommons.org/licenses/by-nc-sa/3.0/>

<dc:rights>

Statement of rights associated with the resource. Creative Commons licenses require the resource to be attributed "in the manner specified by the author or licensor", and this is where the attribution statement should be specified. This statement will appear in the attribution panel on EOL taxon pages.

<dcterms:rightsHolder>

A person or organization owning or managing rights over the resource. The rights holder will appear in the attribution panel on EOL taxon pages.

<dcterms:bibliographicCitation>

A bibliographic reference for the resource. Sufficient bibliographic detail should be included to identify the resources as unambiguously as possible. This will appear on EOL taxon pages as the recommended citation for this data object.

<audience>

A class of entity for whom the resource is intended or useful. Include all that are applicable. If no audiences are specified, it will be assumed the resource is intended for all audiences.

audiences:

Children
General public
Expert users

<dc:source>

The URL of a web page that describes the resource. Please note that this is not meant to link directly to media, rather to a web page that describes the media. This URL will be used to create a link from EOL taxon pages back to the contributing content partners' web site. This element will default to associated taxon's dc:source.

<subject>

The topic of the resource. **Required** for text descriptions, and not needed for other media. This requirement is not enforced through this XML Schema, but text descriptions without subjects will not appear on EOL species pages. Subject will be used to map the description to a table of contents. The controlled list of subject headings comes from the TDWG ontology

of Infoltems used in the developing standard Species Profile Model. See <http://rs.tdwg.org/ontology/voc/SPMInfoltems> for more information on this list and see <http://www.tdwg.org/> for more information on the Taxonomic Databases Working Group (TDWG).

subjects:

<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Associations>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Behaviour>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Biology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Conservation>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#ConservationStatus>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Cydicity>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Cytology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Description>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#DiagnosticDescription>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Diseases>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Dispersal>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Distribution>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Ecology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Evolution>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#GeneralDescription>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Genetics>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Growth>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Habitat>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Key>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Legislation>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#LifeCycle>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#LifeExpectancy>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Management>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Migration>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#MolecularBiology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Morphology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Physiology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#PopulationBiology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Procedures>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Reproduction>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#RiskStatement>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Size>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#TaxonBiology>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Threats>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Trends>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#TrophicStrategy>
<http://rs.tdwg.org/ontology/voc/SPMInfoltems#Uses>

<dc:description

xml:lang="">

An account of the resource. **Required** for text descriptions. For text descriptions, the entire account should be located here. For media resources, captions should be included here. Recommended to remove all embedded HTML tags pertaining to text styling. Strongly

recommended to remove references to images unless referenced by their absolute URL and harvesters can 'hotlink' to them. Hyperlinks should use absolute rather than relative URLs. Include only basic formatting (italics, bold, paragraph) as the EOL style sheet will enforce standardization with the rest of the EOL website.

<mediaURL>

A URL reference directly to the media resource. **Required** for non-text data objects.

<thumbnailURL>

A URL reference directly to a thumbnail image associated with the media resource. Please note that EOL will generate its own thumbnails of images. This element is most useful for including thumbnails of videos or sounds.

<location

xml:lang="">

Natural language description of the locality where the resource was collected or created. Not recommended for use with text descriptions. If more than one location applies then include all locations within this one element, in a concatenated list or a single textual description.

<geo:Point>

Location of the entity in decimal WGS84 latitude and longitude (and optional altitude) as defined by the W3C Basic Geo Vocabulary. See <http://www.w3.org/2003/01/geo/> for more information on this standard.

<reference

bici=""

coden=""

doi=""

eissn=""

handle=""

issn=""

isbn=""

lsid=""

oclc=""

sici=""

url=""

urn="">

A related resource that is referenced, cited, or otherwise pointed to by the described resource. Recommended to use well-formed bibliographic citations. Strongly recommended to include identifiers that unambiguously refer to the specified resource when available.

Please Note: These examples are intended for reference only. The contents of these documents do not accurately reflect the referenced resources. Please refer to the sources for proper copyright and licensing information.

Animal Diversity Web – Polar Bear

Original: http://animaldiversity.ummz.umich.edu/site/accounts/information/Ursus_maritimus.html

Example: <http://services.eol.org/schema/examples/adw.xml>

FishBase – Atlantic Cod

Original: <http://www.fishbase.org/Summary/speciesSummary.php?ID=69>

Example: <http://services.eol.org/schema/examples/fishbase.xml>