

## EOL Taxon Resource Transfer Schema

Version: 0.1

Schema Location: [http://services.eol.org/schema/content\\_0\\_1.xsd](http://services.eol.org/schema/content_0_1.xsd)

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### Primary Elements

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

### dataObject Element

Element	Reference	Cardinality	Type	Required
dc:identifier	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
dataType	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	1	string	yes
contentType		0..1	string	no
agent		0..∞	string	no
dcterms:created	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	dateTime	no
dcterms:modified	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	dateTime	no
dc:title	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
dc:language	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..∞	string	no
license	<a href="http://creativecommons.org/licenses/">http://creativecommons.org/licenses/</a>	0..1	string	no
dc:rights	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
dcterms:rightsHolder	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
dcterms:bibliographicCitation	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
audience		0..∞	string	no
dc:source	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
subject	<a href="http://rs.tdwg.org/ontology/voc/SPMInfo/terms">http://rs.tdwg.org/ontology/voc/SPMInfo/terms</a>	0..∞	string	no
dc:description	<a href="http://dublincore.org/documents/dcmi-terms/">http://dublincore.org/documents/dcmi-terms/</a>	0..1	string	no
mediaURL		0..1	xsd:anyURI	no

thumbnailURL		0..1	xsd:anyURI	no
location		0..1	string	no
geo:Point	<a href="http://www.w3.org/2003/01/geo/">http://www.w3.org/2003/01/geo/</a>	0..1	geo:Point	no
reference		0..∞	string	no

**<dc:identifier>**

*Required.* Recommended to use a globally unique identifier to unambiguously refer to the taxon.

**<dc:source>**

The URL of a web page which describes the taxon.

**<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: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](http://www.loc.gov/standards/iso639-2/php/code_list.php) for more information on these language standards.

**<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=""**  
**issn=""**  
**isbn=""**  
**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 which unambiguously refer to the specified resource when available.

**<dataObject>**

A text description or multimedia resource which describes the taxon.

**<dc:identifier>**

Recommended to use a globally unique identifier to unambiguously refer to the resource.

**<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>

**<mimeType>**

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 which 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](http://www.loc.gov/standards/iso639-2/php/code_list.php) for more information on these language standards.

**<dc:language>**

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](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 XXXXXXXXXXXX. See <http://creativecommons.org/licenses/> for more information on this controlled list of 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.

**<dcterms:rightsHolder>**

A person or organization owning or managing rights over the resource.

**<dcterms:bibliographicCitation>**

A bibliographic reference for the resource. Sufficient bibliographic detail should be included to identify the resources as unambiguously as possible.

**<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 which describes the resource.

**<subject>**

The topic of the resource. Very strongly recommended for use with text descriptions, and not needed for media. Subject will be used to map the description to a table of contents. The controlled list of subject headings comes from the BIS (TDWG) ontology of Infotems used in the developing standard Species Profile Model. See

<http://rs.tdwg.org/ontology/voc/SPMInfoItems> for more information on this list and <http://rs.tdwg.org/ontology/voc/SpeciesProfileModel> for more information on the Species Profile Model. Also, see <http://www.tdwg.org/> for more information on the Biodiversity Information Standards (TDWG) group.

subjects:

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

**<dc:description**

**xml:lang="">**

An account of the resource. 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 the images are referenced by their full, absolute, URL and harvesters can 'hotlink' to them. Hyperlinks should use absolute rather than relative URLs. 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](http://www.loc.gov/standards/iso639-2/php/code_list.php) for more information on these language standards.

**<mediaURL>**

A URL reference directly to the media resource.

**<thumbnailURL>**

A URL reference directly to a thumbnail image associated with the media resource.

**<location****xml:lang="">**

Natural language description of the locality where the resource was collected or created. Not recommended for use with text descriptions. 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](http://www.loc.gov/standards/iso639-2/php/code_list.php) for more information on these language standards.

**<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 which unambiguously refer to the specified resource when available.

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**EOL Taxon Resource Transfer Schema – Example Instance XML**

**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](http://animaldiversity.ummz.umich.edu/site/accounts/information/Ursus_maritimus.html)

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

ARKive – Polar Bear

Original: [http://www.arkive.org/species/GES/mammals/Ursus\\_maritimus/](http://www.arkive.org/species/GES/mammals/Ursus_maritimus/)

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

eFloras – Zea mays

Original: <http://www.tropicos.org/EOLService/EOLWS.aspx/SpeciesInfo?nameID=25510055>

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

FishBase – Atlantic Cod

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

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

The Canadian Arachnologist – Complete Export

Original: <http://www.canadianarachnology.org/>

Example: <http://services.eol.org/schema/examples/arachnologist.xml> (This file is approx. 1 MB)