

Species Index - Data

This site hosts data that makes use of the speciesindex.org URIs for taxa. These are URIs that are created from the taxon's name using a simple set of rules. Use of these URIs should make it possible to mix data from multiple sources within an ontology and have the datasets '*automagically*' join up for analysis. Research is envisaged as going something like this:

1. Frame problem - at least in natural language form.
2. Use Protege 4 or some other RDF aware tool.
3. Import relevant data from external sources (such as data.speciesindex.org).
4. Import any local research data as RDF.
5. Import or create an ontology or ontologies containing assertions about how the data should be interpreted in the context of this problem.
6. Run inference engine over data (optional)
7. Interpret data classified according to the asserted or inferred class hierarchies
8. Start at 1 again

It is planned to host a number of datasets that may be of general use in biodiversity informatics and perhaps provide wrapper/conversion/validation services to facilitate steps three and four.

Read about Species Index URIs at speciesindex.org before proceeding.

Licensing and Warranty

Data here has been derived from other sources and fair use for scientific purposes is claimed. It is your responsibility to check with the original data providers terms and conditions to make sure your intended use is permitted. **The original data provider should be credited above and beyond data.speciesIndex.org.** The original data providers URI is always included with the data. This data comes as seen with no warranty. It is your responsibility to check that data.speciesindex.org hasn't messed anything up with regard to representing the original data source.

Taxonomic Lists

Catalogue of Life

The annual checklists for 2008 and 2009 as distributed on the annual CDs are presented using the following formula:

```
http://data.speciesindex.org/col/<"2008"  
| "2009">/<Kingdom>/<  
"kingdom" | "phylum" | "class"  
| "order" | "family" | "genus"  
>/<Taxon Name>
```

Examples:

- <http://data.speciesindex.org/col/2009/Animalia/genus/Homo>
- <http://data.speciesindex.org/col/2009/Plantae/genus/Rhododendron>
- <http://data.speciesindex.org/col/2008/Plantae/genus/Rhododendron>
- <http://data.speciesindex.org/col/2009/Animalia/genus/Turdus>
- <http://data.speciesindex.org/col/2009/Animalia/order/Atheriniformes>
- <http://data.speciesindex.org/col/2009/Fungi/genus/Agaricus>

URI's for taxa (or combinations of taxon name, rank and kingdoms) that don't exist in CoL with accepted species within them will return 404 Not Found errors. If in doubt use the [Species2000 website](#) to verify the existence of the taxon you are looking for.

URI's that do occur in CoL will return RDF (in Turtle syntax) of all the species, subspecies and synonyms in the taxon along with the ancestor taxa all the way up to Kingdom level - a sparkler

ontology (think of a star on the end of a stick like a sparkler at a firework party).

You should be able to build a classification within your local ontology that includes the species you are interested in simply by including the RDF for each of the taxa of interest (the higher and synonyms will automatically knit the separate RDF graphs together).

Brummitt Plant Genera By Family

Planned...

BSBI Plant List

Planned...

Other Data

IUCN Plant Red List

This is a simple rendering of the Critical, Endangered and Vulnerable categories of the IUCN Red List as 2009.

You can generate different combinations of Kingdom and Category by clicking on the number of species in the table below. Some of these lists are quite long.

The ontologies produce use custom speciesindex vocabulary terms because others aren't available. It would be really good if IUCN produced official versions of this data and a little RDF vocabulary to support it. Hopefully this can act as a testbed for such an approach.

Category	Animalia	Fungi	Plantae	Protista
CR	3,131	3	2,865	7
EN	4,490	2	4,177	1
VU	7,683	0	8,873	2
all	15,304	5	15,915	10

Tree Genera

A list of 1106 genera culled off the internet that appear to contain trees. This is a crude list for experimental purposes only.

<http://data.speciesindex.org/plant/descriptive/trees.ttl>

Vernacular Names of Higher Taxa from UK Nature Navigator

This is a list of vernacular names for taxa at the rank of genus and higher from the UK Nature Navigator produced by the NHM in London.

<http://data.speciesindex.org/nn/higher>

This should make it possible to demonstrate building classes based on vernacular names. As an example you could import the Pinopsida Catalogue of Life ontology (<http://data.speciesindex.org/col/2009/Plantae/class/Pinopsida>) into an ontology along with this list of vernaculars (<http://data.speciesindex.org/nn/higher>) and then define the restriction class `FirTreeSpecies` as "isChildTaxonOf some (hasName some (TaxonName and vernacular value "firs"))". You can probably think of more interesting examples!

Services

Darwin Core Archive Format Wrapper

Planned... A wrapper for DwC archive formatted checklists that are produced by the GBIF IPT.