Curation tools for taxonomic databases

Conference or Workshop Item

How to cite:

Morse, David; De Roeck, Anne; Willis, Alistair and Yang, Hui (2013). Curation tools for taxonomic databases. In: BioCuration 2013, Su ay 7 Apr to Wednesday 10 April 2013, Churchill College, Cambridge, UK.

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Version: Version of Record
Curation Tools for Taxonomic Databases

http://taxoncuration.myspecies.info/

Biological taxonomy
- knowledge of species and their relationships
- underpins life sciences
- conservation of biodiversity

Much knowledge only held in historical literature
- often in specialist libraries
- difficult to access

Have identified and named ~1.78 million species of animals, plants, and microorganisms
- but 5-30 million species on Earth (est.)

Practising taxonomists need
- curation of names from scans
- better access to scanned literature
  - via electronic search

Curation from scans introduces errors/ambiguities
- synonyms and naming variations
- orthography (hyphens, spacing, ...)
- OCR errors

Comtax project
Project aims to support manual correction/verification of taxons
- by experts
  - understanding of term variation
  - a collaborative annotation exercise
  - taxonomists and citizen scientists
  - using existing tools
    - taxonomic Scratchpads

Curation of corrected and verified terms
- into databases or linked open data sets

Using ongoing digitisation projects
- Biodiversity Heritage Library
- to create open access resources

Term validation
- Potential taxonomic names are identified using Named Entity Recognition
- Potential names presented to users with relevant context
- Judgements collected through taxonomic Scratchpads community tools
- Users can validate, or correct the OCR interpretation of the scan

Database curation
- taxonomic names matched against existing large-scale taxonomic databases
  - Encyclopedia of Life
  - Catalogue of Life
  - uBio Name Database
- Unmatched taxon names
  - collected for validation by taxonomists
  - used for further database curation
  - used to build indices to support search of the literature

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