



Indexing for Life

Deliverable D3.2

Annual Checklist 2013 (demonstrator report)

Work package 3

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Introduction

The i4Life Project (Indexing for Life) is to create a Virtual Research Community that will develop and harmonise the various species catalogues used by six of the world's global biodiversity programmes using the Catalogue of Life as a yardstick.

The Catalogue of Life (CoL) is a global taxonomic checklist, an inventory of all living species on the planet. Work package 3 is responsible for internal scientific and production services of the Catalogue of Life. Internal CoL services include communications with data suppliers (global and regional species databases), assembly of various taxonomic checklists into a unified authoritative Catalogue, and its editorial scrutiny.

A new production cycle of the Catalogue of Life was established at the end of the 4D4Life project. This cycle consists of continuous monthly editions of the Catalogue of Life (dynamic checklist) published at www.catalogueoflife.org/col, and of fixed cumulative edition of the Annual Checklist published at www.catalogueoflife.org/annual-checklist.

The CoL annual production cycle of 2012-2013

The annual cycle of 2012-13 was started in March 2012 after publication of 2012 Annual Checklist on 3rd February 2012. During this cycle, 13 monthly editions of the Catalogue of Life have been released at www.catalogueoflife.org/col.

Five monthly editions were released as a part of the 4D4Life WP5 extended activity:

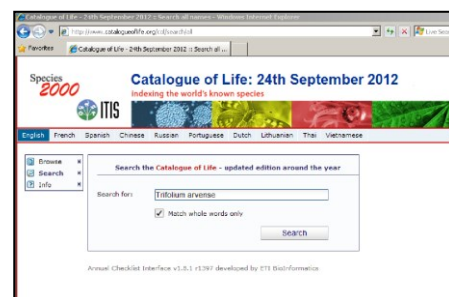
The Catalogue of Life, 15th March 2012

The Catalogue of Life, 30th April 2012

The Catalogue of Life, 30th May 2012

The Catalogue of Life, 25th June 2012

The Catalogue of Life, 26th July 2012



Assembly of further editions has been continued as i4Life WP3 activity since August 2012.

The Catalogue of Life, 17th August 2012

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Appeltans W., Kirk P., Bourgoin T., Baillargeon G., Ouvrard D., eds (2012). Species 2000 & ITIS Catalogue of Life, **17th August 2012**. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,315,754 spp; 31 databases have been updated, including 27 automated updates.

The Catalogue of Life, 24th September 2012:

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., eds (2012). Species 2000 & ITIS Catalogue of

Life, 24th September 2012. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,313,939 spp; 30 databases have been updated, including 27 automated updates. ICTV/MSL: latest taxonomic scrutiny records and presentation of virus genera have been improved. PhytoseiidBase from MitesGSDs: link to a new website and links to online species pages have been added. Data provider for family Megascolecidae (Oligochaeta) has been changed back to regional NZIB checklist on request of Encyclopedia of Life and Thomas Orrell.

The Catalogue of Life, 23rd October 2012:

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., eds (2012). Species 2000 & ITIS Catalogue of Life, 23rd October 2012. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,319,962 spp; one new database added (HymIS Rhopalosomatidae); ITIS contributed new classification and new global checklists of flowering plants; 27 databases have been updated automatically.

The Catalogue of Life, 20th November 2012:

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., eds (2012). Species 2000 & ITIS Catalogue of Life, 20th November 2012. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,320,037 spp; ITIS plus 27 databases have been updated, including 27 automated updates.

The Catalogue of Life, 21st December 2012:

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., eds (2012). Species 2000 & ITIS Catalogue of Life, 21st December 2012. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,323,005 spp; 2 new databases; 31 databases have been updated, including 27 automated updates.

The Catalogue of Life, 28th January 2013:

Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., eds (2013). Species 2000 & ITIS Catalogue of Life, 28th January 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,327,263 spp; 1 new database contributed to CoL proto-GSDs in animalian classes Crinoidea, Bivalvia, Gastropoda, Adenophorea, Polychaeta, Malacostraca, Maxillopoda and Insecta (order Coleoptera); and in plant phyla Bryophyta & Pteridophyta; 28 databases have been updated, including 27 automated updates.

The Catalogue of Life, 13th February 2013:

Roskov Y., Kunze T., Paglinawan L., Orrell T., Nicolson D., Culham A., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., eds (2013). Species 2000 & ITIS Catalogue of Life, 13th February 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,341,308 spp; 4 new databases from WoRMS replaced old URMO sectors, second batch of CoL-China contributed to proto-GSDs in phylum Labyrinthista (Chromista) and class Acantharia (Protozoa), and in families of flowering plants; 30 databases have been updated, including 27 automated updates.

The Catalogue of Life, 11th March 2013:

Roskov Y., Kunze T., Paglinawan L., Orrell T., Nicolson D., Culham A., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., eds (2013). Species 2000 & ITIS Catalogue of Life, 11th March 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.

CoL contained 1,352,358 spp; 8 new databases; 40 databases have been updated, including 31 automated updates.

Through the annual cycle, the Plantae classification has been updated following ITIS taxonomy. CoL proto-GSDs have been started in such gap areas as phyla Mollusca, Platyhelminthes, Myxosoa, in the class Clitellata (Annelida) and in many flowering plant families. Two new languages have been added in user interface: Polish (Magda Sitko, WP2) and German (Thomas Kunze).

Data assembly and all editorial transformations have been processed with new CoL Workbench. Downloads and updates of 31 databases have been automated via Workbench Templates by Viktor Didziulis, WP3.

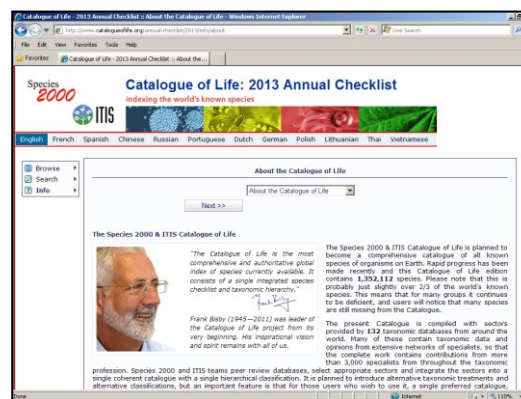
Information on each release of the Catalogue of Life has been tweeted through the year via [@catalogueoflife](https://twitter.com/catalogueoflife)



2013 Annual Checklist

The 2013 Annual Checklist edition was released on 25th April at www.catalogueoflife.org/annual-checklist/2013. The database and booklet text was delivered to WP4 for DVD manufacturing on the same date.

Roskov Y., Kunze T., Paglinawan L., Orrell T., Nicolson D., Culham A., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., eds (2013). Species 2000 & ITIS Catalogue of Life, 2013 Annual Checklist. DVD; Species 2000: Reading, UK.



2013 AC contains contributions from 132 databases with information on 1,352,112 species and 114,069 infraspecific taxa belong to 133,225 genera, 7,826 families, 1,004 orders, 227 classes, 85 phyla and 7 kingdoms plus viruses; it also includes 928,147 species synonyms and 408,689 common names.

This edition accumulated all editorial transformations, which we made in the annual cycle from March 2012 to March 2013.

18 new databases plus new global sectors from ITIS have been added in a year cycle:

- Catalogue of Life China
- CoreoideaSF: Coreoidea Species File (Leatherbugs of the world)
- FADA Bivalvia: World checklist of freshwater Bivalvia species
- FADA Ephemeroptera: World checklist of freshwater Ephemeroptera species
- FADA Nematomorpha: World checklist of freshwater Nematomorpha species
- FADA Turbellaria: World checklist of freshwater Turbellaria species
- HymIS Rhopalosomatidae: Hymenoptera Information System, Rhopalosomatidae of the world
- ITIS Global (Plantae: families Barbeyaceae, Bataceae, Cephalotaceae, Crossosomataceae, Eucommiaceae, Gerrardinaceae, Koeberliniaceae, Lophopyxidaceae, Montiniaceae, Penthoraceae, Petenaeaceae, Pycnanthaceae, Rhoipteleaceae; Animalia: insect subfamily Cassidinae)
- MolluscaFW: World Checklist of Freshwater Mollusca
- PsocodeaSF: Psocodea Species File
- WoRMS Cestoda: World List of Cestoda*
- WoRMS Chaetognatha: World list of Chaetognatha*
- WoRMS Gastrotricha: World Gastrotricha Database*

- WoRMS Gnathostomulida: World list of Gnathostomulida*
 - WoRMS Mollusca: World Marine Mollusca database
 - WoRMS Monogenea: World list of Monogenea
 - WoRMS Myxozoa: World list of Myxozoa
 - WoRMS Placozoa: World Placozoa Database*
 - WoRMS Priapulida: World list of Priapulida*
 - WoRMS Trematoda: World list of Trematoda*
- (*WoRMS replaced URMO sector)

55 databases have been updated in a year cycle; 31 of them updated nine times via automated CoL Workbench (WoRMS) and 9 updated twice via manual assembly process:

- AphidSF
- BdelloideaBase
- BlattodeaSF
- EmbiopteraSF (two updates)
- FADA Ephemeroptera (two updates)
- FADA Rotifera
- FishBase (two updates)
- GCC
- GloBIS (GART)
- ICTV/MSL
- ILDIS (two updates)
- LepIndex
- LIAS (two updates)
- MantodeaSF
- MELnet
- OrthopteraSF (two updates)
- PhasmidaSF
- PlecopteraSF (two updates)
- RJB Geranium
- Scarabs (two updates)
- SpidCat via ITIS
- Strepsiptera Database
- SysMyr (three updates)
- WoRMS Asteroidea (9 updates)
- WoRMS Bochusacea (9 updates)
- WoRMS Brachiopoda (9 updates)
- WoRMS Brachypoda (9 updates)
- WoRMS Brachyura (9 updates)
- WoRMS Bryozoa (9 updates)
- WoRMS Chaetognatha (9 updates)
- WoRMS Cumacea (9 updates)
- WoRMS Echinoidea (9 updates)
- WoRMS Gastrotricha (9 updates)
- WoRMS Gnathostomulida (9 updates)
- WoRMS Holothuroidea (9 updates)

- WoRMS Hydrozoa (9 updates)
- WoRMS Isopoda (9 updates)
- WoRMS Leptostraca (9 updates)
- WoRMS Mystacocarida (9 updates)
- WoRMS Nemertea (9 updates)
- WoRMS Oligochaeta (9 updates)
- WoRMS Ophiuroidea (9 updates)
- WoRMS Phoronida (9 updates)
- WoRMS Placozoa (9 updates)
- WoRMS Polychaeta (9 updates)
- WoRMS Polycystina (9 updates)
- WoRMS Porifera (9 updates)
- WoRMS Priapulida (9 updates)
- WoRMS Proseriata and Kalyptorhynchia (9 updates)
- WoRMS Remipedia (9 updates)
- WoRMS Scaphopoda (9 updates)
- WoRMS Tanaidacea (9 updates)
- WoRMS Tantulocarida (9 updates)
- WoRMS Thermosbaenacea (9 updates)
- WoRMS Xenoturbellida (9 updates)

Other changes:

- The Plantae classification was updated to follow ITIS in September 2012
- A new improved version of Lepidoptera checklist from LepIndex caused reduction of accepted species records by 100K
- AlgaeBase data (31K species) have been removed from the Catalogue of Life at the request of the copyright owner. AlgaeBase data may now be licensed directly from Michael Guiry (michael.guiry@algaebase.org)
- WoRMS Brachyura database replaced FWCrabs regional checklist
- Four new languages have been added in the interface: Russian, Lithuanian, Polish and German

Conclusion

The 2013 Annual Checklist is deployed on the production server at the University of Reading at www.catalogueoflife.org/annual-checklist/2013_on_25th_March_2013. All related web and download services, developed in i4Life project, have been deployed at www.catalogueoflife.org/webservices and at http://www.catalogueoflife.org/DCA_Export with new AC13 database.

The database and final text of the booklet was delivered to the WP4 for DVD production. Release of 3,500 DVDs is expected at the beginning of May 2013.