

## The Catalogue of Life: an international taxonomic backbone for the organization of biotic materials

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The Catalogue of Life (CoL) is the most comprehensive and authoritative global index of species currently available. It consists of a single integrated species checklist and taxonomic hierarchy, compiled from more than 80 sources. This work contains contributions from over 3,000 taxonomic specialists. Expert teams peer review the databases and integrate them into a single coherent catalogue with a single hierarchical classification. Currently the CoL holds information on the names, taxonomic relationships and distributions of 1.3 million species, 66% of all known plants, animals, fungi and micro-organisms. This number continues to grow as more information sources are linked into the system.

The CoL is used to support the major biodiversity and conservation information services such as GBIF, Encyclopedia of Life, and the IUCN Red List. It is recognised by the Convention on Biological Diversity as a significant component of the Global Taxonomy Initiative and contributes to achieving the Targets of the Global Strategy for Plant Conservation. The CoL is used to:

- Check the scientifically accepted name, alternative names, the spelling, and distribution of a species
- Find the place of the organism in the global taxonomic hierarchy
- Compile checklists of species in a particular area or taxonomic group
- Find basic bibliographic resources
- Carry out biodiversity analysis.

The Catalogue of Life is available on-line ([www.catalogueoflife.org](http://www.catalogueoflife.org)), as a web-service, and as an annually updated DVD-ROM.

The Catalogue of Life is developed in a partnership between Species 2000 (an autonomous federation of taxonomic database projects, involving taxonomists throughout the world, see [www.sp2000.org](http://www.sp2000.org)), and the Integrated Taxonomic Information System (IT IS: a partnership of federal agencies and other organisations from the US, Canada, and Mexico, with data stewards and experts from around the world, see [www.itis.gov](http://www.itis.gov)). The CoL e-infrastructure is realized with financial support from the European Commission. The 4D4Life (Distributed Dynamic Diversity Databases for Life) project focuses on developing a state-of-the-art e-science facility, with an expanded array of user services and innovations to the software systems. The i4Life project focuses on creating a Virtual Research Community to

integrate the indexing of biological species between the world's major biodiversity programmes (GBIF, EoL, IUCN, LifeWatch, CBOL, EBI-ELIXIR) and realizing a dynamic reciprocal information exchange.

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