Species list reaches half-million mark

Mark Peplow

Researchers claim 'spectacular progress' towards logging all Earth's life.

An online catalogue of all known life on Earth now has half a million species in its freely available database.

The Catalogue of Life Programme began in 2001 as a collaboration between Species 2000, a project based at the University of Reading, UK, and the Integrated Taxonomic Information System in Washington DC. The two groups each host part of the online directory.

Since then, many universities and natural history institutions have opened up their dusty card catalogues of species to contribute to the digital resource.

"The Catalogue of Life is just like the yellow pages for species," explains Paul Kirk, an expert in fungi at CABI Bioscience, a non-profit agriculture and biodiversity research organization, based at Egham, UK, that is one of the project's collaborators.

"You can't understand biodiversity without a system of communication, and it's fundamental that we have this directory of names," he says.



The koala (*Phascolarctos cinereus*) is one of the half million species already in the database.

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The catalogue is useful in any situation where researchers want to keep track of living organisms, says Kirk. For example, a definitive list of all the species within a particular genus can help with evolutionary studies.

The resource will also provide a starting point for conservation efforts in remote parts of the world where 'parataxonomists', untrained in biology, can use the catalogue as a reference to help monitor biodiversity.

Many species are known by different colloquial names in neighbouring countries, and the catalogue hopes to eliminate the confusion this causes.

Bacteria to blue whales

Biologists estimate that about 1.75 million species, from bacteria to blue whales, have already been identified on Earth. But there may be anywhere between 3 million and 12 million more yet to be discovered, says Kirk.

For each known species, the catalogue lists its different names, along with details of where it is found, the names of relevant experts, and links to other online resources.

"We need a catalogue of life, so I'm very much for it," says Charles Godfray, an evolutionary biologist at Imperial College London. "But this is just a means to an end," he adds.

More than a list

Ultimately, biologists need a catalogue that is full of information about each species, rather than a mere directory of names, he says. "What worries me is that people aren't producing those information-rich sites," says Godfray.

Other projects are attempting to create more comprehensive catalogues, he points out, such as the International Plant Names Index, based at the Royal Botanic Gardens in Kew, London.

Another promising effort is Wikispecies. Started in August 2004, this is an offshoot of the Wikimedia group, whose free online encyclopaedia is constructed by users themselves.

Biologists across the world are being invited to contribute to the Wikispecies site. "It is going well, but we are

proceeding carefully to get the details right from the start," says founder Jimmy Wales.

Frank Bisby, the executive director of Species 2000, who announced the catalogue's milestone on 15 March at their annual meeting in St. Paul's Bay, Malta, says it has made "spectacular progress". The consortium aims to complete its database by the end of the decade.