

# 4D4Life e-bulletin



**Catalogue of Life** – indexing the world's known species

Issue 1

September 2009

Welcome to the first e-bulletin of the 4D4Life – Distributed Dynamic Diversity Databases for Life – EC project. The e-bulletin will be sent out twice a year to keep you informed of progress on the 4D4Life project and provide a coherent snapshot of our combined activities. Please remember, this is your newsletter, so do let us know what you'd like to see covered.

## Why taxonomy?

The past few decades have seen a stream of studies that show that sorting and naming the natural world is a universal, deep-seated and fundamental human activity, one we cannot afford to lose because it is essential to understanding the living world, and our place in it. If we lose the ability to order and name, we lose a connection to, and a place in, the living world.

However, despite some 250 years of effort in the taxonomic profession there is still no complete catalogue of all presently known animals, plants, fungi and micro-organisms of the world. The Catalogue of Life, our best effort at a comprehensive species catalogue, now covers 1.1 million species of plants, animals, fungi and micro-organisms, some 60% of the anticipated total of 1.8 million presently known species worldwide.

## 4D4Life – An introduction

In producing the Catalogue of Life, Species 2000 and ITIS provide the world with a unique service: a dynamically updated global index of validated scientific names, synonyms and common names integrated within a single taxonomic hierarchy. The Catalogue has established a formidable user base, including major global biodiversity portals as well as national biodiversity resources and thousands of individual users worldwide

The 4D4Life Project, split into seven Work Packages (WPs) and funded by the 7th Framework Programme (Research Infrastructures) of the European Commission, aims to establish the Catalogue of Life as a state of the art e-science facility, with an exciting array of new services and improvements to the software systems.

User-driven enhancements in the presentation of the species data will be made over the next three years, via the joint research activities of the 4D4Life project.

The Networking activities of the 4D4Life project will strengthen the development of the Global Species Databases (GSDs) that provide the core of the Catalogue of Life service, as well as extend the geographical reach of the programme beyond Europe by integrating data from Australia, Brazil, China, New Zealand and North America.

Service activities, which form the largest part of the project, will create new electronic taxonomy services, including synonymy server, taxon name-change, and download services, plus new educational and popular services, for instance for hand-held devices.

## Diary dates

### 15 – 17 September

4D4Life Project Opening Meeting, Reading University

### 3 – 9 October

Species 2000 / 4D4Life delegation to the GBIF Governing Board, Copenhagen, Denmark. Registration on line: <http://gb16.gbif.org/GB16reg/stage0>

### 28-29 October

4D4Life Services Team, Design Team and Management Committee meetings, ETI, Amsterdam, the Netherlands



## Did you know?

- The Catalogue of Life is produced as an annual checklist. The 2009 Annual Checklist contains contributions from 66 databases with information on 1,160,711 species and 75,772 infraspecific taxa, and also includes 763,776 synonyms and 469,891 common names
- The Catalogue of Life website receives 40 million hits per annum with 30-40,000 serious users per month
- Two globally significant biodiversity portals (GBIF and EOL) have installed the Catalogue as their principal taxonomic index
- 3,500 copies of the Annual Checklist are distributed each year in 80 countries free of charge on CDs, enabling operation on PCs or laptops without internet access





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## Who is involved?

4D4Life will be achieved by some 38 partner organisations – 33 from Europe and 5 from further a-field – feeding into the seven workpackages (WPs).

We will be introducing these partners in future issues of the newsletter, but here we focus on the leaders of the seven WPs of 4D4Life.



### **WP1: Consortium management – University of Reading, Reading**

Frank Bisby is Professor of Botany and Director of the Centre for Plant Diversity & Systematics and member of the Informatics Research Centre at the University of Reading. He is a founding member of the Biodiversity Information Standards organisation (TDWG), instigator of one of the first global species databases, ILDIS, and leader of the Species 2000 organisation since its launch in 1996.



### **WP2: Engagement with scientific users and partners – Botanic Gardens Conservation International (BGCI), London**

Sara Oldfield is Secretary General of BGCI with responsibility for overall management and development of the organisation. She has 30 years experience of working in the biodiversity sector, including data analysis, policy development and management of a wide range of conservation initiatives. Sara is convenor of the cross-cutting Services Team that will co-ordinate the new services in 4D4Life.



### **WP3: Strengthening the GSD network: a virtual community – Museum National d'Histoire Naturelle, Paris**

Thierry Bourgoïn is the Deputy Director of the MNHN Collections, co-ordinator of Species 2000 Europa database network, member of the Global Species 2000 Team and Taxonomy group, leading taxonomist of planthoppers, author and manager of the FLOW database.



### **WP4: Foresight study for geographical extension: the global multi-hub network – Narodni Muzeum, Prague**

Jiri Kvacek is Head of the Department of Palaeontology. His scientific work is focused on the palaeobotany of gymnosperms and angiosperms. He has worked for the National Museum since 1987 in various roles, including as Director.



### **WP5: Scientific services of the Catalogue of Life – University of Reading, Reading**

Yuri Roskov is the Catalogue of Life Executive Editor and co-manager of WP5. He is plant taxonomist, co-director of ILDIS. Yuri has worked 7 years for the Catalogue of Life.



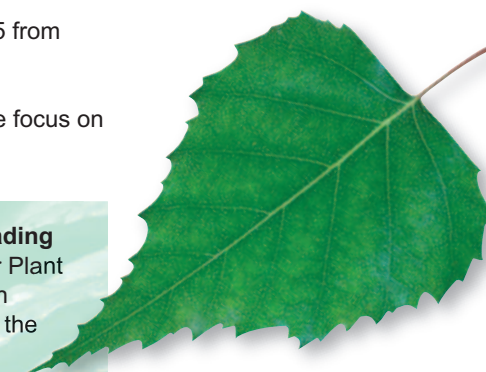
### **WP6: Software support services – Stichting Expertisecentrum voor Taxonomische Identificatie (ETI), Amsterdam**

Peter Schalk, ETI Managing Director. Peter's speciality is HR and project management, use-user analysis, data quality, information management and knowledge product development. Peter is Chairman of the Board of Directors of Species 2000.



### **WP7: New service-based architecture – Cardiff University, Cardiff**

Richard White is Lecturer in Bioinformatics and the convenor of the Species 2000 Information Systems Group. Alex Hardisty is Director of the Welsh e-Science Centre at Cardiff University. Alex is convenor of the cross-cutting Design Team that will co-ordinate the new information systems in 4D4Life.



## What's next?...

Look out for contributions and updates from project partners.

We will be sending out a questionnaire, which will be your opportunity to give feedback and inform the development of the Catalogue of Life.

For newsletter enquiries and submissions please contact Belinda Hawkins or Suzanne Sharrock at: [4D4Life@bgci.org](mailto:4D4Life@bgci.org).

## Spotlight on a contributing database

FishBase



FishBase is an information system with key data on the biology of all fishes. Conceived in 1987, and part of the Catalogue of Life since 1996, it has:

- 31,200 species
- 277,500 common names
- 48,400 pictures
- 43,200 references
- 1,720 collaborators

[www.fishbase.org](http://www.fishbase.org)