

## **GLOBAL STRATEGY FOR PLANT CONSERVATION TARGET 1: TOWARDS A WORLD LIST OF KNOWN PLANT SPECIES**

\***Frank A. Bisby<sup>1</sup>, Alan Paton<sup>2</sup>, Yuri Roskov<sup>1</sup> and Michael Ruggiero<sup>3</sup>**

<sup>1</sup>Species 2000 Secretariat, School of Biological Sciences, The University of Reading, Reading,  
RG6 6AS, UK, f.a.bisby@sp2000.org; y.r.roskov@sp2000.org

<sup>2</sup>Herbarium, Royal Botanic Gardens Kew, Richmond, Surrey, TW9 3BD, UK, a.paton@rbgkew.org.uk

<sup>3</sup>Integrated Taxonomic Information System (ITIS), National Museum of Natural History, Smithsonian  
Institution, Washington, DC, 20013-7012, USA, ruggierm@si.edu

*Keywords: plant species, world checklist, Catalogue of Life, Global Taxonomy Initiative, Global Strategy for  
Plant Conservation*

### **INTRODUCTION**

Creating a Working List of Known Plant Species is target one of the CBD Global Strategy for Plant Conservation, to be completed by 2008, or 2010 at the latest. The Species 2000 Secretariat at the University of Reading and the Royal Botanic Gardens Kew are working together within a wide community of plant taxonomists to stimulate planning, implementation and delivery of such a list.

### **GAP ANALYSIS WORKSHOP**

A gap analysis of the taxonomic coverage needed for an electronic Working List of Known Plant Species was carried out at a workshop organised by Species 2000 and the Royal Botanic Gardens, Kew in June 2004, and sponsored by Global Biodiversity Information Facility (GBIF) and the UK Biotechnology and Biological Sciences Research Council (BBSRC).

Experts from around the world, and covering a wide range of taxa, made the analysis based on existing checklist databases plus existing monographic and checklist activity. An attempt was made to identify contacts with groups of specialists who might assist with filling these gaps, since wide international participation will be needed if the target is to be met. The preliminary results of the analysis were tabulated and displayed on the organisations' websites, prior to their inclusion in the metadatabase being developed by Species 2000, Integrated Taxonomic Information System (ITIS) and GBIF.

The principal conclusions drawn from examining the preliminary results are:

- ◆ Coverage of Angiosperm families: global checklists are done for approximately 15% of species, in progress for approximately 22%, and in draft stages for a further 30%.
- ◆ Angiosperm families that are not yet started constitute approximately 33% of species.
- ◆ Jointly planned activities of the Royal Botanic Gardens Kew, Missouri Botanical Garden and New York Botanical Garden are likely to account for some 55% of the total, leaving a 'missing area' of about 45% that needs taxonomic expertise, leadership and co-ordination.

### **Priorities stemming from the workshop**

1. The larger missing sectors (thought to be the families Compositae (Asteraceae), Melastomataceae, and Malvaceae) must be started urgently if there is to be any chance of even nearing completion by the 2010 target date of the Global Strategy for Plant Conservation, or by 2011, the

target date for completing the *Species 2000 & ITIS Catalogue of Life* (Bisby et al. 2005a,b,c) illustrated graphically in Figure 1 and Figure 2.

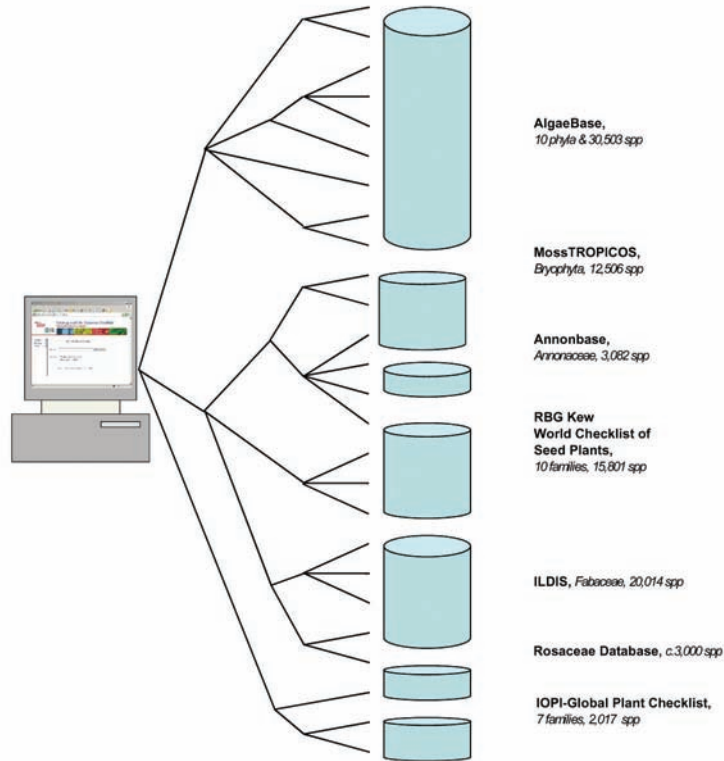
2. For the very many smaller and middle-sized families to be started or brought to completion, it is both an issue of focusing appropriate expertise on the task, and providing leadership, co-ordination and funding to the programme of work. A vigorous co-ordinating process, possibly led by Species 2000, International Organization for Plant Information (IOPI) or ITIS is required for the 45% of sectors needed from outside the joint programme of RBG Kew, Missouri Botanical Garden, and New York Botanical Garden.
3. The preliminary coverage table created at the workshop should be publicised and developed, working with the Species 2000 metadatabase and GBIF to keep track of who is doing what.

### References

---

- Bisby, F.A., Ruggiero, M.A., Wilson, K.L., Cachuela-Palacio, M., Kimani, S.W., Roskov, Y.R., Soulier-Perkins, A. and van Hertum, J., eds. (2005a). *Species 2000 & ITIS Catalogue of Life: 2005 Annual Checklist*. CD-ROM, Species 2000, Reading UK.
- Bisby, F.A., Ruggiero, M.A., Wilson, K.L., Cachuela-Palacio, M., Kimani, S.W., Roskov, Y.R., Soulier-Perkins, A. and van Hertum, J., eds. (2005b). *Species 2000 & ITIS Catalogue of Life: 2005 Annual Checklist*. [www.sp2000.org/AnnualChecklist.html](http://www.sp2000.org/AnnualChecklist.html)
- Bisby, F.A., Ruggiero, M.A., Wilson, K.L., Gray, A., White, R.J., Jones, A.C., Roskov, Y.R., Soulier-Perkins, A. de Jong, Y., Harling, P., Donovan, E. and van Hertum, J., eds. (2005c, et seq.). *Species 2000 & ITIS Catalogue of Life: Dynamic Checklist*. [www.sp2000.org/DynamicChecklist.html](http://www.sp2000.org/DynamicChecklist.html)

**FIGURE 1:** Progress to date with *The World List of Plant Species* (made available through the *Species 2000 & ITIS Catalogue of Life*)



**FIGURE 2:** Sample page, Bisby et al. (2005).

