Web based Resources for 21st Century Agrostology

Report on Meeting held April 4 at the Third International Conference on Monocots

The meeting was organized and chaired by Robert J. Soreng (US National Herbarium Smithsonian Institution; SORENG.ROB@NMNH.SI.EDU). This report has been prepared by Mary E. Barkworth (Intermountain Herbarium, Utah State University; mary@biology.usu.edu).

It is being sent to those who attended the meeting as well as many others interested in grasses. If you would like to comment on some aspect, or enter into a discussion on this topic, the “Reply to All” button will distribute your comments to all the recipients. I shall also make the report available via TAXACOM as there are probably several individuals on that Listserver who might be interested in the topic. I am also willing to forward comments if they are sent just to Barkworth (mary@biology.usu.edu), but please let me know if you wish your comment to be shared.

Opening: Soreng opened the meeting by stating that its purpose was discuss the possibility of coordinating efforts to make resources for agrostologists more readily available while eliminating unnecessary duplication of effort. Information about projects at three institutions was then presented.

1. New World Grasses (http://mobot.mobot.org/W3T/Search/nwgc.html), presented by Soreng.

Presents information on names of 77,600 grass taxa. This information includes the status of the name, publication, location of types, and usage of the name both by those developing the New World Catalog and by other taxonomists. The type information is being linked to images of type specimens and protologs, including those at remote institutions.

The site is linked to other databases at the Missouri Botanical Garden, including the Garden’s specimen, chromosome, and reference databases. It shares with TROPICOS, the Garden’s general nomenclatural Web site, a facility for presenting distribution maps of taxa based on specimens in MO’s database. This permits zooming from a global map to a very small region and listing of the specimen documenting a particular record. It is also possible to view the distribution of several species at a time.

2. World Grass Flora (http://www.rbgkew.org.uk/herbarium/gramineae/wrldgr.htm) presented by Renvoize

Renvoize presented a paper on this Web site at an earlier session. The site is being developed primarily through the efforts of Derek Clayton who is using DELTA (Dallwitz et al.) and published descriptions to develop an online, interactive key to all the grasses of the world. He has currently developed descriptions of almost 10,000 species (out of approximately 11,000 species total). The files available on the Web have not been updated for some time. This will be accomplished later this year.

There is a nomenclatural database associated with the site that is not yet publicly available. This database provides information on the nomenclatural status, publication data, and taxonomic treatment adopted by Kew. It too should be available later this year.
To quote the Web site: “The descriptions are mostly derived from published accounts with minimal herbarium checking. *Assistance in improving their quality and developing the concept of a World Grass Flora would be welcomed*” [Emphasis added].

There is some overlap between TROPICOS and the World Grass Flora with respect to nomenclatural information, but decisions as to which names are accepted and which are synonyms are made independently by the two projects.

Development of a specimen database is not a priority for Kew, nor is imaging of its specimens. Renvoize agreed that, should imaging start, it would be logical to give priority to Kew’s type specimens.

3. **Ausgrass (CD Disk, not Web site) presented by Simon.**

Ausgrass has an interactive key that was built using LUCID, but the data are initially developed in DELTA and then translated into LUCID format. This approach takes advantage of the many features that are included in DELTA that are not available in LUCID while presenting the identification aspects using the more user-friendly LUCID interface. LUCID provides species descriptions of fact sheets constructed from the data stored and links that to such entities as field photographs, maps, line drawings explanation of characters, and common names. Among its attractive features are that it permits a hierarchical approach to identification and it enables one to review several images at once. LUCID and Ausgrass have been developed by CSIRO. LUCID is now Web-compatible but there are no plans to develop a Web compatible version of AusGrass.

Following presentation of these three projects, the meeting opened to general discussion. The existence of other interactive key programs was mentioned, notably NAVKEY which is being used by Guala ([http://www.virtualherbarium.org/](http://www.virtualherbarium.org/)) to develop an interactive key to the grasses of Florida. His key, like Ausgrass, was initially developed using DELTA’s INTKEY but the interface uses NAVKEY as this is free software, not shareware. It works with Netscape but not Internet Explorer.

The chair then requested suggestions as to what features people would like to see developed. Those mentioned were:

1. Web-based identification tools that are platform independent and user-friendly.
2. Illustrations, both line drawings and photographic images
3. Descriptions
4. Links to collections

There was some discussion of potential funding sources. US-based sources include NSF, IMSL, and USAID (the last for work in other countries) and private foundations.

The meeting concluded with agreement that there should be collaboration but that this was probably best achieved via contacts between individual projects, both formal and informal.

Soreng distributed a list a existing Web sites of potential interest.

The meeting began at noon and ended at 2 pm.