Editorial
Why Do Species' Names Change?

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The reason why scientific names change is because research is constantly correcting errors and scholarship is constantly untangling the related misconceptions. Until the advent of the Internet new names and name changes were approved by the International Botanical Congresses that met at ten-year intervals. Between intervals, proposed new names were published by recognized publications like *Rhodora* or *Sida*.

In 1994 John T. Kartesz of the *Biota of North American Program* published a two-volume second edition of *A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland,* which became the established reference for names of North American plants on the date of its publication. This work made the Flora of North America project practical by setting a base population against which the specialists could establish the limits of their work.

With this resource there are two transforming innovations that are currently bringing about more rapid name changes in North American flora. First, the advent of the Internet has vastly increased the speed of communication of scientific literature. Results of research are published on the Web within days of their discovery, and search engines make them accessible immediately.

The U.S. Department of Agriculture has long-maintained a database for plant names for use by its agents and agencies. When that database became available on-line, *with the inclusion of the Kartesz checklist*, any person with an Internet connection could find out the current status of a plant name within a few minutes. The USDA Plants database http://plants.usda.gov/plants then became the publisher for all additions and corrections to the Kartesz work, and changes are now posted daily. New names and combinations are also still published in print, including a detailed description of the plants involved. The impact on scholarship can be seen as the difference between the old "10 years or so" and the current "24 hours or so".

The second transformer is the *Flora of North America Project* (FNA) which was begun in 1982 at the Missouri Botanical Gardens. Since the publication of Vol. 1 in 1993 the Flora project has driven both scholarship and research into the details of floristics in America. The list of contributors includes plant systematists and taxonomists still living today. Conceived as a database project from the beginning, it both feeds and is fed by the Internet.

Standards for the FNA work have always compelled workers to research global archives. Information based on past assumptions required verification, and the verification process yielded unexpected results. Many contributors found themselves revising a lifetime of their own research before it could be accepted into the FNA. Verifying the work of contributors who have passed on is being continued by their successors. The majority of these efforts are being made by scholars and scientists who, while publicly funded for their teaching or research work, are not otherwise supported, and thus are volunteering their time and knowledge.

As users of botanical information, we are often challenged to know what "today's name" for a plant may be. But the outcome of the FNA project, coupled with the unparalleled access to the literature provided by the Internet, has made all of us better scholars with more reliable sources of information on the plants themselves. In time, the FNA project will also become a printed reality, and the rate of change will slow. However, it will never cease as long as the real plants out in the real world continue to evolve.

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