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Nancy R. Morin and Judith M. Unger, co-editors

FLORA OF NORTH AMERICA NEWS

Volume 3 to OUP

On Wednesday, March 20, the remaining families in Volume 3 were sent to Oxford University Press (OUP). The entire Volume 3 consists of 1739 pages of double-spaced text, 865 maps, and 101 illustration plates with 3 to 9 species per plate. This volume treats Magnoliidae and Hamamelidae--32 families, 128 genera, and 865 species and infraspecific taxa. For the six weeks prior to this date, everyone in the Organizational Center spent most of their time checking and rechecking almost every aspect of the treatments. OUP now will prepare the material for publication through page proof and repro stages, and expects publication early next year. Authors were sent a copy of the final version of text, maps, and illustrations soon after the mailing to the publisher. The Organizational Center staff and the Editorial Committee would like to thank all editors, reviewers, and especially authors for the time and effort they have given to complete this volume.

The Flora of North America Office is pleased to announce that **James L. Zarucchi** accepted the position of **Managing Editor** for the project effective 1 March 1996. Zarucchi received a Ph.D. from Harvard University in 1982, after which he held a NATO Postdoctoral Fellowship at the British Museum (Natural History) and at the Royal Botanic Gardens, Kew, and then a Smithsonian fellowship. He joined the staff of Missouri Botanical Garden on 30 December 1983. He was coordinator of the Second International Legume Conference in 1986 and the Garden's Neotropical Legume Project Coordinator. Subsequently he co-edited the Advances in Legume Biology and the Catalogue of Flowering Plants and Gymnosperms of Peru and was the primary botanical author for the Phytochemical Dictionary of the Leguminosae. Recently he began compiling a checklist of vascular plants of China. He is a specialist in neotropical Apocynaceae and Fabaceae.

Since the **FNA Management Committee (MC)** was established six months ago, its seven members have been working on a daily basis by email to resolve issues of editorial policy and guidelines. The exchanges among this subset of the FNA Editorial Committee have resolved a number of issues as we strive to remove bottlenecks and streamline production.

Committee members Ted Barkley, Dave Murray, and Alan Smith (other members are George Argus, Barbara Thiers, John Schnase, and Nancy Morin) were in St. Louis 21--24 April. They met with Nancy Morin and Jim Zarucchi for fruitful discussions on production and with John Schnase for a briefing on developments on the informatics side of FNA.

The MC invites comments and suggestions (anonymous or signed!) from contributors, reviewers, and interested observers at <fnamc@mobot.org>.

The Flora of North America (FNA) project is a cooperative program to produce a Flora of the plants of North America north of Mexico. The FNA Newsletter is published quarterly by the Flora of North America Association to communicate news about the FNA project and other topics of interest to North American floristic researchers. Readers are invited to send appropriate news items to FNA Newsletter, P.O. Box 299, St. Louis, MO 63166, U.S.A.

The **Guide for Contributors** is undergoing thorough reassessment and revision. Helen Jeude, Technical Editor, and Jim Zarucchi, Managing Editor, in cooperation with several members of the Management Committee, have been working to incorporate changes in scientific and stylistic presentation that have been made during the editing of Volumes 2 and 3. Instructions will be added for using spreadsheet approaches to manuscript preparation and review. When finalized, the new **Guide** will be available in hard copy and on the Web.

Volume 11 is progressing well. We have received manuscripts for about 1580 (73%) of the Volume 11 taxa of the 2175 taxa expected to be treated. Regional and taxonomic review has begun for some groups.

Illustrations for Volume 11. Yevonn Wilson-Ramsey in St. Louis is working on 32 or more illustration plates in the Liliaceae, Iridaceae, and Orchidaceae. **John Myers**, now at University of Washington in Seattle, is doing pencil work on Alismataceae, Arecaceae, Araceae, and Burmanniaceae. Yevonn and John are

both staff members at FNA Central. **Susan Reznicek**, at the University of Michigan in Ann Arbor, is drawing *Carex* (Cyperaceae) on contract with the project.

Maps for Volume 11. About 2175 maps for species or subspecific taxa are expected. Of these taxa, 1367 (63%) have manuscripts and maps, 214 (10%) have manuscripts but no maps, and 594 (27%) have no manuscripts or map in FNA Central. Maps are currently being drawn and returned to authors with queries regarding discrepancies between the map and distribution statement or uncertainties on the map. The latter includes clarifying distributions on islands adjacent to continental distributions and questions or symbols the authors provided on maps and in distribution statements.

All of the maps received for Cyperaceae have been through the above process and are beginning to come back from authors. These maps will then be ready for the regional review process. Agavaceae maps have also been through this process and have been sent to the Taxon Editor. Other Taxon Editors are being contacted to start this process with their authors. Families whose maps will be going to authors in the near future include: Butomaceae, Alismataceae, Hydrocharitaceae, Scheuchzeriaceae, Juncaginaceae, Potamogetonaceae, Ruppiaceae, Najadaceae, Zannichelliaceae, Cymodaceae, Zosteraceae, Arecaceae, Araceae, Lemnaceae, Commelinaceae, and selected genera of Liliaceae and Iridaceae.

County maps for each U.S. state are now available to authors. Each state is printed on a separate page with counties labeled. If an author needs base maps or more information, please feel free to contact Keats Smith, map editor, at FNA Central or email at smitha@mobot.org.

Keats Smith, map editor, recently took a two-week GIS course in ArcView, a mapping application produced by Environmental Systems Research Institute, Inc. (ESRI). She is now able to produce distribution maps using this application and specimen data provided by authors. She can map specimens with county location but the best information for this application is latitude and longitude. Keats welcomes specimen information from authors for any of the volumes we are publishing. Please contact her if you are interested in more information.

Authors with outstanding treatments, maps, and/or suggestions for illustrations for this volume need to send the remaining information to the appropriate taxon editor or to FNA Central as soon as possible.

The Bryophyte Group of the Editorial Committee, chaired by Barbara Thiers, reports that as of 11 April, manuscripts for 38 genera have been submitted to taxon editors. Early in 1996, revised sample treatments and character lists were sent to all participants—if you should have received a copy and did not, contact Barbara Thiers at the New York Botanical Garden. Within the next few months, they hope to have information pertinent to the bryophyte volume at the FNA web site. Information will include copies of previous mailings, a list of participants and the treatments they are doing, and links to pertinent on-line databases. Those interested in being kept up-to-date about FNA bryophyte information on the web, should send an email message to bthiers@nybg.org

Alan Whittemore, part of the FNA Central staff and a bryologist at heart, who has been assigned to help with Ranunculaceae, Fagaceae, and many other Angiosperms, will now begin working full time on FNA bryophytes at FNA-Central.

Flora of North America is honored to have been awarded a three-year grant from the **William and Flora Hewlett Foundation of \$100,000** for general operating expenses. The Hewlett Foundation provided one of the first matches to the seminal grant from the Pew Charitable Trusts early in the project, and awarded a one year grant in 1994. The project is very grateful for the Foundation's continued support.

Manuscripts received from 1 July 1995 through 30 April 1996

Volume 11

Robert Haynes	Hydrocharitaceae Ruppiaceae Butomaceae
with C. Barre Hellquist	Potamogetonaceae
Paul Catling and Charles Sheviak	<i>Amerorchis</i> <i>Arethusa</i> <i>Aplectrum</i> <i>Coeloglossum</i> <i>Cephalanthera</i> <i>Pogonia</i>

Charles Sheviak *Calypso*
 Malaxis

Volume 4

Wayne Ferren and
H. Jochen Schenk *Suaeda*
Zhu Ge-lin *Suckleya*
Peter Ball *Salicornia*

Volume 6

Rhonda Riggins *Lupinus* (annual species)

**American Institute of Biological Sciences (AIBS)
Annual Meeting in Seattle Washington 4-8 August
1996 at the University of Washington**

FNA will host a reception at AIBS for all participants and everyone interested in the project. For registration for the meeting, email to admin@aibs.org.

Check the program for specifics on time and location of the reception.

All regional reviewers and regional coordinators will be invited to a meeting at the AIBS annual meeting to discuss issues related to the regional review aspect of the project. Details will be sent to regional reviewers and coordinators soon. Also check the program for specifics on time and location.

Ted Barkley, David Murray, and Alan Whittmore are giving a talk at the meeting on Tuesday afternoon, 6 August at 1:00 p.m. (ASPT sect. 21) entitled "The need for careful planning in adopting monophyletic genera." The presentation notes that recognition of numerous segregate genera can cause name changes for many plants. Frequent name changes are awkward for users of botanical information, and botanists must be sensitive to that fact.

Flora of North America has an opening for a **Bioinformatics Coordinator in the FNA Organizational Center at the Missouri Botanical Garden**. The selected candidate will ensure proper installation of equipment and configuration of networks and operating systems for the Flora of North America project; maintain and monitor system performance; plan and execute hardware and software changes and upgrades; respond to FNA user needs; design, implement, and deploy

World Wide Web information and interfaces; coordinate the licensing, installation, operation, and training of stand-alone and networked information resources supported or accessed by the FNA project, including CD-ROM systems and internal and external databases.

Requires a Bachelor's degree in computer science or biology or related discipline plus 5--10 years' or relevant experience. Excellent programming skills and applicable experience with Windows 95, HTML and SGML, and Web site maintenance required. Relevant experience with Unix administration and Java/JavaScript desired. General experience with large-scale information systems, library systems, geographic information systems, user interface design, and user training useful.

To apply, submit résumé to Human Resource Management, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, or contact Rick Land, fax: 314/ 577-9597, e-mail: rland@admin.mobot.org.*

Flora of North America has an opening for a **Database Analyst in the FNA Organizational Center at the Missouri Botanical Garden**. The selected candidate will ensure proper installation of database management systems relative to the Flora of North America Project; oversee the design, implementation, and integration of new databases; maintain database systems and monitor performance; plan and execute database-related hardware and software changes and upgrades; design, implement, and deploy database support tools and user interfaces for the FNA project; and provide user training.

Requires a Bachelor's degree in computer science or biology or related discipline plus 3--5 years' relevant experience plus additional course work or experience in converse discipline. Excellent programming skills and applicable experience with Windows 95, Access, Powerbuilder, Sybase, and relational database technologies required. Relevant experience with Unix desirable.

To apply, submit résumé to Human Resource Management, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299, or contact Rick Land, fax: 314/ 577-9597, e-mail: rland@admin.mobot.org.*

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Two internship positions have been funded through the National Science Foundation Research Experiences for Undergraduates program. Flora of North America invites applications from undergraduates interested in getting experience in two areas of this major floristic project. One of these interns will be stationed at **Harvard University**, in the Harvard University Herbaria. Duties will include evaluation of treatments of Chenopodiaceae, including checking keys and descriptions against specimens, learning to use the herbarium and library facilities, and participating in the editing, review, and revision processes. The intern will also participate in the effort to link type specimen data, Gray Herbarium Card Index data, and Flora of North America data, for on-line use.

The other intern will be stationed at **Missouri Botanical Garden** and will focus on an element of large scale collaborative work processes specifically relating to evaluation of geographical distributions. The FNA project is incorporating collaborative work process in its review strategy and the intern will do an analysis of the kinds, number, frequency, and effectiveness of the communications process. The intern will identify how aspects of the information exchange need to be managed in order to make the best use of each person's time and assure that the final product is of the highest quality possible.

Duration of each internship position is 2.5 months with a total stipend of \$5000 each. The FNA office will help to arrange housing. Applicants for the position at Harvard University should have had a course in basic botany and plant taxonomy. Applicants for the position at Missouri Botanical Garden should have interest or experience in computer-supported collaborative work and computer interface design. Interested undergraduates should send a résumé and name and telephone number of their undergraduate advisor to Dr. Nancy Morin, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166. Candidates will be notified about their acceptance immediately, 15 June 1996 at the latest. Women and minorities are encouraged to apply.

COMPUTER AND NETWORK NEWS

The Botany Department of the Smithsonian Institution and the International Association for Plant Taxonomy are pleased to announce that the **Index Nominum Genericorum (ING)** can now be searched on the National Museum of Natural History's Web site. The URL is: <http://www.nmnh.si.edu/ing/>

The ING database covers validly published generic names of plants (including fungi). The original intent of the index was to bring generic names in all plant groups together in a single list to reveal cases of homonymy. In addition, ING includes bibliographic citations and information about the typification and nomenclatural status of generic names. Over 110 botanists have collaborated on the ING project over its 42-year history and we feel that the Web offers an ideal way to give those needing information about generic names of plants access to the current version of the database and a convenient way to send additions and corrections to the editors.

Please read the home page and the help files where the format of the records and the limitations on coverage are discussed before searching the database. --Ellen Farr, Smithsonian Institution, mnhbo001@si.edu

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The U.S.G.S. Geographic Names Information System home page at: <http://www-nmd.usgs.gov/www/gnis/index.html> provides a means to access the massive data set of place names and other features of the world maintained by the U.S. Board on Geographic Names. The U.S. data are available online through the "GNIS Online Data Base," maintained by USGS, and data for all other countries are available through the "GEOnet Names Server," maintained by the Defense Mapping Agency.

In the case of the GEOnet Names Server, access is somewhat restricted and requires a password, but the instructions there indicate how to apply for one online (it took about 2 days to get set up in my case) and also allow "sampling" of the database with a "guest" password. The data for most countries are comparable to the most recent published USBGN gazetteers, but are more complete or recently updated in some cases. As in the printed versions, states and provinces are indicated by a code, but there is no online key to these codes as part of the database (this will be added eventually according to the manager). The codes are "FIPS 10-3" codes according to the documentation, and the latest version of these (FIPS 10-4) which seems to work for most countries is available at: <http://www.nist.gov/itl/lab/fips/fips10-4.txt>.

The Canadian equivalent of USBGN maintains a more detailed gazetteer of that country at: <http://ellesmere.ccm.emr.ca/cgndb/english/HomeEng.html>.—Alfred F. Newton, e-mail: newton@fmnh.org

The Southern Weed Science Society (SWSS) has produced an **interactive CD-ROM of the Weeds of the United States** containing almost 1600 color photographs, detailed descriptions, and distribution maps for 300 weeds of the continental United States. The interactive programs also include illustrated lessons and quizzes on the principles of plant identification and an illustrated glossary of over 300 botanical terms that is hot-linked to the lessons and weed descriptions. The programs were produced entirely as a voluntary effort involving many members of SWSS. All proceeds are used to support the educational and service activities of the SWSS. This CD-ROM is an excellent tool for field agriculturalists and all types of courses in the agricultural and biological sciences.

The CD-ROM requires Microsoft Windows 3.1 or higher, an 80486 processor or higher with at least 8MB of RAM, 2x speed CD-ROM drive or faster and a video adapter set to produce 64,000 colors (16 bit) at 640 x 480 pixel resolution. Cost is \$90 for a single copy (multiples sold at a discount). Remittance to accompany order. Send order to Southern Weed Science Society, 1508 West University Avenue, Champaign, Illinois 61821-3133. For credit card or purchase order, telephone 217/352-4212.

A new **WWW-based diversity/distribution mapping system for the vascular flora of Arkansas** is available at: <http://www.csdl.tamu.edu/FLORA/arkansas/> This display allows mapped visualization of county record summaries for vascular plant families, genera, and species that include infraspecific taxa via color coding by county. While, with current data, the result often reflects collecting intensity, 'diversity maps' of some taxa (Polypodiaceae vs. Taxodiaceae) show concordance with Arkansas' land forms (see also Juglandaceae and Crowley's Ridge counties). The system also provides distributions for individual taxa, county-level listings from a family diversity map, full state-level family checklists, and full vascular plant checklists by county. All listed output carries links to either diversity or distribution maps.

This experimental system is the result of on-going collaboration among faculty and students at the University of Arkansas Herbarium, the Biota of North America Program, and the Texas A&M Bioinformatics Working Group. Further

development of this, and similar systems under construction, will be enhanced by input from potential users of biodiversity data and comments from users are welcome. Of special interest is the potential for qualified or registered users of this type of system to add county records represented by specimens in local herbaria. Since all maps are generated 'on the fly', it should be possible to expand base data via 'real time', on-line interactions.

There have also been recent additions to the Flowering Plant Gateway at: <http://www.isc.tamu.edu/FLORA/cronang.htm> including family-level links to the Biota of North America Program synonymized checklist pages with distribution mapping for Texas taxa and Cronquist's family synonymy pages from the Indices Nominum Supragenericorum Plantarum Project.—Hugh Wilson, e-mail: wilson@bio.tamu.edu.

The **University of Michigan Herbarium is pleased to announce its new World Wide Web site** at <http://www.herb.lsa.umich.edu/umherb.htm>. The new site includes a directory of MICH personnel (with direct e-mail links for most), order forms for MICH publications including our *Contributions* series and *Flora Novo-Galicianae*, and the Guide for Authors and order forms for *Systematic Botany Monographs*. Several searchable databases are now available: the 6,482 fungus types at MICH, collecting localities of Alexander H. Smith, and MICH fungi cited in D. Largent's monograph of the Entolomataceae. We have also included loan policies, data model, and other documents, as well as links to many other sites of interest to systematists. Questions or comments are welcome and may be directed to Robert Fogel, e-mail: rfogel@umich.edu or Rich Rabeler, e-mail: rabeler@umich.edu.

The **New York Botanical Garden is in the process of cataloging its approximately 150,000 type specimens**. We intend to make these records available family by family, as cataloging is completed. Currently, type data from 24 families of vascular plants are available by gopher at gopher://muse.bio.cornell.edu:70/11/collection_info/institution/nybg.

These families are Araucariaceae (12), Austrobaileyaceae (3), Caesalpiniaceae (1321), Calycanthaceae (4), Connaraceae (123), Cupressaceae (45), Cycadaceae (98), Dichapetalaceae (48), Ephedraceae (13), Ericaceae (1214), Fabaceae (4208), Gnetaceae (6), Illiciaceae (17), Lamiaceae (638), Lardizabillaceae (8), Lecythidaceae (193), Mimosaceae (1962), Orchidaceae (973), Paeoniaceae (2), Pinaceae (85), Podocarpaceae (61), Taxaceae (4), Vochysiaceae (153), Winteraceae (10). Numbers in parentheses indicate the number of specimen records. Basic information from all types in these families has been captured in the database, but some of the records are more complete than others. Searches can be made on any word in the file. However, no more than 1,500 records will be returned for any search, so searches should be constructed so as to not exceed this limit.

Any corrections or comments regarding the type catalog may be sent to Anthony Kirchgessner, e-mail: tkirchgessner@nybg.org.

The **New York Botanical Garden is in the process of cataloging its approximately 200,000 specimens of bryophytes** from North America (north of Mexico). We intend to make these records available family by family, as cataloging is completed. Currently, the Lejeuneaceae, with approximately 1,500 records, is available through the Cornell University Biodiversity and Biological Collections Gopher or WWW site at: gopher://muse.bio.cornell.edu, <http://muse.bio.cornell.edu>. Basic information from all specimens in this family has been captured in the database. Searches may be made on any word in the file. Please send any comments, corrections or suggestions to Barbara M. Thiers, Administrative Curator, Cryptogamic Herbarium, e-mail: bthiers@nybg.org.

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The **Tree of Life Project** announces its formal opening at <http://phylogeny.arizona.edu/tree/phylogeny.html>. While the Tree of Life has been online for a little over a year, it has never been formally announced. For this opening numerous contributors have produced pages of various groups of organisms including vertebrates, frogs, green plants, beetles, jumping spiders, etc. There is now a searchable index of taxon names and many more pictures.

The project is a collection of WWW pages. Each page contains information about a group of organisms: a phylogeny, introduction, characteristics, discussion of phylogenetic relationships, references, and so on. The pages are linked together (with, for example, the terminal taxon name Green Plants on the Crown Eukaryotes page being a hypertext link to the Green Plants page), so that combined they form a phylogenetic tree of all living organisms. The eventual goal is to have this Tree complete to the species level in many different groups of organisms. This is being accomplished with the help of many collaborators: there are currently over 120 contributors to the project. The pages are distributed over the web, so that different branches of the Tree reside on different computers. Today there are 948 pages in the Tree, on seven different computers on two continents. Both the number of pages, and the completeness of each page, will grow through time.

Questions or comments are welcome and may be sent to David and Wayne Maddison, Department of Entomology, University of Arizona, Tucson, Arizona 85721, phone: (520) 621-9781, fax: (520) 621-1150, e-mail: tree@ag.arizona.edu

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The **Indices Nominum Supragenericorum Plantarum Vascularium databases**, being prepared by the International Association for Plant Taxonomy and the Norton-Brown Herbarium at the University of Maryland in cooperation with the National Agricultural Library, has been updated with several additions. The databases are available at:

<http://matrix.nal.usda.gov:8080/star/supragenericname.html>

The first database is a listing of names above the rank of genus for extant vascular plants. To date, the literature up to approximately 1860 has been consulted. As in the past, only validly published and legitimate names are reported. Also, it is important to remember that the data are being constantly changed as more and more literature is reviewed.

The second database attempts to provide a concordance of all family names according to modern authors in an expanded format from that presented in the first volume of *Flora of North America*. All of the family names are validly published (or currently treated in App. IIB of the

Code) as if validly published. A number of additional names are in the process of being validated by myself and others. These will be added when available.

The third database is a summary, at the family level, of numerous systems of classification, namely those presented by Brummitt (1992), Cronquist (1981, 1988), Dahlgren (1989a, 1989b), Greuter et al. (1993), Gunn et al. (1992), Thorne (1992a, 1992b), Watson & Dallwitz (1991, 1995+) and Wielgorskaya (1995). My own views are also presented. Linear arrangements are given for Cronquist, Dahlgren, Reveal and Thorne; the others are alphabetical listings. A new addition to this database are links to the family descriptions available online by Watson & Dallwitz, the USDA/GRIN generic listings being compiled by John Wiersema, and a series of illustrations from a variety of sites.

The fourth database is new. The linear sequences of Cronquist, Dahlgren and Thorne are outlined in detail at the ranks of division, subdivision, classes, subclass, superorder, order and family as appropriate. By changing formats from one author to another, and from one level of ranks to another, it is possible to do a comparative review of different portions of each author's system of classification. In preparing this database, a surprisingly large number of commonly used names were found not to be validly published. While several are listed here, a full citation is not yet available for several. As these names have been in common use for years (in some cases nearly 30 years!), their continued use here is only a matter of convenience.

HELP buttons with information are available on all databases. Additions, corrections, and comments are welcome.—James L. Reveal, e-mail: jr19@umail.umd.edu.

NEWS FROM HERBARIA

The **University of Missouri Herbarium** has moved into new quarters at the newly-constructed Museum Support Center building on campus. In addition, the herbarium has been officially renamed the University of Missouri **Dunn-Palmer Herbarium**, in honor of the late Dr. David B. Dunn, longtime Curator at UMO, and Ernest Jesse Palmer, who was a prolific collector of North American flora whose thousands of specimens are deposited at UMO. The new quarters include

offices and a laboratory, as well as a public workroom and sequestered collections room. Forty-five new specimen cabinets have been added, along with new computer and printers, a new research microscope and photographic setup, and a new specimen drying cabinet. For several years UMO has been cataloging its specimens on the pcTROPICOS database system, in cooperation with the Missouri Botanical Garden. About 75,000 specimens from the estimated 175,000 in the collection are currently entered. Loans and exchange materials are available. For additional information on the collection contact Dr. Robbin C. Kennedy, Curator, Dunn-Palmer Herbarium, Division of Biological Sciences, 110 Tucker Hall, University of Missouri, Columbia, Missouri 65211, phone: 573/ 882-6519, fax: 573/ 882-0123, e-mail: umoherb@showme.missouri.edu. (Note that a new telephone area code, 573, has been created for most of the old Missouri 314 code outside of the St. Louis area.)

PUBLICATIONS

Nevada Vascular Plant Types and Their Collectors by Arnold Tiehm provides a chronology of botanical exploration within the political boundaries of Nevada. It includes an annotated list of the 1,038 vascular plant types from Nevada as well as lists of the type specimens, authors, and counties where collected. A lectotype of *Plagiobothrys nevadensis* is selected, and one new combination, *Gilia congesta* var. *nevadensis* (Tidestrom) Tiehm, is proposed. Hardcover, 104 pp., Memoirs volume 77, ISBN 0-89327-401-1, \$19.50, postage and handling \$3.50 + 5% for USA orders, from the New York Botanical Garden Scientific Publications Department, Bronx, New York, New York 10458-5126. Ph: 718/817-8721, Fax: 718/817-8842.

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A Review of Allium section Allium, by Brian Mathew, presents a thorough summary of one of the most economically important sections of *Allium*, containing onions, leeks, and garlic. The work treats 115 species (133 total taxa) and provides detailed keys, descriptions and notes on flowering time, ecology and distribution. In addition to the extensive nomenclatural and taxonomic sections, there are also included chapters on leaf anatomy by Mary Gregory, cytology by Margaret A. T. Johnson and Neriman Özhatay, and flavonoids by J. B. Harborne and C. A. Williams.

1996. 176 pp., 16 color plates. ISBN 0-947643-93-1. £21.00. Order from Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AE, United Kingdom.

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The California Native Plant Society Press (CNPS) has published ***A Manual of California Vegetation***, by John Sawyer Jr. and Todd Keeler-Wolf. This Manual is the first unified, quantifiable classification developed for California's vegetation types. Over the past five years CNPS pulled together over thirty members of major universities, environmental and land management agencies to participate in the development of a uniform vocabulary and common language for describing California's major vegetation types. This Manual is the result of that work. The Manual serves as a foundation to shift conservation emphasis from a single-species approach to a more useful and comprehensive landscape approach that encompasses groups of species. By developing quantitative, defensible descriptions, critical habitat for rare species can be better defined and protected.

The Manual provides 1) clear definitions for over 275 vegetation series, habitats, unique stands, and vernal pool types, 2) a common consistent language for informed land management decision-making and biological assessment, 3) identification and ranking of plant communities by conservation priority for development projects reviewed under CEQA and NEPA, 4) quantitative vegetation descriptions of critical habitats, 5) identification and protection of unique vegetational types.

The Manual hierarchically arranges quantitative information on the state's vegetation in floristically dominant categories called series and associations. A series is a type of vegetation defined by dominance of a particular species, group of species or genus. Introductory chapters include: 1) history of vegetation classification in California, 2) conservation and management, 3) CNPS approach to classification and 4) use of keys. Keys are organized by series dominated by herbaceous plants, shrubs, and trees. Also identified are unique stands, habitats and vernal pools. Each series description includes 1) dominant and characteristic companion species, 2) community architecture or physiognomy, 3) distribution limits, 4) endangerment status, 5) color photographs for 160 series, 6) key links and 7) discussion of previous studies.

471 pp., including appendix, indices and literature citations, 32 color plates. Hardcover \$55, ISBN 0-943460-25-5. Softcover \$39, ISBN 0-943460-26-3. Order from California Native Plant Society Press, 1722 J St., Ste. 17, Sacramento, California 95814, phone: 916/ 447-2677, fax: 916/ 447-2727.

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CITES Orchid Checklist I by Jacqueline A. Roberts, Clive R. Beale, Johanna C. Benseler, H. Noel McGough, Daniela C. Zappi, Royal Botanic Gardens, Kew, Richmond, Surrey. Assisted by a selected panel of orchid experts. The 1992 Conference of the Parties to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) called for the production of a standard reference to the names of Orchidaceae. Volume 1 deals with the genera *Cattleya*, *Cypripedium*, *Laelia*, *Paphiopedilum*, *Phalaenopsis*, *Phragmipedium*, *Pleione*, and *Sophranitis*; accounts of *Constantia*, *Paraphalaenopsis*, and *Sophranitella* are also included. Annex 1 also includes the new IUCN categories of threat. The first part is an alphabetical list of all genera. The second part lists each genus separately, ordered by accepted name, and includes distribution. The final part lists species under countries of origin.

Cost is £8.53. Payments not in sterling will have a £10 Bank Surcharge. Credit card payment also acceptable. To order please send full payment to along with name and complete mailing address to: Mail Order Department., Royal Botanic Gardens, Kew, Richmond, Surrey TW9 3AB, England.

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Silk Tree, Guanacaste, Monkey's Earring: A generic system for the synandrous Mimosaceae of the Americas. Part I. Abarema, Albizia, and Allies by Rupert C. Barneby and James W. Grimes. This is the first of a three-part study of the synandrous Mimosaceae of the New World, which presents revisions, at generic and specific levels, of all North American, West Indian, and South American genera of tribe Ingeae, other than *Zapoteca*, *Inga* itself, and *Affonsea*. Barneby and Grimes address the difficulty in and importance of defining *Pithecollobium* and, consequently, related genera of Ingeae. The anatomy and morphology of the *Pithecollobium*-complex are discussed at length, and cladistic analyses of several genera are presented. Keys to the species of 20 genera are provided. (Forthcoming are: Silk Tree, Guanacaste, Monkey's Earring: Part II. *Pithecollobium*, *Cojoba*, and *Zygia*; and Part III. *Calliandra*.) Hardcover: \$45.00.

292 pages, 19 illustrations, 64 maps. ISBN 0-89327-395-3. Available from the Scientific Publications Department, New York Botanical Garden, Bronx, New York 10458-5126. Phone credit card orders to 718/817-8721.

NEWS AND NOTES

Dr. Sherwin Carlquist, internationally recognized for his many and continuing contributions to botany, in particular the field of plant anatomy, was presented with a **Lifetime Achievement Award by The Santa Barbara Botanic Garden**. The award was presented at a banquet in conjunction with the Garden's Symposium on "Plant Evolution and Conservation on Islands—A Global Perspective."

Carlquist, a research botanist at the Botanic Garden, has devoted his career to the study of comparative anatomy and the evolution of conducting tissues in plants. He also pioneered the study of island floras and faunas by providing new insights into dispersal and reproductive biology. The Santa Barbara resident earned undergraduate and graduate degrees at UC Berkeley, and he did post-doctoral study at Harvard University. He received three National Science Foundation fellowships during his graduate and postdoctoral years.

As a member of the faculty at the Claremont Graduate School for more than 35 years, Carlquist served as a professor of botany from 1961-1992, and he was a professor at Pomona College during the same period. As a plant anatomist at the Rancho Santa Ana Botanic Garden from 1984-1992, Carlquist participated in a course at UC Santa Barbara under a cooperative agreement between the Botanic Garden and UCSB on his favorite subject, island biology.

His pioneering research has produced numerous awards, including the Gleason Prize of the New York Botanical Garden; career award from the Botanical Society of America; the Allerton Medal of the National Tropical Botanical Garden; and the Asa Gray Award from the American Society of Plant Taxonomists. His book "Comparative Wood Anatomy" has been said to reinvent the field, emphasizing new hypotheses based on reinvestigation of long-neglected questions. His books have led to interest in conservation of plants on islands, especially the Hawaiian Islands. His work, Hawaii, a Natural History, in print for more

than 25 years, details his studies on leaf and wood anatomy of island plants.

The **Association of Systematics Collections** has a new address as of 30 December 1995: Association of Systematics Collections, 1725 K St. NW, Suite 601, Washington, D.C. 20006-1401, phone: 202/ 835-9050, fax: 202/ 835-7334. The general e-mail address remains the same: asc@ascoll.org. Elaine Hoagland can be reached at elaine@ascoll.org. The World Wide Web address is <http://www.ascoll.org/>.

The **Jesse M. Greenman Award**, a certificate and a cash prize of \$1,000, is presented each year by the Missouri Botanical Garden. It recognizes the **paper judged best in vascular plant or bryophyte systematics, based on a doctoral dissertation, published during the previous year**. The 1995 award has been won by Lynn Bohs for her publication "*Cyphomandra* (Solanaceae)," published as Monograph 63 of Flora Neotropica. This paper is based on a Ph.D. dissertation from Harvard University under the direction of Dr. R. E. Schultes.

Papers published during 1995 are now being accepted for the 28th annual award, which will be presented in the summer of 1996. Reprints of such papers should be sent to P. Mick Richardson, Greenman Award Committee, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299. In order to be considered for the 1996 award, reprints must be received by 1 June 1996.

The Council of the **New England Botanical Club** wishes to announce that there are **no longer page charges for publication in *Rhodora***. The Council has appointed Janet R. Sullivan, Editor-in-Chief, and Margaret Bogle, Managing Editor, beginning with volume 98. Monographs or scientific papers concerned with systematics, ecology, paleobotany or conservation biology of the flora of North America or floristically related areas will be considered. Any new manuscripts should be submitted to Dr. Janet R. Sullivan, Department of Plant Biology, University of New Hampshire, Durham, New Hampshire 03824-3597, fax: 603/ 862-4757, e-mail: janets@christa.unh.edu.

OBITUARIES

Charles Hicks Quibell died in his ninety-fourth year on Saturday, December 9th at the San Joaquin Gardens after a short illness. A native Californian born in Belvedere, he spent his early years on a houseboat in the Tiburon Lagoon and remembered sweeping ashes of the 1906 San Francisco fire from its deck. Tuberculosis in the family forced a move to southern California (for cleaner, drier air!) where he lost his father at age eleven. After graduation from Monrovia High School he attended the University of California, Davis as a member of its first freshman class. After two years, when his younger sister entered Pomona College, he returned to live with widowed mother and sister in Claremont where they ran a boarding house for women students. They farmed vacant lots for profit to help with expenses ["ate lots of beans"].

He completed a botany B.A. under Phil Munz. Dave Keck was a contemporary M.A. student, along with Ivan M. Johnston and C. Leo Hitchcock, in 1927. He then began a thirty-five year teaching career at Fresno State College in September. By careful use of his "free time" he earned his Ph.D. (botany) from the University of Chicago in 1941. His thesis was titled "The Love life of Annie" - or "Floral Anatomy and Morphology of *Anemopsis californica*" (Botanical Gazette, Vol. 102, No. 4, June, 1941). This was his second Ph.D. thesis, the first having been completed on similar aspects of *Raphanis sativus*. In 1931 he married the former Mary Elisabeth Fox of Fresno, a librarian at the College, and together they raised three children: Ellen Crill of North Fork; Susan Simmons (d.) formerly of Sebastopol; and Charles Fox Quibell, now a botanist on the faculty of Sonoma State University. He taught summers into the 1950s at the Sierra Summer School at Huntington Lake, where he became interested in the flora. In the early 1950s he began intensively collecting the plants of the central Sierra, often accompanied by his sister Edith May Quibell (a librarian at the College) and various of his children. Masses of duplicates for determination and exchange were sent to Phil Munz then writing "A California Flora" at Rancho Santa Ana Botanical Garden. Many of these specimens were distributed widely from there. During his long tenure as botanist at Fresno State and its Sierra Summer School at Huntington Lake, he became an authority on the flora of the central Sierra Nevada. His extensive collections of alpine plants formed the basis of the Herbarium at Fresno State University.

MEETINGS

The 12th Annual Southwestern Botanical Systematics Symposium, entitled **The Linnean Hierarchy: Past, Present and Future**, will take place 24-25 May 1996 at the Rancho Santa Ana Botanic Garden. The Linnean taxonomic hierarchy has long served as the backbone of systematic classification. This symposium will review the history of the hierarchy and examine its attributes. Presentations will discuss the hierarchy's possible limitations, including the difficulty of incorporating phylogenetic information, and consider modifications or alternative systems. The keynote speaker at the Saturday evening banquet is Michael Donoghue, Harvard University Herbaria. Papers will be presented by Kevin De Queiroz, National Museum of Natural History, Smithsonian Institution; Kathleen Kron, Wake Forest University; Dan Nicolson, National Museum of Natural History, Smithsonian Institution, and Tod Stuessy, Natural History Museum, Los Angeles County. Additional information may be obtained from Ann Joslin, phone 909/ 625-8767, ext. 251, fax: 909/ 626-3489, e-mail: joslina@cgs.edu.

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The 11th annual meeting of the **Society for the Preservation of Natural History Collections** (SPNHC), entitled **Historic Natural History Collections**, will be hosted by The Academy of Natural Sciences of Philadelphia 12-15 June 1996. Everyone is encouraged to submit papers and posters on natural history collection management issues for consideration. Papers on the special concerns of historic collections are particularly encouraged. This year's workshop "Valuation and Insurance of Natural History Collections" will be held on 15 June. You may register for the workshop alone or in addition to the meeting. In addition to the technical sessions, registration for the meeting will include a special round robin tour of Philadelphia's premiere historic institutions, the Wagner Free Institute of Science, and the Mutter Museum. For additional information, or to receive a registration package, please contact Elana Benamy, SPNHC '96, Academy of Natural Sciences of Philadelphia, 1900 Benjamin Franklin Parkway, Philadelphia, Pennsylvania 19103-1195, phone: 215/ 299-1137, fax: 215/ 299-1170, e-mail: benamy@say.acnatsci.org.

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The **Taxonomic Databases Working Group (TDWG) Annual Meeting and Symposium** will take place 13-14 October 1996 at the Vascular Plant Herbarium (TRT), Royal Ontario Museum, Toronto, Canada. The Taxonomic Databases Working Group (TDWG) began in 1985 as an international working group to explore ideas on standardization and collaboration between major plant taxonomic database projects. TDWG has since expanded its scope to include all taxonomic database projects from all biological disciplines. TDWG is affiliated with the International Union of Biological Sciences (IUBS) as the Commission on Taxonomic Databases and members include institutions and individuals responsible for biological databases with taxonomic components. Membership in TDWG is open to institutions, projects, and individuals interested in participating in TDWG activities.

The mission of TDWG is to 1) provide an international forum for biological database projects; 2) develop and promote the use of standards; and 3) facilitate data exchange. TDWG annual meetings and symposia provide a forum for discussing technical aspects of taxonomic databases, discussing the form and content of proposed standards, voting on the adoption of standards, and sharing information on current developments in taxonomic databases. For additional program information contact either: Timothy Dickinson, Vascular Plant Herbarium (TRT), Center for Biodiversity and Conservation Biology, Royal Ontario Museum, 100 Queen's Park, Toronto, Canada M5S 2C6, fax: 416/ 586-5516, e-mail: timd@rom.on.ca or TDWG Secretariat, Real Jardín Botánico - CSIC, Plaza de Murillo 2, 28014 Madrid, Spain, fax: +34 (1) 420-0157, e-mail: pando@ma-rjb.csic.es.

POSITIONS AVAILABLE

Also see positions announced with the Project information [pages 3-4].

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The Getty Grant Program has awarded Rancho Santa Ana Botanic Garden funds for **two paid multicultural undergraduate summer internships**. This is the third consecutive year that the Garden has received this highly competitive award intended for museums in Los Angeles county. The purpose of the Getty Internships is to increase the ethnic diversity of professionals working in the museum field, and is intended for individuals of

African America, Asian, Latino/Hispanic, Native American and Pacific Islander descent. Each ten week Getty Internship will provide a \$3,000 stipend and will provide training in museum work through experience in basic collection management of the Botanic Garden's 1 million specimen herbarium (a systematic collection of dried plants used for scientific research). The interns will participate with other Getty interns in the Los Angeles area in several seminars designed to introduce them to the museum profession. At the end of the 10 weeks, they will write a report on the value and effectiveness of the experience.

Criteria for selection of the Getty Intern include: undergraduate status at an accredited four or two year college; resident of and/or attending college in the Los Angeles area; and interest in botanic gardens or other types of museums. Interested applicants should submit a letter describing relevant interest and experience, a résumé, and an unofficial college transcript to: The Getty Internship, c/o Richard Chute, Director of Corporate and Foundation Relations, Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, California 91711. The deadline for applications is 29 April 1996.*

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