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Nancy R. Morin and Judy Unger, co-editors

## FLORA OF NORTH AMERICA NEWS

### Editorial Committee Meeting

The spring Editorial Committee meeting was held in Edmonton, Alberta, 2-3 June 1990, at the University of Alberta, hosted by John Packer and the Department of Botany. Topics included: Funding: Canadian editors are preparing a proposal to be submitted to government and private Canadian funding agencies. Final word on the pending proposal to the U.S. National Science Foundation should be in hand by early August--an addendum and revised budget have been submitted. Volumes: Most manuscripts for introductory chapters are in hand and in various stages of editing. Jim Eckenwalder, and Alan Smith and Herb Wagner have agreed to write chapters discussing the classifications used for gymnosperms and vascular cryptogams respectively. About 85% of the fern treatments are in hand and have received preliminary technical editing. Cyperaceae authors will meet during AIBS in Richmond with preliminary manuscripts in hand to discuss any problems they have encountered. Contributors for volume 4 (Dilleniidae) and volume 5 (Rosidae, in part, including Fabales) will be invited by the end of this year. Coastlines on the distribution maps will be improved. Editors agreed that it would be helpful if authors sent in their working maps along with the 150% size. Work on the illustrations is going very well. Strategies for reviewing the illustrations at various stages was discussed.

Terminology continues to be a problem, since our goal is to produce a work that can be understood and used by a wide range of users. If any of our readers can suggest glossaries or other publications that would help us know which technical terms are in common usage outside of systematic botany we would appreciate hearing of them.

For descriptions, it was agreed to use plurals except when the entity being designated actually occurs singly within the context of a single instance of the structure at the next higher level of inclusiveness. For example, a single species has plural plants, a single flower has a single androecium but may have single or plural stamens. The original rule was that descriptions would be entirely plural. Authors who have completed treatments **should not** make changes unless they feel absolutely compelled to do so--we will be happy to make those changes at the organizational center. Authors beginning new treatments **should** use the new guideline.

The editorial committee greatly appreciated the hospitality of the Department of Botany and the Herbarium at the University of Alberta and the hard work of John Packer in organizing the meeting.

The next Editorial Committee will be in St. Louis at Missouri Botanical Garden Sunday and Monday, 7-8 October 1990, immediately following the Garden's Systematics Symposium.

### News from the Organizational Center

**Nancy Morin** presented a paper on "Flora of North America today and tomorrow" at the symposium on "21st Century Data and Knowledge Bases in Systematics and Evolutionary Biology" held at the Fourth International Congress of Systematic and Evolutionary Biology (ICSEB) at University of Maryland. She also represented FNA at a roundtable discussion held by the Commission on the Terminology and Nomenclature of Biology of the Committee on Data for Science and Technology (CODATA) July 16 in Columbus, Ohio.

**Jeremy Bruhl**, FNA postdoc, gave a talk at ICSEB titled "Automated classificatory analyses from a DELTA database: a case study using the sedge genera of the world," and then embarked on a tour of eastern herbaria. Debbie Kama, FNA programmer/analyst, spent one week in Moscow, U.S.S.R., in July discussing computerization of botanical gardens and floristic projects with Soviet botanists and programmers.

**Scott Peterson**, National Botanist with the Soil Conservation Service, visited FNA central in July to discuss possible collaboration between FNA, SCS, and other federal agencies. SCS will debut an online database on North American plants called PLANTS (Plant List of Accepted Nomenclature, Taxonomy & Symbols), a revision of the National List

of Scientific Plant Names, in October. For more information about PLANTS contact J. Scott Peterson, National Plant Materials Center Building 509, BARC-East, Beltsville, Maryland 20705, 301/344-2175.

**Luc Brouillet, Ted Barkley, and Rich Spellenberg** were at the Missouri Botanical Garden 18-22 June for an intensive week of reviewing and editing key introductory chapters. The introductory chapters will also be published separately as an upper division undergraduate text.

**The 1991 Missouri Botanical Garden Calendar** will feature **Flora of North America** in a poster insert. The poster is being mailed to all FNA Newsletter subscribers.

### **Manuscripts Received January-July, 1990**

#### **Volume 1:**

Don Farrar: *Hymenophyllum, Trichomanes* and *Vittaria*

Chris Haufler: *Polypodium*

D.M. Johnson: *Marsilea, Pilularia, Matteuccia* and *Onoclea*

Thomas Lumpkin: Azollaceae

Clif Nauman: Salviniaceae

Cathy Paris: *Adiantum*

Michael Windham: *Pellaea* and *Woodsia*

Robert Thorne: *Floristic Regions of North America*

Ronald Stuckey: *Weeds*

James Pringle: *Floristic Exploration of Canada*

#### **Volume 2:**

Don Brink: *Aconitum*

Fred Essig and Nancy Moreno: *Clematis*

John Furlow: Betulaceae

Robert Kaul: Platanaceae

Robert Kral: *Annona, Asimina* and *Deeringothamnus*

Henry Loconte: *Caulophyllum*

Karen Wilson: Casuarinaceae

#### **Volume 10:**

Jackie Kallunki: *Goodyera*

Robert Kral: *Abildgaardia, Bulbostylis, Fimbristylis, Fuirena*

Loyal Mehrhoff: *Isotria*

Victoria Sullivan: *Aletris*

### **Internship Program Funded**

The National Science Foundation awarded an \$8,000 to the Flora of North America grant through its Research Experiences for Undergraduates Program, for two interns. Both interns will work with the database of plant descriptions.

Upper division courses in plant systematics and good interpersonal skills are required. Each intern position is for three months. Pay is \$5.00 per hour. We will help arrange housing. Women and minority students are especially encouraged to apply. Send curriculum vitae and names of two academic references to Director of Human Resources, Missouri Botanical Garden, P.O. Box 299, St. Louis, Missouri 63166-0299 as soon as possible. Positions will remain open until filled.

### **Request for Theses**

The Missouri Botanical Garden Library has for the past several years made a concerted effort to acquire master's and doctoral theses on topics relating to plant systematics. Virtually all such theses available through University Microfilms have now been added to the collection. Readers are requested to send the library or alert it to taxonomic theses not available through University Microfilms, particularly those that have not been published.

### **North American Flora**

The New York Botanical Garden has offered to revive the *North American Flora* series. This will provide an opportunity for Flora of North America authors who wish to publish more detailed descriptions and distributions or treatments covering the broader North American geographical area to do so. Revisions that include nomenclatural changes that will be used in FNA will need to be published prior to the FNA treatment. To inform authors about this series, Dr. Buck has sent the following information:

*North American Flora*, published by the New York Botanical Garden, is designed to present keys and descriptions of all plants growing, independent of cultivation, in North America (including Greenland and Central America including the West Indies except Trinidad, Tobago, Curaçao, and other islands whose flora is essentially South American). It was planned to complete the Flora in 34 volumes. Some 94 parts of 24 volumes were published at irregular intervals between 1905 and 1949. Because of bibliographic difficulties inherent in publishing volumes and parts out of order, the project to complete the 34 volumes was discontinued. Instead, *North American Flora Series II* was initiated in 1954, and parts are published without regard for taxonomic relationships. Each part is devoted to an order, family, or smaller group, complete with bibliography and index. Complete descriptions are essential. Although illustrations were rare in early parts and still not mandatory, they are acceptable. Also, the geographic boundaries need not be as comprehensive as originally designed. Specimen citations, however, are not to be included (except for types), and rather should be replaced by a general description of the range. Distribution maps are acceptable.

The format of *North American Flora* allows authors to publish monographs supporting their synoptical *Flora of North America* treatments, as well as the possibility of a more expanded geographical range. Prospective authors are encouraged to consult a recent issue (the last number was Rogers, C.M. 1984. Linaceae. NAF II, 12) and, if interested in preparing a treatment, write the editor: William R. Buck, New York Botanical Garden, Bronx, NY 10458-5126, U.S.A.

### **NEWS FROM HERBARIA**

#### **University of Kansas Herbarium Becomes The McGregor Herbarium of the University of Kansas**

On Saturday, 14 April 1990, more than 100 persons gathered to honor Dr. Ronald L. McGregor for his lifetime of service to botany and to the University of Kansas at an official herbarium renaming ceremony. Appropriate remarks were delivered by FNA editor Dr. Theodore Barkley, Director of the Kansas State University Herbarium, and Dr. Frances Degen Horowitz, Vice-Chancellor for Research, Graduate Studies, and Public Service of the University of Kansas. After Dr. Barkley's comments, Dr. Horowitz and Dr. McGregor unveiled the bronze plaque, to be mounted in the entry to the Herbarium, which reads "R. L. McGregor Herbarium, 1990, Dedicated to the Study of the Great Plains Flora." There was a buffet brunch and Herbarium open house following the ceremony. Despite the official change in name, the McGregor Herbarium of the University of Kansas will retain the acronym **KANU**.

During his tenure on the faculty of the University of Kansas, Dr. McGregor served as professor of botany and Chair of that department, Chair of the Division of Biological Sciences, Director of the Kansas Biological Survey, and Director of the Herbarium. He trained 44 graduate students, most of whom are still active in some field of botany. He instituted

the Great Plains Flora Association, obtained grant funding to support the effort, and saw to completion in 1986 the project he had begun in 1954. Dr. McGregor himself wrote 48 generic or family-level treatments for *The Flora of the Great Plains* (which received the Gleason Award in 1986) and is the author of some 102 publications other than those treatments.--Meredith A. Lane, Director, McGregor Herbarium, 2045 Constant Avenue, Lawrence, Kansas 66047.

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**The University of Colorado (COLO)** has named Dr. Tom Ranker as the new Curator of the Herbarium and Assistant Professor on joint appointment between the University of Colorado Museum and the Department of E.P.O. Biology. The retiring curator, Dr. William A. Weber, will remain in residence as Professor Emeritus. With a recent grant from the National Science Foundation, the herbarium recently installed Spacesaver Compact Storage for its 445,000 specimens.

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**The Herbarium of The College of William and Mary (WILLI)** welcomes loan requests related to the Flora of North America Project. **WILLI** was founded in 1969 and now houses a collection of 55,000 mounted specimens of vascular plants, mostly of the Southeastern United States. A large proportion of these specimens are vouchers from comprehensive floristic studies done by herbarium staff and students in the coastal plain of Virginia. Virginia Piedmont and mountain counties are also well represented. Requests should be directed to Donna M.E. Ware, Curator, Dept. of Biology, The College of William and Mary, Williamsburg, Virginia 23185.

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**The University of British Columbia (UBC) Botanical Garden** staff have now moved into three new buildings at the end of the Garden. FNA editor Gerald Straley is now Curator of Vascular Plants for the University of British Columbia Botany Department and continues his position as Research Scientist at the Garden. The new mailing address for the Garden is UBC Botanical Garden, 6804 S.W. Marine Drive, Vancouver, BC V6T 1W5.

## NEWS AND NOTES

### Federal Noxious Weeds in the United States

**FNA Newsletter helps out:** As a result of our request in the January 1988 issue of the Flora of North America Newsletter, USDA APHIS S&T learned the locations of several Federal Noxious Weeds (FNWs) in the United States. They sent the following report, including two contacts that have resulted in regulatory action against two FNWs.

***Oryza rufipogon* in the Florida Everglades.** Dr. David Hall informed USDA APHIS that 16 Federal Noxious Weeds had been collected in Florida through the years and placed in the University herbarium in Gainesville. During September 1988 an "expedition" was conducted to determine if the plants still persisted at the sites of collection. In 14 of 16 sites visited, the plants were still there.

The most important result of this trip was the identification of the Federal Noxious Weed *Oryza rufipogon* Griffith (Old World red rice) in a 0.25 acre population around a shallow pond at Royal Palm Hammock in the Florida Everglades. This weedy form of red rice differs from weedy forms of *Oryza sativa* L. in having a pronounced rhizome and being perennial. The red rice(s) that occur(s) in Louisiana, Arkansas, and California are annual forms of *O. sativa*. The perennial red rice in the Everglades is the only known population of *O. rufipogon* in the U.S. In May 1989 the state of Florida began a program to eradicate Old World red rice from the Everglades. This is being done to protect the new rice growing area just south of Lake Okeechobee.

***Asphodelus fistulosus* in Texas, New Mexico, and Arizona.** In March 1989 Dr. Allen Zimmerman of the Desert Botanical Institute in Phoenix informed us that onionweed had been sold by the garden shop of a research institute in Alpine, Texas. The plants were grown from seeds obtained from naturalized plants near Saltillo, Mexico, in 1984. Other potted specimens of the plants were obtained by the institute from a nursery in Phoenix. The source of these nursery specimens is being investigated.

As a result of our request and Dr. Zimmerman's response, specimens of the plant being grown in Alpine since 1986 were destroyed. Two small populations of the plant that were collected in early 1981 by Dr. Richard Spellenberg of New Mexico State University [an FNA editor] along I-10 at Mile Marker 60 in New Mexico were investigated and found to be no longer there.

***Nassella trichotoma* comes to America.** In the fall of 1988 eight shipments of tall fescue (*Festuca arundinacea*) from Argentina, totaling around 650,000 lbs., were imported from Argentina through the ports of Jacksonville, Florida; Houston, Texas; and Portland, Oregon. Upon or after their arrival, the shipments were found to be heavily contaminated with the Federal Noxious Weed *Nassella trichotoma* (Nees) Hackel ex Arechavaleta (serrated tussock).

Normally, any imported commodity found infested with a Federal Noxious Weed must be treated in some manner to kill the weed seeds, either by destruction or reexportation. However, in this case, a legal loophole forced APHIS to release the shipments to the importers. The loophole is a provision in the FNWA that prohibits regulation of seed shipments under the Act. Since none of the FNWs are listed under the Federal Seed Act or any other federal laws, the Agency (APHIS) perceived that it had no authority to prevent the entry of the contaminated seeds.

In January, 1989 the USDA Office of General Counsel reevaluated the Federal Noxious Weed Act and issued an opinion that authority did exist under Section Six of the Act to require regulatory treatment, destruction or reexportation of the shipments. Since that time, most of the contaminated seeds were recovered and either cleaned, destroyed, or reexported. In March 1989, 11,000 lbs. of the contaminated seeds were burned in Kentucky. In December 1989, 203,000 lbs. of the seeds were buried in a landfill in Springfield, Missouri. **Unfortunately**, about 54,000 lbs. of the contaminated seeds had already been sold in five states before the recall orders were issued. These states include: North Carolina, South Carolina, Kentucky, Illinois, and Missouri.

Since most of the sales were anonymous, the only information we now have is which stores sold the seeds. This will at least tell us which counties should be targeted for an awareness campaign. A fact sheet on serrated tussock is being developed for distribution to botanists, weed scientists, and county agents in the affected counties.

Serrated tussock was definitely introduced into the United States. However, no one knows whether it will emerge/survive/reproduce/thrive in the areas where it was "planted." To answer some of these questions, Dr. David Patterson of USDA ARS at Duke University has been requested to conduct ecological range studies on the plant to determine where it will grow in the United States. The plant, native to South America, has become established in both New Zealand and Australia. It is considered one of the worst noxious weeds of New Zealand, where it reduces significantly the carrying capacity of pastures and rangelands. APHIS S&T still wants to hear from botanists about Federal Noxious Weeds in the United States. A list of the counties involved in the serrated tussock case and other information on Federal Noxious weeds are available from Dr. Randy Westbrook of USDA APHIS in Whiteville, North Carolina (919/648-4115).

### **Alberta's Rare Plants**

In Alberta, about 360 species--a quarter of its native plants--are rare! It has been estimated that when one plant species becomes extinct, some 10 to 30 other plant and animal species also become extinct. Some plants that are endangered in Alberta are: Mountain Lady's Slipper (*Cypripedium montanum* Douglas ex Lindley), Western Blue Flag (*Iris missouriensis* Nuttall), Geyer's Wild Onion (*Allium geyeri* S. Watson), and Yellow Paintbrush (*Castilleja cusickii* Greenman).

Mountain Lady's Slipper has for its major threat picking and collecting. Because, at best, only a quarter of the flowering stems will produce seed, picking just one flower could destroy the year's seed production as well as kill the plant. Attempts to transplant could wipe out wild populations. Because of the orchid's dependence on a particular soil fungus, cultivation and transplanting are unlikely to be successful.

The Western Blue Flag is found only in small populations in a few locations in the southwestern corner of the province. It is usually found in lush meadows with ground water flow just below the surface. It has probably always

been relatively rare, because these are fairly uncommon habitat types. It is tolerant of and may even benefit from some grazing by cattle. Heavy grazing, however, is detrimental.

Geyer's Wild Onion is at the northern edge of its range in Alberta and is only known from a few locations in the southwestern corner of the province. It is usually found in undisturbed wet meadows and stream banks. It has probably always been relatively rare, because these are fairly uncommon habitat types. But because many of these habitats have been altered by drainage and cultivation or by heavy grazing, the Geyer's Wild Onion is probably now endangered.

Yellow Paintbrush is found only in small populations and is known from just a few locations in the southwestern corner of the province. It may once have grown in many meadows and grasslands now converted to cropland or seeded to tame pasture species such as timothy. Loss of habitat has caused populations of Yellow Paintbrush to decline to the point that the species is now considered endangered in Alberta. --from Fact Sheets developed by the Alberta Natural and Protected Areas, sent in by Randall Bayer.

## NATIONAL SCIENCE FOUNDATION INITIATIVE

### Biotic Surveys and Inventories

The Systematic Biology Program of the Division of Biotic Systems and Resources, National Science Foundation, announces re-establishment of its January Review Panel in 1991. The target date for the January 1991 panel is 15 September 1990. This Panel will be devoted exclusively to the review of proposals for Biotic Surveys and Inventories, for which the guidelines are provided below. **Survey and Inventory proposals will not be reviewed at the Program's October and April Panel meetings. Survey and Inventory proposals that were submitted to the Program's 15 June 1990 target date (associated with the October Panel meeting) will be held for review at the January Panel meeting.**

Questions regarding this and other Program matters can be directed to: Systematic Biology Program, Room 213, 1800 G Street, N.W., Washington, DC 20550, or telephone 202/357-9588. Documents may be sent via fax to 202/357-7745 (please mark "Room 213" on the transmittal sheet).

### Guidelines for Biotic Survey and Inventory Proposals to the Systematic Biology Program

The Systematic Biology Program supports a wide range of research activities, all of which contribute to our understanding of biological diversity. These activities include collecting organisms and sampling populations, characterizing them using a variety of approaches, determining patterns of relatedness and distribution, and applying these patterns to general problems in systematic and evolutionary biology such as phylogeny, biogeography, and functional morphology. A better understanding of biodiversity is essential for research in many other fields, such as ecology, population biology, conservation, anthropology, economics, and resource management.

Most systematists divide their efforts between field work and lab work. The allocation of support between these different but complementary components should create a productive balance between collecting efforts, which provide material for systematic study, and conceptual issues, which provide the scientific justification for new and old collections. Survey and inventory projects are devoted almost entirely to construction of a foundation on which subsequent research will be based. These efforts may involve collecting expeditions or inventories of existing collections, which may result in the production of catalogs, databases, floral or faunal inventories, identification manuals, or taxonomic keys. The following characteristics of surveys distinguish them from other types of systematic research activity and serve as criteria for merit review.

**1. Taxonomic Breadth.** Surveys involving new collections or inventories of existing collections sample a diversity of taxa rather than a limited group of closely related taxa. Therefore, proposals should specify the range of taxonomic groups to be sampled in the region of interest, along with a justification for this breadth of sampling. The current status of taxonomy of the various groups should be described, along with plans for describing new taxa or producing taxonomic revisions. Collections or other resources currently available should be indicated. Inventory of these current resources will constitute the "preliminary data" useful to reviewers in evaluating the need for additional collecting.

**2. Scale.** The geographic and logistic scale of surveys is typically beyond that of most non-survey efforts. Proposals should justify the need for a dedicated collecting or inventorying effort on the geographic and logistic scale being proposed. Why are existing collections and inventories inadequate for pursuing the problems being considered? What special research or other considerations demand this intensive collecting or inventorying effort?

**3. Urgency.** Collections of specimens may have to be conducted quickly in some cases. If appropriate, proposals should indicate why an immediate and intensive collecting or inventorying effort is required. Examples would be efforts to sample the effects of rare historical events or to take advantage of unique collecting opportunities. Justifications involving endangered habitats or disappearing resources should make specific reference to the planned collecting sites and to the sampling strategy, not simply to the broad region.

**4. Project Management Plan.** Survey projects should include a plan for curation and distribution of new collections, or for the production of a catalog, computer database, manual, flora or fauna, or taxonomic key. The Investigator should describe the plan for collecting, documenting, curating, distributing, and studying the surveyed material, and production of manuals, keys, or databases, including an approximate timetable. The description should include estimates of the number of sites to be sampled or collections to be inventoried, volume of material to be collected or inventoried, and data to be recorded at the time of the collection or inventory. If new collections are to be made, the Principal Investigator should specify the repository for them and describe the means by which members of the research community will be given access to the survey's collections, such as via public notice, formal publication, or computer database. Investigators are encouraged to consider development of computer databases and implementation on a Geographic Information System (GIS). For surveys in foreign countries, a clear statement should be included indicating how scientists from the host country will be involved in the project and what arrangements have been made for housing specimens. Documentation will be required prior to an award showing that the necessary collecting permits have been obtained.

**5. Conceptual Issues.** The description of research methods and potential may be less detailed in survey than in non-survey studies. Nevertheless, in keeping with NSF's criteria of intrinsic merit and utility or relevance, survey proposals should place some emphasis on the conceptual basis for the collection or inventorying effort. Ostensibly, all survey projects lead to better description and understanding of poorly known groups and geographic regions, so this cannot be the sole justification for a survey proposal. Consequently, projects that have concrete plans or provide direction for future research that will be facilitated by the new collections or inventories will be more competitive in the review process. As examples: Will resolution of phylogenetic relationships of taxa be possible with the collected material? Can explicit tests be made of hypotheses about evolutionary processes, biogeography, paleoclimatology, or extinctions? Will research be stimulated outside of systematics, in partnership with ecologists, anthropologists, conservationists, sociologists, or economists, for example?

Proposals for biotic surveys and inventories should be prepared according to the guidelines presented in "Grants for Research and Education in Science and Engineering" (NSF 83-57). These proposals will undergo merit review, including evaluation by mail reviewers and by the Systematic Biology Survey and Inventory Review Panel that meets in January.

### **NSF Postmarks and Deadlines**

In an effort to reduce the cost to grantee organizations of using overnight mail to meet proposal deadlines, unless otherwise stated in a specific program announcement, NSF will accept evaluation proposals postmarked on or before the deadline date.

### **RECENT PUBLICATIONS**

*Wildflower*, the journal of the National Wildflower Research Center, is open to papers dealing with the conservation, propagation, establishment, and management of native or naturalized vascular plants occurring in North America. The journal provides an outlet for manuscripts that are either cross-disciplinary in scope or are written for an audience of interested lay people and professionals in agriculture, botany, ecology, horticulture, landscape design, landscape development, land use planning and management, commercial plant or seed production, range management, and related fields. For more information write the Editor, National Wildflower Research Center, 2600 FM 973 North, Austin, Texas 78725-4201.

*Protected and Relict Vegetation: Southeastern Minnesota*, by B.J. Burreson, is a booklet describing the goat prairies in that part of the state. Goat prairies occur on south and southwest facing limestone and sandstone bluffs in the driftless area of southeastern Minnesota. These steep, dry, exposed areas are the sites of rare species. This study also includes exposed rock cliffs and ledges on the goat prairies. This spring, 1990, publication is part of a BOTANY

PUBLICATIONS series by Winona State University.

*Identification of Plants with Fleshy Fruits*, by Eugene C. Ogden and Richard S. Mitchell, is a guide to all known wild plants with fleshy fruits and berries in the Northeast United States and eastern Canada. Domesticated plants are not included. Written for the non-botanist, the book provides keys to identifying plants from the fruits or the stems, leaves, and fruit. It is intended for initial identification of plants with fruits and berries. If the plant is potentially dangerous, the reader is referred to specific page numbers in the *AMA Handbook of Poisonous and Injurious Plants*. For poisonous plants not covered by the AMA handbook, a caution from Hardin and Arena's *Human Poisoning From Native and Cultivated Plants* is cited. Included is a 5 1/4 inch, 360K floppy disk that allows very fast fruit identification. The disk is formatted for an IBM PC, XT-AT compatible computer. 97 pp., 128 illustrations, bibliography. Order from The New York State Museum (ISBN #: 1-55554-188-3). \$12.95 plus \$1 for all orders less than \$25, \$2.50 on orders of \$25 or more for shipping. Make checks payable to New York State Museum Publication Sales and send to Publication Sales, The New York State Museum, 3140 CEC, Albany, New York, 12230.

**The American Horticultural Society (AHS)**, a non-profit educational organization, announces the publication of its first *Garden Book catalog* listing more than 700 titles from the United States and Britain on every aspect of gardens, gardening, and horticulture. The catalog features sections on "armchair gardening" and general reading topics as well as classic titles, reference and technical works, and special titles for young readers. Also available is a listing of dealers in rare, antique, or hard-to-find garden and horticulture titles. As a public service to North American gardeners and horticulturists, AHS is making these titles available to catalog recipients at a discounted rate, from 5 to 50 percent lower than retail prices. To obtain this **free** listing of garden titles and antiquarian booksellers, write to AHS, 7931 East Boulevard Drive, Dept. PR-490, Alexandria, VA 22308 or call 1-800-777-7931 (703/768-5700 in Virginia).

The AHS is also making a new 18-month, 32-page **National Calendar of Gardening Events** available for \$3.00 each postpaid (1-9 copies) sent to the address listed above. For more information on the discount schedule for non-profit or multiple copy orders, call the 800-number listed above. This calendar provides time, place and contact information on events and activities scheduled by hundreds of North American botanical societies, horticultural organizations, and gardening clubs.

*Tidal Marsh Plants* by Lionel N. Eleuterius, is written specifically for use in the field. It treats vascular plants found in the salt marshes along the Atlantic and Gulf coasts of the United States. Included are sections on plant taxonomy, phenology, identification, and detailed descriptions and illustrations of over 400 plants. 160 pp, ISBN 0-88289-795-0, \$24.95 each plus \$1.50 postage for first copy and \$.50 for each additional copy. Order from Pelican Publishing Company, P. O. Box 189, Gretna, Louisiana 70054, 504/368-1175.

**The Scholar's Bookshelf** is offering the 1969 reprint edition of *Scientific papers of Asa Gray*, edited by Charles Sprague Sargent, for \$29.95 plus \$4.00 handling in the U.S. or \$5.00 outside the U.S. Two volumes in one, 397 + 502 pp. Order from The Scholar's Bookshelf, 51 Everett Drive, Princeton Jct., New Jersey 08550.

## RECENT DEATHS

**Harriet George Barclay** died 25 May 1990 at the age of 88 after a year and a half battle with cancer. She was a well-known ecologist, world traveler, artist, and an outstanding teacher. She earned her Bachelor's and Master's degrees from the University of Minnesota in 1923 and 1924 and a doctorate in 1928 from the University of Chicago, where she met and married Bertram Barclay. He was hired at University of Tulsa to organize their botany department. After her husband died in 1953, she was named head of the University of Tulsa botany department and was in that position for five years. Then she returned to teaching until her retirement in 1972. She served for 35 years on the summer teaching staff of Rocky Mountain Biological Laboratory.

**Adelaide Elizabeth Briggs**, who worked as Assistant Curator of the Wiegand Herbarium at Cornell University (CU) from 1947 to 1980, died at Ithaca, New York, on 11 March 1990. She had suffered from Parkinson's Disease for several years. Working with Robert T. Clausen, former CU Curator, Miss Briggs was responsible for day-to-day operations of the herbarium. Her artistic talent is evident in the many thousands of beautiful specimens prepared during her years at CU, and her meticulous records are an invaluable resource to present curators. --R. Dirig (BH-CU)

**Richard H. Eyde** died of cancer on 27 May 1990 at the age of 61. He received his Ph.D. from Harvard and joined the Smithsonian Institution in 1961. He was a curator in the Department of Botany there, a specialist in Cornaceae, and a well-known plant anatomist.

## MEETINGS

**The Missouri Botanical Garden Annual Systematics Symposium**, "Biological Relationships between Africa and South America," will be held 4-6 October 1990. The talks will cover a broad range of organisms and research approaches. For a full listing or to register write Systematics Symposium, Missouri Botanical Garden, P. O. Box 299, St. Louis, Missouri 63166. Registration for the full three days is \$80 (\$70 for students); for Friday evening and Saturday only it is \$40 (\$35 students). Space limits registration to 400, so register early.

The **Eastern Native Plant Alliance (ENPA)** will hold its third annual meeting 17-19 August 1990 at the Holden Arboretum, Mentor, Ohio. Registration fee is \$50, covering meals and field trip transportation. Registrations will be accepted until 3 August. The organizations and institutions brought together in ENPA include botanical gardens and arboreta, native plant societies, nurseries, and others both public and private. ENPA provides a forum for exchanging ideas and information, in order to foster a consistent conservation message and stimulate more effective programs. For a program and registration form write to Mary Pockman, 7301 Hooking Road, McLean, VA 22101.

## OPPORTUNITIES

**Visiting professorship available:** A limited number of visiting professorships in floristic botany at the University of Tennessee, Knoxville, are available through the L. R. and Esther Hesler Endowment Fund. Proposals are accepted in all areas of systematic botany with priority given to those that are floristic, revisionary, or monographic in emphasis and deal with the flora of the southern Appalachian Mountains and vicinity, either in the field or the **UTK** herbarium. Applicants should hold faculty or equivalent status at a recognized botanical or educational institution. Funding can be used for travel and living expenses, and concurrent support from the applicant's institution is strongly recommended. Preliminary correspondence with specific **UTK** faculty or general inquiries to the Hesler Endowment Fund Committee, Department of Botany, The University of Tennessee, Knoxville, Tennessee 37996-1100 is encouraged.--B. Eugene Wofford (**UTK**)

**Graduate Study at University of Kansas:** We invite applications for graduate study in plant systematics at the University of Kansas from persons interested in the master's or doctoral degrees, in either floristic or monographic research. The systematic tradition is strong here: there are 25 systematists (6 botanists) among a total biology faculty of 82 (12 botanists), so students receive training in the full range of systematic techniques, principles, and philosophies. The R. L. McGregor Herbarium houses some 400,000 specimens (with concentration on vascular plants of the Great Plains), and is one of 5 natural history museums on campus. Two 12-month Graduate Research Assistantships are available through the Herbarium, as well as Graduate Teaching Assistantships through the Department of Botany. The files of qualified students will also be forwarded by the Department into competition for University Honors Fellowships, which provide four years of funding for graduate work. There are also internal funding sources for research and travel. Applicants should contact Dr. Meredith A. Lane, Director, R. L. McGregor Herbarium, 2045 Constant Ave., Lawrence, Kansas, 66047, or Dr. Christopher Haufler, Chairman, Department of Botany, University of Kansas, Lawrence, Kansas 66045.

## Positions Available

**The Arnold Arboretum of Harvard University** seeks applicants for a postdoctoral research position for the Generic Flora of the Southeastern United States Project. A Ph.D. and training or experience in the taxonomy of seed plants are required. Individuals with interests in the Compositae, Liliaceae, Amaryllidaceae, and Labiatae are especially sought, but all applications will be given serious consideration. Available immediately, salary \$20,500 per annum. The initial appointment is for one year with the possibility of renewal pending funding. Send a complete curriculum vitae, a separate statement outlining research interests and accomplishments, and letters from three individuals familiar with the applicant's qualifications to Dr. Carroll E. Wood, The Arnold Arboretum, 22 Divinity Avenue, Cambridge,

Massachusetts 02138, telephone 617/495-2362.\*

**Central Connecticut State University** seeks an assistant professor in biology for a tenure track position to teach undergraduate and graduate courses in botany and general biology and to conduct research appropriate to undergraduate and master's level students. Specialization should be in plant systematics or plant physiology. Ph.D. required. Send letter of application, résumé, and names, addresses, and telephone numbers of three references to: Dr. Leon J. Gorski, Chairperson, Biology Department, Central Connecticut State University, New Britain, Connecticut 06050-4010. Review of applicants will begin on 1 September 1990.\*

**The University of Texas** seeks applicants for a tenure-track position of Assistant Professor in Plant Systematics beginning in the fall semester, 1991. Applicants must have an earned doctorate in monographic systematics, preferably followed by postdoctoral experience in macromolecular techniques. The successful candidate will be expected to teach courses in undergraduate and graduate plant systematics and will be required to develop an innovative and productive research program that uses both classical and state-of-the-art molecular biology techniques. Send a letter of research goals and teaching interests, a detailed résumé, and a list of five individuals with addresses who might transmit letters of recommendation upon request to Chairman, Selection Committee, Department of Botany, The University of Texas, Austin, Texas 78713. Closing date is 1 October 1990.\*

\*An Equal Opportunity Employer. Minorities and women are encouraged to apply.

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**The National Clonal Germplasm Repository** at Corvallis (NCGR-Corvallis) is a cooperative federal/state facility dedicated to the preservation of temperate fruit and nuts and is part of the National Plant Germplasm System. Their mission is to collect, maintain, distribute, and evaluate germplasm of hazelnuts, strawberries, hops, mints, pears, currants, gooseberries, raspberries, blackberries, cranberries, blueberries, and other temperate crops of lesser economic importance. Plant materials from around the world are available to breeders and plant researchers of any country. NCGR invites scientists to visit and study the plants and information resources available in Corvallis. For more information write NCGR-Corvallis, 33447 Peoria Road, Corvallis, Oregon 97333.

**The National Academy Press** offers the following important publications: *Biosafety in the Laboratory*, \$29.95; *Prudent Practices for Disposal of Chemicals from Laboratories*, \$19.95; and *Prudent Practices for Handling Hazardous Chemicals in Laboratories*, \$19.95. Order from National Academy Press, 2101 Constitution Avenue, NW, Washington, DC, 20418. Add \$2.00 for shipping and handling.

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