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

FLORA OF NORTH AMERICA NEWS

The **FNA Management Committee** met on Thursday and Friday, 8-9 October 1998 in St. Louis. **John McNeill** was named Chair of the FNA Management Committee. He replaces Barbara Thiers, who has been chairperson for the past year.

The **FNA Editorial Committee** met on Sunday and Monday, 11-12 October 1998 in St. Louis. The main topic of the meeting was developing strategies for more efficient completion of the Flora. These strategies then would be reflected in a proposal to the National Science Foundation for renewed funding for the project.

A key strategy has been the establishment of **additional editorial centers**. All members of the Flora of North America project are working toward faster production of the volumes by identifying and overcoming any significant impediments. The authors, reviewers, and editors are streamlining editorial steps and manuscripts are being distributed for review via the Internet. Now the project has taken the next step, establishing new editorial centers so that production of the editing can be distributed to a larger group. These editorial centers will be semi-autonomous, allowing editorial teams to work independently and in parallel on major taxonomic groups throughout the publication process: from author solicitation, through editing and review, to electronic and print publication.

Five editorial centers will become operational in 1999: (1) the **Bryophyte Center** directed by Dr. Barbara Thiers is at the New York Botanical Garden (NYBG) and has been operating for over a year; (2) the **Poaceae Center** under the direction of Dr. Paul Peterson at the Smithsonian Institution (SI), has been operating for approximately nine months; (3) the **Asteraceae and Fabaceae (s.l.) Center** will be at the Botanical Research Institute of Texas (BRIT) and directed by Drs. Theodore Barkley and Richard Spellenberg collaborating with BRIT staff; (4) the University of California at Berkeley (UCB) will handle the **Asteridae in part**, under the leadership of Dr. Barbara Ertter; and (5) the Missouri Botanical Garden (MBG) will be the home base for the remaining groups, under the direction of Dr. James Zarucchi. Taxon editors will continue with their previous assignments, and for the moment, no operational changes will occur. Eventually, authors and editors will be communicating directly and more frequently, working through the relevant editorial center.

Several support centers provide services for the editorial centers: (1) a **Bibliographic Center** at the Hunt Institute for Botanical Documentation under the direction of Dr. Robert Kiger;

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 63166-0299, U.S.A.

(2) a **Nomenclature Center** at the Royal Ontario Museum (ROM) works through Dr. John McNeill; (3) an **Illustration Center** for the production of illustrations will continue to be coordinated by Yevonn Wilson-Ramsey at MBG; (4) a new **Geographical Information Systems (GIS) Center** will be under the direction of Dr. Leila Shultz at Harvard University Herbarium (HUH) with Tricia Frye at MBG; and (5) a new **FNA Portal Center** managed by Dr. James Zarucchi at MBG.

The GIS Center, a significant new focus for FNA, will now produce all maps as GIS data sets which can be integrated into a wide range of geospatial analysis tools. The FNA Portal Center was formed by the Flora of North America Editorial Committee at its annual meeting in October 1998. This center will provide a backbone of names, synonyms, literature citations, and other data for

taxa in the Flora. Because this backbone will provide the link to a vast array of associated information, maps, and illustrations, it is considered the "portal" to FNA data. The project's full title is *The FNA Portal: Plant Species of North America*. The project will revise and update names in volumes already published and will be the primary means for keeping FNA information current. Work on the FNA Portal is of such importance to the project that it will be organized as a distinct center.

It is with pleasure that we announce the addition of new members to the Editorial Committee. **Dr. Aaron Liston** has agreed to be the new Regional Coordinator for the Northwest Region. He replaces Dr. Gerald Straley, who passed away earlier this year. Liston is an associate professor in the Botany and Plant Pathology Department at Oregon State University. He received his Ph.D. in 1990 from Claremont Graduate School. His research focuses on plant systematics and evolution, and he has published on a wide range of taxa from pines to senecios. He has been involved in the Oregon Flora project and has an expanding knowledge of the flora of the Pacific Northwest.

Dr. Craig Freeman will become the new Regional Coordinator for the Great Plains, an FNA position held by Ted Barkley before moving to BRIT. Freeman received his Ph.D. in 1985 from Kansas State University, focusing on the aureoid senecios of Mexico. His research now centers on Great Plains floristics, and he is "a field man's fieldman," according to Ted. Freeman's present positions include being an Associate Scientist for the Kansas Biological Survey, a Curator in the R.L. McGregor Herbarium and a member of the Department of Ecology and Evolutionary Biology at Kansas University.

Dr. Paul Peterson joined the FNA Editorial Committee and will work with Dr. Rahmona Thompson as a Taxon Editor for Poaceae. Peterson is an Associate Curator of Grasses in the Botany Department of the National Museum of Natural History at the Smithsonian Institution. His research focuses on the systematics and floristics of Eragrostoid grasses and the phylogeny of Poaceae.

Dr. James Zarucchi, as Managing Editor, is an *ex-officio* member of the Editorial Committee; he will continue in this role as lead editor at the Missouri Botanical Garden and as manager of the FNA Portal Center. In addition, **Dr. Barbara Ertter** joins the Editorial Committee in her capacity as lead editor of the Editorial Center being established at the University of California, Berkeley. Ertter is Curator of Western North American Flora at UC, Berkeley. She received her Ph.D. in 1983 from New York Botanical Garden/City University of New York, and her research interests focus on the floristics, biogeography, and evolution of the western flora, with special expertise in the Potentilleae (Rosaceae), Juncaceae, and Eriogonoideae (Polygonaceae) and with correlated interests in botanical history in western North America and in the development of electronic floras.

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Gwen Ericson came to the Flora of North America Organizational Center as **technical editor** in August of this year. Gwen has a varied educational history, obtaining a B.A. in Biology and an M.S. in Biochemistry in her home state of North Dakota and several years later receiving an M.A. in English from Saint Louis University. She developed an interest in the culture of science as a graduate student studying English literature and in her spare time is attempting to write a dissertation drawing on this interest for her Ph.D. in English. Gwen has worked as a biochemical researcher, a university English teacher, a student advisor, and a freelance editor of scientific manuscripts. Editing for FNA will exercise her scientific savvy as well as her language skills. An unexpected benefit is a renewed appreciation of botany; since she started at FNA she has begun to notice new things about the plants she sees everyday.

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NUNAVUT—A New Canadian Territory: On 1 April 1999, Nunavut, a vast new territory of Canada comprising the whole of the Canadian eastern Arctic and adjacent lands to the south

becomes a new legal entity in Canada. Populated principally by Inuit, the change became assured consequent to a referendum held across the former Northwest Territories in which the Inuit overwhelmingly voted for separation. The partition greatly reduces the size of the Northwest Territories, which, for the time being at least, retain their old name. —Jim Phipps

The FNA Editorial Committee has decided to add Nunavut's borders to the base map. Key people are working to get that done as expeditiously as possible. If this cannot be accomplished in time for publication of Volume 22, only the map on the inside cover will be changed. In any case, in the distribution statement, taxa occurring in the N.W.T., as used in Volumes 2 & 3, will, depending on their distribution, be specified as N.W.T. or Nunavut or both in future volumes.

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Newfoundland and Labrador - In another matter pertaining to Canadian area names: Because all our distributional units in the Flora area are geopolitical (i.e. administrative) ones, it has been agreed to adopt the official "Nfld. & Labr." for the province name (replacing the "Nfld." of volumes 2-3). Moreover, it was decided to indicate those taxa confined to the island of Newfoundland or to Labrador (the mainland component) by adding the parenthetical "(Nfld.)" and "(Labr.)" respectively after the full (abbreviated) province name in the distribution statement. No change to the base map is needed.

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New Mapping Tool for FNA Authors—The Flora of North America project has a new computer tool that will allow authors and map editors to produce maps in electronic format. The Map Exchange Tool, or MXT, uses an industry-standard base map of North America (with Lambert Conformal Conic projection) and stores map information in a format that will allow full-bodied applications of geographic information systems (GIS). MXT is an easy-to-use tool which allows users to draw boundaries of species distributions on computer screens. Files saved in MXT can then be relayed electronically, integrated into other systems (i.e., GIS), or simply saved for later revision.

Historically, the FNA project used a paper-based process to develop camera ready publication material. Thus, these maps did not contain information about the geospatial position of distribution data, and there was no way to search or recall data. In collaboration with the FNA management team, the Center for Botanical Informatics worked to solve the project's needs for creating a dynamic mapping system. The result is an electronic system that has the capacity to efficiently capture, access, validate, manipulate, and store data. Authors can begin using the mapping tool at any time, though at no time will they be required to do so. The mapping editor at the organization center will continue to transform hard copy maps into GIS format. As the project progresses, the development of the mapping tool will be coordinated with an intranet map interface that will help the review process and increase the accuracy of reported distributions of species. The beauty of the tool for now is that authors will have the ability to create, revise, analyze, store, and transfer maps of species distributions in a fully-georeferenced digital form. System Requirements for the Map Exchange Tool: Pentium-class machine; Windows 95 Version 4.00.950a, Windows NT, or above; 24 MB RAM; 20 MB free hard drive space. System Recommendations: Pentium 120 or faster, 32 MB RAM, True Color Video

Note: The Map Exchange Tool will not run on older versions of Windows 95, such as 4.00.950, but free patches are available from Microsoft to upgrade your operating system. For information about obtaining a copy of the Map Exchange Tool, please send an email message to mxt@cbi.mobot.org. The tool is currently available in beta release. ---Leila Shultz

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A **website** featuring the 100 or so **largest bryophyte herbaria in North America** was formed to provide assistance to bryophyte authors about which herbaria to consult for their FNA treatments. This site summarizes key information about these herbaria and may be searched by acronym, or by clicking a distribution map. The herbarium acronym is linked to the on-line version of Index Herbariorum for contact information. <http://www.nybg.org/bsci/hcol/bryo/NABHerb.html> ---
Barbara Thiers

COMPUTER NEWS

The **National Biological Information Infrastructure (NBII)** provides access to a wealth of information through links to a great many websites relevant to work for Flora of North America. It also provides a clearinghouse for metadata standards. Spend some time surfing their website at <http://www.nbi.gov/>

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The **International Organization for Plant Information** has also continued to build its website and add to the number of massive floristic datasets available through it. Currently the Provisional Global Plant Checklist contains Flora Europaea, the Catalogue of the Flowering Plants and Gymnosperms of Peru, the Australian Plant Name Index, the USDA PLANTS database, Vascular Plants of Russia and Adjacent Countries, and the Med-Checklist volumes 1 and 3. Visit this website at <http://iopi.csu.edu.au/iopi>.

NEWS FROM HERBARIA

The **Herbarium of the Autonomous University of Mexico City (MEXU)** has moved into spacious new quarters. Incredibly overcrowded for years, the specimens now reside in a new building that gives them ten times the space of the old one. It is located adjacent to the Botanical Garden, and will be next to another new building being built to house zoological collections. Researchers who have postponed requesting material or visiting to study the collections should now consider contacting the herbarium about the availability of their taxon.

PUBLICATIONS

The publication of **Native and Naturalized Leguminosae (Fabaceae) of the United States (exclusive of Alaska and Hawaii)** by Brigham Young University Press was announced on October 24th at a reception celebrating Dr. Duane Isely's 80th birthday and showcasing copies of the new book. After nearly 60 years of studying the legume family, Dr. Isely has completed the first comprehensive reference to the U.S. species of this large and economically important family. The legume family is second in importance only to the grasses and includes numerous edible and ornamental species.

Isely, his students, and others had previously published studies on related species groups within the family or on the legumes of a particular region, but this new publication is the first to provide descriptions and a means of identifying all of the more than 1200 species occurring outside of cultivation in the 48 contiguous states. Distribution maps of most of species, and comments on their occurrence and uses are also included in the book.

Isely came to Iowa State in 1944 as an Extension Associate managing the seed laboratory. His interest in the taxonomy of the legume family soon led to his becoming a member of the Botany Department faculty. During his long career he taught numerous seed science, weed science, and

botany courses and contributed more than 10,000 specimens to the herbarium. Field work took him to all 48 of the contiguous U.S. states and to more than half of the counties. He was editor of the *Iowa State Journal of Research* from 1979 to 1987 and director of the Ada Hayden Herbarium (ISC) from 1986 until his retirement in 1989. In 1981, he was named a Distinguished Professor. His retirement in 1989 allowed him to focus his attention on his legume studies and his interest in botanical history, which culminated in the publication of his *One Hundred and One Botanists* in 1994.

For information on ordering Native and Naturalized Leguminosae (Fabaceae) of the United States (exclusive of Alaska and Hawaii) contact the Monte L. Bean Life Science Museum, Brigham Young University, Provo, UT 84602.

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American Bamboos, by Emmet J. Judziewicz, Lynn G. Clark, Ximena Londono, and Margaret J. Stern. Publication in January, 1999. Smithsonian Institution Press. ISBN 1-56098-569-0. 400 pp., 130 color photographs and 203 line drawings. This book treats the 1,200 species of bamboos native to North and South America and the Caribbean. It covers all aspects of bamboos, including structure, ecology, human uses, conservation value, evolution, and diversity. The authors describe the importance of bamboos to South American landscapes and cultures. The cost is \$45 plus \$4.50 postage and handling for the first book and \$1 for each additional book. Send orders to Smithsonian Institution Press, P. O. Box 960, Herndon, VA 20172-0960 Phone: 800/782-4612, fax 703/661-1501.

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Atlas of the Flora of New England: Poaceae by Ray Angelo and David Boufford is available in *Rhodora*, Vol. 100, No. 902, Spring, 1998, Issued 19 August 1998. Dot maps are provided to depict the distribution at the county level of the Poaceae growing outside of cultivation in the six New England states of the northeastern United States. The 338 taxa (species, subspecies, varieties, and hybrids, but not forms) are mapped based on specimens in the major herbaria of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut, with primary emphasis on the holdings of the New England Botanical Club herbarium (NEBC). Habitat, chromosome information, common names, and a brief synonymy to account for names used in recent manuals and floras for the area are provided.

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Assessment and Management of Plant Invasions edited by James O. Luken and John W. Thieret This publication, as part of the Springer Series on Environmental Management, looks at the biological invasion of native plant communities as a high-priority problem in the field of environmental management. It examines the issue of non-indigenous plant invasion using a broad ecological context, addressing the control of these species from community and ecosystem perspectives. By managing natural resources, designing regulations, and dispersing organisms, humans have broken down barriers to species dispersal, making invasion a major contributor to the loss of indigenous biological diversity. Resource managers, biologists, and all those involved in plant communities must consider ecological interactions when assessing both the effects of plant invasion and the long-term effects of management. Assessment and Management of Plant Invasions also covers the definition of invading plants, assessment of ecological interactions, direct management, and regulation and advocacy. In addition, the volume includes an appendix with descriptive data for numerous plant invaders of the United States and Canada. Hardcover, 352 pages, 61 figures, 23 tables, ISBN 0-387-94809-0, \$84.50. Available from the publisher, Springer-

Verlag, by visiting their website at www.springer-ny.com and going to the customer service/order area where there is information on how to order by email, phone, or mail.

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Taxonomic Novelties from North America North of Mexico: A 20-Year Vascular Plant Diversity Baseline by Ronald L. Hartman and B. E. Nelson has been published as Volume 67 in the Monographs in Systematic Botany Series through Missouri Botanical Garden Press. This volume lists the taxa described as new to science published in North America north of Mexico (FNA area) from 1975 through 1994 and provides an analysis of the publication history. This would be an essential reference for anyone interested in recent discoveries in the flora of North America. Booklet, 8 ½ by 11 inches, 60 pages, ten tables, \$20. To order MSB-67, mail your check or appropriate credit card information to Missouri Botanical Garden, MBG Press Orders, 4344 Shaw Blvd., St. Louis, MO 63110. Phone: 314/577-9534; fax: 314/577-9591; or email mbgpress@mobot.org. Check out a sample of the text portion of this publication elsewhere in this newsletter.

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John Charles Frémont, Botanical Explorer by Stan Welsh explores Frémont's role as a botanist during his five journeys into the American West from 1842 until 1854. His expeditions yielded collections of plant specimens that greatly enhanced the scant botanical information then available. Type locality information for the many new species and genera he collected is provided in the text. Botanists and historians alike will appreciate this new account of a fascinating American explorer. Hardbound, 400+ pages, illustrated, \$49.95. To order MSB 66, mail your check or appropriate credit card information to Missouri Botanical Garden, MBG Press Orders, 4344 Shaw Blvd., St. Louis, MO 63110. Phone: 314/577-9534; fax: 314/577-9591; or email mbgpress@mobot.org.

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Edwin Lincoln Moseley (1865-1948): Naturalist, Scientist, Educator by Relda E. Niederhofer and Ronald L. Stuckey is a 320-page hard-bound book on the life and contributions of Edwin Lincoln Moseley, distinguished naturalist and educator in Sandusky High School (1889-1914) and first professor of science in the Bowling Green State Normal College (1914-1936); professor emeritus (1936-1948).

Moseley's scientific achievements are presented in an informative style by the authors and by his contemporaries—college presidents, former students, and local friends. He is recognized for the discovery of the cause of milk sickness, his thorough studies of the flora of the Sandusky area and the Oak Openings west of Toledo, his mapping of the preglacial river channels in Sandusky Bay and Erie County, his accurate long-range weather forecasts, and his innovative teaching methods.

Features include: a foreword by Guy L. Denny; 85 photographs of Moseley, his associates, and surroundings; written contributions by those who knew him; letters and geological features of Erie County by Moseley; and special topics by the authors about his estate trust fund to benefit students, about how he is commemorated in the names of some plants and animals, and about his recognitions and tributes.

Prepublication price before 31 December 1998 is \$24.95 with \$5.55 for packaging and postage. Ohio residents add 5.75% sales tax (\$1.50). After 1 January 1999, the cost of the book is \$42.00. Send complete mailing address and the number of copies you wish to purchase to Relda E. Niederhofer, P.O. Box 184, Sandusky, OH 44870. Send no payment now; you will receive notice when the book is available, and then payment is expected before the book is mailed.

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NEWS AND NOTES

FIELD WORK DISCOVERING NEW TAXA—From Barbara Ertter's abstract for her talk at the MO Symposium, October 1998 (used with permission) "Contrary to recurring perceptions that the flora of North America north of Mexico has been fully explored and catalogued, the rate of on-going discoveries has remained remarkably constant for the last century and shows no evidence of tapering off. This is particularly evident in western North America, where dramatic new species and genera are still coming to light, even along highways and near major cities. Furthermore, the same level of on-going discovery also characterizes other aspects of floristic information, including the distribution of rare species and the occurrence of invasive pest plants.

"The incompleteness of our floristic knowledge takes on critical significance in an era when decisions are being made that will irrevocably determine the fate of our national floristic heritage. The cost of this ignorance can cut multiple ways, increasing the risk of misplaced mitigation efforts as well as avoidable loss of irreplaceable biodiversity. Ironically, this critical time has coincided with a general dismantling of the academic infrastructure for pursuing floristic knowledge on a scientific basis. As a result, the majority of on-going discoveries are increasingly dependent on organizations and individuals operating outside of academia, with limited opportunities for formal training in floristics or scientific expertise to draw upon when complex situations are encountered. This paradoxical situation has developed as a result of perceiving floristics as rote data compilation, when it is in fact better understood in the context of a massive attempt to model biodiversity, resulting in an intricate suite of nested hypotheses that are constantly being tested and modified."

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NEW TAXA IN NORTH AMERICA—From the Hartman and Nelson book described elsewhere in this newsletter (used with permission of Hartman): "The significant rate of description of new taxa in North America north of Mexico over the past 20 years is due in part to intensive inventory work from the Rocky Mountain states and westward. Improved access to large expanses of the West as well as intrepid field botanists in remote, roadless areas in part responsible. Organized programs (e.g., at the herbaria BRY, ID, RM, NY) for surveying in a systematic fashion poorly explored regions as well as seemingly well-known ones have contributed substantially. The intense interest in plants of conservation concern and funding for such surveys, often in parallel with general floristic studies, likely have had far greater influence in the discovery of novelties than is reflected in the numbers attributed to studies of this type. The results of studies on plants of conservation concern have been reflected both in the production of revisionary studies and major floras. Over the time interval examined in this study, the floristic projects for Utah and for the Intermountain region have contributed a substantial number of novelties. During the four years prior to the publication of the Jepson Manual (Hickman, 1993), more than 48 taxa were described as new by authors who provided treatments.

Thus far, the Flora of North America project has spurred the publication of a number of new pteridophytes. The rush to publish novelties for inclusion in future volumes of FNA will be interesting to watch. It is likely that the production of future volumes of FNA and of other major floristic projects as well as systematic revisions will continue to maintain the high rate of publication of novelties, although it is likely that within the next 10 to 15 years the rate will diminish substantially as work on FNA reaches completion. Further intensive inventory work in poorly known areas of the Southwest and the West, especially California, Nevada, and New Mexico, likely will be fruitful."

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For an overview of the previous two articles in the non-scientific print media, check out the **16 November 1998 issue of U.S. News & World Report, page 16, for an article by Laura Tangley** entitled A Flowering of Finds for American Botanists. The article highlights the discoveries of Arnold Tiehm as he goes botanizing when he is not working his "day-job." He has found 19 new species of plants, including the latest, a *Penstemon*, described this summer in the journal *Brittonia*. Both Barbara Ertter and Ron Hartman, quoted above, are mentioned as working and writing about the concept and reality that there are still species to be discovered in the area covered by the FNA project.

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ARE YOU REGISTERED? If you haven't already, you should register in the **Taxonomic Resources and Expertise Directory (TRED)** compiled and maintained by the Association of Systematics Collections for the National Biological Information Infrastructure. This directory maintains information on people who have taxonomic, regional, or ecological expertise or who maintain collections from particular areas. The form is easy to fill in. By registering (and being willing to provide expert advice), you will improve the scientific basis upon which management and agency decisions are made. To register, go to <http://www.nbi.gov/> and navigate to the TRED page. Or, you can get there by <http://www.ascoll.org/TRED>.

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John Thieret, a member of the FNA Editorial Committee, spent an active summer in the field. Thieret tells us he traveled "[f]rom the mountains of West Virginia/Virginia to the mountains/deserts of Nevada---from the railroad yards of Minneapolis to the Kentucky/Tennessee border---from Mt. Rushmore to southern Kansas." He was accompanied by Dr. Robert Haynes of the University of Alabama for the western leg of the trip. Haynes has contributed several treatments of aquatic-plant families to FNA. While Thieret "wandered in dry-land areas, making general collections with emphasis on grasses and woody plants, Haynes spent much time in the water." In West Virginia and Virginia, Dr. David Brandenburg of the Dawes Arboretum, Newark, Ohio accompanied Thieret collecting propagation material for the arboretum. Thieret indicates that [t]he various trips provided specimens and data useful to him as a taxon editor and author for FNA."

AWARDS

1999 NEBC Graduate Student Research Award - The New England Botanical Club will offer up to \$2,000 in support of botanical research to be conducted by graduate students in 1999. The awards are made annually to stimulate and encourage botanical research on the New England flora, and to make visits to the New England region possible to those not otherwise able to travel there. The award(s) will be given to the graduate student(s) submitting the best research proposal dealing with systemic botany, biosystematics, plant ecology, or plant conservation biology. It is anticipated that two awards will be given, although the actual number of awards and the amount will depend on the proposals received. Applicants must submit: (1) Proposal of no more than three double-spaced pages; (2) Budget; (3) Curriculum vitae; and (4) Two letters in support of the proposed research (one from the student's thesis advisor). Three paper copies of the proposal, budget, and CV must be submitted. Send proposals to: Awards Committee, The New England Botanical Club, 22 Divinity Avenue, Cambridge, MA 02138-2020. Proposals and supporting letters must be received no later than 1 March 1999. The recipient(s) will be notified by 30 April 1999.

Two Graduate Student Research Awards were given in 1998. Sonja Schmitz, of the University of Vermont, received support for her proposal entitled: "Inferring evolutionary and biogeographic history from patterns of genetic variation in inland and coastal beachpea (*Lathyrus japonicus*)

populations." Also chosen for an award was David Moeller of Cornell University, whose proposal was entitled: "The ecology and evolution of self-pollination in Blue Flag, *Iris versicolor*: an island - mainland comparison." For more information about the society, check the web site at <http://www.herbaria.harvard.edu/nebc>

OBITUARY

DR. WALTER S. FLORY, JR., Babcock Professor Emeritus at Wake Forest University, was born on 5 October 1907 in Bridgewater, Virginia, and died on June 8, 1998 in Winston-Salem, North Carolina. He earned his Ph.D. in Biology as a Blandy Fellow at U.Va. at the age of 23. He enjoyed a year of post-doctoral work at Harvard as a National Fellow and Research Associate in Biological Science with Drs. E. M. East and Karl Sax. Dr. Flory served with distinction at several schools: Greenbrier Jr. College, Bridgewater College, Texas A&M, V.P.I., and U.Va. A final stop in Dr. Flory's illustrious career was to accept the position of Babcock Professor of Botany at Wake Forest University in 1963. From 1930 through 1998 he contributed over 150 articles in professional journals and over 100 popular articles in sectional and national magazines.

An area of special interest to Dr. Flory was the cytotaxonomy of the amaryllids. He developed this interest as a horticultural geneticist for Texas A&M from 1936-44. Native species of rain lilies (*Cooperia* and *Habranthus*) caught his attention, and he eagerly decided to examine them cytologically. He discovered their chromosomes to be diverse in size and centromere placement and to offer promise of being cytotaxonomically exciting to study. In 1947, when Dr. Flory accepted the position of Professor of Experimental Horticulture at the Blandy Experimental Farm of U.Va., the opportunity presented itself for him to return to his interests with certain members of the Amaryllidaceae. He immediately began to secure bulbs with chief efforts being made to build living collections of rain lilies and allied genera, and of *Hymenocallis*. In addition to his own studies, several doctoral students did their research on the cytology and cytotaxonomy of some of the amaryllid genera. At Wake Forest, Dr. Flory continued his research on the Amaryllidaceae and continued to direct graduate studies in the family and in related families. The ultimate goals of these studies were to produce monographic treatments of amaryllidaceous taxa, especially of *Zephyranthes* (including *Cooperia*), *Habranthus*, and *Hymenocallis* north of South America.

During the years of the '90s, Drs. Flory, Flagg and Smith have been working on treatments of the above three genera for FNA. These works are nearing completion. We feel that they will serve as a fitting tribute to the distinguished career and amaryllid work of Dr. Walter S. Flory, Jr., an outstanding scholar, and an individual who was enthusiastic and devoted to his work, his plants, and the interests of the many individuals who crossed his paths. —Dr. Raymond O. Flagg, and Dr. Gerald L. Smith,

MEETINGS

A two-day symposium, entitled **Great Plains Grasslands At The Millennium**, will be held on 24-25 February 1999 in Omaha, NE at the Society for Range Management/ American Forage and Grassland Council Annual Meeting. The symposium will address some topics in the science for managing grasslands of the Great Plains. A draft agenda, abstracts, and registration information are available at <http://esa.sdsc.edu/grasslands>.

htm. For more information regarding the program, contact Lori Hiding, Program Manager, Sustainable Biosphere Initiative, Ecological Society of America, 202/833-8748, lori@esa.org. For information on registering for the Society for Range Management Annual Meeting, please contact SRM at 303/355-7070, srmden@ix.netcom.com, or visit their web site at <http://srm.org/meetings>.

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Rancho Santa Ana Botanic Garden at Claremont, California will hold its 14th **Southwestern Botanical Systematics Symposium**, entitled **The Evolution of Ecological Adaptation**, on 17 April 1999. This year's symposium will review the myriad ways in which organisms adapt to their

environments, as well as how best to reconstruct the ecological history of taxa. The keynote speaker at the Saturday evening banquet is Lynda Goff of the University of California, Santa Cruz. Papers will be presented by David Ackerly, Stanford University; Scott Hodges, University of California, Santa Barbara; James Mauseth, University of Texas; Deborah McLennan, University of Toronto; George Roderick, University of Hawaii, Manoa; and Patricia Shulte, University of Waterloo.

Early registration is \$55, prior to 19 March; students, \$35. Regular registration is \$70, from 19 March–9 April, students, \$50. The evening social on Friday 16 April will be at RSABG from 5–7 p.m. and the symposium presentations on Saturday 17 April will be on the campus of the Claremont Colleges from 9 a.m. to 5 p.m., including lunch. For more information contact: Ann Joslin, Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, CA 91711-3157. Phone: 909/625-8767, ext. 251; fax: 909/626-3489; and email: Ann.Joslin@cgu.edu

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The American Association of Botanical Gardens and Arboreta (AABGA) is pleased to announce the **1999 AABGA Annual Conference**, 1-3 July 1999. This year's conference theme is "**A Century of Plants**" and will be hosted by The University of British Columbia Botanical Garden and VanDusen Botanical Garden. Conference presenters will focus on botanical diversity and the interaction between plants and people.

Preconference tours are being planned for 28–30 June and will incorporate visits to the forested mountains of the Vancouver area, Seattle and its gardens, Butchart Gardens, Burns Bog (one of the world's last remaining raised bogs), Reifel Bird Refuge, the Fraser Valley, and Minter Gardens. Postconference tours are planned beginning 4 July to Elk Mountain, Barkerville (historical gold-rush town), the Coastal Range Mountains, Pacific Rim National Park, an old-growth rainforest in Cathedral Grove, and a one-week trip in the wilderness of British Columbia—fly in, camp, ride, hike, and commune with nature. For further information, please call Dorothy Kunzig at AABGA Headquarters, 610/925-2500 ext. 11.

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For the first time in 30 years, the **International Botanical Congress** will convene in North America when St. Louis welcomes some 5,000 plant scientists from around the world to the America's Center on 1-7 August 1999. The scientific program will consist of some 15 plenary lectures, 220 symposia, and perhaps 3,000 or more posters, and will cover a broad diversity of scientific disciplines. Numerous field trips will be offered both before and after the Congress to locations close to St. Louis and as far away as California, Mexico, and Cuba, with specializations in such areas as paleobotany, archaeology, mycology, bryology, etc. Some 100 research-related companies, societies, and agencies will exhibit at the Congress, and many plant science societies will meet and hold social events during the course of the Congress. The Nomenclature Section of the Congress will meet on 26-30 July at the Missouri Botanical Garden.

The Final Circular, which will include information about the scientific, social, and field trip programs as well as registration and housing, will be sent out in January 1999. The most current information about the XVI IBC (and after January 1999, online registration) is available at the Congress website, at <http://www.ibc99.org>, or by contacting the Secretariat, Missouri Botanical Garden, P.O. Box 299, St. Louis, MO 63166-0299 USA. Phone: 314/577-5175; fax: 314/577-9589; email: ibc16@mobot.org.

POSITIONS AVAILABLE

The newly-established Department of Evolution, Ecology, and Organismal Biology seeks an **Associate Professor (or advanced Assistant Professor) in Vascular Plant Systematics** to join our existing systematics group in the Museum of Biological Diversity. This is a tenure-eligible

position with a starting date of 1 October 1999. The successful applicant will be expected to maintain an extramurally-funded research program in an area of vascular plant systematics, taxonomy, or phylogenetics that complements existing programs and which extends the program's ability to train graduate students and postdoctoral researchers in molecular or monographic methods. The appointee will also be expected to assume a formal leadership role in the further development of the research and service programs of the OSU Herbarium. In addition, the successful applicant will direct graduate students and contribute to the undergraduate and graduate teaching programs in evolutionary and organismal biology. Applicants should forward a current CV, statements of teaching and research experience and interests, and three letters of reference to the Chair, Plant Systematics Search Committee, Department of Evolution, Ecology, and Organismal Biology, The Ohio State University, 1735 Neil Avenue, Columbus, OH 43210. Review of applications will begin on 1 December and will continue until a suitable candidate is identified. Qualified women, minorities, persons with disabilities, and Vietnam-era veterans are encouraged to apply.

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The Department of Biology at The **University of Akron** invites applications for a **tenure-track faculty position in plant systematics at the rank of Assistant Professor** to begin 30 August 1999. Candidates must hold a Ph.D. degree and have post-doctoral experience. The applicant will teach undergraduate and graduate courses. The successful candidate is expected to develop an externally-funded research program in Plant Systematics employing contemporary molecular, morphological, and statistical techniques, and to advise graduate students. Review of applications will begin 19 January 1999. Salary commensurate with qualifications and experience. Startup funds available. Send a letter of application, curriculum vitae, copies of recent publications, statements of research and teaching interests, and three letters of recommendations to: Dr. Randy Mitchell, Chair, Plant Systematics Search Committee, Department of Biology, The University of Akron, Akron, OH 44324-3908. For further information, review the Biology Department's web site at: <http://www.uakron.edu/biology>.

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The Department of Botany, The **University of Tennessee, Knoxville**, seeks a **vascular plant systematist for a tenure-track assistant professor** appointment to begin 1 August 1999. A Ph.D. is required and postdoctoral experience is preferred. A commitment to excellence in research and teaching is required. The use of field-based and modern systematics techniques to explore questions of broad interest is preferred. Graduate supervision and external research support are expected. Teaching duties will include participation in introductory courses and development of an appropriate advanced course. Applicants should submit a complete curriculum vita (no more than five reprints), a brief (no more than two pages) summary of research interests, and the names of three referees to: Dr. Karen W. Hughes, Department of Botany, The University of Tennessee, Knoxville, TN 37996-1100, e-mail: khughes@utk.edu. Screening of applications will begin 30 November 1998. For additional information on the department see <http://fp.bio.utk.edu/botany/>.

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Executive Director, Rancho Santa Ana Botanic Garden position is available. Rancho Santa Ana Botanic Garden is devoted to the collection, cultivation, study, and display of native California plants and to graduate training and research in plant systematics and evolution. Founded in 1927, the Garden is a non-profit, private, charitable trust affiliated with the Claremont Colleges in Claremont, California. Reporting to the Board of Trustees, the Executive Director is the Chief Executive Officer of the Garden with overall responsibility for the management of the institution, including an operating budget of approximately \$2.5 million and a staff of approximately 44. The successful candidate will be a successful leader, scholar and administrator in a similar kind of organization or academic setting and will have a national/international reputation in the field of botany, horticulture or other natural science disciplines. A doctorate in botany is preferred. Annual

compensation will be competitive and commensurate with experience. Excellent benefits package and relocation assistance available. Women and members of underrepresented groups are strongly encouraged to apply. Send résumé and cover letter to: Morris & Berger, 201 S. Lake Ave., Ste. 700 Pasadena, CA 91101 fax: 626-795-6330

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The Department of Biology at the **University of Mississippi**, invites applications for **Assistant Professor (tenure-track) in plant Systematics** to complement the department research focus in ecology and evolution. Ph.D. in biological sciences or related field required. Excellence in teaching and development of extramurally funded research program expected. Familiarity with habitats of the southeastern US and/or the neotropics highly desirable. Teaching duties may include freshman biology, systematics, botany, plant diversity, and graduate courses in specialty. Other duties may include advising, directing undergraduate research, and service. Participation in the growth of the UM Herbarium expected. Position available January 1999 or August 1999. Review of applications to begin immediately. Send curriculum vitae, up to 5 reprints, statement of research and teaching interest and philosophy, evidence of teaching effectiveness, and names and postal and e-mail addresses of three references to: Dr. Stephen Brewer, Department of Biology, University of Mississippi, University, MS 38677 USA. Review of applications will continue until position is filled. For more information go to: <http://www.olemiss.edu/depts/biology>.