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

FLORA OF NORTH AMERICA NEWS

Volume 22 comprising 32 relatively small monocot families (minus Cyperaceae, Poaceae, Liliales and Orchidales) is going through the last stages of review. All regional reviews for these manuscripts have been returned to the appropriate family editors, who have been working with the authors. Helen Jeude, the technical editor, is now working with the family editors and the authors to bring all of the information to a final stage. Yevonn Wilson-Ramsey and John Myers are finishing the illustrations, and Tricia Frye is working on the maps.

Tricia L. Frye, the new FNA Mapping Editor, began working in the FNA office on Monday, 6 April 1998. She received a Bachelor of Science degree in Fisheries and Wildlife Biology from Arkansas Tech. University, Russellville, in 1995 and has finished coursework toward a Master's degree in Biology (1995-97) at Murray State University in Kentucky. Her Master's thesis, "The Flora of Fulton County, Kentucky," is being completed under the direction of Prof. M. J. Fuller. Tricia grew up in Middletown, Ohio and is interested in wetland ecology and taxonomy. She applied for this position because she is interested in mapping and the distribution of plants, and she thought working at the Garden would be a good learning experience.

Birth Announcements – A first for this newsletter

Keats Smith, FNA's former Map Editor, left the project in December 1997, just as FNA moved to the new office. Keats and her husband relocated to Independence, Missouri near the Kansas City area. Keats and Jim are now the proud parents of a little girl born on Thursday, 26 March, at 10:30 a.m. Hannah Elizabeth weighed 9 lbs. 10 oz., was 20-1/4" long. Everyone in the FNA project wishes Keats, Jim, and Hannah the very best.

Ron Hartman, Rocky Mountain Regional Coordinator for FNA, and his wife T.J. now have a handsome new little son. Jakota (Jack) Sterling Hartman was born on 1 April 1998, weighed 8 lbs. 4 oz., and was 21 inches long. Parents are happy, healthy, and delighted with their new little one. In a telephone interview, the father was already commenting on having to work with less than a full night's sleep. The FNA project wishes Ron, T.J., and baby Jakota hearty congratulations and the best of everything.

Bryophyte Manuscripts Received 1 October 1997 through 15 March 1998:

V. Bryan - *Ephemerum*, *Micromitrium* (Ephemeraeae)
L. Leonardi - *Ptilidium* (Ptilidiaceae)
A. Newton - *Pireella* (Pterobryaceae)
W. Reese - *Homalotheciella* (Brachytheciaceae)
I. Sastre-De Jesus - *Homalia*, *Neckera* and *Neckeropsis* (Neckeraceae)
R. Zander - *Moldenoa* and key to Pottiaceae

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.

COMPUTER NEWS

In addition to the list provided in the last newsletter, here are some web sites which might be helpful in your research. These were provided by Kevin Indoe <kindoe@nybg.org> who works with Barbara Thiers at the New York Botanical Garden. Barbara is the chair of the Bryology committee for FNA and also current chair of the Management Committee.

Authors of Plant Names - Surname Search <<http://www.rbgkew.org.uk/web.dbs/authform.html>>

The Collectors Database (Harvard University) <<http://www.herbaria.harvard.edu/Data/Collectors/collectors.html>> (make sure the "D" in Data and the "C" in Collectors are uppercase)

Geographic Nameserver <<http://www.mit.edu:8001/geo>>

Geoscience/GIS <<http://www.bae.ncsu.edu:/bae/people/faculty/walker/hotlist/geogis.html>>

Querying Geonames -- by Geographical names (Canada) <<http://whistler.ccm.NRCan.gc.ca/english/cgndb.html>>

U.S. Gazetteer (US Census Bureau) <<http://www.census.gov/cgi-bin/gazetteer>>

USGS Mapping Information: Geographic Names Information System (GNIS) <<http://mapping.usgs.gov/www/gnis/>>

To get information on foreign geographic feature names, click on the GEOnet Names Server link. Page down to the Access GEOnet button and click on it. Enter information into the query form. USGS Mapping Information: GNIS Data Base Query Form for US <<http://mapping.usgs.gov/www/gnis/gnisform.html>>

PUBLICATIONS

Monograph of Northern Mexican *Crataegus* (Rosaceae, subfam. Maloideae) by J.B. Phipps is available. Dr. Phipps is a member of the FNA Editorial Committee. Northern Mexican *Crataegus* are arranged in four sections: *Parvifoliae*, *Mexicanae*, *Crus-galli*, and *Coccineae*. Five new series are recognized in sect. *Coccineae*. Thirteen species are recognized, of which six are new. Also, several new subspecies, varieties, and a new name are made. The paper also discusses the biogeography and ethnobotany of Mexican *Crataegus*, and provides keys to taxa, descriptions, and illustrations. List price US\$33, 94 pp., 75 figures, 2 color plates. Published: Dec 1997 by Botanical Research Institute of Texas (BRIT) as Sida, Bot. Misc. No 15 (ISSN 0883-1475, pbk). For more information, contact Barney Lipscomb, editor, at ph: 817/332-4441; fax: 817/332-4112; email: sida@brit.org; url: <http://www.brit.org/sida>, or by mail at BRIT, 509 Pecan Street, Fort Worth, TX 76102-4060, US.

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Trees of the Central Hardwood Forests of North America - An Identification and Cultivation Guide by Donald J. Leopold, William C. McComb, and Robert N. Muller. Dominated by broad-leaved deciduous trees, the Central Hardwood Forests lie in a broad band across eastern North America and encompass part of 28 U.S. states and two Canadian provinces. They are bordered both north and south by evergreens: to the north by forests of conifers tolerating extreme winter conditions and to the south by forests of broad-leaved trees thriving in a frostfree environment.

Although certain trees may be dominant in some areas, such as sugar maple (*Acer saccharum*) and American beech (*Fagus grandifolia*) in the north, and various oaks (*Quercus* spp.) and hickories (*Carya* spp.) in the south, the Central Hardwood Forests are characterized by great diversity. The differing forest communities are explained, summarizing which trees naturally occur together in relation to environmental factors. Descriptions are provided for 188 species, plus 84 trees that are commonly planted in the region.

The authors hope that this manual will promote appreciation and conservation of the forests as they remain today, and will encourage the use of native trees in the landscape. Donald J. Leopold is professor at the College of Environmental Science and Forestry, State University of New York, Syracuse; William C. McComb is chairman of the Department of Forestry and Wildlife Management, University of Massachusetts, Amherst; and Robert N. Muller is chairman of the Department of Forestry, University of Kentucky, Lexington.

Book is 509 pp., 116 color photographs, 907 b/w photos, 195 maps, 9 line drawings, 6" X 9" hardcover, ISBN 0-88192-406-7. Price: \$49.95 plus \$6.50 shipping and handling. Available from Timber Press, Inc., 133 S.W. Second Avenue, Suite 450, Portland, OR 97204-3527. Tel: 800/327-5680, 503/227-2878; Fax: 503/227-3070; Email: publicity@timber-press.com; WWW: www.timber-press.com

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Aquatic and Wetland Plants of Northeastern North America by Garrett E. Crow, University of New Hampshire, and C. Barre Hellquist, Massachusetts College of Liberal Arts is currently in press at the University of Wisconsin Press. This all-new manual provides the badly needed updating of N.C. Fassett's *Manual of Aquatic Plants*, which appeared in 1940 (revision appendix added by E. Ogden in 1957, University of Wisconsin Press), yet retains the features which made Fassett's work a classic. Fassett's treatment of 752 taxa has been greatly expanded in this new, 2-volume reference to include 1139 plant species, with 92% of the taxa illustrated.

The aim of this work is to aid in the identification of vascular plants that are native or have become naturalized in aquatic and wetland habitats in the northeast. The range of the manual covers Newfoundland to Minnesota, south to Virginia and Missouri. The keys treat a total of 1139 species (1186 taxa) representing 295 genera in 109 families. To aid the users, 606 pages of illustrations include figures of 1086 taxa, with 93% of the taxa fully or partially illustrated. To further facilitate the identification process, references to the figures are incorporated into the keys. Volume 1 contains the Introduction, Nuisance Aquatic Plants of the Northeast, General Keys, Pteridosperms, Gymnosperms, and Angiosperm Dicots. Volume 2 contains the Angiosperm Monocots. Both volumes have a full index.

For more information on how to order and pre-publication discount, contact Mr. Steve Salemson, Associate Director, The University of Wisconsin Press, 2537 Daniels Street, Madison, WI 53718-6772. Ph: 608/224-3889, fax: 608/224-3924, email: salemson@facstaff.wisc.edu

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Illustrated Companion to Gleason and Cronquist's Manual - Illustrations of the Vascular Plants of Northeastern United States and Adjacent Canada. Edited by Noel H. Holmgren, with artistic and editorial assistance of Patricia K. Holmgren, Robin A. Jess, Kathleen M. McCauley, and Laura Vogel. New York Botanical Garden, Bronx, NY 10458-5126. ISBN 0-89327-399-6. xvi, 937 pp., 1 map. \$125, hardcover.

Containing more than 950 pages and weighing in at just under 3 kg, the new *Companion* volume to the Gleason and Cronquist *Manual* is a substantial, hefty, and relatively expensive reference that will prove to be quite important to those interested in the vascular flora of the region. The idea behind this illustrated supplement was to collect a comprehensive set of illustrations using the same nomenclature and cross-referenced to the Gleason and Cronquist manual, using the long-out-of-print 1952 edition of Gleason's three volume *New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada* as a starting point. The formidable task facing editor Holmgren and his colleagues was evaluating which of these original illustrations could be reused and how to equate them with the substantially updated nomenclature and taxonomy in the Gleason and Cronquist manual. Along the way, they were also charged with deducing who had drawn the original anonymously published plates. Finally, they had to decide which species required new illustrations or supplementary ones and how to mesh these with the original set.

The result of four years of labor is a splendid body of well-reproduced botanical art covering nearly all of the taxa in the flora. Oddly, the introduction to the Companion lists five species and two hybrids that were not drawn only because no specimens were present in the New York Botanical Garden's herbarium. However, this is a minuscule proportion of the 4403 species that are illustrated in 827 full-page plates. Each plate is cross-referenced to the appropriate location for the text in Gleason and Cronquist and nearly all have artist attributions next to the illustrations.

Many artists have done illustrations for various numbers of species: N. Davis - 21; Mary Easton - 512; Walter L. Graham - 1573; Lucille E. Kopp - 582; Eduardo Salgado - 719; Anne Rogelberg - 674. A small number of illustrations were borrowed or copied from other works and six plates of Rubiaceae were completed by an unknown artist. After the arduous job of sorting, selecting, and recombining materials from the original set of drawings, for the *Companion* it was still necessary to add new or replacement illustrations for 310 species, 17 of which were illustrated by Robin Jess and the other 293 of which were drawn by Laura Vogel. Approximately 900 additional details were added to species already illustrated by earlier artists.

Indices for common and scientific names in the volume are especially complete, no doubt because the names in Gleason and Cronquist were keyed into a computerized database at the project's start. Of special interest for users of the Flora of North America is an appendix with a concordance of names in the published volumes of FNA with those in Gleason and Cronquist, along with page (and volume) numbers in each work where the taxa are treated.

Several colleagues who own the original *New Britton and Brown Illustrated Flora* have asked me whether it is worth the relatively large expense of purchasing the new volume. My answer is yes, and I can say this because I bought a copy long before I was asked to review it. The reorganization and cross-referencing of plates with the text in Gleason and Cronquist are one reason. Another is that because of advances in printing technology, reproduction in the new book is generally superior and more uniform. Finally, the new illustrations of species and details often illuminate the most critical or interesting aspects of a genus from the standpoint of understanding the keys in the text. Admittedly, added to the already substantial cost of the Gleason and Cronquist manual, the set is not going to become adopted as a textbook in very many local flora courses. However, a copy or two should reside in every classroom where floristics of the region is taught and every library needs a copy. Serious students of the flora of the northeastern United States and adjacent Canada will find endless use for this book. I recommend it without hesitation. --G. Yatskievych, Missouri Botanical Garden.

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The **web edition** of the book **Atlas of the Flora of New England**, by Ray Angelo and David E. Boufford, can be found at <http://www.herbaria.harvard.edu/~rangelo/Neatlas0/WebIntro.html> We welcome information on vouchered county records not reflected in this atlas and other suggested changes or corrections as this will be an ongoing updated document.

Currently the first installment was published in **Rhodora** (the journal of the New England Botanical Club) in Volume 98, No. 893 on pages 1-79 (Winter 1996 [April 1997]). The web version contains links to the Introduction, Pteridophytes, Gymnosperms, References, and Key Map. The second installment (Poaceae) has been submitted for publication and should appear in print in the middle of 1998. It is likely to appear on the web before the print version. The third installment will cover monocots except Poaceae and Cyperaceae.

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The publication of the **Plant Collections Directory**, edited by Richard V. Piacentini, is announced by the American Association of Botanical Gardens and Arboreta (AABGA). The *Plant Collections Directory* is

the most complete and up-to-date guide to plant collections at more than 150 North American botanical gardens and arboreta. The survey fields include not only plant species and theme collections, but also USDA hardiness zone information, environmental data, contact information, mission statements, and facility data. As a valuable resource for garden professionals, horticulturists, nurserymen, botanists, students, and anyone interested in plant collections at public gardens, the *Plant Collections Directory* is available exclusively through the AABGA in either book form or as a 3.5" floppy disk for PCs. Copies are \$20 each for the book or disk (\$15 for AABGA members) and may be ordered by calling AABGA at 610/925-2500.

NEWS AND NOTES

Workshop Held on Global Taxonomic Issues - The Smithsonian's National Museum of Natural History and the Australian Biological Resources Study sponsored a workshop entitled "**Removing the Taxonomic Impediment**" in Darwin, Australia, 3—5 February 1998. The goal of the workshop was to discuss how institutions with systematics collections can help countries meet their obligations under the Convention on Biological Diversity (CBD). The meeting was attended by 38 scientists representing 25 countries throughout the world. The recommendations from this workshop are important for U.S. and Canadian institutions that have herbaria with research or training programs in systematic botany. The CBD calls for the conservation, sustainable use, and equitable sharing of benefits from biological diversity. Even though the U.S. has not signed the CBD, it faces the same challenges for understanding and protecting its biodiversity that other countries face. Furthermore, its systematics collections hold specimens from those countries, and its institutions have the capability to assist with building the ability of those countries to address those challenges.

Taxonomic study has been reasonably well completed for some groups, such as mammals, birds, some higher plant groups, and some spectacular species of insects and mollusks. Little is known about the distribution, biology, and genetics of the vast majority of species. The "taxonomic impediment" is our lack of knowledge about these groups and the impact that lack has on our ability to manage and use our biological diversity. Taxonomists, herbaria, access to literature, and appropriate laboratory facilities are required to overcome this impediment.

Priorities for systematics collections are "to extend focused collections in less studied taxonomic groups and selected geographical areas; to develop a mechanism for establishing priorities relating to capturing data in collections, for undertaking surveys, and for selecting areas to collect and inventory; and to ensure institutional collaboration at the regional level, as the most cost-effective means of addressing the current shortfalls in collections."

An overarching recommendation from the workshop was that "a taxonomic perspective should be integrated into policies and programs established at all levels of government to achieve sustainable development and conserve biodiversity.... In addition, taxonomy should underscore all national, regional, and global programs for inventorying and monitoring of biological resources in ecosystems and requirements for broad-scale environmental assessment."

Having collections is not, in itself, sufficient. The information in those collections and resulting from those collections must be made available. "The essential requirements for accessing and utilizing this global information are: that electronic data is efficiently captured and provided in usable form; that existing information held in literature and by current experts is made available electronically; that stability of scientific names of organisms used to access this information, is promoted; and that useful taxonomic products are prepared on local, national, and regional levels."

The workshop participants noted that, even though taxonomy is essential to conservation and the sustainable use of biological diversity, this point has not been made well to non-taxonomists. Taxonomists must understand the needs of those who use taxonomic information and take these needs into consideration when setting priorities and deciding on means of information delivery.

A full report of this workshop is available at <www.anbg.gov.au/abrs/flora/webpubl/darwinw.htm>. The workshop raised a number of questions that are relevant to systematics in the U.S. and Canada. Do we know where gaps in our taxonomic expertise are now and where those gaps will be in ten or twenty years, after current experts are retired? Do we know which collections are in danger of becoming orphaned? Do we have a mechanism for communicating the needs of the taxonomic community to funding agencies and to universities, museums, and botanical gardens where taxonomists are trained and hired? How can we be proactive about meeting these national and international needs? --Nancy R. Morin, FNA Convening Editor, and Executive Director, American Association of Botanical Gardens and Arboreta

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The World Conservation Union (IUCN), in conjunction with a number of other organizations, released its 862-page report entitled **1997 IUCN Red List of Threatened Plants**, which shows a pace of species decline far above the historic extinction rate. Species having fewer than 10,000 individuals globally or fewer than 100 locations are classified as threatened. The report predicts that because of habitat destruction and introduction of invasive species, approximately 34,000 species of plants are in danger of becoming extinct. That is 12.5% of the 270,000 species of vascular plants worldwide. In the United States, about 16,000 species are at risk. The situation is worse for specific taxa. For instance, about 75% of Taxaceae and 39% of Arecaceae are threatened. Threatened plants in countries that are very poorly known floristically are under represented. For instance, only 1% of the plants of Colombia are listed as endangered. Former FNA Federal Agency liaison John Fay of the U.S. Fish and Wildlife Service was quoted by the Washington Post as saying, "Every time we lose a species of plant, we're losing a unique gene pool that has undetermined but possibly very significant benefits to mankind." Flora of North America plays an important role in helping to protect endangered species by providing solid scientific information on their relationships and biology. Many botanical gardens and arboreta play a critical role in preserving habitats and germplasm, either through participation as a Center for Plant Conservation affiliated institution or through protecting and restoring natural ecosystems.

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Plant Collections Newsletter: Canada (PCN:C), the Canadian equivalent of Herbarium News, was produced between 1993 and 1997 by Roger Vick of the University of Alberta Devonian Botanic Garden. Roger retired from the Garden in 1994 but continued to edit the newsletter until 1997. PCN:C carried short notices, short articles, and lists of taxa in various institutions. PCN:C has found a new home now with the **Canadian Botanical Conservation Network**. The first combined issue appeared in March 1998, Volume 3, Number 1 of the CBCN Newsletter. Publication of CBCN Newsletter will take place in March, June, September, and December of each year, and welcomes submission of short articles, announcements, and other items that are of interest to the botanical garden and plant conservation community in Canada. Send information to Royal Botanical Gardens, Attention: Canadian Botanical Conservation Network, P.O. Box 399, Hamilton, Ontario L8N 3H8, Canada. David Galbraith is CBCN's Coordinator, and he can be reached at 905/527-1158, ext. 309; fax: 905/577-0375; email: dgalbraith@rbg.ca. CBCN's website is at <http://www.rbg.ca/cbcn>.

FUNDING

The **1997** recipient of the **Delzie Demaree Travel Award** was **Dirk Albach**, a graduate student of Pam Soltis at Washington State University. Mr. Albach's Master's thesis is about the phylogenetic reconstruction of the Asteridae using 18S rDNA sequences. The opportunity to attend the symposium was also a benefit to him in planning his dissertation project, which focuses on speciation in the neotropical Lobelioid genus *Burmeistera*.

Graduate students in plant systematics are eligible to apply for the **1998 Delzie Demaree Travel Award**, \$250.00 stipend to help defray expenses related to attendance at the MBG Systematics Symposium. The application should include a letter from the applicant telling how symposium attendance would

benefit his/her graduate work and a letter of recommendation sent by the applicant's major professor. Please mail letters of applicant by August 15th to: Dr. Donna M.E. Ware, Herbarium, Biology Department, College of William and Mary, Williamsburg, VA 23187.

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Small grants for floristic work in Virginia are available through the Barbara J. Harvill Fund. These funds are available to botanists who do not have an institutional base of support for such work. Most awards are for mileage costs (within Virginia) for field work with the potential for generating new plant distribution records for the state. Mileage costs for visits to herbaria, lodging costs, and costs of some types of field equipment (especially plant presses) may be wholly or partially covered. These funds are awarded by the Atlas of the Virginia Flora committee, Alton M. Harvill, chairman. Please send a letter of application describing the planned research and its projected costs to Donna M.E. Ware, Department of Biology, College of William and Mary, Williamsburg, VA 23187, email:dmware@facstaff.wm.edu

MEETINGS

The American Association of Botanical Gardens and Arboreta (AABGA) and a consortium of gardens in the Delaware Valley are pleased to announce the **1998 AABGA Annual conference, 16-21 June 1998**. This year's Conference highlights the rich horticultural heritage of the Delaware Valley with numerous tours, workshops, and educational sessions. This year's Annual Conference theme is Redefining the Garden, and numerous sessions and tours will explore the ever-changing landscape of public horticulture and the nonprofit world.

A special feature of this year's Conference is the Horticultural Attractions booklet, available to every paid registrant and containing details, directions, and maps to a multitude of private gardens, specialty nurseries, and unique tourism spots in the Delaware Valley. The early registration fee for AABGA members is only \$395 if postmarked by 17 April 1998. Join AABGA and receive a discount from the regular registration fee of \$485 (postmarked by 15 May 1998). The Wyndham Franklin Plaza Hotel, the Conference center, is offering a special Conference rate of \$130 per night, single or double occupancy. Roommate arrangements and budget alternatives are available by contacting AABGA. US Airways, official Conference carrier, offers substantial discounts to attendees on a space-available basis.