

Flora of North America



Volume 23, Number 2

Newsletter

July – December 2009

PRESIDENT'S REPORT

Flora of North America Association

Luc Brouillet, FNAA president

The year 2009 has been a very active one for the Flora of North America project. Volume 8 was published during the summer and Volume 7 submitted to Oxford University Press. There was also increased productivity in preparing all remaining volumes. New members were elected to the Board of Directors of the FNAA and to the Executive Committee, and following our October meeting, new members were nominated to the Information Technology (IT) Committee.

The success of FNA is judged by the continuous publication of volumes. This year, Volume 8 was published during the summer, with families including the Saxifragaceae and Ericaceae. I wish to extend my congratulations and thanks to the lead (and taxon) editors of the volume, Craig Freeman and Rich Rabeler, to taxon editors Wayne Elisens, Ron Hartman, Nancy Morin, Gordon C. Tucker, and Elizabeth F. Wells, and to senior technical editor Mary Ann Schmidt. Likewise, Volume 7 completed production and was sent to the printer in December 2009. This volume will include the important families Salicaceae and Brassicaceae. Publication of this volume was under the lead editorship of Jim Zarucchi, with the collaboration of taxon editors David E. Boufford, Craig Freeman, Jackie M. Poole, and Leila M. Shultz, and of technical editor Martha Hill; thanks are owed to

them all. I also wish to recognize the artists who contributed to both volumes:

Barbara Alongi, Linny Heagy, John Myers, and Yevonn Wilson-Ramsey. Finally, publication of volumes would

be impossible without the contribution of the team of talented people at FNA Central led by Jim Zarucchi and Heidi Schmidt. The rigorous work done on each and every volume by Kanchi Gandhi, nomenclature editor, Robert W. Kiger, bibliographic editor, and John L.

Strother, reviewing editor, also deserves our admiration and gratitude.

Furthermore, I would like to congratulate the current nominations committee, chaired by Geoff Levin and assisted by Craig Freeman and Wayne Elisens, for their excellent work in this year of nearly wholesale renewal of the board of directors. Thanks to their efforts, we have maintained the quality of the board as well as its representing all of the regions of the project. I congratulate and thank all continuing members of the board for their re-election. Your commitment to FNA is stimulating. To the new members of the board, David Giblin, Tim Lowrey, Terry McIntosh, Rob Naczi, Janet Sullivan, David Wagner, and Alan Whitemore, the warmest welcome and our thanks for accepting and contributing to this great flora project. Finally, I extend my sincerest thanks to the retiring board members: Marshall Crosby, Claudio Delgadillo, Aaron Liston, Scott Peterson, Lloyd Stark, and Fred Utech. Your contribution to the board has been greatly appreciated. And thanks to those of you who will continue with FNA as taxon editors or regional coordinators.

The FNAA could not function properly without the efforts of its Executive Committee (EXC). I thank them all for their exceptional collaboration. The mandate of

many members of the EXC was renewed this year, and I thank my colleagues for their continuous commitment to the FNAA. Two new members were elected: James Macklin and Alan Weakley. I look forward to working with

them more closely. My deepest thanks to Robert W. Kiger and Bruce Ford, who retired after years of service on the EXC. We all appreciate their contribution.

We want to acknowledge the work of James Macklin and Rich Rabeler, co-chairs of the IT committee, as well

With the publication of Volume 8 and, soon, of Volume 7, FNA now has passed the mark of 50% of the planned 30 volumes, with 16 published tomes.

as by the committee members, notably for the improvements to the FNA Web site. Heidi Schmidt and her collaborators at FNA Central are also to be thanked here. Notably, I would like to draw your attention to the new “Provisional Treatments” section of our Web site (www.fna.org). In this section, you will find treatments that are nearly ready for publication but that belong to volumes that will be published later in the process. This allows authors to see their work published faster and users to benefit from their effort, as well as opening the possibility of further emendations to the treatments. Currently, a single treatment is posted, but we will increase this number shortly. Two new members have accepted to join the IT team: Dr. Gerald “Stinger” Guala, Biological Informatics Office of the USGS, and Dr. Hong Cui, University of Arizona.

With the publication of Volume 8 and, soon, of Volume 7, FNA now has passed the mark of 50% of the planned 30 volumes, with 16 published tomes. The task ahead of us is still considerable and filled with challenges. I see two great priorities to FNA within this context: 1) finish publication of the 30-volume series while improving content delivery on the web, and 2) prepare for the post-volume era, to ensure that FNA becomes the foremost place where floristic treatments are web-published and continuously updated.

The first and foremost priority will require constant and consistent efforts on the part of the board of directors (and editors, authors, and staff), with a special attention to solving production issues and to removing potential

bottlenecks. It will also require that financial support for our continuous operation be ensured until the end of the paper-publication period. This is the central task of the current board. To achieve this objective, authors and reviewers need to be actively engaged in writing and reviewing their manuscripts. FNA cannot succeed without the commitment of the botanical community.

The second priority is longer term, though with a visible horizon. Although it should not distract the board from its task, it will need to be carefully planned for on crucial aspects: legal, editorial, and information technological. To this end, the board created a task force that will propose a scenario for consideration by the board for the post-volume era.

The years ahead will be busy. But, I am confident that with the resources available to the project, particularly the human resources, we will succeed in this task. The Flora of North America project will present its users with a high quality product that will serve as the basis for future developments in the field after its completion.

FLORA OF NORTH AMERICA

2009 Progress Report

Nancy Morin, FNAA vice president for business and development

The past year has been one of significant accomplishment, including the publication of Volume 8, near completion of Volume 7, and formalizing agreements with authors for production of manuscripts, especially in Volumes 12, 13, 16, and 17. We are really pressing to make progress on many of the remaining volumes at once. Volumes 6, 9, 10, 11, and 28 have significant percentages of manuscripts in hand, and the focus is on getting the remainder submitted and completing review, revision, and final composition. Volumes 12, 13, 15, 16, and 17 have energized authors and editors, and we anticipate an onslaught of submissions in these volumes in 2010. The remaining author assignments and beginning of manuscripts submission will begin next year for Volumes 14, 18, and 29. In the past year, treatments of more than 1,100 species have been submitted, more than 700 reviewed, and more than 1,300 technically edited; 223 pencil sketches done and 329 illustrations in final ink. We have 40% of the species in hand for the remaining volumes to be published (beyond Volumes 7 and 8).

In addition to focus on getting the volumes completed—always a high priority—FNAA has also been working on improving its online resources and planning for the future of FNA content after the final volume is published.

The Flora of North America (FNA) project is a cooperative program to produce a comprehensive account of the plants of North America north of Mexico. The *FNA Newsletter* is edited by Barney Lipscomb, Newsletter Editor, Botanical Research Institute of Texas, with the assistance of Kristin Pierce, Assistant Editor, Missouri Botanical Garden. The newsletter is published twice a year by the Flora of North America Association to communicate news about the FNA project and other topics of interest to North American floristic researchers. For more information, please see the FNA Web site, www.fna.org.

Readers are invited to send appropriate news items to:
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Items also can be sent by e-mail to: barney@brit.org or
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FNA Microgrants for Researchers

As botanists from around the world work to complete the Flora of North America, one resource that is available to them is an FNA microgrant. These grants can help supplement the cost of travel or additional materials necessary to complete the research for an up-to-date and well written flora. For additional information regarding microgrants, please contact relevant Lead Editor(s) and/or Taxon Editor(s).

Progress on Volumes

Volume 8: PUBLISHED! 682 species in 19 families and 125 genera, including Ericaceae, Saxifragaceae, and Primulaceae. During the past year we progressed from having 26% in galley pages or late editing stages, to having all editing and revision completed and all composition, indexing, and final checking completed. One hundred ninety-four full illustrations and twenty-one insets were drawn for this volume. Co-lead editors were Craig Freeman (University of Kansas) and Rich Rabeler (University of Michigan). Volume 8 represents the work of 58 authors and five taxon editors.

Volume 7: IN PRESS! 11 families, 125 genera, and 923 species, most notably the willow family, Salicaceae, and the mustard family, Brassicaceae.

In the past year, the remaining 66% of the treatments were brought to completion—reviewed, revised, and edited. This volume presents original research in both of the major families, including description of 34 species and 11 varieties new to science in the Brassicaceae as a result of preparing the treatment for FNA, and the results of 45 years of study of the willows by author George Argus. Full illustrations of 262 species and additional insets of 105 other taxa have been completed for this volume. Final editing and formatting were done and the volume was submitted in December.

Volume 6: 19 families and 109 genera, and 550 species. This volume includes the gourd family (Cucurbitaceae), mallow family (Malvaceae), and violet family (Violaceae). Treatments of an additional 85 species have been received and 56% are now in review and revision. The Cucurbitaceae have been a challenge because there are few people working in the group, and the author assigned to it is fully occupied with his day job. We have resolved this problem by asking Guy Nesom, our senior staff botanist, to work with the author on completing the

treatment. The remaining outstanding treatments are relatively small and assigned to various authors.

Volume 9: 4 families, 75 genera, and 669 species, primarily the rose family, Rosaceae. This family moved from only 62% of the treatments submitted by October 2008 to 100% submitted, author revisions received for 78% of the genera, and 70% of the genera having final editing and indexing, up from 2% in October 2008. The three small families (Picramniaceae, Staphyleaceae, and Crossosomataceae) are complete and ready to be put in galley. Author revisions are still being awaited on the large genera in Rosaceae. Seventy-six percent of the illustrations have been inked and another 33 (22%) are in pencil.

Volumes 10 and 11: Contains 13 families, 205 genera, and 1,877 species, most notably the legume family (Fabaceae, 147 genera and 1,460 species) and evening-primrose family (Onagraceae). Treatments of another 145 species have been submitted, and 100 species treatments were sent out for review in 2009. Another 60 illustrations have been completed to the ink stage, and specimens have been selected for an additional 70 species. We are fortunate to have more than half of the species descriptions in hand, especially from the enormous genera *Astragalus* (locoweed) and *Trifolium* (clover); these treatments were prepared by specialists who retired long ago and need extensive work to bring them into FNA style. The past year has been focused on getting the manuscripts that we have ready for review and processing review of 47 individual genera.

Volume 12: Contains 28 families, 115 genera, and 693 species, notably the spurge family (Euphorbiaceae), flax family (Linaceae), and loasa family (Loasaceae). Rapid progress has been made on this volume in the past year, with an additional 250 species treatments in 50 genera submitted, for a total of 48% submitted versus 14% as of October 2008, and 20% of the total species are in the review process. Twelve of the families are completely submitted and in review. In October 2008, only 6% of the illustrations had been prepared; in the past year, 41 more illustrations were to the ink stage for a total of 28%.

Volume 13: 605 species, 152 genera, and 13 families, notably the carrot family (Apiaceae, about 400 species in 82 genera). A majority of genera comprise only 1 or 2 species, and 37.5% (57) of genera are introduced. At the start of 2009, 100 of the 152 genera had not been assigned to authors; now, half of those, and all of the large genera, have been assigned.

Volume 14: 8 families, 98 genera, and 625 species, notably the bindweed family (Convolvulaceae), milkweed

family (Apocynaceae), and gentian family (Gentianaceae). Janet Sullivan, taxon editor for Solanaceae, has assigned all but three genera in the family to authors. Authors are working on their treatments.

Volume 15: 4 families, 73 genera, and 827 species, notably the borage family (Boraginaceae), phlox family (Polemoniaceae), and waterleaf family (Hydrophyllaceae). Authors are working on their treatments.

Volume 16: 3 families, 99 genera, and 588 species. This volume includes the mint family (Lamiaceae, 450 species) and verbena family (Verbenaceae). By the end of 2008, virtually all the genera had been assigned to authors. This year treatments of 40 genera and 247 species have been submitted, many have been formatted and are now beginning the review process.

Volume 17: 8 families, 92 genera, and 936 species, including the snapdragon family (Scrophulariaceae), and segregate plantago family (Plantaginaceae, 469 species). Author assignments have been confirmed for all genera. As of November, 20 treatments had been submitted, with many in review. The projected number of illustrations for the volume is 219. Additional funds have been acquired to allow 1 in 3 of the 113 species of *Castilleja* to be illustrated.

Volume 18: 16 families, 125 genera, and 581 species, notably the bedstraw family (Rubiaceae), acanthus family (Acanthaceae), and bellflower family (Campanulaceae). All genera in Acanthaceae, Adoxaceae, Campanulaceae, and Diervillaceae have been assigned to authors. The families for which assignments are yet to be made include Bignoniaceae (14/22) and Caprifoliaceae (4/50), all genera are assigned except *Triosteum*. There are also still several unassigned genera in the Rubiaceae. A list of all orphaned genera is available from the Lead Editor, Deb Trock (CAS).

Volume 28: the second of three volumes of mosses and liverworts, contains 48 families, 121 genera, and 520 species. During the past year, the bryophyte team has increased from 58% to 74% of the genera and from 45% to 69% of the species treatments in final form. Treatments that have been reviewed, revised, and edited are made available on the FNA Bryophyte website until they are published. Some 86% of the illustrations for Volume 28 have been completed.

Volume 29: 48 families, 121 genera, and 520 species, approximately. This final volume of bryophytes contains the hornworts (Anthocerotae) and liverworts (Hepaticae). Authors are working on their treatments; 20% of the genera and 21% of the species have been submitted to date.

Biodiversity Heritage Library

The tremendous online resource of historically important botanical (and other biodiversity-relevant) literature—now available through the Biodiversity Heritage Library (BHL, biodiversitylibrary.org)—was the topic of a very useful workshop organized by FNA and led by Martin Kalfatovic (SI) at the Botany and Mycology 2009 meetings in Snowbird, Utah. He is Assistant Director of the Digital Services Division of the Smithsonian Institution Libraries and has been involved in BHL since it was founded in 2003 at an Encyclopedia of Life meeting in Telluride. Subsequent organizational meetings were held at partner institutions, leading up to the Encyclopedia of Life and BHL Portal Launch in May 2007.

Martin said that the Biodiversity Heritage Library (BHL) is a consortium of 12 major natural history museum libraries, botanical libraries, and research institutions organized to digitize, serve, and preserve the legacy literature of biodiversity. They are working with 22 European institutions to digitize European-language literature and are in negotiations with the Chinese

Academy of Sciences, the Atlas of Living Australia, and contacts in Japan, India, and Russia to expand the network. BHL focuses on “core” pre-1923 (pre-copyright) literature, which may include as many as 100 million

pages. Currently they have 36,560 titles (1671 tagged as “botany”), almost 70,000 volumes, and 26 million pages online. The average monthly growth rate is 1,500 volumes and 600,000 pages. Seventy-three percent are monographs, and currently 63% is English-language

material. Botanical references are being imaged primarily at Missouri Botanical Garden, New York Botanical Garden, Harvard Botany Libraries, Royal Botanic Garden, Kew, and the Smithsonian Libraries. Martin gave an in-depth discussion of how titles are selected, how duplication is avoided, what kind of metadata is captured, how the material is physically scanned, and how files are indexed. Post-1923 material is scanned with permission from the non-profit institutions or societies that published the journals or monographs or with permission from the publisher or other copyright holder.

The materials are scanned using a Single Scribe

**Biodiversity Heritage Library
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digitize, serve, and preserve the legacy
literature of biodiversity.**

Machine built by the Internet Archive. Pages are indexed both using optical character readers and by staff, and it is possible to search the entire collection for scientific names and other key words. It is quite remarkable to be able to search or browse these important historical references and look at actual images of the pages.

BHL is an extension of the concepts and work of Botanicus, a portal to historical botanical literature from the Missouri Botanical Garden Library, which itself has 710 titles, 3,234 volumes, and 1,382,972 pages digitized

and 203,355 links to protologues now online at www.botanicus.org.

Initial funding for BHL came from grants from the MacArthur and Sloan foundations; parent institutions provide financial and in-kind contributions, and BHL has supplemental grants for development of specific components. For more information, including Power-Point presentations on various aspects of the Biodiversity Heritage Library, go to biodiversitylibrary.org.

Not Enough Botanists!

The Chicago Botanic Garden and Botanic Gardens Conservation International co-organized a workshop to help assess botanical capacity in the United States, held at Chicago Botanic Garden on September 29 and 30, 2009. The workshop included more than 30 participants from academic, governmental, and non-governmental organizations and agencies including federal government, universities, botanical gardens, professional societies, Flora of North America Association, and NatureServe. The workshop was part of a one-year, grant-funded project. Its purpose was to discuss results of a nationwide survey of the collective ability of U.S. institutions and individuals to advance plant science education, research, and application; to identify gaps in capacity; and to recommend a plan of action to fill those gaps.

The survey was conducted online and invitations to participate were widely distributed within the botanical community. At the time of the workshop, the survey had resulted in 1,141 responses. Additional professional groups were still being invited to participate. Responses were analyzed by Barbara Zorn-Arnold, research associate at Chicago Botanic Garden, according to their category of work (government, non-government, academic (faculty and students)). The workshop participants discussed the following preliminary findings:

1. Almost 40% of the faculty surveyed indicated that botanical courses, primarily botany, taxonomy, and ethnobotany, had been eliminated at their institutions. Graduate students said that field botany, restoration ecology, and biogeography courses should be added. Federal government and non-government organizations said botanical resources needed to meet their goals were lacking. Botanists were identified as the staff and faculty most needed across all groups. Lack of botanical resources was considered to be due to lack of financial support as well as lack of available staff time.
2. Of the faculty respondents, 30% said they taught a botany course, and 20% said they taught field botany. Nearly 17% said no botany classes were offered in their

department; respondents indicated that the number of full-time botany faculty had decreased and the number of part-time positions had increased in their departments. Botany, ecology, and systematics were identified by 20% as in the top three fields most needed in their department.

3. When asked to name their top three choices for employer, graduate students selected botanic gardens, universities and colleges, or conservation-based NGOs as one of their top three; 41% said universities were their first choice. The top three areas they thought would have the most job openings were climate change, horticulture, and plant genetics.
4. Botanists in the federal government chose lack of staff with appropriate botanical training, lack of research materials, and lack of financial support as the top three resources limiting their agency in its plant conservation and management responsibilities. Ninety percent said they did not have enough botanically trained staff to meet their needs. Eighty percent said lack of perceived need within their agency was the main obstacle.
5. The workshop participants discussed strategies to address this lack of botanical capacity. They concluded that efforts were needed (1) to increase public understanding of the importance of plants in the environment and the need for botanists who study plants and can increase our understanding of plants; (2) to urge the establishment of more botany positions within government agencies and NGOs; and (3) to use whatever leverage was available to encourage academic institutions to maintain or increase the courses they offer in basic botany, field botany, and systematics.

For more information about the survey and results, contact Andrea Kramer, Executive Director, BGCI-US, Chicago Botanic Garden, andrea.kramer@bgci.us.org. Final results of the survey will be available at www.bgci.org/usa/B CAP in mid-2010.

A series of workshops funded by the National Science Foundation to assess capacity in systematics across all organismal fields is also underway. For more information contact Patrick Herendeen, Chicago Botanic Garden, pherendeen@chicagobotanic.org.

Herbarium and Botanical Garden News

University of Arizona—Thanks to NSF, ARIZ will be installing compactors on all three of its floors. During the construction phase, which may last a year or more, large parts of the collection will be unreachable. Please keep this in mind when planning a visit or requesting loans.

University of Wisconsin-Oshkosh (OSH)—The herbarium at OSH was officially named in honor of its founder and Curator Emeritus, Dr. Neil A. Harriman on



Dr. Richard H. Wells and Dr. Neil A. Harriman

September 8, 2009, as part of opening-day ceremonies for the new academic year. University Chancellor Dr. Richard H. Wells presented Harriman with a framed certificate that read in part, “For over four decades, University of Wisconsin-Oshkosh professor emeritus Neil Harriman has focused his attention and expertise on the establishment, development and collection of materials that will be perpetually used by students, faculty and staff as well as scientists, scholars and researchers from across the global community. This

collection is recognized as one of the largest and best in the state of Wisconsin and will benefit all citizens in northeastern Wisconsin and beyond.”

The herbarium was established by Harriman at the time of his arrival on campus in 1964. By the time of his retirement in 1998, OSH had grown from a few cabinets and a handful of teaching specimens to a well-curated facility housing almost 100,000 vascular plant specimens from around the globe and a botanical library of nearly 4,000 volumes plus major runs of serials and a large collection of reprints.

Since retiring and accepting the title of Curator Emeritus, Harriman has continued to work in the herbarium on an almost daily basis, collecting, mounting, filing, and identifying specimens. Today, accessions total over 117,000 sheets, approximately half from outside Wisconsin. The facility continues to be used daily by his successor in meeting the teaching, research, and service missions of the university.

The Botanical Research Institute of Texas (BRIT) is moving again, from an interim space, into a new permanent, LEED-certified green building adjacent to the Fort Worth Botanic Garden. This will disrupt normal herbarium business for 12 months, though parts of the collection will be accessible at times.

Please hold shipments and contact us before scheduling any visits between April 2010 and April 2011 (scheduled grand re-opening). Also, please submit any loan requests before March 2010.

We look forward to being able to better serve the botanical community with much-improved space and equipment!

Thank you for your patience during this time.
—Amanda K. Neill, *Director of the Herbarium (BRIT-SMU-VDB)*. www.brit.org

Electronic Resources

Online Database for Plants of the Northern Great Plains—In 2004, Black Hills State University Herbarium (BHSC) launched a long-range plan to use computer technologies to deal with specimens of the Northern Great Plains housed in herbaria throughout the region. The project, initially funded by the National Fish & Wildlife Foundation, databased all regional species of the family Poaceae, and placed these online in 2005. The BHSC used computerized procedures to maintain

the database for grasses for several years before launching a second exciting and more ambitious project in 2006 funded by the National Science Foundation (NSF): to create a database for all plants of the region. This database is now online and is a capable research tool for many activities such as producing checklists for the relatively unknown flora of the Northern Great Plains region, tracking the historical and recent appearance of invasive plant species, and for learning about the plants and plant resources that are our natural heritage.

The BHSC Web site is open and ready for your use and enjoyment. This is a free resource for plant enthusiasts, educators, and research professionals everywhere. We invite you to access the site at herbarium.bhsu.edu. Watch for updates and improvements (including distribution maps) in the near future.

Expansion of Consortium of Pacific Northwest Herbaria Portal—The University of Washington Herbarium (WTU) at the Burke Museum recently received \$29,000 in funding from the U.S. Bureau of Land Management (BLM) and U.S. Forest Service (USFS) to expand the quantity and taxonomic breadth of specimen data available through Consortium of Pacific Northwest Herbaria search portal (www.pnwherbaria.org). The portal was initially developed by WTU in 2007 with funding from the National Science Foundation. Ben Legler, WTU's Database and Web Manager from 2002–2007, handled all of the programming, database development, and layout work for the portal, which initially provided access to over 400,000 vascular plant records from WTU, Oregon State University (OSC), and the University of Alaska (ALA).

The current BLM and USFS funding supported the databasing of 18,000 bryophyte, fungal, and lichen specimens from southwestern Washington and western Oregon. A primary goal of this effort was to reduce the time federal agency botanists spent scouring various on-line and hard-copy resources to obtain diversity and distribution data for these organismal groups in the Pacific

Northwest. Funds for this project were also used to once again hire Ben Legler, who was on break from his graduate studies at the University of Wyoming with Ron Hartman. During the month that he spent at WTU, Ben constructed a bryophyte/fungal/lichen specimen database, expanded the quantity of specimens available through the portal, and increased the number of herbaria contributing records to the site. For example, visitors can now access 50,000 fungal specimen records from OSC, 80,000 vascular plant and bryophyte records from the New York Botanical Garden, and nearly 7,000 vascular plant records from Bruce Bennett's herbarium in Yukon Territory. Efforts are underway to include specimen records from other herbaria in Canada, such as the University of British Columbia (UBC).

The Consortium of Pacific Northwest Herbaria portal now houses over 650,000 herbarium records from four organismal groups, allows users to download query results, and uses a Google Maps® interface to generate dot maps for all specimens with geocoordinates. Complex searches can be done by institution, organismal group, geographical area, etc. We are currently partnering with OSC, University of Idaho (ID), and Montana State University (MONT) to pursue funding that would significantly expand the size of the portal by further increasing number of herbaria contributing records to the site. Comments and questions regarding the portal can be sent to David Giblin (dgiblin@u.washington.edu).

—David Giblin, WTU Collections Manager

Consortium of Pacific Northwest Herbaria
Providing access to specimen data and digital resources from herbaria throughout Pacific Northwest North America.

Home | Collections | Herbaria Info | PNW Resources | Documentation | About

PNW Herbaria Search Portal: Accessing 654,016 specimen records from 5 participating herbaria.

Text Search
Search the collections: enter any combination of search terms into the fields below.

Perform new search
Add to previous search

Search Clear

Tax. Group (all groups)
Institution (all institutions)
Accession #
Family
Genus scouleria
Species aquatica
ssp./var./f.
Collector(s)
Collector #
Coll. Date Day Month Year
Country
State/Prov.
County
Locality
Elev. (ft.) -
Sort By Scientific Name

Search results: 224 matching records.
Search query: Genus = scouleria, Species = aquatica.
Data provided by NY (224 records).

Specimen map: 37 specimens displayed.

Map Satellite Terrain

Download: txt, xml, kml, rtf

Sort Scientific Name 1-100

A. M. Parker (no date). NY-586365
United States of America, Washington, Grays Harbor Co. County: At the mouth of Success Creek where it meets Graves Creek, 4 miles from Quinalt River road
F. G. Meyer 89, 7/15/1940. NY-586417

19. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Washington, Grays Harbor Co. County: At the mouth of Success Creek where it meets Graves Creek, 4 miles from Quinalt River road
F. G. Meyer 89, 7/15/1940. NY-586417

20. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Washington: Lake Crescent
C. S. Eaton 8/22/1911. NY-586405

21. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Washington, Snohomish Co. County: In Stillaguamish River, Mt. Baker Natl. Forest, 3 miles SE Verlot
F. J. Hermann 18521, 7/2/1963. NY-586412

22. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Oregon, Linn Co. County: Canal Creek, Upper Middle Fork Santiam River
L. F. Henderson 17954, 3/18/1963. NY-586316

23. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Idaho, Benewah Co. County: 2 miles south of Chatcolet
C. D. Bird 6537, 7/15/1961. NY-586290

24. *Scouleria aquatica* Hook. Grimmiaceae
Canada, British Columbia: Bank of Wilson Creek
F. A. MacFadden 7494, 9/21/1927. NY-142755

25. *Scouleria aquatica* Hook. Grimmiaceae
United States of America, Washington, Thurston Co. County: On rocks below Tumwater falls
Albert S. Foster 1964, 10/28/1911. NY-586359

26. *Scouleria aquatica* Hook. Grimmiaceae

Databasing the Plants of Texas at the Botanical Research Institute of Texas (BRIT)—With a collection of over one million dried plant specimens representing most of Earth's plant families, BRIT has the largest independent herbarium in the Southwest and one of the world's best collections of Texas plant specimens. BRIT provides a comprehensive record of the diversity and distribution of the plants of Texas over the last 200+ years, as well as for other regions of the world. By increasing the online availability of our plant collections, we can reach many more potential users of plant data, particularly non-botanists including students, teachers, and amateur naturalists.

With BRIT's innovative online Biodiversity Information System called Atrium, developed originally for our Andes-to-Amazon Project (www.andes-amazon.org/), we have enabled researchers and organizations to share, synthesize, manage, and publish biodiversity data in a collaborative, online environment. The Virtual Herbarium portion of Atrium provides many tools for entry, organization, and analysis of collection data. Collaborators can view complete collection data and high resolution images, print labels, and annotate collections remotely. BRIT currently has three instances of Atrium running: Andes-Amazon Project (atrium.andesamazon.org/), Digital Flora of New Guinea (ng.atrium-biodiversity.org/), and our newest release, the BRIT Digital Herbarium (atrium.brit.org).

With these resources, any person wishing to obtain a botanist-confirmed, voucher-based list of species occurring in Denton and Gillespie counties in Texas, collected through the BRIT Fort Worth Nature Center and Refuge project, or within the BRIT Type Collection, will be able to acquire an up-to-date listing on the BRIT Atrium Web site. The specimens being digitized at BRIT are creating a new and valuable resource to anyone hoping to identify

a plant or learn more about plants in Texas.—*Tiana Franklin, BRIT Herbarium Collections Manager*

Fundamental Invasiveness Index for Texas—An account of 820 non-native plant species reported to grow outside of cultivation in Texas has been developed. A "Fundamental Invasiveness Index" provides a framework for ranking of each of the non-natives according to their invasiveness and ecological impact, based on knowledge from field, herbarium, and literature. The F1 category (invasive in natural habitats and ecologically damaging) includes 51 species. A Watch List (those most likely to become F1) includes 60 species. A Super Watch List (a subset of the Watch List, those with greatest potential to be candidates for eradication) includes 45 species. An Expected List (species not yet in Texas but probably to arrive soon, potentially to become F1) includes 25 species. The whole account is posted at www.guynesom.com/TexnonnativeMENUweb.htm; other information on the Texas flora also is on the Web site at guynesom.com/Texasplantsweb.htm.

Publications

Wagner's Homemade Willamette Valley Nature Calendar for 2010 is ready. The 31st publication of this calendar has the usual gardening hints, wild-flower bloom times, fish migrations, large mammal breeding seasons, and much more. You can view the drawings and first months at web.mac.com/davidwagner/Site/2010_nature_calendar.html. To order online, go to www.etsy.com/shop/ferenzenmosses. To get a copy by mail, send a check for \$18 (includes shipping) to Northwest Botanical Institute, P.O. Box 30064, Eugene, OR 97403-1064.

OBITUARIES

Charlotte Goodding Reeder

1916–2009

With regret and sadness for another great loss to the Herbarium, ARIZ reports the death of Charlotte Goodding Reeder on Friday October 23, 2009. She died within six months of her husband of 67 years, John R. Reeder. Charlotte was born July 26, 1916, either in Tombstone or Bisbee, Arizona. At the time of her birth, her father, Leslie N. Goodding, was already an established botanist who travelled around Arizona, finding new yet common species that were previously associated with other species, resulting in an

Arizona Flora with such now familiar names as *Salix gooddingii*, *Verbena* (now *Glandularia*) *gooddingii*, and *Fraxinus gooddingii*, to name a few examples. Charlotte picked up the botanical talent from her father, and when she was a young woman she had already named almost half a dozen species of *Muhlenbergia*, namely *M. appressa*, *M. brevis*, *M. dubioides*, *M. pectinata*, and *M. xerophila*, all by C.O. Goodding. She started and held onto her specialty and its close relatives throughout her life, making an impressive list of publications. It is small

wonder that agronomist John Reeder was impressed with her. They began a friendship that culminated in a marriage on August 15, 1941, in Corvallis, Oregon, while they attended classes at Oregon State University. From there John and Charlotte moved east where John received his first doctorate at Washington University in Missouri. Fate led John into the military during World War II. His qualifications placed him in a malaria unit and he was stationed in New Guinea. Charlotte went to work at the Smithsonian with Agnes Chase. John was not supposed to reveal his location but in letters to Charlotte he would casually mention he had seen the type location of some grass, and Agnes and Charlotte could quickly find his whereabouts. John returned home after the war and was accepted at Yale, where he remained for 20 some years, teaching and studying grasses. Charlotte also continued her studies and named more new *Muhlenbergia*, such as *M. eludens*, now as C.G. Reeder. In searching for the collections she had made, I came across one herbarium that had their collections tied to a list of collectors, and one set was said to have been collected by Charlotte Reeder, Rogue Botanist. Perhaps a rogue she was, but a rogue that rubbed elbows with the top of the field. After



Photo by Tom Van Devender, March 2003.

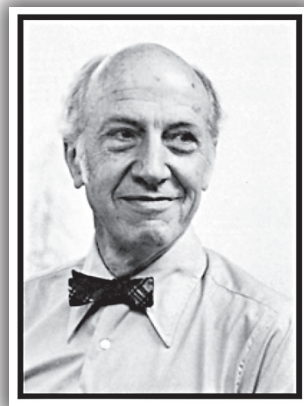
John left Yale they moved to Rocky Mountain Herbarium, and they stayed in Wyoming for a number of years before moving back to where Charlotte began, in Arizona. It wasn't long before John and Charlotte longed for a herbarium with a good library to continue their work, and they moved to Tucson and were quickly associated with our Herbarium, ARIZ. Everyone loved having access to them. "At last, grasses were demystified for me," said Dr. Richard S. Felger. They worked on weekends and holidays, to minimize interruptions, but their following still grew, and many a lunch ended with Charlotte serving tea and cookies to a number of us. It was like magic that you could leave a bundle of grasses in their box on Friday afternoon, and Monday morning, there they were, all identified. We got so used to it that we all became cripples when dealing with grasses because we knew we could ask and be told the best, correct answer too easily. When they had a car wreck a year and a half ago, they were going home from the Herbarium on a Sunday evening, and a car pulled in front of them. John's sternum was broken, and one chamber of Charlotte's heart collapsed. They were separated for a while as each went to the place where their special needs were met, but they ended up together in a room for the rehabilitation period. After a month they returned to their home. They never returned to work after that, and both passed on, as Charlotte would say. She was a wonderful, talented, generous, and gracious woman.—Philip Jenkins, Tucson, Arizona, pjenkins@email.arizona.edu

Rogers McVaugh

1909–2009

On September 24, 2009, systematics lost one of our recent giants with the passing of Rogers McVaugh nearly four months after celebrating his 100th birthday. Although not directly involved in FNA, some of his work in Compositae, Myrtaceae, Campanulaceae, *Prunus*, and his Flora Novo-Galiciana has (and will) be used by authors in preparing treatments of these groups.

Rogers was born on May 30, 1909 in Brooklyn, New York. His undergraduate degree came from Swarthmore College in 1931, and he was granted a Ph.D. from the University of Pennsylvania in 1935, studying *Lobelia* under the



guidance of Dr. John Fogg. His academic career began that same year at The University of Georgia, with a move in 1938 to join the United States Department of Agriculture where he spent time in Texas and the Southwest conducting field work on cherries. He came to the University of Michigan in 1946, where he was Curator of Vascular Plants until he retired in 1979 as well as being Director of the Herbarium from 1972 until 1975. During his tenure at Michigan, he also spent 1955–56 as the Program Director for Systematic Biology at the National Science Foundation and served briefly as Acting State Botanist for the New York State Museum, producing the Flora of the Columbia County area published in 1958. In 1980, he relocated to Chapel Hill, North Carolina, where he held the title of Research Professor of Botany. During his 29 years in Chapel Hill, he continued his work on the Flora Novo-Galiciana, and other projects large and small, while also maintaining an

extensive correspondence with colleagues around the world; even in his final year he was regularly working in his office on the 4th floor of Coker Hall. He also was an Adjunct Research Scientist at the Hunt Institute, Carnegie Mellon University since 1981, continuing his interests in botanical history, especially in the travels of Edward Palmer and the Sessé & Mociño expedition.

Rogers was active in various botanical societies. He was a council member (1950–58) and president (1956) of the American Society of Plant Taxonomists. He served the International Association for Plant Taxonomy as vice-president (1969–72) and president (1972–75), as well as serving many years on nomenclature committees and as a member of the editorial committee for the *International Code of Botanical Nomenclature* (1964–75). The *Festschrift* that IAPT published in 1979 in honor of his retirement includes a detailed biographical “appreciation” of Rog (Taxon 28: 1–3).

Rog received numerous honors for his outstanding scholarly contributions; a complete list is available at the University of North Carolina Herbarium website (www.herbarium.unc.edu/Collectors/McVaugh.htm). Several do warrant mention here. Rog was the first recipient of three prestigious awards: the Asa Gray Award (American Society of Plant Taxonomists 1984), the Luz María Villarreal de Puga Medal (University of Guadalajara 1993), and the Cuatrecasas Medal for Excellence in Tropical Botany (Smithsonian Institution 2001). He was one of eight botanists honored at the International Botanical Congress in 1999 with the Millenium Medal from the International Association for Plant Taxonomy.

Not surprisingly with a career like that discussed

above, Rogers had a significant publication record, one that spanned a full 70 years—not a feat that many can claim! A complete bibliography of his just over 200 publications is also available on the UNC Herbarium Web page.

I (ASW) remember Rog for many kindnesses and interesting discussions about botany, history, politics, personalized license plates, the books he was reading at the time, places he had botanized, construction on campus—anything really—he had a keen curiosity about just about everything. A few years ago, I walked across the hall to ask him about the influential American botanist John K. Small (1869–1938), specifically looking for sources of information about Small’s philosophy regarding the application of the taxonomic ranks of species and variety. What I expected was a thoughtful discussion about it, with Rog perhaps at some point saying “well, you know, X discussed that in some length in a paper published in the mid 50s; you should look that up.”

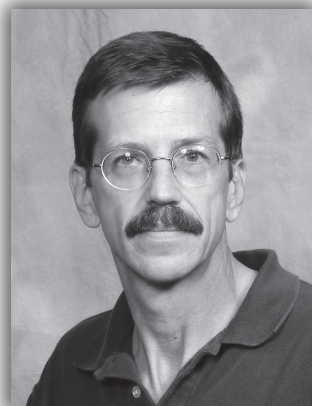
What I didn’t expect was what happened: Rog chuckled quietly, and said “well, the last time I spoke with him—I guess it would have been about ’36—he expressed himself very succinctly and vigorously on that matter. He said, ‘if you can recognize it, it’s a species!’”

I (RKR) remember Rog as a kind man with an absolutely amazing mind for details. I can recall speaking with him during (I believe) his last visit to Michigan about five years ago and thinking “I hope that I can be even half as sharp as Rog when I reach 95.” While his publications and many specimens will continue to be used by generations to come, they will not be able to take advantage of Rog in person. That is a loss!—*Richard K. Rabeler (MICH) and Alan S. Weakley (NCU)*

Bruce Parfitt

1952–2009

Botanist, biologist, birder Bruce Dale Parfitt of Johnson, Vermont, died at Vermont Respite House in Williston, September 3, 2009. He was 56. Bruce was born November 7, 1952 in Oshkosh, Wisconsin, the son of Dale and Joan (née Barth) Parfitt. From age four during family vacations, he fished, hunted, and camped in Oconto County in the land of the jack pines and sweet ferns “up north.” He graduated from Oshkosh High School in 1970, and earned a



Bachelor of Science degree from the University of Wisconsin-Oshkosh in 1977. He earned his masters and doctoral degrees from Arizona State University in 1980 and 1991, where he was also herbarium curator and teaching associate. For both degrees, he worked closely with Professor Donald Pinkava, who was instrumental in encouraging Bruce’s interest in cacti.

At the University of Michigan-Flint he was a valued faculty member for 14 years, chair of the biology department from 2004–2007, and director of the university’s herbarium, whose collection grew in size and value under his care. He kept high standards, edited papers relentlessly, challenged assumptions, but lavished his time toward students’ success in the classroom, in the lab, in the field, and in their personal lives. As a result, many

became first-generation graduates who found confidence and success in biology-related careers or entered Master's and Ph.D. programs at top universities.

Prior to joining the faculty of UM-Flint, he was a research botanist for the Desert Botanical Garden in Phoenix, and a scientific editor of "Flora of North America" headquartered at the Missouri Botanical Garden. He was a significant contributor to the Ranunculaceae, Volume 3, 1997, and the Cactaceae in Volume 4, 2003. He also prepared *Opuntia* for the Jepson Manual, 1993. He authored some 40 papers in the literature, beginning with a paper on *Allenrolfea* (Chenopodiaceae) in *Rhodora*, 1977, while he was an undergraduate at UW-Oshkosh.

Among his friends, he was an avid birder, moose watcher, canoeist, Mr. Fix-it, and hunter and planter of trees. He was as tenacious in his friendships as in his opinions. He seemed to apply a scientific approach whether decorating Christmas cookies or designing birdhouses.

And since 1997, he came to love Vermont, first visiting, then buying a place and staying as often as he could at his "Mooseberry Camp" on the Lamoille River in Johnson.

It was while working as a field biologist in 1979 for the U.S. Bureau of Land Management—helicoptered in

to hike the remote Hualapai Mountains and to collect, identify, and preserve rare species—that he discovered a new species, named by Barbara Ertter in 2009 as *Potentilla demotica*. It was also in the Hualapai that Bruce developed a blood vessel malformation that was impinging on his spinal column. An unfortunate reaction to diagnostic tests cost him the use of his legs. Undaunted, in 1980, he learned to walk with canes. Similarly, throughout his life he often took on projects of considerable magnitude—building a house, planting trees, restoring riverbanks, and the like.

In late July, 2009, Bruce and his mother invited my wife and me to lunch at an Oshkosh restaurant. During lunch, he told us that he had come to say good-bye. The doctors had exhausted their armamentarium of chemotherapies, and surgery would only delay the inevitable end. Bruce and I went that afternoon to watch the American White Pelicans at a tiny lake nearby; the species was not present in Wisconsin when Bruce was such an avid local birdwatcher. The pelican in myth and folklore represents loyalty and self-sacrifice, a most fitting compliment to Bruce Dale Parfitt.—Neil A. Harriman (University of Wisconsin-Oshkosh)

Armen Takhtajan

1910–2009

Armen Leonovich Takhtajan, one of the greatest botanists of our time, passed away on November 13, 2009, at the age of 99. He was born June 10, 1910, in Shusha, Nagorno-Karabakh, in the Southern Caucasus. He had just published his revised classification, *Flowering Plants* (Springer 2009), in which he synthesized his own vast knowledge of plant evolution acquired over 60 years of study and much of the phylogenetic information that had been published in recent years by others. He graduated from the Institute of Subtropical Cultivation in Tblisi, Georgia, in 1932, received his Ph.D. in Leningrad in 1938, and his Dr.Sci. at Yerevan State University in 1943. He was on staff at various institutions in Yerevan until 1949 when he joined the faculty at Leningrad State University (1949 to 1960), after which he joined the staff of the Komarov Botanical Institute of the Russian Academy of Sciences,



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where he was director from 1976 to 1986. Despite great personal and professional risk, he was a strong opponent of the theories of T.D. Lysenko, who had the support of Stalin and Krushchev in banning all teaching of genetics from the 1930s to the 1960s. He was one of the few scientists who travelled internationally during Soviet times and was an important conduit in bringing the ideas of current research in the west to his colleagues in Russia. With his wife Alice, he spent many happy and productive months as a guest researcher at Missouri Botanical Garden, the New York Botanical Garden (with his great friend Arthur Cronquist), and the National Tropical Botanical Garden in Kauai working on his publications. He was an inspiration and a delight to the staff and students at those institutions.

He was an Academician of the Armenian Academy of Sciences and of the Russian Academy of Sciences, and a foreign associate of the U.S. National Academy of Sciences, as well as of many other countries. He wrote 20 books and more than 300 scientific papers, many of which were ground-breaking, from his 1943 paper "Correlations of Ontogenesis and Phylogenesis in Higher Plants," in which he unveiled his theories on macroevolution as a result of changes in developmental

timing, to his books *Floristic Regions of the World* and *Diversity and Classification of Flowering Plants*.

In his foreword to *Flowering Plants*, Peter Raven wrote: “Professor Armen Takhtajan, a giant among botanists, has spent a lifetime in the service of his science and of humanity. As a thoroughgoing internationalist, he promoted close relationships between botanists and people of all nations through the most difficult times imaginable, and succeeded with his strong and persistent personal warmth. He also has stood for excellent modern science throughout this life and taught hundreds of students to appreciate the highest values of civilization

whatever their particular pursuits or views, or the problems they encountered.”

Armen Takhtajan was also an artist and a philosopher. Especially after he retired, he enjoyed staying in his country house and painting. He published (in Russian) a book on systems in general, including organismal systems and political systems.

Professor Takhtajan was predeceased by Alice, his wife of 58 years, in 2005; he is survived by his sons Leon and Souren, daughter Lena, and many grandchildren. Funeral rites were held at the Komarov Botanical Institute November 19.—*Nancy R. Morin*

POSITIONS AVAILABLE

Research Assistantship in Quantitative Floristics—The LIBRA group at Oklahoma State University (ecology.okstate.edu/Libra/index.htm) is seeking a Ph.D. student to assist with the FloraS of North America Project (botany.okstate.edu/floras/index.html) as part of an NSF-EPSCoR funded collaborative proposal on Ecological Forecasting. This position is funded for 2 years, after which teaching or other assistantships will be available. The student is expected to qualify for and enroll in the OSU Plant Sciences Ph.D. program (grad.okstate.edu/programs/ps/plantsci.htm), and to develop a dissertation project related to the funded research. A start date of June 2, 2010 is desirable but negotiable.

The ideal candidate would have strong scientific writing skills in English, experience with GIS, and familiarity with North American floristics—although applicants with a subset of such experience will be considered. The student will be expected to collaborate with a diversity of scholars with expertise in computer science, statistics, geography, botany, ecosystem science, and global change.

For full consideration, send a statement of interest, contact information for three references, and a current CV by February 8, 2010, to Michael Palmer at mike.palmer@okstate.edu. Informal inquiries by email are welcome.—*Michael W. Palmer, Regents Professor, Botany Department, Oklahoma State University, 104 LSE Stillwater, OK 74078 USA; Web site: ecology.okstate.edu/Libra/*