

# Flora of North America



Volume 25, Number 1

Newsletter

January – June 2011

## PRESIDENT'S REPORT

### Flora of North America Association: Deadlines Are Dead Serious

*Luc Brouillet, FNAA president*

Producing any volume of the Flora of North America series requires dedication from a large number of individuals over a long period of time. But, production cannot start before manuscripts are received. This statement underscores the crucial role played by authors in the FNA project. Authors have many commitments and often will put off writing their treatments, precisely because of the apparently remote deadlines (or through a disbelief in deadlines). Yet deadlines are dead serious to FNA: editors, reviewers, technical editors, and artists all depend on manuscript delivery.

The FNA project is more than half way to completion. If we exclude the three volumes (6, 9, and 28) currently in final production, ten volumes involving taxonomic treatments remain to be done (10 to 18 and 29). All volumes are officially in production. The volume reports in this newsletter give an idea of the work that has been done so far to complete the flora. Volume 9 has received 100% of its species descriptions, Volume 6, 80%, and Volume 28, 96%. Species descriptions are not a direct indicator of the percentage of manuscripts received, but they provide a

more precise idea of the progress of the flora because very large genera tend to arrive late. As stated above, these are the volumes nearing completion. What is the overall state of volume production for the remaining ten volumes?

The percentage of manuscripts received (and in regional review) varies from 1 to 37%, for an overall average of 16.5%. This is both impressive and a call to greater efforts. Indeed, if we want to finish the Flora within a reasonable timeframe (and we must), manuscript flow from authors must increase, and those authors who have not yet started to work on their treatments must do so now. No more procrastination: deadlines are real, for us at the project as much as for you authors. So, open your word processing program, send instructions and specimens to illustrators, and get going. If you need resources to help you write your treatment, please do not hesitate to contact your taxon editor; the micro-grant program instituted by the FNAA is underutilized. Do not wait until the last minute. And, will you not all be happier for having sent it in and saying, "I contributed to FNA?"

### Dedication of Volume 17 (Lamiales) to Noel and Patricia Holmgren

*James L. Reveal, L.H. Bailey Hortorium, Cornell University*

Acknowledgment of one's professional contributions is usually noted with a passing when someone is careful to say just the right things to fit the occasion. In this case, the honoring of Drs. Noel Herman Holmgren (1937–) and Patricia Kern Holmgren (1940–) must be done with special care for they can refute, or even deny, what might be mentioned here. Having known Noel since 1960, and Pat since 1966, and then associated with them in the compilation of the *Intermountain Flora* for over 40 years, one does acquire a number of interesting observations that are better left aside for another time or forgotten altogether for fear of retribution.

The honor bestowed upon Noel and Pat, associated



Noel and Pat Holmgren look at types of Caryophyllaceae for their *Intermountain Flora*. Harvard University Herbaria, June 17, 2011.

with The New York Botanical Garden for essentially their entire professional careers, is given in recognition of their joint efforts to produce one of the premier floristic treatments in the modern age. What is present in the volumes of *Intermountain Flora* is a quasi-monographic treatment of each and every species. Unlike most floras, great care has been given to the nomenclature of each taxon, and, in particular, to see and personally review type material, to check each reference for such simple things as page numbers and critical items such as validity. The descriptions, especially those by Noel and Pat, are composed specifically for the *Flora* and are not modified or cribbed from another source. The discussion is clear, crisp, and to the point.

As an occasional contributor to this effort since the 1960s, I have personally observed both of my colleagues in times of joy and stress. The early years I spent with Noel in the field are treasured memories. We even shared the same mentor, Arthur Herman Holmgren (1912–1992), Noel's father and my major professor at Utah State University in Logan. Noel's professional work on the *Intermountain Flora* began in 1961 with a five-week trip to southeastern Utah with Arthur Cronquist (1919–1992). That fall, Noel and I, both undergraduates at Logan, started our joint fieldwork careers, collecting plants in the vicinity of Echo Park in northeastern Utah and then heading into Kane County, Utah, spotting populations of *Asclepias tuberosa* for Robert Woodson of the Missouri Botanical Garden. Noel soon left Utah for New York where he studied systematic botany with Cronquist and obtained his doctorate in 1968 from Columbia University.

*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 website, [www.fna.org](http://www.fna.org).

Readers are invited to send appropriate news items to:  
Barney Lipscomb, Newsletter Editor  
Leonhardt Chair of Texas Botany  
Botanical Research Institute of Texas  
1700 University Dr.  
Fort Worth, TX 76107-3400, USA  
Items also can be sent by e-mail to: [barney@brit.org](mailto:barney@brit.org) or  
[Kristin.Pierce@mobot.org](mailto:Kristin.Pierce@mobot.org)

We spent the summer months of 1964–1966 in the field collecting plants for the *Flora* and for our respective dissertation projects. This required venturing beyond the borders of the Intermountain West so it was that on June 17, 1966, we met Patricia May Kern at the University of Washington, a fellow graduate student whose major professor was C. Leo Hitchcock (1902–1986). Pat was already deeply engaged in editing and typing the last volume of the *Vascular plants of the Pacific Northwest* that Hitchcock, Cronquist, and others were finishing. It was a singularly important time for both Noel and me as we worked over the large holdings of *Castilleja* and *Eriogonum* at the University, resolving many important questions and discovering new places to search for our plants.

We ignored Pat and she ignored us. Or so I thought. Still, something must have happened for on November 9, 1969, Noel and Pat were married in Yonkers, New York, and the team of Holmgren and Holmgren, both then at the Botanical Garden and involved with the *Intermountain Flora*, started their long careers on this new project.

Without the critical eye of Pat to review and edit each and every page, and without her persistence to get even Cronquist to change a word or two now and then, the *Flora* could never have been so well written. Neither Noel nor I can spell, our syntax is often dubious and convoluted, and our thoughts do tend to drift, but no one knows this except Pat. The illustrations in the *Flora* are superb, but their placement in the volume is the result of Noel's long love for art and graphics. While Cronquist or I might contribute words, Noel created beauty. It is to Noel and Pat that the success of the *Flora* belongs.

It is also fitting that volume 17 of *Flora of North America North of Mexico* also honors Noel's long dedication to *Scrophulariaceae* and its allied families in Lamiales. While his initial interest was *Castilleja*, this shifted to the larger and more complex genus *Penstemon*. Larger than *Eriogonum* in terms of species—as Noel often reminds me—this genus will dominate volume 17 much as *Eriogonum* dominates volume 5. Like the *Intermountain Flora*, his work on *Penstemon* has been a life-long effort filled with success and failures, frustrations and joy. Today a *Penstemon* society flourishes because of Noel (and, oh yes, the society dedicated to *Eriogonum* is smaller should one wonder). Let us hope we might see the finished monograph on *Penstemon* now that the eighth and final volume of the *Flora* is in press. With Noel's understanding of the group, and Pat's careful editing and review, this too will be a fitting tribute to the two of them and a true gift to systematic botany.

## Dedication of Volume 18 to Stanwyn Gerald Shetler

Nancy R. Morin

The Flora of North America Association Board is delighted to recognize the contributions of Stanwyn G. Shetler to North American botany by dedicating Volume 18 of Flora of North America to him. This volume is scheduled to be one of the last to be published and will mark the completion of the series. Stan was the leader in developing a strategy for the Flora of North America project in the mid-1960s, continuing in a central role until the early 1970s. Once the project was established, he served as executive secretary and program director. His vision for how computers could be used in creating modern floristic publications was revolutionary at the time and has continued to inspire the project ever since. Beyond that, however, Stan is a wonderful botanist and naturalist; his career has included both local and international projects, monographs, and checklists, and his audiences have ranged from groups visiting the herbarium at the Smithsonian to international congresses.

Stan received his Bachelor's and Master's degrees from Cornell University and his Ph.D. from University of Michigan. In 1962, he joined the staff of the Botany Department, National Museum of Natural History, Smithsonian Institution, as assistant curator and then curator. From 1984 to 1994, he served as associate director and then deputy director of the Museum. He retired in 1995, although he continued working in the herbarium until 2010.

Volume 18 will contain the treatment of Campanulaceae, which is another reason for dedicating this volume to Stan. His dissertation was on Variation and Evolution of the Nearctic Harebells (*Campanula*) subsect. *Heterophylla*. In 1963, he published a checklist of the species of

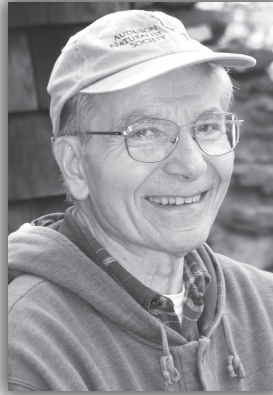


Photo Washington Biologists' Field Club

*Campanula* in North America (in Rhodora) that is still the only comprehensive work on the genus in North America. He studied the pollen collecting hairs in *Campanula*. Later, I was fortunate to work with him in a study of the seeds of North American Campanuloideae as a Smithsonian post-doctoral fellow. The beautiful and rare *Campanula shetleri* Heckard, a California endemic, was named for Stan.

Stan has demonstrated the power of documenting local floras to help us understand global phenomena. He is an expert in the flora of the greater Washington, D.C., area and has led field trips for native plant and bird watching groups for decades, giving talks about the local flora to many groups. He and colleagues analyzed data on first flowering dates recorded by Smithsonian botanists since 1970 and found that plants were blooming on average 4.5 days earlier in the year 2000 compared with 1970. He and S. Orli published the Annotated Checklist of the Vascular Plants of the Washington - Baltimore Area. Part I. Ferns, Fern Allies, Gymnosperms, and Dicotyledons in 2000 and the Monocotyledons in 2002.

Stan was instrumental in developing collaborations with botanists in Russia, especially with those at the Komarov Botanical Institute, and in the translation to English of the Flora of the U.S.S.R., thus making this tremendous body of botanical knowledge more accessible to western botanists. He published the alphabetical index to the volumes of the Flora USSR in 2004. He has also published on the flora of the Arctic.

Many of the resources that were developed by Stan for Flora North America were the basis for resources for the current Flora of North America project, including the provisional checklist of species, the Guide for Contributors, and the glossary of terms. We are grateful for his vision and leadership in that seminal project and for his dedication to increasing our knowledge of the plants of North America, which ultimately will lead to the completion of this outstanding project of fundamental importance.

## Botanical Profile: Marjorie Leggitt – Botanical Artist

Plants and drawing have always been a part of my life. Starting in third grade, my spring science project involved observing and recording the life processes of our backyard apple tree. In high school, mushrooms and deciduous trees were subjects for term papers. My approach to college papers was no different—I loaded each with numerous hand drawn visuals. It's no wonder my favorite courses were biology labs!



Dr. Jack Carter, my college botany professor, was the conduit to my collaboration with FNA. While illustrating his *Trees and Shrubs of Colorado*, Jack told me about a taxonomic compendium that eventually would include

all the plants of North America. He mentioned Peter Raven at Missouri Botanical Garden and suggested I call him. Years later, I recalled our conversation and contacted MOBOT. Yevonn Wilson-Ramsey kindly welcomed me as an FNA artist in April 2004.

As a professional scientific illustrator I am accustomed to working with many types of reference material—live specimens, fossils, photos, and herbarium sheets, aka “botanical road kill.” For scientific botanical illustrations, if I had to choose which material I like best to work from, I would select herbarium specimens. Why? Because, if well laid out, an herbarium specimen provides a “freeze frame” image of the plant. Multiple specimens give a global overview and a broad look at flora variables, life stages, and parts. Everything required to produce a thorough taxonomic visual description is gathered into a tidy folder.

However, working from flattened plants has intrinsic challenges—flora “in the round” is absent; flowers and fruit are shriveled beyond recognition; leaves are positioned into an ancient Egyptian art presentation, turned



to show top and lower views, hiding nothing from the viewer; conformation is often deformed as parts are bent and folded into a less than vital posture to fit the 11.5" × 16.5" format. Creative reconstruction is necessary. Taking the basic “gesture” of the flattened plant, I develop a sense of perspective and 3-dimension by drawing the plant with overlapping parts. I suggest foreground and back-

ground through variable line weights, and a light source by defining shadows. After boiling and gently reconfiguring flower and fruit parts and structures, I artistically bring these back to life. Flat and crimped leaves present an easier task as most are shown flat and frontal for quick field identification. I use photos of plants in nature to confirm proper habit, then turn back to the steam-rolled model to make alterations as needed. The process truly requires creative magic!

Whether teaching botanical illustration, illustrating plants for seed packets or museum exhibits, reconstructing trace fossils or herbarium specimens into “living” representations, although my title is “scientific illustrator,” I am, at heart, an artist of plants!

## New Associate Technical Editor for FNAA at Missouri Botanical Garden

Andrew C. Pryor has been hired as an independent contractor to fulfill the job of associate technical editor at the Missouri Botanical Garden center for Flora of North America Association. It is anticipated that Andrew will work closely with lead editors Geoff Levin and Lynn Gillespie as they move volume 12 through editing and production.

Andrew comes to FNAA with a Masters degree in Fine Arts and a Bachelor of Arts (degree in Political Science—concentration in political theory and East Asian studies) from the University of Missouri-St. Louis, MO. His Master’s Thesis title is “Strange Attractors and Other Poems.” Andrew is an instructor at Lindenwood University (St. Charles, MO), a published author, as well as a professional tutor for undergraduate and graduate students.

We are thrilled to have another excellent addition to the FNAA center



## Nomenclature Editor Visits India

Dr. Kanchi Gandhi, FNA’s Nomenclatural Editor, visited India in November and December. During his visit, he was the keynote speaker and gave a plenary talk at the 20th Annual Conference of Indian Association for Angiosperm Taxonomy, held at Bharathiar University in Coimbatore, India. He also spoke to the students of Pachaiappa College for Men, Kanchipuram, Tamil Nadu, India, on December 9, 2010, and on December 11, 2010, gave a two-hour seminar to botanists at the Botanical Survey of India, Head Quarters, Kolkatta, West Bengal, India. In addition, he gave the keynote talk at the National Seminar on Diversity Conservation and Sustainable Utilization of Plants and Traditional Knowledge in eastern Himalaya, held at the University of North Bengal, Siliguri, West Bengal, India.

Dr. Gandhi also was elected an honorary member of the East Himalayan Society for Spermatophyte Taxonomy.

## Helen Jeude, Senior Technical Editor, Retires

After over 20 years working for the Flora of North America, Helen Jeude retired as Senior Technical Editor at the end of 2010. We at BRIT had the pleasure of having her work with us when she moved to Texas in 1998. This was the same year that Ted Barkley retired from his position at Kansas State University and also moved to BRIT to continue his work on the Asteraceae which became FNA volumes 19–21. Luc Brouillet, John Strother, and Helen saw the publication of those volumes in 2006; Ted passed away in 2004.

After teaching for 18 years and seeing her four children on their way, Helen returned to school in the early 1980s, and following an interest in theological studies, received a Masters of Theology (Old Testament) from Bethany Theological Seminary in Lombard, IL. She found herself drawn to Near Eastern Archaeology, and spent her summers for 10 years overseas in Israel and Jordan as a square supervisor on archaeological digs at tell el-Hesi (Israel), tell el-Umeiri (Jordan), and Ashkelon (Israel). She also enrolled in doctoral studies at the University of Chicago (Oriental Institute) where she met her husband, Alan.

After several years working at Harvard University Semitic Museum, Helen and her husband moved to St. Louis where she found an opportunity to start working at the Missouri Botanical Garden in November 1989 for Nancy Morin and FNA. There she updated the Editorial Guide and became the Technical Editor for FNA volumes 1 and 2 which were published in 1993. Over her tenure, Helen had the pleasure of helping to establish the editorial center at Hunt Institute for Botanical Documentation, as FNA work began to move to other centers. She was the Senior Technical Editor for FNA volumes 1–2 (1993),

Volume 3 (1997), Volume 22 (2000), Volume 23 (2002), volumes 19–21 (2006), and was finishing work on Volume 9 when she retired.

Those who know Helen know her bright personality, vibrant smile, and easy manner that made working with her a pleasure. She has said that developing friendships and working with some of the great botanists of our time has been one of her true pleasures working for FNA, especially as they traded manuscripts and worked to make the FNA volumes monuments to their careers.

Now retired, Helen and her husband count in their blended family 6 adult children, 14 grandkids, and 1 great-grandchild to date, and they count as family two Great Pyrenees. Having missed the camaraderie of the BRIT staff, Helen is now a volunteer once a week at BRIT, currently working to help prepare the Vanderbilt collection for its permanent place at BRIT, now with more than a million specimens. Helen has said that her time with FNA, with all the academics, personalities, contributors, and teammates at both MOBOT and BRIT was an unparalleled time in her life story.

—Barney Lipscomb with help from Helen's husband Alan.



## Volume Updates

### Volume 6 Update: Robert Kiger

- Lead Editorial Center: The Hunt Institute for Botanical Documentation; Lead Editor: Robert Kiger; Technical Editor: Mary Ann Schmidt
- Taxon Editors: David E. Boufford (Harvard University), Ronald L. Hartman (University of Wyoming), Robert W. Kiger (Hunt Institute for Botanical Documentation), Nancy R. Morin (FNA), Jackie M. Poole (Texas Parks and Wildlife Department), Richard K. Rabeler (University of Michigan), Leila M. Shultz (Utah State University), and Frederick H. Utech (Hunt Institute for Botanical Documentation)

- 20 families, 118 genera, 539 species: Cucurbitaceae to Droseraceae
- Illustrations: 144 species as full habit; 10 additional insets

**Status:** The FNA treatment of Cucurbitaceae (Nesom) includes 23 genera and 53 species. Many of these are non-natives and their FNA occurrences are not taxonomically difficult, but there is an interesting component of native taxa. Among new contributions to science reflected in the FNA treatment is a revision of the *Sicyos* species in the USA (all native), now understood to be four—*S. angulatus* and *S. glaber* apparently are restricted

to the USA; *S. laciniatus* and *S. microphyllus* are at the northern end of much wider ranges. A review of *Citrullus* taxonomy indicates that the cultivated watermelon (*C. lanatus* var. *lanatus*) and the citron melon (*C. lanatus* var. *citroides*) are both appropriately treated at specific rank—the correct name for the citron melon is *C. caffer* Schrader. Review of *Cucurbita* taxonomy indicates that native plants of the eastern USA and northeastern Mexico, previously identified as *C. pepo* subsp. *ovifera*, are appropriately treated as the separate species *C. melopepo* L., including var. *melopepo* (with most of the domesticates), var. *ozarkana*, var. *texana*, and var. *fraterna*. *Cucurbita pepo* sensu stricto comprises cultivars (including the jack-o-lantern

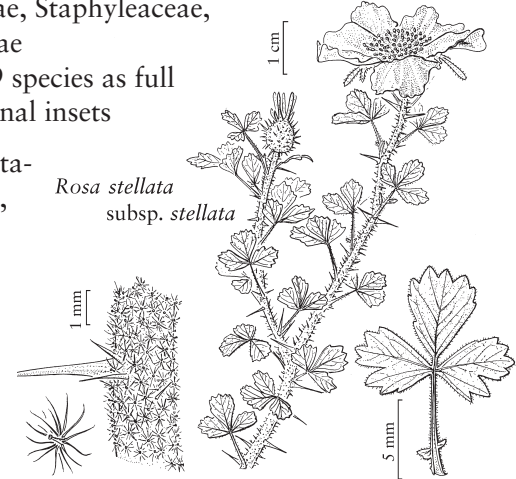


pumpkin) and landraces native to southern Mexico and Guatemala.

**Volume 9 Update:** *Luc Brouillet*

- Lead Editorial Center: Canada Center; Lead Editor: Luc Brouillet; Technical Editor: Cassandra Howard
- Taxon Editors: Luc Brouillet (University of Montreal) and Jim Phipps (University of Western Ontario)
- Families: 4 families, 75 genera, 694 species: Rosaceae, Crossosomataceae, Staphyleaceae, and Picramniaceae
- Illustrations: 149 species as full habit; 63 additional insets

**Status:** Crossosomataceae, Staphyleaceae, and Picramniaceae are ready for page proof. Within Rosaceae, 46 genera are at FNA Central being prepared for page



## Handover of Flora of North America Volume 7 at Knowsley Hall, England



Photo © John Edmondson

Left to right: John Edmondson, Hon. Research Associate, Royal Botanic Gardens, Kew; Edward Perry, Lord Derby's Director of Operations; Tom Boggis, Curator, Knowsley Hall; Ann Colley, Wolfson College, Cambridge, UK and State University of New York Distinguished Professor.

Curator of the Botanic Garden and Lecturer of Natural History Thomas Nuttall at Harvard University from 1822–34, travelled extensively in North America collecting plants and bird specimens for, among others, William Roscoe and Edward Stanley, 13th Earl of Derby, who sponsored his activities. Nuttall later dedicated the genus *Stanleya* to his patron. Ihsan Al-Shehbaz's account of *Stanleya* for FNA Volume 7 includes an illustration sponsored by Dr. Edmondson. He hopes that by publicizing the handover it will encourage more people to sponsor plates for the Flora.

### ART SPONSORSHIPS

To help support the cost of illustrations, the FNAA invites individuals and organizations to sponsor one or more drawings. Sponsorships will be acknowledged in a special section of the relevant volume, and sponsors will receive a high-quality reproduction of the black and white illustration in the original size of 6 ½" × 11", suitable for framing and with permission to reuse the image.

FNAA hopes that individuals who love plants, native plant societies, specialty plant societies, and garden clubs will sponsor one or more illustrations, or that horticultural or other businesses will take advantage of this opportunity to promote their interest in our native and naturalized plants.

Sponsorship for a basic drawing (whole plant and 1–2 details) is \$200 for nonprofits and individuals and \$250 for businesses.

Generally, three species are represented on a full panel. The cost to sponsor a panel is \$600 for nonprofits and individuals and \$750 for businesses. Rates may be negotiable under special circumstances or in cases where multiple plates are being funded.

Want to go all out!? Sponsor a full-color frontispiece! Only one per volume, for a modest donation of \$1000.

Contact Nancy Morin at nancy.morin@nau.edu, 707-882-2528 for a list of taxa available for sponsorship or to learn more about sponsoring FNA's botanical illustrations. Who knows, you could have your own Handover Ceremony!

proof. The descriptions of Pyreae genera (18) are being edited to make them parallel. *Crataegus* and *Spiraea* are being prepared at FNA Central for special editing review. Three manuscripts (*Potentilla*, *Alchemilla*, *Aphanes*) are with authors for final corrections; we are expecting these shortly (at the time of writing).

**Volumes 10 and 11 Update:** *James L. Zarucchi*

- Lead Editor: James L. Zarucchi; Technical Editor: Martha Hill
- Taxon Editors: David E. Boufford (Harvard University), Luc Brouillet (University of Montreal), Geoffrey A. Levin (University of Illinois), Jackie Poole (Texas Parks and Wildlife Department), Jay A. Raveill (University of Central Missouri), Leila M. Shultz (Utah State University), Gordon C. Tucker (Eastern Illinois University), and Michael A. Vincent (Miami University-Ohio)
- Families: 13 families, 213 genera, 1892 species
- Illustrations: ca. 416 species as full habit; 53 additional insets

**Status:** Since the beginning of the year, various treatments have been delivered, received formatting and initial editing in preparation for being sent for regional review—notably among these are the treatments of Polygalaceae (6 genera/54 species) by J. Richard Abbott and that of Combretaceae (5 genera/8 species) by Walter Judd. At the beginning of 2011, the second largest genus in the North American Flora (after *Carex* in FNA vol. 23) was sent out for regional review: *Astragalus*—the locoweeds—with 354 species, authored by Stanley L. Welsh and Richard W. Spellenberg. Additional work has moved previously reviewed and edited treatments farther along in the editorial process with bibliographic editing done by Robert Kiger, nomenclatural review prepared by Kanchi Gandhi, and indexing of the manuscripts accomplished by Pat Harris.

**Volume 12 Update:** *Geoffrey A. Levin and Lynn Gillespie*

- Lead Editors: Geoffrey A. Levin and Lynn Gillespie; Technical Editors: Cassandra Howard, Mary Ann Schmidt, and Andrew Pryor
- Taxon Editors: David E. Boufford (Harvard University), Luc Brouillet (University of Montreal), Lynn J. Gillespie (Canadian Museum of Nature), Geoffrey A. Levin (University of Illinois), Nancy R. Morin (FNA), Jackie Poole (Texas Parks and Wildlife Department), Richard K. Rabeler (University of Michigan), Debra K. Trock (California Academy of Sciences), Gordon C. Tucker (Eastern Illinois University), Elizabeth F. Wells (George Washington University), Jun Wen (Smithsonian Institution)

- Families: 28 families, 116 genera, 700+ species
- Illustrations: ca. 189 as full habit; 11 additional insets

**Status:** 90 genera and 500 species have been submitted. Complete treatments are in for 22 families

**What's exciting:** The Rhamnaceae treatment includes 15 genera and 103 species (including *Ceanothus* contributed by Dieter Wilken, with 51 species). Studies of *Rhamnus* and *Frangula* (by Guy Nesom and John Sawyer) were challenging, especially in the identification of the 6 non-native species of *Rhamnus* (*R. alaterna*, *R. arguta*, *R. cathartica*, *R. davurica*, *R. japonica*, and *R. utilis*). Among the species of *Frangula*, *F. betulifolia* var. *obovata* is native to northern Arizona, Nevada, Utah, and Colorado and is geographically disjunct from typical *F. betulifolia*. The two are consistently different in leaf morphology and each has been treated at specific rank—*F. betulifolia* and *F. obovata* (Kearney & Peebles) G.L. Nesom & Sawyer.

**Volume 13 Update:** *Luc Brouillet*

- Lead Editorial Center: Canada Center; Lead Editor: Luc Brouillet; Technical Editor: unassigned (currently done at FNA Central)
- Taxon Editors: Luc Brouillet (University of Montreal), Bruce Ford (University of Manitoba), Geoffrey A. Levin (University of Illinois), Nancy R. Morin (FNA), Richard K. Rabeler (University of Michigan), Gordon Tucker (Eastern Illinois University), and Alan Weakley (University of North Carolina)
- Families: 13 families, 152 genera, ca. 631 species: Geraniaceae, Nitrariaceae, Burseraceae, Anacardiaceae, Sapindaceae, Simaroubaceae, Meliaceae, Rutaceae, Balsaminaceae, Escalloniaceae, Araliaceae, Pittosporaceae, and Apiaceae
- Illustrations: illustrator Marj Leggett (Colorado)

**Status:** Pittosporaceae are provisionally published on the FNA website, and Escalloniaceae are being readied for provisional publication. Families Anacardiaceae and Meliaceae are in regional review, as are 13 genera of Apiaceae; the reviews are now being compiled. Manuscripts have been received for Nitrariaceae, Burseraceae and two further genera of Apiaceae and are in the initial editing phase. Authors are assigned for all genera except *Murraya* and *Severinia* in Rutaceae and 31 in Apiaceae. Many genera were recently assigned, thanks to authors volunteering. *Thysselinum* was added to the list of (introduced) Apiaceae genera to be treated in FNA and is already assigned. Illustrations have been prepared for many submitted genera and the necessary materials and information gathered for the others.

**Volume 14 Update:** Robert Kiger

- Lead Editorial Center: The Hunt Institute for Botanical Documentation; Lead Editor: Robert Kiger; Technical Editor: Mary Ann Schmidt
- Taxon Editors: Richard K. Brummitt (Royal Botanic Gardens, Kew), Robert W. Kiger (Hunt Institute for Botanical Documentation), Tim Lowrey (University of New Mexico), Jay A. Raveill (University of Central Missouri), and Janet R. Sullivan (University of New Hampshire)
- Families: 8 families, ca. 97 genera, 597 species; Gentianaceae to Hydroleaceae
- Illustrations: ca. 149 species as full habit; 4 additional insets

**Status:** Manuscripts for *Bouchetia*, *Atropa*, *Nicandra*, *Leucophysalis*, *Quincula*, *Oryctes*, *Jaltomata*, and *Capsicum* (Solanaceae) have been submitted and are in initial editing. Manuscripts for *Aniseia*, *Argyreia*, *Bonamia*, *Convolvulus*, *Cressa*, *Dichondra*, *Evolvulus*, *Ipomoea*, *Merremia*, *Operculina*, *Stictocardia*, and *Turbina* (Convolvulaceae) were submitted in 2007.

**Volume 15 Update:** Nancy Morin

- Lead Editorial Center: Missouri Botanical Garden; Lead Editor: unassigned
- Taxon editors: Ron Hartman (University of Wyoming), Ron Kelley (Eastern Oregon University), Jim Miller (New York Botanical Garden), Nancy R. Morin (FNA), Jackie Poole (Texas Parks and Wildlife Department)
- Fouquieriaceae (1 genus, 1 species), Polemoniaceae, (17 genera, 264 species), Hydrophyllaceae (15 genera, 235 species), Boraginaceae (38 genera, 327 species)
- Illustrations: ca. 168 species as full habit; 9 additional insets

**Status:** 11 genera and 216 species have been submitted.

**What's exciting:** Genevieve Walden has submitted a nearly completed treatment of *Phacelia*. With 176 species it is the largest genus in the volume. She and Bob Patterson just described the monotypic *Howellanthus* (Madroño 57:268–273), and she has submitted that treatment as well. We are in need of authors for many of the Boraginaceae treatments still. Contact Nancy Morin if you would be willing to take on one or more of these treatments.

**Volume 16 Update:** Nancy Morin

- Lead Editorial Center: University of North Carolina; Lead Editors: Alan Weakley and Nancy R. Morin
- Taxon editors: Nancy Morin (FNA), Leila M Shultz (Utah State University), Alan Weakley (University of North Carolina)

- Families: Oleaceae (11 genera, 61 species), Lamiaceae (72 genera, 445 species), and Verbenaceae (12 genera, 80 species). All Verbenaceae assigned; 8 genera in Lamiaceae unassigned
- Illustrations: ca. 139 species as full habit; 3 additional insets

**Status:** 50 genera and 276 species received.

**What's exciting:** Oleaceae is out for regional review and Verbenaceae will be soon. Guy Nesom provided these notes on Oleaceae and Verbenaceae:

Completion of the FNA Oleaceae treatment (11 genera, 57 species; Nesom with contributors, below) was interesting, especially for *Fraxinus*, where corollary studies recognized five additional species in the North American flora. The hexaploid *Fraxinus biltmoreana* Beadle and tetraploid *F. smallii* Britton are segregates of *F. americana* (white ash), which is diploid—all three growing over a wide area of the eastern USA and each a major forest tree. Trees of the southeastern USA previously identified as *F. caroliniana* (water ash) are justifiably treated as three distinct species, also including *F. pauciflora* Nuttall of Florida and Georgia and *F. cubensis* Griseb. of southern Florida and Cuba. The belated recognition/confirmation of the existence of these species will have impacts on forestry practices, the wood industry, and studies of evolution and ecology, especially as related to conservation. *Fraxinus papillosa* of the southwestern USA and north-eastern Mexico is recognized to be an intergrading variant of the Arizona ash, *F. velutina*. A review of the *Forestiera neomexicana/pubescens* complex concluded that two geographical subspecies can be recognized, the western segment treated as *F. pubescens* subsp. *parviflora* (A. Gray) G.L. Nesom (= *F. neomexicana*). Also included in the Oleaceae treatment are significant updates on the taxonomy of the introduced genera *Fontanesia* (by George Yatskiyevych), *Syringa* (by James Pringle), *Forsythia*, *Jasminum*, *Ligustrum*, and *Olea*.

Preparation of the FNA Verbenaceae treatment (12 genera, 90 species; Nesom, except for *Lantana* by Roger Sanders) offered an opportunity for (or necessitated) significant taxonomic revisions of *Verbena* and *Glandularia*. The *Verbena* treatment (30 species) is supported by several corollary studies. A revised infra-generic classification of the whole genus divides a total of 70 species among sect. *Verbena* (10 series), sect. *Amphypeiros* (2 series), and sect. *Verbenaca* (2 series). Detailed species-level studies included Mexican species, since major groups of the genus tend to lie across the USA-Mexico border—as well as South American species, since most invasive *Verbena* species in the USA are native to South America. Six species were described as new to science and two others were raised from varietal to



specific rank—*V. livermorensis* B.L. Turner & G.L. Nesom, *V. hirtella* (Perry) G.L. Nesom, and *V. xylopoda* (Perry) G.L. Nesom occur in both the USA and Mexico; the latter two are segregates from *V. neomexicana*. The South American *V. bonariensis*, *V. incompta*, *V. brasiliensis*, and *V. montevidensis* are invasive in the USA and a detailed study documents their identification and distribution. The European *V. officinalis* once was often documented as growing in the USA outside of cultivation, apparently when it was commonly cultivated as a medicinal plant, but it has not been encountered in the last decades.

FNA genera once included in the Verbenaceae but now treated as Lamiaceae are *Callicarpa* (3 species), *Clerodendrum* (7 species), *Cornutia* (1 species), *Holmskioldia* (1 species), *Premna* (1 species), *Vitex* (5 species), and *Volkameria* (1 species, a segregate of *Clerodendrum*). Of these, only *Callicarpa americana* is a native species. All are more or less shrubby or even tree-like and all have at least a potential to become noxiously invasive. *Vitex rotundifolia* already is so on beaches and dunes along the Atlantic and Gulf coasts.

**Volume 17 Update:** *Craig C. Freeman and Richard K. Rabeler*

- Lead Editorial Center: The University of Kansas; Lead Editors: Craig C. Freeman and Richard K. Rabeler; Technical Editor: Cassandra Howard
- Taxon Editors: Craig Freeman (The University of Kansas), Deb Lewis (Iowa State University), Richard K. Rabeler (University of Michigan), and Leila M. Shultz (Utah State University)
- Families: 8 families, 90 genera, 911 species; Linderniaceae (3 genera, 11 species), Orobanchaceae (28/285), Paulowniaceae (1/1), Pedaliaceae (2/2), Phrymaceae (4/106), Plantaginaceae (41/459), Scrophulariaceae (9/46), Tetrachondraceae (1/1)
- Illustrations: 217 species as full habit; 34 additional insets

**Status:** As of 31 May 2011, 56 of 98 treatments covering 500 species have been submitted; this translates to 57% of the genera and 53% of the species. Numbers increased significantly with the delivery of *Penstemon* (237 spp.), but manuscript delivery still lags significantly behind proposed delivery dates. Recently, 7 genera including 37 species became orphaned; we are currently in negotiation with a prospective author to prepare most, if not all, of these treatments. Nineteen treatments are at the 03 level, and almost all have passed the Biblio1 stage. Paulowniaceae has been posted as a provisional treatment at the FNA web site. Pre-01 treatments have been reviewed for *Castilleja* and *Euphrasia* and an outline of the proposed *Mimulus* treatment has been received.

The projected number of illustrations for the volume is 217, with 34 insets. Additional funds have been acquired to allow 1 in 3 species of *Castilleja* to be illustrated. As of March 2011, 74% of the required specimens have been pulled, with 31% of the pencil sketches and 13% of the inked illustrations completed. Specimens have been pulled for 63 of the 89 (70%) genera.

**What's exciting:** 5 families, 51 genera, 500 species have been submitted, *Penstemon* (237 species) was received and significant progress was made on *Mimulus*, now with 102 species.

**Volume 18 Update:** *Debra K. Trock*

- Lead Editorial Center: California Academy of Science; Lead Editor: Debra K. Trock; Technical Editor: Rebecca Peters
- Taxon Editors: Dave Boufford (Harvard University), Craig C. Freeman (University of Kansas), Lynn Gillespie (Canadian Museums of Nature), Jay Raveill (University of Central Missouri), Leila M. Shultz (Utah State University), Gordon Tucker (Eastern Illinois University), and Frederick H. Utech (Hunt Institute for Botanical Documentation)
- Families: 16 families, 123 genera, 566 species; Rubiaceae to Valerianaceae
- Illustrations: ca. 204 species as full habit; 1 additional inset

**Volume 28 and 29 Update**

**Bryophyte Editorial Center Update:** *Richard H. Zander*

- Bryophyte Editorial Center: Missouri Botanical Garden; Bryophyte Editor: Richard Zander (Missouri Botanical Garden); Nomenclatural Editor: Robert Magill, Bryophytes (Missouri Botanical Garden)
- Taxon Editors: Patricia Eckel (Missouri Botanical Garden), Terry McIntosh (University of British Columbia), Dale Vitt (University of Illinois at Carbondale), David Wagner (Northwest Botanical Institute), Alan Whittemore (U.S. National Arboretum, Washington, D.C.)
- Vol. 28: 47 families, 207 genera, 694 species; Vol. 29: 48 families, 124 genera, 538 species
- Illustrations: Vol. 28: 313; Vol. 29: 155

**Status:** For Vol. 28 (last of the two moss volumes), 96% of genera and 96% of species have been submitted. Fewer than 15 plates (half-panels) remain to be inked. It is hoped that all manuscripts will be in edit by the end of June, and the volume will appear in late 2011. For Vol. 29 (liverworts and hornworts), 26% of genera and 31% of species have been submitted. Hepaticologists are now mobilized, and work has begun in earnest to finish the last of the three bryophyte volumes in three years.

## Herbarium and Botanical Garden News

### Arctic Flora of Canada and Alaska

The Canadian Museum of Nature (National Herbarium of Canada, CAN) is pleased to announce the initiation of a new flora project, *Arctic Flora of Canada and Alaska*, that will treat all vascular plants in arctic regions of Canada and the adjacent North Slope of Alaska. This *Arctic Flora* will eventually serve as *the* reference tool for anybody who requires accurate and up-to-date information on Arctic plant species, needs or wants to identify Arctic plants in the field or herbarium, or simply wants to learn more about plant biodiversity in one of North America's most climate-threatened ecosystems. We aim to produce a treatment that is digital and interactive, taking full advantage of current (and future) web and database technologies. This Flora will be made available to the widest possible audiences, including botanists, other scientists, educators, students, and the interested public through digital and traditional media.

The *Arctic Flora of Canada and Alaska* project was initiated at our first meeting held at the Canadian

Museum of Nature in Ottawa on March 10–11, 2011. The Arctic Flora research team includes scientists from Canada (Université de Montréal, University of Ottawa, Agriculture and Agri-Food Canada, Canadian Museum of Nature, and University of Manitoba), Alaska (University of Alaska), and Norway (University of Oslo) who share common interests in plants, their taxonomy, the Arctic, and biodiversity informatics. The Project Secretariat, based at the Canadian Museum of Nature in Ottawa, Ontario, is responsible for leading, coordinating, and managing the project, and includes two project co-leaders (Dr. Lynn Gillespie and Dr. Jeffery Saarela) and a research assistant.

For more information visit our Arctic Flora website <http://arcticplants.myspecies.info/> or contact Dr. Lynn Gillespie ([lgillespie@mus-nature.ca](mailto:lgillespie@mus-nature.ca)) or Dr. Jeff Saarela ([jsaarela@mus-nature.ca](mailto:jsaarela@mus-nature.ca)). Please contact us if you are interested in becoming involved in this project.

—Lynn Gillespie, Canadian Museum of Nature

### Missouri Botanical Garden Library Dedicated in Honor of Dr. Peter H. Raven

To honor Dr. Peter Raven's legacy in science, conservation, and botany, the Board of Trustees formally dedicated the Peter H. Raven Library at the Missouri Botanical Garden with a private ceremony on Sunday, April 17. The dedication celebrates the tenure of the man who transformed the Missouri Botanical Garden in his nearly four decades as president and director. The Garden Library is globally recognized as one of the most comprehensive libraries of botanical literature in the world.

Raven is one of the world's leading botanists and a champion of efforts to protect biodiversity and create a more sustainable world. As president and director of the Missouri Botanical Garden for nearly 40 years, Raven led its transformation into a corner-to-corner horticultural masterpiece and a world leader in plant science and conservation. He has been called on to advise White House administrations and has received a remarkable list of awards, including the U.S. National Medal of Science, the country's highest award for scientific accomplishment and the International Cosmos Prize for biology from the government of Japan. In 1994, *Time* magazine honored Raven as a "Hero for the Planet." "The Garden has achieved an enormous level of impact under the leadership of Dr. Peter H. Raven, a man who has so profoundly transformed this institution that there is no simple way to express it," said Missouri Botanical Garden Board Chairman Arnold Donald. "He has taken every single aspect of the Garden's work and improved upon it expo-

nentially. The Garden is changed through his leadership. The city of St. Louis is changed. And, the world is changed." "To say Peter is a visionary does not begin to illustrate his vast accomplishments at the Missouri Botanical Garden as well as for the international botanical community," said Missouri Botanical Garden President, Dr. Peter Wyse Jackson. "He is an outstanding scientist who has also contributed his pioneering spirit and unique determination to every endeavor with which he has been associated." Located in the state-of-the-art headquarters of the Garden's Monsanto Center research building, the Missouri Botanical Garden Library is vital to the institution's mission "to discover and share knowledge about plants and their environment in order to preserve and enrich life."

The Missouri Botanical Garden Library began as a small collection of horticultural books owned by the Garden's founder, Henry Shaw. Shaw augmented the collection through his friendships with leading 19th-century naturalists, botanists, and other scientists. Today, through purchases and gifts, the collection has burgeoned to more than 200,000 monographs and journals and 6,000 volumes of rare books, including many with full-size plant illustrations important to botanical, horticultural, and natural history sciences.

The Library's vast holdings are available to Garden staff, students, and visiting scientists and researchers from around the world seeking to identify, classify, and conserve plants.

## Field Books a Growing Resource to Supplement Specimen Data

Two talks given at the Society for Preservation of Natural History Collections (SPNHC) annual meeting in San Francisco May 24–28 focused on projects to make field books of important botanical collectors more generally accessible.

Rusty Russell, collections manager of the Herbarium in the National Museum of Natural History of the Smithsonian Institution, reported on The Field Book Project, which is developing a Field Book Registry. The Smithsonian houses thousands of unpublished journals, notes, and images, and, for most of these, little documentation exists. Their overall mission is to create one online location for scholars to visit when searching for field books and other field research materials. This process will begin as a Smithsonian-wide initiative and lay the foundation for an online Field Book Registry comprised of content contributed by museums and research institutions from throughout the country. The field book registry will be a tool for the entire biodiversity community. As a community resource, the Field Book Project is committed to drawing on the expertise and experience of those who work with field books. They are currently conducting two surveys: one aimed at custodians and others involved in providing access to field books (<http://www.surveymonkey.com/fieldbooks/Catalogers>) and the second aimed at those who consult field books as part of their research (<http://surveymonkey.com/FieldBookUsers>). More information on the project, including Rusty's slide show, is available at <http://www.mnh.si.edu/rc/fieldbooks/>. The slide show has sample data entry forms and information on international data standards being used. Samples of the kinds of information contained in the database are available from Albert Spear Hitchcock Field Books and Constantine Samuel Rafinesque papers dated 1815–1934 and undated.

Andrew Doran, Administrative Curator of the herbaria at University of California, Berkeley, and colleagues reported on their archives database (Archon), which allows easier access to scanned field books of Willis Linn Jepson, Ynes Mexia, and Joseph Rock. They also have archival material of photographs, portraits, guest books, and correspondence. The Jepson field books have been available online since May 2008 at [http://ucjeps.berkeley.edu/images/fieldbooks/jepson\\_fieldbooks.html](http://ucjeps.berkeley.edu/images/fieldbooks/jepson_fieldbooks.html). Staff and volunteers have been transcribing pages, making more and more of this amazing and extensive record easy to read, although Jepson's handwriting is quite legible and the scans are of excellent resolution. Jepson collection records in the California Consortium of Herbaria database are now linked to the relevant page in the appropriate field book. The Jepson Field Books are actually full diaries and span the years 1895 to 1940. They are in more than 60 volumes each with about 200 pages. Jepson described the landscapes, the vegetation, and the people he encountered on his field trips. The entries range from lyrical to analytical to quite humorous. In his books, there are often many pages of observations of species abundance and general appearance not directly related to any specific collection. He also wrote extensive notes on the plants he saw or that he collected, comparing them with others he had seen elsewhere. This is an amazing record that should be of interest to anyone studying any aspect of California history. It will be very useful for anyone trying to track down a particular Jepson collection location since he included detailed information on his itineraries, including hand-drawn maps and sketches. Although he collected mostly in California he also botanized elsewhere in the west and in Palestine.

—Nancy R. Morin

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## Electronic Resources

### Flora of the Canadian Arctic Archipelago Now Available on Web

The Canadian Museum of Nature (National Herbarium of Canada, CAN) is pleased to announce that the published version of the *Flora of the Canadian Arctic Archipelago* is now freely available on the Museum's website: <http://nature.ca/en/research-collections/our-research/areas-expertise/botany/flora-canadian-arctic-archipelago>. This interactive flora by Susan Aiken et al. (2007) covers the 347 taxa of vascular plants found on the Arctic Archipelago of Canada. This flora was initially published as a CD-Rom by NRC Press and the Canadian Museum of Nature, and is available for purchase through

the website. The online version includes an erratum; content is otherwise identical to the published CD version. The Flora will eventually be superseded by the *Arctic Flora of Canada and Alaska*. This new online version of the *Flora of the Canadian Arctic Archipelago* replaces the older out-of-date version that was previously available online.

For further information, please contact Dr. Laurie Consaul ([lconsaul@mus-nature.ca](mailto:lconsaul@mus-nature.ca)) or Dr. Lynn Gillespie ([lgillespie@mus-nature.ca](mailto:lgillespie@mus-nature.ca)).

## Michigan Flora Online: A New Resource for Michigan and Great Lakes Botanists

In time for the next field season, the new Michigan Flora Online website (<http://michiganflora.net/>) is available for all vascular plants. The site includes keys to families, genera, and species, plus maps and discussion as in the three volume Michigan Flora, but has in addition color photos of many species (and we are interested in adding to our photo coverage).

Names (including family assignments) are updated from Michigan Flora to take into account recent research in plant systematics, and the maps are also updated to reflect numerous new collections from Michigan. Another addition to the published Michigan Flora is that this site includes treatments for all the ferns. Lists of all the changes in family assignments and new names and species are provided as separate documents. The site also

includes searching capabilities that allow generation of lists of all species documented from any county or set of counties, and the ability to download these lists into a spreadsheet. These lists can also be modified by selecting specific families or genera, life form (physiognomy—trees, shrubs, forbs, grasses, sedges, ferns, etc.), wetness index, state status, native versus adventive, and coefficient of conservatism. This allows generation of customized lists for various purposes, for example, all native woody plants, all wetland grasses, etc., for any county or for the entire state.

We invite all botanists not only to use the website, but contribute to it in the form of new records (documented by specimens) and photos.

—Tony Reznicek, University of Michigan

## Morton Arboretum Database for Integrated Plants Now Available

We are very pleased to announce that the new Integrated Plants Database of The Morton Arboretum is up and running, just in time for the field season. This system provides integrated access to data on the plants of the Arboretum's living collections and herbarium, as well as specimen-level links to the Arboretum's outstanding interactive collections map, scanned herbarium sheets, and (for a few species) photographs of living plants. The system is mounted

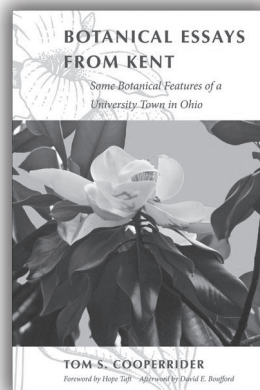
online and usable by anyone in the world. You can reach it directly at <http://quercus.mortonarb.org>. The database can be used to figure out where to find a particular species on the Arboretum grounds, get a quick idea of what a plant looks like, determine when plants will flower or study the distribution of plants.

We hope you enjoy the database and find it useful.

—Andrew Hipp, The Morton Arboretum

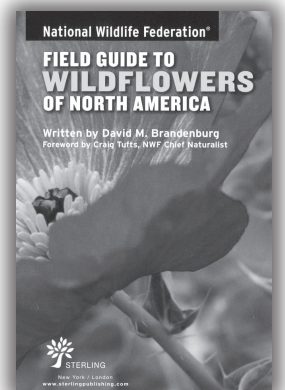
## Publications

*Botanical Essays from Kent: Some Botanical Features of a University Town in Ohio* by Tom S. Cooperrider. Foreword by Hope Taft. Afterword by David E. Boufford. 2010. (ISBN 978-1-60635-043-0, hbk.). The Kent State University Press, Kent, OH 44242, U.S.A. ([www.kentstateuniversitypress.com](http://www.kentstateuniversitypress.com)). \$16.95, 89 pp, color photos, 6" × 9".



From the Publisher: During the latter half of the twentieth century, the world witnessed the rise of modern environmental movement. Chronicling this significant occurrence in Kent, Ohio, a Midwestern university town, this collection of writings and photographs captures the spirit and excitement of botanical fieldwork during the 1960s, '70s, and '80s. The Kent Bog, dedicated as a state nature preserve in 1987, is the book's focal point.

*National Wildlife Federation Field Guide to Wildflowers of North America* by David M. Brandenburg. Foreword by Craig Tufts. 2010. (ISBN 978-1-4027-4154-8, pbk.). Sterling Publishing Co., Inc., 387 Park Ave. S, New York, NY 10016. [www.sterlingpublishing.com](http://www.sterlingpublishing.com)). \$19.95, 673 pp, 4,000 + color photos, 4¾" × 7¾".



From the Publisher: More than 2,200 species of wildflowers in a single, portable volume. More than 4,000 stunning color photographs by leading nature photographers, including details of flowers, leaves, and fruits. Wildflowers arranged by genus, with description and range map included for each genus. Captions highlighting important field marks. Information on season and habitat for each species. Fruit illustrations included for several families. Range maps showing U.S. distribution.

Separate section on species introduced into North America. Quick-identification key arranged by color and shape. Detailed, illustrated visual glossary of flower

parts and leaf types. Essays on wildflower habitats and conservation. Waterproof cover.

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## OBITUARIES

### Frederick W. Case Jr.

1927–2011

Well-known teacher and botanist Frederick W. Case Jr. passed away Wednesday, January 12, 2011, at 83.

The son of the late Julia Blanche (Coash) and Frederick W. Case Sr., was born February 16, 1927, in Saginaw, Michigan. He married Roberta Elizabeth (Boots) Burckhardt, February 14, 1953. She passed away June 8, 1998. He was a graduate of Arthur Hill High School and received his Bachelor of Science and Master's in education from the University of Michigan. He served with the U.S. Army during WWII. He returned to Arthur Hill High where he taught biology and natural science until his retirement and he was named their Honor Alumnus in 1978. Fred was named the Outstanding Biology Teacher in Michigan in 1971 and Outstanding Science Teacher in 1987. Fred and Roberta authored three books and authored or co-authored many articles for magazines and scientific publications about native orchids, trilliums, insectivorous plants, wildflowers, and gardening; among them are his

treatments of *Trillium* and *Sarracenia* (co-authored with Lawrence Millichamp). He received numerous awards and recognition for his achievements in botany and lectured extensively. He had been associated with Cranbrook Institute of Science, The University of Michigan Matthaei Botanical Gardens, Longwood Gardens, The Michigan Dept. of Natural Resources Committee on Endangered and Threatened Plants, the Michigan Botanical Club, North American Rock Garden Society, the Saginaw Valley Audubon Society, Saginaw Valley Orchid Society, The Nature Conservancy, Michigan Nature Association, and many other horticultural groups. He enjoyed opera, theatre, reading, traveling, fine dining, and ketchup.

Those planning an expression of sympathy may wish to consider the Nature Conservancy of Alabama, Roberta Case-Pine Hill Reserve, the Michigan Nature Association, the Children's Zoo at Celebration Square, or the charity of their choice.

### Walter Almond Kelley

1942–2010

Walter "Walt" Kelley passed away suddenly on December 31 in the rainforest of Costa Rica, a place he loved and cared for. He was 68. Walt was born August 20, 1942, in Texarkana, Texas, to Franklin Walter Kelley and Lillian Almond Kelley. He spent part of his childhood in Roswell, New Mexico, before moving to Southern California. He enjoyed wonderful summers in east Texas with grandparents as well as aunts and uncles, which nurtured his love of gardening and the outdoors. He attended North Hollywood High School and ultimately California State University at Northridge, where he received both his Bachelor's and Master's degrees in biology. It was in an organic chemistry class that he met the love of his life, Janet Baer. After some time as "hiking buddies," Jan and Walt were married April 2, 1971. They moved to Fort Collins, Colorado, two years later so that Walt could pursue a Ph.D. in Botany, studying isoenzymes in junipers. It was there that his first son, John, was born. Walt finished his dissertation with John in a crib nearby. The family

moved to Grand Junction in 1977 when Walt accepted a Professor of Biology position at Mesa State College; four years later his second son, Steven, joined the family. Walt spent 30 years at Mesa State researching and passing on his love of plants. His passionate and talented teaching touched countless students, some of who went on to have careers in related fields, thanks to Walt's inspiration. Beyond his teaching, Walt was deeply dedicated to scholarly pursuits: he contributed to a section of the California Flora, worked on various projects with Nature Conservancy, BLM, the Ute Tribe, Earthwatch, and others. He was the author of *Calandrinia* and *Cistanthe* in FNA Volume 4 and also worked on *Cryptantha*. In 1989, Walt traveled to Costa Rica and sparked a 20-year love affair with that rich country. During this time, he became fascinated by the tropics and devoted to the study of pipers, working in partnership with the Organization for Tropical Studies. Please donate in Walt's memory to Save the Rainforest or another charity of your choice.

## Leslie J. Mehrhoff

1950–2010

Leslie J. Mehrhoff, 60, passed away suddenly on Wednesday, December 22, 2010, at his home in Willington, Connecticut. Born March 16, 1950, in Morris Plains, New Jersey, to Leslie and Jessie Mehrhoff, he leaves behind his beloved wife, Olga; daughter, Jessie; and field-dog, Moxie. Les received his B.S. from New England College in Henniker, New Hampshire. He went on to receive his M.S. and Ph.D. from the University of Connecticut in Storrs. Before retiring in July of 2009, Les worked for the Department of Ecology and Evolutionary Biology at UConn as the curator of the George Safford Torrey Herbarium.

A naturalist, he sought involvement in organizations including, but not limited to, the Connecticut Botanical Society, New England Wildflower Society, and the Torrey Botanical Club. He also participated in

various committees such as the Arnold Arboretum at Harvard University, CT chapter of The Nature Conservancy, and The CT Invasive Plant Working Group, and served as one of the Invasive Plant Atlas of New England Project Managers.

Les was also a champion in the defense of all living things, from releasing insects found indoors to the safety of their natural habitat, to eradicating invasive species through his teachings and field work. As an avid fan of the UConn Men's Soccer team, Les could be found proudly cheering from the stands.

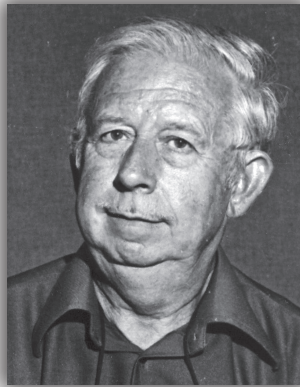
Les's legacy will be carried on by the many people he inspired and befriended. A celebration of Les's life will be held in Storrs, CT. In memory of Les, please perform an act of kindness for the preservation of our environment.

## John K. Morton

1928–2011

John Kenneth Morton, a contributor to the *Flora of North America*, died on January 9, 2011, at his residence in Waterloo, Ontario. He was born in Yorkshire, England, and completed his B.Sc. (1949) and Ph.D. (1953) at King's College, Durham (now the University of Newcastle). From 1951 to 1961, he was a lecturer in the Botany Department at the University of Ghana. He was lecturer at the University of London, U. K., Birkbeck College, from 1961–63, after which he returned to Africa, becoming Professor and Head of the Botany department at the University of Sierra Leone from 1963 to 1967. In 1968, he came to North America as Professor of Biology at the University of Waterloo, a position he held until he retired in 1994. During his career at the University of Waterloo, he chaired the department from 1974 to 1980 and supervised 11 graduate students, including Luc Brouillet. Richard K. Rabeler also benefited from his expertise; John was the outside examiner on his dissertation at Michigan State University. John published approximately 140 papers, mostly in refereed journals, over his rich career.

In both Africa and Canada, John engaged in taxonomic research, notably using cytotaxonomy and



cytogeography, and in floristics and phytogeography. He did extensive field work, collecting a large number of specimens; in North America, much of his work focused on Ontario and a number of trips to the southern United States. His personal collection of about 15,000 sheets will be divided, with MO receiving his African material and TRT receiving his other, chiefly North American specimens. Some of his collections are included at WAT, with many duplicates and cytological vouchers also found elsewhere.

Much of his taxonomic work encompassed biosystematic studies in the family Caryophyllaceae, especially the genera *Cerastium*, *Stellaria*, and *Silene*. Cytology was an important component of many of his studies, dating from his early work on polyploidy in the family in Britain and Portugal (Blackburn & Morton 1957: *New Phytologist* 56:344–352). His early experiences with these plants in their native European environs also proved useful in his North American work; as an example, John was the first to report *Stellaria pallida* in North America (1972). He was also interested in the Lamiaceae and in the *Solidago canadensis* group (Asteraceae). His vast interests also led him to publish an "An atlas of pollen of the trees and shrubs of eastern Canada and the adjacent United States" (1972, 1974, 1976, 1979) with R. J. Adams. In floristics, John became a specialist in the flora of Ontario, producing several works in collaboration with Joan M. Venn: *A Checklist of the Flora of Ontario*. Vascular Plants (1990); *The Flora of the*

*Tobermory Islands* (1987); and *The flora of Manitoulin Island and adjacent islands of Lake Huron, Georgian Bay and the North Channel* (1977, 3rd ed. in 2000), all published in the University of Waterloo Biology series.

Little known to his fellow botanists, John was also a keen entomologist. He was working on a list of the moths of Manitoulin Island (Ontario); he spent many summers on Manitoulin studying both insects and plants. A large number of his specimens were donated to the National Collection (CNC) in Ottawa.

John also was influential as a conservationist in Canada. Together with Linda Kershaw, he published in the Canadian Botanical Association Bulletin “a list of rare and potentially endangered species in the Canadian flora” (1976), before much of the enhanced interest in preserving our flora. During his career, he served on

numerous committees devoted to the conservation of endangered ecosystems and on recovery program for endangered species of the Great Lakes.

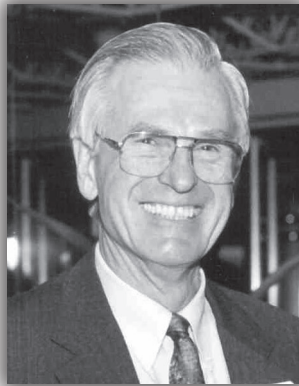
John was very much involved in the Canadian Botanical Association, which he chaired in 1974, in addition to numerous activities on the Systematics and Phytogeography Committee. He served as editor of the CBA Bulletin from 1971 to 1979.

John was deeply involved with the Flora of North America project. He was regional reviewer for the Eastern Canada region; his extensive knowledge of the Ontario flora was critical here. He also made a seminal contribution as the author of *Cerastium*, *Silene*, and *Stellaria* (Caryophyllaceae), a total of 126 species, in Volume 5 (2005).

—Luc Brouillet (MT) and Richard K. Rabeler (MICH)

## Donald E. Stone 1930–2011

Donald Eugene Stone died from a short bout with cancer on Friday, March 4, 2011, in Durham, North Carolina. Don was born on December 10, 1930, and grew up in Eureka, California. Don did his undergraduate work at Humboldt State College and the University of California at Berkeley. He remained at Berkeley and was awarded his Ph.D. in Botany in 1957. Subsequently, he taught at Tulane University for six years. In 1963, he joined the Botany Department at Duke University and taught at Duke for the remainder of his career. In 1969–70, Don took a one-year leave of absence to serve as the Associate Program Director in Systematic Biology at NSF. In 1976, while teaching full-time at Duke, he began shepherding the Organization for Tropical Studies (OTS) as its Executive Director, expanding the consortium from 20 to more than 60 universities, colleges, museums, and research institutions. During this period he enhanced the Organization’s field-based graduate courses and created an on-the-ground training program for policy makers. Most importantly, he strengthened OTS’s three biological field stations in Costa Rica, La Selva, Las Cruces, and Palo Verde, as major research centers, and, in particular, established the La Selva



station as one of the most important sites in the world for research in tropical biology. In the early 1980s, under Don’s guidance, OTS took a leadership role, along with the John D. and Catherine T. MacArthur Foundation, the World Wildlife Fund, and The Nature Conservancy, in establishing a protected, 47,000-hectare, forested corridor from the Braulio Carrillo National Park, located in the central highlands of Costa Rica, to La Selva, more than 35 miles away in the Caribbean lowlands. As result of these efforts, in 1985 OTS was the first organization to be awarded the John and Alice Tyler Prize for Environmental Achievement. When Don retired from OTS in 1996, he served as the chair of the Botany Department at Duke for three years. In 2000, he joined the OTS Board of Visitors, which he formed in 1992, and from 2003 to 2005 he served in a volunteer capacity as OTS’s Interim Executive Director during an 18-month search for the current CEO. Don’s own research interest centered on the systematics and evolution of temperate and tropical plants using biochemistry, cytotaxonomy, comparative anatomy, and comparative morphology in the walnut family (Juglandaceae), and pollen development in the ginger family (Zingiberales). In addition to many other publications, he contributed Juglandaceae to the floras of Mesoamerica, Nicaragua, Costa Rica, and China, as well as *Juglans* and *Carya* to the Flora of North America, Volume 3.

Memorial contributions may be sent to OTS, Box 90633, Durham, NC 27708-0633.

## Sam Vander Kloet

1937–2011

Sam Vander Kloet, honorary research professor in Acadia's Department of Biology, passed away while on an evening walk in Wolfville, Friday, January 21, 2011.

A long-standing member of the Biology Department, Sam arrived at Acadia, Nova Scotia, in 1972 as an Assistant Professor at the invitation of E.C. Smith to take on the Directorship of the E.C. Smith Herbarium. Sam had a passion for blueberries and was recognized as one of the world's foremost authorities on this group of plants. This love took him far and wide across the planet in search of near and distant blueberry relatives. This lifelong research program resulted in his contribution to Volume 8 of the Flora of North America regarding the taxonomy of the genus *Vaccinium* and close relatives.

Following his retirement in 2001, Sam continued to pursue his research and actively collaborate with colleagues at Acadia and beyond. Locally, he was recognized as the ultimate proponent of active transportation, and could be seen cycling or walking in any weather in any season, including nearly daily trips between Wolfville and the Kentville Research Station. He remained very active on Acadia's campus and was a constant presence in the K.C. Irving Environmental Science Centre and Harriet Irving Botanical Gardens where he tended his beloved blueberries, offered his expertise, and shared his concern for our environment with Garden volunteers, students, and visitors.

### Meetings/Workshops

#### 58th Annual Systematics Symposium, Missouri Botanical Garden

October 7–8, 2011, Saint Louis, Missouri

#### Topic: Trees. The United Nations has declared 2011 to be the Year of the Tree

Friday 7:30 – 9:30 p.m.

Saturday 8:30 a.m. – 8:30 p.m.

Andrew Groover (USDA, Davis)

David Hibbett (Clark U.)

David Kenfack (Harvard U.)

Elizabeth Wheeler (NC State)

To be announced

Allison Miller (SLU) and Briana Gross  
(USDA, Fort Collins)

Martin Gardner (RBG, Edinburgh)

Informal mixer in Ridgway Center

Talks in Ridgway Center

What genes make a tree a tree?

Mycorrhizae and fungal breakdown of lignin

50-Hectare plots

Tree decomposition and fossilization

Ecophysiology/climate change

Domestication of tree crops

**Evening speaker:** Conservation of conifers

Registration must be accompanied by a \$50 registration fee, which also covers the cost of refreshments at the Friday mixer and lunch (but not dinner) on Saturday. The cost of the dinner on Saturday is an additional \$50. Information on local hotels and motels will be available to registrants. No refunds will be granted after September 24. There is no guarantee of food being available if you register after September 24. Please use electronic registration and payment at <http://www.mobot.org/MBGSystematicsSymposium>.

#### Organizing committee

**P. Mick Richardson and Amy Zanne. Supported by the National Science Foundation**