

build to track herbaria?

What are ways that information can be shared, and how can societies help?

How can resources be distributed more effectively? A LISTSERVE was suggested as a good starting point for discussion, and Aaron Liston volunteered to set this up. (As a postscript, the new list serve has already been established by Aaron and is being served from Oregon State. As of this writing, there are over 260 subscribers, and there have been many lively discussions. To subscribe, or to learn more about the list, visit < <http://scarab.science.oregonstate.edu/mailman/listinfo/herbaria> > .

Publicity suggestions included making friends with your local science reporter, and getting articles into your institution's alumni magazine.

Use collections to get information on collectors as a development database.

Property rights issues must be taken into account in creating databases; working with landowner-oriented groups is worthwhile.

We need to fully understand and document what remains to be done.

Having a coherent mission, and being able to articulate it well, is important, especially when an herbarium is under scrutiny. A good example is the herbarium at the University of Arkansas, where their mission to complete the Flora of Arkansas helped them survive closure, while other parts of the former Museum did not survive.

Sharing our experiences and ideas should help us come to a broader understanding of these issues and should be beneficial to all of us, even those of us not directly threatened in this present environment

Acknowledgments: We would like to thank the five panelists who agreed to discuss their thoughts and experiences: Barbara Ertter, Gerald (Stinger) Guala, Aaron Liston, Muriel Poston, and Judith Skog. We also thank the supporting societies, and Jeff Osborn, the Program Director for the meeting. Barbara Ertter supplied us with a CD-ROM version of her presentation and Dick Jensen and Anna Monfils gave us their notes, so that the summary might be as accurate as possible

In Memoriam

Richard Alden Howard, 1917–2003. Richard Alden (Dick) Howard, 86, died on 18 September 2003. He was a professor at Harvard University for 50 years and director of the Arnold Arboretum for 24 years (1954–1978). He was also formerly assistant curator and later Vice President for Botanical Science at the New York Botanical Garden, and a former professor at the University of Connecticut. He was director of the Arnold Arboretum during the contentious period when a portion of the herbarium collections of the Arnold were moved from Jamaica Plain and united with the collections of the Gray Herbarium in Cambridge, a move strongly opposed by the Arboretum's Visiting Committee; eventually, the case was heard by the Massachusetts Supreme Court. Howard's strong leadership was crucial during this difficult time. Born in Stamford, CT, and raised in Warren, Ohio, he received his A.B. from Miami University of Ohio, and his A.M. and Ph.D. degrees from Harvard University. In 1977 he was awarded an honorary D.Sc. from Framingham State College.

Howard was drafted into the Army Air Corps during World War II and served as an aviation physiologist during which time he organized and conducted the Jungle Survival Program of the School of Applied Tactics at Orlando, FL, the progenitor of the current Air-Sea Rescue Service. He prepared survival manuals that explained how to live off the land for airmen downed in the Pacific region. He was awarded the Legion of Merit for this lifesaving work. One interesting story from this period is that dermatitis was frequent among airplane mechanics in the Pacific who changed tires and serviced brakes. Howard was called in to investigate because the wartime oils were plant-based due to petroleum shortages, and the culprit turned out to be the oil extracted from cashew shells (*Anacardium occidentale*, Anacardiaceae) that was used in the manufacture of brake linings. He continued to serve as consultant to this program as it evolved in the different branches of the services. He also served as consultant for the Arctic Desert Tropic Information Center. During the Vietnam War, Howard was consulted on another situation—dermatitis was appearing in a wide circle around the buttocks of soldiers. Howard found that latrine seats had been covered with lacquer, the sap from *Rhus vernicifera* (or *Toxicodendron vernicifluum*).

Howard's scientific interests and accomplishments were diverse. His taxonomic specialty was the genus *Coccoloba* (Polygonaceae), the subject of numerous publications between 1949 and 1992. He also studied the Icacinaceae. Another area of expertise was the anatomy of the stem-node-leaf continuum of dicots, resulting in an often cited summary paper published in 1974.

As a Harvard graduate student in 1940, Howard visited the Atkins Institute garden in Cuba, then a unit of Harvard's Arnold Arboretum. (This is now the Cienfuegos Botanical Garden; Howard revisited the garden in 1999.) From his first visit grew a lifelong interest in plants of the West Indies, resulting in many publications, beginning in his graduate student days, continuing

through his publication of an article listing the equivalent modern names for all of the names used in Nicholas von Jacquin's *Enumeratio Systematica Plantarum*, in which many plants from the West Indies are described. His most significant research in this area resulted in his six-volume *Flora of the Lesser Antilles* (1974–89). The vegetation of volcanic islands was of particular interest, resulting in a 1972 article on volcanism and vegetation in the Lesser Antilles. In 1950, he had made general collections in the vicinity of the Soufrière Hills volcano in St. Vincent. One collection seemed to be a new genus or species of either the Gesneriaceae or Scrophulariaceae. He returned to the volcano in 1972 in search of additional material. Despite indications that the volcano might be preparing for an eruption (the water temperature in the crater was 80° C), Howard and his son Bruce searched the area. Today, Bruce remembers trekking all day in the smoke and steam searching for a plant he had never seen before. Finally, he pointed to a plant near the rim of the volcano, and that turned out to be the right one. Numerous specimens were collected, and after further study Howard named the plant *Lindernia brucei* (Scrophulariaceae).

In the 1950s and 1960s, he played an active role in helping aluminum companies revegetate strip-mined ore areas in Jamaica, the Dominican Republic, and Hawaii. This work led to effective rehabilitation of mined-out lands and proved dramatically that strip-mining for bauxite ore need not be forever damaging to the environment but could, in fact, improve the soil if better crops and land use are established after mining. Howard obtained a grant from the National Science Foundation to study the ecology of elfin forests found at high elevations in Puerto Rico, resulting in 17 publications, as well as successful collaboration with doctors at the National Institutes of Health in their search for possible cancer medicines.

Throughout his career, Howard accumulated what he called “a miscellany of notes” that he used in lectures. He put these together into the wonderfully entertaining book, *An Almanac of Botanical Trivia*, privately published by the author in 1996. Rarely found in libraries, it is still available from the Missouri Botanical Garden Press < <http://www.mbgpress.org/> > . See a short review in *ASPT Newsletter* 11(1), July 1997 < http://www.inhs.uiuc.edu/~kenr/ASPT/newsletter11_1.html > and a longer review in *Taxon* 45:398–399, 1996 < <http://istsocrates.berkeley.edu/~schmid/taxonHoward.html> > .

Howard received many honors from professional societies as well as horticultural and scientific organizations, such as the Allerton Medal of the National Tropical Botanical Garden, the Liberty Hyde Bailey Medal from the American Horticultural Society, the George Robert White Medal by the Massachusetts Horticultural Society, and other awards from the American Herb Society, the Royal Academy of Arts and Sciences in Denmark, and the Garden Club of America. He served as treasurer of ASPT from 1952–1956.

Howard and his wife Betty traveled the world looking at plants. He was a member of the Botanical Society of America delegation to the People's Republic of China,

which was one of the first scientific delegations permitted into China after the revolution. An active and popular lecturer, Howard had a way of making plants interesting to his audience and he was invited to speak all over the country, illustrating his lectures with slides from his collection of 27,000 botanical images. In the Boston area his lecture “A Botanist in Your Grocery Store” was often requested, and he and colleague Carroll E. Wood, Jr. led a series of dinner lecture classes called “Botany in Boston Restaurants” where he arranged the menu with the restaurant and then described the botanical and culinary properties of the plant material being served to the dining participants. At one Greek restaurant, one dish served was dolmathes, stuffed grape leaves. Howard asked the chef where they obtained their grape leaves, not readily available in Boston at that time of year. Forgetting where the group was from, the chef replied, “Why I take them off grape vines at the Arnold Arboretum!”

Howard was a tall man with a strong voice, enormous energy, and a commanding presence. His classes at Harvard were filled, despite their reputation of being intensive and demanding; in his plant family class, he didn't cover selected families, he covered them all. Both his classes and lectures were filled with famous stories. When teaching general biology one year, he went to the grocery store for some bleu cheese for the students to examine under the microscope for *Penicillium*. But no *Penicillium* was present. Enraged, Howard took the cheese back to the grocery store, exclaiming, “There is no mold in this cheese!” The clerk replied, “Sir, we do not sell moldy cheese.” Once the situation was clarified, the grocery store investigated with the cheese manufacturer and found out that the blue veins were actually dyed bread crumbs.

Botanists from around the world, staff members of the Arnold Arboretum, and graduate students at Harvard remember many occasions when the Howards entertained them at their house at the Case Estates in Weston. On one occasion they invited a new neighbor. Dick introduced him to his young son Philip as Dr. so and so. And Philip quickly responded, “Are you a sick doctor or a think doctor?” Often the meals included a variety of West Indian dishes featuring assorted fruits and vegetables so familiar to Dick from his travels, while international botanists would be introduced to American foods.

He was married to Elizabeth S. (Betty) Howard for 57 years, who predeceased him. He leaves his children Jean Howard Rodriguez, husband Ed, and grandchildren Timothy, Benjamin, and Lydia Rodriguez of New York, NY; Barbara Howard, M.D., husband Ray Sturmer, M.D., and grandchildren Rebecca, Samuel, Benjamin, and Leonard Sturmer of Baltimore, MD; Bruce Howard, wife Love Albrecht, and grandson Griffin Howard of Hingham, MA; and Philip Howard, USN, and wife Barbie of Fort Leonard Wood, MO. Donations may be sent to the “Richard A. Howard Fund in Botany” at Miami University, 725 East Chestnut Street, Oxford, Ohio 45056. — Based on text supplied by Jean Rodriguez and Bruce Howard, with additions by Kenneth R. Robertson and Lorin I. Nevling.

Craig William Green, 1949–2003. Craig William Greene, the Elizabeth Battles Newlin Chair in Botany

at the College of the Atlantic (COA) in Bar Harbor, Maine, died on October 2, 2003 following a long struggle with pancreatic cancer. He is missed by family, friends, students, and colleagues for his enthusiasm, professional accomplishments, and friendship.

Craig was born in Geneva, New York, and earned a B.S. from SUNY College of Environmental Science and Forestry, Syracuse, majoring in forest botany. He received an M.Sc. in plant taxonomy from the University of Alberta, where he worked on the taxonomy of *Smelowskia calycina* (Cruciferae) in North America under the guidance of John G. Packer. His Ph.D. was in biology from Harvard University, his major advisor was Reed C. Rollins, and his dissertation was “The Systematics of *Calamagrostis* (Gramineae) in eastern North America.”

After completing his Ph.D. in 1980, Craig went to COA where he was a revered teacher and active in many other parts of the institution. Craig’s teaching gift came from his broad understanding of the natural world, clarity of expression, and compassion for students. In Alberta, in Cambridge, and at COA, he taught a wide range of courses. In more than two decades at COA, he did courses in biology, economic botany, introductory botany, genetics, morphology and diversity of plants, natural history, plant taxonomy, plant systematics, population and community ecology, and woody plants. He especially enjoyed field courses and took students to many wonderful sites on Mount Desert Island (MDI). He chaired several committees at COA and, starting in 1996 was Associate Dean of Advanced Studies with administrative responsibility for the Master’s of Philosophy in human ecology.

Craig’s research focused on agamic complexes and the coastal flora of Maine. His work on high polyploidy, facultative agamospermy, and complex patterns of morphology in *Calamagrostis* (Poaceae) was a significant contribution to our knowledge of evolution in agamic complexes. His interest in *Calamagrostis* also included floristic treatments, such as *The Jepson Manual (California)*, *Vascular Plants of British Columbia*, and *Flora of North America* (his treatment is in press). Craig’s expertise in agamic complexes easily translated to *Amelanchier* (Rosaceae), which was particularly attractive because coastal Maine is a center of diversity of the genus. Craig got COA students involved in getting chromosome counts, carrying out experimental pollinations, and assessing patterns of population variability in populations of MDI shadbushes. Craig held high standards in his research and publications. His science was founded on rigorous methodology and led to prudent conclusions that were succinctly presented and illustrated with high-quality graphics.

Not long after moving to Maine, Craig began working on its coastal flora, especially on MDI and in Acadia National Park. With students and collaborators, he carried out surveys of endangered plant species and freshwater aquatic vegetation. He worked for many years on the flora of the park, and a publication on this flora is in preparation. He was an ecological consultant for Acadia National Park starting in 1985 and a member of the Maine Endangered Plant Technical Advisory Committee (later called the Botanical Advisory Group) starting in 1987.

Craig balanced his commitment to his profession with devotion to family and friends. He also sustained passionate interests in fly-fishing, home-brewing, bicycling, and nature photography. He had a life-long love of fishing mountain brooks, especially those near the Adirondack cabin built by his great grandfather and grandfather in 1911. Many friends delighted in his high-quality home brews, which were also home-labeled with names such as Otter Ale and Badger Beer. His beer-brewing log records a total of 1,535 gallons, with production extending into the last year of his life. In the late 1980s Craig took up bicycling. He helped organize and rode in the annual Tour de Cure fund-raising ride on MDI every year that it was held, including 2003. Except for this year, he always rode the 100-kilometer option in the tour, a beautiful ride near the shores of MDI. During his many botanical field trips, Craig took pictures. In the past couple of years he developed some of his favorites, and they reflect his love of the natural world and his creativity. There was a show of his photographs at COA in 2002. The high esteem held for Craig was clearly evident on 21 May 2003 when the Botany Lab at COA was dedicated to him. The event packed an auditorium with COA faculty and staff, current and former students, family, as well as many professional colleagues and friends from near and far. For almost three hours, there was heart-felt gratitude, fond recollections, and praise for all Craig did for so many people. The words on the bronze plaque outside the Botany Lab summarize his stature: “His knowledge, excellence in teaching, and enthusiasm for the role of plants in human affairs have inspired two decades of students and beautified the landscape of our campus.”

Craig was supported throughout his illness by family and many friends, and he died at home among them.—Christopher S. Campbell, Department of Biological Sciences, University of Maine, Orono, ME 04469-5722.

George H. Ward, 1916–2003. In 1940, when George Ward was a young man and had just recently earned his Bachelor’s degree from Washington State College, he bicycled from his home in Chelan, Washington, to White Salmon where he had accepted a position to teach Vocational Agriculture at Columbia Union High School. His responsibilities included animal husbandry, farm management of crops and soils, and farm shop. He also trained judging teams and organized a camera club. His classes were taught downstairs in the building now locally called the Park Center. To come full circle, his final honorifics also were held in the Park Center.

He taught at White Salmon for two years, and then, being invited by Dr. Marion Ownbey, returned to Washington State College to continue his scientific education. George, who was endowed with a natural ability for plant identification, was excused from formal classes to do an independent study of the conifers on campus. The result was an identification key which still is used by botanists. The main part of his work towards a Master’s degree was collecting and identifying the flora of Chelan County, Washington. For two summers he covered the rugged, mountainous area north of Lake Chelan. He traveled by foot and was supported by two pack-horses to carry supplies, equipment, and continually enlarging bundles of

1997, he became the Class of 1954 Professor in the Biology Department. He has published more than 150 articles in professional journals.” Funded by The John D. and Catherine T. MacArthur Foundation, each fellow will receive \$500,000 in “no-strings-attached” support over the next five years.

John P. Janovec has joined the staff of the Botanical Research Institute of Texas (BRIT) as head of the Andes-Amazon Program. He has a Ph.D. from Texas A&M University and a B.S. from Kansas State University. Most recently, he was a postdoctoral research fellow with Scott Mori at the New York Botanical Garden. He goes to BRIT with considerable field research in Belize, Brazil, Costa Rica, Ecuador, Peru, the Great Plains of the United States, and East Texas. His systematic expertise is in the Myristicaceae, and he is co-founder of “The Neotropical Botany Pages” < <http://www.botanypages.org/> > . His new contact information is < jjanovec@brit.org > ; 817-332-4441, ext. 34; Botanical Research Institute of Texas, 509 Pecan Street, Fort Worth, Texas 76102-4060.

Amanda K. Neill was hired in June, 2003 by the Botanical Research Institute of Texas (BRIT) as Collections Manager and Head of Botanical Information. Her primary responsibility is the direction of the BRIT Herbarium (BRIT/SMU/VDB Collections), the second largest in Texas, with approximately 1 million specimens. Neill was previously a doctoral fellow at the New York Botanical Garden and the City University of New York, where she has completed her candidacy. She continues her monographic work on *Gurania* (Cucurbitaceae) at BRIT. Contact Neill directly for loan requests at < aneill@brit.org > ; 817-332-4441, ext. 17; Botanical Research Institute of Texas, 509 Pecan Street, Fort Worth, Texas 76102-4060.

Sarah E. Edwards, a student of Dr. Michael Heinrich at the Centre for Pharmacognosy and Phytotherapy in the School of Pharmacy at the University of London, is the recipient of the 2003 Lawrence Memorial Award. For her dissertation research, Ms. Edwards has undertaken a study on the medical ethnobotany, from plant systematics to indigenous taxonomy, of the Wik and Kugu people of Cape York Peninsula. She will use the proceeds of the award for travel in Australia to conduct field research. For information on how to apply for the 2004 Lawrence Memorial Award, see “Funding and Award Opportunities.” This award honors Dr. George H. M. Lawrence, founding Director of the Hunt Institute for Botanical Documentation.

JOB OPPORTUNITIES

Persons in the job market should consult the Newsletter/“Current News” section of the ASPT homepage < <http://www.sysbot.org> > for detailed descriptions. Below are *very* abbreviated listings of job notices that have appeared on that source; complete information needed for applications is not included here. For many positions, the

deadlines have passed and the positions may be filled. The listing here is primarily for readers who might be interested in which organizations have had openings in the general area of plant systematics. The date the positions were posted is in square brackets [day/month/year].

Nearly all announcements have been edited to conserve space—be sure to obtain complete descriptions before applying.

Director/Curator of the Deam Herbarium (IND) of Indiana University: An individual with herbarium experience and a Ph.D. in the area of systematic botany is sought to direct and curate the Deam Herbarium (IND) of Indiana University, Bloomington, with present holdings of over 140,000 specimens. This nontenure-track, research-scientist position will be a 10-month appointment (comparable to faculty appointments), with summer months salaried by teaching a local flora course and carrying out externally funded research. Ten-month salary will be commensurate with experience. See Web site < <http://www.bio.indiana.edu/events/jobs/index.html#research> > for more complete information; direct technical questions to Gerald J. Gastony < gastony@indiana.edu > . Applications are sought by 30 January 2004 for a position starting 1 August 2004. Send *curriculum vitae*, letter of application addressing training qualifications and research plans, and three letters of reference to: Herbarium Search Committee., Department of Biology, Indiana University, Jordan Hall 142, 1001 East Third Street, Bloomington, IN 47405-3700 U.S.A. [Posted 2 December 2003]

Collections Manager, Rancho Santa Ana Botanic Garden, Claremont California: We are seeking a Collections Manager (Curatorial Assistant III) to manage day-to-day operation of the herbarium, including administration of the specimen label and record keeping databases (custom FileMaker Pro format) and herbarium’s computer network; coordinating and/or performing routine collection management (preparation of plant specimens for inclusion in herbarium, specimen filing, sending, and receiving of loans, gifts, exchanges, and other transactions, record keeping activity associated with specimen transactions and accessioning); training and supervision of curatorial interns, lower level curatorial assistants, graduate student research assistants, and volunteers; and associated record keeping activity. Assists the curator with coordinating and executing special curatorial projects, including organizing, coordinating, and participating in field collecting and research activities; identification and labeling of field collections; and writing or assisting in the writing of technical reports, scientific publications, grant applications, etc. Qualifications include a Master’s degree in botany, biology, or equivalent environmental science, and/or two years experience in an active herbarium or similar museum or collection-oriented facility strongly preferred. Demonstrated understanding of basic taxonomic principles and characteristics of major plant families and a working knowledge of California flora desirable. Strong writing and verbal skills, the ability to type, and basic computer skills (word processing, databases, simple graphics) essential. Manual dexterity sufficient to prepare specimens neatly and quickly. Physical strength sufficient to safely lift and carry boxes of speci-

Candidates must have a Ph.D. in a biological field; the ability to establish and maintain a nationally competitive research program; and a commitment to teaching excellence at the undergraduate and graduate levels. To apply, please submit (1) statement of research and teaching interests, (2) *curriculum vitae*, (3) reprints of up to five recent published or submitted papers, and (4) names and contact information for four references to: Dr. Murray Nabors, Department of Biology, University of Mississippi, University, MS 38677. Review of applications will begin immediately and continue until the position is filled or an adequate applicant pool is established. See < <http://www.olemiss.edu/depts/biology/index.html> > for more information. Please visit our on-line employment service at < www.jobs.olemiss.edu >. The University of Mississippi is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA employer. [Posted 8 October 2003]

Evolution and Systematics of Fungi, University of Michigan: The Department of Ecology and Evolutionary Biology and the University Herbarium solicit applications for a tenured faculty position in evolution and systematics of fungi to fill the Wehmeyer Chair. We seek accomplished individuals whose primary research interests are in aspects of fungal evolutionary biology such as molecular evolution and systematics, evolution of adaptations, or evolution of development. We are also interested in individuals who place fungal evolutionary processes in ecological contexts by collaborating with plant and microbial ecologists in the department. Teaching may include a course in fungal evolution or diversity, and contributions to courses in evolution, systematics, and the individual's research specialization. The candidate will also work with a collections coordinator and provide scholarly leadership in the use of the herbarium's outstanding research collection of fungi and lichens. Women and minorities are encouraged to apply. The university is responsive to the needs of dual-career couples. To apply, send a *curriculum vitae*, statements of research and teaching interests and experience, evidence of teaching excellence, copies of publications, and names and addresses of three references to: Chair, Fungal Evolution and Systematics Search Committee, Department of Ecology and Evolutionary Biology, 830 N. University, Room 2019X, The University of Michigan, Ann Arbor, MI 48109-1048. Review of applications will begin 24 November 2003. The University of Michigan is a nondiscriminatory, affirmative action employer. [Posted 8 October 2003]

Plant Systematics, University of Texas-Pan American: The Department of Biology at UTPA < <http://www.panam.edu/dept/biology/> > is seeking a plant systematist. This is a tenure-track position at the assistant professor level for fall 2004. Research emphasis on evolutionary relationships among plants and/or plant ecology desired. Successful candidates will have a Ph.D. in a relevant field; post-doctoral experience preferred. Successful candidates will teach introductory and advanced undergraduate and Master's courses, develop courses in their area of expertise, and conduct externally funded research. It is desirable that the successful candidate has research interests that complement existing (e.g., Center for Subtropical Studies) or planned (e.g., Ph.D. in biomed-

cal sciences) programs, or that exploit UTPA's setting. Research lab space is available; salary and start-up are negotiable. UTPA is located in a region of unusual biological diversity and interest, the subtropical Rio Grande Valley, near the Gulf of Mexico. UTPA is the 10th largest university in Texas, with undergraduate enrolment of 16,000 and rising, and is developing initiatives to become the premiere research institution in south Texas. Complete applications consist of a cover letter, statement of research interests, *curriculum vitae* describing research and teaching experience, and three reference letters sent separately. Review begins 1 November 2003. Only complete applications will be considered. Position open until filled. Send inquiries and applications to Zen Faulkes, e-mail: < zfaulkes@panam.edu >. Post: Department of Biology, University of Texas -Pan American, 1201 W. University Drive, Edinburg, TX, 78539, U.S.A. UTPA is an Equal Opportunity / Affirmative Action Employer, and welcomes applications from candidates of diverse backgrounds. Women are particularly encouraged to apply. [Posted 24 September 2003]

Plant Biology/Botany Assistant Professor, Central Michigan University: The Department of Biology invites applications from broadly trained individuals for a tenure-track position at the rank of assistant professor, beginning August 2004 or before. Candidates must have a Ph.D. in a biological science, excellent verbal and written communication skills, and a strong commitment to teaching, research, seeking external funding, and service. Post-doctoral experience is preferred. Teaching responsibilities may include: general botany, field botany, courses in the individual's area of expertise at the undergraduate and/or graduate (M.S.) level, and contribution to the department's introductory program. Preference will be given to candidates who use current approaches to research field botany, plant systematics, ecology, or conservation. Submit a letter of application, C.V., copies of all transcripts, statement of teaching philosophy, statement of research interests, and three letters of recommendation to: Plant Biology Search Committee, Department of Biology, Central Michigan University, Mount Pleasant, MI 48859. Review of applications will begin 1 November 2003. Departmental information is available at < <http://www.cst.cmich.edu/units/bio> >. CMU, an AA/EO institution, strongly and actively strives to increase diversity within its community; see < <http://www.cmich.edu/aaeo/> >. [Posted 10 September 2003]

New England Botanical Club Graduate Student Research Awards

The New England Botanical Club offers each year up to \$2,000 total in support of botanical research to be conducted by graduate students. The awards are made to stimulate and encourage botanical research on the New England flora, and to make possible visits to the New England region by those who would not otherwise be able to do so. It is anticipated that two awards will be given, although the actual number and amount of awards will depend on the proposals received. The awards are given to the graduate student(s) submitting the best research proposals dealing with systematic botany, biosystematics, plant ecology, or plant conservation biology. Guidelines for the preparation of proposals can be found on ASPT's Web site < <http://www.sysbot.org/grant2.htm> > . Where competing proposals are judged to be of equal merit, those from applicants who are members of the NEBC will be given preference. Papers based on the research funded must acknowledge the NEBC's support. Submission of manuscripts to the club's journal, *Rhodora*, is strongly encouraged. Applicants must submit: (1) Proposal of no more than three double-spaced pages; (2) budget with brief justification, on a single page; (3) *curriculum vitae* (C.V.); (4) literature cited on a single page; (5) three paper copies of the proposal, budget, C.V., and literature cited must be submitted; and (6) two letters in support of the proposed research (one from the student's thesis advisor) should be sent directly to the Awards Committee by the sponsors (rather than accompany the application). All materials are sent to: Awards Committee, The New England Botanical Club, 22 Divinity Avenue, Cambridge, MA 02138-2020. Reference letters ONLY may be sent by e-mail or fax to the Graduate Student Research Awards Committee Chairperson listed on the Committees Web page. Contact the Chair for fax number. Proposals and supporting letters for the 2004 award are due no later than 1 March 2004. The recipient(s) will be notified by 30 April 2004. See our web page < <http://www.huh.harvard.edu/nebc/index.html> > for more information.

2003 – 2004 Native Plant Conservation Initiative

The National Fish and Wildlife Foundation, in partnership with the Plant Conservation Alliance, is pleased to announce a Request for Proposals for the 2003–2004 Native Plant Conservation Initiative (NPCI). Through this initiative, grants of federal dollars will be provided to nonprofit organizations and agencies at all levels of government to promote the conservation of native plants. This Request for Proposals includes two separate grant cycles, with application dates in December 2003 and July 2004. The NPCI grant program is conducted in cooperation with the Plant Conservation Alliance (PCA), a cooperative partnership between the foundation, 10 federal agencies, and nearly 200 nongovernmental organizations. PCA provides a framework and strategy for linking resources and expertise in developing a coordinated national approach to the conservation of native plants. All NPCI proposals are reviewed by members of the PCA National Steering Committee. For additional information about PCA, please visit the PCA Web site < [\[nps.gov/plants/\]\(http://www.nps.gov/plants/\) > . NPCI grants are modest, ranging from \\$5,000 to \\$40,000 with an average grant size of \\$15,000. It is expected that all grant funds will be matched by nonfederal contributions from project partners. In-kind contributions of goods or services are eligible as match for this program. There is a strong preference for “on-the-ground” projects that involve local communities and citizen volunteers in the restoration of native plant communities. Projects that include a pollinator conservation component are also encouraged. NPCI funds cannot be used for direct land acquisition costs or political advocacy. Basic research projects are unlikely to be funded unless they are of direct relevance to the management of native plants by a participating federal agency. Projects that primarily involve the control of invasive or noxious weeds should consider the foundation's Pulling Together Initiative < <http://www.nfwf.org/programs/pti.htm> > , rather than NPCI. For complete information, see the NFWF-NPCI Web site at < <http://www.nfwf.org/programs/npci.htm> > .](http://www.</p>
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Timothy C. Plowman Latin American Research Award

The Botany Department at The Field Museum invites applications for the year 2004 Timothy C. Plowman Latin American Research Award. The award of \$1,500 is designed to assist students and young professionals to visit the Field Museum and use our extensive economic botany and systematic collections. Individuals from Latin America and projects in the field of ethnobotany or systematics of economically important plant groups will be given priority consideration. Applicants interested in the award should submit their *curriculum vitae* and a detailed letter describing the project for which the award is sought. The information should be forwarded to the Timothy C. Plowman Award Committee, Department of Botany, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496 USA, and received no later than 15 December 2003. Announcement of the recipient will be made no later than 31 December 2003.

Anyone wishing to contribute to The Timothy C. Plowman Latin American Research Fund, which supports this award, may send their checks, payable to The Field Museum, c/o Department of Botany, The Field Museum, 1400 South Lake Shore Drive, Chicago, IL 60605-2496 USA. Make certain to indicate the intended fund.

Lawrence Memorial Award

The Award Committee of the Lawrence Memorial Fund invites nominations for the 2004 Lawrence Memorial Award. Honoring the memory of Dr. George H. M. Lawrence, founding Director of the Hunt Institute for Botanical Documentation < <http://huntbot.andrew.cmu.edu/> > , the annual award of \$2,000 is given to support travel for doctoral dissertation research in systematic botany or horticulture, or the history of the plant sciences, including literature and exploration. Major professors are urged to nominate outstanding doctoral students who have achieved official candidacy for their degrees and will be conducting pertinent dissertation research that would

“Prevention and Remediation of Plant Invaders”; Stephen Morse, Columbia University, “Emerging Infections: Microbial Invaders Discover New Territory”; David Lodge, University of Notre Dame, “Bioeconomic Risk Analysis of Invasive Vertebrates and Other Species”; Andrew Dobson, Princeton University “Zen, Parasites, and the Art of Alien Invasion”; and Daniel Simberloff, University of Tennessee, “Invasion Biology.” Additional speakers include: Cynthia Kolar, U.S. Geological Survey; David Pimentel, Cornell University; and Fred C. Dobbs, Old Dominion University. All sessions take place in the Westin Grand Hotel, 2350 M St. NW, Washington DC, 20037 (three blocks north from the Foggy Bottom Metro Station, on the edge of Georgetown). Early registration prices for the three-day meeting are \$200 for individual members of AIBS; \$250 for nonmembers (includes automatic one-year AIBS membership); \$160 for government employees; \$150 for educators; and \$130 for students. Early registration closes 2 March 2004. Attendance is limited — register early! For more information, contact < rogrady@aibs.org > or register on-line at < http://www.aibs.org/annual-meeting-2004/ > ; early registration closes 2 March 2004. Poster abstracts may also be submitted at the above URL; poster submissions close 16 February 2004.

Fourth Southwestern Rare and Endangered Plant Conference, 22–24 March 2004

The New Mexico Rare Plants Technical Council is organizing the 4th Southwestern Rare and Endangered Plant Conference to be held 22–24 March 2004 in Las Cruces, NM. Information about the conference is available at < http://nmrareplants.unm.edu/conference/announce.htm > . The geographic coverage area includes the Sonoran and Mojave deserts on the west, the Colorado Plateau and Southern Rocky Mountains on the north, the Chihuahuan Desert and High Plains Grasslands on the east, the Chihuahuan and Sonoran deserts on the south, and all mountain ranges within these regional limits. We anticipate a United States focus, but topics on rare Mexican plants are also welcome. If you would like to receive periodic updates via e-mail, please contact Patricia Barlow-Irick < patriciabarlowirick@starband.net > or phone 505-568-9131.

Second International Orchid Conservation Congress (IOCC), Marie Selby Botanical Gardens, Sarasota, Florida, 17–22 May 2004

More than 200 scientists and orchid enthusiasts from around the globe will convene at the Marie Selby Botanical Gardens in Sarasota for the International Orchid Conservation Congress II. This conference is a gathering of the Orchid Specialist Groups of the Species Survival Commission. “The Conservation Balance” is the theme. The keynote speaker will be Dr. Stuart Pimm, Doris Duke Professor of Conservation Ecology at Duke University. Chairing the conference is Selby Gardens’ Manager of Systematics Dr. Wesley Higgins. Higgins represented Selby Gardens at the first International Orchid Conservation Congress in Perth, Australia, in 2001. This congress is an important gathering of world orchid conservationists to review progress on the goals set at the first congress—that by 2010, 90 % of threatened orchids will

be in *ex situ* collections, 50 % of threatened orchid taxa will be in recovery programs *in situ*, no orchid taxa will be threatened by unsustainable harvesting, every child will be aware of plant diversity, and the Orchid Specialist Group will be funded to track the implementation of these conservation actions. Registration brochures have been mailed to universities, research institutions, and orchid societies throughout the U.S. and abroad. Area orchid enthusiasts, even beginners, also are encouraged to participate. A discounted conference registration fee of \$295 is being offered through 31 December 2003, after which it increases to \$350. For more information, visit < http://www.selby.org/iocc/ > or contact Dr. Higgins at (941) 955-7553, ext. 311.

International Organization of Plant Biosystematics, May 2004, Valencia, Spain

“Plant Evolution in Mediterranean Climate Zones” is the general topic for the IXth Meeting of IOPB, which will be held at the Jardín Botánico de la Universidad de Valencia, Valencia, Spain, in May 2004. This will be a three day meeting, plus optional excursions either before or after the meeting. Oral communications as well as posters will be welcome on topics including the following subjects: (1) Multiple approaches to comparing Mediterranean floras throughout the world; (2) biogeographic and phylogeographic patterns in the Mediterranean Region; (3) speciation models in the Mediterranean Region, including polyploidy, hybridization, and vicariance; (4) conservation and genetic diversity of rare and endemic species; (5) symposia on specific plant families; and (6) ecological factors affecting plant differentiation and speciation. For more information and to register, see < http://www.jardibotanic.org/iopb.html > .

First International Phylogenetic Nomenclature Meeting, Paris, 28 June–1 July 2004

The Organizing Committee announces the First International Phylogenetic Nomenclature Meeting will be held in Paris, at the Muséum National d’Histoire Naturelle and at the Collège de France, 28 June–10 July 2004. Papers presented at the meeting will be assembled into a symposium volume whose publication will coincide with the implementation of the PhyloCode. This volume will represent the official starting point of phylogenetic nomenclature as implemented in the PhyloCode, and the names defined within it will be the first ones established under the new code. We hope that specialists on a wide range of organisms will participate in the meeting and contribute to the symposium volume. The process of submitting abstracts will be detailed in the second circular. We ask that systematists who work on the same group collaborate to produce a single set of phylogenetic definitions for clade names in that group. Many systematists consider that the current rank-based codes of biological nomenclature, which have pre-Darwinian roots, are poorly suited to modern systematics, which is intrinsically evolutionary. As a result, an increasing number of systematists have sought an alternative to the rank-based codes, and these investigations have resulted in the development of principles of Phylogenetic Nomenclature, and later, to a draft PhyloCode (accessible on the Internet at < http://www.ohiou.edu/phylocode/ > . To receive the second circular

Icones Pleurothallidinarum XXII: Systematics of Masdevallia Part Four by Carlyle A. Luer. 2002. 266 pp. ISBN 0-930723-11-3. \$60.00 (pbk). Missouri Botanical Garden Press, 4344 Shaw Boulevard, St. Louis, MO 63110-2291. < <http://www.mbgpress.org/> >

Inferring Phylogenies by Joseph Felsenstein. 2004. 664 pp. ISBN 0-087893-177-5. \$59.95 (pbk). Sinauer Associates, PO Box 407, Sunderland, MA 01375-0407. < <http://www.sinauer.com/> >

Regnum Vegetabile 140: H. E. Richter's Codex Botanicus Linnaeanus Volumes 1 & 2 by John Edmonson (ed.). 2003. 1102 & 202 pp. ISBN 3-906166-03-1. EUR 360.00 (hbk). Koeltz Scientific Books, PO Box 1360, D-61453, Koenigstein, Germany. < <http://www.koeltz.com> >

Verticordia: The Turner of Hearts by Elizabeth A. George. 2002. 422 pp. ISBN 1-876268-46-8. \$84.95 (hbk). University of Western Australia Press, Crawley, Western Australia 6009. < <http://www.general.uwa.edu.au/uwapress/> >

NEW WEB SITES

There are many links on other Web sites (start with < <http://www.csd.tamu.edu/FLORA/tfp/tfplinks.html> >) to pages that have information applicable to plant taxonomy. On this current page, we will add new sites as they come to our attention. If you have a new or revised Web site that may be of interest to the membership of ASPT, please send the URL address to the editor of the Newsletter. This section is not intended to be a comprehensive list of all sites useful to plant taxonomists.

Web site on invasive species. Many natural ecosystems, even if protected from physical destruction, are being threatened by invasive species. The U.S. National Arboretum has established a Web site on invasive species at < <http://www.usna.usda.gov/Gardens/invasives> > . Another resource on invasive species has been developed by the Center for Aquatic and Invasive Plants at the University of Florida < <http://plants.ifas.ufl.edu/> > .

University of Colorado Herbarium Database. The University of Colorado at Boulder database of vascular plant specimen labels from Colorado housed at Herbarium COLO is now searchable on-line at < <http://cuseum.colorado.edu/Research/Botany/Databases/search.php> > /. Approximately 70,000 records of the ca. 90,000 Colorado specimens have been entered to date. For additional information, contact: Tom A. Ranker, Associate Professor & Curator, University of Colorado Museum, 265 UCB—Bruce Curtis Building, Boulder, CO 80309-0265; e-mail < Ranker@colorado.edu > ; voice, 303-492-5074; fax, 303-492-4195.

HERBARIA E-mail List. For information on this, please see the listing under “ASPT News.”

Madagascar Web Site. Madagascar Wildlife Conservation is a nonprofit organization, which aims at providing an information platform. With our new Web site < <http://www.mwc-info.net/en/index.htm> > we want to give you an overview of the results of the ongoing conservation projects. There is a section on flora as well as fauna. To reach sustainability we have to act from a holistic point of view and therefore we present also humanitarian work and problems in and on Madagascar. Our ultimate scope is to facilitate the dataflow of information about Madagascar, to improve activities, to give new inputs, to help to protect the high degree of endemism of animal and plant species, to enable a sustainable natural habitat for future generations of humans, animals, and plants of Madagascar. Currently on this Web site you can find: (1) a data-base that is till under construction and therefore at the moment without search queries; (2) news and events with monthly updates; (3) links and literature recommendations to different organizations and project teams working in Madagascar, and books concerning Malagasy nature, culture, and history; (4) a message board where you can discuss problems and questions about nature and wildlife protection; and (5) a case study that shows the problems of conservation biology.

100 USES FOR AN HERBARIUM

(well at least 72)

For the past year or so I have been keeping a list of uses of herbaria. Two recent events have greatly increased that list. First, I published an article titled “The Importance of Herbaria” (Funk, 2003) and a number of my colleagues sent in additional uses. Second, I attended a “Workshop to Produce a Decadal Vision for Taxonomy and Natural History Collections” (held in Gainesville, Florida, sponsored by NSF). In preparing for the workshop the list increased to ca. 50 and during the workshop additional uses were mentioned and the current total is 72. Hopefully the list will have 100 after this article is published. This list would not have been possible without the help of many colleagues and I thank them all. If you would like to use this list you can download it on line at the Biological Diversity of the Guianas Web site < [HTTP://www.mnh.si.edu/biodiversity/bdg/](http://www.mnh.si.edu/biodiversity/bdg/) > but please send any additions to me so that I can update the site.

Herbaria, dried pressed plant specimens and their associated collections data, ancillary collections (e.g., photographs) and library materials, are remarkable and irreplaceable sources of information about plants and the world they inhabit. They provide the comparative material that is essential for studies in taxonomy, systematics, ecology, anatomy, morphology, conservation biology, biodiversity, ethnobotany, and paleobiology, as well as being used for teaching and by the public. They are a veritable gold mine of information and the foundation of comparative biology. According to the updated Web site of Index Herbariorum (Holmgren & Holmgren, 2003), there are 3,240 herbaria in the world. Just in the USA there are more than 60 million specimens in 628 herbaria (Funk and Morin, 2000). At the U.S. National Herbarium (Na-

- including regional extinctions (paleobiogeography);
- 44. document the evolution of major groups of vascular plants (paleobotany);
- 45. document minor cycles in climate (paleoecology);
- 46. provide carbon isotope ratios (e.g., Lewis and Clark specimens from 200 years ago have increased C₁₂) (climate change);

Education and Training

- 47. provide material for teaching (botany, taxonomy, field botany, plant communities; ethnobotany; agriculture; dendrology, forestry);
- 48. promote appreciation of botanical diversity by making specimens available for viewing by students, researchers, and the public.
- 49. provide internship and job opportunities for undergraduate and graduate students
- 50. provide opportunities for students and young scientists to meet more established scientists;
- 51. expose students to systematic research;
- 52. train local volunteers for specimen handling, scanning, and databasing etc.;
- 53. run education courses for the public (e.g., local plant families);

Outreach

- 54. serve as an identification center for all kinds of plants parts for many different groups of individuals, e.g., samples for the identification of plants that may be significant to criminal investigations (forensics);
- 55. serve as an educational tool for the public (garden clubs, school groups, etc.);
- 56. provide a focal point for botanical interactions of all types (lectures, club meetings, etc.);
- 57. provide samples for museum and educational exhibits;
- 58. provide a location for government and state agencies to work on specimens, i.e., USDA, USGS, NPS;
- 59. provide a home for long-term initiatives (e.g., Smokey Mt. NP ATBI);
- 60. provide a home for global, regional, or local studies;
- 61. help establish new museums;
- 62. foster good international relations (e.g., sister institutions, joint field trips);
- 63. provide material for the public (e.g., accurate illustrations);
- 64. provide inspiration for painters;
- 65. interact with the local people to form volunteer groups for conservation efforts;
- 66. maintain Web sites for dispersing specimen information, databases, images, public service information;
- 67. repatriate data and images from collections to the country where they were collected (international relations);
- 68. help artists prepare accurate drawings for children's books;
- 69. provide information on the wild relatives of cultivated plants;
- 70. facilitate international exchanges of field expeditions;

Money Making Ventures?

- 71. organize photographs of plants associated with voucher collections;
- 72. help design natural history products for sale in gift shops (e.g., old illustrations for note cards).

At the US National Herbarium, in order to make maximum use of our substantial resources, we have the following goals: additional compacterization of collections to increase storage space, processing of the backlog of unmounted specimens so all material is available, continuing to photograph the type specimens so our most important collections will be available on the Web, and databasing and geo-referencing the specimen label information so it can be efficiently used and be made available on-line. I am sure other herbaria have similar goals. We must all work together to stress the importance of herbaria and preserve our collections for the future. Indeed the “working together” has already started. A recent NSF-sponsored workshop addressed some of the problems that are facing collections and discussed possible solutions. The “Workshop to Produce a Decadal Vision for Taxonomy and Natural History Collections” (held in Gainesville, Florida, organized by Larry Page) involved 61 people from institutions of all sizes. A report will be produced for NSF and a more general public version will also be available. The Web site for that meeting has some information posted and more will be available in the near future (Page, 2003).

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- Vicki Funk, US National Herbarium, Smithsonian Institution MRC166, P.O. Box 37012, Washington D.C. 20013-7012 USA; < Funk.vicki@nsmnh.si.edu >; < <http://www.mnh.si.edu/biodiversity/bdg/> > .

