Department of Botany and the U.S. National Herbarium

# The Plant Press

National Museum of Natural History
Smithsonian Institution

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## *Department Profile*

# Pacific Botanist Pieces it All Together

*By Deborah Hinrichs*

Toe-tapping bluegrass music spills into the hallway from Warren Wagner's office on the fifth floor of the Museum of Natural History on a mid-January day. As the Curator of Pacific Botany points to the 50 or so CDs next to his stereo, he says that he has about 1,500 albums and almost a thousand CDs in his collection. "The exploration of patterns, finding that one kind of music influences another, exploring different artists, and different types of music," Wagner said, is part of what drives him to collect music. His fascination with figuring out patterns in music is a short leap from the driving force behind his interest in taxonomy — understanding patterns in plants.

He joined the Botany Department in 1988 just after completing the two volume book, *Manual of the Flowering Plants of Hawaii*, that he co-authored while a botanist at the Bishop Museum in Honolulu. "I was hired here to do Pacific Island research and since I had just finished doing that book, I was exploding outward with all these ideas of projects to do. I spent my first four years here starting a million projects," he said.

Wagner is just now getting back to some of those projects. After four years at the Museum's Botany Department, he was appointed chair, a position he held for five years and completed in December 1997. "I'm enjoying immensely refocusing on things. I know exactly the things I want to do," said Wagner about leaving his position as chair. "One thing I noticed, and actually anticipated in a much greater way, was when the day finally came when it was finished. A lot of people say that after reaching milestones like that you get depressed and you wander around. There was maybe a tiny bit of that for like 10 minutes, but really I never experienced that this time," Wagner said. "There was an explosion of things to do. That feels very good, because there were all these things that I was trying to focus on while I was chair. Diddling around with things doesn't feel very satisfying because you don't make much progress and you don't finish it. And you often don't do it to the level of refinement that you would like to see when you're doing so many things," he said. The lively tempo of the music playing in his office is reminiscent of the pace with which Wagner is still generating new research projects on Hawaii and the Pacific Islands.

> *"There's been an explosion of information . . ."*
>
> *-Warren Wagner*

Despite his obvious pleasure in getting back to full-time research, Wagner will miss a few things about the position. "Who knows how I'll feel a year or two from now, but the thing that I have noticed the most is that I no longer have my finger in a whole lot of things. I do miss knowing what's going on and not being involved," he said. "I found it most interesting to work with many different people in the department and in the museum on a wide diversity of initiatives."

Wagner's description of his research as an explosion of projects turns out to be accurate. The long list of his current research projects ranges from floras to a biogeography project to detailed studies of the taxomony, classification, and evolution of groups of plants. His flora work, only one of the six or seven areas of research he mentioned, demonstrates the levels of involvement Wagner has in the field of Pacific botany. Currently, he has several floras in the works, including a new edition of the flora of Hawaii. "There's been an explosion of information — about 200 new weed species that we didn't know about, and about 60 additional native species, about half of which weren't discovered when we published in 1990," Wagner said. "What we want to do is update the information that was there on the flowering plants and add the new weeds and new native species."

The other two floras continue work done by curators before him. The person he replaced (Marie-Hélène Sachet) had been working on plants from the Marquesas Islands in French Polynesia. Wagner paired up with David Lorence, a researcher in Hawaii, when he first started at the Natural History Museum, to compile a book somewhat like the Flora of Hawaii on the Marquesas. "So far,

*Continued on page 6*

## New Faces

**The Plant Press** returns with a new look after a three-year break. It will be published six times a year.

**Preston Aldrich**, a Post-Doctoral Fellow working with **John Kress**, joined the department last fall. He received his Ph.D. in botany (1997) at the University of Georgia where he worked with J. Hamrick on the fragmentation genetics of tropical trees. He is the recipient of an NSF Post-Doctoral Fellowship in Biosciences Related to the Environment, which supports his research for two years. He will conduct field work at the Smithsonian's Biological Dynamics of Forest Fragments Project at Manaus, Brazil and the microsatellite portion of his research in the department's Molecular Laboratory.

**Donna Herendeen** has been contracted for the next two years to work on *Grasses of the World: A Nomenclator*, with **Rob Soreng** and **Paul Peterson**. This large database project, funded by a grant from the Atherton Seidell Fund, includes over 68,000 names of grasses with the original literature citation, authorship, nomenclatural status, rank, and nomenclatural relationships (synonyms linked to the basionym). Access this information at: http://mobot.mobot.org.Pick/Search/pick.htm (then select W3Tropicos).

**Yolanda Herrera-Arrieta** from the Instituto Politecnic Nacional, CIIDIR, Unidad Durango, Mexico is a Visiting Scientist for a year. She is working on an anatomical and morphological analysis of *Muhlenbergia* with **Paul Peterson**.

**Ken Karol**, biological research technician working with **Liz Zimmer**, joined the staff of the Laboratory of Molecular Systematics this past summer. He previously worked with Ken Sytsma at the University of Wisconsin.

**Hyi-Gyung Kim**, a Post-Doctoral Fellow, is working with **Liz Zimmer** and **Vicki Funk** on South American Asteraceae. She received her Ph.D. from the University of Texas, Austin with Bob Jansen.

**Rob Soreng**, Research Associate, recently took a half-time position (based at US) with Flora of North America (MO) as project editor for the Poaceae. He will be responsible for coordination and development of the project and serve as taxon editor for subfamily Pooideae.

**Stan Spencer**, a Post-Doctoral Fellow working with Liz Zimmer, supported by the University of Maryland/Smithsonian Institution Research Training Grant, is working on epistasis in the legume, *Chamaecrista*.


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Web site: http://www.nmnh.si.edu/botany/html.


## Travel

**Preston Aldrich** (1/23-2/19) and **John Kress** (1/23-2/5) traveled to Manaus to participate in the Smithsonian's Biological Dynamics of Forest Fragments Project.

**Susan Richardson** (1/29) traveled to College Park, MD to attend the Interstate Pest Control Conference.

**Warren Wagner** (1/29-2/3) traveled to University of California, Irvine, to do research on *Schiedea* with Steven Weller and Anna Sakai.

**Liz Zimmer** and **Ken Karol** (2/6-2/20) traveled to Cali, Colombia to teach in "II Curso Intensivo en Técnicas de Genética Molecular para el Inventario y la Caracterización de la Biodiversidad", a workshop in molecular systematics sponsored by CIAT and the Instituto Humboldt, Colombia's new Biodiversity Institute.

**Robynn Shannon** (2/8-2/13) traveled to University of California, Irvine, to do research on *Schiedea* with Steven Weller and Anna Sakai.

**Bob Faden** (2/11-3/13) traveled to the Royal Botanic Gardens, Kew, to continue his floristic treatments of the family Commelinaceae for *The Flora of Tropical East Africa* and *Flora Zambesiaca*. His research on these floras is supported by a grant from the American Friends of the Royal Botanic Gardens, Kew.

## Visitors

**Richard Searles**, Duke University (DUKE); Marine algae (Jan. 12)

**John L. Clark**, National Herbarium, Quito (QCNE); Gesneriaceae (Jan. 12-15)

**Lara Parra**, Univ. de São Paulo (SPF); Eriocaulaceae types (Jan. 16-17)

**George Schatz**, Missouri Bot. Garden (MO); Winteraceae, *Takhtajania* (Jan. 26-30)

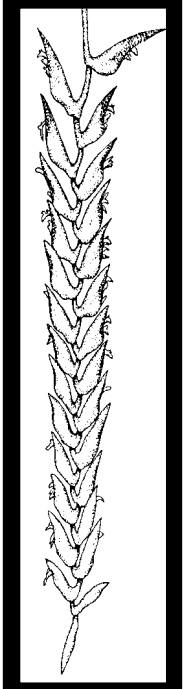
**Jimi Nakajima**, Univ. Est. de Campinas (UEC); Asteraceae (Feb. 1-28)

**Beatriz Echeverry**, Medellín, Colombia; *Heliconia* (Feb. 9-27)

**Teuvo Ahti**, Univ. of Helsinki (H); Lichens (Feb. 15-20)

**Soili Stenroos**, Univ. of Turku (TUR); Lichens (Feb. 15-May 1)

# Chair With A View — W. John Kress



From the Botany Chair's Office in the southwest corner of the fourth floor of the West Wing of the Museum I have quite a view: the Washington Monument towers out the west window; the Smithsonian Castle commands the south window; and the department with its research staff, collections, offices, and labs, dominates my vision to the north and the east. It is this northeastern view that will occupy my thoughts, efforts and actions over the next five years.

What is the view of scientific research that I see? It is clear to me that botanical research in the department is diverse as well as comprehensive. Unlike other botanical institutions which have decided to concentrate on a particular taxonomic group of plants or geographic region(s), our strength in scientific investigation is due to our curator-driven, scientist-dependent approach to research. Our research programs are decided by our botanical expertise and areas of specialization which span many scientific and taxonomic fields.

Our floristic endeavors are worldwide and include the vascular plants of South America, the Caribbean, the Pacific Ocean, and tropical East Africa, the vines of Puerto Rico, and the marine and reef plants of the Gulfs of California and Mexico. Our monographic pursuits encompass the dicots (e.g., the Asteraceae, Sapindaceae, Gesneriaceae and Malvales), the monocots (e.g., the Poaceae, Commelinaceae and Zingiberales), as well as the cryptogams (e.g., the Cladoniaceae) and may focus on the gross morphology of the taxa as well as their anatomical, cytological and palynological characteristics. We have also not lost sight of the importance of understanding the various historical aspects of botanical research, be it enumerating the plant explorers of the Indian Ocean or tracking down the collections made by Forster on Cook's historic second expedition.

In addition to these classical botanical pursuits, more recently developed methods are central to the research programs of some scientists in the department. Molecular systematics is one such area where new DNA sequencing techniques and analytic methods are used, for example, to unravel the phylogenetic radiations of the basal angiosperms, the petaloid monocots, the advanced dicots, and the lichen-forming fungi. New methods of utilizing our taxonomic knowledge are in the process of being developed, such as a multimedia identification system for dinoflagellates and CD-rom versions of taxonomic guides. Furthermore, as a result of our traditional taxonomic work, we address broad biological concepts, such as the patterns of island biogeography in the Pacific and the processes of plant speciation in paramo and lowland tropical habitats. Finally, some of our scientists apply their taxonomic data and field studies to questions directly pertinent to the conservation of species and biomes.

I know that this first view from the Chair presents only a small sample of what we do as research scientists and curators in the department. It is a nearly impossible task to list all the projects in which we are involved in the Museum or with colleagues around the world. However, it is clear that all of these scientific endeavors revolve around the collections housed at the U.S. National Herbarium. Our work is based on these collections, our work adds to these collections, our work is devoted to the maintenance of these collections for the future whether they be dried and mounted, stored in spirits, thriving in the greenhouse, or frozen in ultra-low freezers. However, if we are to fulfill our basic scientific mission, our collections-based research must be driven by biological questions about the evolution of life. We are privileged to have these collections readily available for our research and must make a concerted effort to extract and utilize the scientific information contained in them.

As I turn my back to the Washington Monument and look out over the department, the view I see is one of a diverse scientific and curatorial staff who are absorbed in basic plant taxonomic and botanical research while at the same time responsible to use, curate, and enhance the vast national plant collections at the Smithsonian Institution.

# Department Publishes Festschrift

**John Wurdack** has been honored with a special edition of *BioLlania, John J. Wurdack Festschrift* (Eds. **L.J. Dorr** and B. Stergios, Edición Especial No. 6, 1997), to commemorate his 75th birthday and outstanding contributions to systematic botany, especially Melastomataceae, and plant exploration. He explored some of the remotest areas of the Venezuelan Guayana in the 1950s. Thirteen chapters cover his work, including a list of publications, the 905 taxa of flowering plants named by him, and tributes and reminiscences by friends and colleagues. The *Festschrift* is available for $10.00 (postage included) from L.J. Dorr, Department of Botany, MRC-166, National Museum of Natural History, Smithsonian Institution, Washington, DC 20560-0166, USA (checks payable to Smithsonian Institution).

# Staff Research

**Warren Wagner** was awarded an Atherton Seidell Fund grant ($15,500) for the reprinting of *Manual of the Flowering Plants of Hawai'i*. This will allow the two volume work, which has been out of print for over two years, to be reprinted with corrections, including the notation of the more than 240 additional species now listed as U. S. Federally Endangered since publication of this work.

The Latin American Plants Program, under the direction of **Jane Villa-Lobos**, received a grant from WWF-US to develop an interactive World Wide Web site, Centres of Plant Diversity: The Americas, in conjunction with the book, *Centres of Plant Diversity: A Guide and Strategy for their Conservation, Volume 3 (The Americas).* Information on 75 sites, many of which have been identified as "hotspots" for plant diversity, will appear on the department's Web site this summer.

As part of an ongoing project to archivally store artwork, **Alice Tangerini** received an award ($3,000) from the Research Resources Program for the purchase of rehousing materials (storage cabinets and custom boxes) for the Botanical Art Collection.

Over the next five years the department will host an international team of lichenologists studying the systematics of the family Cladoniaceae. The team, led by **Paula DePriest**, will include Co-PI Samuel Hammer (Boston University and Farlow Herbarium, Harvard University), Collaborator Teuvo Ahti (University of Helsinki), Post-Doctoral Fellow Soili Stenroos (Universities of Helsinki and Turku), Pre-Doctoral Fellow Rebecca Yahr (Duke University), two Pre-Doctoral Fellows (Universities of Helsinki and Turku), and undergraduate interns (Boston University). The project is funded by a five-year grant from the NSF-PEET program, a Scholarly Studies Award, and a Mellon Fellowship to Teuvo Ahti. The project goal is to form an international team spanning three generations that will compile and enhance the current knowledge of *Cladonia* and its family Cladoniaceae. The team will produce a synopsis of the family's 11 genera and 500 species for Internet distribution, prepare monographic treatments for a worldwide monograph, and develop new methods for examining phylogenetic relationships and species delimitation within the Cladoniaceae.

Floristics Office staff (**Robert DeFilipps**, **Shirley Maina**; under the direction of **Larry Skog**) are currently preparing family treatments of Liliaceae, Smilacaceae, Sabiaceae, Lacistemaceae, Caricaceae, Celastraceae, Rhamnaceae, Rutaceae, Apiaceae and Araliaceae for the *Flora of the Guianas*.

**Gene Rosenberg**, in the marine botany laboratory of **Mark and Diane Littler**, traveled to Cuba for one month in the fall (1997) to work with phycologists at the Cuban Institute of Oceanology. In Havana, Gene attended the 4th Cuban Marine Sciences Congress where he presented a paper on marine algae and global change and was interviewed by the Cuban press agency, Prensa Latina. After the meeting, Gene and Cuban colleagues collected marine macroalgae along the north shore of Cuba for the Smithsonian and the Cuban Institute of Oceanology. Gene assisted Cuban phycologist Beatriz Martinez Daranas to curate and inventory the marine algae in the Institute's Center for Natural Marine Collections. Gene also surveyed the Cuban gray literature to assemble information on algal species distributions for the Littlers' upcoming monograph, *Marine Plants of the Caribbean*, which will cover some 600 species.

**Paul Peterson** and **Rob Soreng** returned from 10 weeks of collecting grasses in Inner Mongolia, Beijing, and Western China's Gansu, Qinghai, Sichuan, Xizhang (Tibet), and Yunnan provinces. About 650 numbers were collected in more than 90 genera. Sun Hang, Kunming Institute of Botany, was their Chinese host. Grasses of the following genera were consumed in China: *Dendrocalamopsis*, *Triticum*, *Hordeum*, *Saccharum*, *Sorghum*, *Zea*, *Setaria*, *Zizania* (fungal infected stems, not grains), and about 500 bowls of *Oryza* (mostly short grain white).

**Bob Faden** gave a talk, "The 1996 Royal Botanic Gardens-Kew Expedition to Southern Tanzania", to the Potomac Branch of the American Begonia Society at Green Spring Gardens Park, Annandale, VA on January 25.

**Liz Zimmer** will serve as a judge at the USFIRST (United States For Inspiration and Recognition of Science and Technology) national competition at Epcot Center on April 2-5.

## Botanical Training Workshop held in Myanmar

In November 1997, several members of the department conducted a Botanical Training Workshop in the Union of Myanmar (formerly Burma). The primary goal of the 2-week course was to train young botanists in the techniques required to inventory the flora of Myanmar. The Workshop was organized and coordinated by **John Kress** and **Debbie Bell** in collaboration with Daw Yin Yin Kyi of the Forest Research Institute in Myanmar. **Vicki Funk** and Charles Cannon, a graduate student at Duke University who is conducting his research in Borneo, rounded out the instructor staff. Participants selected for the Training Workshop included staff from the Forest Research Institute, Institute of Forestry, Central Forestry Development Training Center, Nature and Wildlife Conservation Division, and University of Yangon.

The 15 participants were given in-depth training in plant collecting and curating techniques, and are now prepared for future plant inventories in Myanmar. The field collections have added significantly to our knowledge of the flora of Kabaung Reserve and Mt. Popa Park. It is hoped that a vigorous collaboration will continue between the Forest Department of Myanmar and the National Museum of Natural History.

Travel support and funds for the workshop were provided by the Biological Surveys and Inventories Program of the National Museum of Natural History and British Airways. Logistical support in Myanmar was provided by the Forest Research Institute.

## Richard Sumner Cowan

**(23 Jan 1921 - 17 Nov 1997)**

Richard S. Cowan was born in Crawfordsville, Indiana. Although he grew up in Florida he returned to enter Wabash College in 1938 where he married (28 June 1941) Mary Frances Minnick, graduated (1942) and joined the Navy (Seabees). After the war he became a teaching assistant under Harold St. John at the University of Hawaii, taking an M.Sc. in 1948. He then took a job at the New York Botanical Garden that put him on Bassett Maguire's trips, with John Wurdack, to the Lost World (tepuis) of Venezuela (1950-1951) and began work on neotropical caesalpinioids.

He received a Ph.D. (1952) from Columbia University. In 1957 he accepted a job in the Botany Department, becoming Assistant Director of the Natural History Museum in 1962 and Director from 1965-1972, succeeding T. Dale Stewart and succeeded by Porter M. Kier. He was Secretary of the 1969 International Botanical Congress in Seattle, and was a founder and officer of (1) the Organization Flora Neotropica (his *Swartzia* was its first monograph in 1968), (2) Association for Tropical Biology, (3) 1st International Congress of Systematic and Evolutionary Biology in 1972, and (4) Flora North America. As senior botanist (1973-1985) he collaborated with Frans Stafleu (died 16 Dec. 1997) on the monumental TL-2 (Taxonomic Literature, ed. 2). He was a charter member and served the International Association for Plant Taxonomy in many capacities Regional Treasurer (1963-1985), Vice President (1975-1981), President (1981-1985). He helped found the Legume Newsletter (*Beanbag*) and edited it from #1 (1975) through 12 (1980) and was an organizer of the 1st International Legume Conference at Kew (1978).

In late 1985, he retired to East Cannington, Western Australia, and married Roberta Ann (Pobias) Townsend. He died of a stroke but is survived by his second wife, son Michael, his daughter Dierdra Cowan by his first marriage, a brother and a sister. An obituary, with publications, will be in the May *TAXON*.

*[by Dan H. Nicolson]*

## Cuatrecasas Botanical Fund Established

The Department of Botany is pleased to announce the establishment of the **José Cuatrecasas Botanical Fund**. This new international endowment honors the lifelong botanical work of Dr. José Cuatrecasas. His research, especially in the Asteraceae, was devoted to the classification, biogeography, exploration and ecology of plants of the paramo and subparamo regions of Andean South America.

The Cuatrecasas Botanical Fund will support significant research projects that emulate the spirit of the research of José Cuatrecasas. It will support projects within the Department of Botany and also professional researchers and students from outside the Institution, especially from Andean South America, who wish to study at the U.S. National Herbarium and conduct related field studies. Finally, the Fund will support an annual Cuatrecasas Lecture by a distinguished botanist. The endowment will be administered by the Department of Botany and proposals for support will be reviewed by a panel of Smithsonian scientists and one extra-Smithsonian scientist. The results of projects supported by the Fund will be communicated to the botanical and wider biological communities through publications and presentation at scientific meetings. Collections made during the course of these investigations will enhance the diversity of collections in the U.S. National Herbarium and relevant herbaria in the countries where the materials were collected.

Friends and colleagues of José Cuatrecasas and the Department of Botany are invited to contribute donations to this important endowment by sending them to: José Cuatrecasas Botanical Endowment, Smithsonian Institution, Department 0561, Washington, DC 20073-0561. Contributions from outside the United States should be in U.S. dollars. For further information concerning the Fund or the life and accomplishments of José Cuatrecasas, please contact W. John Kress, Chairman, Department of Botany, National Museum of Natural History, Tel: (202) 357-2534; Fax: (202) 786-2563; E-mail: kress.john@nmnh.si.edu.

## Collections

Three new members have been added to the department's Collections Advisory Committee (CAC) by the Chairman. Joining **Dave Lellinger**, **Harold Robinson** and **Rusty Russell** are **Pedro Acevedo**, **Mike Bordelon** and **Warren Wagner**. The CAC will provide guidance for the numerous major initiatives which were begun over the past several years, including the Integrated Pest Management Plan, the Herbarium Compactorization Plan, improvements in information systems (transaction management, cataloging), redrafting the Collections Management Policy, and greenhouse development. Each new member of the CAC brings a special expertise which will significantly improve input to these collections issues. The reconfigured CAC will also be addressing new issues such as storage of liquid-preserved collections, collections improvement and curation, orphaned/abandoned/backlog collections, and various outreach activities.

A questionnaire designed to provide information to assist the CAC in guiding the collections program will be distributed to department staff.

The Botany Research Greenhouse, under the management of horticulturists Michael Bordelon and **Leslie Brothers**, is now three and a half years old. *Ravenala madagascariensis* (Strelitziaceae) is now over 20' tall, and it flowered for the first time this past summer. *Gnetum urens* (Gnetaceae) has flowered sporadically for the last two years on its 15' tall twining stems. The palisotas (Commelinaceae) always ring in the new year with a burst of flowers. The greenhouse has three large collections: the Zingiberales (curated by **W. John Kress**), Commelinaceae (curated by **Bob Faden**), and the Gesneriaceae (curated by **Larry Skog**). We also have plants collected by: Pedro Acevedo, **Larry Dorr**, Chrissen Gemmill, Lynn Gillespie, **Dan Nicolson**, Warren Wagner and **Liz Zimmer**. The collection has grown considerably and new equipment has been added. There are now 1349 accessions in the database, 871 species present for a total of 2315 pots.

## Publications

**Dorr, L.J.** 1997. Botanical libraries and herbaria in North America. 4. The Samuel Bostford Buckley - Rebecca Mann Dean mystery. *TAXON* 46: 661-687.

Mueller-Dombois, D. and F.R. Fosberg. 1998. *Vegetation of the Tropical Pacific Islands.* Ecological Studies, Vol. 132. Springer, New York. 733 pp.

**Pruski, J.F.** 1997. Asteraceae, pp. 177-393. In J.A. Steyermark *et al*., eds., *Flora of the Venezuelan Guayana. Vol. 3.* Missouri Botanical Garden, St. Louis.

**Robinson, H. and V.A. Funk**. 1997. Compositae of Ecuador, I: Key to frequently collected genera, pp. 65-78. In R. Valencia and H. Balslev, eds., *Estudios sobre Diversidad y Ecología de Plantas: Memorias del II Congreso Ecuatoriano de Botánica Realizado en la Pontifícia Universidad Católica del Ecuador, Quito, 16-20 Octubre 1995*. Pontifícia Universidad Católica del Ecuador in collaboration with Universidad de Aarhus, Dinamarca Programa Danes del Investigación del Medio Ambiente.

**Shannon, R. K. and W. L. Wagner**. 1997. *Oparanthus* (Asteraceae, subtribe Coreopsidinae) revisited. *Allertonia* 7: 273-295.

**Skog, L.E.** and L.P. Kvist. 1997. Novae Gesneriaceae Neotropicarum VII: New combinations. *Novon* 7: 413-416.

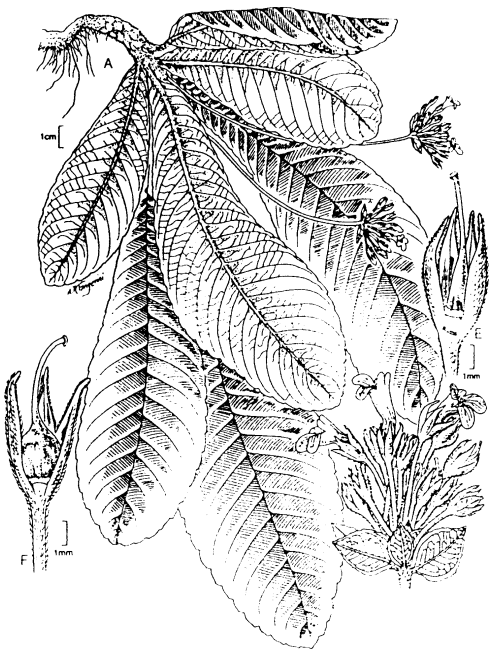
Weitzman, A.L., **Skog, L.E.**, Wang Wen-tsai, Pan Kai-yu, and Li Zhen-yu. 1997. New taxa, new combinations, and notes on Chinese Gesneriaceae. *Novon* 7: 423-435.

The cover of **Larry Dorr's** book, *Plant Collectors in Madagascar and the Comoro Islands*, is featured on Adobe Acrobat's Web site in an article on designing PDF (Portable Document Format) catalogs. The book is included in a full-color catalog created by Pamela Burns-Balogh of Balogh Scientific Books. Pam was a NMNH post-doc in Botany before entering the natural history book trade. The site can be viewed at: http://www.adobe.com/newsfeatures/acrcatalogs/main.html.

## Art by Alice Tangerini

This illustration depicts a new subspecies, *Resia ichthyoides* Leeuwenb. subsp. *bracteata* L.E. Skog & de Jesus, which is endemic to Colombia. A collection of this subspecies is part of the holdings of the U.S. National Herbarium.

This illustration was published in: Skog, L.E. and F. de Jesus. 1997. A review of *Resia* (Gesneriaceae). *BioLlania Edición Esp.* No. 6: 515-525.



## Pacific Botanist

*Continued from page 1*

very few collections have ever been made there, and there is alot of unprocessed material, so we are taking our sweet time doing that project," Wagner said.

The other flora project was started by Ray Fosberg, whom Wagner calls "one of the grandads or fathers of Pacific botany," who worked in Micronesia. "Therefore, we have a wonderful Micronesia collection that he had been amassing for 50 years," Wagner said. "Since we have the great collections, we're also gearing up to do a book on Micronesia but we're starting with a Web site that has his published checklist on it."

Balancing all of his projects is an art form that Wagner is working on. "I try to limit myself. There are hundreds of projects that I've been jettisoning recently because I am doing too much," he said. "I seem to be attracted to doing a lot of different things. I like very much having the hands on, working on the floras and the biosystematics and biogeography. There are so many things to do as I've sort of illustrated," Wagner said with a chuckle.

His interest, it turns out, goes beyond seeing patterns and includes piecing people together to broaden a project. "Part of my interest is the interaction with all the other scientists and people who are doing the work, many of whom have attributes and abilities that I don't," Wagner said. "The end product, by trying to facilitate and orchestrate, is certainly better than little old me can do. To me, the ideal environment is to interact with a lot of people."

Wagner, who views himself as a younger generation traditionalist in the field of taxonomy, knows that there are fewer people trained in the same way he was. Perhaps, if he could just figure out a way to take his fascination with plants and put it to music he could attract students to the field. Then, he would have assistants to help complete and eventually take over "the Warren Wagner lifetime list of taxonomic projects." Since his musical collection includes everything from African and Cajun to bluegrass and country, the number of people who would find his list of projects compelling would no doubt be numerous.