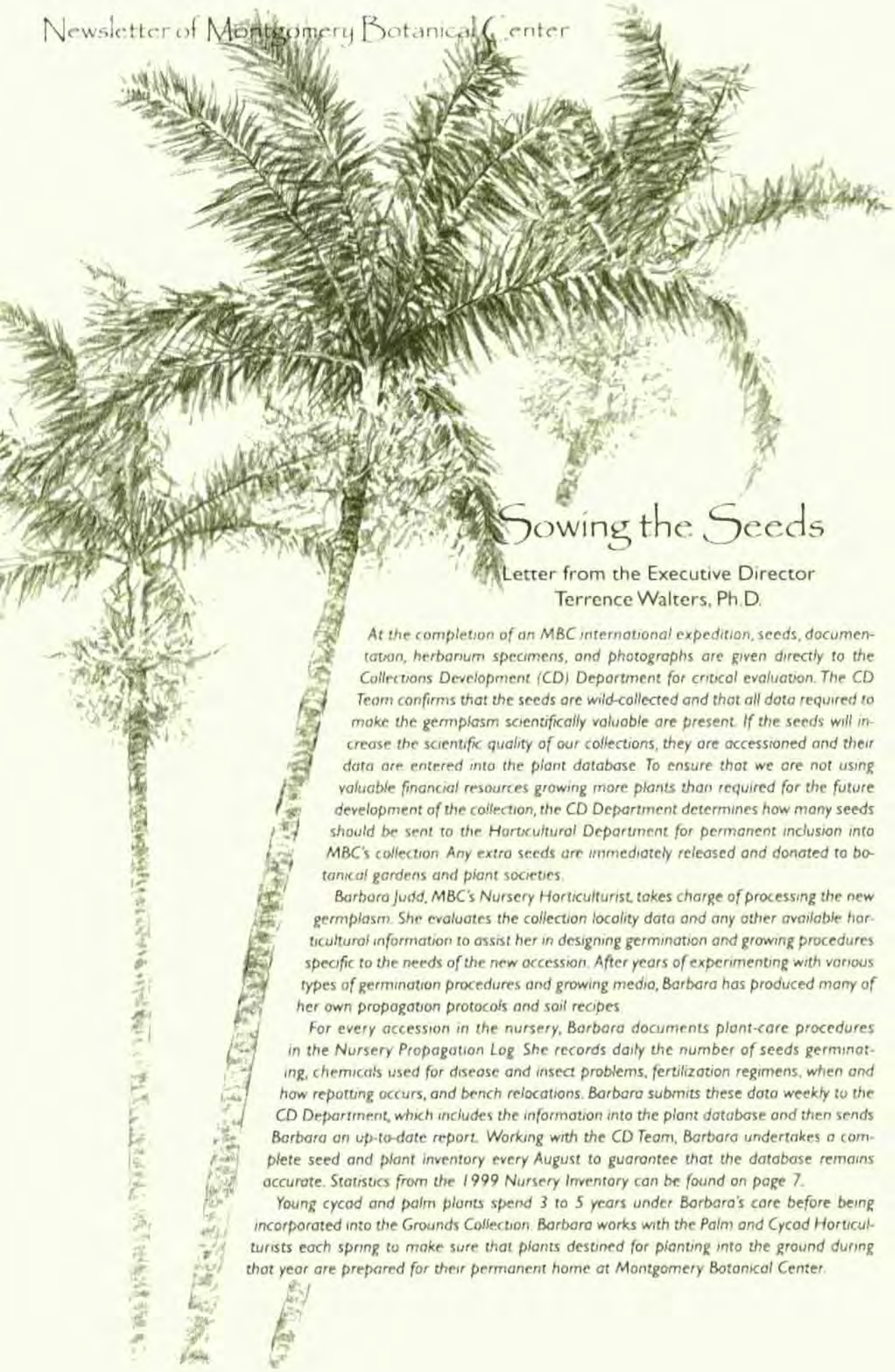
Newsletter of Montgomery Botanical Center



THE MONTGOMERY NEWS

Sowing the Seeds

Letter from the Executive Director
Terrence Walters, Ph.D.

At the completion of an MBC international expedition, seeds, documentation, herbarium specimens, and photographs are given directly to the Collections Development (CD) Department for critical evaluation. The CD Team confirms that the seeds are wild-collected and that all data required to make the germplasm scientifically valuable are present. If the seeds will increase the scientific quality of our collections, they are accessioned and their data are entered into the plant database. To ensure that we are not using valuable financial resources growing more plants than required for the future development of the collection, the CD Department determines how many seeds should be sent to the Horticultural Department for permanent inclusion into MBC's collection. Any extra seeds are immediately released and donated to botanical gardens and plant societies.

Barbara Judd, MBC's Nursery Horticulturist, takes charge of processing the new germplasm. She evaluates the collection locality data and any other available horticultural information to assist her in designing germination and growing procedures specific to the needs of the new accession. After years of experimenting with various types of germination procedures and growing media, Barbara has produced many of her own propagation protocols and soil recipes.

For every accession in the nursery, Barbara documents plant-care procedures in the Nursery Propagation Log. She records daily the number of seeds germinating, chemicals used for disease and insect problems, fertilization regimens, when and how repotting occurs, and bench relocations. Barbara submits these data weekly to the CD Department, which includes the information into the plant database and then sends Barbara an up-to-date report. Working with the CD Team, Barbara undertakes a complete seed and plant inventory every August to guarantee that the database remains accurate. Statistics from the 1999 Nursery Inventory can be found on page 7.

Young cycad and palm plants spend 3 to 5 years under Barbara's care before being incorporated into the Grounds Collection. Barbara works with the Palm and Cycad Horticulturists each spring to make sure that plants destined for planting into the ground during that year are prepared for their permanent home at Montgomery Botanical Center.

VOL. 8 NO. 1
SPRING 2000

Closing the Loop

by Lee Anderson
Property Manager

Straddling a 200-foot-thick deposition of Pleistocene oolitic rock that forms the Atlantic Coastal Ridge, MBC constantly finds itself strapped for the high grade soils necessary for continued development of our palm and cycad collections. Excavation of species planted years ago in holes augered into the rock show the phenomenon known as "flower-potting," a moribund, root-bound condition which inhibits healthy development of a plant specimen.

For years, MBC relied on soils donated by housing developers and road, septic tank, and pool contractors for backfill and planting material. The wide range of soil sources and the inability to readily identify possible contaminants in the donations made this an agronomically questionable practice.

Recently, however, new technologies have allowed MBC to generate a homogeneous, high-quality soil supply from organic wastes that are processed on-site. Plant debris is collected over the course of a year and is ground into a rough compost by an 800 hp diesel-powered tub grinder. The compost is then windrowed and allowed to "cook" for a year. The windrow is turned periodically to sustain aerobic degradation of the compost. Water is added during the dry season to assist in the breakdown of the organic material. Composting debris generates temperatures of up to 160–170° in the core of the windrow. As composting continues, temperatures eventually drop. When they fall to around 100°, the process is near completion and the compost is ready to be screened.

Depending upon the intended application, the degraded compost is processed through a 50-cubic-yard-capacity Trommel screen. This large machine separates out material ½ inch in diameter and smaller, which is used for the construction of planting beds, for incorporation with native soils into a backfill mix, and for top dressing turfgrass. Material larger than ½ inch is formed into another windrow to resume the degradation process, and is incorporated into fresh vegetative debris to serve as a microbe inoculum.

The entire recycling process, involving the mobilization (including permitting and set-up) and demobilization of massive machinery, as well as the grinding and screening operations, may appear expensive. But, when the cost of trucking on-site debris to landfills is added to the going rates for quality topsoil, the in-house debris processing program not only pays for itself, it represents a pure closed-loop recycling initiative.

From Top to Bottom: *Loading debris into the tub grinder; rough compost exiting the tub grinder; transporting the degraded compost to the Trommel screen; sifting the compost through the Trommel screen.*

Surviving Hurricane Irene

Laurie Danielson (left) and Sue Katz are shown assessing and recording damage caused to the property by Hurricane Irene on October 15–16, 1999. High winds (60–70 mph) and over 10 inches of rain within a 24-hour period felled 62 plants and blew off the tops and limbs of over 300 other trees. Also damaged were the roads, some of which were flooded for several hours, the perimeter fence, and the shadehouse.

TEAM WORK

The MBC Team is always in a state of flux, working hard to adapt to the changes around us. With sorrow, we say good-bye to Colonel Robert Montgomery's son, Arthur (see tribute below). After three years as MBC's President, Jeanne Bellamy retired in 1999. Dr. Karl Smiley now serves as our President. Two new MBC Members joined our team in 1999—Dr. Tim Gregory and Charles S. Sacher. Staff changes include the addition of part-time Receptionist Jackelin Jaiquin in January, 2000. Volunteers continue to add to the quality of MBC's collections and services. Volunteers serving in 1999 are listed on page 10.

The MBC Team is also proud to be part of a larger network of institutions called the Coalition for Excellence in Tropical Biology (CETroB). CETroB is a recently formed research and education organization of Miami-based universities, botanical institutions, and museums which are working with the Smithsonian's National Museum of Natural History and colleagues from Latin America and the Caribbean. MBC hosted the third working group meeting in November.

Other ongoing MBC collaborations are with Fairchild Tropical Garden (FTG) and the Dade Chapter of the Florida Nurserymen & Growers Association (FNGA). With support from MBC staff and volunteers, Evelyn Young coordinated the Soda Booth at FTG's 1999 Ramble. In continuing collaboration with FTG's Montgomery Library, Herbarium, and Internship Program, MBC contributed funds towards the purchase of botanical journal subscriptions, a herbarium cabinet, and salaries for two FTG/MBC summer interns. The Board of Directors and Seedbank Committee of FNGA, which sponsors MBC's Seedbank Program, met at MBC the afternoon of January 14, 2000. After a lecture on the history of MBC, they enjoyed a tour and a poolside social.

Below: As part of their continuing education, MBC staff toured Botanica Wholesale (shown below) and Redland Nursery on December 3, 1999.

Above: CETroB members held a planning meeting in MBC's Nixon Smiley Meeting Room in November. Attending were representatives from Smithsonian Institution, MBC, FTG, University of Miami, Miami Museum of Science, Florida International University, and the Kampong of the National Tropical Botanical Garden.

Our Respects to Dr. Arthur Montgomery

Dr. Arthur Montgomery, long-term friend and supporter of MBC passed away on December 31, 1999 at the age of 90. Arthur was one of the original five founders of MBC in 1959. He served as a Director and Vice-President for the organization from its inception through 1999. He was instrumental in creating and funding the Montgomery Research Fellowship Program and financed numerous research-associated positions for palm and cycad scientists. In recognition of his continual support of and encouragement for scientific research on the tropical plant collections on his father's estate, our guest house for visiting scientists was named the Arthur Montgomery Guest House in 1992.

For those of us who had the special opportunity to know Dr. Montgomery as a friend, student, teacher, or colleague, he will be sadly missed. Our lives have been enriched by his.

STAFF FOCUS—The Grounds Team

Left: Men and their machines keep MBC mowed, trimmed, edged, fertilized, herbicided, dug, filled, trenched, planted, pruned, mulched, recycled, sprayed, irrigated, and sown. At right, MBC's new Maintenance Shed is shown under construction.

RESEARCH, EDUCATION, & TOURS

Far Left: Dr. Andrew Henderson measuring trunk width for his study of palm growth. ***Left:*** *University of Miami's Department of Geological Sciences held a workshop in MBC's Nixon Smiley Meeting Room on November 13.* ***Below:*** *In order to examine sap flow rates in trunks of* Sabal palmetto, *Harvard graduate student Alex Cobb drills into the tree and then inserts a heated probe. The rate of cooling of the probe reflects the rate of movement of sap through the various item tissues.*

Researchers, educators, students, and other visitors have been bumping into each other at MBC! While attendees of the Cycad '99 Conference (see page 5) were exploring our cycads in August, Dr. Andrew Henderson (New York Botanical Garden) was studying the growth and development of our palms, and summer interns Shannon Forney (California State University–Fresno) and Elaine Mendez (Miami–Dade Community College) were being trained on the care of all our collections. A few weeks later, graduate student Carol Landry (University of Michigan) completed her two-year field study on the morphology and mating system of the native Florida mangrove, *Laguncularia racemosa;* Dr. Jack Fisher (FTG) collected palm seeds for his mycorrhizal research; Dr. David Robinson (Malacologist with the USDA) studied snails; we collected and shipped fruits of *Sterculia foetida* to Dr. Mike Pllard (Michigan State University) for his biochemical research on fatty acids in seeds; Bradley Carter (Director of the University of South Florida Botanical Garden) visited the Collections Development Department to learn about databases, mapping, and labeling; and Celio Moya Lopez, an expert on Cuban palms, examined and annotated MBC's *Copernicia* collection. The property remained active throughout the fall. Drs. Shu-Miaw Chaw (Institute of Botany, Academia Sinica, Taiwan) and Liu Nian (South China Botanical Garden) accessed our Asian Cycad Collection for their independent research projects on cycad evolution and systematics. Darian Duling (Director of the American Orchid Society) toured the property with Palm Horticulturist Laurie Danielson to learn how to grow and landscape palms. Don Hodel (University of California Extension Service) annotated MBC's *Chamadorea* collection, and gave a lecture to MBC and FTG staff on "The Palms of Thailand." Director Xu Zaifu and Assistant Director Liu Hongmao (Xishuangbanna Tropical Botanical Garden, China) toured the palm and cycad collections and had a training session with Collections Supervisor Sue Katz on plant records and mapping. The Manurevah Chapter (France) of the International Palm Society was given a tour of MBC by Collections Manager Larry Noblick. Dr. Scott Zona (FTG) collected leaf samples for his survey of the distribution of coumarins in palms. Faculty from the University of Miami's Department of Geological Sciences held a "Curriculum and Enhanced Teaching Methods Conference" in the Smiley Meeting Room in November. The pace is not expected to slow down during 2000, with graduate student Alex Cobb (Harvard University) kicking off the new year by spending a couple weeks at MBC in January to study water transport in palms.

Left: *Don Hodel (left) standing next to Lou Hooper before Don's slide presentation on the palms of Thailand.*

WHO IS USING T

CYCAD '99 CONFERENCE

Left: *The meeting of the Cycad Society Board of Directors took place in the Nixon Smiley Meeting Room on August 9.* ***Right:*** *One of the many ikebana arrangements made with cycad leaves for the conference by MBC volunteer Mayna Hutchinson.*

Above: *Three of the five organizers of Cycad '99—Terrence Walters of MBC (left), and Jack Fisher and Chuck Hubbuch of FTG—at the Farewell Reception. Not shown are the other two organizers, MBC Member Libby Besse and Paul Craft.*

In August, MBC, along with Fairchild Tropical Garden and Palm Beach Palm & Cycad Society, co-sponsored "Cycad '99". This four-day, international conference for cycad scientists, horticulturists, and enthusiasts included over 170 participants from more than 17 countries. During the event, MBC conducted two tours of MBC's cycad collection for the participants. The first one, which was horticulturally oriented, was led by Eric Shroyer, and the second, with a scientific orientation, was led by Terrence Walters. Conference activities also included meetings of the the Cycad Society Board of Directors and the World Conservation Union's (IUCN) Cycad Specialist Group, both of which were hosted by MBC. The Farewell Reception for the participants was held the last evening of the conference on the patio between MBC's Palm and Cycad Walks. The conference provided a wonderful opportunity to present to the cycad community MBC's new Cycad Walk and the hundreds of recently planted cycads on our property. Thanks to Eric Shroyer, Lee Anderson, Evelyn Young, the other MBC staff, and the Cycad '99 co-sponsors for providing an educational, informative, and social setting for all participants.

Above: *Members of the IUCN's Cycad Specialist Group met in Nell's House on August 9.* ***Left:*** *Before the conference, attendee Johan Hurter (right) of South Africa worked with Cycad Horticulturist Eric Shroyer verifying the names on MBC's African cycad collection.*

HE COLLECTIONS?

COLLECTIONS

Volunteer Mike Kambour (left) photographing a female cone of Encephalartos ferox *with MBC's digital camera. Collections Recorder Michael Torres supervises.*

Phenology

by Barbara Bohnsack
Collections Recorder

One of the many interesting activities undertaken by the CD Department is the collection of phenology data. Phenology, as it relates to palms and cycads, refers to their reproductive periodicity. Working with Cycad Horticulturist Eric Shroyer and Palm Horticulturist Laurie Danielson, we head into the field once a month to collect data on the reproductive cycles of these two plant groups. Laurie examines the palms for the presence of emerging inflorescences, flowers, immature fruits, mature fruits, and old reproductive structures. Cycads, which are dioecious (have separate male and female plants), produce their reproductive organs in cones or cone-like structures instead of flowers. Eric examines each cycad on our phenology list for the presence of an emerging cone, at which time the sex of the plant becomes known. He also notes the opening of male cones for pollen release, the opening of receptive female cones, and the presence of immature seeds, mature seeds, or old reproductive structures. These observations are recorded in our phenology notebook and, later, entered into MBC's plant database.

The phenology of palms and cycads in the wild and under cultivation is not well understood, and is of increasing interest to scientists. MBC, with its extensive live collection, offers an excellent opportunity for research in this and other areas of plant biology.

Laurie Danielson (left), Eric Shroyer, and Barbara Bohnsack collecting phenology data.

by Larry Noblick, Ph.

Imaging

MBC is now making all of those exciting images taken on its historic plant collecting expeditions available through its database. It is a project that is dear to my heart and one in which I have invested much time and energy. Many thanks go to volunteers Sheldon Rispler, Bob Hutchinson, and Larry Aronson, who have spent hours patiently scanning hundreds of slides and photos. Dr. Bijan Dehgan and Fé Almira of the University of Florida at Gainesville and a cycad-hugging volunteer, Larry Kraus, have digitally photographed many of the existing cycads on the property, adding even more to our image database. Volunteer and semi-professional photographer Michael Kambour is photographing the flowering and fruiting stages of the palms and cycads using our recently purchased digital camera. A program also has been started to digitally photograph one plant of every accession every two years to study its growth and development. Collections Supervisor Sue Katz has been placed in charge of this project, with Mike Kambour and Lee Bolton assisting with photography. Another special program, which has been started by Larry Kraus and Seedbank Coordinator Judy Kay, is the documentation of different stages in cone development for each cycad accession. Refining the digital images and getting them to work in our database has not been an easy task, but with the help of a very knowledgeable volunteer, Denise Jones, we successfully accomplished it. Volunteer Julie Downum is continuing Denise's quality work on image improvement, while Janet Copps is kept busy linking the digitized images to the database. The volunteers and staff of the CD Department are working hard to make ours one of the finest image databases ever.

1999 Inventory of Montg

	Planted in the Ground
PALMS	
Taxa[1]	302
Accessions[2]	1,596
Plants & Seeds	4,015
CYCADS	
Taxa[1]	149
Accessions[2]	941
Plants & Seeds	1,780
OTHER	
Taxa[1]	567
Accessions[2]	1,843
Plants & Seeds	2,485

[1] Species, varieties, etc. [2] A collection of seeds from
[3] A taxon or accession may be represented in both the

DEVELOPMENT

Collections Manager

Rattan Project

Rattan palms are environmentally threatened, unloved, spiny, climbing palms that are horticultural nightmares to manage in a garden. Everyone loves the beautiful rattan furniture made from its canes, but no one cares to grow these vines. Although this group of palms contains over 500 species, rattan collections at botanical gardens throughout the world are almost non-existent. Montgomery Botanical Center has taken on the challenge with the help of a generous contribution from the South Florida Chapter of the International Palm Society. Seventy specimens will be planted in designated areas at MBC alongside an appropriate support tree, e.g., an existing oak or False Tamarind *(Lysiloma bahamense)*. False Tamarind trees were chosen as the primary "hosts" after an extensive evaluation of using live versus artificial supports for the collection. The final decision was based on hurricane survivability, the nitrogen-fixing qualities of *Lysiloma* roots, the tree's retention of lower branches (on which the palm can climb), and the quality of the foliage (to allow easy examination of the rattan). Dr. John Dransfield (Kew), Dr. Barry Tomlinson (Harvard University), Dr. Andrew Henderson (New York Botanical Garden), and Dr. Jack Fisher (Fairchild Tropical Garden) have been encouraging MBC to develop a scientifically-based collection of rattans. They and many other scientists are eager to undertake studies on the collection once it is developed. Many questions still remain about a rattan's life history, regenerative abilities, and morphology. Answers to these questions will ultimately help in developing sustainable management guidelines for this important group of palms.

Palm Horticulturist Laurie Danielson (left) and Assistant Horticulturist Vickie Murphy planting a rattan vine at the base of an oak tree.

mery's Plant Collections

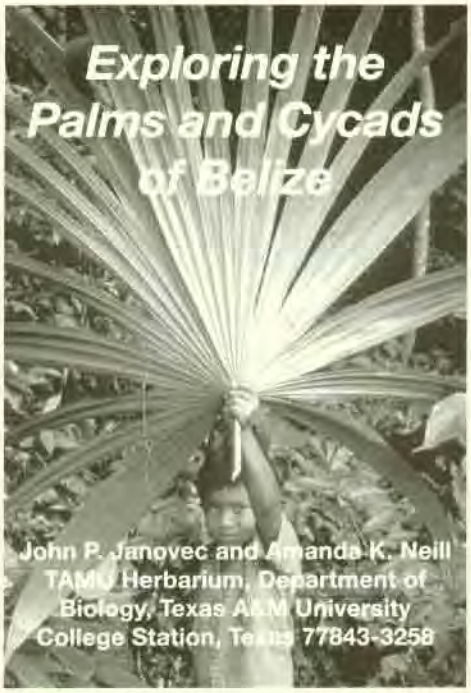
Growing in Our Nursery	Total in Collection[3]
208	446
536	1,797
3,053	7,068
129	209
441	962
2,310	4,090
19	578
31	1,845
287	2,772

source or one locality.
ound and Nursery.

Office Upgrade

With a major redesign and restructuring of its office, the Collections Development Department has moved into the future with an efficient work environment. The office now utilizes four computers (instead of two) that are networked to two different printers and one plotter. All computer monitors are ample-sized to display the complex graphics of the database, images, and maps. More than enough electrical surge and uninterrupted power protection has been provided to prevent a major meltdown in the event of a direct or indirect lightening strike. Modern furniture, generous table and desktop space, modular walls, and built-in power and wire management have replaced the two wooden desks and two formica-covered particle-board tables. Many thanks go to the former John Alden Insurance Company for their generous furniture donation. And to Collections Supervisor Sue Katz, who was able to obtain John Alden's top-of-the-line modular office furniture for pennies on the dollar, and even arrange with them to do the installation. Complex preparations were made to ensure that all new telephone, computer, and electrical connections were in place before the modular furniture could be assembled. In the end, it all came together very smoothly to produce an efficient and comfortable working area of which we are very proud.

Jerrence Walters (left) and Sue Katz working at two of the new computer workstations.



Exploring the Palms and Cycads of Belize

John P. Janovec and Amanda K. Neill
TAMU Herbarium, Department of Biology, Texas A&M University
College Station, Texas 77843-3258

On the Yucatan Peninsula of Central America, Belize is nestled like a jewel on the Caribbean Sea between Mexico and Guatemala. This small country presents a diversity of ecosystems to the explorer, from mangrove swamp and savannah around Belize City on the central coast, to dry pine forests in the interior, to the moist tropical forests of the Maya Mountains in the south. During July and August 1999, in collaboration with Montgomery Botanical Center, we and field assistant Jerrod Butcher investigated this diversity in search of palms, cycads, and other interesting plants.

Within the southern Maya Mountains are numerous villages populated by Mayan indigenes who live with few modern conveniences in traditional *Attalea cohune*-thatched houses. While collecting in the vicinity of San Felipe and Pueblo Viejo villages, an unexpected find were fruiting plants of what we tentatively identified as *Chamaedorea nationsiana*, a species known as "corn-palm" to the Maya due to the tightly-packed infructescences. Our find is the first documentation of this species in Belize. In the high limestone ridges, we also found the rare *Chamaedorea adscendens* and sterile specimens of *C. graminifolia*. While collecting these palms, we became acquainted with the frequent downpours and devilish iridescent blue mosquitoes that were to plague us for the rest of our time in the Maya Mountains.

Small sinkholes occur throughout the Maya Mountains, resulting from the collapse of underground rivers and caves. During our exploration of a particularly large and deep sinkhole, our guides pointed out jaguar footprints leading to and from a still-warm spot under a rock ledge. We cautiously explored the sinkhole and found numerous sterile individuals of a species tentatively identified as *Zamia prasina*, a rare cycad that has also been collected in mountainous eastern Guatemala. The plants were growing on the floor and walls in a thick layer of bat guano.

The highlight of our trip was a week spent in the Columbia Forest Reserve, a huge tract of wet forest stretching to the Guatemalan border. With three Mayan guides and two horses, we followed hunting trails, collected by day, and spent nights in the camps once used by chicle harvesters. We experienced terrifically intense thunderstorms nearly every night, and nothing we owned was dry; but fresh tortillas and instant coffee fortified us each morning. Along with the typical lowland palm species, we also collected *Chamaedorea geonomiformis*, *Asterogyne martiana*, and species of *Geonoma*. One particularly beautiful palm, *Synechanthus fibrosus*, could be spotted easily in the dark forest with its jewel-like clusters of yellow, orange, and red fruits. At the same time, we were careful to avoid unintentional contact with species of *Astrocaryum* and *Bactris*, two palms whose slim trunks are covered with painful spines. One learns to look carefully before grabbing for support on the steep and slippery trails.

The pinnacle of our week in the Reserve was the ascent of Little Quartz Ridge, an igneous formation which reaches an elevation of 900 meters and is more floristically similar to the highlands of Guatemala than to the karst topography surrounding it. During our strenuous climb, we made collections of *Colpothrinax cookii*, a majestic palm occurring only in this area of Belize. We took a break in a clearing on top of the ridge, surrounded by waist-high bracken ferns, which our guide Valentino began to clear with his machete. Our break ended quickly as our Belize associate, Valentino Tzub, uncovered one, two, three! large pit-vipers sunning themselves too close for comfort. These snakes are known as "two-steppers"—apparently a victim only gets two steps after being bitten!

During our month in Belize, we were fortunate to find so many palms fruiting. Out of 40 palm species known or expected to occur in Belize, we collected herbarium specimens and took photographs of 24 species, totaling 87 individuals. Of these, seeds were collected from 18 species. Although we were less successful in finding reproductive cycads, we have maintained a collaborative research program with our Mayan friends in which they monitor several cycad populations. Seeds of *Ceratozamia robusta* were collected by them in late December, 1999, and are headed for the nursery at MBC.

Title Box: *Victor Sho, age 9, holding up a broom leaf* (Cryosophila stauracantha). ***Above:*** *John Janovec cooling off with a fan made out of* Attalea cohune *leaves.* ***Right:*** *Mayan field botanist Valentino Tzub.*

ADVENTURES ABROAD

YEAR IN REVIEW – 1999

Our collaborators in Asia include (left to right) Anders Lindstrom (Thailand), Dr. Si-Lin Yang (China), Dr. Tien Hiep Nguyen (Vietnam), and Dr. Chia-Jui Chen (China).

Collaborations

American Orchid Society, Florida
Atlantic Gamefish Foundation, Florida
Big Pine Key Botanical Society, Florida
Bogor Botanic Garden, Indonesia
California State University at Fresno
Center for Biological Control, Florida A&M University
Coalition for Excellence in Tropical Biology
Cookstown University, Australia
Coral Gables Historic Homeowners Association, Florida
Coral Reef High School, Florida
Cornell University, New York (Carl Lewis, Dr. Natalie Uhl)
Cycad Society
Duke University, North Carolina
Fairchild Tropical Garden, Florida
Florida A&M University (Dr. Charles O'Brien, Dr. Peter Kovarik)
Florida International University (Dr. Brad Bennett, Dr. David Lee, Dr. David Vogler)
Florida Nurserymen & Growers Association
Ganna Walska Lotusland, California
Harvard University, Massachusetts (Dr. Barry Tomlinson)
Holden Arboretum, Ohio
Institute of Botany, Academia Sinica, Taiwan (Dr. Shu-Miaw Chaw)
International Palm Society, Central Florida Chapter
International Palm Society, French Chapter
International Palm Society, Houston Chapter
International Palm Society, Maui Chapter
International Palm Society, Manurevah Chapter
International Palm Society, Palm Beach Chapter
International Palm Society, South Florida Chapter
Kampong, National Tropical Botanical Garden, Florida
Marie Selby Botanical Gardens, Florida
Master Gardeners of Miami-Dade County Cooperative Extension Service, Florida
Melbourne University, Australia
Miami Museum of Science, Florida
Miami Springs Garden Civic Association, Florida
Miami-Dade Community College, Florida
Miami-Dade County Deering Estate, Florida
Michigan State University (Dr. Mike Pollard)
Missouri Botanical Gardens
Mote Science Laboratory, Florida
Mounts Botanical Garden, Florida
National Tropical Botanical Garden, Hawaii (Dr. Paul Cox, Dr. Kimberly Johnson)
New York Botanical Garden (Dr. Andrew Henderson)
Palmetum de Santa Crus de Tenerife, Canary Islands
Paris Museum, France (Dr. Pierre Jolivet)
Royal Botanic Garden, Sydney, Australia (Dr. Ken Hill)
Royal Botanic Gardens, Kew, England (Dr. Connie Asmussen, Dr. William Baker, Dr. John Dransfield)
Smithsonian Institution, Washington D.C. (Dr. John Kress)
Society for Economic Botany
South African Palm Society
South China Botanical Garden, China (Dr. Liu Nian)
Strybing Arboretum, San Francisco Botanical Gardens, California (Bian Tan)
Sunset Park Public Elementary School, Florida
Syracuse University, New York (Dr. David J. De Laubenfels)
Texas A&M University
United States Botanic Garden, Washington D.C. (Robert Pennington)
University of Bayreuth, Germany
University of California Extension Service
University of Florida, Gainesville (Dr. Bijan Dehgan, Dr. Bill Howard, Dr. Walter Judd)
University of Florida, Tropical Research & Education Center, Homestead
University of Miami, Florida (Dr. Harold Wanless)
University of Michigan (Carol Landry)
University of Minnesota
University of South Florida Botanical Garden
USDA at Chapman Field, Florida (Dr. Ray McQuire, Dr. Ray Schnell)
USDA of Miami, Florida (Dr. David Robinson, William Tang)
USDA of Puerto Rico
USDA of Tallahassee, Florida
Williams College, Massachusetts (Dan Williams)
Xishuangbanna Tropical Botanical Garden, China

Number of Plants and Seeds Distributed from MBC to Other Institutions in 1999
539,050

Dr. Larry Noblick (left) gave a tour of our palm collection to members of the Manureva Chapter of the International Palm Society in November.

Events at MBC

January
University of Florida Public Gardens Management Class and Tour
University of Florida Extension Service Master Gardeners Palm Workshop
Society for Economic Botany Board of Directors Meeting

February
University of Miami Geology Field Class
Central Florida Palm & Cycad Society Tour
Dr. John T. Macdonald Foundation Annual Directors Meeting

March
Florida Nurserymen & Growers Assoc., Dade Chapter, Tour and Reception

April
Coral Gables Historic Homeowners Association Meeting and Tour
Miami Springs Garden Civic Association Meeting and Tour
Big Pine Key Botanical Society Workshop and Tour

June
International Palm Society Directors Mid-Term Meeting

July
Miami-Dade Office of Emergency Management Workshop

August
Cycad Society Board of Directors Meeting
The World Conservation Union (IUCN) Cycad Specialist Group Meeting
Cycad 1999 International Conference Tours and Farewell Social

November
Manureva (France) Chapter of the International Palm Society Tour
Coalition for Excellence in Tropical Biology Meeting, Tour, and Reception
University of Miami Geological Science Workshop, Tour, and Reception

NINETEEN NINETY-NINE

President Karl Smiley (left) discussed native palms of Thailand with Jack Ingwersen and Larry Noblick during a luncheon at MBC in December.

MBC's volunteers were honored in January during the annual Volunteer and Staff Appreciation Lunch.

Board & Members

Officers & Board of Directors

Karl Smiley, M.D., President
Walter Haynes, Esq., Vice-President / Treasurer
Arthur Montgomery, Ph.D., Vice-President
Loyd Kelly, Assistant Secretary
Jeanne Bellamy
Nicholas Kelly
Peter Manz

Botanical Consultant

John Popenoe, Ph.D.

Members

Jeanne Bellamy
Libby Besse
Sally Brown
Liz Davis
Samuel Dennis III
Timothy Gregory
Walter D. Haynes
Marian Jennings
Beverley H. Johnson
Loyd Kelly
Nicholas Kelly
Stanley Kiem
David Manz
Peter Manz
Ina Monhollen
Arthur Montgomery, Ph.D.
John Popenoe, Ph.D.
Charles P. Sacher
Charles S. Sacher
Karl Smiley, M.D.
Mark Smiley
Loran Whitelock

Volunteers

Aronson, Larry
Asher, Renae
Baltin, Lee
Bellamy, Jeanne
Biggane, Jackie
Brown, Joan
Brown, Yvette
Bryholdt, Kathrine
Copps, Janet
Davis, Dan
Downum, Julie
Fouche, Joe
Goldstein, Joy
Gottlieb, Linda
Griffis, Judy
Hausman, Frank
Haynes, Walter
Hutchinson, Bob
Hutchinson, Mayna
Jordan, Vivian
Kambour, Mike
Kelly, Loyd
Kelly, Nick
Kraus, Larry
Lahn, Eleanor
Mahaffee, Libby
Manz, Peter
Meyerburg, Wilhemina
Montgomery, Arthur
Morris, Jef
O'Dea, Michael
O'Dea, Sheila
Ochipa, Charlie
Renshaw, Merilynn
Rispler, Sheldon
Sanders, Marie
Smiley, Karl
Smiley, Mark
Starck, Ann
Stark, Jean
Thomas, Jo Beth
Valoppi, Bob
Whitney, Brenda
Zuckerman, Bert

Countries from which MBC Received Germplasm in 1999

I would like to support Montgomery Botanical Center's commitment to developing scientifically valuable plant collections with the enclosed tax-deductible donation of:

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The Montgomery News is published twice a year by the Montgomery Botanical Center, a non-profit private operating institution specializing in tropical plant research collections, emphasizing palms and cycads.

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Our normal operating hours are 7:00-3:30 Monday-Friday.

From the Montgomery Archive comes this 1960s photograph of Dr. Arthur Montgomery (1909–1999). Arthur... your vision will live on.

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