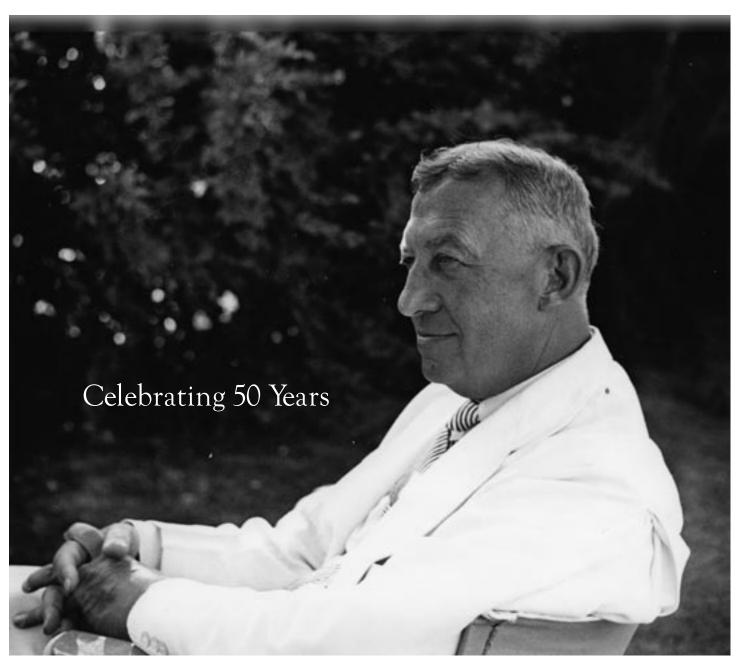


Montgomery Botanical Center 50th Anniversary: 1959-2009



#### Montgomery Botanical Center Established 1959

#### **Board of Directors**

Charles P. Sacher, Esq., President Karl Smiley, M.D., Vice President Walter D. Haynes, Esq., Sec./Treasurer Loyd G. Kelly, Assistant Secretary Nicholas D. Kelly Peter A. Manz

**Executive Director** M. Patrick Griffith, Ph.D.

Botanical Consultant John Popenoe, Ph.D.

#### Montgomery Botanical Research Fellows

John Dowe, Ph.D. William Hahn, Ph.D. Damon P. Little, Ph.D. Cristina Lopez-Gallego, Ph.D. Mónica Moraes R., Ph.D. Silvia Salas-Morales Alberto S. Taylor B., Ph.D.

To advance science, education, conservation and horticultural knowledge of tropical plants, emphasizing palms and cycads, Montgomery Botanical Center collects seeds from wild plant populations around the world and grows the resulting plants in population-based, documented, scientific collections, for use by botanists, scientists, and educators, in a 120-acre botanical garden exemplifying excellent design.

Montgomery Botanical Center (originally The Montgomery Foundation) is a tax-exempt, nonprofit institution established by Nell Montgomery Jennings in memory of her husband, Colonel Robert H. Montgomery, and his love of palms and cycads.

Montgomery Botanical News is published biannually by Montgomery Botanical Center.

11901 Old Cutler Road Miami, Florida 33156

Phone 305.667.3800 Fax 305.661.5984

mbc@montgomerybotanical.org www.montgomerybotanical.org

Masthead photo of Montgomery Palm (Veitchia arecina) by Harvey Bernstein

Printed on recycled paper

# From the Executive Director



n the facing page, Jared captures Nell's wishes fifty years ago as she incorporated The Montgomery Foundation, now Montgomery Botanical Center.

Assuredly, Nell and The Colonel would be very pleased at our record since 1959. Montgomery Botanical Center has developed, conserved and advanced an internationally-accredited collection of cycads and palms, furthered botanical science in numerous ways, and enhanced the education of generations of plant scientists.

The articles in this newsletter exemplify and illustrate how the work of our team fulfills our mission: Larry discusses his palm studies; Laurie, John, and Felix each offer descriptions of the palms for which we care and the care our palms require; Chad recounts his work in New Caledonia, and I offer a narrative of cycad fieldwork in Belize. Our acknowledgements grew longer in 2008, demonstrating our growing network of supporters and supported (see pages 9 and 10).

To place our 50th anniversary year in the broader context, Montgomery's achievement is among exceptional company; around the world, the botanical community celebrates milestones this year. Two world-renowned institutions — Missouri Botanical Garden and Singapore Botanic Gardens — are both 150. And, Royal Botanic Gardens, Kew is now celebrating its 250th year!

This context speaks well for our future. One or two hundred years from now, our successors will highlight an even greater record than we have thus far written. But in the closer term, I discuss our plans over the next five years on page 5.

Please join me in celebrating this wonderful milestone by remembering our past, celebrating our present, and moving ahead into a bright future. I look forward to seeing all of you here soon.

MPGRUFFOR

Pictured: Dr. Griffith with Zamia prasina (see page 4) in Belize.

## Nell's Vision

leanor Elizabeth Foster Montgomery Jennings had a dream which she felt so strongly about that she knew if it were to come true she had to do it herself — It could not be postponed for posterity by putting it in her will for someone else to do. Nell shared these feelings in a manuscript she wrote in 1980, named: The Montgomery Foundation: A Memoir.

After Robert Montgomery's death in 1953 and her marriage to Alvin Jennings in 1956 she struggled with what she should do with the Palmetum. Her options were to sell it,

keep it, or to leave it in her will to someone else, but whom. She drew on her past experience and current friends to help her in making the best decision. Nell's main concern was to do something with the property that would honor the memory of her first husband.

Two developments in 1959 informed Nell as to what the best future for the Palmetum should hold. Both events had to do with securing the future of the Fairchild Tropical Garden. These developments were a commitment to build research programs, and to hire plant scientists. With those commitments in place, Nell felt Fairchild Tropical Garden had the boost it needed to become the outstanding institution that it is today.

These events led to November 20, 1959, when the Certificate of Incorporation papers were signed forming The Montgomery Foundation, Inc. Those signing were: Eleanor F. Jennings, Arthur Montgomery, Charlotte M. Schluter, W. Arthur Campbell, and Alvin R. Jennings. Nell stated that, "Creation of The Montgomery Foundation seemed to give me the answer to the question that had been on my mind for several years: how to preserve the Palmetum, make it useful to the Fairchild

Through discussions with Arthur Campbell she determined the particular purposes for which The Montgomery Foundation was formed. Some of those are as follows: **To** carry out activities having scientific or educational purposes in the field of tropical botany and horticulture;

To provide fellowships and scholarships in the fields of tropical botany and horticulture;

To provide funds for expeditions; research projects or similar activities for the promotion of knowledge of tropical botany

and horticulture.

Continuing Nell's vision, the MBC mission is now stated as, "to advance science, education, conservation, and horticultural knowledge of tropical plants, emphasizing palms and cycads, and to exemplify excellent botanical garden design." A primary MBC objective is making the Montgomery name known and respected in the field of plant science.

In 1987, Nell made the following comment: "It is wonderful to have a dream and then the great satisfaction of seeing it materialize. That is what happened to Robert H. Montgomery." Her comment was a reflection on the Colonel, his work collecting palms and cycads for the Palmetum, and the wide interest they generated.

Out of this work, and the work of his close friend Dr. David Fairchild, a botanical tradition was established in Miami. From that friendship, the Colonel decided that Miami should have a tropical garden where these plants could be displayed to the public. Thus, the Fairchild Tropical Garden became reality. Nell drew on these experiences and the examples that her late husband had set to realize her own dream when she founded The Montgomery Foundation and was able to watch it grow.

Would Nell Montgomery be pleased with what has been

Nell Montgomery at the front door of her home at the Coconut Grove Palmetum

Garden, and at the same time preserve the identity of Robert H. Montgomery." Nell saw how FTG's 1959 commitments to science could be advanced through strategic partnership with The Montgomery Foundation.

accomplished? I think so.

Jared Fogg, Archivist archive@montgomerybotanical.org

## Sinkhole Cycads of Belize: Helping a Critically Endangered *Zamia*

Before 2008, MBC had only seven Zamia prasina plants, from fieldwork by John Janovec and Amanda Neill in Belize eight years ago. Those seven plants are significant, as conservationists believed fewer than 100 plants remained in the wild as of 2003.

Reports by Janovec and Neill were intriguing. They depicted plants growing at the dark bottom of deep sinkholes, on limestone and guano — and without any other plants! Besides those reports, very little was known, so we decided to study this *Zamia* firsthand.

John Janovec put Michael and I in touch with his colleague, Valentino Tzub. Valentino knew two remote sinkholes with *Zamia*; we planned to visit both.

#### THE FIRST SINKHOLE

Jan Meerman, a well-known Belizean ecologist, joined us for the first trip. Valentino led us through farmland, into jungle



Zamia prasina growing in a remote sinkhole — a very specialized habitat.

foliage, and up into the deeply shaded Maya Mountains. After the morning, the ground opened before us, a limestone bowl reaching down two hundred feet, with no break in the canopy. Valentino guided us down a steep incline, a rock climb, and a short slide down a rotting trunk.

At the bottom, we were thrilled to count over 100 Zamia prasina against the wall of the cavity. The day was spent measuring plants, collecting seed and specimens, and taking photographs.

Early afternoon, a huge thunderstorm soaked the mountain, but the *Zamia* (and we) stayed completely dry. We learned something special about the plants: these cycads only grew under the dripline of the rock, where the soil remained completely dry. We spent the available sunlight gathering data. Late that day, we climbed out, and returned to town.

#### A MORE REMOTE SINKHOLE

Geoff Hoese, a naturalist and caver, joined us for the more distant sinkhole. Getting there required a packhorse and a day's walk to camp. A trek along logging roads and jungle paths took us higher into the mountains. Arriving at an old timber camp, after a hot meal and jokes around the fire, we slept.

The next morning, Valentino led us into deeper shade to the second sinkhole. One side gently sloped down, opening into a large, steep-sided open cavity. Here we found more *Zamia* — around 140 mature plants with numerous seedlings. We worked steadily from one end to the other to measure, survey, photograph, and collect seeds from these rare cycads.

Our ambitious workload passed the day quickly, and quite late we climbed back into the forest, hiked to camp, and settled into a solid sleep. At dawn, we hiked back to town, and were honored to enjoy a meal with Valentino and his family before parting ways.



Valentino Tzub, Michael Calonje, and Geoff Hoese with Zamia prasina.

#### **CONSERVATION ACTION**

There were many seedlings in the more remote sinkhole, but the first had none; all plants appeared mature. This observation conforms to reports of commercial seed harvest. Years of harvesting weakens the population. Another concern is the specialized nature of the habitat: appropriate sinkhole space must be limited.

We are glad to report more surviving *Zamia prasina* than previously thought — two populations of over 100 mature plants, and some other smaller populations on hill tops. Our work placed conservation collections of *Zamia prasina* into protective cultivation at Belize Botanic Garden, Green Hills Botanical Collections, and MBC. Research is underway on these collections.

M. Patrick Griffith, Ph.D., Executive Director patrick@montgomerybotanical.org

Michael Calonje, Cycad Biologist michaelc@montgomerybotanical.org

# Looking to the Past, Planning for the Future.

MBC's 50th anniversary deserves celebration. Colonel Robert Montgomery's plant collections tradition, Nell Montgomery's vision and commitment, our Board's leadership, and the MBC Team's hard work have accomplished a tremendous amount since 1959. Jared's article (page 3) captures Nell's original vision, and the work that made it possible. This milestone prompts looking back, to help focus on the future.

#### BEGINNINGS: 1959-1990

Following the Colonel's death (1953), Nell incorporated the Montgomery Foundation in 1959. At that time, we managed

a palm and cycad collection of world significance, closely involved with the work of Fairchild Tropical Garden. A report by Dr. John Popenoe noted the collection held over 300 palm and around 40 cycad species. During Nell's time, numerous palm collections were added by researchers including Dr. Barry Tomlinson and Dr. Harold Moore.

An early accomplishment of Nell's was doubling our acreage from 60 to 120 in 1960. When Nell passed away in 1990, that land and a very generous financial gift went to MBC. The early focus on plant collections

from Robert, and the vital land and funding from Nell strategically positioned MBC to advance botany going forward.

#### MEETING THE MISSION: 1990-2009

Renewed emphasis on plant collections flourished in the last two decades, as well as connecting these collections to research and conservation progress. Brief review of figures illustrates this progress. Since 1992, MBC conducted 71 expeditions. In 2007 and 2008, we conducted 6 and 7 expeditions respectively, conserving endangered palms and cycads from as near as Florida and Jamaica, and as far as Guam and Rota. Our inventory reflects this progress (see page 11), with 429 palm species and 257 cycad species conserved here.

The benefits of this work are shared ever wider. Our tally of collaborating institutions and individuals (198) was higher

in 2008 than any year previous. This number includes participants in joint research, scientists given research material, and scholars who studied the plant collections.

#### LOOKING AHEAD

Strategic planning helps meet the mission; strengths, context, and goals define how we move forward. MBC has two outstanding strengths: 1) fundamental assets — land, facilities, and irreplaceable plant collections, and 2) an excellent team of botanists, curators, and horticulturists with deep expertise. Botanical science is advanced by living collections, and protective cultivation is often the best conservation strategy.

MBC's living plant collections will be ever more vital in coming years. Our future plans are organized around plant collections and their requirements. The team has developed plans for 20 expeditions by 2013, with a focus on collaborative research and *ex situ* conservation.

This ambitious target necessitates two critical capital improvements: MBC requires space for visiting scientists, and a greatly expanded nursery. We're thrilled to be moving forward with the Chris Tyson Plant Conservation Building, to advance our collaborative

servation Building, to advance our collaborative research capacity. Plans are developing for an expanded nursery complex, crucial for the increasing seed obtained by our work abroad.



The Near future at MBC: immediate capital improvement priorities. Left: Chris Tyson Plant Conservation Building; Right: Nursery expansion plans.

#### THE NEXT 50 YEARS

Beyond five or ten years, detailed planning is impractical — but a guiding vision is critical. Could Nell predict the details today when she acted in 1959? Perhaps not, but for a half-century MBC has kept the focus on Nell's fundamental vision: living plant collections, research collaborations, and education. I confidently state: through a strong focus on serving research, conservation and education, MBC will complete 100 years with an impressive record in botany, rooted in living plant collections — 2059 will be a great year.

M. Patrick Griffith, Ph.D., Executive Director patrick@montgomerybotanical.org

## **Expert Help With Planning**

Through Tracy Magellan's work, MBC recently obtained funding for an expert assessment. Funded by the Institute for Museum and Library Services, The Conservation Assessment Program will professionally assess MBC's living collections and infrastructure; this assessment is vital for future planning.

## Collections and Connections

## Copernicia Baileyana at Montgomery Botanical Center

To describe this palm as majestic or stately hardly does it justice, as the sight of a mature Bailey Palm is posi-



Trio of Bailey Palms bowed but not broken by a previous hurricane

tively arresting. Most of our palm species could be described as graceful, their fronds moving in response to the slightest breeze, but not so the Bailey Palm. It stands stiff and unyielding even in the face of hurricane force winds. *Copernicia baileyana* has a massive whitish trunk which looks like fresh concrete, and can exceed 60 feet in its natural habitat. Its crowning glory is the densely crowded head of ridged leaves which, when viewed from below, produce the effect of a halo.

Native to dry forests and savannas of eastern and central Cuba, it nonetheless appreciates moist, well drained soil and can survive brief periods of inundation. Considered to be moderately salt tolerant, our most impressive specimens grow within 10 meters of brackish lakes which rise and fall in response to the tides. Indeed, this area of the garden has been completely flooded with sea water from hurricane surge on more than one occasion during the life of these palms.

This trait would seem to make *Copernicia baileyana* an ideal candidate for further planting in South Florida, and

it would likely compete with the Royal Palm as a choice for avenue plantings, were it not for its slow rate of growth.



Crown of Copernicia baileyana from below

Nevertheless, it has been underutilized in the landscape and should be planted wherever there is sufficient space.

John Harshaw, Assitant Curator johnh@montgomerybotanical.org

## New Caledonia: Palms and Relic Conifers

In the Pacific east of Australia and northwest of New Zealand, New Caledonia is a biotic island as much as a physical island, comprising a very unique relic flora of the ancient southern Continent Gondwana. It is a wonderland of stunningly beautiful palms, unique conifers, and a host of other unusual plants. The survival of much of this flora is related to its ability to adapt to the difficult soils that dominate the southern part of the island. These soils are high in metals such as magnesium, nickel and chromium, but extremely low in calcium and phosphorus.

In 2000, MBC Palm Biologist Dr. Larry Noblick visited the island to collect palms and the cycad, *Cycas seemanii*, that grow there. The lovely *Chambeyronia macrocarpa* palms he collected have become quite an attractive part of the MBC landscape. Through MBC's ongoing partnership with the Atlanta Botanical Garden (ABG), we



Night botany beside Lac en Huit, Retrophyllum minus

later added a number of very rare and interesting New Caledonian conifers to our collections in 2007 and 2008, many of which have adapted well to our growing conditions.

In late 2008, Ron Determann, Conservatory Director of ABG, and I were invited to present our experiences cultivating New Caledonian plants at a special colloquium on aromatic, medicinal and ornamental plants. I contributed an overview of New Caledonian plants conserved in North American Botanic Gardens. With support from MBC and ABG, we attended the conference and studied the island's flora. During these studies we made key connections with botanists, conservationists and native plant nurseries, to advance conservation of these amazing relics.

Chad E. Husby, Collections Manager chad@montgomerybotanical.org

## LAND FROM SEA

Ithough scientific plant collections are the keystone of the MBC mission, the varied natural resources at the Center offer a wide arc of research, conservation and educational opportunities. Marine biologists from the state Department of Environmental Protection have researched the MBC lake system as potential manatee rehabilitation habitat, icthyologists from the Atlantic Gamefish Foundation have tracked the migratory patterns of Redfish (Sciaenops ocellatus) through the lake and ditches, and geophysicists from the University of Miami have used the unique and secure environs of MBC to develop prototype exploratory equipment before deploying to less-forgiving offshore venues. Finally, geology classes from the University of Miami and Florida International University have found that the undisturbed outcrops of the Atlantic Coastal Ridge seen at MBC are ideal for studying features typical of



Sinkhole geology with students

karst formations encountered at locations worldwide.

I had the opportunity recently to trek along with a group of geology graduate students from FIU, as Drs. Rene Price and Grenville Draper explained some of the features of the escarpment.

Although the wave cut bluffs below the Nixon Smiley Building and the mysterious solution pipes to the west are quite dramatic, it is the doline, a closed depression that drains into the water table, with the unique karren (limestone pinnacles) nestled in the southeast corner of the CGP and used as a micro-habitat for various species of Zamia that seems to draw the interest and speculation of just about every visitor to the center, geologists and botanists, scientists and laymen alike.

It is somewhat amazing that some of the species thriving in the MBC plant collections date back millions of years to the Mesozoic era, whereas just as recently as the Pleistocene this same nurturing habitat was under 30 feet of ocean. Truly, as JE Hoffmeister puts it in his classic text on the geology of South Florida, MBC is "land from the sea."

> Lee Anderson, Superintendent land@montgomerybotanical.org

## HOPE FOR ATTALEA CRASSISPATHA

In the summer of 1991, MBC was fortunate to receive wild collected seed of Attalea crassispatha, a rare palm which is considered to be critically endangered in its homeland of Haiti. Fewer than thirty individual palms are thought to remain in the wild, leading this palm to be described as one of the rarest palms in the Americas.

Attalea crassispatha holds additional scientific interest for botanists because of its unusual geographic distribution. It is found only in the Caribbean, on the southwestern peninsula of Haiti. All other species of Attalea are found in Central and South America, making Attalea crassispatha an isolated member of its genus.

For MBC, acquisitions such as Attalea crassispatha highlight our efforts in the area of conservation: as Palm Curator, I was thrilled to have such an important palm become part



Attalea crassispatha, a critically endangered palm species of Haiti

of MBC's palm collection. In 1997, after being nurtured in our nursery for six years, ten young Attalea crassispatha palms were planted in the Palm Walk on MBC grounds. This collection is one of only a few to be successfully grown outside of its habitat in botanical gardens, and could in fact be one of the largest ex situ collections of this species in the world.

To date, the collection of Attalea crassispatha at MBC continues to thrive. In November 2008, eleven years after its planting, one of these palms became reproductively mature and initiated its first inflorescence. In January 2009, a second inflorescence emerged. Hopefully, viable seed will soon be produced by our Caribbean treasures, providing MBC with the resources to perhaps re-establish faltering populations in the wild and further support the expansion of collections outside of Haiti.

> Laurie Danielson, Palm Curator lauried@montgomerybotanical.org

## PALM IDENTIFICATION: It's What's Inside That Counts







Butia archeri

Butia x Jubaea hybrid

Jubaea chilensis

Identifying palms is difficult without flowers or fruits. In fact, many *Syagrus* species are impossible to distinguish without them. Therefore, young specimens can be problematic. Lately, I have been experimenting with using palm leaflet anatomy as an alternative method of identification.

A double-sided razor blade and one side of a middle palm leaflet are all the materials needed. By folding the leaflet lengthwise on itself a few times, bracing the folded leaflet accordion on a stiff piece of cardboard, I am able to hand slice a few good cross-sections and float them into a watch glass or onto a glass slide. A dissecting scope separates the good sections from the rest of the "palm salad" and a 100x microscope is sufficient to examine the anatomy. Digital photography has

enabled me to build a reference collection of these leaflet sections for easy comparison of the species and the genera.

There is enough anatomical variation in *Syagrus* leaflets to make this method extremely useful. It has helped to identify *Syagrus* species that have been erroneously lumped together into a single species (i.e. species in the *S. petraea* complex).

Last December, Richard Moyroud showed me a young palm that he thought might be *Jubaea chilensis*, the Chilean Wine Palm. The palm had the physical characters of a young *Jubaea*. After comparing the leaflet sections, it became obvious that his *Jubaea* was hybridized with *Butia*. Hand sectioning is quick and inexpensive, but in order to get a good leaflet section one must be prepared to make a lot of "palm salad".

Larry Noblick, Ph.D., Palm Biologist larryn@montgomerybotanical.org

## Palm Preparation for Cold Fronts at MBC

Upon news of a cold front heading towards South Florida, MBC's palm team jumps into action to prepare. The first thing we do is confirm that the predicted temperature may damage our palms. This January, we had an overnight low of 37° F, the lowest in many years.

Special attention must be given to plants from tropical regions such as *Thrinax ekmaniana* collected from Cuba. These palms are critically endangered in the wild and valuable to research at MBC (see photo).

Thrinax ekmaniana's lack of low temperature tolerance makes this palm extremely vulnerable during cold snaps. Palms such as these are a priority in times of cold, as they can quickly succumb to frost.



Thrinax ekmaniana wrapped in burlap

The first thing we do is to ensure the plants have received adequate water (if appropriate) and that they are properly shielded from the cold. In this case we placed two layers of burlap over the palms and then wrapped the palms with straps.

We avoid using plastic, since it does not provide sufficient insulation from the cold and may further increase the burning of the fronds due to condensation.

The most common symptom of cold damage is burning and discoloration of the palm fronds. We rarely lose palms during short cold snaps if properly protected, but prolonged cold weather increases this risk.

Felix Beruvides, Assistant Curator felixb@montgomerybotanical.org

## **Montgomery Botanical Center and International Collaboration**

The Board of Directors of MBC have unanimously adopted the MBC International Fieldwork and Collaboration Policy.

For decades, MBC has conducted international research and conservation fieldwork in an ethical and collaborative manner. The breadth of colleagues on the facing page illustrates this commitment. MBC has also been a leading institution in requiring rigorous permitting for plant material added to the scientific collections.

The policy document can be viewed on the MBC website: www.montgomerybotanical.org

# MONTGOMERY BOTANICAL CENTER 2008 COLLABORATORS AND COLLABORATORS

Anderson, Patti Ph.D. Antioquia University American Public Gardens Association **ArborPro** Arevalo, Boris Arnold Arboretum Atlanta Botanical Garden Austin Outdoor Ayala-Silva, Tomas Ph.D. Bacon, Christine Beebe, Lisa Belize Botanic Garden Belize Forest Department Bergquist, Jacqueline Bobrov, Alexy Ph.D. Bohls, Kerry **Bok Sanctuary** Brenner, Eric Ph.D. Caldwell, Russell Carlson, Jana Center for Plant Conservation **Centre for Marine Studies** Central Florida Palm and Cycad Society Chapman Field Chormanski, Theresa Cibrian, Angelica Ph.D. City of Coral Gables City of Miami Parks & Rec. Clancy, Keith Ph.D. Clark, Leslie Coastal Maine Botanic Garden Coconut Grove Garden Club Cole, Ian Conifer Working Group Coral Gables Garden Club Cornell University Cozza, John Ph.D. Cruse-Sanders, Jenny Ph.D. Cycad 2008 Davis, Jerrold Ph.D. De Iglesias, Maria Felix De Laubenfels, David Ph.D. Denslow, Julie Ph.D. Determann, Ron Diaz, Domingo Directors of Large Gardens Group Dolmetsch Arboretum Donaldson, John Ph.D. Dosmann, Michael Ph.D. Dowe, John Ph.D. Dransfield, John Ph.D.

**Durban Botanic Gardens** 

East Ridge Village

Elliott, Monica Ph.D.

Ellison, Don Fairchild Challenge Fisher, Jack Ph.D. Florida International University Florida DPI Florida Nursery, Growers & Landscape Association Folsom, James Ph.D. Forbes, Holly Francisco-Ortega, Javier Ph.D. Fruit and Spice Park Fairchild Tropical Botanic Fundacion Dobbo Yala Ganna Walska Lotusland Gardner, Martin Gemini Gardens Gifford Arboretum Giles, Jonathan Green Hills Botanical Collections Hall, John Harry P. Leu Gardens Harvard University Henderson, Andrew Ph.D. Hernandez, Lucas Hird, Abby Hodel, Don Ph.D. Hoese, Geoff Horvitz, Carol Ph.D. **Huntington Botanical Gardens** Inches, Fiona Institute Plantarum Instituto de Ecologica International Palm Society International Society for the Preservation of the Tropical Rainforest Isaev, Sergei Ph.D. IUCN Cycad Specialist Group Jardin Botanico Del Quindio Jezorek, Heather John A. Ferguson Senior High School Johnson, Bob Jones, David Jungle Island Katinas, Liliana Ph.D. Khorsand, Roxaneh Kirstenbosch Botanic Garden Knopf, Patrick Kramer, Andrea Lee, David Ph.D. Lewis, Carl Ph.D. Lindstrom, Anders Little, Damon Ph.D.

Longwood Graduate Program

Lopez-Gallego, Cristina Ph.D. Lorenzi, Harri Madison Middle School Main Botanic Garden of the Russian Academy Of Science Manco, Brian Marc, Jean Maschinski, Joyce Ph.D. Mata, Martin Ph.D. Matheson Hammock Matthews, Sarah Ph.D. Meerman, Jan Meerow, Alan Ph.D. Mesozoic Landscapes Miami Beach Botanic Garden Miami MetroZoo Miami-Dade College Montgomery Pinetum Moore, Randal Moscow State University Mounts Botanical Garden Moyroud, Richard Namoff, Sandra North American Plant Collections Consortium Naples Botanical Garden National Environment and Planning Agency of Jamaica Newman, Arnold Ph.D. Nong Nooch Tropical Botanical Garden National Tropical Botanical Garden The New York Botanical Garden Oberli, Andreas Organization for Tropical Studies Palm Beach Palm & Cycad Society Palm Béach Preservation Society Palm Curators Group Palm Society of South Texas Perez-Farrera, Miguel Angel Philantropic Educational Organization Pinecrest Gardens Plant Conservation Centre Pounders, Cecil Ph.D. Ragone, Diane Ph.D. Rathbun, David Royal Botanic Garden Edinburgh Royal Botanic Gardens, Kew Redland Nursery Romanov Katya Ph.D.

Romanov, Mikhail Ph.D. Rose, Janna Ruland, David Russian Academy of Sciences Safrin, Sabrina, Esq. San Francisco Botanical Garden Santos, Elba Schokman, Larry Schonmann, Jason Schutzman, Bart Ph.D. South Florida Palm Society Shenzen Fairy Lake Botanic Garden Shimonski, Jeff Smith, Jason Ph.D. Snapper Village Stalker, Jeremy Ph.D. Stevenson, Dennis Ph.D. Suniny, Terence Syracuse University Tang, William Taylor, Alberto Ph.D. Tropical Flowering Tree Society The Cycad Society The Kampong The Villagers Tomlinson, Barry Ph.D. Tropical Research and **Education Center** Turks & Caicos National Trust Tyson, Christiane Tzub, Valentino **UC Davis** UC Berkeley Botanic Garden UC Santa Cruz University of Florida University of Miami United States National Arboretum Universidad Autonoma de Chiriqui Universidad de Ciencias y Artes de Chiapas, Mexico University of Delaware University of Georgia University of Panama **USDA** University of South Florida UT Austin Vendrame, Wagner Ph.D. Wanless, Harold Ph.D. Welbourn, Cal Ph.D. Williams, Esther Zomlefer, Wendy Ph.D. Zona, Scott, Ph.D.

Above are individuals and institutions that received MBC plant material or in-kind support, or collaborated with MBC to advance botanical science, conservation, or education in 2008. MBC apologizes for any omissions or errors in accuracy.

# Montgomery Botanical Center GRATEFULLY ACKNOWLEDGES YOUR 2008 SUPPORT

Larry Aronson

Clara Castillo

Nora Deslow

Denise Disla

Bettye Douglas Jacquelin Garcia

Liliana Fundora

Judy Griffis

Adt, James

Anderson, Patti

Anonymous

Baltin, Elias

Beaty, John T.

Boswell, Veronica

Bradford, S. Allen

Brusberg, Marian

Chait, Jeffrey

Clancy, Keith Colangelo, Marlene

Curry, Louise

Delevoryas, Ted

Dowdy, Thomas

Ebsary, Richard

Fitzpatrick, George

Graves, Kenneth

Gundlach, Ruth

Curtis, Alan

Walter

Club

Butler, Laurence M.

Davison, Marilyn and

De Laubenfels, David J.

East Ridge Village Garden

Besse, Elizabeth & Byron

Bobson, Cynthia & Robert

Burnham, Brian & Alicia

Jonas Cinquini

Duane Banks, M.D.

Barbara Cunningham

#### MAJOR GIFT FOR BUILDING CONSTRUCTION

Tyson, Christiane

#### PLEDGE FOR INFRASTRUCTURE DEVELOPMENT

Haynes, Walter

#### PAUL DRUMMOND FUND FOR PALM CONSERVATION

Shimonski, Jeff

#### IN HONOR OF LOYD G. KELLY

Kelly, Nicholas & Barbara Kelly, L. Patrick Vartanian, Christabel & Paul

#### IN HONOR OF CHRIS TYSON

Pearson, Steve

#### IN HONOR OF CHARLES P. SACHER

Pearson, Steve

#### IN HONOR OF WALTER D. HAYNES

Beaty, John T.

#### IN MEMORY OF JEANNE BILLS BELLAMY

Bellamy, Thomas & Mable

#### IN MEMORY OF DR. ALFRED R. ROBERTS

Roberts, Susan C.

#### IN SUPPORT OF COLLECTIONS DEVELOPMENT

Bishock, Faith Dewsnap, David C. Fessenden, Lillian Gregory, Tim Stark, Jean Turnbull, Sabra

#### IN SUPPORT OF HORTICULTURE

Davis, Matthew Donovan, James & Amelia

#### IN SUPPORT OF THE SEEDBANK

Smiley, Karl & Charlotte

#### **CONFERENCE SPONSORSHIP**

Turnbull, Sabra

#### **IN-KIND DONATIONS**

**Apex Engineering** Banyan Tree Service Danielson, Laurie Magellan, Tracy Scherban, Bernard Stevenson, Dennis

#### **2008 GRANTS**

Coconut Grove Garden Club Florida Nursery, Growers & Landscape Association The Institute for Museum and Library Services The Kelly Foundation The Villagers South Florida Palm Society

#### **VOLUNTEERS**

Trish Hicks Bob Hutchinson Marilyn Johnson Vivian Jordan David Manz Margaret Martin Gwen Myres Daniela Noblick Alfredo Perez Cliff Renshaw Merilynn Renshaw

Bernard Scherban Cynthia Shore Karl Smiley, M.D. Cristina Strader Victoria Strader Kirsten Tigler **Erica Torres** Penelope Twining Chris Tyson Brian Witcher **Evelyn Young** 

#### DONATIONS

Hamann, Gregg & Debra Harris, Thomas M Havnes, Marion D. Haynes, Walter Hemmes, Don E. Hibbard, Joe Hibnick, Charles Hicks, Patricia Holley, Brian E. Holton, Dale F. Johnson, Beverley Johnson, Bob & Catherine Keller, Kathleen & Karl Kelly, Eileen & Loyd Kelly, L. Patrick Kelly, Nicholas & Barbara Leaser, David Lynch, Susan E. Manz David & Sally Manz, Peter A. & Jean McNaughton, Robert Miami Beach Botanical Garden

Moore, Randal & Cindy Noblick, Florence Nutt, Carol Horvitz & Randy Olwell, Brian & Therese P.E.O. Chapter K

Petrine, Louise Priegues, Lazaro Reves, Armando Robinson, Nettie Belle Sacher, Charles P. and Dorothy

Sacher, Charles S. & Ana Sacher, Richard & Annamaria

Schokman, Colleen &

Larry Schubert, David Smiley, Karl & Charlotte Solomon, Cheryl

Sparkman, George and

Gisela Tabak, Jeremy Talbott, Linda Thorne, Robert Uhl, Natalie

Van De Water, Thomas &

Jeanette

Vartanian, Christabel & Paul

Wallace, Milton J. Ware, Catherine White, Paton Young, Evelyn

Montgomery Botanical Center apologizes for any omissions or errors in accuracy.

## Want to volunteer at Montgomery?

Call (305) 667-3800, extension 114 or email tracym@montgomerybotanical.org

## MBC TEAM NEWS

Claudia Calonje has been assigned the position of Collections Specialist. Claudia has been with Montgomery Botanical Center since 2007. She began as a volunteer and is now working in Collections. Her biology and botany degrees from the Universidad del Valle in Cali, Colombia provide a solid background for her work here at Montgomery Botanical Center.

**Montgomery Botanical Center** hosted the 2008 Volunteer Appreciation Lunch in the Nixon Smiley Building. It was well attended by volunteers and staff. Volunteers donate thousands of hours a year to MBC; we thank them!

## A Growing Number of Plants

MBC's growing collection includes palms, cycads, tropical conifers, and dicots. The entire collection is inventoried at the end of each year by the Collections Development Department, a process that can take several weeks to complete due to the size of the collection, which now includes 10,818 mapped and labeled plants in the ground, and 14,468 in the nursery.

The inventory process involves tallying all existing plants in the collection. Since every plant must be observed individually, it provides an opportunity to evaluate the health of individual plants, identify the sex of cycads that may have coned for the first time, and identify any other issues such as the need for replacing labels.

The completed inventory, stored in our database (BG-BASE), provides a list of plants and associated horticultural and phenological data that visiting researchers and students utilizing MBC's collection are able to access.

It also provides a snapshot of the size and diversity of MBC's collection. The statistics obtained from the yearly inventory can be used to compare with the inventories done in other years to determine the growth and diversity of the collection. Numbers of taxa and accessions trend upwards over the years, but hurricane years sometimes reduce these numbers.

The inventory process is critical to fulfilling MBC's mission goals of advancing science, education, conservation, and horticultural knowledge of tropical plants.

Claudia Calonje, Collections Specialist claudiac@montgomerybotanical.org

Montgomery Botanical Center 2008 Collection Inventory			
	Palms	Cycads	Other
Total Taxa	429	257	556
in ground	356	227	457
in nursery	149	129	136
Total Accessions	2,273	1,959	2,245
in ground	1,805	1,282	2,046
in nursery	515	761	200
Total Pla <mark>nts</mark>	13,150	9,345	2,791
in ground	5,222	3,191	2,405
in nursery	7,928	6,154	386

"Other" includes tropical conifers and tropical flowering trees.

In this inventory, taxa counts are of species, subspecies, and varieties.

An accession is a collection of seeds from one source or locality.



# THE VILLAGERS SUPPORT MONTGOMERY

The Villagers have been generous supporters of Montgomery Botanical Center, granting funds for restoration work on Nell's House and the Arthur Montgomery Guesthouse.

This year's restoration grant will fund much needed wall restoration in the Arthur Montgomery Guesthouse. The guesthouse has been serving its purpose to house visiting scientists for almost 75 years (since 1935). Various notable guests, such as David Fairchild and Dwight D. Eisenhower, used the Arthur Montgomery Guesthouse while visiting the Montgomerys.

The Villagers' grant advances the MBC mission of supporting research, education, and conservation through the restoration of the guesthouse. Visiting researchers from overseas are routinely hosted here, from distant places such as Australia, Russia, or Colombia, as they study MBC's living plant collections.

The Villagers highlight MBC in their second cookbook titled, *Cook It Like A Native!* MBC is showcased on pages 134, 136, and 156. The proceeds from the cookbook fund future projects supported by The Villagers.

The Villagers have also supported the restoration of David Fairchild's Study at The Kampong and the Gatehouse at Fairchild Tropical Botanic Garden.

We thank the Villagers for their continued support in helping us preserve and restore these two buildings while they continue to serve the vital mission and operations of MBC.

Tracy Magellan, Funding & Communications tracym@montgomerybotanical.org

NON-PROFIT ORG. U.S. POSTAGE PAID MIAMI FL PERMIT NO. 1302

## FROM THE MONTGOMERY ARCHIVE

hough Montgomery Botanical Center is 50 years old this year, our history runs deeper. Prior to the establishment of The Montgomery Foundation, Robert and Nell Montgomery founded Fairchild Tropical Garden in 1938. They held numerous, lavish parties to benefit Fairchild and also donated the original trolley, the "Fairchild Rambler," used at the Ramble.

Many of the pictures we use from the Montgomery Archive date back before 1959. Miami's Botanical Heritage is rooted in the lives of the Montgomerys and the institutions they gave us, Montgomery Botanical Center and Fairchild Tropical Garden.

This photo was taken from a Christmas Card sent out by Robert and Nell Montgomery (pictured) in 1950.



COME TAKE A RIDE WITH US THROUGH THE FAIRCHILD GARDEN!