Gifford Arboretum Newsletter

Spring 2013

Dr. Walter S. Judd 25th Annual Gifford Lecturer



The Gifford Arboretum is pleased to welcome Water S. Judd Ph.D. as our 2013 Gifford Lecturer. Dr. Judd is a Distinguished Professor at the University of Florida and a world-renowned expert on tropical botany and flowering plant taxonomy. He has special expertise on Caribbean plant diversity, and the heath and melastome families.

Following his B.S. in 1973, Dr. Judd continued at Michigan State University and earned his Masters of Science in 1974 for his work on the systematics of Lyonia (Ericaceae) in North America. He then proceeded to read for his Ph.D. at Harvard University, receiving the degree in 1978 for his dissertation: A monograph of Lyonia (Ericaceae). Dr. Judd joined the faculty at the University of Florida immediately thereafter and today he also holds affiliate positions with The Florida Museum of Natural History as well as Fairchild Tropical Botanic Garden. During his career, he has served as an editor of many botanical journals and has also been a member of numerous professional and honorary societies. These include the American Society of Plant Taxonomists, where he served as the President in 2000-2001.

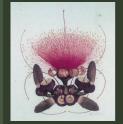
Dr. Judd's research is primarily concerned with the systematics and evolution of flowering plants. He has particular interest in

Volume 8, Issue 2

the Ericaceae and Melastomataceae families, the latter of which is almost exclusively tropical in its distribution. Some of his work has also focused on the floristics of the Southeastern United States and the West Indies. Some of his significant research achievements include revisions of *Agarista, Craibiodendron, Lyonia, Pieris*, and subclades of *Rhododendron* (in the Ericaceae), and revisions of *Miconia* section-*Chaenopleura* and the *Miconiadesportesii* complex (in the Melastomataceae). Other significant research led to published phylogenetic analyses of various clades within the Ericaceae and Melastomataceae.

Known for insightful and creative integration of traditional anatomical approaches with modern DNA based methods, Dr. Judd has helped answer many questions about plant diversity. This includes descriptions of 47 new species, subspecies, and varieties in more than 150 publications, of which he was the first author in more than a 100. Probably; his most renowned contribution to the field of plant systematics has been the publication of <u>Plant Sys-</u> tematics: A Phylogenetic Approach. This collaborative effort is now used as a textbook in more than a 150 universities and it has been translated into at least five languages.

Dr. Judd's contributions to the field of plant taxonomy and systematics have been recognized by many prestigious organizations during his distinguished career. Some of the most recent include The American Society of Plant Taxonomists awarding him the Asa Gray Award in July, 2011 in recognition of outstanding lifetime achievement in the field of plant systematics. In early 2012, he received the Jose Cuatrecasas Medal for Excellence in Tropical Botany from the National Museum of Natural History, Department of Botany, Smithsonian Institute. This award is given to a scholar of international stature who has contributed significantly to advancing the field of tropical botany. In 2012 Dr. Judd was also awarded the Merit Award of the Botanical Society of America. This is the highest honor bestowed by the Society, and it is awarded in recognition of some one who has demonstrated excellence in basic research, education, or public policy, or who has provided exceptional service to the professional botanical community.



Biology Dept. Chair: Kathryn W. Tosney Ph.D.

Gifford Arboretum Director:

Stephen D. Pearson

Aldridge Graduate Curator:

Anuradha Gunathilake

Undergraduate Assistant:

Jae Sung Shrader

Gifford Arboretum Advisory Committee:

Ioe Barros Robert Brennan John Cozza Ph.D. John DeMott Juan Espinosa-Almodovar Linda Evans Micheal Ferrero Dolores Fugina Kathy B. Gaubatz Leonard H. Goldstein M. Patrick Griffith Ph.D. Roger L. Hammer Carol C. Horvitz Ph.D. Adrian Hunsberger Gary Hunt Chad E. Husby Ph.D. David Lee Ph.D. Alan Meerow Ph.D. Craig Morell Patty Phares Chris Rollins Larry M. Schokman Jeff Shimonski Sue Steinberg Christiane Tyson Steve Woodmansee Scott Zona Ph.D.

Dr. Judd is also an exceptional teacher who unhesitantly gives his best to his students. He has supervised the work of approximately 35 graduate students and he and his students have been successful in securing many grants and fellowships for their research, including more than 10 grants from the National Science Foundation. Not surprisingly, Dr. Judd has received the University of Florida's Award for Excellence in Undergraduate Instruction/Teacher of the Year Award three times. His summer course in Tropical Botany (taught at the Kampong in collaboration with the Fairchild Tropical Botanical Garden) is attended by students from all over the world and many consider it to be THE best course on the systematics of tropical plants. Dr. Judd has taught and been a mentor to many of our most outstanding botanists over the years, and his passion for teaching and his charismatic enthusiasm have inspired many students. It is an honor and a privilege to welcome this

distinguished scientist as the 25th Gifford Arboretum Lecturer. We are looking forward to " An Introduction to the Diversity of Flowering Plants: How much has changed as a Result of the Molecular Revolution", a presentation in which Dr. Judd will share insights into the integration of traditional methods and modern molecular methods as well as the results of some of his recent work on Ericaceae and Melastomataceae.



Dr. Judd with some of the students who took part in the Tropical Botany course during Summer 2012

THANK YOU to Montgomery Botanical Center

We gratefully acknowledge the Montgomery Botani-

cal Center as co-sponsor of this year's Gifford Arboretum Lecture, and as a long time friend of the Gifford Arboretum. Maintaining the highest levels of horticultural science and research, MBC seeks to be the world's premiere collection of palms and cycads.



Message from Steve Pearson, Director of the John C. Gifford Arboretum

It is ironic that someone who has received state and national awards for volunteer tree planting efforts should feel compelled to speak out against ordinances that are intended to increase and protect trees. However, I am concerned that some of the current approaches are seriously wrong, and I want to suggest some alternatives.

In recent years, more and more local municipalities as well as our county government have adopted schemes that not only require that trees be planted as a condition of new construction, but that also regulate existing trees by requiring burdensome and expensive permits before property owners can remove or even prune their trees. These are paired with punitive fines if someone does not first obtain the proscribed permission. While these schemes were undoubtedly instigated by people who also love trees and want to increase our urban canopy, I am afraid that, in particular, regulations relating to existing trees are going to make people resent or even hate trees, and that we may witness a rash of tree "disappearances" when an opportunity presents itself, such as when the inevitable next hurricane arrives. While some ordinances state that an owner must take photos before any emergency removals or pruning in connection with storm damage. I predict that same will be very difficult to enforce and that deemed emergency situations will trump photo requirements.

Americans are resentful of governmental intrusions into their private lives and I believe the current approaches to tree regulation will at worst make citizens dislike trees as things that bring the government into their lives with adverse results or, at best, will cause people to not ask what is right, but only whether something is legally required or proscribed. At its best, a punitive scheme creates minimal compliance and that will not cause owners to embrace trees as ways to cool their homes, to create a healthier environment, and to provide other benefits, which is the attitude that we should be fostering.

And what happened to private property rights in the enforcement of the existing regulations? Our country is founded on the principle that if you want something, you buy it rather than making your neighbor a slave to your vision of how he should live. I cringe sometimes when I read about historical preservation restrictions and I feel that the current scheme for tree regulation is the same kind of intrusive measures that are contrary to the private property rights that are the backbone of American capitalism and freedom. Part of this is an issue of notice as I agree with ordinances that protect "specimen" trees and significant historic structures, but these kinds of restrictions should be enforced only prospectively and not in ways that defeat vested rights without just compensation. There are many things that deserve society's quick and sure approbation, but that line should generally be drawn based on whether one's actions directly and adversely affect others. When it comes to personal choices and lifestyle, it is educated self-interest that changes behavior, not laws, and one need look no further than our failed "war on drugs" to see that.

I believe that a far better scheme for trees would be to simply require that a specified percentage of each property, say 30% for example, must be maintained as pervious surface (i.e., no concrete), including a minimum amount of canopy cover, say 20% for example. We already enforce laws about maximum lot coverage by buildings, so couldn't this simply be the flip side of that? But then let property owners decide how and where they want to create the required canopy cover and whether same be with palms, fruit trees, flowering trees, or natives. As long as they maintain the required minimum, each owner should be able to decide what he wants to plant, what he wants to prune, and what he wants to remove on an ongoing basis. While certainly some regulations would be required to interpret this requirement, I believe that it should be a liberal standard that allows maximum personal choice, including the right to substitute shrubs and even cacti and succulents to meet the requirement so long as the chosen plants are not prohibited species that are invasive and disrupt native ecosystems.

This does not mean that there still shouldn't be some additional laws with respect to trees and the environment. However, instead of worrying about required quotas of native plants, pruning techniques, or someone exercising their private property rights to remove a tree, our environment and society would be better served by simply proscribing invasive plants, many of which are destroying the natural ecosystems of Florida as I write. Invasive vines are an obvious choice for where enforcement actions might start and I believe we would be better served by enacting and enforcing ordinances that proscribe wood rose (Merremia tuberosa), for example, than worrying about whether someone hat racked a tree. Other obvious choices for proscription would be Florida holly (Schinus terebinthifolius), Australian pine (Casuarina equisetifolia), and cajeput (Melaleuca quinquenervia). This scheme could also replace the revenue streams that at least some municipalities appear to relish with respect to their tree regulation activities. Probably, a prohibition mandate would be best if implemented gradually with the most problematic plants being targeted first, but after an owner received a notice indicating that eradication on his property was required and a grace period to take remedial action, any failure to do so could result first in a fine and then governmental measures to remove the prohibited species, both of which could be secured by a priority lien on the property similar to taxes. I believe that citizens can understand why certain noxious plants (and animals) need to

be controlled and will respect such laws. The difference lies in the fact that the adverse impacts of such proscribed plants on others are obvious.

While the foregoing is a simplistic outline due to space constraints, I want to also comment on the use of native plants in our landscapes. I am generally against required quotas of native plants (although I do not feel strongly about same being required with new construction as my proposed scheme would allow the end user to change that if desired and if replaced with other canopy), and I cringe when I hear gross generalizations and black and white thinking about natives being better for this or for that (to the contrary, nonnative species can be identified that are superior on almost any variable from drought tolerance to hurricane resistance). However, the one thing we do know is that native plants have evolved with and support our native fauna, much of which is endangered and warrants our help and protection. While undoubtedly some nonnative flora is also very beneficial to wildlife, much of it does little to nothing to help native fauna. As I drive around Miami, I see far too many yards that do not contain even a single native species. However, I think the way to solve the problem is not by mandates but through education and encouraging people to ask what is right rather than simply what is required. It makes little difference whether someone plants a gumbo limbo or a jacaranda in the middle of a parking lot, and what is needed is a system that encourages owners to create functioning, native ecosystems that contain compatible mixes of native trees, shrubs and herbaceous species.

To the chagrin of some of my most loved and respected friends, I have increasingly come to recognize the value of landscaping with native plants and I have tried to think of ways that it could be effectively encouraged while not being mandated. While some small amount of tax relief would be desirable as a reward for those who create and maintain such systems on their property, we live in a world where our local governments tell us that they can hardly afford fire and police protection (in spite of finding ways to subsidize private enterprise like the Marlins!). So if tax relief is not viable, then what might be done to encourage effective use of native landscaping? The only answer I have come up with so far is for somebody to provide private financial incentives that would recognize and support such efforts. For example, if a homeowner dedicated 10-15% of their property to creating a native ecosystem type planting, then they might receive a placard proclaiming that they are helping our birds and butterflies, paired with a small economic reward. While insufficient for long term purposes, I am personally prepared to donate \$50,000 of seed money to start such a program if the details can be worked out. Perhaps not-for-profits like TREEmendous Miami, the Native Plant Society, Tropical Audubon, and/or Fairchild Tropical Botanic Garden might work together to create a system that rewards such efforts. At \$100 per property, this money would provide a way to recognize and reward 500 owners, and I suspect the money might be stretched much further if true believers



forego the cash to help expand the reach of the program.

My premise is simply that people do what is best out of educated self-interest rather than from being told what they must do. We should want our citizens to be asking what is right, rather than simply what is legally required if we are to maximize the environmental benefits of proper landscaping



THANK YOU to Dr. and Mrs. Eric A. Cohen

We gratefully acknowledge Dr. and Mrs. Eric A. Cohen for underwriting this edition of our Newsletter. They are wonderful citizens and plant lovers who have previously donated plants to our Arboretum. Dr. Cohen is also an outstanding chiropractor, and he is pleased to announce that their son, Dr. Scott Cohen, has recently graduated and is now joining Cohen Chiropractic Center.

Gardening tip from Steve—Fruit Ripening

An Arboretum favorite is Black Sapote. When the fruit turns from bright green to yellow green, it should be picked. This usually occurs when the first fruit start to fall. The fruit should then be kept cool, but not refrigerated, until the skin turns olive green and it feels like a plastic bag filled with pudding. The edible pulp will be the color and consistency of chocolate pudding.

Bananas are usually picked by the entire stalk when they are still green. Plumping between the fruit's ridges, as well as aroma, indicate when picking should occur. Stalks should then be hung upside down in the shade to ripen.

Lychee fruit should not be picked until they reach full color development. A guideline is to not pick before Father's Day, but that can vary from year to year.

Sugar Apple and Soursop should be allowed to ripen as much as possible on the tree for best flavor. However, regular monitoring is required as they ripen very quickly at maturity and if you are not careful you will return to find your fruit splattered on the ground. You should wait until the fruit begins to soften, but then pick the fruit and allow it to fully ripen off the tree. With Sugar Apple, look for the development of yellow lines between the lumpy skin segments as a guide.

Thanks to Chris Rollins and Larry Schokman for assistance with this information.

Gifford Arboretum Plant of the Year 2013

Started in 2012 as an effort to identify and distribute plants that should be more widely planted for the benefits they provide to Florida fauna, and particularly endangered fauna, we are pleased to announce that the 2013 Gifford Arboretum Plant of the Year is *Capparis flexuosa*. Commonly called limber caper, this species is related to the more commonly planted Jamaican caper (*Capparis cynophallophora*).

Although it doesn't benefit as broad a range of birds and butterflies as last year's selection, Bahama strongbark (*Bourreria succulenta*), limber caper is the larval host plant for Florida white butterflies (*Appias drusilla*), a species that is endangered primarily due to habitat loss. It is also an occasional larval host for great southern white butterflies (*Ascia monustre*). Both of these are very beautiful butterflies that you will be thrilled to have visit your yard, and both of them need your help.

Limber caper is also an easy addition to your home garden. A clambering shrub that will sometimes become a small tree, limber caper is native to the coastal hammocks of southern Florida. Although it prefers well drained soil with some organic content, it can tolerate nutrient poor soils and is extremely draught tolerant. It can also tolerate salt wind, although salt water on its roots will kill it. It thrives in mixed border plantings in full or partial sun.

Another reason you will enjoy having a limber caper is that they produce VERY showy flowers at night. Consisting of many white to pinkish stamens, the blooms appear luminescent at night when they open.



Flowers and fruits of Capparis flexuosa

They also provide a light but pleasant fragrance. Clearly, "limber caper" is a good response to those who think that Florida's native plants lack beautiful flowers! It also produces seed pods that open to reveal white seeds ("white teeth") against a scarlet pulp, adding additional color and interest.

The Gifford Arboretum will have limber capers available for distribution in the spring of 2013. Please plant one in your home garden.

Featured plant : Tahina spectabilis - The Tahina Palm

Thanks to a donation from Mr. Mike Harris, we have a very rare and beautiful new palm growing in the Arecaceae Section of the Gifford Arboretum. *Tahina spectabilis* is the most exciting palm to have been discovered in recent years, and it is amazing that this species went unnoticed for so long. Not only is it one of the largest palms anywhere (with a height up to 59 feet and a massive trunk supporting palmate fronds up to 16 feet in diameter), but it was discovered in Madagascar, a biological hotspot of great interest to botanists for many years. However, in spite of its imposing size, it went unnoticed until only a few years ago. This is in part attributable to its being a critically endangered species where there simply aren't many of them, but it was also due to the fact that the existing wild specimens grow only in a xeriscapic, remote part of northwestern Madagascar.

Although it seems likely that other persons had previously seen these wild palms, the trees were first observed by Xavier and Nathalie Metz in August, 2005. The couple initially thought that they were *Bismarckia nobilis*, another large palm species that is endemic to western Madagascar. However, when one of the palms was later seen in bloom, they took a photo that was then circulated on the internet site of the International Palm Society. The inflorescence was unlike that of a *Bismarckia*, and some then thought that it might be a new species of *Corypha* even though this palm lacked the petiole teeth characteristic of other species in that genus. However, through the collaborative efforts of scientists at Kew Gardens and Fairchild Tropical Botanic Garden, it was soon concluded that this was instead a new species from a new genus that, although within the subfamily Coryphoideae, was from a different tribe than *Corypha*. The new species was determined to be a member of the tribe Chuniophoeniceae, whose other members originate in the Arabian Peninsula, Thailand and China.



A mature tree of *Tahina spectabilis* (left) and an inflorescence (right)

Consistent with botanical naming tradition, the Metzes had the right to determine the name of this palm from a new, monotypic genus(meaning that the genus contains only one known species). They named it *Tahina* for their daughter, Anne-Tahina Metz, but it is noteworthy that "tahina" is also a Malagasy word that means "blessed" or "to be protected." The species name of "spectabilis" is Latin for spectacular.

And spectacular it is with its massive, solitary trunk and huge palmate leaves! It is the largest of the 170 palms that are native to Madagascar, and its inflorescence is a very large, compound structure that is borne above the palm's crown and that contains many hundreds of flowers. For multiple decades, however, you should plan simply to enjoy watching the Gifford's specimen grow because this species only blooms at maturity. Like other Coryphoid species, it also flowers only once and then dies. Dr. John Dransfield, a leading palm authority from Royal Botanic Gardens, Kew, has estimated that it will take 30 to 50 years for *Tahina spectabilis* to reach maturity and bloom. I hope that we can all be there for the fireworks someday, but true plant lovers enjoy every stage of a plant's development.







The Gifford Arboretum - What Students are Missing

By Jae Sung Shrader, Class of 2013



Being a student is hard. The late nights, constant studying, and even school breaks are just another time and place to do work. The decision making between having a social life and being academically stable in itself is exhausting. It is no wonder students are famous for gaining the Freshman-fifteen. School is stressful and, if you're a typical American, then you spend 90% of your time indoors. For students, I feel that this is especially true: between classes, the library, even our car, we are constantly disconnected from nature.

As you have hopefully figured out, healthier students are better learners. This means the right diet, exercise, and fresh air! A study by the Journal of Environmental Psychology revealed that spending time outdoors rejuvenates people, making them feel more alive.

Considering how lucky we are to live in an environment that's sunny and warm, students don't take nearly enough advantage of the Gifford Arboretum. Just take a walk or sit on the benches. Pick and sample a Starfruit or a Black Sapote,or simply enjoy the flowers and trees the fresh air, and the warm sunshine.

Spending time in the outdoors not only helps your mental health, but it also increases your physical resilience, giving you better immunity against those pesky illnesses that go around campus. Taking the time to spend at least 20 minutes outside per day can significantly increase your energy levels, and its cheaper, easier and better for you than chugging a Redbull!

The Gifford Arboretum is an amazing place to spend those 20 minutes. Besides just visiting, try to attend a walking tour or come to one of our concerts and enjoy lovely music while watching a sunset. There are hundreds of things to see and whether you are by yourself or with a significant other, the Arboretum's rich diversity and helpful signage allows for enrichment of the mind, body and soul. Besides the beauty of the natural world, you may even connect to the importance of plants to a healthy environment for all of

A big THANK YOU to our donors!

We express our heartfelt appreciation to our donors for their generous contributions to the Gifford Arboretum during the past year. Our apologies to anyone who was inadvertently omitted.

Mrs. Sylvia Baltin Mr & Mrs. Doug Bischoff Dr. & Mrs Michael Bustin Mr. & Mrs. Charles Butler Ms. Lundy Clarke Dr. & Mrs. Eric Cohen Mr. & Mrs. Carlton Cole Dr. Maureen A. Donnelly Dr. Lynn A. Durel Mr. Juan Espinosa-Almodovar Ms. Carol L.Farber Mr. Austin Frye Ms. Louise A. Garavaglia Mrs. Kathryn Ball Gaubatz Mr. Gordon L.Gregory Dr. Patrick Griffith Herbert & Roselle Mack Charitable Foundation Dr. & Mrs. Charles Hillson Ms. Mary S. Horvitz Dr. Carol Horvitz & Mr. Randy Nutt Ms. Susanne Kayyali Mr. Prosper J.Keagle Mr. & Mrs. Loyd Kelly Ms. Martha Kent Mrs. Patricia Adams McNaughton Pamela Krauss Esq. & Mr. Eric Myers Ms. Karen S. Lawrence Mr. Carl Lindgren Martha Melahn Memorial Donors Mr. Bernard P. Perlmutter & Mrs. Pamela A. Chamberlin Ms. Patty Phares Mr. & Mrs. Steve Pearson Ms. Donna J.Rich Dr. Ana Adriazola-Rodriguez Mr. & Mrs. Larry Schokman Mrs. Aiko Sherron Donald G. Smith D.D.S. Dr. & Mrs. Edward A. Sprague, III Mr. & Mrs. Alan Steinberg Mr. & Mrs. Christopher Tyson Plant & other in-kind donors Dr. and Mrs. Eric Cohen Mr. John DeMott (Redland Nursary) Mr. Mike Harris

Fairchild Tropical Botanic Garden

Mr. Karim Fernandez (Karma Nursery)

Ms. Dolores Fugina (Bloomin' Good Nursery)

Mr. Lenny Goldstein

Ms. Eleanor Lahn

Montgomery Botanical Center

Mr. Peter Ostrowsky (Plantscapes Nursery)

Mr. Steve Pearson

Dr. Scott Zona

We have some great programs and activities lined up for the rest of the Spring semester. Please check them out and plan to join us!

April 13, 2013 - Walking tour featuring the fruits and edible plants of the Gifford Arboretum with Mr. Steve Pearson, Arboretum Director. The tour will start at 9:00 AM at the stone benches in the Arboretum.

April 18, 2013 - Music in the Arboretum with Frost School of Music Percussion Ensemble. Music starts at 6:00 PM.

May 2, 2013 - Ms. Linda Evans, President of the Miami Blue Chapter of the North American Butterfly Association will present "Butterflies: How they Function; What they Need; and Why they are Important." Although you will also learn how to plant your garden to help and attract butterflies, this will be an opportunity to really learn how butterflies interact with plants and why we should care. This event will be at 7:00 PM in Cox Science Center Room 166.

May 4, 2013 - Walking tour featuring the flowering trees and shrubs of the Gifford Arboretum with Mr. Larry Schokman, Director Emeritus of The Kampong, and Mr. Steve Pearson, Arboretum Director. The tour will start at 9:00 AM at the stone benches in the Arboretum.

All events are free and open to the public.



Left: Part of the large crowd that attended the Arboretum Picnic in December *Right:* Members of the Afro - Peruvian Ensemble delighting the crowd at the Music in the Arboretum event in January

SUMMARY OF EVENTS SINCE FALL 2012 NEWSLETTER November 17, 2012:Dr. Chad Husby of Montgomery Botanical Center and Mr. Steve Pearson conducted a tour of the Arboretum's Gymnosperm and Basal Angiosperm Exhibits

December 1, 2012: Annual Picnic – Following a presentation on proper pruning by Mr. Bob Brennan, Fairchild Tropical Botanic Garden arborist, and an Arboretum tour by Mr. Steve Pearson that featured newly added species, guests enjoyed a picnic of barbecued pork and roast chicken, together with a host of delicious side dishes and desserts.

January 17, 2013: Music in the Arboretum with Afro-Peruvian Ensemble – Playing a lively and joyous mix of music, this group gave an inspired performance that confirmed the great and diverse talent within the Frost School of Music.

February 7, 2013: Dr. Philippe A. Douillet, Assistant Professor at the University of Miami's Rosenstiel School of Marine and Atmospheric Science– Dr. Douillet presented "Microbes that Protect Plants and Animals from Microbial Pathogens and Restore Environmental Balance." This program provided a fascinating introduction to research and applications that demonstrate how management of microbes can enhance the health of various plants and animals.

February 21, 2013: Music in the Arboretum with the Stamps String Quartet – This event provided a lovely program of classical music that mixed beautifully with the ambiance of the Arboretum.

March 2, 2013: Mr. Steve Pearson, Director of the Gifford Arboretum, conducted a walking tour of the Arboretum that focused on the Maya Cocoa Garden Section. This tour featured plants that were important to the Mayans for food, religion and utilitarian purposes.

March 7, 2013: Dr. Chad Husby, Collections Manager and Botanist at Montgomery Botanical Center– Dr. Husby presented **"The Garden Primeval: Ancient Plant Forms in Nature and Cultivation."** Dr. Husby is an expert on tropical gymnosperms and this program was a very interesting presentation on the evolution of these plants as well as on their status and importance today. The vital role of botanic gardens in preserving species was also discussed.

March 21, 2013: Music in the Arboretum with the Ibis String Trio – Another program of classical music was enjoyed by an appreciative audience as the sun set behind the Arboretum's trees.



Please Donate to the Gifford Arboretum

Mailing Address: John C. Gifford Arboretum, Rm. 231 Cox Science Center University of Miami, 1301 Memorial Drive, Coral Gables, FL 33124-0421 Website: <u>http://www.bio.miami.edu/arboretum</u>

Your Name:			
Address:			
City:	State:	Zip:	
Phone:	Email:		

UNIVERSITY OF MIAMI COLLEGE of ARTS & SCIENCES



D Please keep me informed of activities at the Gifford Arboretum.

D Please find enclosed my tax-deductible donation to the University of Miami-Gifford Arboretum. (Tax deduction excludes value of benefits)

D Please send me information about including the University of Miami in my estate plans.

Membership levels (annual)		Benefits	
Student friends	\$5	newsletter and discounts	
Friends	\$25	newsletter and discounts	
Supporters	\$100	all above plus t-shirt	
Donors	\$1,000	all above plus special luncheon	
Benefactors	\$5,000	all above plus display on plaque	

T-shirt size (circle one): S, M, L, XL

LEAVE A LEGACY FOR TOMORROW, TODAY

Through tax and estate planning techniques and incentives, planned gifts allow you to meet your personal financial objectives while ensuring the future of the Gifford Arboretum. Planned giving options include bequests, trusts, and charitable gift annuities.

PLAN YOUR GIFT

To learn more about planned giving opportunities that can benefit you and the Arboretum, contact Kyle Paige, JD '89, director of estate planning and giving, at **kpaige@ miami.edu** or **305-284-1527**.

Please make a gift to the Gifford and/or include Gifford Arboretum in your estate plans to help support the ongoing work of caring for the trees and to enable the Arboretum to remain a central feature of the UM campus for generations to come.

