



There was Magic in the Air

*By Héctor Méndez Caratini,
HSPR Vice President*

From our last meeting

Members from ALL over the Island came for this special educational meeting. They came from Humacao (in the east) to Cabo Rojo (in the southwest), including the Cordillera Central (from Patillas to Las Marías). Some of our West Coast members even stayed overnight in the metropolitan area, so as not to miss this unique event.

Ninety persons attended our spring meeting, held at the spacious and comfortable air-conditioned facilities of the prestigious, centenary, Hospital Auxilio Mutuo, in Hato Rey. We are all indebted to Jorge Matta's (the Hospital Administrator) hospitality and enthusiasm in hosting this unforgettable meeting. As we all remember, Jorge and Tita (Jorge's wife) also hosted our previous autumn meeting, at their home in Caimito.

Dr. José Abreu (HSPR President) gave us the official welcome and introduced our invited guest. Also, he generously donated all the exotic heliconias and gingers, from his farm in Cidra, that were used to decorate the rooms. Tita concocted six beautiful, exuberant,

flower arrangements, which were distributed throughout the facilities. Among the many exotic Zingiberales in the gorgeous flower vases, were: *H. vellerigera* 'She Kong', *H. Carmelae*, *H. bourgaeana* x *H. collinsiana* 'Pedro Ortiz', *H. wagneriana* 'Pumpkin', *H. orthotricha* 'Eden Pink', *H. bihai* x *caribaea* 'Hot Rio Nites', *H. stricta* 'Iris', *H.*



Jorge Matta, Administrator of the Auxilio Mutuo Hospital and gracious host of HSPR's March meeting.

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Dates to Remember

- HSPR Meeting, 10:00 am, Sunday, June 12, 2011. Farm of Frank and Isabelita Wadsworth, Naranjito, PR.
- Heliconia Society International Conference, July 17-29, 2012, Panama. Pre-Conference Tour to Panama & Costa Rica. Post-Conference Tour to Colombia.

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caribaea yellow form (endemic to Puerto Rico), *H. caribaea* red form, *H. bihai* 'Banana Split', *H. bihai* 'Emerald Forest', *H. aurea*, *H. bihai* x *caribaea* 'Jacquini', *H. bihai* x *caribaea* 'Kawauchi', and a wide variety of colorful ginger and Costaceae, among many other inflorescences. Our members had a first hand opportunity to appreciate nature's jewels.



Beautiful tropical flower arrangement featuring heliconias.

with us. Some of our past invited guests have been: José Ábalo (Venezuela), Carla Black (Panama), Dave Dunstan (Australia) and Dave Skinner (USA).

For this particular occasion, the President of Heliconia Society International, charismatic Dr. W. John Kress, who is also Curator, Research Scientist and Director of the Consortium for Understanding and Sustaining a Biodiverse Planet at the Smithsonian Institution, in Washington, D.C., provided us with an impressive one hour presentation on the subject of "Heliconias and Hummingbirds: Partners in Evolution". His talk was very relevant to us, since we too have hummingbirds and are located in the Caribbean, the region of his scientific studies.

The once a year educational meetings are very special for us. For these "Meet the Experts Conference" series, we invite international authorities on Zingiberales who share their passion

His presentation focused on his ongoing ten year research in the coevolution of heliconias (*caribaea*s and *bihai*s) and purple-throated carib hummingbirds (*Eulampis jugularis*) on the islands of Dominica and Saint Lucia. These islands, located in the South Eastern Caribbean (the Lesser Antilles), are natural laboratories for studying and understanding the processes of evolution; closely paralleled to Charles Darwin's insights from his visit to the Galápagos Islands. Dr. Kress stated that Darwin's seminal thesis, "Origin of the Species", served as his inspiration, which also deals with the evolutionary origin of Earth's spectacular biodiversity. In 1858 Darwin studied ground finches, which evolved with diverse beaks, depending on the food available. These birds came to be known as Darwin's Finches.

Among the many topics covered during his presentation, besides those already covered in his article, published in our previous HSPR Newsletter (Vol. 16 no. 1, March 2011), were the following:

- The intricate relationship between hummingbirds and heliconias has been going on, in the neotropics, for the past 20 million years!
- Dr. Kress, and his ornithologist colleague



Dr. José Abreu, HSPR President.

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Ethan Temeles, have been studying the relationship between bird and plant for some years. There are two morphologies of *Eulampis jugularis* hummingbirds in Dominica and Saint Lucia. They've discovered that the long, curving beak of the female hummingbird exactly fits the flower throats of *H. bihai* - flowers that they both pollinate and feed from -while the males have shorter, straighter beaks that fit the flowers of *H. caribaea*.

- Due to the peculiar characteristics of these species, female hummingbirds pollinate higher elevation *H.*



Dr. John Kress' presentation to the HSPR.

bihai. They have also been seen to pollinate *H. caribaea*. While male hummingbirds pollinate lower elevation *H. caribaea*.

- Male hummingbirds are very territorial, fiercely defending their patches of heliconias, for as long as six years. Female hummingbirds are occasionally allowed inside the guarded territories, only when the male desires to mate. He projected a graph, where one particular male had mated with

40 different females, while other males didn't mate at all. He called this behavior "nectar farming for sex", versus "for energy needs".

- It is believed that hummingbirds are sedentary and do not fly or migrate to neighboring islands. Nobody knows yet, for sure, where do these birds go when the heliconias are not flowering.

- There are approximately 200 different species of heliconias in the world and 320 species of hummingbirds. Kress told us that the main reason he decided to concentrate his scientific research on these two particular islands was because there are only two kinds of heliconias in both islands; as well as only one species of hummingbird. Thus, making it possible to simplify his studies. While in Costa Rica, for example, there are many more varieties of heliconias and hummingbirds.

- The nectar rich flowers of these heliconias are the main source of energy for the hummingbirds. The birds are very active from dawn until two in the afternoon, when their activity declines. For four hours, from 7 until 11 in the morning, the nectar inside the flowers peaks.

- During his inspiring lecture, Kress projected clips from three spectacular videos, that left everyone very impressed. These were: "Hotel Heliconia", by Philip A. Savoie; "Plant Life", by BBC video, and another one. In these videos we were able to appreciate the hummingbirds in action, pollinating heliconias with their long beaks and tongues.

- He also showed us two beautiful hand-colored graphics (crafted in a 16th century technique known as copper plate etching) by his friend, British artist, Bryan Poole. Each picture depicts the



A beautiful inflorescence of *Heliconia necrobracteata* on display.

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**Dr. Kress and Héctor Méndez Caratini,
HSPR Vice President.**

flower of a tropical heliconia species and the gorgeous purple-throated carib hummingbird. In one, the male bird

is visiting *H. caribaea*; while in the other one, the female is buzzing around *H. bihai*. These pictures tell the amazing tale of co-evolution - or what scientists call "ecological causation of sexual dimorphism and co-adaptation".

- The maximum authority in the world on Zingiberales concluded his enlightening speech with a new chart that he has developed, along with colleagues Chelsea Specht and Heather Driscoll, on the phylogeny and classification of the family Heliconiaceae. It is based on studies of DNA, the latest in the field of botanical research. He also informed us that heliconias have 22 chromosomes.
- This new classification, based in DNA research, will be able to demonstrate that not all pendent heliconias are members of the same group. It will also be able to clarify crosses in heliconias, such as the hybrids occurring between *H. imbricata* 'Rio Sucio' and *H. latispatha*, known as 'José Abalo' and 'Harvey Bullis'.

- He proudly stated that we were the first ones to witness this major breakthrough in his pioneering studies, which will be published in one of his forthcoming books.

Dr. Kress invited ALL of us to come next year to Panama and Colombia, where the Heliconia Society International 2012 Conference will be held. World trotting, tireless, jungle explorer Carla Black will be our hostess. It will be held at Hotel Los Mandarininos, in El Valle de Antón (in the outskirts of Panama City). We'll have the small hotel just for ourselves. It is nestled inside the second largest (extinct) volcano in the world, where clouds dance atop rainforest covered mountainsides.

Preliminary arrangements are currently being made to include a four-day Pre-Conference Tour to Chiriquí (to visit Carla's impressive heliconia collection and the neighboring mountains) and to Wilson Gardens (one of the pioneering HSI Conservation Centers, in Costa Rica). The Post Conference Tour will be to Colombia, the country with the greatest amount of endemic heliconias in the world (with over 100 native species!). There, we will be able to explore, for seven full days, the rain forests of El Chocó and Antioquía, and culminate the trip by visiting the colorful Medellín Flower Festival. A vociferous delegation of at least a dozen HSPR members enthusiastically stated they would be attending. So, start saving today, for next year's heliconia lovers trip, a visit to our neighboring brothers and sisters in Central America.



Panoramic view of the conference facilities at the Auxilio Mutuo Hospital, in Hato Rey, Puerto Rico.

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Dr. Kress with Michelle Cruz and Josie, who baked a cake in his honor.

After the conference, our invited guest mingled with the crowd and was very accessible to everyone who wanted to meet him personally. Like a Hollywood celebrity, he had his photograph taken with HSPR members and autographed copies of his iconic books (the Bibles of heliconias). One of our members even presented him with a huge cake in his honor, which she had specially baked for the occasion. The cake had a colorful image of a heliconia inflorescence on top of the icing. Needless to say, Dr. Kress was flabbergasted with our hospitality.

Euphoria reigned during the whole day. A joyful crowd participated in a party like celebration, which started very early in the morning. Needless to say, our members were very happy to see each other again, since last year. The hospital gratuitously provided the early risers (some of them where there at 8am in the morning!) with a buffet like breakfast (hot coffee, pastries and tropical juices). Isabelita Wadsworth, our dynamic member from Naranjito, coordinated the food and refreshment contributions for our delicious brunch.

It was a clear day and the 360 degree view from the hospital's penthouse terrace served as the perfect backdrop for the Raffle. From the ninth floor we

could see ships entering Old San Juan harbor, planes landing and taking off from the airport, the impressive view of El Yunque's Rain Forest, the lush vegetation at the UPR Río Piedras Campus and the southern mountain range.

During the meeting, \$721.00 was generated from the Raffle, the renewal of membership dues (four new members) and donations to help cover the costs associated to this activity. Edgardo Varela, Sherry Ballester, Reily Rodríguez, and other members donated very rare, expensive, collector's specimens for our customary Raffle. Like little kids celebrating a birthday party around a piñata, everybody won a precious plant at the Raffle. The festive event lasted until mid-day in the afternoon.

HSPR's Directive, and ALL the volunteers who contributed, should be commended for coordinating this important event (including both the logistics of the Conference and the Newsletter) to perfection. At 1 p.m., Dr. Kress left for the airport on his way to Dominica, to continue with his decade long, ongoing research project in the Lesser Antilles.

Again, Thank You Dr. Kress for accepting our humble invitation and sharing your contagious heliconia enthusiasm with our HSPR members. As I was leaving the premises, one of our members commented to me "Today, there was magic in the air!"

(All photos by the author)



A happy winner of the HSPR Raffle!

**HELICONIA SOCIETY OF
PUERTO RICO, INC.**

www.heliconiasocietypr.org

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HSPR

*Promoting Zingiberales in
Puerto Rico since 1996.*



The Heliconia Society of Puerto Rico, Inc. was founded in 1996. The objectives of the society are to stimulate and promote the enjoyment and understanding of Heliconia and related plants of the order Zingiberales through education, research and communication, and to interact with the Heliconia Society International and other institutions which share similar interests, purposes or objectives.

President's Corner

Over 15 years ago, on February 11, 1996, a group of heliconia enthusiasts (20 individuals, which included five married couples) met and gave birth to the Heliconia Society of Puerto Rico (HSPR).

Their assets were very limited but their goals were very high. Among their initial recorded projects, according to their very early minutes: An invitation to expert researcher Dr. W. John Kress highlights their goals.

After 15 years, on March 14, 2011, that goal was met; and sadly, only three of those founding members were available for such a unique event, Ms. Judy Nelson and Dr. Paul and Beverly Yoshioka.

It would have been great to have all founders present as honored guests.

Although the place of origin of those founding members was scattered around the Island, a predominance of southwestern towns prevails. For this and other reasons, our September 11 meeting will be held in the west: At the Dr. Juan A. Rivero Zoo in Mayaguez (Drs. Juan and Eneida Rivero were among those 20 founding members).

That meeting will be dedicated to our founding members, and special efforts will be made to locate

and extend special invitations to them.

In regards to our next meeting, to be held on June 12, 2011, I again exhort all members to bring as many specimens as possible (what is common to you may result attractive to others). Cash income to our society is more dependent on our meeting raffles than on membership dues.

The June meeting will be held at the Wadsworth-Colorado farm at the Bayamon-Naranjito border.

I want to remind our fellow members that our meeting sites depend on the voluntary, altruistic hospitality of our hosts. Nobody is allowed to take advantage of plants, fruits or seeds without the express consent of the owner after the meeting.

On the other hand, you may bring donated eatables to enjoy by all, without any restrictions.

Warning: This means you!
ISABELITA'S LYCHEE TREES ARE OFF LIMITS TO ALL!

José R. Abreu,
President, HSPR