16th Conference of the Heliconia Society International
July 2010, Singapore

Carla Black, Volcan, Panama
<carla@volcanbaru.com>

Organizer extraordinaire, Victor Lee, treated 50 participants to an exceptionally well-prepared series of events that combined to make HSI’s biennial conference and tours a great success.

Prior to the Conference, twenty of us participated in a fascinating 4-day pre-tour in southern peninsular Malaysia. In Singapore the busy schedule began with a productive board meeting, followed by a day and a half of conference papers, field trips, gala dinner and auction, finally capped by an incredible 10-day post-tour to five of Malaysia’s national parks in Sarawak state on Borneo. Each element of the conference provided an additional layer of understanding to the rich stew of our SE Asian experience.

Victor organized and led the conference pre-tour for 20 people to his ancestral and oft-visited neighborhoods in south Malaysia. Our visits were as varied as the flavors we enjoyed throughout. After gathering in Kuala Lumpur, the first stop was the Forestry Research Institute of Malaysia, where retired Deputy Director Dr. Francis Ng welcomed us and gave us the opportunity to buy autographed copies of his newly-published book, *Tropical Horticulture and Gardening*. After a forest hike culminating in a canopy bridge walk, we proceeded to our second VIP visit of the day, the Floria flower festival in Putrajaya, whose theme this year was *Heliconia*. Long-time HSI member Dr. Halija Ibrahim greeted us and...
The Purpose of HSI

The purpose of HSI is to increase the enjoyment and understanding of Heliconia (Heliconiaceae) and related plants (members of the Cannaceae, Costaceae, Lowiaceae, Marantaceae, Musaceae, Strelitziaceae, and Zingiberaceae) of the order Zingerberales through education, research and communication. Interest in Zingerberales and information on the cultivation and botany of these plants is rapidly increasing. HSI will centralize this information and distribute it to members.

The HELICONIA SOCIETY INTERNATIONAL, a nonprofit corporation, was formed in 1985 because of rapidly developing interest around the world in these exotic plants and their close relatives. We are composed of dues-paying members. Our officers and all participants are volunteers. Everyone is welcome to join and participate. HSI conducts a Biennial Meeting and International Conference.

Membership dues are (in $US): Individual, $40; Family, $45; Student, $10; Contributing, $50; Corporate (Company or Institution) $100; Sustaining, $500; Contributing Lifetime Member, $1000, Libraries, $25 and PDF, $25. Membership fees constitute annual dues from 1 July through 30 June. All members receive the BULLETIN (usually published quarterly), the Membership Directory, and special announcements. Please send all inquiries regarding membership or Bulletin purchases to: Dr. David Lorence, NTBG, 3530 Papalina Rd., Kalaheo, HI, USA 96741. Back issues of the Bulletin are $5.00 per issue.

HSI Officers for 2010-2011

President, W. John Kress; Vice-presidents for Membership, Carla Black and Jan Hintze; Secretary, Victor Lee; Treasurer, David H. Lorence; Cultivar Registrar, Bryan Brunner; Archivist: Sandra Barnes. Board of Directors: Bruce Dunstan, Vinita Gowda, Anders J. Lindstrom, David Skinner and Chelsea Specht.

The HSI BULLETIN is the quarterly publication of the HELICONIA SOCIETY INTERNATIONAL. Inquiries: Victor Lee <admin@heliconia.org>

Notice of membership dues increase:

Due to escalating costs, particularly printing and postage, HSI reluctantly is obliged to increase membership fees effective 1 July 2010 for renewals and new members. The new fee schedule is: Individual, $40; Family, $45; Student, $10; Contributing, $50; Corporate, $100; Sustaining, $500; Contributing Lifetime Member, $1000; Libraries, $25. A new category, “PDF members”, for members who are prepared to forego the printed Bulletin, and download it from the HSI Website, is $25.
that the owner had planted over 30 years ago, and at $10,000 each were in high demand for Singapore’s gigantic gardens projects.

The heart of the Conference, the papers sessions and day tour, was attended by a good turn-out of 40 delegates and an additional 10 accompanying participants. The Conference venue at an elegant downtown hotel provided every comfort and catered to the most eclectic tastes in cuisine.

The paper sessions got off to a running start with the keynote presentation by Dr. John Kress on his work in the Caribbean on co-evolution in heliconias and hummingbirds. Dr. Kress also announced that he and Dr. Chelsea Specht will take on the project of revising the genus Heliconia, adding molecular studies to the traditional methods of classification. The papers and presentations varied from an explanation in lay terms by Dr. Jana Leong-Skornikova of the challenges in classifying the genus Curcuma, to the gorgeous photos and narrative by Alan Carle of ginger ethnobotany and his related travels. Gregory Hambali left nothing out of his talk on hybridizing Calatheas for the nursery market; Dr. David Lorence outlined the effects and controls for the devastating Banana Bunchy Top Virus (BBTV). We were introduced to the Heliconia Society of Puerto Rico and their unique Heliconia Conservation Center by Héctor Méndez Caratini; our first-ever speaker from India, Dr. Shuchita Jain, gave us a tour of gingers in the wild in Rajasthan; Heliconia Cultivar Registrar Bryan Brunner offered an overview of the new cultivars appearing in Puerto Rico and around the world. Ten more presentations filled out a day and a half
of formal meetings. Many of the topics will be published as articles in future Bulletins.

Our day of field trips was filled by a visit to Singapore's ambitious Gardens By the Bay project and an afternoon at the Singapore Garden Festival, one of the premier flower shows in the world. At Gardens By the Bay, we got a special sneak preview of the gardens with a presentation by the director and the director of horticulture, and we toured the holding areas for the enormous collections of plants which will populate the new park. After lunch at a typical neighborhood food court offering more options than my western mind could sort through, we were off for a guided tour of the Singapore Garden Festival. We got a behind-the-scenes description of each of the main installations, then had time to wander and wonder on our own, later visiting the incredible array of booths in the commercial and club section.

The schedule of the conference concluded in the royal fashion with the Gala Dinner and Auction. The meal was an exquisite 8-course Chinese dinner of dishes I’d never eaten before. This might have been the most successful auction ever, thanks in large part to Mrs. Ivy Singh-Lim’s generous contribution of libations, which loosened many purse-strings. The wide array of auction items ran the gamut from heliconia posters and ginger t-shirts to botanical books and Indian fabrics. With few rhizomes offered, three packets of Panamanian heliconia seeds inspired a friendly bidding war between representatives of the Singapore Botanic Garden and Gardens By the Bay, ending in sizable donations to HSI in exchange for the promise of something new and different in the gardens.

With the 16th Conference of HSI successfully concluded, 20 of us boarded a plane the next morning to Kuching, Sarawak for the post-tour: 10 days in national parks in Borneo. Photographs and accounts of the post-tour will appear in the next HSI Bulletin.

Ray Baker, pictured above with wife Joyce, a Lyon Arboretum staff member for 38 years, has donated $50,000 to establish the Raymond F. Baker Fund for the Grounds and Living Collections at the Harold L. Lyon Arboretum at the University of Hawaii at Manoa. The funds will be used to support activities that improve and sustain the grounds and living collections of the arboretum.

HSI has extra T-shirts printed for the Singapore conference at $16 US plus postage. Contact tshirts@heliconia.org for details about available sizes and how to purchase them.
An Illustrated Guide to the Wild

*Musa* of China

Markku Häkkinen ¹* and Gabriel Sachter-Smith ²

¹ Finnish Museum of Natural History, Botanic Garden, University of Helsinki, P.O. Box 44, FI-00014, Finland (markku.hakkinen@kymp.net)

* To whom correspondence should be addressed.

² Department of Tropical Plant and Soil Sciences, University of Hawaii at Manoa Honolulu, HI, U.S.A.

Text and images copyrighted by the first author. Photos taken by the first author.

In 2008, the first author, Markku Häkkinen, and Henry Väre published an annotated list of banana names (see Häkkinen M. & Väre H. 2008. — Typification and check-list of *Musa* L. names (Musaceae) with nomenclatural notes. *Adansonia*, sér. 3, 30 (1) : 63-112), recognizing 73 out of 297 as being the names to be used, and pointing out their synonyms. For non-specialists such lists are hard to relate to without color pictures. “A picture is worth a thousand words.” This article is intended to be a companion to the 2008 paper covering the species of China, where the first author has spent time from 2005 to 2010 conducting field studies. By having the various species illustrated in one place you can easily see the differences, and hopefully will come away with a better appreciation for this beautiful group of plants. *Musa balbisiana* and *M. basjoo* varieties are a subject of study and need revision. In addition there are some unidentified species which have to be described. The first author's next six-week expedition to China is taking place now in September, 2010.

**Musa taxa illustrated**

Section *Musa*
*Musa acuminata* var. *chinensis*
*M. balbisiana* var. *balbisiana*
*M. basjoo*
*M. itinerans* var. *itinerans*
  - M. *itinerans* var. *annamica*
  - M. *itinerans* var. *chinensis*
  - M. *itinerans* var. *guangdongensis*
  - M. *itinerans* var. *hainanensis*
  - M. *itinerans* var. *lechangensis*
  - M. *itinerans* var. *xishuangbannaensis*
*M. nagensium* var. *hongii*
*M. yunnanensis* var. *yunnanensis*
  - M. *yunnanensis* var. *caii*
  - M. *yunnanensis* var. *jingdongensis*
  - M. *yunnanensis* var. *yongpingensis*

Section *Rhodochlamys*
*M. aurantiaca*
*M. chunii*
*M. rubinea*
*M. sanguinea*
*M. zaifui*

Section *Callimusa*
*M. coccinea*
*M. paracoccinea*
**M. acuminata** var. *chinensis* Häkkinen & H. Wang

Distribution: China- Yunnan: Simao District, Jiancheng Co., Lixian Jang River, close to Vietnam border, 380 m.

Published: Novon 17, No. 4 (2007).

---

**M. balbisiana** Colla var. *balbisiana*

Distribution: From Sikkim to Papuasia, one of the few banana species with an extensive distribution.

Published: Memorie della Accademia delle Scienze di Torino 25: 384 (1820).
**M. basjoo** Inuma

**Distribution:** China- (Fujian, Gansu, Guandong, Guangxi, Guizhou, Hubei, Hunan, Jiangsu, Jiangxi, Sichuan, Yunnan and Zhejiang), Japan- introduced.

**Published:** Sintei Somoku Dzuvesatu [Illustrated Flora of Japan], ed. 2: 3.

**M. itinerans** Cheesman var. *itinerans*

**Distribution:** Burma, Myitkyina, Tagwin, 120 m in elevation, evergreen forests.

**Published:** Kew Bulletin 4: 23 (1949b).
**M. itinerans** var. *annamica* Häkkinen

Distribution: North Vietnam, China- Guangdong Province, Conghua, Daling Mountain.


![Unique twisting bracts](image)

**M. itinerans** var. *chinensis* Häkkinen

Distribution: All over southern China in subtropical regions at elevations from 300 to 1800 m, along roadsides, in river valleys and ravines, and on steep slopes.

M. itinerans var. guangdongensis Häkkinen

Distribution: The northern part of Guangdong Province in temperate regions at elevations from 300 to 1600 m, along roadsides, ravines, and on steep slopes.


M. itinerans var. hainanensis Häkkinen & X. J. Ge

Distribution: The center mountainous area of Hainan island in fertile mountain valleys and ravines.

**M. itinerans var. lechangensis** Häkkinen

**Distribution:** Found only in one ravine, in Beixiang in north Guangdong, Lechang Co., 343 m in elevation.

**Published:** Novon 18 (1): 56 (2008).

---

**M. itinerans var. xishuangbannaensis** Häkkinen

**Distribution:** Common pioneer species in tropical rainforests of southern Yunnan. It also grows in isolated canopy gaps in upper mountainous valleys and slopes with moist fertile soils, to 1600 m in elevation.

**Published:** Novon 18 (1): 57 (2008).
*M. nagensium* var. *hongii* Häkkinen

**Distribution:** Very common in Yingjiang County, Dehong, Yunnan, in the area bordering Burma, occurring typically at elevations from 800–1300 m in moist ravines.

**Published:** Novon 18: (3) (2008).

---

*M. yunnanensis* var. *yunnanensis* Häkkinen & H. Wang

**Distribution:** Grows abundantly in the Mekong river watersheds from the tropical zone to the subtropical zone on slopes from 500 to 1800 m in elevation.

**Published:** Novon 17: (4) (2007).
**M. yunnanensis** var. *caii* Häkkinen & H. Wang

**Distribution:** Occurs in very few isolated wild populations in Yunnan, China’s subtropical regions at elevations from 1550 to 1850 m, along roadsides, ravines and on steep slopes.

**Published:** Nordic Journal of Botany 26, (5-6) (2009).

---

**M. yunnanensis** var. *jingdongensis* Häkkinen & H. Wang

**Distribution:** Only found in one cultivated population at Mt Wuliang Shan Hengduan, at an elevation of some 1600 m above sea level with only some 10 individual plants. It was cultivated for animal fodder together with *M. yunnanensis* var. *yongpingensis*.

**Published:** Nordic Journal of Botany 26, (5-6) (2009).
**M. yunnanensis** var. **yongpingensis** Häkkinen & H. Wang

Distribution: Occurs in the western part of the Yunnan Province in subtropical regions close to the Burma border at elevations from 1550 to 2250 m above sea level, along roadsides, ravines and on steep slopes.

Published: Nordic Journal of Botany 26, (5-6) (2009).

---

**M. aurantiaca** Baker

Distribution: China- Tibet, Northern Myanmar and India- Upper Assam and Arunachal Pradesh.

**M. chunii** Häkkinen

**Distribution:** Only found in Tongbiguan Nature Reserve, Dehong District, West Yunnan.


---

**M. rubinea** Häkkinen & C.H. Teo

**Distribution:** Western Yunnan Province.

**Published:** Folia Malaysian 9(1) (2008).
**M. sanguinea** Hook.f.

**Distribution:** Ruili area in west Yunnan.

**Published:** Botanical Magazine 98: t. 5975.

---

**M. zaifui** Häkkinen & H. Wang

**Distribution:** Only observed in a wet ditch covered with secondary forest on the eastern bank of Da Yingjiang River, on the way from Yingjiang to Longchuan (about 50 km from Yingjiang), Dehong District, west Yunnan.

**M. coccinea** Andrews

Distribution: Extinct in nature, but common in botanical gardens and nursery trade.

Published: Botanist’s Repository 1: 343 (1797).

**M. paracoccinea** A.Z.Liu & D.Z.Li

Distribution: Occurs in evergreen forest or grows along streams in southeastern Yunnan and northern Vietnam.

---

**DID YOU RENEW YOUR MEMBERSHIP IN HSI?**

HSI Headquarters
Dr. David H. Lorence
National Tropical Botanical Garden
3530 Papalina Road
Kalaheo, Hawaii 96741 USA