



Growing Heliconias in Cold Climates

By Bryan Brunner, HSPR Member

Although in Puerto Rico we don't have to worry about cold weather hurting our heliconias, many growers at higher latitudes, whether they are north or south of the equator, do have trouble with frost and cold temperatures during the winter months.

Cold Weather Care

Small heliconias in containers may be easily moved outdoors when temperatures are consistently above 50° F (10° C), and brought back inside the house or greenhouse for the winter. Larger heliconias can also be container grown, but the large pot size, 30 gallons (113.6 liters) or more, means that a dolly or handcart would be needed to move the heavier containers.

Indoors, heliconias need as much light as possible, leaves should be misted periodically if the relative humidity is low, and the frequency of watering and fertilization needs to be decreased while the plants are not in active growth. If indoor light and temperature levels are too low, growth rate and flowering will slow or stop.



Heliconias in containers growing near a window during the winter months in Boalsberg, Pennsylvania, USA. Photo courtesy of Ken Bachman.

Increasing winter greenhouse temperatures from 59 to 70° F (15 to 21° C) caused an increase in flower production from 25 to 60 flowers per square meter in *H. psittacorum* 'Tay', and optimum temperatures are suggested to be between 70 and 95° F (21 and 35° C).

Growth and flower production in *H. psittacorum* decrease below 70° F (21° C) and cease at 50° F (10° C), when cold injury begins to appear as black spotting at the bases of the bracts. As temperatures drop, the entire inflorescence blackens. Pseudostems and even rhizomes may be killed around 32° F (0° C).



Symptoms of cold damage in *H. psittacorum* 'Sassy' grown outdoors in Tampa, Florida, USA, include leaf burning and dieback. Photo courtesy of Andrew Hendrickson.

Cold Tolerant Heliconias

Fortunately, not all heliconia species are as cold sensitive as *H. psittacorum*, and a few can be grown successfully at surprisingly high latitudes. Cold hardiness is not a common trait in heliconias because most are native to tropical regions; many of these show medium to low cold tolerance. However, those species which oc-

Inside this issue:

Growing Heliconias in Cold Climates	1
From Our Last Meeting	2
President's Corner	4

Dates to Remember

- HSPR Meeting, 10:00 am, Sunday, December 13, 2009. Farm of Alberto Rodríguez and Carmen Iris Ruiz, Guavate, PR.
- Heliconia Society International Conference, July 15-18, 2010. Grande Copthorne Waterfront Hotel, Singapore. With a Pre Conference Tour to Malaysia and a Post Conference Tour to Borneo.

Growing Heliconias in Cold Climates (continued)



Heliconia bourgeana (left) and its hybrid *H. bourgeana* x *H. collinsiana* 'Pedro Ortiz' (right) are both beautiful heliconias with tolerance to low temperatures.

cur naturally at high northern and southern latitudes, or at high elevations, may be adapted to cold temperatures and possibly even frost.

Examples include *H. bourgeana*, *H. collinsiana*, *H. schiedeana* and *H. spissa* from central Mexico; *H. angusta*, *H. subulata* and *H. velloziana* from southern Brazil and Argentina; and *H. nutans*, which grows in nature at altitudes of 2,300 to 7,545 feet (700 to 2,300 m).

Two species with outstanding cold tolerance are *H. schiedeana*, which has been grown and flowered in Berkeley, California, USA (37.9° N), Sicily (38.1° N) and Naples (40.8° N), Italy, and *H. subulata*, which grows well as far from the equa-



A beautiful and healthy clump of *Heliconia schiedeana* growing at the Royal Botanical Gardens in Naples, Italy, at a latitude of 40.8° N (roughly the same latitude as New York City).

tor as Auckland, New Zealand (36.9° N) and Oakland, California, USA (37.8° N).

Hybrids between two cold hardy species, like *H. bourgeana* x *H. collinsiana* 'Pedro Ortiz', have also shown good cold tolerance, and hybrids between species with only moderate cold



tolerance, like *H. bihai* and *H. caribaea*, may have greater resistance to low temperatures than the parental species.

The hybrid *H. marginata* x *H. psittacorum* 'Nickeriensis' shows minimal cold damage at Tampa, Florida, USA. Photo courtesy of Andrew Hendrickson.

From Our Last Meeting

Close to 50 persons attended our last meeting, held at the spacious facilities of the beautiful Jardín Botánico y Cultural de Caguas. During the meeting I handed out invitations to my latest photography exhibit, titled INKATERRA, currently being held at the Museo de las Américas, in Old San Juan. The show has many color photographs of last year's excursion into the Peruvian Amazon - where I was able to collect several new heliconias which were successfully introduced to Puerto Rico. The exhibit will last until January 10, 2010.



HSPR members at the September meeting in the Jardín Botánico y Cultural de Caguas

Yolanda Reyes, our Treasurer, gave a report of our finances. After paying the IVU and other expenses, we have a balance of \$1,725.36 in our bank account. This is without taking into account the money generated from this meeting's raffle and membership dues.

Paul Yoshioka was in charge of the educational conference. His interesting Power Point Presentation on "Varieties of *Heliconia caribaea*: Where do they come from?" generated a lot of enthusiasm. Among the many topics he covered during the lecture were: the morphology of the heliconias of Dominica, Saint Vincent, Saint Lucia, Grenada and Saba; how territorial hummingbirds act as pollinators; and how the elevated mountain ranges (topography) act as natural barriers preventing the spread of different colored inflorescences. He also mentioned that at least 11 Leeward Islands have the potential of possessing native heliconias. (An abstract of his presentation was posted in our previous HSPR Newsletter.)

Three members of HSPR responded to the call and donated more than a dozen heliconias to the Jardín Botánico y Cultural de Caguas. Among the tropical species from the Antilles that found a new home were: *H. bihai* x *H. caribaea* 'Big Red', *H. caribaea* 'Chartreuse', *H. caribaea* 'Porto Rico' (a unique cultivar developed at my farm), *H. caribaea* 'Red', *H. caribaea* 'Yellow', *H. caribaea* 'Pink', *H. bihai* 'Five A.M.', *H. caribaea* 'Wig Wag' (from Dominica), *H. caribaea* 'St. Lucia', *H. caribaea* 'Dominica Red', *H. caribaea* 'Springfield Estates' (also from Dominica), and others.

Several Costaceae (costus), previously donated by Dave Skinner were distributed to the HSI/HSPR CCs which were not present at the previous meetings.

Again, by coincidence (as also happened during our last meeting!) Paul Yoshioka and I brought the same identical heliconia species for comparison to the Show & Tell session. We



From left, the hybrid *H. episcopalis* x *H. standleyi* 'Flabellata', followed by the parental species *H. episcopalis* and *H. standleyi*.



Paul Yoshioka displays an inflorescence of *H. bihai* x *H. caribaea* 'Big Red' during his conference.

brought an enormous spiraling erect inflorescence of *H. imbricata* x *H. latispatha* 'José Ábalo'. This particular hybrid had more of an orange tint in the upper bracts than the usual one.

There were several potted heliconias up for grabs in our customary Raffle. Among the specimens available were: *H. orthotricha* 'Red Perú', *H. wagneriana*, *H. aemygdiana*, *H. curtispatha*, *H. bihai* 'Giant Lobster Claw', and many others.

Judy Nelson, from Marin Alto Tropicals in Patillas, reminded our members of her current sale of heliconias and gingers being held at Plaza las Américas.

Héctor Méndez Caratini
President, HSPR

both were amazed of the salient characteristics of this particular hybrid, currently growing on our respective farms. There were two specimens each of *H. episcopalis* and *H. standleyi* for comparison purposes, whose offspring according to the published literature (Abalo and Morales first described it as a different species in 1983) is *H. episcopalis* x *H. standleyi* 'Flabellata'. Curiously enough, a year and a half ago, I too saw several specimens of these three species growing side by side in the Amazon. I also



The beautiful spiraling inflorescence of the hybrid *H. imbricata* x *H. latispatha* 'José Ábalo'.

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

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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

We would like to express our gratitude to Beverly and Paul Yoshioka for helping us out with the logistics of our last meeting; as well as to Jeffrey Glogiewicz, Jorge Vilá and the personnel from the Jardín Botánico y Cultural de Caguas for hosting the group. We all had a great time and appreciated their hospitality. After the meeting, many members had the unique opportunity to tour the facilities of this gorgeous, very well kept, botanical garden. A round of applause goes out to all of them!

During our upcoming December meeting we will be having our General Elections to elect the new members of the Directive. I deeply appreciate the trust you all have deposited on my shoulders and I announce that I will not be running again for re-election. I will be helping HSPR with the many chores "trasbastidores" (behind the scenes). Yolanda Reyes, our Treasurer, has also informed me that she will also not be running again. Please help us make our dreams a reality. Contribute your talents to our society. Volunteer now, your society needs you!

Under the past two years of my tenure as President, HSPR's global presence on the internet has grown exponentially. Last month we had to buy extra bandwidth on the server, due to an increase in traffic from the public visiting our site. Also, our precious nine HSI/HSPR Conservation Centers have seen their plant population grow by enormous leaps. Dave Skinner has donated a vast amount of rare Costaceae. My sincere thanks to Bryan Brunner, Bob Castro and Raymond Jerome, among others, who have contributed so much with their talent and tireless work for the well being of our organization.

Christmas is around the corner, so let us celebrate! Alberto

Rodríguez and Carmen Iris Ruiz have graciously offered their farm for our next quarterly meeting. Their exquisite property is located in a peninsula, bordering Carite Lake - on beautiful Guavate (near the famous, well known, "Ruta del Lechón"). This will be our traditional Christmas Party. So, don't miss it, or you will regret it. We are ALL very grateful for their generosity in hosting our meeting.

For this special occasion HSPR member Eliazím Carballo will be in charge of the educational conference. He will be presenting a Power Point Presentation on the subject of "Huertos en envases". His professional pointers will be of interest to all of us who desire to start a new collection and don't have much space where to grow them. Mr. Carballo works for the Agricultural Extension Service of the University of Puerto Rico, Mayaguez campus.

Again, Dave Skinner has generously donated more rare costus (which he personally collected in the wild) and which will be distributed to selected HSI/HSPR CCs during this particular meeting.

Remember to bring plants and rhizomes (preferably zingiberales) for the RAFFLE, and inflorescences for our customary "Show and Tell" session. It is very exciting to win. Our society needs the money generated from the Raffle to subsist. So, please contribute and don't forget to renew your yearly membership.

Saludos a tod@s,

Héctor Méndez Caratini
President, HSPR