



Metrosideros collina var. *polymorpha*

BULLETIN
THE CALIFORNIA HORTICULTURAL SOCIETY
California Academy of Sciences
Golden Gate Park
San Francisco, California 94118



Argyroxiphium sandwicense

SEPTEMBER MEETING

4:00 PM Botanical gardens walk with speaker at Strybing Arboretum. Parking is available behind the San Francisco Co. Fair Building and on 9th Ave.

5:30 PM No Host Dinner will be at Avenue 9 Bistro, 1243 Ninth Ave., San Francisco \$15.

7:30PM Meeting will be held at the California Academy of Sciences, Morrison Auditorium Golden Gate Park

** Guest fee \$5

Monday, September 18, 2000

Co-sponsored with Strybing Arboretum Society

“Here today - Gone tomorrow?”

Hawaii’s Endangered Flora and Fauna

A lecture and slide presentation by noted photographer **David Liittschwager**, whose works have appeared in National Geographic, Life Magazine, and New York Times and **Susan Middleton** former chair of the California Academy of Sciences department of photography. They will speak about their 15 year odyssey photographing endangered plants and animals. Over the last two years, in partnership with Environmental Defense, they have scaled sharp lava peaks and trudged through some of the world’s wettest rainforests to record the last surviving specimens of Hawaii’s endangered flora and fauna. The hope is that their magnificent photographs of *Hibiscus clayi*, (of which only three remain), or the Crested honeycreeper, along with other exquisite images will inspire people and governments to support efforts to save these irreplaceable species. Their compelling images are part of an Environmental Defense effort to protect what has been called “one of the rarest and most improbable living assemblages on the earth as well as “the endangered species capital of the world.”



Scaevola Chamissoniana

PLANT DRAWING: The plant drawing will include donations from **Mostly Natives Nursery** (Walter Earle & Margaret Graham), **Annie’s Annuals** (Annie Hayes & Sandra Cornell) and **Strybing Arboretum & Botanical Gardens** (Dr. Don Mahoney). Our appreciation to **Wayward Gardens** (Leana Sims) and **Strybing Arboretum & Botanical Gardens** (Dr. Don Mahoney) for the splendid plants donated in August.

COMING ACTIVITIES

Co-sponsored with Strybing Arboretum Society

Monday, October 16, 2000

“Autumn Gardens”

With **Ethne Clarke** - Garden Historian, Horticulturist, Writer and Lecturer we will stroll through the autumn garden at what is essentially the busiest and most enchanting time in the gardening year, but one which is often neglected because for too long we’ve been told that autumn is the time to put the garden to bed; rake up those leaves and cut down those seed-heads and so on. So, this is about planning and planting with autumn in the foremost of our designing minds, with a look at textures, shapes and colors of leaf, bark and berry –and late flowers, that make this a deeply satisfying season.

Monday, November 20, 2000

“Using Big and Bold and Outrageous and Wonderful Plants in the Garden”

Presented by **Edith Edelman**, distinguished horticulturist and garden designer.

Plant Exploration in the 21st Century

by Rick J. Lewandowski

THIS ARTICLE FIRST APPEARED IN THE AMERICAN HORTICULTURAL SOCIETY'S *THE AMERICAN GARDENER* AND IS BEING REPRINTED WITH PERMISSION.

A casual stroll through any garden center reveals a world of botanical wealth. Each of these garden plants or their pre-hybrid parent species was brought into cultivation from a place where they occur naturally, sometimes thousands of miles away, in locations completely inaccessible to the average gardener.

Most of us take for granted the circuitous, multi-year path plants follow from discovery, evaluation, and development to sale and planting in our gardens. But this process has dramatically altered the landscape in the past two centuries, influencing the variety and quality of the food, fiber, medicinal and ornamental plants we enjoy today. It begins with the efforts of professional plant explorers with the vision to recognize "diamonds in the rough" and the dedication to bring such plants into cultivation.

Nineteenth and early twentieth century plant explorers such as David Douglas, Thomas Nuttall, Reginald Farrer, Joseph Rock, Frank Meyer, and Ernest Wilson are renowned for the seemingly endless list of plants that they noticed, collected, studied, and ultimately shared. Supported by wealthy individuals or botanical gardens, most of these men traveled alone and often were gone for a year or more at a time.

Plant exploration has changed dramatically in the past 200 years. Improved air and ground transportation, communications systems, and more accurate environmental and mapping data have made the logistics of collection much easier. Most plant hunting is now accompanied by teams of explorers representing consortiums of public gardens,

universities, commercial nurseries, and government organizations. Trips usually last only a month or two and have clearly defined objectives.

The goals of these expeditions are diverse, but among the more important are finding plants that tolerate environmental stress and resistance to insects and diseases, increase the genetic diversity of existing cultivated species and—of course—offer something new and exciting for American gardens.

Asia—particularly China and Japan—has historically been one of the richest sources for new ornamental plants and is still a popular destination for many plant explorers. But as we move in the the 21st century, plant hunters are also turning their attention to less-publicized regions such as eastern Europe, southern Africa, South and Central America, Southeast Asia, as well as underexplored areas of North America.

The North American China Plant Explorations consortium (NACPEC) has conducted seven expeditions to Asia since 1994. One of the consortium's goals has been to diversity the genetic representation of species already in cultivation,

Paul Meyer, director of the Morris Arboretum and a participant in several expeditions, offers the examples of kousa dogwood (*Cornus kousa*) and paperbark maple (*Acer griseum*). Most plants of these species that are available to gardeners in the United States, Meyer explains, originated from a few trees introduced nearly a century ago. MACPEC is trying to improve the vigor of these species by broadening their genetic diversity.

According to Meyer, NACPEC is also looking for "tough urban trees" that perform well in a variety of stressful

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Plant Exploration continued on Page 4

Botanical Tours

October 31 - November 17, 2000

Springtime in New Zealand—a botanical tour featuring the native flora, plus private gardens, with Kathy Musial of the Huntington Botanical Gardens. Sponsored by Pacific Horticulture. (650) 595-2090.

Jan 10 - 28, 2001

A Natural History Tour of Southern Chile and Argentina—A *Pacific Horticulture* tour with Richard Turner and Dr. Robert Haller. Info: 800-624-6633

Jan 24 - Feb 10, 2001

Drakensberg Flora: Explore with Rod and Rachel Saunders of Silverhill Seeds (South Africa). Huge variety of flowering plants; magnificent scenery. Limited to 12 participants. Call: 800-624-6633

April 16-May 2, 2001

Greece & Crete—Mediterranean Wildflower Tour. Sponsored by Strybing Arboretum Society. Leader: George Sfkiias, noted botanist and botanical tour guide, author and photographer of Greek wildflowers. Info: 800-624-6633

June 2-16, 2001

Gardens of W. Vermont and New York's Finger Lake Region. Sponsored by Strybing Arboretum Society. Leaders: Barbara and John Hopper. Info: 800-624-6633

Horticultural Calendar

September 9 & 10

Annual Dahlia Show—SF County Fair Building, 9th Avenue & Lincoln Way, San Francisco. SF Dahlia Society of California. Saturday 10 AM–5PM and Sunday 10 AM–4PM. Information: (415) 566-5222.

Sept 16, 23 Oct 7, 14, 28

Workshop on Creating Healthy, Eco-Friendly Gardens. Tanya Drlik (510) 524-2567.

September 21

Advances in Plant Genetic Manipulation—Robert Scudder 7–9 PM. S.F. Professional Gardeners Assn. City College of S.F.

September 23

Hermitage Santa Barbara Sculpture Garden Tour—Benefits American Diabetes Association. (\$50 half day, \$150 all day) Information: (805) 965-0025; jhermitage@aol.com, www.hermitage2000.com.

September 24

UCBG Fall Plant Sale will include a Silent Auction of Rare Plants, 10 AM – 2 PM. Info: (510) 643-1924

October 7

26th Annual Plant Faire—8 AM to 2 PM. UC Davis Arboretum headquarters. 1000's of mediterranean plants, bulbs & rhizomes. Info: Diane Cary (530) 752-7822; dscary@ucdavis.edu.

October 7 & 8

Merritt College Horticulture's Fall Plant Sale—9 AM to 3 PM. Food, live Bluegrass music, rare and unusual plants, Dutch bulbs, garden design advice, and the California Native Plant Society sale next door at the same time. 12500 Campus Dr., Oakland. Call (510) 436-2418 for directions.

October 14-16

Western Regional Master Gardener Conference—Mesa Conference Center, Mesa, AZ. Workshops & Tours, Hike, etc. Conf. hotline: 602.470-1556 X 1017 or Cheryl Czaplicki (602) 942-3289; j-c-czaplicki@worldnewt.art.net.

October 14 - November 11th

10 weekend institutes by Aquatic Outreach Institute. Creeks, Wetlands & Watersheds. At various locations \$25 each institute.

Oct 14-Native Plant Propagation Techniques and Nothing But Bugs

Oct 21-Water Quality Monitoring, promise or problems.

Oct 29-Canoes in Sloughs-Arrowhead Marsh

Info for remaining programs and registration (510) 231-5778.

November 14-15

22nd Annual Fall Plant Sale—Rancho Santa Ana Botanic Garden. Sat. Member's preview 8–11AM, public sale 11–4. Sun. Public sale 9AM–1PM. Info: (909) 625-8767 x 251; ann.joslin@cgu.edu.

Strybing Arboretum Society
(415) 661-1316 • www.strybing.org

September 9

Plant Sale—open nursery sale with native plants & succulents, 10 AM-1 PM.

September 11–October 16

Summer & Fall Perennials—J. Charmain Giuliani. 6 evening classes, one day field trip.

September 22 & 23

Gardening Under Mediterranean Skies II: Horticulture in a Drier Landscape—not to be missed two day symposium with workshops and lectures. See Strybing's website above for full details.

September 28–October 10

The Life of Birds—Alan Ridley. 3 classes, 2 field trips introduce resident and migrating birds at Strybing.

October 14

Plant Sale—Trees, Ferns & Rhododendrons featured, 10 AM-1 PM.

The Garden at Heather Farms
(925) 947-1678

September 13, 20, 27

Planting Design—Bobbi Feyerabend & Georgia Madden, 7–9 PM. \$45 GHF member, \$55 non-member.

September 14

Introduction to California's Beautiful Native Plants—includes flowers, trees and shrubs. Patrice Spencer, 7–9 PM, \$10 GHF member; \$15 non-member.

October 14-15

Garden Faire at Garden at Heather Farm Garden Fair - Sun; Moon Light Preview on Sat. (925) 947-0571.

HORT NOTES:

GEORGE WATERS ORAL HISTORY available by the UC Berkeley's Regional Oral History Office: at the Bancroft Library UC Berkeley and at UCLA's Department of Special Collections.

THE ANDERSON JAPANESE GARDEN in Rockford, IL has been selected as one of the top ten Japanese gardens in America. Of the 300 public gardens in the survey Anderson Gardens is listed second, following the Portland Japanese Garden in Portland, OR.

NEW BOOK: *Grower Talks on Plugs 3* - edited by Jayne VanderVelde. 208 pp. 60 photographs, soft cover \$32.95 from Ball Publishing 1-888-888-0013. www.ballbookshelf.com ❁

Plant Forum

The Plant Forum will return in the next *Bulletin*. Pictures and names of previous Forums are always available on our website at www.calhortsociety.org.

If you want a little more time to fill out your Plant Forum information form, they are also available from our website. Just download and print and voilà!

situation, or that can be used in breeding programs to improve tolerance to temperature extremes, salt spray, insects and diseases. For example, in 1998 the U.S. Department of Agriculture (USDA) and NACPEC initiated a multi-year plant exploration program to collect hemlocks (*Tsuga spp.*) throughout China. Their objective is to assess hardiness and adaptability of several species potentially resistant to the hemlock wooly adelgid, an aphid-like pest devastating the native hemlocks of the western United States.

Russia is a focus area for the Midwest Plant Collecting Consortium. Seeking plants tolerant of extremes in climate and soil conditions, the consortium hopes to expand the diversity of landscape perennials, shrubs, and trees adapted to the upper Midwest.

Not all plant-hunting expeditions are sponsored by botanical gardens or governmental agencies. The passion to seek new and better plants for our gardens still infects many private plant explorers who work for commercial growers.

Dan Hinkley, co-owner of Heronswood Nursery in Kingston, Washington, has observed and collected plants in Asia and Chile, as well as in remote areas of North America. While traveling in China in 1996, Hinkley found a clematis that appears to be a new species. Presently he is "keen on woodland lilies—the CONVALLARIACEAE [lily-of-the-valley-family]...trying to find garden worthy specimens and sorting out the species."

Bob McCartney of Woodlanders Nursery in Aiken, South Carolina, says, "As I am primarily interested in new plant introductions for the warmer regions of the southern United States, I consider the warm temperate and subtropical regions to have the greatest potential for plant exploration." McCartney is especially eager to further explore parts of Argentina that have largely been ignored by collectors from cold-climate regions.

The highlands of Mexico are also drawing the interest of American plant hunters seeking warm climate plants. McCartney, along with Tony Avent of Plant Delights Nursery in Raleigh, North Carolina, are among the nursery owners who have followed up on the groundbreaking plant-collecting expeditions to Mexico undertaken by John Fairey and Carl Schoenfeld, now of Peckerwood Garden and Yucca Do Nursery, respectively, in Hempstead, TX. Garden treasures found on these trips have included salvias, agaves, and rain lilies (*Zephyranthes spp.*).

A relatively "new" area for plant hunters is South Africa, which many plant explorers boycotted in the 1970s and '80s because of the country's policies on racial segregation. But since the lifting of apartheid in 1994, South Africa—which contains an estimated 10 percent of the Earth's plant species—has been getting a fresh look. Panayoti Kelaidis, curator of plant collections at Colorado's Denver Botanic Gardens (DBG), was one of the first American plant collectors to travel to post-apartheid South Africa. Among the

collections he has made on behalf of DBG are numerous high altitude succulents that are hardy throughout North America, including the now popular ice plants (*Delosperma spp.*) and aloes; hardy bulbs such as angel's-fishing rods (*Dierama spp.*) and gladioli; and perennial alpine plants such as the hardy gazania. Many of these plants are already in the retail trade, and more are in the testing pipeline.

Just as Dorothy learned in *The Wizard of Oz* that happiness can often be found in our own backyards, many plant hunters recognize the value of continuing to tap into the rich botanical wealth that exists in remote areas of North America. At the Mt. Cuba Center for the Study of Piedmont Flora in Greenville, Delaware, exploration focuses on plants of the Piedmont region of the eastern United States.

One priority is searching for, propagating, and introducing new selections of underused native plants—such as trilliums, hardy ginger, and Allegheny pachysandra—in an effort to encourage their landscape use. Another goal is to extend or verify the hardiness and stress tolerance of southeastern Piedmont species—including *Stewartia malacodendron* and *S. ovata*, *Osmanthus americanus*, and *Leucothoe* species—that have potential for growing further north.

Increased awareness of the limited amount and fragile state of our natural habitats has raised serious concerns over the loss of biological diversity. Extensive deforestation and conversion of land to agriculture have left fewer places of refuge for potentially useful garden plants and a narrower gene pool from which to sample. Unscrupulous collecting methods exacerbate the problem.

More than 25 years ago, the international community recognized the potential for over-exploitation of plants and wildlife and ratified the Convention on the International Trade of Endangered Species of Wild Fauna and Flora (CITES). More than 150 countries, including the United States, are now signatories to this treaty. CITES regulations ban commercial international trade on an agreed list of endangered species as well as regulate and monitor trade of others that might become endangered. CITES has dramatically reduced the international trade in a number of wild-collected ornamental plants, including *Galanthus nivalis*, *Cyclamen neopolitanum*, and several orchids. The good news is that most growers are now propagating these plants rather than collecting them from the wild.

The next century is certain to provide challenges and limitations for conducting plant exploration. As countries restrict access to plant genetic resources, plant exploration is going to depend increasingly upon greater collaboration among people and governments. We must also become better stewards of our natural resources to protect their future integrity. Despite these challenges, plant exploration will continue to expand our knowledge of the world's rich botanical diversity and enhance our gardens. ❁

Increased awareness of our natural habitats has raised serious concerns over the loss of biological diversity.

A 'Splash of Cream' for your garden by Bruce Peters

Nicandra physaloides 'Splash of Cream' is a newish variegated form of the common Shoo-Fly plant, also called The Apple of Peru. The leaves are green, 'splashed' liberally with yellow-cream although, if grown in full sun, they are better described as cream splashed with a bit of green. Like many other variegates, the green predominates when grown in part to light shade.

The copious flowers are 1" to 1.5" clear blue up-facing bells with a white



Click for larger image

center and stay open for just one day, providing is a sunny one. Like many morning glories, they like to keep to

themselves on cloudy or cold days. Invariably following the flowers are deep-maroon spotted mini 'lanterns' hiding berries filled with 4-5 large seeds.

Because of the solanin they contain, the seeds are poisonous but can be used in some sort of decoction to fight dandruff. They can remain dormant for several decades, quite a boon in this house, since it can take me almost that long to finally plant all the various seeds I accumulate!

Growing 1.5' to 3' high, *N. p.* 'Splash of Cream' is a fast growing annual, easy from seed, that does best with good garden soil in full sun to part shade. However, like it's non-variegated progenitor growing wild in mostly disturbed sites throughout North America and its native Peru, 'Splash of Cream' is not terribly fussy as to conditions.

The variegation attained from seed varies with plants with 95% green to those with 95% 'cream.' The greener ones reach full size quite a bit faster, owing to their larger and fully



Click for larger image

photosynthesizing leaves, and can quickly overtake their creamier cousins if left to close.

I have found that the highly variegated leaves can get sort of deformed looking if grown in lots of sun, so I put them in 1/2 day sun areas where the slower growth favors the standard leaf shape.

Seeds are available from Thompson & Morgan and, of course I've collected some for Cal Hort's upcoming Seed Exchange. *

Now is a great time to start propagating for the Annual Plant Sale!

Cal Hort Roster Update Sheet

If you would like to modify your listing in the Cal Hort roster, please fill in the information below and send this form to: Deb Connell, 95 Willow Avenue, Fairfax, CA 94930-1245.

You can also visit our website at www.calhortsociety.org and use the 'Contact Us' link to email any changes.

Name: _____

Address 1: _____

Address 2: _____

Phone: _____

Email: _____

Special Interests: _____

Do you grow these?

Your fellow members of Cal Hort would be delighted to find any of the following seeds in next year's exchange! If you are growing (or have other means of access to) any of these types of plants, please take a little time to collect the seed. Your fellow Cal Hort members will thank you!

General categories:

trees
palms
conifers
CA natives
South African bulbs/corms
Australian trees and shrubs
New Zealand trees and shrubs
variegated
unusual annuals
perennials
plants for Zone 6 and colder
drought tolerant
heat tolerant
tropicals
fern spores
vines

vines for shade
vines with fragrant flowers
shrubs with fragrant flowers

Genera:

Cyclamen
Echium
Erythrina
Gladiolus
Helleborus
Iris
Ixia
Penstemon
Salvia

Any time before Thanksgiving, please send the seeds to:
Dave Tivol
130 Locksunart Way #4
Sunnyvale CA 94087
It's not mandatory, but if you can take a picture of the plant in leaf or flower, it could be posted on our web site, where it would help illustrate the beauty (or other pertinent feature) of the plant. ✨

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Deadline for publication is the third Monday of each month for the following month's *Bulletin*. Events during the first ten days of the month should be remitted *two* months ahead. Please give any information to Elsie at the meeting or, preferably, email to Bruce at the above address. Faxes and postal submissions also accepted.

California Horticultural Society

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