



The Gardener's Grapevine

Summer 2011

President's Message

MBBG Now Internationally Known

By Charlotte Marshall

In the middle of June we had an international incident at the Garden. It wasn't covered by CNN or any media outlets, but for those of us who were involved, it was a most memorable and life changing episode. Three government representatives from the city of Prague (the Czech Republic) toured the Garden and inquired about our sustainable gardening practices. In turn we asked them about their environmental concerns and what their government is doing to address them.

The Czech revolution was 20 years ago, and our guests expressed some frustration that things had not changed more rapidly. One instance is that much of their housing is still federally owned and, among other things, this does not



Charlotte Marshall, Dave Harris, Sona Kalapura, Wayne Powell, Michaela Mazancova, Gretchen Renshaw, Jana Zarybnicka, Dan Richter, and David Lesser



Gretchen Renshaw leads Prague City Council members on tour of MBBG

encourage conservation of water because there are no individual residential meters. The cost is the same no matter how much water is used.

The contingent included two Prague City Council members, Dan Richter and Michaela Mazancova, and a member of the Prague Education Council, Jana Zarybnicka. They told us their city is comparable in population (50,000) but their council has 35 members.

Our welcoming committee included Council members David Lesser and Wayne Powell; Environmental Programs Manager Sona Kalapura; Planning Commissioner (and MBBG Board member) Martha Andreani; and other Board Members Gretchen Renshaw, Julie Gonella, Dave Harris, and me.

We talked for three hours and it was a most heartfelt and interesting exchange of ideas with, as it turns out, people just like us. Thanks to MBBG supporter Renata Eubank for reaching across the globe to her hometown and arranging this visit. You never know where a path will lead.

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Julie Gonella
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 Charlotte Marshall

Layout Editor:

Suzanne Schultz

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Manhattan Beach Botanical Garden
 P.O. Box 1156
 Manhattan Beach, CA 90267-1156
 (310) 546-1354

julie@manhattanbeachbotanicalgarden.org

Our Mission

Manhattan Beach Botanical Garden is a non-profit public education organization dedicated to promoting earth-friendly gardening techniques, encouraging the use of California native and drought-tolerant plants, and conserving our natural resources.

Please join our all-volunteer-run organization by helping maintain the Garden on Fridays from 9:30 A.M. to 11:30 A.M. No need to sign up; just drop in. We'll teach you earth-friendly gardening techniques and provide the needed tools. Non-gardening tasks are available as well. To learn more about MBBG, visit www.mbbgarden.org.

Thank You...

- ✿ Connie Vadheim, instructor at California State University Dominguez Hills, for the donation of 12 Coast Live Oak saplings. These have been repotted and are being nurtured for planting at Live Oak Park in the fall.
- ✿ Marilyn Beaumont for promoting MBBG while participating in the South Bay Waterwise Garden Tour.



Marilyn Beaumont (l) shares the garden she created.

- ✿ Instructors of MBBG's free Spring classes: Greg Monfette, Mimi Andersen, Mike Garcia, Bob Shanman, Gretchen Renshaw, Maria Capaldo, Patrick Moore, Tony Baker, Jon Bell, and Lisa Ryder Moore.
- ✿ Lawyers Michael Trabish and Rob Gonella for the review of required MBBG volunteer liability release forms, and Martha Andreani for updated verbiage.
- ✿ Once again, our fine brick path-laying volunteers Bruce, Marilyn, Ellen, Linda, Jim, Garen, Paul, Julie, Cheryl, John Paul, and many El Camino College students.
- ✿ Earth Day booth and plant sale volunteers Martha, Jim, Kathy, Paul, Marilyn, Linda, Isa, and Mary Lou.



Dr. Connie Vadheim of CSUDH

- ✿ Student John Paul for maintenance on two scout projects. He repainted the Garden's entry display case and gave a good cleaning to the Meditation Garden deck. John also helped on the brick pathway project.
- ✿ All new and renewed members and sponsors (see back page)
- ✿ Bob Shanman of Wild Birds Unlimited for another year of birdseed donation.



Local student John-Brodie Paul

Gardening Tips

Where to Acquire Good Soil

An e-mail from Leonard inquired where the best place to obtain topsoil/gardening soil at a reasonable price might be for his 10-foot by 15-foot garden.



For topsoil, MBBG founder and board member Mike Garcia of Enviroscope recommends B.D. White in Torrance: (310) 370-5511. MBBG board member Julie Gonella goes to International Garden Center on Sepulveda Boulevard in El

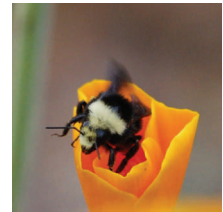
Segundo to obtain a bagged soil called Bumper Crop to amend her smaller garden. It usually comes with worms and is pure organic material with no fillers.



Great Web Sites!

www.weedingwildsuburbia.com. Barbara Eisenstein is a Research Associate at Rancho Santa Ana Botanic Garden and board member for the Gabriel Mountains Chapter of the California Native Plant Society (CNPS). Her Web site is a fantastic source for information on natives. Under "Classes" you'll find colorful and informative PDFs with lessons on numerous topics including "How to Keep 'Em Alive"

www.pollinators.info. This interesting site is designed for a general audience, to provide information, resources, and a forum for pollinator-related discussion.

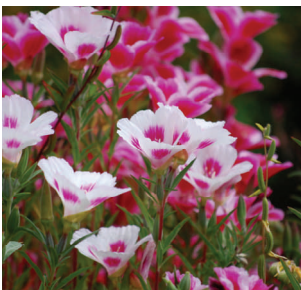


The Yellow-faced Bumble Bee, Bombus vosnesenskii, is a native pollinator.

Plant Profile

Clarkias

We had two favorite wildflowers in bloom this spring at the Garden, and both were a species of clarkia. Elegant clarkia, *Clarkia unguiculata*, grows two feet to four feet tall and comes in coral, fuchsia, or white. The aptly named late blooming Farewell to Spring, *Clarkia amonea*, won't reach quite that height, but is extremely showy with candy-striped petals of white with fuchsia, pink, or peach. Both are California natives whose seeds can be purchased from native plant nurseries.



Farewell to Spring

Summer is a good time to obtain your seeds and prepare your garden for these beauties. Toss seeds in a well weeded bed when the rains begin in October or November. Keep moist until germination (about a week) and then, depending on the rain, water only weekly. No need to fertilize... ever.

For more information, call The Theodore Payne Foundation for Wildflowers and Native Plants at (818) 768-1802 or check out their online store: Elegant Clarkia: http://store.theodorepayne.org/product/SI_CLAAM.html; Farewell to Spring: http://store.theodorepayne.org/product/SI_CLAUN.html.

Their plant library is an excellent source for other types of wildflowers as well: http://www.theodorepayne.org/mediawiki/index.php?title=Main_Page.



Elegant Clarkia

Adventures in the Garden

Special Birds Sighted



Townsend's
warbler



Western Tanager
Photo by Manhattan
Beach Middle School
instructor Patricia
Ware (see her other
photos here: [http://
www.flickr.com/
photos/pware/](http://www.flickr.com/photos/pware/)).

Volunteers in Action



Left: Friday volunteer Ellen Sosin has been a big help with weeding and the brick path. Right: Linda Morey, Mimi Andersen, Jean Wilkers, Jim Catella, Bruce Johnson, Marilyn Beaumont, Kathy Barron, and Mary Lou Quinn.

Organizational News

Coast Live Oaks Coming to Live Oak Park via Project SOUND



Julie Gonella peers over Coast
Live Oak Saplings.

MBBG has taken up the pleasurable task of installing Coast Live Oaks in Live Oak Park. This expansive park off Valley Drive in Manhattan Beach is dotted with trees. Some are native like the magnificent Western Sycamores on the east side of the park; others are Mediterranean transplants. Together they create a woodland habitat, essential for wildlife and enjoyable for people. Missing, however, are the park's namesake, Coast Live Oak, a potentially huge provider of food and shelter, and a real beauty.

Project SOUND (Save Our Unique Natural Diversity) has donated a dozen Coast Live Oak (*Quercus agrifolia*) seedlings to MBBG. With the city's help, we will install them on the park's western east-facing hillside this fall. Homeowners, schools, youth organizations, community groups, parks, nature preserves, and cities in western Los Angeles County are eligible for free oak seedlings. To learn more, contact Dr. Connie Vadheim of Cal State University Dominguez Hills at jconroth1@verizon.net.

Succulent Club

MBBG's new succulent club is preparing for their third meeting with special guest speaker Jackie Johnson on July 16. So far the club has shared specimens, held a repotting demonstration, and taken a field trip to an exceptional local garden. The club meets in MBBG's amphitheater on the third Saturday of each month at 11:30 A.M.



A newly repotted cactus.

50 Seal of Approval Signs

MBBG's Seal of Approval sign program provides small garden plaques to local homeowners in recognition of their water-wise, wildlife-friendly landscaping. After four months of walking neighborhoods and delivering acknowledgement letters to qualifying owners, we're up to 50 participants!

Controlling Snails and Slugs

By Andrew Pedersen, Entomologist and MBBG Advisor

Some of the most common and damaging pests found in gardens are snails and slugs. Typically in southern California we see either the brown garden snail or gray garden slug. Snails and slugs are mollusks, which makes them closely related to squids, octopi, clams, and oysters. They are part of a group called gastropods meaning stomach-foot which is named for the large muscular foot found on the underside of snails and slugs. Snails glide slowly on this foot with the aid of a layer of slime that leaves a shiny characteristic "snail trail."

Snails and slugs feed using a unique rasping tongue called a radula that scrapes away plant tissue. They prefer feeding on soft tissue like seedlings, fruit, and succulents. Since they can't cause true chewing damage, snail feeding creates irregular holes with smooth edges in the host plant. Most herbaceous plants are vulnerable to snails and slugs. However, plants with soft, low-growing fruit like strawberries and tomatoes are especially vulnerable. Snails can even

climb into tree canopies to go after fruits like citrus. Dense ground cover like ivy and ice plant can also be snail hotbeds.

Ideal conditions for snails and slugs are moist, cool, and with minimal sunlight. Controlling these pests should start with habitat modification to make your garden less hospitable. Removing weeds, leaves, and other ground cover



Brown Garden Snail

will limit the ability of snails to shelter themselves. Avoiding over-irrigation and using subterranean drip will help keep the soil surface dry to discourage snail and slug infestations.

A great way to limit the damage done by snails and slugs is to use copper foil and screens to exclude them from your plants. This can be done in the soil, on the edges of planter boxes, or even around tree trunks to protect citrus fruit. Never use salt as a snail barrier because it will raise your soil salinity. Another way to control snails is to trap and remove them. There are numerous trap designs you can find online, but the simplest, and perhaps most effective, is a wooden board laid flat on the soil surface with a small gap for the snails to get underneath. Scrape the snails off the trap every day and dispose of them in a bucket of soapy water.

When snail and slug infestations are especially severe, using bait may be advisable. There are two main active ingredients used in most commercial slug baits. The first, metaldehyde, has the advantage of being fast acting but is very toxic to people and pets. The other is iron phosphate, like Sluggo®, which is safer and causes snails to immediately cease feeding.



Sluggo®, Safe & Effective

Gardening for Life

By Doug Tallamy, Author of *Bringing Nature Home*

Chances are you have never thought of your garden—indeed, of all of the space on your property—as a wildlife preserve that represents the last chance we have for sustaining plants and animals that were once common throughout the U.S. But that is exactly the role our suburban landscapes are now playing and will play even more in the near future.

If this is news to you, it's not your fault. We were taught from childhood that gardens are for beauty; they are a chance to express our artistic talents, to have fun with and relax in. And, whether we like it or not, the way we landscape our properties is taken by our neighbors as a statement of our wealth and social status. But no one has taught us that we have forced the plants and animals that evolved in North America (our nation's biodiversity) to depend more and more on human-dominated landscapes for their continued existence. We have always thought that biodiversity was happy somewhere out there "in nature," in our local woodlot, or perhaps our state and national parks. We have heard nothing about the rate at which species are disappearing from our neighborhoods, towns, counties, and states. Even worse, we have never been taught how vital biodiversity is for our *own* well-being.

We Have Taken It All

The population of the U.S., now over 300 million people, has doubled since most of us were kids and continues to grow by 8,640 people per day. All of those additional souls have fueled unprecedented development that continues to sprawl over two million additional acres *per year* (the size of Yellowstone National Park). We have connected all of our developments with four million miles of roads; the paved surface is nearly five times the size of New Jersey. Somewhere along the way we decided to convert most of our living and working spaces into huge expanses of lawn. So far we have planted over 62,500 square miles, some 40 million acres, in lawn. Each weekend we mow an area eight times the size of New Jersey to within one inch and then congratulate ourselves on a job well done. And it's not like those little woodlots and "open spaces" we have not paved over or manicured are pristine.



Dune native Beach Primrose, Camissonia cheiranthifolia, is an attractive parkway plant that provides nectar and seeds for wildlife.

Nearly all are second-growth forests that have been thoroughly invaded by alien plants like autumn olive, multiflora rose, Oriental bittersweet, and Japanese honeysuckle.

Over 3,400 species of alien plants have invaded 100 million acres of the U.S., and that area is expected to double in the next five years.

To nature lovers these are horrifying statistics. I stress them so that we can clearly understand the challenge before us. We have turned 54 percent of the lower 48 states into cities and suburbs, and 41 percent more into various forms of agriculture.

That's right... we humans have taken 95 percent of nature and made it "unnatural." But does this matter? Are there consequences to turning so much

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land into the park-like settings humans enjoy? Absolutely! Both for biodiversity and for us. Our fellow creatures need food and shelter to survive and reproduce, and in too many places we have eliminated both. The song birds that brighten spring mornings have been in decline since the 1960s, having lost 40 percent of their numbers so far. Birds that breed in meadows are in even more trouble. Once common species such as the northern bobwhite, eastern meadowlark, field sparrow, and grasshopper sparrow have declined 82 percent, 72 percent, 68 percent, and 65 percent, respectively, in total numbers and are completely absent from many areas that used to support healthy populations.

Why We Need Biodiversity

For most of us, hearing such numbers triggers a passing sadness; but few people feel personally threatened by the loss of biodiversity. Here's why you should. Biodiversity losses are a clear sign that our own life-support systems are failing. The ecosystems that support us—that determine the carrying capacity of the earth and our local spaces—are run by biodiversity. It is biodiversity that generates oxygen and clean water, that creates topsoil out of rock and buffers extreme weather events like droughts and floods, and that recycles the mountains of garbage we create every day. And now, with human-induced climate change threatening the planet, it is biodiversity that will suck that carbon out of the air and sequester it in living plants if given half a chance. Humans cannot live as the only species on this planet because it is *other species* that create the ecosystem services essential to us. Every time we force a species to extinction we are encouraging our own demise. Despite the disdain with which we have treated it in the past, biodiversity is not optional.



The mouth parts of the Black-headed grosbeak evolved to consume certain native plant seeds. (Photo taken at MBBG.)

Parks Are Not Enough

I am often asked why the habitats we *have* preserved within our park system are not enough to save most species from extinction. Years of research by evolutionary biologists have shown that the area required to sustain biodiversity is pretty much the same as the area required to generate it in the first place. The consequence of this simple relationship is profound. Since we have taken 95 percent of the U.S. from nature we can expect to lose 95 percent of the species that once lived here unless we learn how to share our living, working, and agricultural spaces with biodiversity. That's 95 percent of all plants and animals! Now there is a statistic that puts climate change predictions of extinction to shame. And studies of habitat islands with known histories, such as Barro Colorado Island in the Panama Canal and Ashdown Forest in England, have so far shown these predictions to be accurate. Species are lost at the same proportion with which a habitat is reduced in size. The good news is that extinction takes a while, so if we start sharing our landscapes with other living things, we should be able to save much of the biodiversity that still exists.

Redesigning Suburbia

What will it take to give our local animals what they need to survive and reproduce on our properties? *Native Plants*, and lots of them. This is a scientific fact deduced from thousands of studies about

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how energy moves through food webs. Here is the general reasoning. All animals get their energy directly from plants, or by eating something that has already eaten a plant. The group of animals most responsible for passing energy from plants to the animals that can't eat plants is insects. This is what makes insects such vital components of healthy ecosystems. So many animals depend on insects for food (e.g., spiders, reptiles and amphibians, rodents, and 96 percent of all terrestrial birds) that removing insects from an ecosystem spells its doom.

But that is exactly what we have tried to do in our suburban landscapes. For over a century we have favored ornamental landscape plants from China and Europe over those that evolved right here. If all plants were created equal, that would be fine. But every plant species protects its leaves with a species-specific mixture of nasty chemicals. With few exceptions, only insect species that have shared a long evolutionary history with a particular plant lineage have developed the physiological adaptations required to digest the chemicals in their host's leaves. They have specialized over time to eat only the plants sharing those particular chemicals. When we present insects from Pennsylvania with plants that evolved on another continent, chances are those insects will be unable to eat them. We used to think this was good. Kill all insects before they eat our plants! But an insect that cannot eat part of a leaf cannot fulfill its role in the food web. We have planted Kousa dogwood, a species from China that supports no insect herbivores, instead of our native flowering dogwood (*Cornus florida*) that supports 117 species of moths and butterflies alone. In hundreds of thousands of acres we have planted golden-raintree from China instead of one of our beautiful oaks and lost the chance to grow 532 species of caterpillars, all of them nutritious bird food. My research has shown that alien ornamentals support 29 times less biodiversity than do native ornamentals.

Your Garden Has a Function

In the past, we didn't design gardens that play a critical ecological role in the landscape, but we must do so now and in the future if we hope to avoid a mass extinction from which humans are not likely to recover either. As quickly as possible we need to replace unnecessary lawn with densely planted woodlots that can serve as habitat for our local biodiversity. Homeowners can do this by planting the borders of their properties with native trees and plants such as (for coastal Los Angeles) Coast live oaks (*Quercus agrifolia*), White alders (*Alnus rhombifolia*), sycamores, California lilacs (*ceanothus*), buckwheats



Berries of the easy-to grow Golden Currant, *Ribes aureum*

(*Eriogonum*), sage (*Salvia clevelandii*), currants (*Ribes*), and wildflowers such as California poppies (*Eschscholzia*). Our studies have shown that even modest increases in the native plant cover on suburban properties significantly increases the number and species of breeding birds, including birds of conservation concern. As gardeners and stewards of our land, we have never been so empowered to help save biodiversity from extinction, and the need to do so has never been so great. All we need to do is plant native plants!

Note: This article was provided by Advisory Board member Ann Barklow of the South Carolina native Plant Society with permission from Doug Tallamy to include the article in The Gardener's Grapevine. Photos and California native specimens were added by The Gardener's Grapevine editorial staff and were not part of the original article.

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