

AUDUBON CANYON RANCH

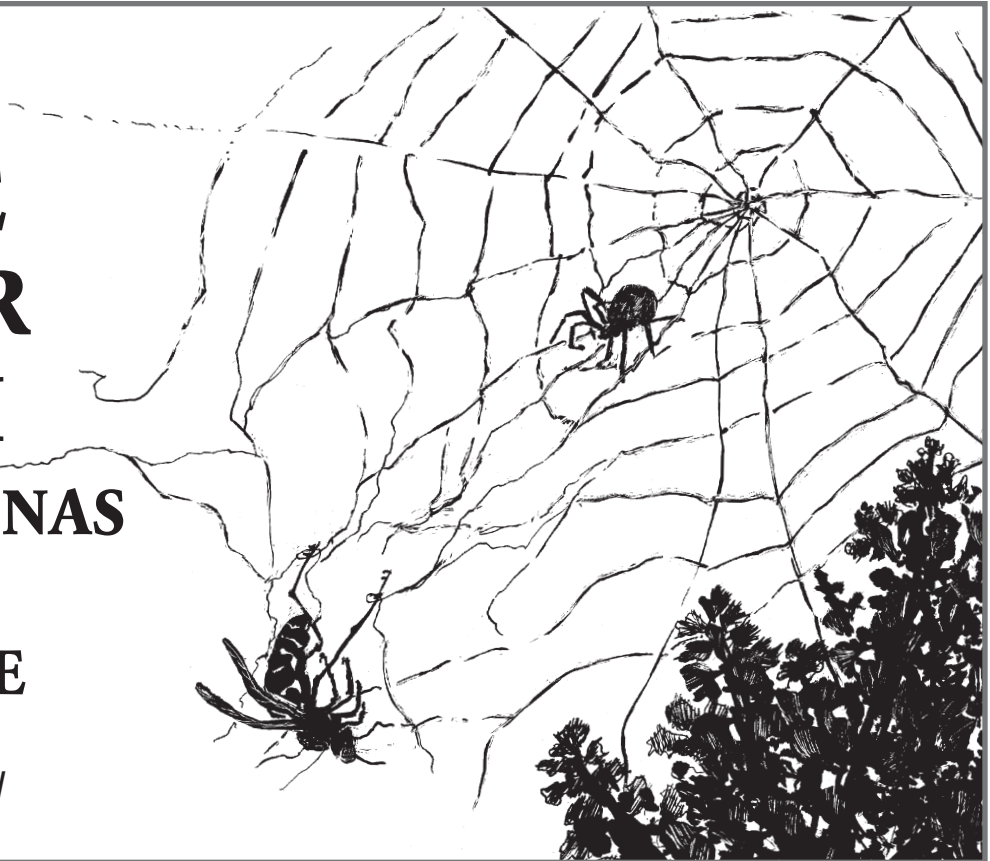
Number 39

BULLETIN

Fall 2006

LIFE IN THE SPIDER PATCH AT BOLINAS LAGOON PRESERVE

by Gwen Heistand



ANE CARLA ROVETTA

A garden spider has anchored her web to coyote bush and obtained a meal.

I first came to work at Audubon Canyon Ranch's Bolinas Lagoon Preserve, as the Resident Biologist, almost exactly four years ago to the day as of this writing. One of the most pleasurable and exciting aspects of my tenure has been getting to know a place and the way its seasons cycle. Every spring when the great blue herons and great egrets return to nest in Picher Canyon, my heart does a little dance. As the season progresses, the noise and activity increase. Then, one day near the end of July, I come to work and it is different. It is quiet. And my heart does another little dance because I know it is time to start looking for spiders. The gate that says "Birds Nesting, Please Keep Out" at the back of the Picher Canyon ranch yard is unlocked and the lovely creek under the heronry is open for exploration. Just a few yards down the trail there is a patch of coyote bush, ceanothus and grasses that form the Bolinas Lagoon Preserve volunteer docents' beloved spider patch.

Those of you who, like me, had an early and obsessive relationship with *Charlotte's Web* know that as summer draws to an end, female orb weavers prepare to create their egg sacs and leave this world. In fact, it almost seems like our large and charismatic spiders appear out of thin air. They've actually been around for a while, increasing in size, materializing just in time to be introduced to 1,500 schoolchildren visiting the Preserve from across the Bay Area.

➤ Please turn to **Spiders**, page 4

GRATITUDE

by Skip Schwartz



What an amazing world! We have just returned from witnessing the birth of a second grandchild, Leo. I am both awestruck and grateful for this healthy new life, and naturally my thoughts turn to future joys of introducing Leo to my favorite beautiful places like the exquisite preserves of Audubon Canyon Ranch.

Eventually, my thoughts return to the present, and to the challenges our communities face as we work to ensure the preservation of natural habitats and healthy ecosystems for future generations—working together for the health of the planet we share. I feel a renewed responsibility for transmitting good environmental values, education, and ethics to the young people who will mold our future cultural and natural environments.

I have enjoyed the pleasures and challenges of working for Audubon Canyon Ranch and with so many of our volunteers for over 30 years. Audubon Canyon Ranch is an organization where volunteers and staff work together to preserve and protect healthy natural habitats for native plants and animals. I believe education is an essential element of meaningful, long-term environmental preservation and that reaching young minds and hearts and sharing the values of understanding, respecting, and loving nature is required for success. I look forward to many joyful walks of wonder and discovery in healthy natural surroundings with my grandchildren—wet newts, gorgeous wildflowers, slimy spittle bugs, brilliant dragonflies, nesting birds.

I am heartened that this opportunity exists for my family and for you and your families, and I thank you for your continued support of Audubon Canyon Ranch.



Skip Schwartz is ACR's Executive Director.

“GETTING IT”

by Dan Murphy

I recently attended a San Francisco Recreation and Park Commission hearing to speak in favor of the Natural Areas Program. I was struck by comments made by an individual who opposed the plan because it would involve the removal of several thousand non-native trees and therefore reduce bird habitat. While that might be the case for some birds, it certainly is not for others. The islands of green that people assume can support birds in urban parklands are often made up of non-native vegetation. Native habitats have been replaced by urban landscapes and now totter on

Imagine what the Bay Area might be like if current growth patterns continue unfettered for another century. The natural systems that continue to exist will be there because of our actions to preserve what we have now and to restore those systems that are nearly lost.

the brink of extirpation. As those habitats diminish, so do birds like California Quail, Wrentit, Spotted Towhee, Bewick's Wren and even White-crowned Sparrow.

That hearing brought to my mind a real value of Audubon Canyon Ranch. Each year the impact of urban sprawl on our lands increases. In response, in ACR's Conservation Science and Habitat Protection Program scientists and volunteers are working to protect 2,000 acres of land as sanctuaries. Our influence extends far from our boundaries, to park districts and neighboring lands. We educate thousands of children and adults about the value of our environment. Some

➤ Continued on next page

of those people volunteer for ACR as docents, ranch guides, weekend hosts or researchers, and they participate in restoration and maintenance projects. They learn that the environment is naturally diverse and that we must devote our time, our effort and our money to preserve what natural systems are left to us.

Imagine what the Bay Area might be like if current growth patterns continue unfettered for another century. The natural systems that continue to exist will be there because of our actions to preserve what we have now and to restore those systems that are nearly lost.

It's easy to be lulled into complacency and to think that, because we have wonderful islands of parklands, all is well. It's not. The one thing each of us can do is to be active in supporting our natural environment. A wonderful way to do that is to volunteer with ACR as a docent, a ranch guide, or a research associate, or to work on one of our many restoration projects. You'll learn things you never thought about - like which native plants are likely to attract birds to your local park or even your garden. You'll be able to share your knowledge with friends, and if you wish you can influence public policy. Not only will you "get it", but you can help others "get it" too.

Dan Murphy is ACR's Board President.



Discovering a love of nature at an early age.

CALLING NEW DOCENTS!

Audubon Canyon Ranch's coveted training course at the Bolinas Lagoon Preserve only comes around once every two years—and classes are beginning now!

It's not too late to sign up for BLP Docent Training! Learn how to share your love of nature with children while learning everything you ever wanted to know about the natural history and environment in coastal Marin County.

The 26 classes cover many topics, from banana slugs to Great Blue Herons to the ecology of redwoods, all taught by experts in their fields of study and run by experienced Docents who know how to make the classes fascinating and fun. Classes consist of lectures, audio-visual presentations, and laboratory/field work. Classes are held at Bolinas Lagoon Preserve from 9:20 AM to 1:30 PM.

Upon completion of training, ACR Docents visit 4th and 5th grade classes and lead groups of students on nature walks at the Bolinas Lagoon Preserve during the spring and fall. ACR Docents often inspire a life-long love and appreciation of nature in the children they meet.

In 40 years, more than 630 volunteers have completed the training and have enriched not only their own lives but also those of nearly 100,000 schoolchildren. We hope that you, too, will join this special program and experience the same stimulation and camaraderie with others who share a commitment to the environment. Once you have graduated, you will be invited to take part in many excellent continuing education classes and docent activities.

Tuition is \$120 to cover materials. Full and partial scholarships are available. Three units of college credit can be arranged.

Please call the Bolinas Lagoon Preserve office at 415-868-9244 if you have questions or would like more information.

"There's never a day in the classroom or on the trail with the kids that I don't finish energized and anxious for more. I've been a docent for 30 years because I never get tired of watching that spark that connects a child—and me—to nature. It's just exhilarating."
BLP Docent
Betsy Stafford

SPIDERS from page 1*Pumpkin spider*

ANE CARLA ROVETTA

According to many of BLP's arachnophilic Docents, who lead the 4th and 5th graders on their three-hour tour of the preserve, it's the spiders who are the unsung stars of the fall school program. When Docents arrive early to prepare for their hike with the kids, the first order of business is usually a tour of the spider patch and surrounding areas.

On a typical autumn day at the Preserve, what spiders might we find? Both the yellow and black (*Argiope aurantia*) and silver banded (*Argiope trifasciata*) garden spiders can be found hanging upside down in the middle of their zigzag patterned webs. The zigzag pattern is called a stabilimentum and was once thought to provide, as its name indicates, web stability. It turns out that the stabilimentum may actually entice prey into the web and keep larger animals like birds from flying into it.



Yellow and black garden spider.

LEN BLUMIN

On misty mornings, webs of labyrinth or condo spiders (*Metepeira* species) really stand out. Condo spider webs look like a mess of silk with some junk in the middle. However, if you look closely you will be able to see that the mess has a perfectly formed orb web associated with it, and that the junk itself is actually a retreat where the resident spider waits for prey. The junk takes on a more regular appearance as the spider replaces the bits of vegetation and silk with a string of her lenticular-shaped egg sacs.

The debris spider's (*Cyclosa conicum*) web, often confused with the labyrinth spider, is a single orb with a string of debris down the center in which the spider hides.

Everybody's favorites—the pumpkin spiders (*Araneus trifoliatum*)—are voluptuous orange beauties that spin a fairly traditional orb web. Unlike



the garden spiders which hang down in the center of their webs, pumpkin spiders construct a silk and vegetation retreat off to the side. If you look closely, you will be able to see a line of silk running from the hub to the retreat. The spider keeps one of her “feet” on this trip line and this way is able to tell when something good to eat becomes entangled in the web.

Not all web spinners are orb weavers. Bowl and doily webs are also very apparent on dew-laden mornings. These sheet-web weavers (*Frontinella pyramidis*) hang out under the bowl portion of their web and above the doily. Numerous trap lines are constructed above and around the bowl. Insects fly or crawl into the trap lines and tumble into the bowl, where the spider bites from below and pulls them through the web. The spider wraps its prey in more silk and saves it for when it wants to eat, sometimes storing its food on the doily portion of the web.

Continuing back under the redwoods, it's possible to find triangle spiders (*Hyptiotes* sp.). Their webs look like a pie-slice out of an orb web with an attachment thread at the point. Triangle spiders are actually part of their web. They hold on at the point of attachment, taking up slack and creating tension. When a prey item of the appropriate size stumbles into their web, the tension in the attachment line is released by the spider causing the web to collapse on their victim.

I always get asked about the large, brown, hairy spiders that show up around people's houses in the fall. In most cases, the spiders turn out to be male false tarantulas (*Calisoga longitarsus*) on walkabout in search of females. For us humans, it's always easiest to find female *Calisoga* burrows just after the first rains of autumn, when they house-clean—piling dirt, last year's egg sacs, and old prey items outside the entrance. Look for an almost perfectly round hole with a light smattering of silk around the upper edge next to a pile of stuff. If you have a

moment and a hand lens, take a closer look at the discarded egg sac. Inside you'll be able to see shed exoskeletons of hundreds of tiny spiderlings! Last year, there was a cleaned out *Calisoga* burrow in the middle of the trail just beyond the spider patch.

Leaving the spider patch and looking along trail margins in the roadside cuts, it's possible to find trapdoor and turret spiders. Trapdoor spiders burrow through the bank and top their burrow with a silk-lined door designed to blend in perfectly with the surrounding moss and dirt. There is a particular bank in Picher Canyon where I found and counted 67 trapdoor spiders. If you are obsessive-compulsive, like me, and looking for a rewarding outlet, I recommend trapdoor spider hunting. It is a lot like a really great advent calendar without a known number of days. Turret spiders are a little easier to find. They construct a turret above their burrows, often incorporating Douglas fir needles. The needles extend the spider's ability to sense vibrations. When you find a turret, look around because there are often more, ranging from small to large, in the same area.

Ground dwellers like turret and trapdoor spiders and false tarantulas can live many years. Not so with the orb weavers. In the fall, webs start to look a little ratty and unkempt. At the end of their season, spiders need more and more food fuel to lay eggs. When the cost of web building and repair is no longer worth the energy taken away from reproduction, the web is shut down, and the egg sac is prepared—an amazing process in itself.

A female spider's magnum opus

The egg sac of the yellow and black garden spider is a lovely, brown, pear-shaped masterpiece suspended from the vegetation by fine silken threads. The female garden spider constructs her sac while hanging head-down from her web. She lays a series of cross lines attached at several points to create a scaffold. Then she lays down

yellowish threads to form a rectangular roof, and on this she spins a thick tuft of fluffy yellowish silk. Into this "feather bed" she spins a firmer sheet of dark brown silk, and she lays her eggs upwards against this brown silk. The egg mass looks like a hanging yellow spherical ball. She then spins a thin, tough covering that joins the brown silk disk.

Around the whole mass (eggs, their covering, and the rectangular roof) she spins a fluffy covering, and over this padding a finer covering of silk that eventually dries, hardens, and turns a brownish color (six different sheets, tufts or covers, making three envelopes!). As Charlotte says, it is her magnum opus.

One thing E.B. White didn't really go into was how Charlotte was able to produce fertilized eggs (about 500 of them) to fill her sac. All spiders are predators and pretty fearsome predators at that. When you have two predators trying to get together, mating rituals can become fairly elaborate. (Think about herons and egrets with their stick presentations and neck snaps and nuptial plumes.)

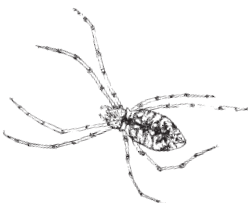
The task that many male spiders face is how to let the female know that a mate, and not food, has come a-calling. In many species of orb

weavers, the male is significantly smaller than the female, making his task even more challenging. Some orb weavers have developed specific songs that the male plucks on the female's web. In certain species, males attach a special mating thread to the female's web and beat out a "song" with their legs and abdomen. If she likes the song, she'll move to the mating thread and mating will take place. Some web weavers hide at



Garden spider's egg case.

GWEN HEISTAND



Yellow and black garden spider

ANNE CARLA ROVETTA

Pumpkin
spider.

GWEN HEISTAND

SPIDERS from page 5

the edge of the web and wait until the female is engaged in killing prey before they come up from behind and attempt to transfer sperm and get away while she's still occupied.

Female spiders often get a bad rap for killing and eating their mates. A paper in *Nature* not long ago shed some light on the mating rituals of our yellow and black garden spiders. Male spiders have two appendages called pedipalps, which they use to insert sperm into the female. (An aside here: the pedipalps aren't attached to the organ that produces sperm. They need to spin a special sperm web, deposit sperm on the web, and charge their pedipalps before they mate with a female.) Pedipalps are used one after the other. When the male yellow and black garden spider uses his second pedipalp, he suffers an irreversible seizure, becomes completely motionless, and after fifteen minutes his heart stops beating altogether. The inflated pedipalp remains wedged, preventing the female from mating again, and providing crucial minutes to fertilize her eggs. Other males try to pull out their dead competitor and often fail. Thus, the male turns himself into a living, soon to be dead, chastity belt. The female will often eat the male once this process is over—but she wasn't directly responsible for his demise.



Male wolf
spider
displaying.

ANE CARLA ROVETTA

For spiders that don't weave webs, some interesting rituals take place as well. Male wolf spiders locate a female by following the pheromone trails she leaves trailing on silk behind her. Once he finds a potential mate, a male wolf spider will semaphore with his arms and legs, like the guys on the runway signaling the plane into the gate. After a while he'll move a little closer and caress the female, and eventually he'll be able to mate and leave. Some male crab spiders actually bind up the female with silk before they transfer sperm. In many species of jumping spiders, the male performs a fairly elaborate dance, sometimes performing for hours before the female acquiesces.



Lessons from spiders

It is always amazing to me to think that all this is going on around me. Spiders are literally everywhere: ballooning in the upper atmosphere, in soil, in treetop canopies, in caves, in human dwellings, in the desert. There are even spiders that take a diving chamber filled with air under water. I haven't touched on the amazing proper-

It is one of my great joys that everywhere in nature there are teachers offering their lessons to us, if we just take the time to pay attention.

ties of silk (all seven kinds) or the cool structures spiders have to sense vibrations or how their feet are constructed so they don't stick in their webs. And then there is the incredible design of an orb web. It is one of my great joys that everywhere in nature there are teachers offering their lessons to us, if we just take the time to pay attention. I would wish for each of you enough time this fall to observe an orb-weaving spider spin her web from start to finish, to witness the patience and exactitude with which she ensnares and disposes of her prey, and to spend a moment pondering her universe, and the cycle of her seasons.

Gwen Heistand is the Resident Biologist at ACR's Bolinas Lagoon Preserve.

AUDUBON CANYON RANCH HONORED BY \$4 MILLION BEQUEST FROM GRACE AND HUB DAFOE

by Phil Murphy

Grace Dafoe, a woman whose life spanned a full century and touched two others, died March 15, 2006 at the age of 107, leaving Audubon Canyon Ranch a \$4 million bequest, the largest gift ACR has ever received from one person.

Grace and her late husband, Hubert (Hub) left the bequest for the Audubon Canyon Ranch Endowment Fund in memory of her parents, Alice Knapp Busche and Frederick Charles Busche.

"She would be so happy that her gift has come at such an important time in the history of ACR when these substantial new funds could allow the Ranch to continue and expand its important programs," her friend and attorney George Peyton said. "She liked the idea of supporting a small operation where her money could make a critical difference."

Born in January 31, 1899, Mrs. Dafoe came to the Bay Area from St. Louis with her family at age ten. Her father set up Grandma's Cakes and Cookies, the first packaged goods wholesale bakery in the Bay Area, starting in San Francisco and later moving the expanding operation to Oakland.

Mrs. Dafoe attended the University of California and in 1935 married Hubert "Hub" Dafoe, a former professional hockey player who would later become the acting director of Oakland's Museum of Natural History.

The couple met at an ice rink in Oakland. Grace was an amateur figure skater, Hub, an outstanding Canadian football and hockey player. He had been recruited from his native Saskatoon, Saskatchewan to play in a short-lived professional California hockey league in the late 1920s. Grace became one of the team's major investors, marrying Hub several years after the collapse of the league.

Shortly after their marriage, Grace designed and built their beautiful home in the Oakland Hills near the Claremont Country Club. She did so in the Spanish style with stunning woodwork and gar-

goyle flourishes. She lived there more than seventy years, eight years beyond Hub's death in 1998.

During their long marriage, the couple drove throughout the Southwest, Florida, and Mexico, their beloved dogs in tow, accumulating a vast collection of fine mineral specimens which they kept on formal display in custom-built cabinets in their Oakland home. They eventually contributed the collection to the California Academy of Sciences. Its curator spent eight full days boxing the collection.

In the early 1970s ACR founder Stan Picher and Mr. Peyton helped Hub set up the docent program for the Oakland Museum of California, which in many ways mirrored the ACR docent program. "Hub and Grace loved what ACR was doing and the people involved," Mr. Peyton said. "But what really got Hub and Grace excited was their desire to interest children in nature. They saw that the Ranch did that."

The Dafoes visited the Ranch frequently, with Grace maintaining interest even in her hundreds through visits from ACR's executive director Skip Schwartz. "She liked the way the Ranch was managed and its use of volunteers," Mr. Peyton said.

The Dafoes' other interests included The Nature Conservancy and the Elsa Wild Animal Appeal.

"It is very gratifying that the Dafoes had trust and confidence in Audubon Canyon Ranch's ability to do good work with this bequest," commented Mr. Schwartz.

Audubon Canyon Ranch is honored to enroll Grace and Hub Dafoe as members of its Clerin Zumwalt Legacy Circle.

Phil Murphy is ACR's planned giving consultant.



AME CARLA ROVETTA

Income produced by the ACR Endowment provides a reliable source of revenue, which helps ensure the continuity of ACR's preserves and programs in perpetuity. To find out more about including Audubon Canyon Ranch in your estate plans and how to join the Clerin Zumwalt Legacy Circle, please contact Cassie Gruenstein or Skip Schwartz at 415-868-9244 or, by email, at cassie@egret.org or skip@egret.org.

STAFF NOTES



Jennifer
Newman

We welcome **Jennifer Newman** as Audubon Canyon Ranch's new Development Manager. Jennifer and Cassie Gruenstein, ACR's Director of Development and Communications, will be working together at ACR headquarters at the Bolinas Lagoon Preserve to oversee communications and donor relations for the whole organization. Jennifer has worked with Slide Ranch since 2000, as both the Development Director and Development Officer. She lives in Petaluma with her husband Chris and two-year-old daughter, Bridget. Jennifer says she's ready to help make a difference for the birds, lands, and people of our organization. "I'm looking forward to meeting everyone in the ACR family," says Jennifer. "Next time you are at the Bolinas Lagoon Preserve, please stop by the Display Hall and say 'hi!'"



Emi Condeso

Joining ACR's Research and Resource Management team is **Tracy Emiko Condeso—Emi**. As Research Coordinator, Emi manages several major projects that involve volunteers—shorebird censuses, waterbird censuses, and the heron and egret monitoring project. Emi holds a Masters Degree in biology from Sonoma State University and has a strong interest in landscape ecology "especially as it applies to conservation," she says. Says John Kelly, Director of Research and Resource Management at ACR, "Emi's pleasant manner and sense of humor are complemented by her considerable knowledge and expertise."

ACR extends great appreciation and best wishes to outgoing Research Coordinator **Katie Etienne**, whose many contributions included directing a new study of Livermore Marsh at Cypress Grove Research Center.

VOLUNTEER NOTES

Nellie Warner, who was a Juniper (junior naturalist) at the Bouverie Preserve during her junior high and high school years, recently wrote to her mentor, Sally Pola:

"I graduated from UC San Diego with a degree in Environmental Systems with concentrations in chemistry and public policy. I've continued to work on my senior internship project: sperm whale depredation of demersal longlines. This is a fancy name for the removal of bait or hooked fish by sperm whales from commercial longline fishing apparatus. I love this work and I'm going up to the Gulf of Alaska to continue it this summer. I can't believe how long ago it was when I was a Juniper. I loved that program—it has been a major reason why I picked my career. I had a professor who really summed up the Juniper experience: people only conserve what they love and they only love what they understand. Thank you so much for teaching me about the complexities of life in the natural world. I would not be where I am today without being in the Juniper program. I hope it continues for many, many years."

Friendly Photo Contest

Winner. Last spring ACR volunteers were invited to submit photos for a "Friendly Photo Contest." The winning photo of a cypress tree hung with lichen at the Cypress Grove Research Center was taken by Patrick

Woodworth, who volunteers at the Bolinas Lagoon and Bouverie Preserves and serves on the ACR Board of Directors.



CALENDAR OF EVENTS

Guided Nature Walks

BOUVERIE PRESERVE

OCT. 24, OCT. 28, NOV. 4, NOV. 18,
DEC. 2, 2006
JAN. 13, JAN. 27, MAR. 10, MAR. 24,
APRIL 14, APRIL 21, MAY 19, 2007
9:30 A.M. - 1:30 P.M.

Here's your chance to experience the beauty and rich natural history of this 500-acre preserve. Our half-day guided nature walks are on Saturdays throughout fall and spring. We will begin accepting reservations a month before each respective hike date.

*Docent Council of Bouverie Preserve
No charge but donations appreciated.
To make a reservation e-mail
nancy@egret.org or call 707/938-4554.*

Fall & Spring Work Days

BOUVERIE PRESERVE

SATURDAY, SEPTEMBER 30, 2006
SATURDAY, FEBRUARY 24, 2007
9:30 A.M. - 1:00 P.M.
1:00 P.M. LUNCH

Come help spruce up the preserve by working on the trails, in the native plant garden, around the formal gardens, in the library, or cooking the lunch (which we provide). Bring your favorite tool for outdoor projects!

*ACR Staff
Free, but please e-mail nancy@egret.org or
call 707/938-4554 to register so we can plan
on enough food!*

Fall & Spring Work Days

BOLINAS LAGOON PRESERVE

SATURDAY, OCTOBER 7, 2006 -
VOLUNTEER CANYON
SUNDAY, MARCH 4, 2007 -
PICHER CANYON
9:30 A.M. - 1:00 P.M.
1:00 P.M. LUNCH

Help us with trail work, library work, pulling weeds, planting native flowers or cooking the lunch (we provide). Bring your favorite tool for outdoor projects!

*ACR Staff
Free, but please e-mail leslie@egret.org or call
415/868-9244 to register so we can plan on
enough food!*

Trail Days

BOUVERIE PRESERVE

SEPT. 14, OCT. 23, NOV. 13, DEC. 11, 2006
JAN. 22, FEB. 12, MAR. 19, APRIL 16,
MAY 21, 2007

8:15 A.M. - 12:30 P.M.

Come help clear trails, pull non-native plants, or work in the native plant garden. Bring gloves, a lunch and lots of energy. Drinks and tools will be provided. Trail days are limited to 15 participants for each day.

*ACR Staff
Call 707/938-4554 to register.*

Restoration Workdays

BOUVERIE PRESERVE

SEPT. 26, OCT. 28, 2006
Support ACR's Habitat Protection and Restoration Program by signing up for the restoration workdays at Bouverie Preserve.

*ACR Staff
To register, e-mail Dr. Dan Gluesenkamp,
Director of Habitat Restoration:
gluesenkamp@egret.org.*

Under the Heronry

BOLINAS LAGOON PRESERVE

SATURDAY, NOVEMBER 11, 2006
9:30 A.M. SOCIAL, 10:00 A.M. START.
WE'LL FINISH AROUND NOON.

That's right, UNDER the Heronry: you won't believe what you see and hear! Join former Resident Biologist Ray Peterson and be exposed to ACR history as well as to this very special place. Don't forget to bring friends for this short walk.

*Ray Peterson
Space is limited to 20 participants.
Free, but please call 415/868-9244 to register.*



Docent Training

BOLINAS LAGOON PRESERVE

WEDNESDAYS, SEPTEMBER 2006 -
MARCH 2007

ACR's Bolinas Lagoon Preserve's next training session begins September 2006. Classes meet once a week on Wednesdays for 23 weeks. Included are such diverse topics as birds, insects, pond life, and teaching techniques. Upon graduation, docents have the knowledge and confidence to lead extremely valuable field trips for schoolchildren. Exciting supplemental enrichment classes are offered throughout the year so docents may add to their knowledge.

*Docent Council of Bolinas Lagoon Preserve.
Call 415/868-9244 for more information.*

For complete information on the events listed here, see our website, www.egret.org. Or call (415) 868-9244 between 9:00 AM and 5:00 PM weekdays, or e-mail acr@egret.org. Participation is by advance reservation.

WISH LIST

We are looking for the following items, which are tax-deductible when donated to ACR.

- Letter-folding Machine (Bolinas Lagoon Preserve and Bouverie Preserve)
- Propane Outdoor Heaters (Bolinas Lagoon Preserve and Bouverie Preserve)
- 10 x 10 Shade Tent (Bouverie Preserve)

If you can help, please call Yvonne Pierce at 415/868-9244.

**DISTINGUISHED
BENEFACTORS**

(\$100,000 +)

Estate of Helen G. Crase
Estate of Grace & Hubert Dafoe**MAJOR BENEFACTORS**

(\$50,000 - 99,999)

Anonymous
Frank A. Campini Foundation
Estate of Alice Gramm**BENEFACTORS**

(\$25,000 - 49,999)

Marin Community Foundation
Dennis and Carol Ann Rockey Fund of
the Marin Community Foundation**PATRONS**

(\$15,000-24,999)

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Chris & Bob Hunter, Jr.
Outrageous Foundation**LEADING SPONSORS**

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George L. Shields Foundation
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Phillip & Naomi Holm
James J. Gallagher Family Fund
Tony Gilbert & Laurel Wroten
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Charles Greshamengelberg
Jack F. & Deyea Harper
Susan H. Hossfeld
Dwight L. Johnson
Kiwanis Club of San Francisco
Andy & Diane Lafrenz
Joan Lamphier
Jan & Louis Lee
Laurie Lewis, Spruce and Maple Music
Marin Audubon Society
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Association
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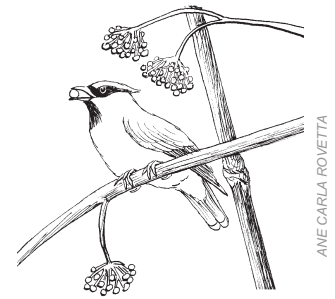
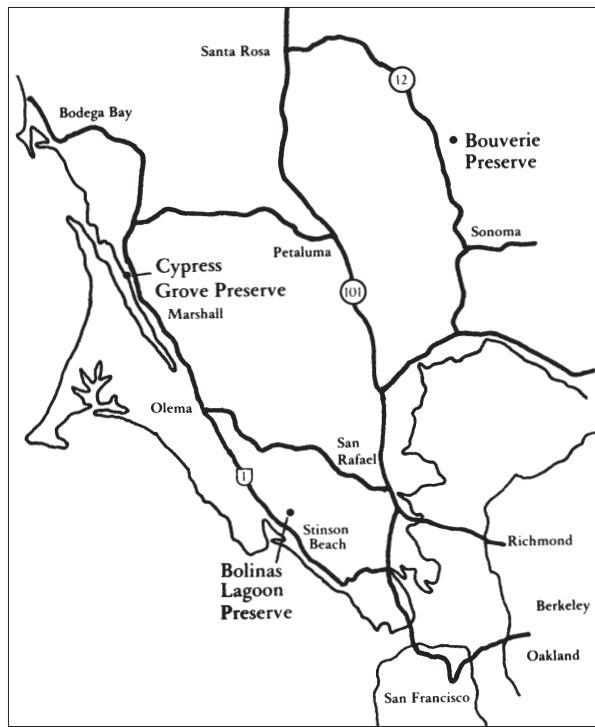
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Weekdays by appointment only; call 415/868-9244.
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Bolinas Lagoon Preserve is adjacent to Bolinas Lagoon on State Highway One, three miles north of Stinson Beach.
By appointment only. 415/663-8203.

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By appointment only. 707/938-4554.
See schedule of events, inside.

www.egret.org
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