

AUDUBON CANYON RANCH

Number 44

BULLETIN

Spring 2009

ACR's Olema Marsh and Restoration of the Giacomini Wetlands

RESTORING THE NATURAL HYDROLOGY OF TOMALES BAY

by John Kelly

A single, lightning fast strike and splash of an egret's bill can cause a wealth of potential prey to dart and hide, making them temporarily unavailable to other predators. Herons and egrets often overcome this fact by hunting in groups: prey that are busy fleeing from one forager are more easily caught by another. Nonetheless, prey concentrations fade quickly, forcing egrets to search for new feeding opportunities in the surrounding landscape.

When an area of intensive human use is returned to nature, processes like this drive the assembly and arrangement of plants and animals. As new life appears, it coalesces into patches that swell, subside, shift, and intermingle. Intricate patterns form, reflecting the complex and dynamic conditions of our world. A dramatic example of how such richness develops is now emerging from the restoration of a large wetland landscape in southern Tomales Bay. One key part of this story is ACR's Olema Marsh.

Herons, egrets, and other waterbirds once foraged across a vast and productive tidal marsh system at the headwaters of Tomales Bay. This huge wetland complex extended over a broad intertidal plain, from the mouth of Lagunitas Creek, southward toward Bear Valley, with edges mantled by an undulating blend of brackish and freshwater marshes. Within these boundaries, nature formed a maze of tidal sloughs, marshes,

mudflats, ponds, creeks, and emergent vegetation. Wetland life thrived, structured and fueled by complicated patterns of tidal inundation and irregular pulses of runoff from a watershed that covers much of Marin County. The extravagant flow of energy and nutrients through the system sustained a magnificent richness of estuarine life—but one that we can currently only imagine.

Loss of a wetland treasure

In the 1800s, settlers came to western Marin County, where they built ranches and dairy farms on the productive coastal prairies and logged the Douglas-fir and redwood forests along Inverness Ridge and in other parts of the Tomales Bay watershed. To transport dairy products and lumber to San Francisco, they developed roads and a railroad along the eastern shoreline of Tomales

Giacomini Wetlands restoration area, looking northwest, with newly introduced tidewater flooding into the project area. ACR's Olema Marsh and Levee Road are visible in the foreground.

PHOTO AND COPYRIGHT: ROBERT CAMPBELL

> Please turn to **TOMALES BAY**, page 4



Audubon Canyon Ranch**BOARD OF DIRECTORS****OFFICERS**

Bryant Hichwa,
President
Andy Lafrenz,
Vice President
Valerie Merrin
Secretary
Bill Richardson
Treasurer

DIRECTORS

Julie Allecta
Tom Bradner
André Brewster
Dave Chenoweth
Mary Ann Cobb
Suzie Coleman
Sam Dakin
Leslie Flint
Jesse Grantham
Christina Green
Diane Jacobson
Dan Murphy
Ivan Obolensky
Judy Prokupek
Paul Ruby
Jane Sinclair
April Starke Slakey
Sue Stoddard
Lowell Sykes
Francis Toldi
Patrick Woodworth
Nancy Young

EMERITUS DIRECTORS

Deborah Ablin
Richard B. Baird
Nancy Barbour
L. Martin Griffin, M.D.,
Founder
Jack Harper
Flora Maclise
George Peyton, Jr.
Helen Pratt

ADVISORS

Tom Baty
Gordon Bennett
Leonard Blumin
Patti Blumin
Noelle Bon
Stephen Colwell
Hugh Cotter
Michelle Dench
Roberta Downey
Phyllis Ellman
Binny Fischer
James Gallagher, Ph.D.
Tony Gilbert
Carol Guerrero
Robert Hahn
Jim Horan
Joshua Levine
Alan Margolis, M.D.
Leslie R. Perry
Gerry Snedaker
Betsy Stafford
Jean Starkweather
Brian Wittenkeller
Robert Yanagida

From the Desks of

BRYANT HICHWA, ACR BOARD PRESIDENT & MAURICE A. “SKIP” SCHWARTZ, EXECUTIVE DIRECTOR

*Dear Friends, Neighbors, Supporters,
& Volunteers of Audubon Canyon Ranch,*

We are living in an era of change, challenge and opportunities. At Audubon Canyon Ranch (ACR), we are approaching our 50th anniversary in 2012. Together and as a community, we are proud of a strong shared history of environmental accomplishments, land preservation and stewardship, hands-on education, and conservation research. ACR's volunteers and staff promote a responsible and respectful relationship between the individual and nature.

The ACR community is united in these values and our hopes for the earth and for future generations during a time of change. In the next year, ACR will experience:

- The significant acquisition of a pristine sanctuary in Sonoma County,
- The impact of the economy on ACR's finances and our strategy to stay strong and come through this economic crisis, and
- The opportunity to appoint a new leader for ACR after long-time Executive Director Skip Schwartz transitions from his role as chief executive, stepping back from day-to-day operations.

With these changes, we assure you that our values and yours are aligned, and that ACR will remain dedicated to its mission.

AUDUBON CANYON RANCH IS THRILLED TO ANNOUNCE ACQUISITION OF A FOURTH MAJOR SANCTUARY, DOUBLING ITS PROTECTED LAND HOLDINGS AND EXPANDING INTO NORTHERN SONOMA COUNTY

Audubon Canyon Ranch has signed a collaborative agreement with Jim and Shirley Modini to acquire the 1,725-acre Modini Ranch property through a planned giving arrangement. ACR is honored the Modinis have entrusted us to protect this special part of California's natural heritage.

The property is located in Sonoma County's Mayacamas Mountains near Healdsburg. ACR will conduct conservation-based scientific research and identify habitat protection opportunities, in keeping with ACR's mission to preserve the land as a sanctuary for native plants and animals.

The property, which has been in the Modini Ingalls family since 1867, is spread across a remote and scenic landscape with a rich blend of undisturbed native habitats, including oak woodlands, pine forests, perennial grasslands, chaparral, serpentine outcrops, riparian forests and wild streams. It is home to abundant and diverse wildlife, including deer, black bears, bobcats, mountain lions, coyotes and nesting golden eagles.

We are proud and grateful the Modinis have selected Audubon Canyon Ranch as their partner in the preservation of their pristine property. The trust the Modinis have placed in Audubon Canyon Ranch underscores our strength as an organization.

“This couldn't be a better match, knowing the caring and sensitive environmental stewardship Jim and Shirley Modini have shown for their ranch, and the reputation ACR has for stewardship of its properties.”

*—Jesse Grantham, biologist,
US Fish & Wildlife Service,
long-time friend of the
Modinis and new ACR
Board member.*

Modini Ranch PHOTO: SKIP SCHWARTZ



IMPACT OF THE ECONOMY ON FINANCES AND PROGRAMS AND HOW ACR WILL WEATHER THE CRISIS

Audubon Canyon Ranch is a strong organization and committed to our values. But like many others, we are also challenged by this economy, and we need your help.

Thanks to the foresight of our founders and generous bequests and planned gifts from many supporters, ACR entered the downturn in a position of relative strength with endowment funds providing 50% of annual operating costs. However, like many institutions, we have seen the value of the endowment fund decline by 25% since July 1, 2008. We must plan for the possibility of further declines. Staff and Board are working to reduce expenses and seek new funding to keep our future secure. We anticipate difficult sacrifices, and we are sharpening our focus to ensure mission-critical needs are met.

ACR is committed to honoring our values and preserving core programs without compromising the integrity of our mission. For example, with the commitment and dedication of our exceptional volunteers, ACR will continue our tradition of environmental education programs at no cost to schools, including transportation scholarships. But we also want to be frank with the community about the challenges we face. Especially now, when much is at stake, we need your support and the support of the entire community.

ACR'S LONG-TIME EXECUTIVE DIRECTOR TO TRANSITION FROM HIS ROLE, SEARCH BEGINS FOR NEW LEADER

After 34 years, Skip Schwartz will transition from his role as Audubon Canyon Ranch's Executive Director. In January 2010, Skip will be stepping away from the day-to-day management of operations. Skip will continue in a part-time role with ACR, working on projects as directed by ACR's next Executive Director. He will continue to be involved, working closely with the new ED.

ACR has planned very carefully for this change. In order to prepare for Skip's eventual retirement, a comprehensive transition plan was developed several years ago. A Task Force comprised of Board members and staff was created to manage the process and ensure a smooth transition of leadership.

Audubon Canyon Ranch will extend our tradition of exceptional leadership and is beginning a search for the right person. You can help us find ACR's next Executive Director by reviewing the job description at www.egret.org and sending it to anyone you believe is qualified to work with a dedicated volunteer cadre, professional staff, and supporters to move ACR to the next level.

We treasure the relationships we've created with our supporters, volunteers, and community contacts. As we plan for this time of change, of opportunity, challenges, and hope, we know we will need the support of each of you now more than ever. Thank you for all you do to advance the mission and reaffirm the purpose of Audubon Canyon Ranch.

STAFF

Maurice A. 'Skip' Schwartz,
Executive Director
John Petersen,
Associate Director

EDUCATION,
CONSERVATION SCIENCE
AND HABITAT PROTECTION
John Kelly, Ph.D.,
*Director of Conservation
Science & Habitat
Protection*

Sherry Adams,
*HPR Project Leader, BP
Bob Baez,*

Helen Pratt Field Biologist
Emiko Condeso,
Biologist/GIS Specialist
Dan Gluesenkamp, Ph.D.,
*Director, Habitat
Protection & Restoration*
Gwen Heistand,
*Resident Biologist,
BLP/Co-Director of
Education*

Claire Hutkins Seda,
*Weekend Program
Facilitator, BLP*
Hillary Saunders,
*HPR Project Leader,
Marin*
Jeanne Wirka,
*Resident Biologist,
BP/Co-Director of
Education*

PRESERVE STEWARDSHIP
Bill Arthur,
Land Steward, BLP
David Greene,
Land Steward, CGRC
John Martin,
Land Steward, BP
Matej Seda,
*Maintenance
Assistant, BLP*

ADMINISTRATION
Yvonne Pierce,
*Administrative
Director/BLP Manager*
Suzanna Naramore,
*Administrative
Assistant, BLP*
Leslie Sproul,
*Receptionist/Office
Assistant, BLP*
Nancy Trbovich,
*Administrative
Manager, BP*
Bonnie Warren,
*Administrative Manager,
CGRC*
Barbara Wechsberg,
Cashier/Receptionist, BLP

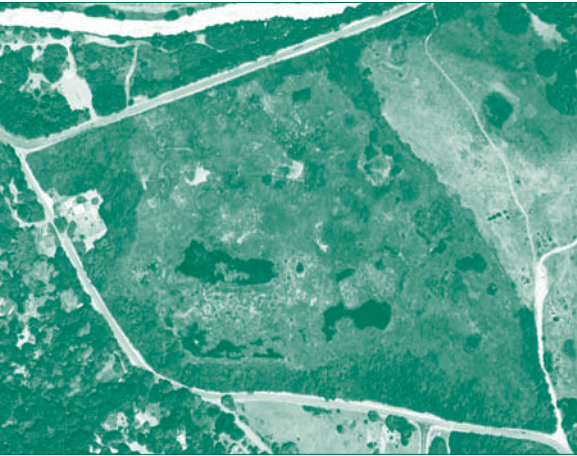
FINANCE AND DEVELOPMENT
Cassie Gruenstein,
*Director of Development
& Communications*
Jennifer Newman,
Development Manager
Stephen Pozsgai,
Controller

BLP Bolinas Lagoon
Preserve
BP Bouverie Preserve
CGRC Cypress Grove
Research Center

TOMALES BAY *from page 1*

Bay. The railroad berm restricted tidal circulation and created numerous, small, artifact marshes wherever tributary creeks entered the bay.

In 1873, the kilometer-long Levee Road was built across tributary streams and tidal marshes (photo below). Although the new road included wooden bridges and later, culverts, to convey



water flows from Olema and Bear Valley creeks, it isolated ACR's Olema Marsh from the lower part of the estuarine system. By 1945, sedimentation caused by road and levee construction, intensive grazing, and logging throughout the watershed, had raised

the marsh plain enough to make diking feasible. Subsequently, over 550 acres of tidal marsh—half of the tidal marsh in Tomales Bay—were converted to upland dairy pastures, flanked by a token of residual marshes, drainage ditches, and ponds. Native wildlife dwindled dramatically, or disappeared, as the naturally rich headwaters of Tomales Bay became a fading memory.

Rebirth

In 2000, the National Park Service purchased the Giacomini Ranch with the aim of restoring the tidal wetlands. The restoration team was faced with an obvious fact: the area could not be restored to previous conditions, because local environmental changes had created a very different type of system than existed 150 years before. So years of planning and fundraising focused instead on another singular and brilliant goal—one that recognized the inherently dynamic nature of estuaries. Rather than targeting a particular set of historic conditions or habitat values, the goal was simply to restore the natural flow of water through the system. Scientists recognize that hydrologic

processes form the cornerstone of key wetland functions, including water filtration, sediment deposition, floodwater storage, water quality, nutrient cycles, and ultimately, the development of complex food webs.

Most of the Giacomini Wetlands restoration work has been concentrated into a two-year period completed in 2008. Levees, tide gates, culverts, and agricultural infrastructure were removed. Constructed drainage ditches were filled. Tidal sloughs were recreated or shifted into historic alignments. The project reconnected five watersheds into a common estuarine transition zone. With great anticipation, on October 25, 2008, several hundred observers celebrated the initial reintroduction of tidewater. To restore natural flow of water through the system, the project team targeted not only the 550 acres of the Giacomini Ranch—restoring over half of Tomales Bay's wetlands and a full 12% of coastal wetlands lost in central California—but also the key hydrologic connection through ACR's Olema Marsh. The tremendous effort to restore the link between the bay and its watershed would not be complete without enhancing the flow of water through Olema Marsh.

ACR's participation in this project, a rare opportunity to help bring back the ecological values and inspiring natural beauty of such a large wetland system, is truly special. The process-based approach will allow nature to create unspecified vegetation patterns, breeding and foraging opportunities for wildlife, and new nursery areas for diverse marine and estuarine species that frequent Tomales Bay. This approach inspires an accepting and reverent relationship with the natural world. The restored wetland landscape will be allowed to evolve on its own.

The importance of Olema Marsh

Audubon Canyon Ranch owns and manages several properties around Tomales Bay, including

➤ *Continued on page 5*

Primary features involved in the restoration of ACR's Olema Marsh.

PHOTO AND COPYRIGHT:
GOOGLE EARTH

TOMALES BAY *from page 4*

its Cypress Grove Research Center in Marshall, and has broad interests in the ecological health of this area. The management of Olema Marsh benefits greatly from our work with the Point Reyes National Seashore and its primary non-profit partner, the Point Reyes National Seashore Association. This collaboration addresses one of the most challenging aspects of managing ACR's network of protected lands: restoring natural connections with processes that sustain the surrounding landscape.

Levee Road is the primary impediment to the natural flow of water through Olema Marsh. Limited drainage has resulted in a glut of cattail, tules, and willows that obscures aquatic pathways used by migrating anadromous fish. Prior to restoration, trapped sediment had formed a barrier berm near the primary outflow of the marsh, above the eastern box culvert on Levee Road. To promote the movement of water through the marsh, this berm was lowered and circulation channels were dug into the lower portion of the marsh (photo right). If restoration efforts allow seasonal runoff to follow a clear path through the marsh, salmon and steelhead might resume their spawning runs up Bear Valley Creek.

Some restoration objectives will follow an adaptive approach that allows the natural responses of the system to guide future action. Adaptive restoration in Olema Marsh is likely to involve expansion of the eastern outflow channel across Levee Road (with a larger culvert or, possibly, a bridge), shallow excavation of the primary flow path, and installation of a larger culvert where Bear Valley Creek flows into the marsh. Such actions would further promote the unimpeded movement of water through Olema Marsh and into the central part of the Giacomini Wetlands.

New hope for Tomales Bay

As newly introduced tidewaters continue to flood into the Giacomini Wetlands, overtopping

creek banks and spilling onto new marsh plains, low-growing saltgrass, pickleweed, and jaumea, and taller species such as arrow grass, sea lavender, and gum plant will establish and thrive. Pacific cordgrass and alkali bulrush will begin to line the shallow edges of developing sloughs. Mudflats will form in low areas, and stands of arroyo willow and red alder will rapidly expand along creeks. Conspicuous changes in the appearance of the area will continue for several years, providing continuing reasons to celebrate.

Dramatic changes in wildlife use are also likely. Salmon that have been inhibited from



using Fish Hatchery and Tomasini creeks, as well as the route through Olema Marsh to Bear Valley Creek, will be able to swim upstream more easily and spawn in the upper portion of these watersheds. They will also have access to a dramatically extended system of marsh channels for protection and growth during their out-migration to the ocean. Federally endangered tidewater gobies will benefit from newly formed

Excavation of new channels to guide the flow of water through ACR's Olema Marsh on Tomales Bay.

PHOTO: JOHN KELLY

➤ Please turn to **TOMALES BAY**, page 11

Education in Nature

SCIENCE CURRICULUM COMES TO LIFE AT BOLINAS LAGOON PRESERVE

by Mary Ann Cobb

As a child, Karen Rixford went to ACR's Bolinas Lagoon Preserve with her fourth grade class—but the memory didn't come back to her until she returned as an elementary school teacher with her students years later. "The smell of the place brought it all back to me," she says. She remembers going up a steep and long hill—and the delight and surprise of seeing the Great Blue Herons and Great Egrets at the top.

Now Karen is a fifth grade teacher at Highland Elementary in Richmond, a Title I school that serves a diverse population of kids. She looks forward to her class' field trip every year. Friend and long-time ACR docent Binny Fischer recommended the program—which is offered at no cost to schools and students, and when Karen found out about the transportation scholarships, she was persuaded.

For students, highlights of the visit to the preserve are spiders—prevalent and visible in autumn—and newts. A bit like salamanders, newts are amphibians found in wet areas. With the guidance of an ACR volunteer docent, newts are easily caught and, since they are quite harmless, are a great favorite with children.

Another favorite preserve activity is the "alone walk". A docent leads a line of six children, and a parent or teacher stays at the end. After explaining the plan, the docent walks off quietly while the rest of the group counts slowly to sixty. Then, one at a time, the students walk along in silence to where the docent waits—usually out of sight from the group. The students notice the sounds, smells, and sights of nature without the distraction of the group.

"When I started bringing kids to ACR," says Karen, "many of them had never been across a bridge before. They hadn't seen the ocean! Kids were terrified of the bus ride on the winding roads." But by the end of their day, they will have had an alone walk, held a newt, observed spiders and experienced nature.

The field trip fits nicely into the fifth grade curriculum, which covers the water cycle and plant life. In the fall, docents lead children along a dry creek bed until puddles and running water are found. There they might find newts and water striders. The kids investigate why the creek

is relatively dry at that time of year—it's due to California's Mediterranean climate. Fall is also a great time of year to look at seeds and study how plants ready themselves for the winter.

Every time she comes to the Bolinas Lagoon Preserve, Karen uses the trip as a springboard for creative writing. "I get their best writing about the field trip to ACR", she says.

Without the transportation scholarship, the class probably wouldn't be able to come. Buses can cost up to \$1,000. In the current economic climate, the field trip experience provided by ACR at the Bolinas Lagoon and Bouverie preserves is more vital than ever.

Through her experience bringing her fifth graders to the Bolinas Lagoon Preserve, Karen has found that there is much more to Audubon Canyon Ranch than the birds.

"ACR is a special, fantastic place," she says.

Mary Ann Cobb is an ACR Director and Bolinas Lagoon Preserve Docent.



"I get their best writing about the field trip to ACR," says teacher Karen Rixford of her fifth graders' preserve visit.

Artist Plans Creative Benefit ANE CARLA ROVETTA NAMES ACR IN ESTATE PLANS

by Phil Murphy

Instead of a memorial service, Ane Carla Rovetta wants a memorial auction.

“I want it to be fun for everyone,” she said cheerfully. “I want my paintings sold with the proceeds going to Audubon Canyon Ranch.”

Ane Carla, who was ACR’s education specialist from 1979 through 1984, and who, it should be said, is in vigorous good health, envisions friends gathering in her memory and bidding on her landscapes, animal studies, and still lifes, many created with pigments gathered by her from local soil.

She has imbedded her auction plan in her will, setting aside funds to cover auction expenses. Audubon Canyon Ranch is proud and honored to welcome Ane Carla into its Clerin Zumwalt Legacy Circle.

A teacher, illustrator and storyteller, Ane Carla’s conversation takes quick, unexpected turns, veering between art and science, two major enthusiasms.

“The early scientists were all artists,” she said. “Art training was part of scientific training. They had no other way to illustrate their ideas. Copernicus was a good artist. Leonardo is the perfect example.”

By blending art, science and storytelling, she has thrived as a teacher and science consultant in the San Rafael City Schools and elsewhere.

She doesn’t tell her young students about frogs so much as have them become one. She asks them to describe what’s needed to make a successful tailless amphibian and begins to draw one as they describe it: eyes that peer above

water, capacious mouth to house a long insect-snatching tongue, springy hind legs to escape predators. By the time she finishes, you feel wet, slippery and ready to leap.

She’s saddened by the present-day gulf between artists and scientists. “They have so much in common,” she said. “Both are acute, enthusiastic observers driven by a desire to know.”

As a San Jose State zoology major, Ane Carla arrived at the Point Reyes Bird Observatory in the mid-1970s, “tent and granola bars in hand,” to work on a study of white-crowned sparrows started by her teacher. She used her cartooning skills to illustrate trap line positions. (Since then she has produced artwork for six books and many scientific and educational periodicals.)

Soon she had a bigger subject: the northern elephant seal, which in 1974 had reappeared on the Farallon Islands eighty years after being hunted to near extinction. Ane Carla spent twelve winters with them on the Farallons.

She made cartoon books about her research and used them in grammar school classrooms. “I told them a story for every lesson,” she said. “They loved it. They didn’t realize they were learning science.”

Audubon Canyon Ranch gratefully welcomes Ane Carla to its Clerin Zumwalt Legacy Circle. For Zumwalt Legacy Circle information, call Cassie Gruenstein at 415.868.9244, ext. 13.

Phil Murphy is ACR’s planned giving specialist.



*Ane Carla Rovetta
storytelling on
the beach*

PHOTO: POINT REYES
FIELD SEMINARS

THANK YOU, ACR VOLUNTEERS

Audubon Canyon Ranch salutes the hundreds of individuals listed below for their dedication to ACR and for generously donating time and energy as Docents, Ranch Guides, Ranch Hosts, Field Biologists, Researchers, Habitat Restoration and Workday Volunteers, Directors, and Advisors. You are the backbone of this organization! For all you do, we thank you!

Deborah Ablin	Evelyn Berger	Eugenia Caldwell	Sharon Dankworth	Carol Fraker	Sheila Handley
Nancy Abreu	Steve Berger	Miriam Campos	Ann D. Davis	Dillon Franklin	Fred Hanson
Ken Ackerman	Jim Berkland	Cathleen Cannon	Karen Davis	Mike Franklin	Elizabeth Harper
Jessica Adamich	E. Candace Berthrong	Linda Cantel	Sarah Davis	Hannah Frederick	Jack F. Harper
Katelyn Adams	Mary Bicknell	Phillip Carlsen	Dawn Davis	Andrea Freeman	Jim Harrison
Joan Ann Albers	Louise Bielfelt	Alexa Carlson	Melissa Davis	Jamie Freymuth	Roger Harshaw
Bonnie Alexander	Sherman Bielfelt	Melissa Carlson	Ana De La Cruz	Amy Friberg	Kacey B. Hart
Julie Allecta	Bobbi Bird	Joyce Carlson	Donna Lee DeBaets	Alice Friedemann	Elizabeth D. Hartsook
Linda Allen	Gay Bishop	Barbara Carlson	Cheri L. Degenhardt	Ruth Friedman	Keiko Hase
Sarah Allen	Laurie Bissell	Susan Carney	Larry DeGrassi	Michelle Friend	Alison
Jane A. Allen	Edith Black	Kate Carolan	Jody Deike	Kevin Fritsche	Hastings-Pimentel
Jason Allen	Bonnie Blackaller	Jeannette Carr	Mary DeJesus	Miriam Frye	Will Haymaker
Kathy Allen	Amy Blackstone	Posie Carroll	Maria Delin	Candice Fuhman	Audrey Hazen
Judy Allen	Rose Marie Blake	Kathy Carroll	Ken Della Santina	Dennis Fujita	Gloria Heinzel
Linda Alwitt	Annabel Blakey	Ann Cassidy	Melanie Della Santina	James Gallagher	David Hender
Robert Alwitt	Patty Blanton	Cole Castanera	Jaime Della Santina	Sharon Garell	Chris Henderson
Rosemary Ames	Giselle Block	Rudy Castillo	Diana DeMarco	Jennifer Garrison	Betsey Herdman
Carolyn Anderson	Diane Bloom	Linda Cederborg	Michelle Dench	Laurie Gaynor	Andrea Hernandez
Janica Anderson	Eileen Blossman	Candy Chaillaux	Barbara Deutsch	Daniel George	Earl Herr
Jennie Anderson	Victor Bluestone	Leigh Anne Chandler	Gwen Dhesi	Jyoti Germain	Logan Heyerly
Judith Anna	Leonard Blumin	Robin Chase	Jack Dineen	Rebecca Geronimo	Bryant Hichwa
Nina Antze	Patti Blumin	Jan Cheek	Nancy Dolphin	Mollie Gibbons	Diane Hichwa
Richard Arendt	Ellen Blustein	May Chen	Cia Donahue	Georgia Gibbs	John Hickman
Thelma L. Arlom	Claire Boddy	Dave Chenoweth	Fairfax Donovan	Marjorie Gibbs	Joanne Hickox
Megan Armstrong	Shirley Bogardus	Albert Chin	Leslie K. Doughty	James Gibbs	Holly Higgins
Barbara Armstrong	Eve Boling	Wally Chin	Wendy Doughty	Tony Gilbert	Pat Hildreth
Robert Aston	Noelle M. Bon	Donna Chinlund	Jed Douglas	Jan Gilman	Vicky Hill
Jan Aston	Suzanne Bond	Pamela Clark	Kayla Douglas	Mary Gleim	Anne Hillsley
Dick Aston	Virginie Boone	Judy Clark	Dan Dower	Beryl Glitz	Diana B. Hindley
Francine Austin	Janet Bosshard	Careana Clay	Roberta Downey	Dohn Glitz	John Hirten
Shirley Austin-Peeke	Georgia Bostedt	Sara Clegg	Betty Drake	Sally Gmelin	Wyn Hoag
Robert Austrian	Jerry Bourne	John W. Clow	Joannie Dranginis	Laura Goetz	Maddie Hobart
Audrey Ayers	Lynnette Bourne	Brian Cluer	Richard Drexler	Warren Gold	Joan Hoffman
Donna Ayers	Bruce Bowser	George Clyde	Caroline Dutton	Marilyn Goode	Ingrid Hogle
Norah Bain	Donna Boyd	Mary Ann Cobb	Bob A. Dyer	Anne W. Goodwin	Ellen Holden
Richard B. Baird	Connie Bradley	Suzie Coleman	Joe Eaton	Laurie Graham	Marjorie Hollinger
Ankie Bajema	Tom Bradner	Stephen Colwell	Betsy Eckstein	Jesse Grantham	Jim Horan
Ygrayne Bajema	Ellen Brantley	Hugo Condeso	Irene Ehret	Barbara Gray	Ken Horner
Justin Baker	Anna-Marie Bratton	Gail Connolly	Peter Ehrlich	Christina Green	Rich Horrigan
Will Baker-Robinson	Joan B. Breece	Suzanne Conrad	David Elliott	Philip Greene	Terri Horrigan
Ted Bakkila	André W. Brewster	Robyn Contini	Phyllis Ellman	L. Martin Griffin	Roger Hothem
Audrey Ball	Eleanor Briccetti	John Conway	Nancy Elsner	Deborah Grima-Lowe	Ann Howard
Nancy Barbour	Ralph Britton	Glenda M. Cook	Beth Ely	Betty Groce	Donald K. Howard
Jeanette Berekman	Melissa Brockman	Mickey Cooke	Zach English	Maureen J. Groper	Helen Howard
Carole Barlas	Jayne Brogan	Patti Cooke	Julie Evans	Daniel Grubb	Joan Howarth
Gail Barrett	Mary Lee Bronzo	Jim Cooke	Todd Evans	Bonnie Grubbauer	Lisa Hug
Judy Barrie	Barbera Brooks	Judith Corning	Jules Evens	Sally Gude	Ann Hughes
Patricia Barton	Michael Ann Brown	Sue Cossins	Karen Everard	Carol Guerrero	Don Hughes
Brian Bartsch	Stephen Brown	Bob Cossins	Marjorie Everidge	Marjorie Guggenhime	Robert Hulbert
Everett J. Bassett	Janet Bruno	Hugh Cotter	Jeff Fairclough	Brenda Gunn	Merle Hunter
Tom Baty	Susan Bundschu	Sandy Coyle	Nancy Falk	Beth Gurney	Claire Hunter Chow
Katy Baty	Shannon Burke	Cindy Craig	Mark Fenn	Pamela Hagen	Diane Huutoon
Daria Bauer	Carol Burns	Patti Craves	Jane L. Ferguson	Robert E. Hahn	Wanda Huot-Morgan
Helen Beale	Joe Burns	Sylvia Crawford	Joan Finkle	Julie Hahn	Sam Hutkins
David Belitsky	Elizabeth Burrige	Ellen Crockett	Binny Fischer	Nancy Hair	Lynda Hutton
John C. Belz	Neil T. Burton	Brian Cully	Ruth Fisk	Linn Hakala	Charlotte Irvine
Douglas C. Bender	Mimi Burton	Linda Curry	Cynthia Fleischer	Alyssa Hall	Jenifer G. Jackson
Jennifer Benham	Phil Burton	Diane L. Cushman	Virginia Fletcher	Karlene Hall	Jared Jacobs
Phyllis Benham	Kathy Burwell	Sharon Dado	Leslie L. Flint	Edythe Halliday	Joli Jacobs
Gordon Bennett	Martin Butt	Kit Daine	Sam Flood	Madelon Halpern	Diane Jacobson
Shelly Benson	Kate Bystrowski	Sam Dakin	Annette Floyd	Lauren Hammack	Scott Jarvis
Betty Berenson	Denise Cadman	Miles Dakin	Christine Fontaine	Don Hanahan	Norma Jellison
Peter Bergen	Gayle Cahill	George Daniel	Jobina Forder	Lillian Hanahan	Bobbie Jenkins
Gail Berger	Peter Caldwell	Justine Daniel	Mark Forney	Gabe Hand	Ann Joergenson

Lorraine Johnson	Ramon Lutzow	Leonard Nelson	Rudi Richardson	Linda Spence	Mary C. Wagner
Matt Johnson	Maureen Lynch	Wally Neville	Lynn Robbie	Pat Spencer	Sandra Wald
Rick Johnson	David MacHamer	Zach Newman	Vicki Robinson	Anne Spencer	Eleanor Wales
Beverlee Johnson	Flora E. Maclise	Kenneth E. Niehoff	Jayne Rosantsson	Michelle Spicher	Susan Walker
Marlene Jordan	Barbara Madick	Spencer Nielsen	Laura Rosas	Sue Spofford	Roberta Wall
Diana Jorgensen	Art Magill	Terry Nordbye	Emily Rose	Robert Spofford	Tom Walsh
Linda Josephs	Lyn Magill	Branden Norris	Judy Rose	Jean An Sprague	Tanis Walters
Linda B. Judd	Alan J. Margolis	Emily Nosova	Glenda Ross	Craig Spriggs	Christine Walwyn
Gail Kabat	Joann Marker	Grace Noyes	Andrew Roth	Jane Spriggs	Pat Warren
Blanche Kaiser	Gloria Markowitz	Alina Nuebel	Paul J. Ruby	Betsy Stafford	Cara Wasden
Roberto Kallman	Anita Marquis	Tilly Nylin	Marge Rudell	Jude Stalker	Richard Wasson
Chris Kasman	Don Marquis	Jackie	Mel Ruiz	Ellie Stanfield	Penny Watson
Turk Kauffman	Sandra Martensen	Nystrom-Parker	DeAnn Rushall	Shelby Stansfield	Ron Watson
Guy Kay	Charlotte Martin	Patricia O'Brien	Ellen Sabine	Barbara Starke	Kathleen Watson
Carole Kelleher	Virginia Martin	Edna O'Connor	Karina Salenger	April Starke Slakey	Anna Webster
Anne Kelley	Richard Martini	John O'Reilly	Marylta Salt	Jean Starkweather	Lynn Webster
Richard L. Kettler	Sherry Mason	Ivan Obolensky	Dianne Samples	Liz Sterns	Fay Weimer
Diana King	Peter Mason	Nancy Okada	Stacey Samuels	Laurel Stevenson	Judy Weiner
Douglas King	Nancy Mavis	Ingrid Olson	Roger Sanborn	Walter Stewart	Arlene Weis
Emma King	Pat McCaffrey	Carol Orme	Jack Sandage	Linda Stewart	Jim Wellhouse
Ann Kircher	Ann Laurel McCaull	Jessica Orr	Marilyn Sanders	Susan Stoddard	Jane Wellington
Margaret Klein	David McConnell	Earle W. Owen	Diana Sanson	Serena Stoeppler	Grace Wellington
Anni Klose	Matthew McCrum	Janet Oyen	Sharon Savage	Michelle Stone	Martha Wessitsh
Bhavani Kludt	Alexandra McDonald	Manuel O. Pacheco	Susan B.	Karen Storey	Mildie Whedon
Karen Knudtson	Jeanne McHenry	Cari Paganini	Schermerhorn	Tina Styles	Tom P. White
Gary Kohlhaas	Marie McKinney	Renee Palace	Richard Schiller	Stephanie Sugars	Rosilyn White
Fran Korb	Kathleen McLaughlin	Robert J. Parker	Phyllis Schmitt	Judy Sullivan	Jim White
Barbara Kosnar	Lydia Mendoza	Carol Patel	Richard Schneider	Ron Sullivan	Dave Whitridge
Harriet L. Kostic	Diane Merrill	Lois E. Patton	Jessica Schnepf	Susan Sutch	David Wick
Martin Koughan	Valerie Merrin	Tony Paz	Craig Schorr	Joan Sutter	Danya Wiebalk
Ellen Falconer Krebs	Barbara Meyer	Brittany Penoli	Alice Schultz	Kimiko Suzuki	Adele Wikner
Carol Kuelper	Regina Milavec	Genevieve Perdue	Theresa Schulz	Lowell Sykes	Philip Wilkiemeyer
Pat LaBerge	Bob Millbourn	Jay Peretz	Harold Schulz	Judy Temko	Diana Wilkiemeyer
Norah J. Laffan	Bill Millard	Beverly Perrin	Thea Schurer	Mike Terwilliger	Julia Wilkinson
Diane Lafrenz	Macell Millard	Leslie R. Perry	John Schwonke	Janet Thiessen	De Williams
Andrew Lafrenz	Audrey Miller	Kate Peterlein	Marilynn Scott	Eric Thistle	Cathy Williams
Amy LaGoy	David Miller	Ray L. Peterson	Lindsey Segbers	Wayne Thompson	Don Williams
Maureen Lahiff	Jean Miller	Margaret Petrie	Lee Seidner	Mona Tieche	Liz Williamson
Joan Lamphier	Flavia Millikan	Catherine Petru	Marian Seiter	Ruth Tjerandsen	Kate Wilson
Brett Lane	Sarah Minnick	George S. Peyton	Steve Shaffer	Steve Tokar	Kathy Wilson
Pete Larsen	Austin Missner	Dominique Peytraud	Heather Shannon	Francis Toldi	Ken Wilson
Freida Larson	Heidi Mitarai	Marcia Phipps	Robin Sharp	Jean Tonascia	Linda Wilson
Judy Laursen	Eileen Mitro	Bill Pierce	Carol Joyce Sheerin	Ruth J. Tonascia	David Wimpfheimer
Dakota Lawhorn	Jan Moffet	Marcy Pinetti	Dalia Sheff	Gwen Toney	Marilyn Winkley
Scott Lawyer	Jim Moir	Ann Piper	Mary Lynn Shimek	Joel Toste	Lynn Winter
Gaye LeBaron	Barbara Molle	Sally Pola	Richard B. Shipps	Vicki Trabold	Brian Wittenkeller
Barbara Leder	Carol Moller	Julia Pollock	Robert Sholtz	Mike Tracy	Dylan Witwicki
Gilles Lefevre	Corinne Monahan	David Poss	Will Shonbrun	Nick Tracy	Wigay Wix
Lamar Leland	Steve Monroe	Helen M. Pratt	Marjorie Siegel	Kayla Trbovich	Pat Wolffe
Dick Lemon	Stephen Moore	Grace Pratt	Jean Simpson	William Trbovich	Bill Wolpert
Stephanie Lennox	Elaine Moreno	Susan Preneta	Rachel Simpson	Susan Tremblay	Carol L. Wood
Colleen Leaf	Beverly Morgan	Katherine Prescott	Dolly Simunovich	Louise Trudeau	Patrick Woodworth
Robin Leong	Angela Morgan	Jeanne Price	Jane Sinclair	Thomas Tucker	Briggs Woolley
Keith Lester	Susan Moritz	Judy Prokupek	Paul Skaj	Joan Turner	Sherry Wright
Gail Lester	Ian Morrison	Lauri Puchell	Una Skelly	David C. Uhlig	Kenneth Wright
Bev Leve	Paul Moschetti	Maris Purvins	Jeanne Skott	Kathleen Unti	Kathryn Wright
Joshua Levine	Gerald Mugele	Barbara Ramsey	Elliott Smeds	David Urry	Robert Yanagida
Seela Lewis	Dianna Muhic	Patricia Randall	Pat Smith	Julie Vader	Stephen Yip
Michele Liapes	Kathleen Murphy	Raymond Rapp	Joe Smith	Henning Van	Peter Young
Eileen Libby	Dan Murphy	Alison	Joseph Smith	Deusen-Jensen	Cindy Young
Karin Lienart	Joan Murphy	Rayner-Hooson	Marjorie Smith	Lee Van Giesen	Nancy Young
Joan Lippman	Margaret Murray	Joan Regan	Ernestine I. Smith	Gerrit Van Sickle	Ingrid Zimmerman
Marcus Lipton	Mark Mushkat	Jeanne Reggio	Austin Smith	Kelly Varian	Suzanne Zimmerman
Wayne Little	Karen J. Nagel	Jeff Reichel	Daphne Smith	Carol Ann Vellutini	Pnina Zoharah
Pattie Litton	Benardetta Nardelli	Linda Reichel	Ben Snead	Natalia Vicino	Jill Zumwalt
Ruth Lombard	Angela	Don Reinberg	Jan Gerrett Snedaker	Sylvia Victor	Loretta Zweig
Bert Lombino	Nardo-Morgan	Arlene Reiss	John Somers	Norma Vite	
John Longstreth	Kim Neal	Jean Rhodes	Noellene Sommer	Sasha Vitomski	
Susan Luber	Mike Nelligan	Diana Rhoten	Karen Sommer	Nancy Vizi	
Anthony Lucchesi	Dexter Nelson	Bill Richardson	Amy Southwick	Mary Von Tolksdorf	

CALENDAR OF EVENTS

BOLINAS LAGOON PRESERVE OPEN TO THE PUBLIC

SATURDAYS, SUNDAYS AND HOLIDAYS

MARCH 14 - JULY 12, 2009

10:00 A.M. - 4:00 P.M.

Come hike the more than 8 miles of trails at ACR's Bolinas Lagoon Preserve. Visit the newt ponds, view the nesting Great Blue Herons and Great Egrets and enjoy the wildflowers. Knowledgeable Ranch Guides are on hand to answer your questions. On weekdays (except Mondays) the preserve is open to the public by appointment.

Call 415.868.9244 for more information or visit ACR's website at www.egret.org.

GUIDED NATURE WALKS

BOUVERIE PRESERVE

APRIL 18, MAY 2, MAY 9, MAY 16,

OCT. 10, OCT. 17, NOV. 7, NOV. 21, 2009
9:30 A.M. TO 1:30 P.M.

This is 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 spring and fall.

Call 707.938.4554 or e-mail bouverie@egret.org for lottery form. Form must be returned one month prior to the walk. No charge, but donations appreciated.

Docent Council of Bouverie Preserve

FALL & SPRING WORKDAYS

BOLINAS LAGOON PRESERVE

SATURDAY, OCTOBER 3, 2009, AND

SUNDAY, MARCH 7, 2010 - PICHER CANYON
9:30 A.M. TO 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 and gloves for outdoor projects!

E-mail leslie@egret.org or call 415.868.9244 so we can plan on enough food!

ACR Staff

HABITAT PROTECTION AND RESTORATION WORKDAYS

BOUVERIE PRESERVE

MONDAYS, 8:30 A.M. TO 12 P.M.

Bouverie Stewards work intimately with the land throughout the year at the Bouverie Preserve in Glen Ellen. This dedicated crew assists with habitat protection and restoration work, while learning about the ecology behind the project. Projects include: removing Douglas Fir seedlings and saplings; installing fence; removing invasive species; using GPS units to map invasive species; collecting seeds of native species; propagating native species in the greenhouse.

Bouverie Stewards meet every Monday throughout the year; however, individual members may come when they are able. We welcome volunteers who can join the group at least once a month.

Call 707.935.8417 or e-mail [Sherry Adams at sherry@egret.org](mailto:SherryAdams@egret.org).

MOTHER'S DAY BBQ VOLUNTEER CANYON OF BOLINAS LAGOON PRESERVE

SUNDAY, MAY 10, 2009

For approximately fifty years, the Marin Audubon Society has hosted this delightful fundraiser on Mother's Day, bringing families and friends together for a day of food and fun in the magnificent meadow of Volunteer Canyon. Proceeds benefit the education and conservation programs of Audubon Canyon Ranch and Marin Audubon Society.

Call Mary Anne Cowperthwaite at 415.453.2216 for information. Space is limited. Please RSVP by May 1st. Carpooling strongly encouraged!

\$20 per adult; \$10 children under 10; payable to Marin Audubon Society. Mail your check to MAS, 141 Oak Avenue, San Anselmo, CA 94960. Your check guarantees your reservation.

DOCENT TRAINING

BOUVERIE PRESERVE

WEDNESDAYS, AUGUST 26, 2009 - FEBRUARY 17, 2010

The next docent training class of Audubon Canyon Ranch's Bouverie Preserve begins August 26th. Classes meet once per week on Wednesdays through February 17, 2010. Included are such diverse topics as birds, insects, pond life, and teaching techniques. Three units of college credit are available.

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.

Orientations are scheduled on April 29 and May 16, 2009 from
10 A.M. TO NOON.

Call 707.938.4554 for more information and to confirm participation in orientation.

There is a \$120 fee to cover the cost of training.

TOMALES BAY *from page 5*

brackish pools, and elusive California black rails, a state-listed threatened species, will benefit from huge increases in suitable habitat along tidal sloughs and upland edges. A rich, new community of other waterbirds is also likely to develop in response to the increasing complexity and diversity of wetland vegetation and aquatic habitats. Sharks, bat rays, raptors, and river otters will move through the area in search of food.

The restoration of this landscape will further enhance the already substantial ecological value of Tomales Bay. ACR's scientific work on waterbirds led to the recognition of Tomales Bay as a Wetland of International Importance, under an international treaty called the Convention on Wetlands (commonly known as the "Ramsar Convention"),

and as a wetland of regional importance under the Western Hemisphere Shorebird Reserve Network. Four decades of monitoring the health of bird populations on Tomales Bay have positioned ACR's Conservation Science and Habitat Protection program to detect and report on the ecological benefits of restoring a large area of coastal wetlands.

Already, the tides are breathing new life into this area. Waterbirds are gathering. New mudflats, sloughs, marshes, and seasonal wetlands are developing. The natural design of this tidal system is unfolding, in a beautiful new landscape, for all of us to see and appreciate.

John Kelly, Ph.D., is ACR's Director of Conservation Science & Habitat Protection

CALENDAR OF EVENTS *from page 10***BOUVERIE PRESERVE
SPRING OPEN HOUSE**

SATURDAY, MAY 30TH, 2009

10:00 A.M. TO 2:00 P.M.

Each year, the Bouverie Preserve of Audubon Canyon Ranch welcomes over 3,000 local schoolchildren to experience ACR's free nature education programs. We would like to share this experience with the community. Bouverie Preserve volunteers will be available throughout the day to take you on a shorter version of the school hikes (approximately 1 hour) over the trails of this beautiful 535-acre nature preserve. Hiking groups will go out every half hour starting at 10 A.M. with the last hike of the day starting at 1 P.M. Don't miss this opportunity to visit Audubon Canyon Ranch's Bouverie Preserve and learn more about the programs and volunteer opportunities. Explorers of all ages welcome!

ACR Staff

**BOUVERIE BACKYARD
NATURALIST SERIES – FALL 2009****BOUVERIE PRESERVE**

9:30 A.M. TO 2:00 P.M. ◆ \$25 EACH SEMINAR ◆ SATURDAYS

OCTOBER 31, 2009 – SPIDERS WITH GWEN HEISTAND

NOVEMBER 14, 2009 – JOURNALING THE COLORS OF FALL
WITH NINA ANTZE

The Bouverie Backyard Naturalist field seminars are geared toward the adult amateur naturalist.

These Saturday seminars include time in the classroom, as well as on the trail.

The hike ranges from one to three miles on mildly to moderately strenuous terrain. Please bring lunch and water for the trail.

Class size is limited. Please email leslie@egret.org or call 415.868.9244 to register.

ACR Staff

**THE MISSION OF AUDUBON CANYON RANCH**

Audubon Canyon Ranch protects the natural resources of its sanctuaries while fostering an understanding and appreciation of these environments. We educate children and adults, promote ecological literacy that is grounded in direct experience, and conduct research and restoration that advances conservation science.

www.egret.org



AUDUBON CANYON RANCH
4900 SHORELINE HIGHWAY ONE
STINSON BEACH, CA 94970
415/868-9244
WWW.EGRET.ORG
ACR@EGRET.ORG

Non-profit
Organization
U.S. Postage
PAID
Mailcom

Audubon Canyon Ranch — wildlife sanctuaries and centers for nature education and research.

Bolinas Lagoon Preserve • Cypress Grove Research Center • Bouverie Preserve

The headquarters of
Audubon Canyon Ranch is located
at the Bolinas Lagoon Preserve.
www.egret.org
email: acr@egret.org

WHEN TO VISIT

Bolinas Lagoon Preserve

Mid-March to mid-July: Saturday, Sunday
and holidays. 10:00 A.M. to 4:00 P.M.
Weekdays by appointment only; call
415/868-9244. Closed Mondays.

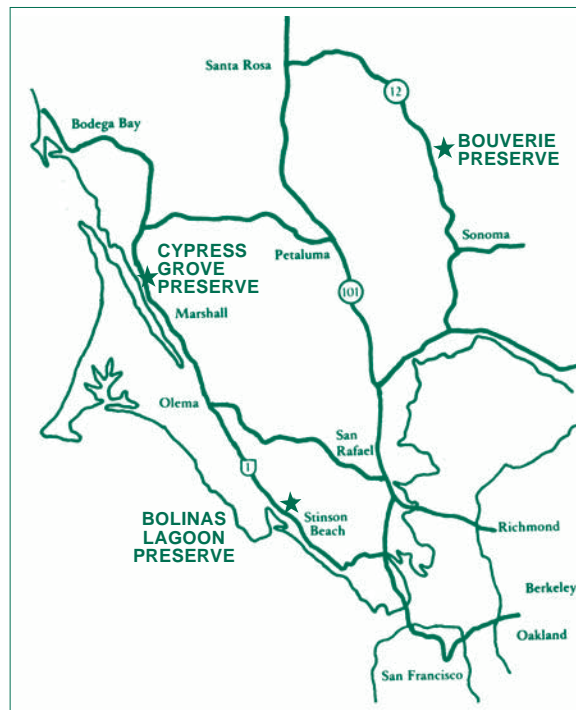
Bolinas Lagoon Preserve is adjacent to
Bolinas Lagoon on Shoreline Highway One,
three miles north of Stinson Beach.

Cypress Grove Research Center

By appointment only. 415/663-8203.

Bouverie Preserve

See calendar of events inside.



ACR'S E-NEWSLETTER

To keep up-to-date on the latest
ACR happenings, sign up for
our e-newsletter. Published
once every two months, this
free email newsletter highlights
updates from the Preserves,
including school group visits,
latest findings from science staff,
volunteer opportunities, and
ways to come explore ACR's
nature sanctuaries.

To sign up or to view past issues,
visit www.egret.org.

The Audubon Canyon Ranch Bulletin is
published twice yearly as a free offering
to ACR donors and volunteers.

Edited by Jennifer Newman
Designed by Sarah Bolles
Drawings by Ane Carla Rovetta
© 2009 Audubon Canyon Ranch

Printed on recycled paper
(30% post-consumer) using soy-based inks.