

BAY BIRD REVIEW

A QUARTERLY PUBLICATION ON THE SCIENCE AND CONSERVATION OF BIRDS AND THEIR HABITATS



SAN FRANCISCO BAY
BIRD OBSERVATORY

Director's Message

In this issue of the *Bay Bird Review*, the San Francisco Bay Bird Observatory is proud to share our 2011 Annual Report with our membership. We are pleased to report that the Bird Observatory is a healthy and strong organization, more committed than ever to our research and monitoring programs that help guide management practices in the Bay Area to the benefit of our native bird populations.

In this issue we also share a change to come. We discuss how we will remain focused on science, long-term monitoring, and effective relationships with local land management agencies through this transition.

Finally, our *Science Feature* highlights our Snowy Plover Recovery Program. We are embarking on the 9th year of monitoring Snowy Plover populations and breeding success and working to find innovative ways to help recover this species. The recovery of an endangered or threatened species is complex and requires intimate knowledge of an ecosystem. We are proud to share our knowledge with our supporters. Thank you!

By Jill Demers, SFBBO Executive Director

Look for our
Annual Report
on pages 4–5



AN ADULT SNOWY PLOVER in an oyster shell plot.

PHOTO BY VIVEK KHANZODE

Science Report

State of Western Snowy Plovers in the San Francisco Bay

Western Snowy Plovers were first found nesting along salt evaporation pond levees and dry pond bottoms in the San Francisco Bay in the early 1900's. Today, approximately 200–250 Snowy Plovers nest almost exclusively in salt ponds and former salt ponds now managed as waterbird habitat. The South Bay Salt Pond Restoration Project, of which the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge) and California Department of Fish and Game's Eden Landing Ecological Reserve (CDFG) is a part, is implementing a large-scale plan to restore salt ponds into tidal and managed wetland habitats. While the restoration of former salt ponds to tidal marsh will increase habitat for many species, it also will reduce the overall pond habitat available for waterbirds. For Snowy Plovers, this means that there will be less available breeding habitat in the South Bay.

The San Francisco Bay Bird Observatory's (SFBBO) Snowy Plover Recovery Program has documented plover popu-

lations, nest success (proportion of nests in which at least one egg hatches), and chick fledging rates in San Francisco Bay since 2003. To address the management challenge posed by salt pond restoration, we worked with the Refuge, CDFG, and the Restoration Project to conduct a habitat enhancement experiment to determine if Snowy Plover nest density would increase in enhanced areas at Eden Landing Ecological Reserve. Because nest success had declined from 2003 to 2008, we hypothesized that the habitat enhancement project could also increase Snowy Plover nest and fledging success.

We began the habitat enhancement project by hiring the California Conservation Corps (CCC) to remove any old posts or unused telephone poles from the salt ponds that might serve as a perch for predators of Snowy Plovers. We then spread oyster shells on the dry pond bottom with the hopes that the shells would provide camouflage for

SCIENCE REPORT *continued on page 8*

Three Ways to Get Involved with SFBBO

Have you been asking yourself “how can I get involved with SFBBO?” We have the answers!

- **Join a bird walk or banding demo!** Impress your friends by telling them you’ve seen a bird in the hand! Learn about our valuable science that conserves birds and meet people that share your interests. Best of all, you’ll visit new and unique birdwatching hotspots with some of the Bay Area’s top birders!
- **Volunteer!** Too much time on your hands? Then help us monitor heron colonies, band birds, resight gulls, or keep our office running smoothly. SFBBO volunteers honor us with over 4,700 hours of their time every year. We need you!
- **Donate!** Member donations fund a substantial portion of our operating and programmatic costs. Your contributions purchase mist-nets for our bird banding station, put gas in our field vehicles, and keep the lights on. With our staff busy in the field, spring is a great time to make a donation! Your gift will be stretched to make our on-the-ground conservation successful.

SFBBO (and the birds) appreciate your participation! To get involved go to sfbbbo.org or call 408.946.6548. We would love to hear from you!



HORNED GREBE. Photo by Vivek Khanzode.



BREWER'S BLACKBIRD.

PHOTO BY KARTHIK DWARAKANATH

Staff Migrations

Welcome Allison Nelson

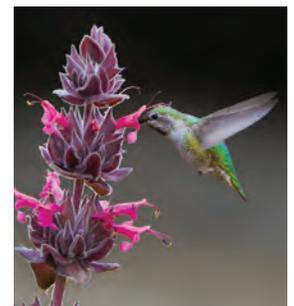
We would like to welcome Allison Nelson as SFBBO's new interim Outreach Coordinator. Allison has over 15 years of experience in environmental conservation with organizations including Outward Bound, the Appalachian Mountain Club, PRBO Conservation Science, and the Smithsonian Migratory Bird Center. She has worked in public outreach and volunteer coordination and has enjoyed being a field biologist in the rainforests of Australia, the marshes of the San Francisco Bay, and the deciduous forests of Indiana. Allison values engaging youth in their environment and currently teaches birdwatching classes for kids. With her Bachelor of Fine Arts from Rhode Island School of Design, she hopes to utilize her creative perspective to share her love of birds with others. Allison has volunteered as a bird bander at our Coyote Creek Field Station since January 2011 and is thrilled to expand her involvement with SFBBO. She is looking forward to working with our volunteers and coordinating programs for an organization so close to her heart!



ALLISON NELSON has recently joined SFBBO as the interim Outreach Coordinator.

Support our Spring Campaign!

Spring is in full swing and so is our spring campaign! We need your help to raise \$15,000 to support research and monitoring programs such as our Snowy Plover Recovery Program. SFBBO is dedicated to determining how birds and their habitats are responding to restoration and other human impacts so that their habitats can be managed effectively. Please send your donation today and help support our programs that are making a difference for our Bay Area birds!



ANNA'S HUMMINGBIRD. Photo by Steve Zamek.

A Time for Transition



JILL DEMERS.

I came to the San Francisco Bay Bird Observatory as the Science Director in 2008 because I believe in our mission and programs in place to accomplish it. I was honored to be selected as the Executive Director in early 2009; guiding this organization is a true privilege. And now, after four rewarding years at SFBBO, I have decided to step down as Executive Director later in the year.

The decision to leave SFBBO was an extremely difficult one. Not only do I

passionately believe in the work we do here in the San Francisco Bay, but it has been an absolute pleasure to work with this organization's staff, members, donors, and volunteers. I am extremely thankful and inspired by your enthusiasm for SFBBO and the work we do. There comes a time in life for change, which, for me, will begin with a move to California's North Coast with my husband.

I have no doubt that SFBBO will continue to flourish under new leadership. I am happy to report that SFBBO continues to be a strong, capable organization, thanks to the hard work of our staff and volunteers, the support of our partners, and the gifts of our members and donors. During my tenure, SFBBO has strengthened relationships with the community, developed new collaborations and research, and established new programs to address the region's pressing conservation needs. The future is

bright and SFBBO's work is more important than ever. From our Snowy Plover Recovery Program to our long-term bird banding dataset from the Coyote Creek Field Station, our work makes a real difference for Bay Area birds and the people that manage and restore their habitats and populations.

While I give you this news now, it will be several months before I officially step down. And there is important work to do! In the interim, I will keep striving to implement SFBBO's Science, Habitats, and Outreach programs to achieve our vision of healthy bird populations and ecosystems. I invite you to do the same! Reconfirm your commitment to SFBBO by getting involved—volunteer, attend a bird walk or other event, or make a financial gift and help ensure the success of SFBBO's next leader.

.....
Jill Demers, Executive Director

Chair's Message

It is a time of change and transition at SFBBO. But with change comes opportunity. The Board has had the pleasure to work with Jill Bluso Demers for the last four years, first as Science Director, and most recently as Executive Director. During her tenure Jill has helped SFBBO maintain a level of professionalism and stability that provides a strong foundation for the future. Her relationship with key partners such as the U.S. Geological Survey, U.S. Fish and Wildlife Service, and South Bay Salt Pond Restoration Program has elevated SFBBO's presence in the South Bay and made us a key provider of sound science that informs the protections of birds and their habitats. Jill embodies the mission of SFBBO. We will miss her can-do attitude and wish her and her husband Scott all the best as they return to the northern coast of California. As a Board, we are committed to moving SFBBO forward, keeping our science as center focus, and to ensuring that we find a dynamic new leader that will continue SFBBO's strong tradition of creative science, long-term monitoring, and effective relationships with local land management agencies.

The Board of Directors met with key stakeholders and staff to determine the qualities SFBBO will seek in a future leader. From this group, we formed an Executive Search Committee comprised of individuals who have shown a strong dedication to SFBBO. This includes: Christine Jeffers, CFRE, a specialist in nonprofit and fundraising management and a long-standing SFBBO member; Jan Hintermeister, former SFBBO Board

President, current volunteer and donor; Cheryl Strong, biologist with Don Edwards San Francisco Bay National Wildlife Refuge and the South Bay Salt Pond Restoration Project; Caitlin Robinson-Nilsen, SFBBO's Waterbird Program Director; and myself. With this talented group, we are confident we can find our next leader.

Later this month you will see an announcement for the open position, and the Executive Director search and interview process will continue into summer. During the search and transition process, we will be guided by our recently completed strategic planning and organizational assessments. We are committed to maintaining and increasing the quality and scope of our science and to continuing to strengthen the close relationships needed to effectively conserve birds and their habitats.

We anticipate a seamless transition in leadership and are looking forward to new beginnings. Should you have any questions regarding the transition or the process of hiring a new Executive Director, please don't hesitate to reach out to me at trahmig@sfbbo.org. The Board and I look forward to keeping you updated as the search process unfolds.

.....
Troy Rahmig, Chair



TROY RAHMIG.



MICHAEL KERN

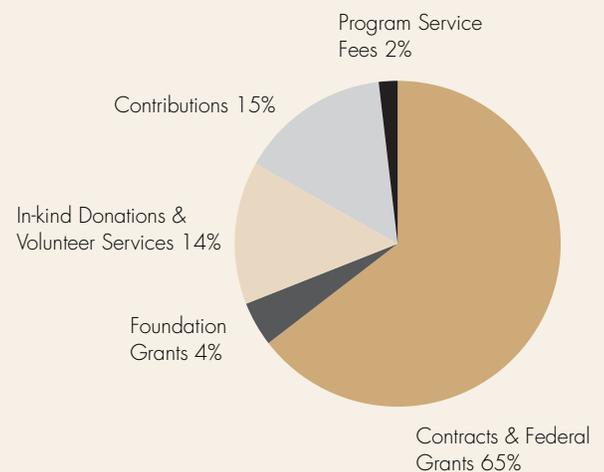
ANNUAL REPORT 2011

The San Francisco Bay Bird Observatory reached a milestone in 2011—our 30th anniversary. It was delightful to celebrate our legacy of birds, science, and community with so many of our members, volunteers and partners. Collaborations and personal relationships are fundamental to our mission and our future. It is because of you that we can conduct scientific research that enables us to achieve vital environmental goals. Thank you! We look forward to many more years of working together to conserve Bay Area birds and their habitats.

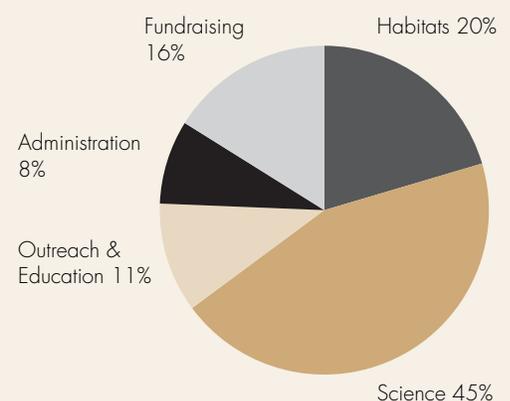
San Francisco Bay Bird Observatory Statement of Financial Position

FISCAL YEARS ENDING DECEMBER 31	2011	2010
ASSETS		
Current assets	\$269,753	\$219,399
Property and equipment	\$13,675	\$18,604
Deposits	\$1,350	\$0
Total Assets	\$284,778	\$238,003
LIABILITIES		
Current Liabilities	\$110,217	\$30,402
NET ASSETS		
Unrestricted	\$153,713	\$206,998
Temporarily restricted	\$20,848	\$603
Total Net Assets	\$174,561	\$207,601
Total Liabilities and Net Assets	\$284,778	\$238,003

Revenue



Expenses



Volunteers Make it Possible!

Last year our volunteers contributed more than 4,700 hours, valued at \$52,700, to our various research programs, in the field and the office. Without their time, skills, commitment and generosity, SFBBO could not accomplish the valuable conservation science that defines our organization. In 2011, the following 12 volunteers contributed the greatest number of hours:

Sandy Moore	365	Shannon McMahon	170	Tom Stewart	158
Tom Goodier	324	Amy Lauterbach	170	Allison Nelson	150
Barbara McDow	199	Gerry Ellis	167	Mike Mammoser	149
Joyce Bartlett	177	Rosalie Lefkowitz	158	Ron McDow	143

2011 Selected Publications

Demers, J. and J. Scullen. 2011. *Bird Response to Fire in Grasslands of Russian Ridge Preserve*. Summary Report. Prepared for Midpeninsula Regional Open Space District, Los Altos, CA.

Goodman, R.E. G. Lebuhn, N.E. Seavy, T. Gardali, and **J.D. Bluso-Demers.** 2011. *Avian body size changes and climate change: warming or increasing variability?* Global Change Biology: Early Online Publication.

Robinson-Nilsen, C. and J. Demers. 2011. *California Gull Breeding Surveys and Hazing Project, 2011*. Final Report. Prepared for U. S. Fish and Wildlife Service, Don Edwards San Francisco Bay National Wildlife Refuge, Newark, CA.

Robinson, C., J. Demers, and C. Strong. 2011. *Western Snowy Plover Numbers, Nesting Success, Fledging Success and Avian Predator Surveys in the San Francisco Bay, 2011*. Final Report. Prepared for U. S. Fish and Wildlife Service, Endangered Species Program, Sacramento, CA.

Robertson, E., and C. Robinson-Nilsen. 2011. *Avian Disease Prevention Program Monitoring in Artesian and Alviso Sloughs, June – November 2010*. Final Report. Prepared for City of San Jose, Environmental Services Department, San Jose, CA.

Robertson, E., and C. Robinson-Nilsen. 2011. *Avian Disease Prevention Program Monitoring in Guadalupe Slough, June – November 2010*. Final Report. Prepared for City of Sunnyvale, Sunnyvale, CA.

Robinson-Nilsen, C., K. Tokatlian, and J. Demers. 2011. *Colonial Waterbird Nesting Summary for the South San Francisco Bay, 2011*. Final Report. Prepared for Don Edwards San Francisco Bay National Wildlife Refuge, Newark, CA.

Spotswood, E.N., K.R. Goodman, J. Carlisle, R.L. Cormier, D.L. Humple, J. Rousseau, S.L. Guers, and **G.G. Barton.** 2011. *How safe is mist netting? Evaluating the risk of injury and mortality to birds*. *Methods in Ecology and Evolution* 3:29-38.



CALIFORNIA QUAIL.

2011 Funders and Partners

FOUNDATION AND CORPORATE FUNDERS

Adobe Systems Incorporated, Applied Signal Technology, Inc., Argo Group, Chevron Humankind, City of San Jose, Google Earth Outreach, Google Matching Gifts Program, HP Employee Product Giving Program, IBM Corporation Matching Grant Program, Intuit Foundation, Inverness Valley Inn, Juniper Networks Matching Gift Program, Let's Go Birding, Los Gatos Birdwatcher, Med Thrive Cooperative Inc., Microsoft Club Bing, Microsoft Giving Campaign, Motorola Foundation, Newby Island Resource Recovery Park, Patagonia, Orange County Community Foundation, REI - San Jose, Republic Services, PPG Industries Foundation Matching Gift Center, Sobrato Foundation, Steelcase Foundation, Wildside Tours, Zanker Road Resource Management LTD

PARTNERS — LAND ACCESS, FUNDING AND COLLABORATION

Alameda National Wildlife Refuge, Association of Bay Area Governments, Audubon California, Audubon Canyon Ranch, Bay Farm Island Residents, Bureau of Land Management, California Department of Fish and Game, California State Coastal Conservancy, California State University - East Bay, City of Fremont, City of Hillsborough, City of Mountain View, City of Newark, City of Oakland, City of Palo Alto, City of Redwood City, City of San Francisco, City of San Jose, City of Sunnyvale, De Anza College, Don Edwards San Francisco Bay National Wildlife Refuge, East Bay Regional Parks District, Foothill Community College, Golden Gate Audubon Society, Richard and Rhoda Goldman Fund, H.T. Harvey and Associates, Hayward Area Parks and Recreation District, Kansas State University, Midpeninsula Regional Open Space District, Mt. Diablo Audubon Society, Newby Island Resource Park, Ohlone Audubon Society, Oregon State University, Pacific Gas and Electric Company, Port of San Francisco, PRBO Conservation Science, San Francisco Bay Joint Venture, San Francisco Recreation and Parks Department, San Francisco State University, San Jose State University, San Mateo County Harbor District, Santa Clara County Parks District, Santa Clara Valley Audubon Society, Santa Clara Valley Water District, Sequoia Audubon Society, South Bay Salt Pond Restoration Project, U.S. Department of Agriculture - Wildlife Services, U.S. Department of Veterans Affairs, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. National Parks Service

Calendar

AW, AREN'T THEY CUTE!!

Sunday, July 8th, 10 a.m. – 1 p.m.

SITE: HAYWARD REGIONAL SHORELINE INTERPRETIVE CENTER

Join Bob Lewis of Golden Gate Audubon for an easy mid-day birding walk. Swallows, terns, and resident shorebirds and ducks will be fledging. Baby birds are often everywhere! Tides will be rising during our walk, and we may also be able to find some shorebirds returning from their arctic nesting grounds. There are picnic tables at the visitor's center—you may want to bring lunch for after the walk.



A BIRD IN THE HAND

Wednesday, July 18th, 8 – 10 a.m.

SITE: COYOTE CREEK FIELD STATION (MILPITAS)

Tour the Bird Observatory's banding station and meet the Coyote Creek Field Station Manager, Josh Scullen. Learn about the Bird Observatory's bird banding research and see several different species up close. We will tour mist nets, watch a bird banding demonstration, and explore a restored riparian habitat. Learn why bird banding is so important for protecting birds and their habitats. RSVP required. We will meet at the former Borders Bookstore parking lot in McCarthy Ranch, Milpitas. Rain cancels.



BIRDING SANBORN COUNTY PARK WITH LISA MYERS

Saturday, August 11th

8 a.m. – 12 p.m.

SITE: SANBORN COUNTY PARK (SARATOGA)

Join former SFBBO Board member and local birding instructor Lisa Myers on a morning workshop for the beginning birder. Located above the town of Saratoga, Sanborn County Park offers cool morning temperatures for optimal summer birding. We'll spend the morning reviewing tips on how to identify species, locating birds in their habitat, observing bird behavior and listening for vocalizations. We'll also take time to review binocular and spotting scope techniques. The day includes a 1-mile walk including Redwood Forest habitat.



To check your membership status or to RSVP, call 408.946.6548 and we will be happy to assist you!



WALK: Open to the public; \$10 donation requested for non-members. RSVP at outreach@sfbbo.org or 408.946.6548



ACCESSIBLE: Contact outreach@sfbbo.org or 408.946.6548.



SPECIAL EVENT



MEMBER-ONLY ACTIVITY: Active SFBBO membership required to attend event.

Workshops for the Birder and Naturalist – 2012

WITH: *Alvaro Jaramillo, SFBBO Senior Biologist*

SITE: *Sobrato Center for Nonprofits in Redwood City*

Tuesday, June 5th (instruction),

6:30-9 pm;

Thursday, June 7th (instruction),

6:30-9 pm;

Sunday, June 10th (field trip), TBA

BIRD SOUND WORKSHOP

Bird song is particularly captivating for its complexity and beauty, and is an important method for identifying bird species. This workshop will train birders to identify birds by song, and also focus on understanding the ecology and behavior of bird vocalization. Topics covered: the development and purpose of song; song variations; and how to visualize, learn, and study bird sounds. On the field trip we will listen to bird sounds and do some simple experiments to hear what we learned in the class. Birding Level: Beginner and up. Instruction at the Sobrato Center in Redwood City.



SHOREBIRDS IN FALL

Tuesday, Aug. 7th (instruction),

6:30-9 pm;

Thursday, Aug. 9th (instruction),

6:30-9 pm;

Sunday, Aug. 12th (field trip), TBA

The fall offers a fun shorebird challenge! Shorebirds can be difficult to identify in the fall as they return from their breeding grounds in juvenile and non-breeding plumages. We will dig deep into shorebird behavior, physiology, ecology. This is an opportunity for you to create depth to your shorebird identification skills, have a great time, and view many shorebird species. Birding Level: Intermediate and up. Instruction held at the Sobrato Center in Redwood City.



RED-TAILED HAWK. Join one of our activities and investigate birds up close.



PHOTO BY DONALD DVORAK

WESTERN GREBES engage in courtship.

Our thanks to these supporters of the San Francisco Bay Bird Observatory!



Thank you new and returning members, and generous donors, January – March 2012

PARTNER \$1,000+

Apple Matching Gifts Program, Cargill, Motorola Foundation

SPONSOR \$500 - \$999

Donald Lewis, James Yurchenco and Amy Lauterbach

SUSTAINER \$250 - \$499

Jennifer Krauel, John Moore, Troy and Corina Rahmig, Erika Wilson

CONTRIBUTOR \$100 - \$249

Phyllis Browning, Dudley Carlson, Chevron Humankind, Charles Collins, Susie and Dave Formenti, Annette Herz, Jan Hintermeister, Steve Huckabone, David Johnston, Ph.D. and Sherry Hudson, Michael and Carolyn Kulakofsky, Pattie Litton and Peter Ralston, Peter Metropulos, Mark Miller, Oakland Museum of California, Ann Ruffer, Harry Savage, T.M. Scruggs, Susan Semonoff, Paul and Robin Stevens, Nancy Teater, Lynne Trulio

FRIEND \$60 - \$99

Kendra Armer and Chris Dorger, John and Becky Bradley, David Burnham, Alan Eisner, Alane Gray, Dorothy Gregor, Judy and Bill Hein, Lisa Hovevar, Sheri Howe, Linda Landucci, Cindy Lockhart, Sandy and Steve Moore, Dorothy Normark, Thomas Olson, Jane Pratt, William Rose, John Toldi, Kay Voyvodich and Paul Masson

BASIC \$40 - \$59

Walter Berger, M.D., Betty Berteaux, Marion Blau, William Bousman, Cathy Brown, Dorothy Calabrese, Andrew Campbell, Art Carey, Janet Cunningham, Dan Davison, Deanna de Castro, Dr. John Derdivanis, Karthik Dwarakanath, and Archana Mutgi, Lorrie and Ron Emery, John Esterl, Mary Facchetti, Janet Farmer, Jeanne Fouts, Dennis Geiler, Laurie Graham and Jeff Fairclough, Joan and David Hadden, Jane Harris, Hugh and Rosita Harvey, Chris Hayamizu, Katie Henry, Ann Hepenstal and Ronny Tey, Melissa Hero, Richard and Terry Horrigan, David and Penny Kieh, Nelle Lyons, Robert May, Amy McDonald, Yvonne McHugh and Tony Brake, John Merchant, Thomas Moutoux, Connie Nelson, Diane Piagneri, Annette Potvin, U.S. Forest Service, Redwood Sciences, Laboratory, Laurel Rezeau, Susan Rowinski and John Epperson, Santa Clara Valley Audubon Society, Barbara Sickinger, Kendric and Marion Smith, Jan Smith, Larry Spivak, Lynn Strandberg, Susan Stratton, Susan Teefy, Catherine Trejo, Ruth Troetschler, Marilyn Walthers, Trevlyn and Jumbo Williams

And thank you to the 16 people who gave up to \$40 each.

STILT SOCIETY

Jacqueline Deely, Janet and Jay Hanson, Jan Hintermeister, Sheri Howe, Jennifer Rycenga, Jane Such

BOARD OF DIRECTORS

Troy Rahmig *Chair*
Shannon McMahon *Secretary*
Anne Hepburn *Treasurer*
Brian Fulfroost
Tom Stewart
Jill Bluso Demers

EXECUTIVE DIRECTOR

Jill Bluso Demers, MS

WATERBIRD PROGRAM DIRECTOR

Caitlin Robinson-Nilsen, MS

SENIOR ECOLOGIST

David Thomson, MS

BIOLOGISTS

Alvaro Jaramillo, MS; Josh Scullen;
Karine Tokatlian; Laura Hollander

ECOLOGIST

Aidona Kakouros, MS

INTERNS

Ryan Bourbour; Breanna Martinico

OUTREACH COORDINATOR

Allison Nelson

ACCOUNTANT

Gail Richardson, MS

ADMINISTRATIVE ASSISTANT

Kathi Kendrick

MEMBERSHIP MANAGER

Sandy Moore (volunteer)

The San Francisco Bay Bird Observatory is a 501(c)(3) nonprofit corporation dedicated to the conservation of birds and their habitats through science and outreach.

BAY BIRD REVIEW is published quarterly by the San Francisco Bay Bird Observatory. Deadline for submissions is five weeks prior to the start of the quarter. Contact the editor at outreach@sfbbo.org for submission guidelines. Please send address changes to the office.

San Francisco Bay Bird Observatory
524 Valley Way
Milpitas, CA 95035

t 408.946.6548
f 408.946.9279
www.sfbbo.org

sfbbo@sfbbo.org

© 2012 San Francisco Bay Bird Observatory

Contact SFBBO to republish or reference content.

Printed on recycled paper.

Layout by e.g. communications.



SAN FRANCISCO BAY
BIRD OBSERVATORY

524 Valley Way
Milpitas, CA 95035

www.sfbbo.org

SCIENCE REPORT *from cover*

the eggs, chicks and the adults incubating the nests. During the non-breeding seasons from 2008 to 2010, SFBBO, with help from the CCC and our volunteers, spread oyster shells over 15 one-hectare size plots. Drakes Bay Family Farm donated tons of shells to the project and we spread them at roughly 5–8 shells per meter squared.

The shell plots were available for nesting Snowy Plovers in 2009. In that first year, we observed higher nesting density inside the shell plots than we observed in the rest of Eden Landing. Nests were also more likely to hatch if they were in shell plots than non-shell areas. We were hopeful that the shell habitat enhancements would continue to increase the nest density and nest success over the coming years. However, the second and third years of the study, results were mixed. While plovers continued to nest in higher densities within the shell plots than in non-shell areas, the nests within the shell plots were no more likely to hatch than the nests outside the shell plots.

Since 2008, we have banded a small number of plover chicks in order to determine fledging success in the Bay, including a portion of the chicks that hatched from nests in oyster shell plots.

We found that chicks that hatched from nests in oyster shell plots were no more likely to fledge than chicks that hatched from nests in non-shell areas. Snowy Plover chicks are precocial, meaning they are mobile within hours of hatching and soon leave the nest to forage. We observed that chicks hatched in oyster shell plots often left those same plots in order to forage in other areas; therefore, the shells did not provide them camouflage once they moved out of the area.

Although the oyster shell habitat enhancement project had mixed results, we believe that oyster shells may provide some benefit to plovers if spread in different areas or configurations. Our recommendations are that future oyster shell enhancements cover a larger area of the pond with shells, or that shells are placed in irregular patterns, unlike the square plots we used for the habitat enhancement project. This may make it more difficult for aerial predators to cue in on nests and chicks, thereby minimizing chance of predation.

In addition to spreading the shells, we used remote cameras to detect the predators depredate Snowy Plover nests and chicks over the past three breeding seasons. The most common predator, recorded depredate nests all three years of the study, was the Cali-



PHOTO BY VIVEK KHANZODE

A SNOWY PLOVER CHICK seeks refuge near an oyster shell.

fornia Gull. We also recorded Common Ravens, Northern Harriers, Red-tailed Hawks, a Grey Fox and a Ruddy Turnstone depredate nests. Our results illustrate the variety of predators that depredate plover nests and the large number of threats they face nesting in the salt ponds.

We are currently in the thick of the 2012 breeding season and continue to monitor plover use of shell plots. As the South Bay Salt Pond Restoration Project moves forward, we continue to work with land managers to develop methods to increase Snowy Plover populations, nest success, and chick fledging rates in the Bay.

See our Calendar on page 6 for lots of great birding activities!