



Spring 2013  
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## Amigos de Bolsa Chica Docent Class of 2013

By Jennifer Robins

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Six new people completed the Amigos de Bolsa Chica Docent Class which was held for six weeks beginning January 10, 2013. The History and Restoration sessions were taught by Dr. Dave Carlberg, the Biology session was taught by Dr. Vic Leipzig, the Birds and Endangered Species sessions were taught by Barbara Sentovich and the Native American session was taught by Dr. Lou Murray. The docents enjoyed learning about all these topics so much they were sorry when the class ended. But at the same time they are anxious to get out to the wetlands and start teaching what they've learned to visitors of the wetlands.

Several experienced docents came back for refresher sessions and shared their experiences with the new docents. Included in the class was a Perimeter Tour led by Vic and a Bird Tour led by Barbara Sentovich. At the conclusion of the class a Presenters Appreciation Pot-Luck dinner took place at the Dave and Margaret Carlberg home with all presenters, 5 of the new docents and those who assisted with the class in attendance. Everyone got a chance to get to know one another better and continued sharing ideas for being a docent.

The 6 new docents are Cynthia Chavez, Angelique Crest, Carolyn Devine, Judy Huck, Melanie Launius and Deborah Talbot. Facilitators for the class were Jennifer Robins and Patti Cacho-Negrete with assistance from Margaret Carlberg, Jerry Donohue, Jim Robins, Mick Siroy and Donna Starr.



*Docent Class 2013, from left: Deborah Talbot, Carolyn Devine, Angelique Crest, Melanie Launius and Cynthia Chavez. Photo by Dave Carlberg.*

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Craig Frampton	
Ross Griswold	Office Coordinator:
Jim Katapodis	Laura Holdenwhite

## New Nest Site Fence: Docents Get a Tour, Not Give a Tour

By Donna Starr

Kelly O'Reilly, biologist for California Department of Fish and Wildlife, gave a group of docents from the Amigos de Bolsa Chica and Bolsa Chica Conservancy an "insider look" at the BCER. For two mornings Kelly and Ross Griswold led caravans of excited docents over acres of the Bolsa Chica that we have never been privy to. There was a lot to see but the proudest moment for me was inspecting the brand new beautiful green fence protecting Nest Site 3.

Thanks to the Griswold Foundation for awarding a grant to both the Amigos de Bolsa Chica and to the Bolsa Chica Conservancy to erect a fence that protects the nesting endangered California Least Terns and the threatened Western Snowy Plovers from predation by coyotes. Last year the Least Tern chicks at the BCER were decimated by coyotes.

Another surprise was learning that the Bolsa Chica Land Trust installed a solar powered "critter cam" behind the fence. We'll be able to watch the "wild life" of tern and plovers from beginning of mating season to the conclusion of nesting season. Move over Kardashians!

It was a beautiful morning and so rewarding to see the care and attention the nesting sites receive from Fish and Wildlife staff and from Ross Griswold and Peter Knapp. Seeing for ourselves the seasonal ponds at work and inspecting a beautiful new fence that will be the deterrent to coyotes (who got fat in the past from the Least Tern nests) was nothing but joyous!

Thanks again Kelly! And thanks again Ross!



*Kelly O'Reilly explaining how they cover the snowy plovers nests with wired cages to protect them from predators.  
Photo by Donna Starr.*



*Solar panel that powers the "critter cam."  
Photo by Donna Starr.*



*Fence under construction.  
Photo by Ross Griswold.*

## EONS (Eyes On Nest Site)

By Jennifer Robins

The Bolsa Chica Conservancy's Eyes On Nest Site (EONS) is now in its fourth year. EONS is a program developed to monitor the threatened Western Snowy Plover and the endangered California Least Tern on the Bolsa Chica Ecological Reserve. Volunteers monitor the activity on Nest Site 1 between 7am and 5pm, 7 days a week in 2 hour shifts. Nest Site 1 is located at the end of the walkbridge from the south parking lot. Monitors record general observations of the number of visitors walking by, predators seen in the area and other animals seen. The most important activity to record is what behavior is seen of the Western Snowy Plover and the California Least Tern adult birds, eggs and chicks. Nest Site 1 is divided up by markers which make a grid of the area. That way the activity can be recorded by grid id. Four Amigos docents are part of the volunteers active with the program: Mick Siroy, Ross Griswold, Patti Cacho-Nagrete and Jennifer Robins. It is a little quiet right now but as the weeks go by the birds will begin mating and making nests. The anticipation is high for a good "ternout" (pun intended).

## Amigos Spring Booth Events

By Jennifer Robins

The month of April will be filled with Booth Events around the area where Amigos members will be volunteering to talk to visitors about the importance of wetlands and in particular the Bolsa Chica Wetlands. The volunteers will also encourage adults and children to pick the best beak using the Birds and Beaks educational activity. This activity draws a lot of people because of the hands-on involvement.

The first event will be the **Bolsa Chica Ecological Reserve Earth Day** which will take place in the North Parking Lot of the reserve on Warner Ave on April 13th from 10am to 3pm. There will be activities to count the birds, touch a live snake, test the wetlands water, habitat restoration, while learning about the wetlands history and the Native Americans. Amigos will have an information booth, history display, Birds and Beaks activity and binoculars to count birds throughout the day.

The second event will be Bolsa Chica State Beach's **Caring for our Community Earth Day** on April 21st from 10am to 2pm. The day will include activities such as, beach clean-up, water quality testing, planting

of dune stabilizing plants, tile painting, local artist showcase and more. Amigos will have several booths to advertise our organization, allow visitors to play the Birds and Beaks activity and explore the world under a microscope.

The third event will be at **Shipley Nature Center** helping to celebrate their **Annual Spring Festival** on April 27th from 10am to 2pm. Their interactive family activities will include a butterfly house, crafts, face painting, nature walk and a Maypole dance. We will be among other nature groups with displays, including H.B. Tree Society, Orange County Coastkeepers and Sea and Sage Audubon Society.

The last event in April will be the **2nd Annual BDR Fun Run** at Bolsa Chica State Beach on April 28th from 11am to 1pm. The Brian D. Robertson Foundation supports youth and environmental organizations and causes that were most important to Brian Robertson. Amigos will participate again this year by helping with the setup and the running of the race. We will also have our regular information table and Birds and Beaks activity. If you are interested in running in the fun run go to [www.active.com](http://www.active.com) or [www.bdrfunrun.com](http://www.bdrfunrun.com) to register.

If you are interested in participating at any of these booth events, contact Jennifer Robins at [jjrobins@dslextreme.com](mailto:jjrobins@dslextreme.com) or 714 894-8381.

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## Save the Date: June 30, 2013 Amigos Brunch

The date for the 2013 Amigos Bolsa Brunch is June 30 and it will be held once again at the Seaclyff Country Club in Huntington Beach. The theme for this year's Bolsa Brunch is "Sustainability". It is extremely important for all of us to make sure that we are able to sustain planet Earth's environment in all its glorious

diversity for future generations. The funds raised at the brunch will allow the Amigos to continue their work in many different areas including education, training of docents, monitoring the biological and managerial health of the wetland, maintaining close relationships with State and Federal agencies and making sure that community volunteers are available for the many projects in the wetland. Without these efforts that Amigos have participated in for nearly 40 years, a marina would now be sustained where wetlands once thrived. Look for future Current Tide emails for more details.



# Trash Talk

By Dave Carlberg

Those of you who have visited the Bolsa Chica Wetland a day or two after a significant rain are no doubt appalled at the amount of trash that accumulates behind the floating boom that stretches across the end of the Wintersburg Flood Control Channel (officially known as the East Garden Grove Wintersburg Flood Control Channel.). Were it not for the boom, that trash would have entered Outer Bolsa Bay and depending on the tide, would have either drifted into Inner Bolsa Bay or into Huntington Harbour and eventually out through Anaheim Bay to the Pacific Ocean. In either case, the impact of the trash on fish and other wildlife would be devastating, not to mention its visual pollution. Small items such as cigarette butts and bits of Styrofoam are frequently mistaken for food by birds and aquatic animals. When swallowed, these indigestible materials can block the intestinal track, leading to eventual death. Sea turtles often mistake small plastic bags for jellyfish, a common food item, resulting in intestinal blockage and certain death. Animals get tangled up in larger pieces of trash, such as plastic grocery bags (see photo) and may be strangled or drowned. If the trash washes up on our beaches, it produces an unsightly scene that repels beach visitors who go elsewhere to spend their vacation dollars. Animal fecal matter that has washed off the land often accompanies the trash, creating health risks for swimmers and surfers, which is why health officials recommend waiting at least 72 hours after a heavy rain before entering the water.

The Wintersburg Flood Control Channel originates near Disneyland and collects runoff from a 27 square mile watershed. Considering the area that the channel drains, it's surprising there isn't more trash caught in the boom. We can thank Federal water quality standards that have imposed regulations on municipalities whose runoff eventually reaches the ocean. Through a combination of street sweeping and the use of a variety of trash traps in storm drains, a lot of trash is captured before it enters the flood control channel. This costs cities significant amounts of money. For Huntington Beach, for example, based on data from other west coast cities of equal size, the cost of preventing trash from getting into its storm drains is estimated to be around \$2.5 million per year.



*Trash collected behind boom in Wintersburg Flood Control Channel.*



*Baby otter trapped in grocery bag eventually freed by mother otter.*

*Photo from <http://saveourshores.org/what-we-do/banning-plastic-bags/php> by Terry McCormac.*

Where does the trash come from? We all know the answer all too well. Items such as, (in order of decreasing numbers) cigarette butts, plastic bags, Styrofoam cups and food containers, water bottles and anything else that lands on the ground and can float will eventually end up in a storm drain during the next heavy rain. Anti-littering laws abound and yet we still see cigarette butts all over our streets and sidewalks, beverage cups in the wetlands and grocery bags sailing across our highways. As one simple and direct approach to reducing the amount of trash in our environment, local governments and citizen volunteers have launched periodic cleanup operations. Dozens of volunteers from the Amigos de Bolsa Chica, the Bolsa Chica Land Trust and the Bolsa Chica Conservancy regularly hike around or row out into the wetland and pick up trash. The California Coastal Commission sponsors annual Coastal Cleanup Days on which thousands of volunteers comb our beaches and wetlands for litter.

Legislative action directed toward the reduction of trash in the environment is becoming more and more common. In efforts to reduce environmental litter, ordinances to ban single use containers are becoming widespread across the state. According to the Sacramento Bee, over 60 cities and counties in California have either strictly regulated the use of plastic grocery bags or have banned them entirely. These include Los Angeles, Santa Monica and Pasadena. As of this writing, Huntington Beach and Sacramento are presently considering banning them. State Senator Alex Padilla has introduced SB 405, which would prohibit retail stores from using single-use plastic carry out

– Continued from page 4

bags throughout California. Assemblymen Ben Hueso and Mark Stone have introduced AB 521, which will encourage more recycling of those items that contribute to environmental pollution. If fully implemented, the plan would reduce marine plastic litter by 75 percent. Styrofoam containers also have been specifically targeted in anti-litter legislation. At least 65 cities in California have banned Styrofoam containers, as has the Los Angeles Unified School District in its schools.

For the first time in history, governments are beginning to get serious about the impact litter has on our environment. If these actions continue, there may be a day when we will no longer need trash booms in our flood control channels.

## Harmful Algae and the Food Web

By Joana Tavares-Reager

Every year, Care Centers such as the Wetlands and Wildlife Care Center in Huntington Beach and the Pacific Marine Mammal Center in Laguna Beach rescue and treat hundreds of marine animals in Orange County. Sea lions, seals and sea birds are usually brought to their facilities to recover from malnutrition, dehydration or wounds and after a few weeks of successful recuperation, these animals are returned to the wild. Unfortunately, from time to time, experienced workers from these Care Centers will rescue marine animals that they know have little chance of survival. They know that because they can read the symptoms displayed by the wildlife: erratic behavior, head weaving, bobbing, bulging eyes, mucus from the mouth, disorientation and seizures are all signs that the animal is suffering the typical damages caused by a toxin called Domoic Acid (DA). In Southern California, this toxin is typically produced by a certain group of microscopic algae, planktonic diatoms of the genus *Pseudo-nitzschia*.

Like DDT, mercury and other heavy metals, Domoic Acid bio accumulates in the food web. The microalga that produces the DA gets ingested by primary consumers, such as shellfish, anchovies and sardines. These plankton eaters will suffer no ill effects from the toxin, but the higher predators that eat them such as marine birds, marine mammals and even humans will experience an array of neurological problems, brain damage and in severe cases, death. Thanks to increased efforts to monitor aquaculture facilities, human fatalities due to Domoic Acid intoxication are rare. The last recorded case happened in 1987 when over 143 people became ill and four died after consuming DA-contaminated mussels harvested from cultivation beds on the eastern coast of Prince Edward Island, Canada. The marine animals that feed in the wild, however, are continuously harmed and killed.

Blooms of harmful phytoplankton, sometimes referred to as red tides, are natural phenomena. Oral traditions indicate that various Native American tribes that inhabited coastal areas were aware of the connection between shellfish toxicity and seasonal changes in the color of the water, and some scientists believe that the First Plague of Egypt- the one that says that the Nile waters were turned into blood, the fish were killed, the river stunk and people could not drink of the water-is actually the earliest written account of a red tide. However, harmful algal blooms seem to be increasing in frequency and toxicity worldwide. The reasons for this intensification are not clear yet, but plausible theories take into consideration a number of factors that have undeniably changed in recent centuries, such as increased nutrient enrichment of coastal water due to runoff, the introduction of non-native species through ships' ballast water and climate change. Winds, currents and regional physical features may also play a role in the formation and development of algal blooms, by concentrating their population in a certain area, thus the importance of comprehensive monitoring programs that can lead to a better understanding of all the variables that play a role in the formation of algal blooms in a specific coastal area.

In Orange County, domoic acid claims the lives of dozens of marine mammals and sea birds every year, when large blooms of *Pseudo-nitzschia* happen, usually in the spring, when conditions are most favorable for phytoplankton growth. Unfortunately, by the time marine animals are displaying symptoms of Domoic acid intoxication, little can be done to save them. There are no known antidotes for Domoic Acid and treatment typically consists of flushing the animal's digestive tract by injecting electrolyte solutions containing vitamin B-12. Some mammals are also given medication to control seizures, but their survival rate is approximately 30%. Meanwhile, what we can do is to continue our efforts to study and monitor plankton species in coastal areas. Through monitoring activities we hope to add to the understanding of these fascinating, but potentially harmful microscopic creatures.

# Oil and the Future Full Tidal Area (President's Tern)

By Tom Livengood

In the book, *Bolsa Chica: Its History From Prehistoric Times To The Present*, author David M Carlberg provides details of the impact of oil drilling in the Bolsa Chica wetland. In 1940 Standard Oil dropped their drilling lease on the mesa with the Gun Club. They determined moving oil operations to the Bolsa Chica Wetland would not be profitable. Instead, in June 1940, Signal Oil and Gas Company signed a lease that ended up totaling 1,000 wetland acres. Since 1940, besides Signal, five oil companies have operated in Bolsa Chica. The oil operation was acquired in 2012 by Occidental Petroleum (Oxy).

Over the years the Bolsa Chica oil field has proven to be one of the richest in the state. For 30 years the oil operations prevented most of Bolsa Chica from becoming over-run by urbanization that had surrounded it on three sides. But the oil operations also had a downside that nearly destroyed the wetlands. The maintenance roads that crisscrossed the wetlands obliterated much of the wetland features. Making matters worse, the Gun Club had blocked tidal flow into the wetland in 1899.

Major restoration of the wetlands started in 2003 with the removal of five hundred power poles, 64 oil wells and accompanying structures in the area that was to become the full tidal basin. This restoration project was completed in 2006 with the reconnection of Bolsa Chica to the ocean.

There still is a large oil operation at Bolsa Chica. Much of it is in the area for the second restoration phase of the Bolsa Chica wetlands known as the Future Full Tidal Basin. In 1990 the projection for the oil operations to close down was twenty years. With the current oil operations we still could be looking at a minimum of twenty more years of oil production. That would be the year 2033.

The Amigos have been active since 1976 to save the Bolsa Chica. Now add another twenty years, or more, to restore phase two of the Bolsa Chica reserve. That's almost two generations. If there are any volunteers under the age of fifty who are willing to carry on the support of completion of the Bolsa Chica restoration, please contact the Amigos at 714-840-1575

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## Rare Bird Sighting at Bolsa Chica

By Vic Leipzig

Once again, a very rare bird has visited Bolsa Chica, this time a Glaucous Gull. This is the largest species of gull on the west coast of North America. "Glaucous" means pale, and this species really is. In particular, a young bird is essentially all white and can be a startling thing to see, standing in the middle of a flock of our usual species, all of which are smaller and darker.

Tom Benson, a local bird expert, spotted a first-winter Glaucous Gull on the edge of Bolsa Chica's full tidal basin on Saturday, February 23. It seems the bird stuck around for only a single day and was not seen again.

Glaucous Gulls breed on the arctic tundra during the brief northern summer. In winter they migrate down to warmer areas, but usually only get as far south as British Columbia. Few ever visit southern California. Records indicate that this species has been seen at Bolsa Chica

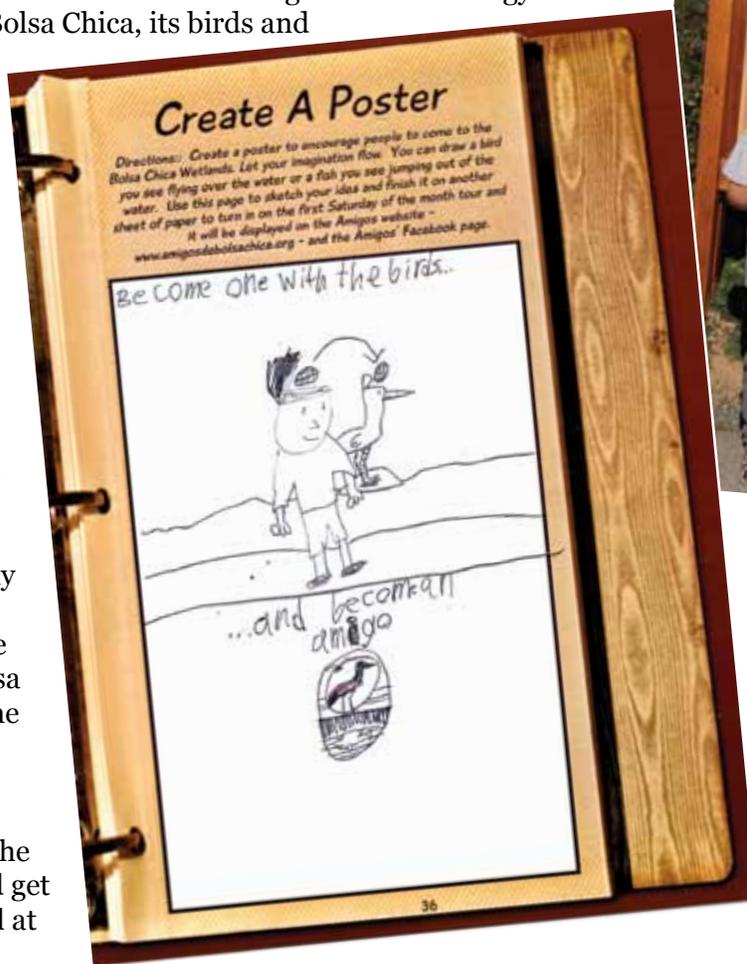


only once before in the past decade. Our ecological reserve was established to benefit wildlife species that are permanent residents or regular visitors, but it's nice to know that the success of the reserve attracts unusual visitor species from all over the continent!

## Coastal Wetlander Program

By Jennifer Robins

The Amigos de Bolsa Chica created the Coastal Wetlander Activity Book and started distributing to youth and adults a little over a year ago. This activity book allows the reader to have fun while learning about the ecology of wetlands, the history of the Bolsa Chica, its birds and endangered species. After reading about a topic there is one or more activities to complete. One of the activities is to create a poster about the Bolsa Chica Wetlands. Here is the poster from a Cub Scout, Ben Steinhart, who along with 4 others in his pack completed the booklet and each received a beautiful Coastal Wetlander patch. To get your book come to the free First Saturday Public Tour or the free Last Saturday Bird Talk and Nature Walk. Both tours start at 9am at the South Parking Lot of the Bolsa Chica Ecological Reserve. The booklets are also available at the Bolsa Chica State Beach Visitor's Center. It's fun for kids and adults to complete the booklet, learn something and get a Coastal Wetlander patch all at the same time!



On the left is Ben Steinhart (10) and on the right is Josh Steinhart (8). They are 2 of the members of Webelos Pack 631 in Irvine who have successfully completed the Amigos de Bolsa Chica Coastal Wetlander Activity Book and have proudly earned their Patches. Photo by Patti Cacho-Negretti.

Poster to encourage people to come to Bolsa Chica created by Ben Steinhart.

## New Interpretive Signs for Bolsa Chica

By Dave Carlberg

Many visitors to the Bolsa Chica Wetland probably are unaware of its rich natural and human history. That will change over the coming years as new informational signs are installed along the wetland's trails and on its overlooks. A committee of representatives from the three Bolsa Chica organizations, the Amigos de Bolsa Chica, the Bolsa Chica Conservancy and the Bolsa Chica Land Trust along with members of the California Department of Fish and Wildlife, has been meeting for more than two years designing a series of over 20 interpretive signs that will be dispersed throughout the wetland. They will cover such themes as the area's human history, diversity of habitats and wildlife, restoration and the importance of coastal wetlands.

Designing the signs is proving to be a long and demanding process, for the signs must be accurate, concise, eye-catching and easily read by visitors of all ages. In addition, the visual impact of the signs must blend in with the surroundings and not detract from the natural beauty of the wetland. One feature of the signs will be their height. They will be waist-high so as not to block any views, in contrast to the large interpretive structures that are presently at the two reserve parking lots. Those are destined for demolition in the near future. While installation of the first signs will occur within the next few months, due to the time it takes to design and manufacture the new signs, it will be several years before all of the signs are installed.



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### AMIGOS DE BOLSA CHICA MEMBERSHIP APPLICATION

I support the specific and primary purpose of Amigos de Bolsa Chica, which is to advocate the preservation, restoration and maintenance of the Bolsa Chica, to encourage the public acquisition of all the wetlands and sufficient surrounding open space to create a viable ecosystem, and to provide education about the importance of wetlands.

ANNUAL DUES	Name: _____
\$ 10 Student	Address: _____
\$ 25 Individual	City: _____ State: _____ Zip: _____
\$ 40 Family	Email: _____
\$100 Sustaining	Phone: _____
\$1000 Life Member	

Additional Contribution:

\$ \_\_\_\_\_ Fund operational expenses    \$ \_\_\_\_\_ Fund education projects    \$ \_\_\_\_\_ Total enclosed

Please check if you are interested in volunteering for:

Education outreach \_\_\_ Grantwriting \_\_\_ Social media \_\_\_ Wetlands cleanup \_\_\_ Leading tours \_\_\_ Fundraising \_\_\_

*All contributions to Amigos de Bolsa Chica are tax-deductible as allowed by law under IRS Code Section 501(c)3.  
No goods or services were provided in consideration of this gift.*

*Return application to: Amigos de Bolsa Chica, P.O. Box 1563, Huntington Beach, CA 92647*