

Amigos de
Bolsa Chica

The Tern Tide
Since 1976

Photo by Ross Griswold



Summer 2015
Volume 39 Issue 2

Volunteer Appreciation Picnic

By Jennifer Robins

**First Saturday
of the Month Tour:**

**Free tours on the
first Saturday of
each month from
9:00 a.m. to 10:30 a.m.**

**Last Saturday
of the Month Tour:**

**FREE bird talk and
nature walk at the
Bolsa Chica
Ecological Reserve.
Led by Amigos docents.
9:00 am.**

**Carpooling is encouraged as
parking at the Bolsa Chica
Ecological Reserve is limited.**



On Sunday, May 31, Amigos de Bolsa Chica rewarded its volunteers with a picnic at Bolsa Chica State Beach. Forty Amigos enjoyed the fabulous food and each other's company under cloudy but calm skies, visited with old friends and met the new volunteers who have joined in the last year or two. David Lloyd prepared the hot dogs which were ladled with chili, grilled peppers and onions and served with his homemade potato salad and coleslaw. Jim Robins helped at the grill while guests munched on potato chips, tortilla chips and an assortment of dips. The yummy desserts were provided by board members Vic Leipzig, Shirley Dettloff, Charles Falzon, Jerry Donohue, Rachael Lloyd, Jennifer and Jim Robins. In anticipation of Amigos de Bolsa Chica's 40th Anniversary in 2016, Joana Tavares-Reager interviewed several volunteers for



Amigos enjoyed great food and each other's company at the Volunteer Appreciation Picnic. Photos by Thomas Anderson.

Amigos' new YouTube channel. Joana was assisted by her husband, JT, and Angelique Crest. Amigos themed raffle prizes were won by Mary Ellen Houseal, Maria Buhbe and Barbara Felburg-Jackson. Many thanks go to all of Amigos' amazing volunteers, from the founding members to those who joined this year, for all the service you have given to make Bolsa Chica the spectacular place that it is!

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Amigos de Bolsa Chica
P. O. Box 1563
Huntington Beach, CA 92647
(714) 840-1575 (Phone/Fax)
www.amigosdebolsachica.org
info@amigosdebolsachica.org
Editor: Tom Anderson
Graphic Designer: Radi Ali

President: Jerry Donohue
Secretary: Shirley Dettloff
Treasurer: Brian Westcott

Directors:

Thomas Anderson	Rachael Lloyd
Charles Falzon	Barry Nerhus
Craig Frampton	Mel Nutter
Judith Huck	Jim Robins
Terry Jorris	
Jim Katapodis	Office Coordinator:
Vic Leipzig	Jennifer Robins
Tom Livengood	

Looks Ain't Everything – Invasive Non-Native Plants at Bolsa Chica

By Rachael Lloyd

Crystalline ice plant (*Mesembryanthemum crystallinum*) is a beautiful plant named for the tiny glistening water bladders that densely coat its stems and leaves. Seen up close the plant reflects light like tiny crystal beads. The fleshy leaves are green to yellow green and turn a rosy red as the plant matures. At this point some of the stem ends form red bulbs that burst into spiky white blooms. Yet underneath the beauty of this amazing plant lurk some adaptations that make Crystalline ice plant a persistent invasive species that can reach epic proportions and potentially displace large areas of the native Coastal Sage Scrub plant community. This is what has been happening in the Bolsa Chica area this spring. Even from far away drivers on Pacific Coast Highway can recognize the level of infestation Crystalline ice plant has achieved this spring by the reddish vegetation coating the bluffs of the lower mesa in the Bolsa Chica Ecological Reserve.

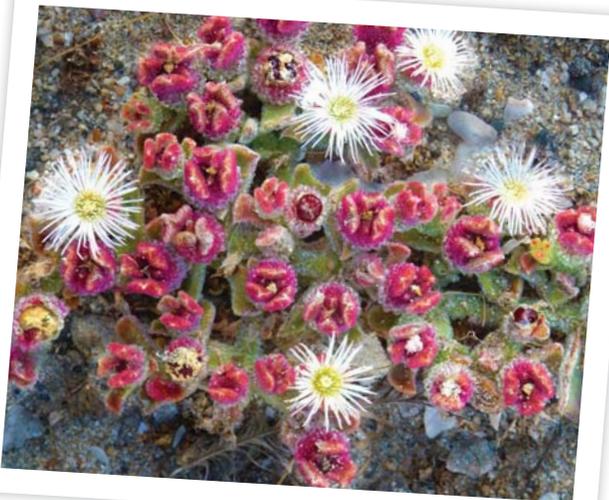
Crystalline ice plant is a halophyte that can absorb and excrete salt. When it occurs in sand dune areas it keeps company with several other species that do the same. When it occurs at higher elevations in the Coastal Sage Scrub plant community successive generations of die-off in the same area can accumulate salt in the soil at levels the Coastal Sage Scrub plants cannot tolerate. In addition Crystalline ice plant is able to use 2 forms of photosynthesis, switching between them as conditions favor one over the other. In these ways it out-competes native species.



Crystalline ice plant (Mesembryanthemum crystallinum). Photos by Rachael Lloyd.

It is important to point out that Crystalline ice plant is not the “Freeway ice plant” most of us are familiar with. Freeway ice plant, also known as Hottentot fig (*Carpobrotus edulis*) is the ice plant many of us know for having been planted by CalTrans along newly created highways in the 1950’s and 60’s. While this species of ice plant is problematic and still exists in the reserve, especially on Rabbit Island, it is not currently posing the problem that Crystalline ice plant is. Some of you may remember that Dr. Lou Murray and her California Conservation Corp hand pulled large amounts of Freeway ice plant along the sand dunes beside Pacific Coast Highway. Thanks to her efforts these areas remain relatively free of this foreign species.

The Department of Fish and Wildlife land managers are working on a solution to this problem over at the reserve. Meanwhile volunteers have been putting in extra time to pull Crystalline ice plant from the native plant garden surrounding the headquarters building at Bolsa Chica State Beach. Due to the prevalence of invasive species in the Bolsa Chica area we are a long way from achieving the ecological balance needed to provide the proper environment for nature to flourish. The overgrowth of Crystalline ice plant serves as a reminder that the wetland property may have been secured, but the job of saving the environment presents an on-going challenge for all of us.



Thank You Amigos Volunteers

By Jennifer Robins

Amigos de Bolsa Chica's strength comes from its many volunteers. Some of those volunteers are docents who teach students, scouts and the general public about the importance of wetlands and especially the Bolsa Chica Ecological Reserve. The numbers for the September 2014 through June 2015 school year are 34 private wetlands tours and 12 FLOW classes, 2,780 visitors, of those, 1,996 were students and scouts. There were 32 public tours and booth events with 230 visitors on tours and countless numbers talked to at the booth events.

Amigos volunteers spent over 1,000 hours of their time giving tours and participating at booth events at the Dana Point Ocean Awareness Day, Huntington Beach's Green Expo, California Coastal Cleanup, Los Angeles Environmental Education Day, BDR Fun Run, Shipley Open House, Earth Day at the Bolsa Chica State Beach and Earth Day at Bolsa Chica Ecological Reserve. They also volunteered as

Citizen Scientists in the FLOW (Follow and Learn about the Ocean and the Wetlands) Program, teaching secondary and college students about the importance of the connection between the ocean and the wetlands by taking part in wetlands and ocean water scientific analysis.

The following were volunteers during this past school year: David Beeninga, Terri Bidle, Nancy Boyd-Batstone, Maria Buhbe, Patti Cacho-Negrete, Belen Cairo, David Casey, Angelique Crest, Nancy Curtis, Ron Davis, Jerry Donohue, Lori Donohue, Chuck Drescher, Barbara Felberg-Jackson, Merilee Hall, Terry Hall, Susan Hargrave, Terry Hill, Krystle Hosokawa, Felix Hubert, Judy Huck, Bob Johnson, Terry Jorris, Rachael Lloyd, Sandy Mattson, Karen McReynolds, Betty Murphy, Jamie Pavlat, Dennis Pope, Jennifer Robins, Jim Robins, Barbara Stewart, Julia Tafel, Joana Tavares-Reager, Al Vari, Allan Virula, Elissa Warantz, Brian Westcott, Ed Zschoche.

Amigos Join YouTube!

By Jessica Gonzales

In an effort to connect with many of our visitors long after they've left the Bolsa Chica Ecological Reserve, the Amigos are proud to introduce our new YouTube channel: <https://www.youtube.com/channel/UCbc4QTzK8klGevTIymAxEnA>. Here, we have begun to create content that will give a voice to this beautiful and preserved area, and the organization of dedicated volunteers that saved it from development. Our videos will feature scenes of biodiversity thriving at the wetlands, volunteer appreciation clips, event highlights and more! So please visit our channel to see more of the Amigos, and click Subscribe to receive updates about the work we are doing.



FLOW Goes to State Parks Advocacy Day

By Jerry Donohue

On May 5, I was privileged to attend State Park Advocacy Day in Sacramento. In the morning, I set up 3 tables with our FLOW activities for a lunch expo event, along with twenty other State Parks Cooperating Associations and environmental organizations. Microscopes and chemicals for water quality testing were front and center along with our new 6' x 3' FLOW banner with eye-catching photos and text. For over 2 hours many state workers and students, on a state capitol field trip, stopped by to investigate. Our State Senator, John Moorlach, stopped by to commend Amigos on our efforts over the years.



Jerry Donohue demonstrates FLOW on the State Capitol steps. Photo by California State Parks.

In the afternoon I joined a group of four State Parks supporters as we visited local legislators and made them aware of bills and programs that would aid residents. These included:

- AB 988 - Bringing at-risk youth to the outdoors and using science based skills to solve real world problems.
- SB 317 - Bond issue to address the deferred maintenance backlog that now exceeds one billion dollars.

- AB 327 - Allows the over 39,000 current state park volunteers to continue work under present rules.
- Parks Forward Commission – A new look at ways to staff parks and utilize resources to the greatest extent.

This was an exciting day and I realized what a tremendous effort is required by legislators and staff to pass laws in a democracy.

FLOW Goes to Mendez Middle School

By Jerry Donohue

We have talked about the possibility of bringing Amigos into schools for years, and on Thursday, May 28, Jennifer and Jim Robins, Teri Bidle and Jerry Donohue took our FLOW (Follow and Learn about the Ocean and Wetlands) program to an Orange County Science STEM (Science, Technology, Engineering and Math) night at Mendez Middle School in Santa Ana. We loaded up the ten microscopes, four chemistry kits and other incidentals that make the program flow into the Amigos Moving Van (the Robins truck), for a night of science where students

interacted with their parents. Besides our normal FLOW set-up, Teri brought the Plankton Races game that she developed. Plankton Races deal with objects' density in water, and it has proven to be a real winner. Though the numbers were less than anticipated, our Amigos still took this as an opportunity to field test transporting and setting up equipment in a school environment. So future FLOW may become a two way street where not only can a group come to visit FLOW, but FLOW can come to visit you.

Segerstrom High School Students to Work with Amigos

By Jerry Donohue

This winter Amigos will team with ten Segerstrom High School juniors and their AP Environmental Science teacher, Thomas Pfeiffer, as they perform 40 hours of environmental work at Bolsa Chica State Beach. Operating under the Kenneth A. Picerne Foundation, a Global Sustainability Project will tie work efforts accomplished at Bolsa Chica with “ecological sustainability among Africa’s wildlife, particularly hyenas and other scavengers.” Students

will spend 12 days at South Africa’s Mankwe Wildlife Reserve, much in the manner of an Earthwatch expedition. We are still working on the program for Bolsa Chica, but it will include elements of FLOW and work in the Visitor Center gardens, under the watchful eye of Rachael Lloyd. This work will be performed from January through June of 2016. We look forward to working with these fine students and their outstanding teacher.

FLOW Citizen Scientist Training Day Great Success

By Terri Bidle

On April 17, we introduced the FLOW program (Follow and Learn about the Ocean and Wetlands) to eight new participants, with an additional three people joining us in the following weeks. With the help of Joana Tavares-Reager, the creator of the program, and Tom Anderson, we created informative brochures for each of the participants with a complementary bird identification card. The Amigos dedicated core of Citizen Scientists (Jerry Donohue, Jennifer Robins, Jim Robins, Judy Huck, and Terry Jorris) went over the details of the program, demonstrated the plankton towing and identification through the microscopes, the water quality chemical analysis, and led a tour through the wetlands. Allan Virula, our newest Amigos docent, and one of the longest participants in FLOW, spoke to the group about his experiences with the program and his passion for environmental conservation.

One of our newest Citizen Scientists, Victoria, is a marine biologist and zoologist who recently moved to this area and was excited to see the diversity of plankton from both the tidal inlet and wetlands samplings. Additionally, we are delighted to have a professor, Mary, from the Coast Community College District join us too. She teaches biology, loves plankton, and has keen insight into our sampling techniques.



*New volunteers participate in FLOW Training.
Photo by Thomas Anderson.*

Thomas Pfeifer, a science teacher at Segerstrom High School in Santa Ana, had the following to say about the program: “Loved the FLOW class. I teach Marine Biology/Environmental Field Studies. I teach a unit on plankton as part of the course and the FLOW program is a practical application of the unit I teach to my 11th/12th grade students. Science instructors struggle teaching chemistry in the classroom setting and the water quality analysis that the FLOW program utilizes is another great way to show the practical application of chemical principles in action. Love what you guys do at Amigos de Bolsa Chica. Keep up the great work you do everyday to help preserve the Bolsa Chica Wetlands!”

Citizen science plays a crucial role with the local community assisting officials who monitor environmental conditions. We collect samples every Friday, meeting at the Bolsa Chica State Beach Visitor Center, to send to the California Department of Public Health as part of the Phytoplankton Monitoring Program. It is a very exciting activity and we invite you to join us! Additional information can be found on our website: <http://www.amigosdebolsachica.org/flow.html> Or you can email us at flow@amigosdebolsachica.org. We look forward to seeing you on Friday!

Amigos de Bolsa Chica's 40 Years of Commitment and Success, a Historical Series

Part 2, The Beginning of the Miracle

By Shirley Dettloff

The next chapters in the history of the Bolsa Chica will take us from the Spanish influenced periods up to a very dramatic change in its already dramatic history. The Mission System was well established when the King of Spain knew he needed a more secure foundation if California was to remain under Spain's control. He knew that a permanent presence was needed and so he awarded large tracts of land to those soldiers he felt were loyal to the crown. These were known as Spanish Land Grants which stretched from the Santa Ana River over to the San Gabriel River, and from the ocean to the foothills. The Bolsa Chica was included in one of these large land grants. Through a petition, Corporal Manuel Nieto was granted 300,000 acres and given permission to raise cattle and horses. Upon his death in 1804 his lands were passed on to his children.

Other major events were also taking place which would eventually have a major impact upon Bolsa Chica. In 1821 Mexico declared its independence from a weakened Spain and California was under the jurisdiction of Mexico. After a 3 year war with Mexico, California became the United States' 31st state in 1850. During this time, more and more Americans were visiting California with the intent of acquiring land. The mission system and its power were in decline; much of its vast land holdings had been sold. With more and more money needed to run their large ranchos, the Nieto children also began selling off some of their lands.

Abel Stearns was an American who, through many enterprises in the Los Angeles area, became very wealthy. One of his early jobs was that of a land surveyor. He prepared maps of the lands owned by the Nieto family. Some of his dealings were considered on the "shady" side of legal, but due to his political influence he usually was able to have most of the charges against him dismissed. His dream was to own large tracts of land, and one of his first purchases was 28,000 acres called Rancho Los Alamitos. Eventually he owned properties from San Diego to San Francisco. By 1862 he owned over

200,000 acres of land including the land that was part of the Manuel Nieto land grant. Eventually Stearns suffered financial difficulties and his land became a part of the Robinson Trust. The Trust began selling off small parcels for farms. You can imagine how someone living in the eastern U.S., having to walk through several feet of snow to get to their barn felt when they saw an ad which promised sunshine year around which gave them a year around growing season! Much of the Stearn's land was sold by the Trust, but one tract, the Bolsa Chica, did not sell because it was a coastal marsh unsuitable for farming.

However, the Bolsa Chica land became attractive for a reason not dreamed of by the real estate developers: a location for a Gun Club. Having lost their lease on a property in the Newport Beach region, a group of wealthy Los Angeles County men were looking for a suitable location for indulging in their favorite sport, hunting. Bolsa Chica was a perfect location. Bolsa Chica has long been an important place in the Pacific Flyway, the route taken by migratory birds, thus providing thousands of migratory and resident birds for hunting. They formed the Bolsa Land Company in 1899 and purchased 1160 acres for \$25,000. A luxury clubhouse was built on the property which existed until the late 1960's. Club membership was limited to the wealthy, and these men had influential friends who came as guests of the members. Among these notable guests was the future King Edward the VIII (England), the future King Gustav of Sweden, and the future Pope Pius XII. Teddy Roosevelt, Herbert Hoover and George Patton were also guests at the club.

The club and its activities certainly had not been good for either the birds or the environment! One of the things that the club did was to build a dam across a narrow part of Bolsa Bay. It was built to prevent tidal flow from entering the hunting preserve at high tide. The prevention of seawater from entering the wetlands made an enormous change in the (See *History*, page 7)

(History, from page 6) dynamics of the wetland, good for hunting, but not good for the wetlands.

By 1910 Huntington Beach was just beginning its relationship to the Bolsa Chica. As time passed this relationship would become increasingly more important when something quite unexpected happened. Early residents of Huntington Beach began finding gas in their water. Oil companies became interested in exploring the possibility of oil beneath the land. In 1920 one of these exploratory wells struck oil, and a cry of “thar she blows!” was heard in the land. Oil drilling began to take place throughout the city. By 1940, the Bolsa Chica became one of the largest oil fields in California. Up until now oil operations were taking place on the mesa, but the Gun Club, wanting to preserve their hunting grounds, would not sell drilling rights to the

lowlands. But with financial problems facing many of their members, they agreed to allow oil operations in the lowlands for royalties of 36%. The discovery of oil at Bolsa Chica was both good and bad. Good because it prevented development of the area, and bad because it was destructive to the wetlands. You can see a commemorative plaque recognizing the first oil well in a park in the Seacliff home area (on Golden West Street just before you reach Yorktown).

The story of the miracle of how the Bolsa Chica was saved and how an oil field was restored to a productive wetland will be our story next time. For an in-depth and comprehensive story of the Bolsa Chica please purchase the book written by David Carlberg, *Bolsa Chica, Its History from Prehistoric Times to the Present*. It can be purchased through www.amigosdebolsachica.org/join.htm.

Summer Activities at the Beach

By Jerry Donohue

Summer is almost here and we again turn our attention to Bolsa Chica State Beach. Since we became a member of the State Parks Cooperating Association in March of 2014, we have had numerous opportunities to educate the public about two precious natural resources that are separated by Pacific Coast Highway. As summer approaches, our school groups that were doing wetlands tours and FLOW (Follow and Learn about the Ocean and Wetlands) activities take a respite and our educational focus is aimed at the beach.

We have two programs that enrich both children and adults during the summer. First up is our Junior Ranger program. This activity takes place most Fridays from June 26 – August 21 from 10:00-11:00 a.m. We work with children ages 5-15, many of whom are staying in the RV campground. We teach a modified FLOW program, exploring phytoplankton with a microscope and testing water quality with simple test kits. We get students with a wide variety of abilities and interests. Sometimes, we even drag in parents as well! Our second program revolves around

an evening presentation in the RV campground. Here we show pictures of birds that inhabit Bolsa Chica Ecological Reserve, followed by an interactive game called “Birds and Beaks.” This program runs on Wednesday evenings from 7:00 – 7:45 p.m., on July 1, 15, 29 and August 12. If you would like to help with either of these programs, don’t hesitate to email Jerry at gdonohue@socal.rr.com.

Two new Amigos endeavors will also be scheduled this summer. Thursday, August 20 is Movie Night at Bolsa Chica State Beach, and the Amigos are planning this event and work concessions. On some summer Saturdays, our State Beach garden guru, Rachael Lloyd, will be working around the Visitor Center to maintain the plants through these dry summer months.

These are some of the many ways you can help the Amigos this summer at the beach. We’d like to invite you to join us as we work on the west side of PCH this summer.



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 info@amigosdebolsachica.org
 (714) 840-1575 (Phone/Fax)

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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

- \$ 10 Student
- \$ 25 Individual
- \$ 40 Family
- \$100 Sustaining
- \$1000 Life Member

Name: _____

Address: _____

City: _____ State: ____ Zip: _____

Email: _____

Phone: _____

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