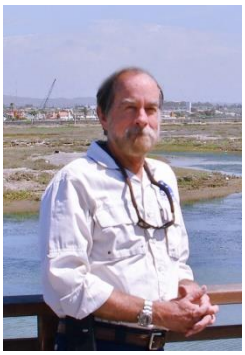
The Pickleweed

The Newsletter of the Huntington Beach Wetlands Conservancy

Summer 2016

A MESSAGE FROM OUR CHAIRPERSON

by *Dr. Gordon Smith*



Readers of past issues of *The Pickleweed* will have discerned a certain tone of frustration in my column regarding some ongoing issues facing the Conservancy. For several of these issues, not much has changed. Our acquisition from Caltrans of the 44-acre Newland Marsh is still pending; the wheels of the state bureaucracy turn slowly. We are still grappling with the potential impacts of the impending demolition and reconstruction of the AES power plant and the use of the adjacent oil storage tank farm site.

On the positive side, we have a terrific new website thanks to the creative efforts of Faatimah, our new Web designer. Check it out at hbwetlands.org! We finally have trash booms in place in the flood channels that empty into our wetlands. Our native plant nursery is back in operation with help from the Huntington Beach Tree Society and our hard working volunteers. Lastly, we have impressive new interpretive signs in place on our trail along Magnolia Marsh and on our observation deck.

Looking ahead, the coming months will see the ramping up of our school and community outreach activities, and of our docent-training program to expand the hours our interpretive center is open. We will also be working with our coastal engineering consultants on a creative and interesting strategy to address an erosion problem in Talbert Marsh—watch for details in our next *Pickleweed*.

Conservancy Accepts Conservation Easement

At the behest of the Coastal Commission, the Conservancy has accepted and recorded a conservation easement on 6.3 acres in San Joaquin freshwater marsh next to the UCI campus. The easement resulted from a mitigation requirement for a development project by Hoag Hospital in Newport Beach. The Conservancy's responsibility under the easement terms is to ensure that no development or similar degradation occurs on the acreage, part of the University's reserve system.

The Conservancy has a history in the San Joaquin Marsh. In 1999 the organization successfully managed a $1.9 million restoration project in the marsh. The project encompassed the easement acreage.

Establishing an Endangered Plant at Magnolia Marsh

by *Eric Zahn, Principal Restoration Ecologist, Tidal Influence*

Just like our human communities, California native plant communities are strongest when all members are present and involved. This is even truer for the southern coastal salt marsh plant community since it has so few members who are specialized to live in a unique and harsh environment. Given the history of degradation to coastal wetlands, it is no surprise that some of the flora and fauna that contribute to these ecosystems have become rare and in some instances have been listed as endangered species. One of those endangered species is salt marsh bird's-beak or *Chloropyron maritimum* ssp. *maritimum*. This plant was listed as endangered under the Federal Endangered Species Act in 1978 and the State Endangered Species Act in 1979 when it was believed to only exist in 3 locations. Since then it has been determined to exist at 7 locations that include the Tijuana Estuary, San Diego Bay, Upper Newport Bay, Mugu Lagoon, Carpinteria Marsh and Morro Bay.

In November 2015 an project was initiated through a partnership between the Huntington Beach Wetlands Conservancy, the US Fish and Wildlife Service, and Tidal Influence, a local ecological consulting firm, to establish an 8th population at Magnolia Marsh. Seeds were collected at Upper Newport Bay by Rancho Santa Ana Botanic Garden staff who have the proper permits to collect specimen of this endangered plant. The seeds were tested for viability and stored at the Botanic Garden's facilities until the outplanting was performed. The gently sloping northern edge of Magnolia Marsh is an excellent location to establish this population since it was just restored in 2010 and the salt marsh plant community is still in the process of becoming fully established.

Salt marsh bird's-beak is a special member of its community since it is considered to be a facultative hemi-parasite. This means that the plant can survive on its own, but is most successful when it acts as a root-parasite on other salt marsh plant species. The valuable contributions of parasites to their ecological community are often misunderstood. Many parasites help increase bio-diversity by working to control populations of the most dominant members of a community. As is the case for all parasites, bird's-beak's distribution is limited by the distribution of its hosts. Therefore, as salt marsh acreages have been reduced dramatically in the past century, *Chloropyron's* delicate existence has been heavily impacted. This is especially true since this plant lives in the upper marsh where human disturbances are the most frequent and most intense.

The first 1,400 *Chloropyron* seeds were introduced to Magnolia Marsh on November 6th, 2015 with the remaining 1,400 being sown on March 14th, 2016. Bird's-beak commonly does not germinate until March and April, however, the November outplanting was done in hopes of exposing the seeds to the heavy El Nino rains that were predicted. The seeds were sown in 12 different experimental clusters throughout the marsh. The clusters were placed a various elevations and the patches within the clusters received different treatments upon planting. Ecologists from Tidal Influence have been regularly surveyed the outplanting clusters and thus far no germination has been observed. Unfortunately this year's winter was not as rainy as what was being predicted and the soils in the upper marsh zone remained hyper-saline most of the year.

Successfully establishing a population of a rare plant with a complex life-history can take some time and we aim to make some adjustments next winter and spring to promote germination. Funding for this project through USFWS lasts through September 2017 and we hope that the partnership developed to initiate this project can continue to build upon our initial work so that we can continue our work to make the salt marsh plant communities at the Huntington Beach Wetlands as strong as possible.

Upcoming Events

Coastal Cleanup

The Huntington Beach Wetlands Conservancy will again take part in the California Coastal Cleanup Day. Please join us to help remove a summer's worth of trash and debris from our wetlands.

Day: September 17, 2016

Time: 9:00 am – noon

Location 1: Back parking lot of the Wetlands & Wildlife Care Center (corner of Newland and PCH)

Location 2: Talbert Marsh off Brookhurst Street

Bring sturdy shoes, gloves and sun protection. We have a limited supply of rubber boots to loan for working in wet areas, along with trash bags and pickers. For more information, email us at mail@hbwetlands.org.

Native Milkweed in Our Nursery

by *Megan Fitzgerald*

Like many relationships in the natural world, the fate of the milkweed plant and certain insects are closely linked. The recent decline of the monarch butterfly (*Danaus plexippus*) has led to conservation efforts partially aimed at identifying plant species that would help support monarch populations traveling from Canada to Central America. Here in southern California we have many native milkweed species that monarchs feed on but one in particular, the Narrow-leaf milkweed (*Asclepias fascicularis*), has been identified as a safe, preferred food source for the migrating butterflies.

Narrow Leaf Milkweed, leaves and flowers. Photos by Brian Thorson

Monarchs butterflies are entirely dependent on milkweed plants throughout their life cycle. Adult butterflies feed on the nectar of the flowers. They will then lay their eggs on the underside of the leaves. Soon the caterpillars will emerge (hungry) and eat the plants' leaves and stem until they mature enough to change into the pupa stage, which is when they form a chrysalis or cocoon. Out of the chrysalis, the butterfly (adult) emerges.

The genus of the milkweed, *Asclepias*, was selected to reference the Greek god for healing. Many of these plants are toxic or at the very least are unpleasant enough to promote vomiting. In many cultures these plants are used as natural remedies. Monarchs become toxic to their predators because they are able to take up harmful chemicals from the milkweed plant into their own body tissues. Cool huh?!

Narrow-leaf milkweed, is commonly found in sunny open areas and grows in soils that range from moist to dry. Narrow-leaf thrives in many different habitats ranging from coastal and inland grasslands to more elevated chaparral environments. It is a drought tolerant plant and therefore a great addition to any of our local gardens. As a drought-tolerant native, planting the Narrow-leaf milkweed allows us to assist in conserving the monarch butterfly using a responsible, sustainable plant.

While each of the native species are beautiful in their own right the non-native Blood-flower milkweed, *Asclepias curassavica*, has been selected by many gardeners for their attractive flowers. This species, native to Central America, can now be commonly found in southern California and are also quite attractive to monarchs. Unfortunately, Blood-flower has the potential to disrupt monarch behavior as they remain green much longer than the native milkweed species. This may seem to be beneficial but it can delay their instinct to continue moving which may disrupt their migration patterns.

Volunteers of the Huntington Beach Tree Society have dedicated their time and energy to support local conservation efforts particularly with the planting of native trees in and around Huntington Beach. Recently they addressed their interest in using our plant nursery to grow native milkweed, including Narrow-leaf. This will aid in the conservation efforts of monarchs as well.

Consider planting the native Narrow-leaf milkweed (*Asclepias fascicularis*) in your garden this year. Help us conserve the monarch butterfly with native, sustainable milkweed species!

The Perils of Plastic

By *Gordon Smith*

Visitors to our Interpretive Center will see a particularly disturbing image in our panel titled "The Perils of plastic." The image depicts the remains of a seabird; a close look will reveal many items of brightly colored plastic. That unfortunate bird mistook the plastic bits for food, a problem all to common, especially in the Pacific Ocean. Visitors will also notice a bin full of plastic debris that was collected from our Magnolia Marsh over a period of a few months (including the head with hair from a manikin!)

Apart from the visually disgusting amount of plastic that courses into our marshes from miles inland and blows across the highway from the beach, the magnitude of plastic's impact in our oceans is huge. Recent studies have shown that roughly eight million tons of plastic wash into the ocean every year from land-based sources such as urban flood control channels. All this stuff persists in the marine environment indefinitely, and is mistaken for food by creatures ranging from zooplankton to whales.

The Conservancy works to gather up plastic debris before it enters the ocean from our marshes, but it's an ongoing challenge. Plastic bags are particularly troublesome, as they begin to break into smaller pieces if not retrieved promptly (the Conservancy has supported initiatives to ban plastic bags). Hundreds of these bags blow into our marshes each year.

All of us can help address the plastic waste crisis by properly disposing of items and participating in municipal recycling programs. We of course welcome volunteers when we conduct our periodic marsh cleanups.

Flood Channel Trash Booms in Place

The most significant sources of trash and debris in our three marshes are the two flood control channels that extend miles inland and that gather and wash in all manner of junk (see photo in article on plastics). In

addition to plastic debris, each year volunteers gather up hundreds of tennis balls, discarded wood from construction projects, and odd items that always surprise us. To stem the flow of all this into our wetlands and beyond to the ocean, Orange County Flood Control District has recently installed floating booms in the Huntington and Talbert channels. The booms are designed to trap most of the floating junk and gather it off to the side for removal by County workers. We are pleased to see these booms in place, and look forward to our next rainy season to gauge their effectiveness.

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The Huntington Beach Wetlands Conservancy

A Nonprofit Corporation

21900 Pacific Coast Highway
Huntington Beach, CA 92646

Mailing Address:
PO Box 5903
Huntington Beach, CA 92615

Phone: 714-536-0141

Email: mail@hbwetlands.org

Website: www.hbwetlands.org

WE CAN ONLY RESTORE AND MAINTAIN THESE VITAL WETLANDS WITH YOUR CONTINUING SUPPORT

Please join our contributors with your personal donation to wetlands restoration and maintenance activities.
With your annual tax deductible contribution, you will receive our newsletters, invitations to special events and our thanks for your help with this exceptionally worthy cause.

□ This is a new contribution.
□ This is a renewal of my annual contribution.
□ Great Egret ($10)
□ Belding's Savannah Sparrow ($25)
□ California Halibut ($50)
□ Least Tern ($100)
□ Brown Pelican ($250)
□ Other Amount ($_____)

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My interests include:

□ Docent training □ Docent walks □ Wetlands restoration
□ Native plant propagation □ Newsletter articles □ Wildlife monitoring
□ Interpretive center staffing □ Other _____