

CHANNEL ISLANDS RESTORATION

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WETLAND RESTORATION AT POINT MUGU NAVAL AIR STATION

As we reported in our November newsletter, CIR began working with the U.S. Navy and Tetra Tech, Inc. to restore a portion of the Mugu Lagoon. In the time since then, we have installed over 5,000 native plants, all of which were grown in our native plant nursery in Camarillo. The most common plants we installed were Parish's glasswort (*Arthrocnemum subterminale*) and marsh jaumea (*Jaumea carnosa*), though arguably one of the most important plants was *Eriogonum parvifolium* or 'seaside buckwheat,' the host for the rare and endangered El Segundo blue butterfly, which can be found on the Point Mugu base. This little butterfly spends its entire life cycle around this particular buckwheat. Overall, the plants we have installed are helping to reestablish a very threatened wetland habitat, which gives home to many rare and common species of plants, animals, and insects. ...continued on page 3



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CIR TO REMOVE TAMARISK IN THE SAN RAFAEL WILDERNESS

The National Fish and Wildlife Foundation (NFWF), in partnership with the US Forest Service, has awarded CIR a large grant to eradicate nonnative tamarisk trees that are invading the Sisquoc River, Manzanita Creek, and their associated tributaries.

In the wake of the Zaca fire, invasive plants have established a foothold in this remote area of wilderness – most concerning among them tamarisk (also known as salt cedar). Tamarisk, a deciduous shrub or small tree native to Eurasia, thrives in streambeds with often little to no water by use of its deep and extensive root system that it uses to draw up groundwater. Not only does their thick root system crowd out the roots of other native plants, but it consumes huge amounts of water turning streams to bone dry washes. Tamarisk readily regenerates from remnant roots after the rest of the tree is scoured away from a flash flood. A single tree can produce as many as 500,000 seeds in a single growing season. Suffice to say, tamarisk poses a very serious threat to any ecosystems it invades. ...continued on page 3



The Sisquoc River flowing through the San Rafael Wilderness in the backcountry of the Los Padres National Forest (Photo courtesy of Chris M Morris).

CIR HOSTS THE BACKYARD COLLECTIVE AT THE SAN MARCOS FOOTHILLS PRESERVE

On April 15th, local members of the Conservation Alliance – All Good, Clif Bar, Deckers, Patagonia, REI, Toad&Co – helped CIR at the San Marcos Foothills Preserve. With more than 100 volunteers in attendance, it took less than a few hours to remove 10,000 square feet of invasives such as black mustard, cheese weed, and fennel and replace them with 362 native plants – some of which were supplied by SB Natives purchased with funding from Santa Barbara County – and some of which were proudly grown by volunteers in our own Camarillo nursery. The Backyard Collective has volunteered with CIR every other year for the past 6 years (on off years they volunteer their time in Ventura with our friends, the Ventura Hillside Conservancy).

Their work in the San Marcos Foothills, along with each and every one of our volunteers that have dedicated their time in the area, has made a profound impact on this hidden tract of open space in the foothills of the Santa Ynez Mountains. Since 2010, CIR has partnered with several non-profit organizations, businesses and County Parks to restore portions of the Preserve. Our restoration sites along Cieneguitas and Atascadero Creeks have been spectacular successes. In a time of drought when the hills are sunbaked golden and the annual invasives have died off, the perennial native plants we put in the ground have remained green and steadfast. These native plants continue to provide critical habitat to the native species of 130 birds, 49 mammals, 20 reptiles, six amphibians, and countless invertebrates. The sites attract butterflies that feed on nectar from the flowers, and they attract birds that collect seeds and insects from the plants. The success of the restoration sites is due to our dedicated staff and the help of more than 1,500 people who have volunteered with CIR at the San Marcos Foothills since we began our work.



Point Mugu Restoration, continued from page 1...

Many thanks to the hundreds of volunteers that dedicated their time to make this happen!

Additionally, a huge thank you to all of the volunteers that gave their time to the Camarillo Nursery! Plants raised in the nursery have not only been used in the restoration of the Mugu Lagoon, but also the San Marcos Foothills Preserve and the Burton Mesa Ecological Reserve.

*San Rafael Restoration, continued from page 1...*

The remote backcountry streams of the Los Padres National Forest give refuge to a large number of rare and endemic species. Among these are the arroyo toad, California red-legged frog, and steelhead trout, all of which are federally listed as threatened or endangered. By eradicating tamarisk trees, our project will provide an opportunity for native plants to reestablish themselves, thereby restoring this critically important habitat.

We are honored to be awarded this grant that allows us to undertake this project and we are humbled at the scope of what will be necessary to complete this project. In total, we will remove tamarisk within 61 miles of backcountry streams. Because there is no motorized access to most of the project area, all personnel and supplies will be packed in on foot and a mule pack train. Tamarisk trees will be removed in a way that does not impact the sensitive riparian habitat that they have invaded.



The Manzana Creek in the San Rafael Wilderness provides critical habitat to steelhead trout, arroyo toads, and California red-legged frogs (photo courtesy of Chris M Morris).

ANACAPA SEABIRD HABITAT RESTORATION UNDERWAY



Channel Islands Restoration, in a continuation of our restoration efforts on East Anacapa Island, is in the process of growing 2,500 plants to be installed in the coming fall. While we are growing many of the same plants grown in the past, this project differs in that we are now working in cooperation with multiple agencies. CIR has joined up with the National Park Service and the California Institute of Environmental Studies (CIES) to create and expand seabird habitat. With these joint forces, new plants will be on a drip system (which improves survival rates by over 50% or more). This new partnership is very exciting, and it will create a lasting impact that visitors will notice in the years to come.



The plants are being grown in our NPS/CIR constructed and maintained shade house and plant nursery stationed on the island which was made possible by a grant from Patagonia and NOAA B-WET and was built in collaboration with the National Park Service. The plants will be installed by CIES and volunteers, who are using funds from the Montrose Settlements Restoration Program to improve seabird habitat. CIR will be funding educational work trips for high school students to assist in habitat restoration as well.



MARCH MEMBER GATHERING

This March, CIR hosted its annual membership gathering at Goleta Beach Park. This membership gathering was one of our most well attended, with more than 50 members present to enjoy the soft drinks and spirits, the barbequed chicken and veggies, and the good company of other CIR members. We were honored to recognize John Reyes as the



Member of the Year for his incredible dedication to volunteering and his help in building our three new plant nurseries this year – located in East Anacapa Island, San Nicolas Island, and Camarillo. In addition to the good company at the park, members were treated to an exclusive natural history tour, with CIR Senior Ecologist Elihu Gevirtz leading a short walking tour of the Goleta Slough and Dr. Tanya Atwater giving a talk about the geology of the local area and the Monterey Shale that it sits atop. Our Member Gatherings are free to all who join CIR at a minimum of \$35 in a year, in addition to many other benefits. To learn more about our CIR donor benefits and to become a member or renew an existing one, please visit cirweb.org/donate/ and thank you in advance!



CIR GROWING MORE THAN 11,000 PLANTS ON SAN NICOLAS ISLAND

In the past few months, CIR volunteers have been hard at work on San Nicolas Island. After removing patches of invasive ice plant, the volunteers installed and have been maintaining native plants to stabilize sand dunes on San Nicolas Island with resounding success. Plants were grown in our San Nicolas Island Nursery built last year. We also have been working to restore upland habitat for the threatened island night lizard and are currently in the process of growing additional plants for this project in our San Nicolas Island plant nursery that we will install in the coming months.

We are incredibly proud of the plants that we have been able to produce from the nursery, especially a newly discovered plant, just last year, *Lycium brevipes* 'desert box thorn'. It was thought that this particular species was long extinct on San Nicolas Island. We were able to collect cuttings last fall from a population on 10 plants. These cuttings were propagated and planted in the landscape around the nursery. The plants were placed on a drip system. This planting has been so successful that we have been able to collect more cuttings from these plants and start an additional 400 new little clones. These new plants will be planted out this coming fall/winter creating more habitat for island critters such as the endemic night lizard.

Besides box thorn we are growing cactus, buckwheat, mule fat, morning glory and a whole palate of native bunch grasses. We are very glad we are afforded the opportunity to be part of the habitat restoration for San Nicolas.

Recently we have improved the nursery with fantastic flood tables, capable of propagating plants with high water demands – like those near marshes or in riparian habitat – with very little water waste. Each table has its own dedicated waterline and can be manually watered or set on a timer. This is all possible because of great, dedicated volunteers.

Trips to San Nicolas Island fill incredibly quickly and spots are coveted. Because of the demanding and high priority nature of our work with the US Navy on San Nicolas Island, CIR mostly seeks volunteers that we have worked with in the past on this or other projects, so that we can work with teams of known quality during our short trips to the island.



NATURAL HISTORY TRIPS WITH CHANNEL ISLANDS RESTORATION



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This year’s spring and summer natural history trips were truly exceptional. Our Death Valley trip took place right at the height of the super-bloom and the once bare and desolate floor of the valley was carpeted with desert gold and interspersed with dozens of other native desert wildflowers. This past El Niño brought torrential amounts of water to many parts of California that desperately needed it (while also inexplicably missing others) and over the course of the winter Death Valley received a full 2.7 inches of rain. This amount may seem insignificant, but the Valley normally receives no more than 2 inches of rain in an entire year. This small, yet concentrated amount of rain, was enough to germinate millions of dormant desert wildflower seeds that all shot up to form a massive super-bloom – the likes of which the valley has not seen since 2005.

While the super bloom was spectacular and novel, it was unable to dwarf Death Valley’s usual splendor of barren rocks, braided badlands, and the bed of a long-dead lake – the story of which Dr. Tanya Atwater unfolded over the course of the trip. Meanwhile, Steve Junak told stories of present day life in Death Valley and how the native plants and wildlife are able to carve out a niche in one of the harshest and most desolate regions of the world.

A few months later during the hot summer months, we ventured high into the White Mountains to walk in the cool mountain air among the oldest trees in the world. At first glance, the high peaks of the White Mountains reveal little more than ancient trees among the barren rock, but the land came alive through interpretation from Tanya Atwater, Steve Junak, and Santiago Escruceria. Concentrated beauty could be found all around in the low-lying flowers that lay hidden within the rocky crevices which gave shelter to the biting wind. This tiny and hidden beauty lay in contrast to their home atop the massive mountains that were left from the collision of two massive continental plates.

Trips to these unique and spectacular locations happen every year, so be on the lookout for our natural history trips to Death Valley and the White Mountains. Both trips sold out every year over the past six years, so act quickly to make sure you don’t miss out! In addition to these, this year we will be hosting two more natural history trips this spring: one along the Central Coast and another on a luxurious train ride between Santa Barbara and SLO.

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The Central Coast trip will focus on the area surrounding the San Andreas Fault. It will form a loop that begins at Morro Bay, and from there we'll travel north to the volcanic formations at Pinnacles National Park, then west to Hollister, south through the coast of Big Sur, and we will end with a tour of the Piedras Blancas lighthouse.

And finally, we'd like to welcome all aboard on an amazing excursion led by the extraordinary geologist Tanya Atwater, and Steve Junak, botanist, storyteller, and CIR Board Member. This exciting trip will offer rare glimpses of some of the last original native coastal landscapes in Southern California. Beginning at the Santa Barbara train depot, you will ride in style aboard a beautifully restored Vista Dome Lounge-Dining Car built in 1956. You will be treated to a narrated scenic journey along a spectacular part of the coast, and through several ranchos that cannot be seen from Highway 101. We will travel through Gaviota, the Hollister Ranch, the Cojo Ranch (including Point Conception), Vandenberg Air Force Base (including the Sudden Ranch), and the Guadalupe / Oceano Dunes region. Learn about the area's rich human and natural history before stopping in San Luis Obispo. Enjoy a catered buffet lunch on board, including beer, wine and soft drinks. Passengers are free to change levels and sides in the car for a new and different view on the way back. This is a fantastic opportunity to see parts of the coast by rail that are otherwise inaccessible.



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01. Desert gold (*Geraea canescens*) on an alluvial fan in Death Valley National Park
02. Sierra View on White Mountain Road
03. Tanya Atwater explains the complex folds in the walls of Devil's Gate
04. Notch-leaf Phacelia (*Phacelia crenulata*) in Death Valley National Park
05. White Mountain Peak
06. Raspberrry buckwheat (*Eriogonum gracilipes*) growing in the White Mountains
07. Exploring an ancient sea floor composed of pillow basalts exposed at Avila Beach
08. Bristlecone pines (*Pinus longaeva*) in the White Mountains
09. Piedras Blancas Lighthouse; seaside woolly sunflower (*Eriophyllum staechadifolium*)
10. Volcanic spires at Pinnacles National Park
11. Elephant seals at the Piedras Blancas State Marine Preserve



Join Channel Islands Restoration!

~BECOME A MEMBER TODAY~

YOU will receive the satisfaction of doing your part to help restore native habitat on the mainland and on CALIFORNIA'S CHANNEL ISLANDS!

	Annual Memberships		Valuable Benefits
	Island Scrub Jay (Member)	\$35 per Year	Individual Invitation to Spring Membership Pot-Luck & CIR Walking Tour with Natural History Experts. 15% Discount on CIR Merchandise. CIR e-Newsletter and CIR Decal.
	Silver Lotus (Contributor)	\$75 per Year	All Island Scrub Jay benefits plus a Channel Islands Flora & Fauna Laminated Field Guide. \$15 Discount on one Select Natural History Tour of choice.
	Goldenbush (Supporter)	\$100 per Year	All Silver Lotus benefits plus an invitation for two to the Annual CIR Social. Personalized CIR Name Badge. Your choice of a CIR Embroidered Cap or a 100% Organic Cotton T-shirt.
	Island Ironwood (Patron)	\$500 per year	All Goldenbush benefits plus two spaces on an invitation-only CIR Special Natural History Day-Trip.
	Island Fox (Benefactor)	\$1,000+ per Year	All Island Ironwood benefits plus an invitation for two to a VIP Banquet with special guests. A Complimentary Space on your choice of a Select CIR Natural History Trip.

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928 Carpinteria St., Suite #3, Santa Barbara, CA 93103