

COAL OIL POINT RESERVE

2020 Year in Review



***Featuring
COPR Staff
Updates...***

***Plus
Student Stories
at COPR...***

***The Latest
Research
on Plovers...***

A Message from the Reserve Director

by Dr. Cristina Sandoval

In a year like 2020, when all of our lives changed and many of us are stressed, an important lesson is apparent to us here at the reserve: none of the creatures scurrying and flitting about know what is going on in our human world. Our stressors of 2020 are man-made. This realization brings some hope. If we created it, we can fix it. It is with this hopeful approach we move on to 2021. In the last 20 years, we have made several positive incremental changes to the Coal Oil Point Reserve. Most notably, we have restored habitats that were damaged by previous ranching activities; brought back the Western Snowy Plover by managing beach recreation; re-introduced the California Quail which was extirpated, perhaps from hunting. And the biggest change we have made, and also most difficult to notice, was a change in people's perception of COPR. Twenty five years ago, almost no one knew that the reserve was a nature preserve. Other than birders, no one knew that the Snowy Plovers were a threatened bird that made COPR its home. Today, our local community and our UCSB community are aware of the importance of COPR as a place to protect and support a variety of rare habitats and species. People have changed their behaviors to make space for other species. We are so proud and thankful for this.

Days on the beach seem to be in balance, although the outside world feels far from even-keeled. The tiny Snowy Plover chicks run among the sand and kelp, a docent chats with a beach-goer, who then thanks the docent for pointing out the chick and moves closer to the ocean edge. This coexistence is possible and necessary for all of us. The Snowy Plovers need their beach or they will go extinct. But do we need the Snowy Plovers? I believe we do. When we are in nature, with nature, we are at our best. Watching and communing with the plants and animals here gives us a sense of belonging to something larger than our 2020 troubles. We feel that we are part of it all, this intricate web of ecology and belonging. Although our urban lives may distance ourselves from the complex beauty of the natural world, the moving dunes, the wild scrubland, and the treasure-filled coastal intertidal are here, for us, if we wish to visit and remind ourselves of the wild world outside we are fortunate to live in.



California Quail now thrive at COPR after being re-introduced in 2007.
Photo Credit: Brian Smith



The results of the restoration of California coastal scrub habitat at COPR.

Snowy Plover Update

by Jessica Nielsen



Plovers on their release day at Sands Beach. Photo Credit: Greg Trainor

While 2020 certainly had its obstacles, the reserve's Snowy Plovers and docents alike were up to the challenge. Our staff and docents adopted new protocols to stay safe in light of COVID-19 and had the rewarding task of running a full-on plover nursery!

This year, due to pandemic closures at Santa Barbara Zoo, COPR started a plover captive rearing program. The Snowy Plover docents went above and beyond by assisting with feeding the many chicks we raised over the season. We collected abandoned eggs from our site, as well as eggs and chicks from nesting sites at Oceano Dunes and Point Mugu. The eggs and chicks were rescued from the wild from situations that they would not have survived otherwise. For example, most of the collected eggs were buried by wind or washed out by tide. One orphaned chick at Oceano Dunes was collected after losing its parent to a Peregrine Falcon. The rescued chicks were raised in our nursery until they reached 1-2 weeks old, then were transferred to the aviary to have more space to spread their wings and practice flying.

Twelve chicks fledged in the captive rearing program and were released back into their natural habitat, joining an additional twenty three chicks that successfully fledged in the wild at Sands Beach this season.

These plover chicks overcame amazing obstacles to make it this far. This year, not only did plovers face the usual challenges of predation and inclement weather, but they also faced indirect impacts from the pandemic. There was a 6-week period when the docent program was suspended because of Covid-19 and this summer the beach was extra busy with beachgoers seeking fresh air and something to do.

This year, our plovers and docents demonstrated examples of strength and resilience that we can all take to heart.



Dedicated Snowy Plover Docent, Bill Boelcke, heads to his weekly shift.

**To Become Involved in This Project,
Contact Jessica Nielsen**
copr.conservation@nrs.ucsb.edu

Stewardship Update

by Kipp Callahan



UCSB students Conor McMahon and Maya Chen assist with restoration efforts at the reserve. Photo Credit: Kristen Klitgaard.

The stewardship program at COPR has had a successful year. We kicked things off this winter by planting over 1,600 native plants as part of our effort to restore Coastal Scrub communities on the reserve. It was a big team effort, and we were able to accomplish so much with the help of the Land Steward Assistant and student interns along with various volunteer groups from campus.

We hired a new Land Steward Assistant last winter, Maya Chen. Maya helped organize and spearhead all our planting activities and did a great job learning the ropes. Our land steward interns this winter were Angela Ma, Maritza Vasquez, Michael Recinos, and Kristen Klitgaard. They were all instrumental in our planting operations and were a lot of fun to work with. We also had help from several UCSB volunteer groups including the UCSB Wildlife Society, the plant club What's Growing On, and the

Environmental Affairs Board (EAB). I especially want to thank EAB as they came out several times to help with projects over the restoration season.

COVID-19 has presented us with many challenges this year. During the most restrictive parts of lock down we were unable to employ any students or have help from volunteers. We now have been able to bring back our long-time volunteer Rick Fellows and recently hired a new land steward assistant Angelica Horsman. As a result of low staffing levels, the spring was especially challenging. It is a time when we need to care for our recently propagated plants and when the invasive species start to flourish. This year we discovered several large infestations of cape ivy, an invasive vine the grows over native plants. Rick has been persistent in seeking and removing the cape ivy before it gets out of

Continued on next page

Continued from previous page

control. We also spent many hours removing the invasive fennel, a task that has taken years but we have made a steady progress.

This summer we introduced several new species to our restoration palette. These are species that we expect to have occurred on the reserve but were eradicated after past vegetation clearances. Three of these species are shrubs: golden yarrow (*Eriophyllum confertiflorum*), Sawtooth golden bush (*Hazardia squarrosa*), and deer weed (*Acmispon glaber*). We also began efforts to restore geophytes to the reserve. Geophytes are perennial plants that reproduce from underground organs such as bulbs or tubers. Because of this reproductive strategy they are especially vulnerable to soil disturbance from the historic agricultural use of the reserve. We were able to locally collect bulbs for a few species

including blue dicks (*Dichelostemma capitatum*), cluster lilies (*Brodiaea ssp.*), and common goldenstar (*Bloomeria crocea*). We are currently bulking up the number of bulbs before we plant them on the reserve.

Despite COVID-19 preventing us from hiring stewardship interns for field work this fall we were able to create remote opportunities for interns to work on digital projects. Maritza, Michael, and Rayna are developing a web-based botanical field guide for the reserve. Hanna, a BREN graduate student, is also developing an annotated species checklist for the reserve using data from museum specimens and citizen science observations.

**To Become Involved in This Project,
Contact Kipp Callahan**
copr.steward@nrs.ucsb.edu



Native plants are cared for in the shadehouse prior to being planted at habitat restoration sites at Coal Oil Point Reserve.

Rare Plant Highlight: Coastal Goosefoot (*Chenopodium littoreum*), a central coast endemic

by Kipp Callahan

Last year, we were able to confirm that we have a rare species of plant called coastal goosefoot growing in the back dunes at the reserve!

Coastal goosefoot, *Chenopodium littoreum*, is a small annual plant in the family Chenopodiaceae. This family, known as the Goosefoot family, also contains spinach and quinoa. Coastal goosefoot is a California endemic that only occurs on the central coast. It is listed as a 1B.2 plant in the California Native Plant Society Rare Plant inventory, meaning that it is rare, threatened, or endangered in California.



Chenopodium littoreum growing in the back dunes at COPR.
Photo Credit: Kipp Callahan

This perennial plant grows in sandy soils in back dune habitats. Until recently, all the known surviving populations occurred north of Point Conception primarily in back dune habitats. These habitats are primarily associated with the large dune complexes at Vandenberg Air Force Base and Oceano Dunes but there are also some areas where coastal goosefoot was found near the dunes around Morro Bay.

The exciting discovery of coastal goosefoot at Coal Oil Point Reserve extends the range for coastal goosefoot and reinforces the value of the reserve's efforts to restore and protect the dune habitats on the reserve. Coastal goosefoot joins the list of other rare dune species at the reserve, such as the Globose Dune Beetle, *Coelus globosus*, and *Lutica maculata*, a rare dune spider that builds web tubes in the sand.



Chenopodium littoreum range map courtesy of CalFlora.
<https://www.calflora.org/>

The Beautiful Experiences of Coal Oil Point Reserve

by Bill Crowe

As a volunteer for Point Blue Conservation Science, I've had the privilege of exploring Coal Oil Point Reserve for the past several years. My main objective is surveying the Snowy Plovers at Sands Beach. I survey COPR at least once a week in the nonbreeding season and more during the breeding season. I track the snowy plovers by observing the banded individuals that visit COPR. I use a camera with a large telephoto lens to get the band combos so I can see the bands without getting too close the birds and scaring them off.

There are several colors used to band the Snowy Plovers with one to four bands used. The colors are (a)qua, (b)lue, (g)reen, (l)ime, (o)range, (p)ink, (r)ed, (s)ilver, ta(n), (y)ellow, (v)iolet, (w)hite and blac(k). The letters above in parenthesis are the letters used to determining the band combo. For example, the combo an:rw has an aqua band over a tan band on the left leg and a red band over a white band on the right leg.

Researchers use unique band combos to identify the place and year each Snowy Plover is banded. I've seen Snowy Plovers at COPR from up and down the west coast.

I've seen Snowy Plovers at COPR from the state of Washington and Oregon. I've also seen birds from the Monterey, San Francisco Bay, and Humboldt areas. Last June there was a Snowy Plover that was banded in Baja CA Mexico visiting COPR.

I first came to COPR to see the Snowy Plovers, but I've seen so much more. Last year I saw an Arctic Tern. This year a Curlew Sandpiper stopped by before heading over to UCSB east beach. Last winter there were Black Legged Kittiwakes hanging out in the estuary.

These were my experiences at Sands Beach. I've been to COPR hundreds of times. The beautiful thing is that each time is a different experience.



Banded plover "pa:or" broods a chick on Sands Beach. This adult plover originally came from an egg rescued from high tide in 2019, raised at SB Zoo, and released back at COPR. Photo Credit: Bill Crowe



This visiting plover came to COPR all the way from Baja CA, Mexico. The plover was identified by his red flag band. Photo Credit: Cris Sandoval

Student Restoration Experience

by Maya Chen



Photo Credit: Kristen Klitgaard

I was first introduced to Coal Oil Point Reserve through the Snowy Plover Docent Program when I arrived at UCSB. After my first time at the reserve I was hooked! There seemed to be some kind of invisible gravity that pulled me to the sandy dunes, the sparkling slough, and the scrubby nature paths. Wanting to get more involved with the reserve's operations, I applied for the land steward assistant position. I was thrilled to be met with such a warm network of staff and students who worked me into the fold so quickly. Through this field work, I was able to exercise both my body and my mind as being able to haul buckets of mulch was deemed just as vital a skill as correctly identifying different

grass types. The mentorship and community the land steward assistant position has provided me helped nurture my professional development as well as giving me an opportunity to give attention to my physical and mental wellbeing.

The community at COPR is unmatched. A close knit, yet expansive network of professionals in partnership with students and community members gives each member a keen sense of belonging. In my position I was able to learn from and understand the skills, energy, and determination within the conservation community. Work days were always dependable sources for a bit of laughter, a lot of

Continued from previous page

sweat, and even more dirt. It gave me a chance to connect with equally impassioned peers in an outdoor setting. I was able to meet local community members I would have otherwise never met, whether they were in the Audubon Society or just a local nature enthusiast.

Working in the field helped give me context to things that only seemed to exist in books as well as enriching me with the kinds of experiences and skills a book could never teach. Identifying patterns in the field, observing longitudinal plant behavior, and using that knowledge in our actions and operations was the unique kind of professional experience only a position such as this could offer. It was refreshing to be able to take a step back from the books and the screens that student life is dominated by to breathe the salty air and ground myself in physical work. This was a holistic experience that helped me gain clarity on what professional environment I thrived in most. I loved working with my hands and feeling the mixture of tiredness and satisfaction from a good day's work.

Coal Oil Point Reserve will always stir up fond memories of Jerusalem crickets, frogs, snowy plovers, and skinks. As it is a refuge for all its flora and fauna, it is also a refuge for the community it neighbors. My position allowed me to experience COPR's magic and gives me great pride in the work that I do. I am so grateful that my work and my role will contribute to the experience of future students and visitors to come. For all that it provides and all that it stands for, Coal Oil Point Reserve will always stand as a beacon to this community.



Land Steward Assistant Maya Chen works alongside student interns to plant native species at the reserve. Photo Credit: Kristen Klitgaard

“

Working in the field helped give me context to things that only seemed to exist in books as well as enriching me with the kinds of experiences and skills a book could never teach.

”

Funding for UCSB student internships and assistantships provided by:



SUPPORT COAL OIL POINT RESERVE

We welcome you to consider supporting Coal Oil Point Reserve, and big thanks to those of you who have already made a gift this year!

Make a Gift Online

Make a secure gift online at our [online giving site](https://bit.ly/37Pu4Y8).
<https://bit.ly/37Pu4Y8>

Make a Gift by Check

Make a check out to *UC Regents* and mail to:
Natural Reserve System
Attn: Sarah Sikich
4219 Cheadle
Santa Barbara, CA 93106-2013

