

UC Santa Barbara

Newsletters

Title

NCOS News - May 2018

Permalink

<https://escholarship.org/uc/item/49f8455s>

Authors

Clark, Ryan
Stratton, Lisa

Publication Date

2018-05-01

UC SANTA BARBARA

North Campus Open Space Restoration Project

NCOS NEWS

May 2018



A pair of snowy plovers may have just made NCOS their home - read more below. Photo courtesy of Mark Bright.

UPDATES

If we restore it, will they come?

The answer, for one important species, is YES! Just this past weekend, a pair of Western Snowy Plovers, a federally threatened species, were observed mating on NCOS. This rare and exciting event was serendipitously caught on camera by local birder and photographer Mark Bright. Additional great photos of the plovers are included at the end of the newsletter.



A Western Snowy Plover pair mating on NCOS, captured on photo thanks to Mark Bright.

More Wildlife News

There are at least 6 pair of killdeer on site with eggs or newly hatched chicks running around. White faced Ibis and Green Heron are using the new and preserved wetlands, and hungry hawks are taking advantage of the shorebirds.



A Killdeer nest on NCOS.



©David Levasheff

White-faced Ibis in flight at NCOS. Photo courtesy of David Levasheff.



Cooper's Hawk bathing at NCOS. Photo courtesy of Adrian O'Loughlen.

Second Saturday - This Saturday, May 12th!

Take part in an opportunity to get on the project site and help restore NCOS **THIS SATURDAY - May 12th**. Meet at the parking lot on Whittier Drive at 9:30 am. Please RSVP to ncos@ccber.ucsb.edu. See the Volunteer Opportunities section of this newsletter for more information.

Bridges and Trails

The installation of the bridges last month was an impressive sight. 100-foot long sections of the prefabricated steel and wood bridges were driven from Arizona and lifted into place with a large crane. [Here's a great time-lapse video of the installation of the Phelps bridge.](#) The construction of the trails is in progress and should be completed by June.



Installation of the main bridge at NCOS on April 18, 2018. Photo courtesy of David Levasheff.



The newly installed bridge over the Phelps Creek tributary of NCOS. Photo courtesy of David Levasheff.



Contractors grading and smoothing the trail along the east side of NCOS.

Audubon Society Presentation on NCOS Progress

Get more details and the latest updates on the progress of the NCOS Restoration Project at a presentation hosted by the Santa Barbara Audubon Society at Farrand Hall, Santa Barbara Natural History Museum, May 23, 7:30 - 9:00 pm. [More information available at the Audubon Society website.](#)

FEATURE STORY

[Controlling Invasives to Support Natives at NCOS](#)



CCBER staff and volunteers from the Isla Vista Surfrider Foundation recently hand weeded a mound of burr clover (*Medicago polymorpha*) at NCOS. [Watch a fun time-lapse video of this team in action.](#)

One of CCBER's goals is to restore diverse native habitats and plant communities with locally sourced seeds, and give them a weed-free window to get established on the landscape. [Read on](#) about how invasive weeds are being managed at NCOS to give the native seedlings a hand at establishing.

[This feature story is continued on page 12.](#)

VOLUNTEER OPPORTUNITIES



Second Saturdays at NCOS

THIS SATURDAY - May 12th

Take part in an opportunity to get on the project site and help restore NCOS. Meet at 6975 Whittier Drive at 9:30 am. Bring water, sunscreen, and wear a hat, clothes and shoes suitable for garden work. Please RSVP to

ncos@ccber.ucsb.edu

Group Volunteer Opportunities



We gladly welcome local business, non-profit, school and other community groups to come out to NCOS to help with planting and other activities. For more information, please send an email to ncos@ccber.ucsb.edu.



Thursdays - CCBER Greenhouse Associates

Come help transplant seedlings of native plants with the CCBER team from 9:00 - 12:00. To join, please send an email to ncos@ccber.ucsb.edu.

COMMUNITY FORUM & PHOTOS

Q & A

Community members have been asking when the trails will be opened. While the bridge and trail construction will likely be completed soon, several acres where the contractors worked around the bridges and trails need to be planted and restored. Our goal is to complete this as soon as possible and to open NCOS as soon as it feels safe to do so. In addition, it is anticipated that the construction of a visitor plaza and a barn for maintenance equipment and materials will take place over the summer, and this will consequently interfere with public access. Therefore, we are aiming to have a ribbon-cutting event for the opening of the primary trails in early October.

In the meantime, we are planning to host tours of the site this summer, and anyone is welcome to volunteer with us any day of the work week, and especially on Second Saturdays and Thursday mornings at our nursery. For more information, contact us at ncos@ccber.ucsb.edu.

We will be planting and more for at least another year, as well as working on raising an endowment fund that will provide long-term support for student training and research opportunities, K-12 educational experiences, and the ongoing stewardship of the site. There are naming opportunities for the newly installed bridges and trails to honor contributions to the [NCOS endowment](#).

Photos

The excitement over the sighting of the Western Snowy Plovers has spawned several great photos, of

which we highlight one more below. Other highlights are additional photos of the White-faced Ibis, busy Cliff Swallows, and a juvenile frog!



Left: Western Snowy Plover (one is banded) photo by C. Bowdish. Right: White-faced Ibis photo by Mark Bright.



Cliff Swallows collecting mud for their nests. Photo by Mark Bright.



A young Pacific chorus frog going through metamorphosis at an NCOS wetland. Photo by Mark Bright.

Have a plant, wildlife, or other photo of the NCOS project site you'd like to share? We welcome submissions of photos of the project site and/or the adjacent Ellwood-Devereux area to share with NCOS News readers. Please email a photo you would like to share along with a brief description to ncos@ccber.ucsb.edu.

Received this email from a friend? [Click here](#) to subscribe to our mailing list.



**For more information on the
North Coast Open Space Restoration Project, [Click here](#), or email ncos@ccber.ucsb.edu**



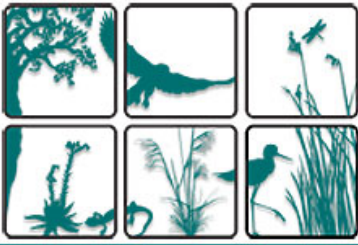
Want to change how you receive these emails?
You can [update your preferences](#) or [unsubscribe from this list](#)

This email was sent to <<Email Address>>

[why did I get this?](#) [unsubscribe from this list](#) [update subscription preferences](#)

Cheadle Center for Biodiversity and Ecological Restoration (CCBER) · Bldg 578 Harder South · UCSB, MC 9615 · Santa Barbara, CA 93106 · USA





[Home](#) » [Blogs](#) » [Kelly Hildner's blog](#)

CONTROLLING INVASIVES TO SUPPORT NATIVES AT NCOS



CCBER staff and volunteers from the Isla Vista Surfrider Foundation recently hand weeded a mound of burr clover (*Medicago polymorpha*) at NCOS.

[Watch a fun time-lapse video of this team in action.](#)

It is spring time, and despite only 10 inches of rain falling this winter (about 60% of average), invasive weeds still grow and propagate. The late rains in March that followed a completely dry February delayed their onset, but the drying winds have accelerated the rate of maturity. Mature plants drop seeds and, as restoration practitioners, one of our goals is to minimize invasive plants at a restoration site.

One of CCBER's goals is to restore diverse native habitats and plant communities with locally sourced seeds, and give them a weed-free window to get established on the landscape. If invasive weeds are not controlled, they can create monocultures of non-local species that limit or completely block out or change natural ecological and evolutionary processes. To date, CCBER has hand collected over 2 million milliliters, or 500 gallons of seeds from 115 different species, for the NCOS restoration project. All of these seeds have been collected within the immediate watershed of the project site. When you consider that some seeds are so small that a pinch could equal hundreds of plants, this represents enough seed for millions of plants. The seeds of some delicate wildflower species are being saved until the weed challenges have been addressed and there is an adequate window for establishment. Other species are so unique in their niche that we've already spread more than 200 gallons of their seeds: Pickleweed (*Salicornia pacifica*) grows at the lowest elevation of the salt marsh, where conditions are harsh enough to exclude most competitors.



Left: CCBER staff hand spreading seeds of Pickleweed (*Salicornia pacifica*) on the NCOS salt marsh this winter. Right: Mature Pickleweed.

While 100,000 seedlings have been planted over 26 acres, and another 4 acres of purple needle bunch grassland has been drill seeded, there are still 29 acres to plant and 13 acres to drill seed. We estimate that we will plant another 300,000 seedlings in the coming year and use more than 100 pounds of purple needle grass seed to restore the backbone of a native perennial grassland. The native bunch grass seed is being grown by Victor Schaaf at his S&S Seeds farm in Los Alamos. This production field will transform 4 pounds of locally sourced, hand collected seed into as much as 150 pounds, so that we can restore a grassland in as efficient a manner as possible. The 4 acres drill-seeded in October last year are showing promising results.



Left: Purple needle grass seed in the drill seeder before planting. Right: the sprouts of that seed on the NCOS Mesa.

But this story is about invasive weeds, which is the first challenge every restoration ecologist faces, even in recently graded sites. A weed plant grows where it is not desired; and an invasive weed is so aggressive that it can take over and dominate a site, leaving little room for the natives to become established. Newly disturbed sites can be particularly vulnerable, as can areas that have been ignored, where weeds have dominated for years. Both of these challenges are present at NCOS, and CCBER is using a number of tools and methods to address the weed challenge posed by this large site. The goal is to prevent the weeds from dropping seeds using the most ecologically sensitive tools available. Where possible, CCBER uses techniques such as solarization with black plastic, mowing, and hand-weeding, but in some situations, herbicide can be a highly effective weed control tool because it is fast-acting and does not disturb the soil. In the 4-acre drill seeded area, a specialized, non-toxic, broad-leaf-specific herbicide was used because it could be applied over the newly germinating native grass seeds and would target the burr and sweet clovers that surrounded the seedlings. Hand weeding in this area would have been slow and inefficient, and would have led to trampling of the grass seedlings and disturbance to the soil that could trigger new weed germination.



Burr clover (*Medicago polymorpha*)



Left: Burr clover is controlled in the drill seeded area using broad-leaf-specific herbicide. Right: California Conservation Corps weeding clovers.

Mowing (or weed whacking) is a stop-gap effort to eliminate weed seed heads before they ripen, and primarily buys time over such a large landscape so that we can focus efforts on the more time consuming, delicate hand-weeding required around newly planted native seedlings.



Solarization is conducted by laying black plastic over newly germinating seedlings of non-rhizomatous plants in order to cut off light and overheat them. It usually takes 2 to 4 weeks for each round of plastic to eliminate a portion of the seedbank. The extent of the weedy seed bank in the soil can be further reduced through multiple cycles of irrigation and subsequent solarization of new rounds of germinating weeds. NCOS is currently using about 80,000 square feet of black plastic in a range of zones where native seedlings haven't been planted yet. Placing a layer of wood chips, or mulch, is another strategy for creating a window of weed-free growing opportunities for native plants and will be used in areas with larger shrubs.



Large sheets of black plastic are used to kill weeds by solarization where native seedlings haven't been planted yet.

There are more than 60 students working on the NCOS restoration project with CCBER, and they obtain extensive training in plant identification associated with this work. By paying attention to detail, this project can be successful in both restoring our native natural history and engaging students in the stewardship of our natural world.



At NCOS, UCSB students are gaining hands-on experience with native plant and ecosystem restoration and stewardship.

As the core native plants get established in each habitat zone and the weeds are abated, we will gradually be adding more native wildflowers and other more delicate native plant species. In addition, a grant from the California Natural Resources agency and CalTrans, offered through the enhancement and environmental mitigation program (EEM), is providing funding to remove particularly invasive plants from the 25-acre area adjacent to the west side of NCOS that was not graded. Invasive weed plants in that area include pampas grass, fennel, mustard and harding grass, which not only degrade that

site, but also pose a risk of their seeds being blown into the NCOS project with the prevailing winds. These plants are being dug out (Pampas grass, Harding grass), cut at the root and painted with herbicide (fennel), and solarized (mustard and annual grasses). This area is currently being used as a training ground for the ROTC, and will become an area of the project where children can play in the willow trees and explore more freely. Removing the weeds will make this a more pleasant and sustainable site for generations to come.



Image of the 25-acre area adjacent to NCOS, where grants are funding the removal of weeds such as Pampas grass and Fennel.

Date:

Tuesday, May 8, 2018 - 13:00

[Contact Us](#)

Cheadle Center for Biodiversity and Ecological Restoration • [Earth Research Institute](#)

Copyright © 2007-11 The Regents of the University of California, All Rights Reserved.

UC Santa Barbara, Santa Barbara CA 93106 • [Terms of Use](#)

[UCSB website](#)

