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Science by the Sea

Natural Resources and Science in the Mediterranean Coast Network
March, 2017

Field Season Beginning for Mediterranean Coast Plant Monitoring Teams



Even for drought tolerant southern California plant communities, four dry years in a row was a lot to handle. Annual vegetation monitoring at each of the three parks in the Mediterranean Coast Inventory and Monitoring Network recorded significant dieback in some places. This year, however, rainfall has been well above average throughout the region. Monitoring teams are excited to begin (or continue, in the case of Channel Islands National Park) surveys in a much more brightly colored landscape. [Read on](#) for what teams from each of the parks have to say as their field seasons get underway.

Shooting stars bloom early in the season in Santa Monica Mountains National Recreation Area. NPS.

Black Abalone Regain Lost Ground

For many years after the black abalone population crashed in the 1980s and 90s, Channel Islands National Park biologists found little evidence of recovery. Surviving abalone did not appear to be successfully reproducing. That began to change around 2007 when new recruits (baby abalone) began turning up at sites on Santa Cruz Island. The population there began growing quickly, and other islands began to experience some slow recovery as well. Meanwhile, Cuyler Harbor, a site on San Miguel Island, still had not seen any black abalone since 1997. That is, until last year. [Learn more](#) about the black abalone's story on the web.



Black abalone of different sizes and ages. For many years, biologists could hardly find any younger, smaller abalone in Channel Islands National Park. NPS.

A Need to Breed: California Toads in the Santa Monica Mountains



California toads mating. During the drought, there were very few pools in which California toads could breed successfully. NPS.

What is a toad to do if it needs to breed but can't find a pond? A note will soon be published describing novel California toad breeding behavior that is likely a result of the recent drought. This winter's rain has also resulted in a surge in toad breeding that has not been seen in years. The Mediterranean Coast Inventory and Monitoring Network's aquatic amphibian monitoring team will begin official surveys in late March. [Get the full story.](#)

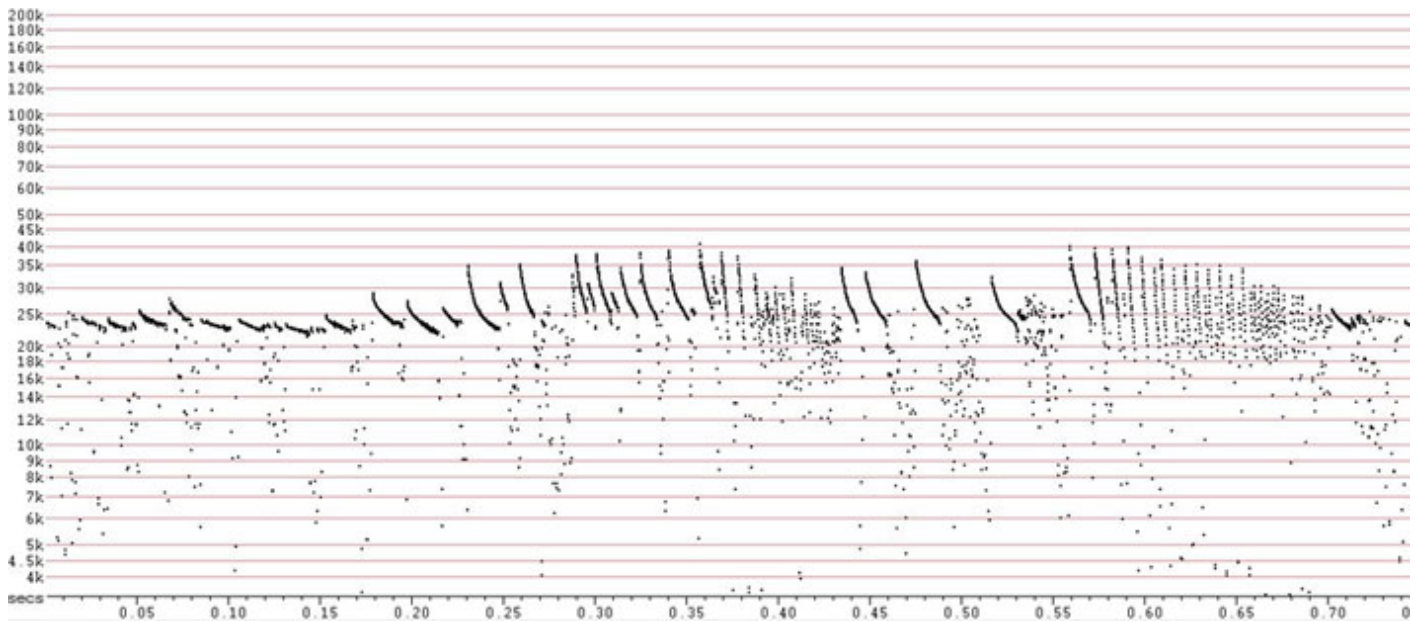
Shaw's Agave – A Species on the Edge

Shaw's agave is a species of concern that is literally and figuratively on the edge along the Southern California coast. One of its northernmost populations occurs in the rare coastal sage scrub community near the boundaries of Cabrillo National Monument. Plants are sometimes found at the edges of eroding sea cliffs. Recruitment of new individuals in the local population has declined to zero. Cabrillo and San Diego Natural History Museum biologists are now trying to find out why. [Find out more](#) about the plight of the Shaw's agave and the many lines of research biologists are pursuing.



One of the northernmost populations of Shaw's agave is located near the boundary of Cabrillo National Monument. NPS.

Recording Echolocation Calls to Learn About Bats in Cabrillo National Monument



Example sonogram of a Mexican free-tailed bat echolocation call. Note that the duration of this particular sonogram is under 1 second!

Cabrillo National Monument boasts a surprisingly high number of bat species for its small size. National Park Service and San Diego Natural History Museum biologists recently teamed up to monitor and inventory the area's bat populations. By recording bat echolocation calls, biologists identified ten species, including a new species for the area. They also discovered a distinct seasonal peak in the number of bat calls. [Learn more](#) about their findings on the web.

Events & Announcements

Upcoming Cabrillo National Monument Events

- [Science Education Series: Science of the Parks](#) - April 22, 3:30 pm – 4:30 pm
- [Science Education Series: Art Forms in Nature](#) - May 13, Noon – 1 pm
- [Full Moon Walk](#) - June 9, 6 pm
- [Science Education Series: Our Urban Island](#) - June 10, Noon – 1 pm

Additional events and event details are available from the Cabrillo National Monument [schedule of events](#).

Upcoming "From Shore to Sea" Lectures

- [Marine Defaunation: Animal Loss in the Global Ocean](#), Douglas McCauley - April 13, 7 pm
- [Cloud Forest Recovery on Santa Rosa Island](#), Kathryn McEachem - May 11, 7 pm
- [An Illustrated History of Santa Cruz Island](#), John Gherini - June 8, 7 pm

For further details about these free talks at the the Channel Islands National Park Robert J. Lagomarsino Visitor Center, visit <https://www.nps.gov/chis/planyourvisit/from-shore-to-sea.htm>.

Upcoming Santa Monica Mountains Events

- [Celebrating Migration](#) - April 1, 10 – 11:30 am
- [Surprising Geology of the Santa Monica Mountains](#) - April 3, 7:30 – 8:30 pm
- [Our National Parks at 100: Confronting Change & Committing to Science](#) - April 23, 4:30 – 6 pm

Additional events and event details are available from the Santa Monica Mountains National Recreation Area [schedule of events](#).

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