



ARTICLE

Biologists Survey for Endangered Black Abalone

Golden Gate National Recreation Area (<https://www.nps.gov/goga/>), Point Reyes National Seashore (<https://www.nps.gov/pore/>)



Although the blackish-blue exterior of black abalone's shells may not be as exciting as their iridescent interiors, these shells are equipped with adaptations that help the abalone survive. Nine respiratory pores allow it to breath, remove waste, and reproduce, and an attached muscular foot helps the abalone to move and anchor in its rocky habitat.

Kari Eckdahl

September 2019 - This summer, as park biologists conducted rocky intertidal surveys in Golden Gate and Point Reyes, they also surveyed for black abalone, the only federally endangered marine invertebrate that resides in Bay Area National Parks. Black abalone belong to a group of plant-eating marine snails that were once common in California before threats like commercial fishing, poaching, and disease drove major declines in the species across the California coast.

The aquatic biology team first conducted surveys for black abalone in 2010-2011, with additional surveys every few years until now. Biologists noted that sites where black abalone were previously found had, on

average, lower numbers this year than in years prior. Though this does not necessarily mean that the population is decreasing, researchers have not found evidence that black abalone are reproducing successfully within the park at this time. This is not entirely unexpected: the Golden Gate National Recreation Area is towards the edge of their historic range, and black abalone are considered rare north of the Golden Gate Bridge. Black abalone have separate sexes and employ a "broadcast spawner" mating strategy, releasing millions of eggs and sperm out into the water when conditions are favorable. That means that the closer they are to each other, the more likely they are to have reproductive success. Reproducing this way in an area where individuals are few and far between is an uphill battle, so researchers don't expect to see a strong upswing in their numbers here any time soon.

Though there are not currently any comprehensive plans to restore the black abalone population in Northern California, [recent efforts to restore white abalone populations through captive breeding strategies have shown promise](https://www.ucdavis.edu/news/endangered-white-abalone-program-yields-biggest-spawning-success-yet/) (<https://www.ucdavis.edu/news/endangered-white-abalone-program-yields-biggest-spawning-success-yet/>). Looking farther South to places like the Channel Islands, [black abalone appear to be making a comeback](https://www.nps.gov/articles/black-abalone-regain-lost-ground.htm) (<https://www.nps.gov/articles/black-abalone-regain-lost-ground.htm>). Although Northern California populations may not increase significantly on their own, park biologists and NOAA researchers are keeping an eye on their numbers so that we can understand more about what is happening with this unique marine organism and the broader intertidal ecosystem it calls home.

For more information about the Rocky Intertidal Program, please contact [Darren Fong](https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4F84C9A998DD90BA9BB5148FF707B8E3419250&r=/articles/biologists-survey-for-endangered-black-abalone.htm) (<https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=4F84C9A998DD90BA9BB5148FF707B8E3419250&r=/articles/biologists-survey-for-endangered-black-abalone.htm>).

[See more from the Bay Area Nature & Science Blog](https://www.nps.gov/rlc/pacificcoast/blog.htm) (<https://www.nps.gov/rlc/pacificcoast/blog.htm>).



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