

# THE PINTO ABALONE DESERVES PROTECTION UNDER THE ENDANGERED SPECIES ACT



Pinto Abalone © California Marine Protected Areas-Underwater Parks

Monitoring in Washington, Alaska, and British Columbia shows that pinto abalone populations have declined by 80 percent to 90 percent since the early 1990s. The southern subspecies of pinto abalone, found off Southern California's coast, is estimated to have declined 99 percent. To learn how to support protection of pinto abalone, follow NRDC fisheries expert Brad Sewell's blog at [www.switchboard.nrdc.org/blogs/bsewell](http://www.switchboard.nrdc.org/blogs/bsewell).

## FAST FACTS

**U.S. RANGE:** PACIFIC COAST, INCLUDING THE STATES OF WASHINGTON, OREGON, CALIFORNIA, AND ALASKA



**LENTH:** UP TO ~6 INCHES

**LIFE SPAN:** UP TO 50 YEARS

**IDENTIFICATION:** OVAL, FLAT MOTTLED RED AND/OR GREEN SHELL WITH Iridescent WHITE INTERIOR

## THE THREATS

Highly valued for both their edible muscular foot and mother-of-pearl shell, the pinto abalone population first declined due to overharvesting by both commercial and recreational fisheries. The species was and remains highly valued for its edible muscular foot and mother-of-pearl shell. Even after commercial fisheries and most recreational fisheries were closed in the 1990s, pinto abalone populations continued to decline. Today, the one-two punch of rampant historical overfishing—together with continued illegal and legal harvesting, climate change, and ocean acidification—has pushed this species to the brink of extinction.

## THE SOLUTION

A U.S. Endangered Species Act listing is our best hope for protecting this prized species while there is still time to save highly depleted populations. Harvest bans have not stopped the species' plummeting population levels. Listing the pinto abalone as endangered or threatened under the Endangered Species Act will enable better enforcement of harvest bans, increased habitat protection, and other conservation measures that are essential to save this West Coast treasure from extinction. Ultimately, a reduction in climate change pollution will be necessary to rescue the pinto abalone.



© Alaska Department of Fish and Game

## WHY DOES THE PINTO ABALONE NEED THE PROTECTION OF THE U.S. ENDANGERED SPECIES ACT?

Pinto abalone reproduce by broadcast spawning, which is when adults cluster together and release their sperm and eggs into the water. Obviously, this reproductive strategy depends on a certain density of animals to succeed—and pinto abalone populations, in some cases, have suffered such a decline that individuals are simply too far apart from one another to reproduce. The species' plight is so dire that scientists have already declared it to be “functionally extinct” in some areas, such as in the state of Washington's coastal waters. That means there is no hope that the pinto abalone will recover without the protection and recovery actions required by the Endangered Species Act.

## WHAT ARE THE POTENTIAL ECONOMIC EFFECTS OF AN ENDANGERED SPECIES ACT LISTING?

Commercial harvest of pinto abalone is already prohibited and listing the species under the Endangered Species Act will not affect recreational harvest of other abalone species (namely the red abalone

in California). Therefore, potential negative economic effects of an endangered listing should be negligible. On the plus side, recovering the pinto abalone under the protective umbrella of the Endangered Species Act—and ultimately delisting the species—could result in the rebirth of a valuable Pacific coast fishery. Pinto abalone recovery would also enhance the health of the Pacific kelp forest ecosystem, thus enhancing the value of this ecosystem for extractive and non-extractive (e.g., diving) uses.

## IF HARVEST OF PINTO ABALONE HAS ALREADY BEEN BANNED, WHY IS THE POPULATION STILL DECLINING?

In many areas, historical overfishing has likely reduced pinto abalone densities below the necessary levels for successful reproduction. Remaining abalone are highly susceptible to poaching because they are highly valued, aggregate in relatively shallow waters, and occur in remote locations that are difficult to patrol. Restrictions on recreational, personal, and subsistence harvest (still allowed in Alaska and Oregon) may not be stringent enough in some instances—for example, many abalones are harmed when collected and then discarded. Finally, pinto abalone are acutely sensitive to salinity and temperature shifts, which are increasing as a result of global warming. The increasing acidity of marine waters—resulting from increased carbon dioxide absorption by the ocean—has also been shown to inhibit the abalone's ability to form its shell.

## ARE RECOVERING SEA OTTER POPULATIONS A THREAT TO THE PINTO ABALONE?

Sea otters limit the grazing pressure by sea urchins and other marine invertebrates in the kelp forest ecosystem. Following the near extirpation of sea otters by the fur trade, kelp forests declined significantly due to overgrazing by invertebrates. While reduced predation may have initially befitted the pinto abalone, the decline in kelp forests ultimately harmed the entire ecosystem. Sea otter recovery has significantly expanded kelp forests in many areas. In addition, most worldwide commercial abalone fisheries have collapsed, including many in areas without sea otters. These include pinto abalone fisheries in coastal British Columbia that continued to decline even in the absence of sea otters, with studies indicating that poaching is the key threat. The size shift to large abalone in Washington coastal waters also indicates that predation by sea otters (which selectively prey on large abalone) is not significantly impacting these populations.

## WHAT'S THE POINT OF DOING ANYTHING TO SAVE THE PINTO ABALONE IF CLIMATE CHANGE AND OCEAN ACIDIFICATION ARE ITS PRIMARY THREATS?

The effects of climate change will have long-term effects on the pinto abalone, including physiological (e.g., impaired shell-forming from ocean acidification), developmental, behavioral (e.g., impaired predator response), and larger-scale ecosystem effects (e.g., reduced food sources). Although this makes curbing climate change pollution critical, the pinto abalone still requires protection from more immediate threats such as habitat loss and overharvesting. Populations must also be rebuilt if they are going to be sufficiently robust to withstand the long-term threats from climate change.

## WHAT DO OTHER GOVERNMENT AGENCIES AND SCIENTIFIC BODIES SAY ABOUT THE PINTO ABALONE?

The International Union for Conservation of Nature has designated pinto abalone as Endangered. In Canada, harvest has been illegal since 1990, and in 2009 the Canadian government listed pinto abalone as “endangered” under the Species at Risk Act. In the United States, commercial and most other fisheries were closed two decades ago. The National Marine Fisheries Service has recognized pinto abalone as a Species of Concern and a candidate species for listing under the Endangered Species Act. Washington State has also listed pinto abalone as a “State Candidate Species.”

## WHAT IS THE PROCESS FOR PROTECTING THE PINTO ABALONE THROUGH THE ENDANGERED SPECIES ACT?

In response to petitions filed by NRDC in June 2013 and the Center for Biological Diversity in August 2013, the National Marine Fisheries Service determined in November 2013 that listing the pinto abalone as endangered or threatened may be warranted and initiated a formal status review. By law, the agency is required to make a listing decision within 12 months of petition submission.

**NRDC**

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AUGUST 2014  
FS:14-07-C

Printed on recycled  
paper

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[http://switchboard.nrdc.org/blogs/bsewell/NRDCListingPetitionPintoAbalone-June\\_27\\_2013-2.pdf](http://switchboard.nrdc.org/blogs/bsewell/NRDCListingPetitionPintoAbalone-June_27_2013-2.pdf)