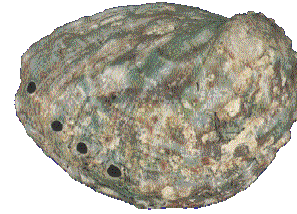


**Common name:** pinto or northern abalone

**Scientific name:** *Haliotis kamtschatkana*

**Area of concern:** Ranges from Sitka, Alaska, to Pt. Conception, CA.  
Predominantly Washington, British Columbia, and Alaska.

**Year first listed as “species of concern”:** 2004



**Species description:** Found in kelp beds along outer well-exposed coasts; typically low intertidal to 30 ft. depth, but ranges to 100 m depth. Minimum density for successful fertilization is ~ 0.13-0.33 ind/m<sup>2</sup>.

**Rationale for “Species of Concern” Listing:**

**Demographic and Diversity Concerns:**

60-90% reduction of legal-size abalone by 1978.

**(California)**

Never a major component of commercial or recreational catch

Nearly 10-fold decline in abundance in northern California

(156,000 in 1971 to 18,000 in 1999-2001)

**(Alaska)**

Peak harvest 1978-1981 (260,000 lbs); average harvest declined to 50,000 lbs in 1994

Commercial fishery closure in 1996; recreational free-diving fishery remains

**(Washington)**

No historical commercial fishing.

Recreational fishery closed in 1994 due to declines in abundance

Recent surveys in the San Juan Islands (table below) indicate a decline a recent decline in density at many sites. Densities at all but one site are below or within the minimum range for successful fertilization



Figure 1. Map of established WDFW study sites in the San Juan Island Archipelago. Study sites are numerically indicated (1-10).

Table 1. Density and numbers of northern abalone at 10 index stations within the San Juan Island Archipelago. Note: most stations show a decline between 1992 and 1996 (**bold**). Stations/dates in **red** are for which the observed density is below the minimum threshold range for successful fertilization. Those in **blue** are those for which densities are within the minimum threshold range. Only the density observed at Big Cactus Island is above the minimum threshold range. (Bradbury et al. 1998, WFDW)

Index Site Name (# on map)	1992 Density (n)	1994 Density (n)	1996 Density (n)
Cypress Island (#9)	0.15/m <sup>2</sup> (46)	<b>0.06/m<sup>2</sup> (21)</b>	<b>0.03/m<sup>2</sup> (8)</b>
Deadman's Bay (#4)	0.12/m <sup>2</sup> (22)	0.13/m <sup>2</sup> (24)	0.16/m <sup>2</sup> (3)
Long Island East (#1)	0.04/m <sup>2</sup> (17)	0.07/m <sup>2</sup> (26)	0.08/m <sup>2</sup> (3)
Long Island West (#2)	0.31/m <sup>2</sup> (48)	0.28/m <sup>2</sup> (44)	0.23/m <sup>2</sup> (3)
Old Eagle Point (#3)	0.09/m <sup>2</sup> (22)	0.13/m <sup>2</sup> (29)	0.06/m <sup>2</sup> (1)
Parker Reef (#8)	0.12/m <sup>2</sup> (45)	0.05/m <sup>2</sup> (19)	0.05/m <sup>2</sup> (1)
Ripple Island (#7)	0.30/m <sup>2</sup> (41)	0.25/m <sup>2</sup> (34)	0.17/m <sup>2</sup> (2)
Spieden Island (#5)	0.26/m <sup>2</sup> (49)	0.09/m <sup>2</sup> (16)	0.16/m <sup>2</sup> (3)
Williamson Rocks (#10)	0.08/m <sup>2</sup> (20)	0.13/m <sup>2</sup> (34)	0.12/m <sup>2</sup> (3)
<b>Subtotal</b>	<b>N=310</b>	<b>N=247</b>	<b>N=223</b>
Big Cactus Island (#6)	0.27/m <sup>2</sup> (41)	0.27/m <sup>2</sup> (41)	0.49/m <sup>2</sup> (7)
<b>Total</b>	<b>(351)</b>	<b>(288)</b>	<b>(297)</b>

(Canada)

Peak fishery 1977-1978 (400 t)

Subsequent population decline; quota reductions through 1989 (47.2 t) without population response.

Fishery closure in 1990 to all user groups

Continued declines in abundance since closure

Current densities  $<0.3$  ind/m<sup>2</sup> (1 ind/m<sup>2</sup> is the believed threshold for successful fertilization)

Only known locality with densities approaching historical levels is at a Victoria penitentiary where nearshore access has been prohibited.

Factors for decline:

Overharvest, suspected illegal harvest, predation with reintroduction and recovery of sea otter (*Enhydra lutris*), and disease (*Labryinthuloides haliotidis*, only observed in mariculture juveniles) have impacted the status of this species.

There is no fishery in Washington, where it is listed as a candidate species. In Alaska, the fishery is closed, but there is no protective status. And in Canada, the fishery has been closed since 1990, and COSEWIC has listed it as a threatened species. Abalone hatchery efforts initiated (Bamfield, B.C.)

*For further information on this Species of Concern, or on the Species of Concern Program in general, please contact Ms. Marta Nammack, NMFS, Office of Protected Resources, 1315 East West Highway, Silver Spring, MD 20910, (301) 713-1401, Marta.Nammack@noaa.gov; or Dr. Scott Rumsey, NMFS, Northwest Region, Protected Resources Division, 525 NE Oregon Street #500, Portland, OR 97232, (503) 872-2791, Scott.Rumsey@noaa.gov.*

References:

Rogers-Bennett, L. P.K. Haaker, T.O. Huff, and P.K. Dayton. 2002. Estimating historic abundances of abalone in California for restoration. CalCOFI Rep. 43:63-74.