



# Pinto Abalone: Overview of the Endangered Species Act Listing Evaluation

Sadie Wright<sup>1</sup>, Melissa Neuman<sup>2</sup>, Shalin Busch<sup>3</sup>, Carolyn Friedman<sup>4</sup>, Kristen Gruenthal<sup>5</sup>, Rick Gustafson<sup>5</sup>, David Kushner<sup>6</sup>, Kevin Stierhoff<sup>7</sup>, Glenn VanBlaricom<sup>4,8</sup>, and Susan Wang<sup>2</sup>: <sup>1</sup>NMFS Alaska Region, Juneau, AK; <sup>2</sup>NMFS West Coast Region, Long Beach, CA; <sup>3</sup>NOS, Silver Spring, MD; <sup>4</sup>University of Washington, Seattle, WA; <sup>5</sup>NMFS Northwest Fisheries Science Center, Seattle, WA; <sup>6</sup>NPS, Ventura, CA; <sup>7</sup>NMFS Southwest Fisheries Science Center, La Jolla, CA; <sup>8</sup>USGS, Seattle, WA.

**Abstract:** In July and August 2013, the National Marine Fisheries Service (NMFS) was petitioned to consider listing the pinto abalone (*Haliotis kamtschatkana*) as threatened or endangered under the ESA. On November 18, 2013, NMFS announced that listing may be warranted and formed a Status Review Team (SRT) to assess the best available information for the species throughout its range. The Status Review Report was completed in December 2014 and included an evaluation of the best available information. Using the Status Review Report to inform the decision, on December 29, 2014, NMFS determined that listing of the pinto abalone under the ESA is not warranted.

### Information evaluated in the Status Review includes:

- Management and conservation measures in place to protect the species
- Abundance, range, density, size, age class, recruitment
- Known and potential threats including disease, overharvest, poaching, predation, ocean acidification, climate change, contaminants, coastal development
- Historic commercial fishery harvest stats
- Historic and current subsistence harvest stats of pinto abalone and sea otters in Southeast AK
- Public comments



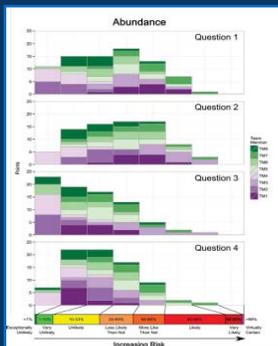
**SIGNS OF RECOVERY:** Surveys and anecdotal reports indicate signs of recovery in British Columbia, some areas in Southeast Alaska, and California. This has been attributed to decreases in illegal fishing and natural episodic fluctuations in abalone recruitment and abundance.



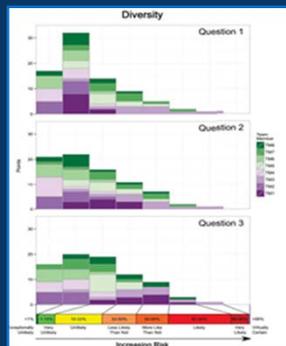
**Natural History:** The pinto abalone is a gastropod mollusk ranging from Salisbury Sound, AK (just north of Sitka) to Baja CA, Mexico. They occur in subtidal/intertidal zones from 0-40m depth, on bedrock or cobble surfaces, often associated with crustose coralline algae or kelp beds. Pinto abalone lifespan is 15-20 years, they grow to 165mm in length, and are broadcast spawners with a short (5-6 day) planktonic life stage (limited dispersal). The main food source for adults is macroalgae. Juveniles are highly cryptic, adults more obvious.

## Status Review Team Scores

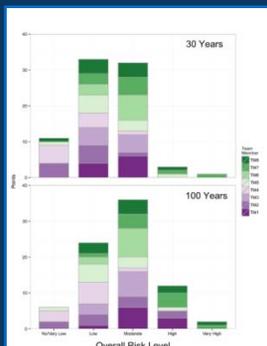
Eight SRT members assigned 10 points to each question divided by categories designed to quantify extinction risk



Is abundance so low the species is at risk due to 1) human or environmental perturbation, 2) depensatory processes, 3) loss of genetic variation, or 4) demographic stochasticity?



Is the species at risk due to 1) loss of variation in life-history traits, 2) sig. alteration of natural processes of dispersal/migration/gene flow, 3) sig. alteration of ecological variation processes?

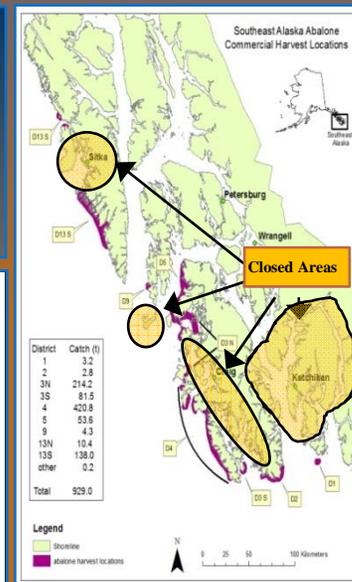
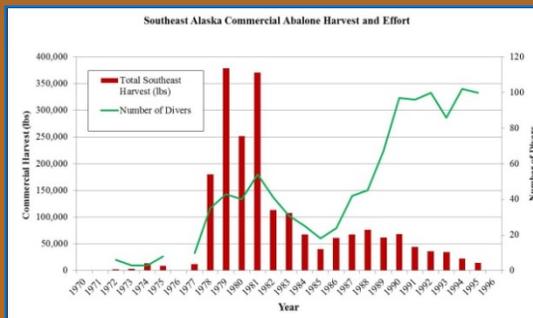


Overall level of extinction risk now and in the foreseeable future (defined as 30 or 100 years).

Most points were allocated to moderate to low risk categories, indicating that the SRT perceived a relatively low to moderate risk to pinto abalone after evaluating the best available information.

## Pinto Abalone: Alaska Focus

- AK commercial harvest peaked at over 350,000 metric tons annually in 1979 and 1981
- AK commercial harvest ended in 1996 following low harvest/low catch per unit effort
- Subsistence and personal use harvest continue in AK (reduced limits in 2012)
- Can be harvested intertidally by hand at low tide
- Included in the diet of the northern sea otter



Figures adapted from a presentation by Kyle Hebert and Scott Walker (ADF&G)