Southern Resident Killer Whale Recovery

by Lynne Barre

Killer whales (*Orcinus orca*), sometimes called orcas, are a focus of public interest, scientific curiosity, and awe. Many people in the Pacific Northwest feel a connection to these family-oriented mammals, and Indian tribes hold them in high regard. The cultural and spiritual importance of these whales to the people of the Pacific Northwest is an essential part of conserving these amazing animals for future generations.

In 2005, under the terms of the Endangered Species Act (ESA), the National Marine Fisheries Service (NMFS) listed a "distinct population segment" of the "southern resident killer whale" (a group that spends a fair amount of time each year in Washington's

Dawn Noren

Puget Sound) as endangered. Southern resident killer whales are found mostly in the inland waters of Washington State and British Columbia, Canada, in summer and in coastal waters in winter. They use a sophisticated sonar system called echolocation to search for food, primarily salmon and steelhead. The whales also exhibit a remarkable ability to communicate with each other by making a variety of sounds. They live in highly stable social groups called pods, led by matriarchal females.

From 1996 to 2001, the southern resident killer whale population fell by almost 20 percent, leaving only 79 whales at the beginning of this decade. Their listing under the ESA was due, in part, to the alarming decline of this already small population. The major threats to their survival are pollution and contaminants, disturbance from nearby vessels, and the scarcity of food. Scientists are also concerned that the whales' small population size makes it particularly vulnerable to a cataclysmic event, such as an oil spill. The census in 2008 counted 85 whales.

The NMFS released its recovery plan for these whales in January 2008. Although the population has been studied for more than 30 years, we are not certain which threat is the most important to address for recovery. The plan, therefore, addresses each of the threats based on the best available science. The recovery plan links its proposed management actions to a research and monitoring program to gather more information and assess how well the goals of the plan are being met. Some of the plan's main sections address:

Prey Availability: Support salmon restoration in the region, including habitat, harvest, and hatchery management improvements to ensure an adequate food supply for the whales.

Pollution: Clean up existing contaminated sites, minimize discharge of contaminants harmful to killer whales, and monitor emerging contaminants.

Vessel Effects: Continue with evaluation and improvement of guidelines for vessel activity near southern resident killer whales and evaluate the need for regulations or protected areas.

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Oil Spills: Prevent oil spills and improve response time to minimize effects on southern resident killer whales and their habitat in the event of a spill.

Transboundary and Interagency Coordination: Coordinate monitoring, research, enforcement, and complementary recovery planning with Canadian agencies and our federal and state partners.

Education and Outreach: Enhance public awareness and educate the public on what it can do to conserve killer whales. Improve reporting of southern resident killer whale sightings and strandings.

Long before the recovery plan was completed, many efforts were underway by local, state, federal, and regional groups to conserve southern resident killer whales and restore a range of habitats, species, and ecosystem processes in the region. Actions to restore listed salmon populations on the West Coast are increasing the availability of salmon for killer whales and restoring the degraded nearshore habitats they share. A collaborative and comprehensive effort in Washington, the Puget Sound Partnership (www.psp.wa.gov/), is also working to restore the area's ecological health.

Many efforts specific to southern resident killer whales are also underway or have been identified in the recovery plan. Working with the Coast Guard, Washington Department of Fish and Wildlife, and Canadian Department of Fisheries and Oceans, we are developing regulations to protect the whales from disturbance by vessels. A proposed vessel regulation was released for public comment in July 2009. In addition, a group of oil spill responders and killer whale researchers recently met to identify techniques to deter whales from an oil spill. A killer whale response plan has been submitted for inclusion in the region's contingency plan for oil spills.

We are working with museums and aquariums, non-profit groups, researchers, and schools to raise awareness and educate the public about recovery of killer whales, and how citizens can contribute. The following are a few examples of the education and outreach programs:

The Seattle Aquarium created an Orca Family Center to inspire conservation of our marine environment (www.seattleaquarium.org).

The Whale Museum features conservation messages in its educational programs, exhibits, and the Soundwatch Boater Education Program (www.whalemuseum.org).

Killer Whale Tales promotes classroom understanding and stewardship (www.killerwhaletales.org).

Orca Network connects whales and people in the Pacific Northwest and collects sighting information (www.orcanetwork.org).

For more information on killer whales, please visit our web site at www.nwr.noaa.gov/Marine-Mammals/Whales-Dolphins-Porpoise/Killer-Whales/Index.cfm.

Lynne Barre, a marine mammal specialist in the NMFS Northwest Regional Office, can be reached at Lynne.Barre@noaa.gov or 206-526-4745.