



**NOAA**  
**FISHERIES**  
West Coast  
Region

2018

# Saving Southern Resident Killer Whales

## NOAA Fisheries research, recovery actions, and partnerships to recover a keystone species



Southern Resident killer whales are unique and iconic to the West Coast. They are also among **the most endangered marine mammals in the world**. NOAA Fisheries named the whales a national Species in the Spotlight and **adopted an aggressive action plan to help recover them**. We are also working closely with Canada, the State of Washington, tribes, and interest groups to further **step up our actions**.

We are targeting the three main threats to the whales:

- Availability of prey: **improving Southern Resident access to their preferred prey, Chinook salmon.**
- Vessel noise and traffic: **reducing vessel interference in Southern Resident foraging and other activities.**
- Chemical pollutants: **cutting exposure to and contamination by pollution that threatens their health and reproduction.**

In 2018, we are forging ahead on three primary fronts--research, recovery actions, and partnerships--to address these threats. Here are some highlights of our comprehensive recovery program.

### RESEARCH

We know much more about the Southern Residents now than we did only a few years ago, which better positions us to support their recovery.

- We are combining our data on Pacific salmon and Southern Residents to develop food-web models and **identify specific salmon stocks and hatchery programs that the whales rely on for food.**
- We are collecting and analyzing photos from drones and biological samples, like fecal samples, to track the health of individual Southern Residents in different seasons. This helps us understand the condition of each whale, as well as trends or factors affecting **the population as a whole.**
- New research funded by the National Fish and Wildlife Federation (NFWF) will examine whale breath, feces, and skin to identify harmful microbes from urban wastewater that may affect the whales so that we do not miss **what could be an important emerging threat.**

Photos from top: Southern Residents in Puget Sound, photo: NOAA; Migrating Chinook salmon in a fish ladder, photo: Lance Krucz, NOAA Fisheries; Photogrammetry image of Southern Resident and calf, photo: NOAA Fisheries/Vancouver Aquarium; NOAA research boat and Southern Resident, photo: NOAA

## Setting the Record Straight

The SRKW are unique and do not exist in other part of the world. There are only 74 remaining Southern Resident Killer Whales (SRKW). Of these only 38 are of reproducing age: 26 females and 12 males. Only 14 females have had calves in the past 10 years. No viable calf has been born since 2015. Chinook Salmon make up 80% of SRKW diet. SRKW are incapable of changing their diet to eat either seals or sea lions.

The Snake River watershed historically provided 25% of the SRKW diet. The most aggressive action plan possible must include the immediate breaching of the 4 Lower Snake River Dams (LSRD) along side other mitigation measures.

Of the three threats listed a dire lack of Chinook is the most immediate concern.

A direct consequence of starvation is the thinning of blubber, which releases bioaccumulated toxins. Added vessel noise does not inhibit their ability to find prey.

NOAA's photos depict SRKW bounding from the water inferring "joy," when the population is at its lowest number since 1984. These photos fail to portray the reality of emaciated calves and dead mothers with failed pregnancies caused by a perpetual lack Chinook salmon. NOAA camouflages reality by omitting photos of SRKW on the verge of extinction due to starvation.



J35 with dead calf. J32 dead with calf.

According to NOAA, two of the top five priority SRKW Chinook salmon runs are from the Snake River. Annually, the 4 LSRD account for the deaths of over 8 million Chinook smolts, thus depriving SRKW from adequate food. Starvation is a systemic threat that must immediately be resolved by increasing food availability. Within 18 months of breaching, 500,000 Chinook will survive to becoming food for Orca.



## RECOVERY ACTIONS

We are translating our growing knowledge into action that will help protect and stop the decline of Southern Residents in the short term and promote recovery in the longer term.

- Using individual health profiles for Southern Residents, we are tracking the condition of each whale to spot specific risk factors and target actions to increase survival and reproduction.
- We are prioritizing and implementing actions to strengthen and potentially increase critical salmon prey that provide the greatest benefit to the whales, including new opportunities to coordinate with salmon recovery efforts. Actions include leveraging salmon habitat restoration and exploring adjustments to hatchery programs to benefit the whales while still protecting vulnerable salmon and steelhead populations.
- Following a recent review of current vessel regulations, we are supporting increased enforcement presence on the water and focusing new education efforts for recreational boaters who frequently violate distance rules meant to protect the whales from disturbance.

## PARTNERSHIPS

Only through strong partnerships can we make enough progress, fast enough, to save the Southern Residents. We rely on our partners to help raise awareness, fill data gaps, identify priorities, and take actions.

- Grants from NOAA Fisheries support Washington Department of Fish and Wildlife enforcement of vessel regulations, which a recent review showed has reduced disturbance to Southern Residents.
- We are expanding partnerships with conservation groups such as NFWF, who committed more than \$800,000 in 2017 for research and salmon recovery actions that support Southern Resident recovery. The grants will generate \$1.3 million in matching contributions for a total conservation impact of more than \$2 million.
- NOAA Fisheries' Pacific Coastal Salmon Recovery Fund (PCSRF) supports partnerships with states, tribes and local groups to restore habitat for native salmon that Southern Residents rely on.

Photos from top: Southern Resident and Washington State Ferry, photo: NOAA; Migrating salmon, photo: PCSRF; Volunteers monitoring vessel traffic in Puget Sound when Southern Residents are present, photo: SoundWatch/The Whale Museum; Salmon habitat restoration, photo: PCSRF

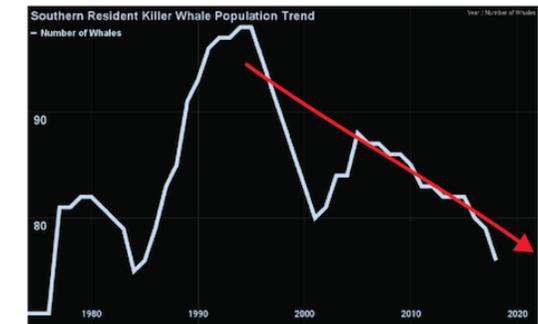
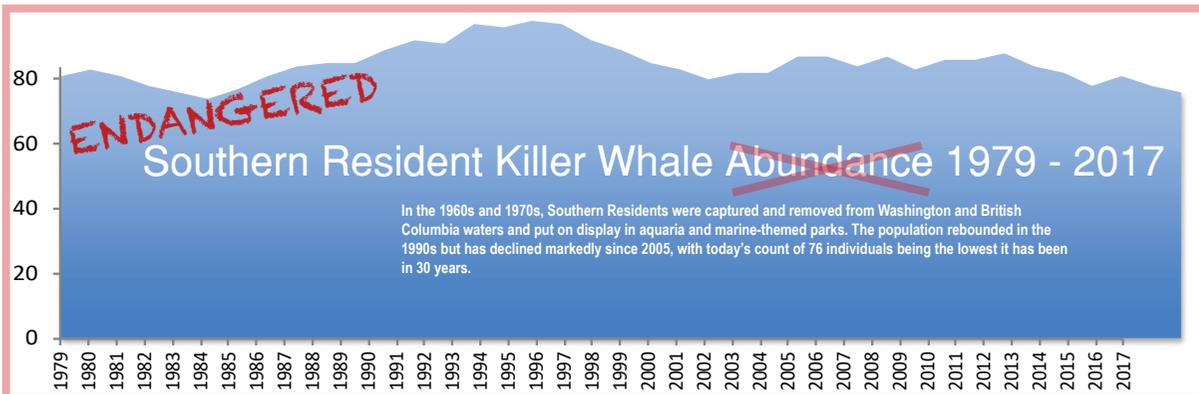
Monitoring an individual whale does not reflect what the population of SRKW is experiencing: food insecurity resulting in starvation. NOAA omits the word "starvation" in this document. We must take any and all measures to address the Chinook food supply holistically.

Why would NOAA work toward a "potential increase" of salmon? We need to take actions that will, with out a doubt, increase Chinook counts. This is not the time for "exploring adjustments to hatchery programs" leading to unknown results. We must take proven actions that provide more prey. Dam breaching is the solution, as stated in the FR/EIS .

NOAA created "partnerships" with USACE, BPA, Idaho Department of Fish and Game, and the Orca Task Force. NOAA's conflated "scientific conclusions" has influenced decision makers in these and other agencies. Consequently, NOAA's endorsement of the future CRSO/EIS has blinded all organizations that receive NOAA documents. USACE has a fiduciary responsibility to the American people to breach under its current FS/EIS.

NOAA states none of their proposed actions will recover Chinook Salmon. NOAA is also incapable of recovering SRKW. Ken Balcomb of the Center for Whale Research states, "the Orca only have 5 years of reproductive life left..."

Since NOAA's SRKW Recovery Plan was released in 2008, the SRKW population has decreased by 11. The SRKW have not had a successful pregnancy in over 3 years. Although these two NOAA graphs display the same information, only one displays SRKW current path of decline. We don't subscribe to NOAA's rosy depiction of SRKW extinction.



<http://www.westcoast.fisheries.noaa.gov>