

PUGET SOUND VITAL SIGNS

INDICATOR NUMBER OF SOUTHERN RESIDENT KILLER WHALES

Southern Resident killer whales are a unique population of orcas that ranges in the Salish Sea and along the West Coast of the U.S. and Canada. These whales eat fish and depend heavily on Chinook salmon for food. In the late-1990s, Southern Resident killer whales experienced a dramatic decline. The combination of a precarious food supply and threats from pollution, vessel traffic, and noise continues to jeopardize their survival. As a result, they are federally listed as endangered.

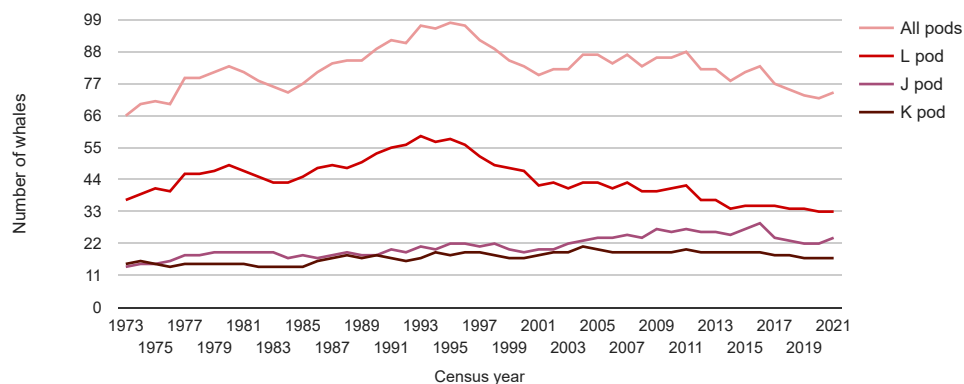
Indicator Progress



Target Status



Number of Southern Resident killer whales
By: Pods



Population size of Southern Resident killer whales each year between 1973 and 2021, based on the annual July census, conducted by the Center for Whale Research. The Southern Resident Killer Whale population in Puget Sound is comprised of three pods: J, K, and L pods.

Key Vital Sign Indicator Results

The status of the Southern Resident killer whale population remains fragile. In 2010, the Partnership's baseline reference, the census reported 86 individuals, and every year since then the population size has been smaller, except in 2011. Given recent population projections, this population will not meet the 2020 target.

- The July 2021 census led by the Center for Whale Research reported 74 whales, up from 72 in 2020 and 73 in 2019, but down from 75 in 2018 and 77 whales in 2017.
- Between the 2020 census and the 2021 census one Southern Resident killer whale (L47) died and three calves were born (two in J pod and one in L pod). Unfortunately, one additional death occurred after the 2021 census.
- The status of this endangered population continues to signal a struggle for survival. K pod, the smallest of the pods, has not had a calf born since 2011. A significant level of unsuccessful pregnancies (75% on average) point to lack of adequate food as a main stressor. Finally, nearly half of the calves do not survive to maturity.
- Recovery of the population depends on increasing availability and access to its main prey—[Chinook salmon populations](#) in the Salish Sea and along the West Coast. Puget Sound Chinook salmon is a threatened population and the subject of many [recovery actions](#). Contaminants in [juvenile](#) and [adult](#) Chinook salmon are other key indicators for Puget Sound as well as [estuary](#) and [floodplain](#) habitat restoration.

Target

By 2030, increase the Southern Resident killer whale population from 74 individual whales in 2021 to 86 individuals.

By 2050, increase the population to 110 individuals.

[Target fact sheet](#)

[Memo to Science Panel with rationale](#)

Data Source

Annual Census as reported to National Oceanographic and Atmospheric Administration (NOAA) by the [Center for Whale Research](#)

Indicator Lead

Lynne Barre
lynne.barre@noaa.gov
National Oceanic and Atmospheric Administration

Last Updated

5/20/2022

Contributing Partners

