

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. They range in three pods known as J, K and L from California to Alaska in pursuit of fish, primarily adult Pacific salmon. 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.

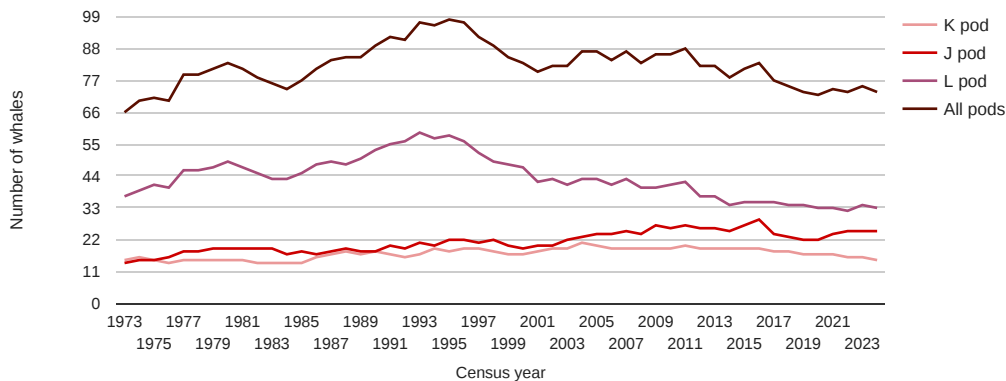
Indicator
Progress

Target
Status



Number of Southern Resident killer whales

By: Pods



Population size of Southern Resident killer whales each year between 1973 and 2024, 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. Every year since then the population size has been smaller, except in 2011.

- The July 1, 2024 census led by the Center for Whale Research reported 73 whales.
- Between the 2023 census and the 2024 census, the Southern Resident killer whale population decreased in size from 75 individuals to 73 individuals. This is the result of 2 deaths (K34, L85). J pod had one birth (J60); however, this male calf did not survive. There are currently 15 whales in K pod, 25 whales in J pod and 33 whales in L pod.
- The status of this endangered population continues to signal a struggle for survival. Until 2022, K pod, the smallest of the three pods, had 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.
- The combination of a precarious food supply, exposure to pollution, and disturbance from noise and vessel traffic continues to jeopardize Southern Resident killer whale survival. As a result, they are federally listed as endangered. The health of individual whales is also an important factor which drives reproduction and survival and the small population size puts the Southern Residents at risk from genetic inbreeding.
- 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](#).

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

01/23/2025

CONTRIBUTING PARTNERS



TO LEARN MORE ABOUT THE VITAL SIGNS VISIT: vitalsigns.pugetsoundinfo.wa.gov OR CONTACT: vitalsigns@psp.wa.gov