

PUGET SOUND VITAL SIGNS

VITAL Sign BIRDS

Puget Sound draws a wide variety and abundance of seabirds and land birds. The region supports over a dozen [Important Bird Areas](#) and offers ample birdwatching opportunities. The Birds Vital Sign tells us about the health of populations of native resident and migratory bird species associated with Puget Sound. These species are highly dependent on the marine and terrestrial environments of Puget Sound and the greater Salish Sea. Habitat alteration and degradation, changes in prey populations, disease, and contamination from toxic chemicals may all affect bird abundance and distribution.



Golden-crowned kinglet. Photo credit: Scott Pearson.

Related Strategies

- [Awareness of Effects of Climate Change](#)
- [Climate Adaptation & Resilience](#)
- [Education Partnerships](#)
- [Floodplains & Estuaries](#)
- [Funding](#)
- [Healthy Shorelines](#)
- [Research & Monitoring](#)
- [Riparian Areas](#)
- [Smart Growth](#)
- [Stewardship & Motivating Action](#)
- [Stormwater Runoff & Legacy Contamination](#)
- [Strategic Leadership & Collaboration](#)
- [Working Lands](#)

Vital Sign Reporter

PSEMP Marine Birds Work Group

Last Updated

05/22/2025

VITAL SIGN > INDICATOR	PROGRESS	STATUS
Birds		
Abundance of terrestrial bird populations	GETTING WORSE	NO TARGET
Abundance of marine bird populations	MIXED RESULTS	NO TARGET
Estuarine birds	INDICATOR TO BE DEVELOPED	NO TARGET

KEY VITAL SIGN MESSAGES

Marine bird populations are indicators of marine ecosystem health because of their sensitivity to changes in prey abundance, habitat quality, and environmental conditions. Marine birds consume diverse prey and typically breed on offshore rocks, islands, or other nearshore habitats. Many species of marine birds depend on Puget Sound and the greater Salish Sea for reproducing, molting, and over-wintering.

- Densities of marbled murrelet, a state endangered and federally threatened species, have declined by nearly 5% per year between 2000 and 2024.
- Densities of the pigeon guillemot and rhinoceros auklet (both locally breeding species) are relatively stable, although the rhinoceros auklet shows evidence of a slight decline.
- Densities of scoters (surf, black, and white-winged scoter species combined) showed a period of consistent decline between 2000 and 2010 and then fluctuated between 2010 and 2022. Density estimates from 2023 and 2024 were relatively high, especially for white-winged scoters, moderating the evidence for a decline across the entire time series.
- Many factors influence the health of marine bird populations, both here and elsewhere in their range (including northern subarctic regions where scoters nest). Threats potentially limiting marine bird populations in Puget Sound include disturbance and loss of nesting, marine, and nearshore [habitat](#) as well as a decline in prey abundance and quality. [Marine heat waves](#), or warm water events, also reduce prey availability and can result in starvation and increased prevalence of some marine bird diseases.
- Management actions to improve [forage fish](#) abundance, particularly Pacific herring, Pacific sand lance, and smelts would benefit marine bird populations, [salmon](#), and [orcas](#).
- Protection and restoration of critical habitats, such as [estuarine](#) and [nearshore habitats](#), [kelp](#), and [sea grass](#), will benefit prey species for marine birds and many other species. It is a conservation priority to protect intact nesting habitats like mature forest and coastal bluffs and headlands that have nesting colonies of locally breeding seabirds. Additionally, land-use planning that accounts for sea-level rise and coastal squeeze is important for maintaining coastal wetlands and the food and habitat they provide for marine birds.

BACKGROUND DOCUMENTS

- [Leadership Council Resolution 2014-01: Adoption of marine and terrestrial bird indicators as a Puget Sound Vital Sign](#)
- [Marine and Terrestrial Bird Indicators for Puget Sound report](#) and [Bird Indicator Supplementary Material](#)

OTHER RESOURCES

- Articles related to [birds](#) in the [Encyclopedia Of Puget Sound](#)
- [Marine bird habitats of Washington](#)
- Washington Department of Fish and Wildlife [Marine Birds webpage](#) and [webmap](#)

CONTRIBUTING PARTNERS

The following organizations contribute marine bird monitoring data to the Birds Vital Sign for Puget Sound:



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