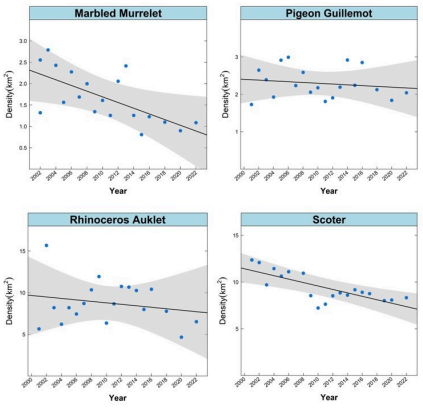
PUGET SOUND
VITAL SIGNS

INDICATOR
ABUNDANCE OF MARINE BIRD POPULATIONS

The marine bird population abundance indicator measures population abundance and trends of four bird species that breed locally or over-winter in the Puget Sound marine environment. The four species reside in Puget Sound most, if not all, of the year and include: marbled murrelet, rhinoceros auklet, pigeon guillemot, and scoters. The indicator provides an integrative view of the health of species that depend upon the Puget Sound for survival.



Each dot represents the estimated annual density (number of birds per km^2) in Puget Sound and Strait of Juan de Fuca. The black lines are the estimated linear trends for each species across the time series. Grey band is the 95% confidence interval of the trend. Scoter = surf, white-winged, and black scoter combined.
Source: Washington Department of Fish and Wildlife

Key Vital Sign Indicator Results

Species in the marine bird indicator are displaying different abundance patterns over time.

- In the Puget Sound and Strait of Juan de Fuca, the marbled murrelet (federally and state threatened) continues to decline by 4.6% per year during the nesting season, and declines during the winter are even greater.
- Scoters (surf, black, and white-winged scoter species combined) continue to decline by nearly 2% per year during winter. Between 2001 and 2022 surf scoters exhibited the greatest declines, while black scoter numbers have increased since 2019.
- Sound-wide trends for pigeon guillemot and rhinoceros auklet are stable, which is consistent with local-scale monitoring results. However, the low estimates in 2020 and 2022 for rhinoceros auklet are worth noting

CONTRIBUTING PARTNERS

Washington Department of FISH & WILDLIFE

Indicator Trend

MIXED RESULTS

Target

No targets are currently set for this indicator.

Data Source

Washington State Department of Fish and Wildlife Seabird Ecology Program

To help inform our breeding season trends, we also use citizen science derived information on pigeon guillemot reproduction from the Salish Sea Guillemot Network. See Methods and More Results.

Vital Sign Indicator Reporter

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Indicator Details

Click below for more information about this indicator, including Maps, Charts, Indicator Importance, Methods, Interpretation of Results, and Additional Resources.

Complete Indicator Report

Last Updated

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