**Division of Commercial Fisheries**
**Forrest Bowers, Acting Director**

Ketchikan Area Office
2030 Sea Level Dr. #205
Ketchikan, AK 99901

**Alaska Department of Fish and Game**
**Doug Vincent-Lang, Commissioner**

PO Box 115526
Juneau, AK 99811-5526
www.adfg.alaska.gov

**Advisory Announcement**
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**CONTACT: Teresa Fish**
**Southeast Alaska Pink and Chum Salmon Project Leader**
**teresa.fish@alaska.gov**
**907-225-9677**

# 2026 NOAA FISHERIES–ALASKA DEPARTMENT OF FISH AND GAME SOUTHEAST ALASKA PINK SALMON HARVEST FORECAST

**The 2026 Southeast Alaska pink salmon harvest is expected to be near *average*, with a harvest forecast of 19 million fish.** Juvenile pink salmon abundance measured in northern inside waters during summer 2025 was near the middle of the long-term range, which suggests a moderate number of adults returning in 2026. While salmon returns can vary due to changing ocean conditions, this forecast reflects the best available information from long-term National Oceanic and Atmospheric Administration (NOAA) Alaska Fisheries Science Center, Auke Bay Laboratories and Alaska Department of Fish and Game (ADF&G) monitoring programs. The commercial purse seine fishery will be managed inseason based on aerial surveys and fishery performance indicators.

## Forecast Methods

NOAA initiated the Southeast Alaska Coastal Monitoring (SECM) project in 1997 to better understand the effects of climate and nearshore ocean conditions on year-class strength of salmon and other ecologically related species (Orsi et al. 2000). Since 2018, the SECM project has been conducted cooperatively by NOAA and ADF&G using the ADF&G research vessel (R/V) *Medeia*, and the two agencies have combined efforts to produce a joint pink salmon harvest forecast using SECM data (Piston et al. 2019). The partnership between agencies facilitates the SECM survey and provides a wide variety of valuable information on the marine environment and juvenile salmon in northern Southeast Alaska (SEAK).

The 2026 SEAK pink salmon harvest forecast (Figures 1 and 2) was primarily based on juvenile pink salmon abundance indices collected by the SECM project in northern SEAK inside waters. These data were obtained from annual systematic surface trawl surveys conducted in June and July in upper Chatham and Icy Straits and have been shown to be highly correlated with the harvest of adult pink salmon in the following year (Wertheimer et al. 2011). The juvenile abundance index is calculated as the peak June or July mean vessel-calibrated catch per unit effort (CPUE) from duplicate standardized surface trawls at eight stations. The 2025 juvenile pink salmon abundance index of 1.29 is near the mean for the time period the R/V *Medeia* has conducted the survey (2018–2024; mean 1.38; range 0.87–2.15) but below the mean for odd-year juvenile CPUE indices (1997–2023; mean 1.80; range 0.35–3.08).

The 2026 pink salmon forecast uses a method initially described by Wertheimer et al. (2006) and then later adapted by Orsi et al. (2016), Murphy et al. (2019), and Miller et al. (2022) and assumes a log-normal error structure and is based on multiple regression. The forecast models investigated included either raw or vessel-adjusted juvenile pink salmon CPUE; temperature data from SECM or satellite sea surface temperature data (Piston et al.2021; Haung et al. 2017); a vessel factor; and an odd and even year factor. A total of 36 models were evaluated based on the one-step ahead mean absolute percent error for the last five years, while Akaike Information Criterion corrected for small sample sizes values were calculated to examine over-parameterization, and adjusted R-squared values, significant terms, and overall p-values of the models were used to determine model fit.

The recommended model included the vessel-adjusted juvenile pink salmon CPUE, an odd and even year factor, and the mean satellite sea surface temperature data from northern SEAK from April, May, and June. **Based on this model, the 2026 forecast point estimate of 19 million fish falls at the lower end of the *average* pink salmon harvest range (≥19 to 33 million), and the 80% prediction interval (13 to 30 million fish) spans the *weak* (≥11 to 19 million) and *average* pink salmon harvest ranges.** The categorical ranges of pink salmon harvest in SEAK were formulated from the 20th, 40th, 60th, and 80th percentiles of historical harvest over the 65-year period 1960–2024:

| Category | Range (millions) | Percentile |
|---|---|---|
| *Poor* | Less than 11 | Less than 20th |
| *Weak* | ≥11 to 19 | ≥20th to 40th |
| *Average* | ≥19 to 33 | ≥40th to 60th |
| *Strong* | ≥33 to 48 | ≥60th to 80th |
| *Excellent* | Greater than or equal to 48 | Greater than or equal to 80th |

## Forecast Discussion

The 2026 harvest forecast of 19 million pink salmon is near the 2024 harvest (20 million), greater than the mean harvest of the last 10 even years (18 million; 2006 to 2024), but less than the mean even-year forecast from the same period (22 million). The 2025 juvenile pink salmon abundance index value (1.29) ranked the 7th lowest out of the 29 years that SECM information has been collected but is near the mean for the R/V *Medeia* and leads to a harvest forecast that is near the boundary of the *average* and *weak* categories. Pink salmon harvests associated with juvenile indices below 1.30 have ranged from 8 to 21 million fish (mean = 15 million fish).

We continue to evaluate different treatments in our forecast model. Since 2004, 12 unique models have been used to produce the 23 harvest forecasts with changes occurring as additional information becomes available, and in response to poor predictive performance. For the 2025 harvest forecast, we implemented an odd and even year factor and model derived vessel-calibration coefficients to help address concerns that arose from underforecasting the prior two odd-year harvests (2021 and 2023). The 2025 forecast successfully predicted a harvest that was much lower than each of the previous odd-year harvests. The extensive time series of SECM data extending from 1997 to present is now large enough to examine odd and even years separately which may better represent the segregated brood lines (odd- and even-year) of pink salmon.

While uncertainties are inherent in salmon forecasts, the NOAA/ADF&G joint pink salmon harvest forecast has maintained a strong track record (Figure 2), despite the unique challenges associated with pink salmon forecasting (Haeseker et al. 2005). As always, for the 2026 season, the department will manage the commercial purse seine fisheries inseason with aerial escapement surveys and fishery performance indicators.

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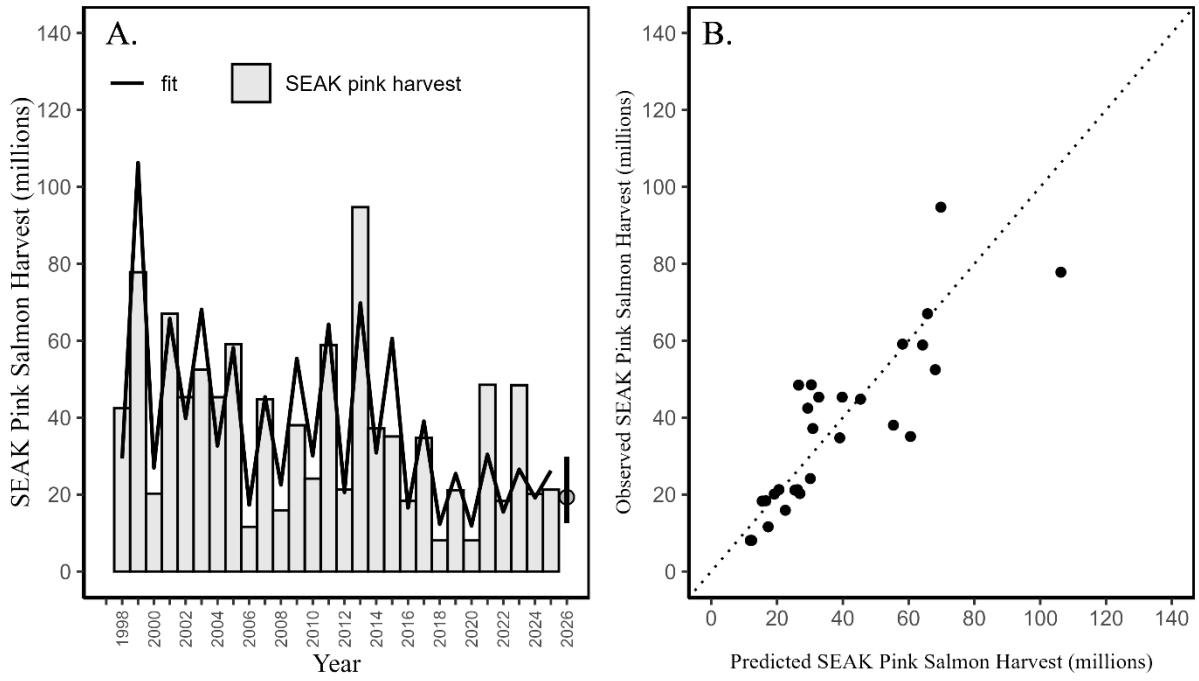


Figure 1. Forecast model fit (hindcasts) to the total Southeast Alaska (SEAK) pink salmon harvest, 1998–2025 by the recommended 2026 forecast model. The recommended model is based on the vessel-adjusted juvenile pink salmon CPUE, an odd and even year factor, and the mean satellite sea surface temperature readings from northern SEAK from April, May, and June. In panel A, the 2026 forecast is shown as a grey circle with the 80% prediction interval as a black vertical line. The observed SEAK pink salmon harvest (in millions) is represented by the grey bars, and the model fit is shown by the black line. In panel B, the dotted line is a one-to-one line; circles above the line are years the model produced a point estimate lower than the actual harvest and circles below the line are years the model produced a point estimate higher than the actual harvest.

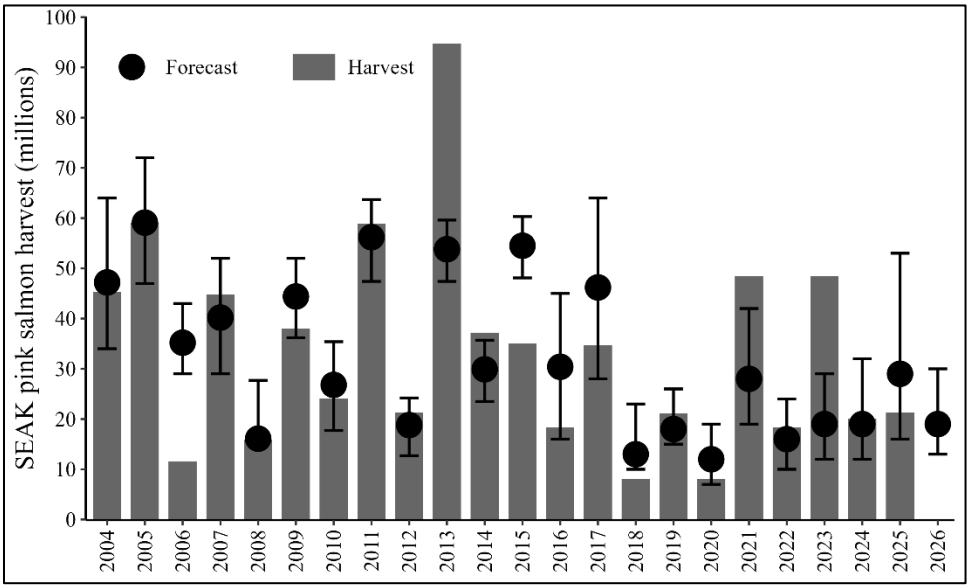


Figure 2. Preseason forecasts (2004–2026) compared to the annual SEAK pink salmon harvest (2004–2025; grey bars). The error bars represent either 80% confidence or 80% prediction intervals of the forecasts, depending on the modeling method used.

*Teresa Fish, Andy Piston, and Sara Miller, Alaska Department of Fish and Game*
*Wesley Strasburger and Emily Fergusson, NOAA, Auke Bay Lab, Alaska Fisheries Science Center*

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