



Advisory Announcement
For Immediate Release: December 12, 2022

CONTACT: Aaron Dupuis
Sitka Area Management Biologist
(907) 747-6688

SITKA SOUND HERRING FISHERY ANNOUNCEMENT

The guideline harvest level (GHL) for the 2023 Sitka Sound sac roe herring fishery is **30,124 tons** with a forecasted average weight of **134 grams** across all age classes. The GHL is based on a 20% harvest rate of an age-structured analysis (ASA) forecast of 150,617 tons of mature herring biomass. This forecast is 26% less than the model estimate of the 2022 mature pre-fishery herring biomass of 202,283 tons of herring, which represents an anticipated decrease in the population resulting largely from natural mortality and waning of the exceptionally large 2016-year class. Despite the decline, the 2023 Sitka Sound herring population is projected to be among the highest observed over the past five decades.

To forecast biomass, the department uses an ASA model with a long time series of egg abundance and age composition data from department surveys and herring samples obtained from active spawning and the commercial sac roe fishery. Herring egg abundance is estimated using aerial, vessel, and SCUBA diving surveys. Shorelines with herring spawn are mapped and followed by dive surveys to estimate egg density and width of egg deposition. The department mapped 91.5 nautical miles (nmi) of unique shoreline with herring spawn in the Sitka Sound area during the spring of 2022, compared to the recent 10-year average of 63.0 nmi. The total harvest for the sac roe herring fishery in 2022 was 25,090 tons of herring; an additional 287 tons of herring were harvested in test, bait, and personal use fisheries. Although the 2022 egg deposition estimate was lower than the record high 2021 estimate, it was still the fourth highest on record since the department began egg deposition dive surveys. About one-third of the surveyed egg deposition occurred on the Kruzof Island shore, south of Hayward Strait. Approximately two-thirds of the surveyed egg deposition occurred in the northern and eastern parts of Sitka Sound and areas south of Sitka.

Table 1.– Summary of forecasted Sitka Sound herring age-class percentages and weights for 2023 and post-fishery age-class estimates from 2022. Percentages shown may not equal 100 due to rounding numbers.

Age	2023 Forecasted percent mature (numbers at age)	2023 Forecasted weight at age (g)	2022 Model-estimated percent post-fishery mature (numbers at age)
3	3%	78	3%
4	9%	92	17%
5	16%	112	3%
6	3%	126	68%
7	61%	148	3%
8+	7%	148	5%

Advisory Announcement web site: <http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main>.

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