

# ALASKA DEPARTMENT OF FISH AND GAME

## DIVISION OF COMMERCIAL FISHERIES

### NEWS RELEASE



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### 2014 Arctic-Yukon-Kuskokwim Herring Outlook

The 2014 Arctic-Yukon-Kuskokwim herring forecast and guideline harvest levels (GHLs), given a maximum 20% exploitation rate of the projected biomass, are listed below for the northeastern Bering Sea herring stocks (Table 1).

Table 1. Projections of Pacific herring spawning biomass and GHLs for commercial fishing districts in the northeastern Bering Sea, Alaska, 2014.

District	Threshold	2013 Observed Biomass (tons)	2014 Projected Biomass (tons)	Exploitation Rate (%)	2014 Harvest Guideline (tons)
Security Cove	1,200	9,313	8,655	20	1,731
Goodnews Bay	1,200	7,945	7,844	20	1,569
Cape Avinof <sup>b</sup>	500	1,415 <sup>a</sup>	1,323	15	198
Nelson Island <sup>c</sup>	3,000	4,893	4,279	20	656
Nunivak Island	1,500	2,420 <sup>a</sup>	2,280	20	456
Cape Romanzof	1,500	3,159 <sup>a</sup>	2,904	20	581
Norton Sound	7,000	57,727 <sup>a</sup>	52,138	20	10,428
Port Clarence <sup>d</sup>	-	-	-	-	165
Totals		86,872	79,423	20	15,783

<sup>a</sup> 2013 model projected biomass and age composition was used because of no survey efforts in 2013.

<sup>b</sup> Cape Avinof commercial harvest is 15% of projected biomass (5 AAC 27.895(a)).

<sup>c</sup> Nelson Island commercial harvest is 20% of projected biomass minus 200 tons for subsistence harvest.

<sup>d</sup> Guideline Harvest of Port Clarence was set to 165 tons in 1984.

This news release is to inform fishermen of projected herring biomass and GHLs, along with the strategies employed if commercial fishing does occur. At this time, it is anticipated that some level of commercial herring fishing will occur in the AYK Region in 2014. Under the Bering Sea Herring Fishery Management Plan 5 AAC 27.060 commercial fishing will not open in a district unless the minimum threshold biomass is observed in that district.

Based on projected estimates, the 2014 estimated spawning biomass for northeastern Bering Sea herring stocks (Security Cove to Norton Sound Districts) will be 79,423 tons. If the return is as anticipated, the total allowable harvest could be 15,783 tons. A harvest of this magnitude in the AYK herring fishery would be one of the largest on record.

The 2014 AYK Region biomass projection was based on age composition information, harvest data, and good aerial survey biomass estimates from Security Cove, Goodnews Bay, and Nelson Island in 2013. Due to a lack of aerial survey data collected in 2013, Cape Avinof, Nunivak Island, Cape Romanzof, and Norton Sound biomasses were assumed to be equivalent to their previously projected biomass estimates for 2013, minus harvest. Note biomass estimates for Security Cove and Goodnews Bay are reduced from the very high estimates in 2012. Herring samples collected from the test fishery at Goodnews Bay and Nelson Island in Kuskokwim Bay in 2013 and commercial and test fishery samples collected in Norton Sound through 2013 suggest that the forecasted population will be comprised primarily of herring ages 7, 8, and 9 (74.5%).

The actual biomass observed in 2014 may fall above or below the preseason projections based on variability in the quality of aerial biomass assessments, the lack of recent aerial surveys, and annual fluctuation of survival or recruitment rates.

The department will conduct aerial surveys when possible and monitor catch statistics inseason if commercial fishing occurs. GHs may be adjusted according to inseason aerial assessments of herring biomass. If aerial surveys are not adequate because of poor weather and water clarity conditions, stock abundance will alternately be assessed using projected biomass, test fishery catches, and spawn deposition observations. In accordance with the AYK Region harvest strategy, any operational commercial fishery will not target newly recruited age classes (age 2 through age 5 herring). The duration of fishing periods and harvests may vary in each district depending on inseason biomass estimates, roe quality, spawning activity, weather conditions, fishing effort, and processor input.

#### ***Security Cove District***

The 2014 projected biomass for the Security Cove District is 8,655 tons and the minimum biomass threshold is 1,200 tons. A 20% exploitation rate would result in a harvest of 1,731 tons. Herring ages 7–9 (70%) are expected to dominate the return.

#### ***Goodnews Bay District***

The 2014 projected biomass for the Goodnews Bay District is 7,844 tons and the minimum biomass threshold is 1,200 tons. A 20% exploitation rate would result in a harvest of 1,569 tons. Herring ages 7–9 are expected to comprise 70% of the returning biomass (19%, 23%, and 28%, respectively). Age 10 and older herring are expected to comprise 22% of the biomass.

#### ***Cape Avinof District***

The 2014 projected biomass for the Cape Avinof District is 1,323 tons and the minimum biomass threshold is 500 tons. The exploitation rate will be no greater than 15% because of the limited database for this area and to ensure the subsistence fishing priority. Based on this exploitation rate, potential harvest could be 198 tons. Herring ages 7–10 are expected to comprise 84% of the returning biomass.

***Nelson Island District***

The 2014 projected biomass for the Nelson Island District is 4,279 tons and the minimum biomass threshold is 3,000 tons. A 20% exploitation rate would result in a commercial harvest of 656 tons after accounting for 200 tons in subsistence harvest uses. Herring ages 7–10 are expected to make up 85% of the returning population, contributing 18%, 22%, 29%, and 16% respectively.

***Nunivak Island District***

The 2014 projected biomass for the Nunivak Island District is 2,280 tons and a minimum biomass threshold of 1,500 tons. A 20% exploitation rate would result in a harvest of 456 tons. Ages 7–10 are expected to comprise 84% of the returning biomass.

***Cape Romanzof District***

The 2014 projected biomass for the Cape Romanzof District is expected to be 2,904 tons and the minimum biomass threshold is 1,500 tons. A 20% exploitation rate would result in a harvest of 581 tons. Since water turbidity in the Cape Romanzof area generally prevents aerial observations of herring, spawn deposition and test fishery and commercial catch rates will be used to determine the timing and duration of commercial fishing periods if fishing occurs. Herring ages 7–9 are expected to comprise 75% of the returning biomass, 25%, 23%, and 27%, respectively.

***Norton Sound District***

The 2014 projected biomass for the Norton Sound District is 52,138 tons and a minimum biomass threshold of 7,000 tons. A 20% exploitation rate would result in a guideline harvest of 10,428 tons. A maximum of 320 tons of herring are reserved to allow for the pound fishery to harvest a maximum of 90 tons of product (combined weight of herring roe and kelp). This leaves 10,108 tons for sac roe harvest. The beach seine harvest is allocated 10% of the sac roe projected harvest, or 1,011 tons. The 2014 herring fishery will be opened by emergency order and the fishery will close by emergency order when up to 20% of the available herring biomass has been harvested. Varied harvest rates may be applied to individual subdistricts based on biomass distribution, roe quality, weather, and sea ice conditions. Herring ages 7–9 are expected to comprise 77% of the returning biomass, 26%, 22, and 30%, respectively. Herring age 10 and older are expected to comprise 13% of the biomass.

***Port Clarence District***

The department does not project an outlook for the Port Clarence fishery because of the lack of data and the limited scope of the fishery. A guideline harvest of 165 tons established by the Alaska Board of Fisheries in 1981 and will be the allowable harvest in 2014. This harvest guideline is based on 2 years of research conducted by the department in both the Port Clarence and Kotzebue Districts. Even though this guideline has not appeared in the regulation book since 1984, it still represents the best estimate of harvestable biomass.