ALASKA DEPARTMENT OF FISH AND GAME
DIVISION OF COMMERCIAL FISHERIES
NEWS RELEASE

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2013 Arctic-Yukon-Kuskokwim Herring Outlook

The 2013 Arctic-Yukon-Kuskokwim herring forecast and harvest allocations, 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 harvest guideline for commercial fishing districts in the northeastern Bering Sea, Alaska, 2013.

District	Threshold	2012 Observed Biomass (tons)		2013 Projected Biomass (tons)	Exploitation Rate (%)	2013 Harvest Guideline (tons)
Security Cove	1,200	20,000		17,542	20	3,508
Goodnews Bay	1,200	33,008	[a]	28,236	20	5,647
Cape Avinof [b]	500	2,095	[a]	1,773	15	266
Nelson Island [c]	3,000	4,703	[a]	3,906	15	581
Nunivak Island	1,500	2,879	[a]	2,420	20	484
Cape Romanzof	1,500	4,794	[a]	4,012	20	802
Norton Sound	7,000	52,949		58,594	20	11,719
Port Clarence [d]	-	-		-	-	165
Totals		120,428		116,483		23,172

[a] 2011 model projected biomass and age composition was used because of no survey efforts in 2012.
[b] Cape Avinof commercial harvest is 15% of projected biomass (5 AAC 27.895(a)).
[c] Nelson Island commercial harvest is 20% of projected biomass minus 200 tons for subsistence harvest.
[d] Guideline Harvest of Port Clarence was set to 165 tons in 1984.

This news release is to inform fishermen of projected herring biomass and guideline harvest levels, and 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 2013. 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 postseason escapement projections, the 2013 estimated spawning biomass for northeastern Bering Sea herring stocks (Security Cove to Norton Sound Districts) will be 116,483 tons. If the return is as anticipated the total allowable harvest could be 23,173 tons. A harvest of this magnitude in the AYK herring fishery would be one of the largest on record.

The 2013 AYK Region biomass projection was based on good aerial survey biomass estimates from Security Cove and Norton Sound in 2012 and biomass projections for 2012 were used for Goodnews Bay, Cape Avanof, Nunivak Island, Nelson Island, and Cape Romanzof. Herring samples collected from the test fishery at Goodnews Bay and Nelson Island in Kuskokwim Bay in 2010 and commercial and test fishery samples collected in Norton Sound through 2012 suggest that the forecasted population will be comprised primarily of herring ages 6 and 7 (41.6%) and ages 8 and older (56.1%).

The actual biomass observed in 2013 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 as possible and monitor catch statistics inseason if commercial fishing occurs. Guideline harvest levels 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 would vary in each district depending on inseason biomass estimates, roe quality, spawning activity, weather conditions, fishing effort, and processor input.

Security Cove District

The 2013 projected biomass for the Security Cove District is 17,542 tons and the minimum biomass threshold is 1,200 tons. A 20% exploitation rate would result in a harvest of 3,508 tons. The department will plan to verify herring biomass inseason to determine the biomass is large enough to support this level of harvest if fishing occurs. Herring ages 8-10 are expected to comprise 72% of the returning biomass (38%, 22%, and 12%, respectively). Age 11 and older herring are expected to comprise 16% of the biomass.

Goodnews Bay District

The 2013 projected biomass for the Goodnews Bay District is 28,236 tons and the minimum biomass threshold is 1,200 tons. A 20% exploitation rate would result in a harvest of 5,647 tons. The department will plan to verify herring biomass inseason to determine the biomass is large enough to support this level of harvest if fishing occurs. Herring ages 8-10 (71%) are expected to dominate the run.

Cape Avinof District

The 2013 projected biomass for the Cape Avinof District is 1,773 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 266 tons. Herring ages 8-11 are expected to comprise 86% of the returning biomass.

Nelson Island District

The 2013 projected biomass for the Nelson Island District is 3,906 tons and the minimum biomass threshold is 3,000 tons. A 20% exploitation rate would result in a commercial harvest of 581 tons after accounting for 200 tons in subsistence harvest uses. Herring ages 8-11 are expected to make up 87% of the returning population, contributing 23%, 27%, 22%, and 15% respectively.

Nunivak Island District

The 2013 projected biomass for the Nunivak Island District is 2,420 tons and a minimum biomass threshold of 1,500 tons. A 20% exploitation rate would result in a harvest of 484 tons. Ages 8-10 are expected to comprise 70% of the returning biomass, 22%, 26%, and 22% respectively.

Cape Romanzof District

The 2013 projected biomass for the Cape Romanzof District is expected to be 4,012 tons and the minimum biomass threshold is 1,500 tons. A 20% exploitation rate would result in a harvest of 802 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 8-10 are expected to comprise 70% of the returning biomass, 22%, 26%, and 22%, respectively.

Norton Sound District

The 2013 projected biomass for the Norton Sound District is 58,594 tons and a minimum biomass threshold of 7,000 tons. A 20% exploitation rate would result in a guideline harvest of 11,719 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 11,399 tons for sac roe harvest. The beach seine harvest is allocated 10% of the sac roe projected harvest, or 1,399 tons. The 2013 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 6 and 7 are expected to comprise 68% of the returning biomass, 47% and 21%, respectively. Herring age 8 and older are expected to comprise 28% 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 2013. 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.