

ALASKA DEPARTMENT OF FISH AND GAME

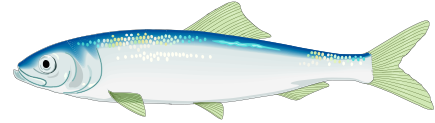
DIVISION OF COMMERCIAL FISHERIES

NEWS RELEASE



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2015 LCI Herring Announcement #1

Lower Cook Inlet

Homer Area Office

3298 Douglas Place

Homer, AK 99603

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2015 LOWER COOK INLET HERRING FISHERY INFORMATION

Herring Fishery Information/Outlook

This notice provides detailed information to individuals interested in the 2014 herring return to Kamishak Bay District in Lower Cook Inlet (LCI) and the outlook for 2015. The sac roe herring fishery in Kamishak Bay will remain closed in 2015 to allow the population further opportunity to rebuild from low biomass levels. Abundance and age composition data collected in 2014 were analyzed earlier this winter and detailed information regarding stock status is now available.

For the past 20 years, an age-structured analysis (ASA) model has been used to forecast Kamishak herring biomass and set harvest guidelines for the upcoming season. This modeling technique integrates current and historical age composition information from the catch and total return, as well as estimates of survival and recruitment, to track trends in herring biomass. Herring biomass estimates from this type of analysis depend heavily upon the availability of periodic, independent measures of total spawning biomass to properly scale trends based on age composition. The department uses aerial survey information to provide these independent measures of herring biomass. Unfortunately, Kamishak Bay is difficult to survey effectively due to poor weather conditions, high levels of suspended silt in the water column, and limited funding and survey pilot availability. In 2014, aerial survey coverage of Kamishak Bay District was good with only short gaps between surveys through late-May and the overall survey conditions were generally relatively good for seeing fish. The department is in the process of reviewing the ASA model to determine if further refinements can be made to better fit the model to the data available for the Kamishak Bay herring stock.

Department aerial survey staff observed a total of 6,138 short tons (st; 1 short ton = 2,000 pounds) of herring in Kamishak Bay District in 2014; the eighth highest index in the last 25 years. Surveyors also documented 3.2 miles-of-spawn from 14 spawning events, the eleventh highest miles-of-spawn index since 1990. Management regulations governing commercial harvests in Kamishak Bay seek to target older, repeat spawners to protect recruit-class herring representing future productivity. Recent years' observations confirm that recruitment of younger fish into the Kamishak spawning population over the past 20 years has been relatively poor. Although there is no definitive

explanation for this lack of strong recruitment, the prevailing hypothesis suggests that poor fitness of the fish, characterized by low average weights-at-age, has contributed to higher than normal over-winter mortality. The presence of *Ichthyophonus*, a protozoan pathogen linked to population declines of Atlantic herring, likely also contributed to the decline and suppressed productivity of the Kamishak herring population. Relatively high *Ichthyophonus* infection rates (20–52%) were observed in the mid-2000s, but have diminished to background levels (1–3%) the past six years. Diminished infection rates now appear to be contributing to stock recovery, as evidenced by the increased abundance of post-recruit aged herring (> age-5) observed in 2014. However, the mean weight at age of herring spawning in Kamishak Bay in 2014 was once again near the lowest observed over the past 30 years.

In 2014, the department completed two vessel charters from April 27–May 4 and from May 12–18 to collect representative age composition and disease samples. These charters collected over 5,000 herring throughout Kamishak Bay District between Cape Douglas and Iniskin Bay. This allowed staff to generate an age composition estimate of the observed spawning biomass. Additional hydroacoustic observations from the charters corroborated the relative abundance of herring observed by aerial surveyors. The following table summarizes the ASA model's estimated age composition of the 2014 spawning biomass and the 2015 forecasted biomass:

Age	2014 Est. Spawning Biomass	Percent by Weight	2014 Commercial Harvest ^a	Percent by Weight	2014 Total Biomass	Percent by Weight	2015 Forecast Biomass	Percent by Weight
1								
2								
3	164	2.6%	0	0	164	2.6%	305	5.4%
4	805	13.0%	0	0	805	13.0%	264	4.6%
5	987	15.9%	0	0	987	15.9%	1,003	17.6%
6	986	15.9%	0	0	986	15.9%	1,003	17.6%
7	1,744	28.1%	0	0	1,744	28.1%	868	15.2%
8	294	4.7%	0	0	294	4.7%	1,350	23.7%
9	510	8.2%	0	0	510	8.2%	210	3.7%
10	460	7.4%	0	0	460	7.4%	309	5.4%
11	118	1.9%	0	0	118	1.9%	274	4.8%
12	63	1.0%	0	0	63	1.0%	71	1.2%
13+	83	1.3%	0	0	83	1.3%	40	0.7%
TOTALS	6,214	100.0%	0	0	6,214	100.0%	5,699	100.0%

Note: Biomass measured in short tons (st); 1 st = 2,000 lbs.

^a The commercial herring fishery in Kamishak Bay did not open in 2014.

The ASA model's hindcast estimate of the 2014 biomass (6,214 st) was similar to the aerial survey index in 2014 (6,138 st) and also similar to the 2014 forecast (6,318). The department uses standardized methods to quantify the surface area of observed herring schools and convert them into biomass estimates to scale the ASA model. However, repeat sightings of schools residing in the same areas on consecutive surveys make it difficult to estimate total season biomass. The fact that last year's aerial survey index was similar to both the preseason forecast and post-season hindcast suggests the ASA model is performing well.

The forecasted herring biomass generated by the ASA model for 2015 in Kamishak Bay District is 5,699 st, below the Kamishak Bay District Herring Management Plan (KBDHMP) regulatory threshold of 6,000 st necessary to consider allowing a commercial harvest. Also, the second research charter in 2014, collecting age composition samples during the latter portion of the return (mid to late-May), documented another relatively weak recruitment of age-3 herring within the current spawning biomass. Despite the lack of a strong recruitment event, this population is showing signs of recovery, perhaps due to reduced disease-related mortality as evidenced by consistently low *Ichthyophonus* infection rates and the reappearance of older cohorts (> age-7) in the population. While these are positive signs, the department believes it is in the best interest of the resource and the commercial fishery to protect the spawning population until it produces another strong recruitment event.

2015 Kamishak Bay Herring Test Fishing Charters

The department is soliciting bids from herring purse seine fishermen interested in test fishing in Kamishak Bay during **two** 6–10 day surveys between April 20 and May 20, 2015. This project will assist the department in collecting representative herring samples for age composition to assess population abundance and forecast future returns. Herring will not be sold during this season's test fishing charters. Interested parties should submit bid forms for either/both surveys, available from the department office in Homer.

SCOPE OF TEST FISHING:

As in past seasons, test fishing will be conducted between Chinitna Point and Cape Douglas. Two trips of up to 10 days duration each are annually timed to coincide with the “early” and “late” segments of the herring migration. Due to the recent trend towards later spawning timing, this year's surveys will be tentatively scheduled for approximately April 25 – May 5 and May 10 – 18. Specific dates for the surveys will be mutually determined by the staff and the successful bidder(s) after the bids are awarded. The project will be terminated on June 1. Exact times of daily fishing activity during each survey cannot be accurately predetermined but will be governed by on-grounds weather and tide-driven current conditions. Although fishing activity is expected to occur during daylight hours between approximately 6:00 a.m. and 9:00 p.m., it may not be limited to these hours only. Additionally, since Kamishak Bay District encompasses an extensive area of marine waters, a significant amount of non-fishing time is spent traveling and/or actively searching for schools of herring. The purpose of this test fishing is primarily to harvest representative samples of Kamishak Bay herring for onboard pathology lab preparation and to estimate age/weight/sex composition. Secondly, hydroacoustic observations of herring, climatic and water parameters, and other information as determined by the onboard department observer, will also be recorded. Because Kamishak Bay, located approximately 75 nautical miles from Homer on the west side of Lower Cook Inlet, is considered remote, the charter vessel will remain on the grounds for the charter duration without overnighting in a formal harbor. Prospective bidders should realize that little commercial fishing effort occurs in Kamishak Bay during this time of year, equating to very limited nearby support from other fishing vessels.

CONDITIONS OF THE BID ARE AS FOLLOWS:

The successful bidder(s) will be required to provide the following:

1. A seine vessel with a minimum keel length of 50 feet capable of safely navigating and fishing in waters of Kamishak Bay. Each vessel charter will originate from and return to the Homer small boat harbor.

2. A full crew consisting of a captain and minimum of 3 deckhands (including a “skiff man” with at least one season’s experience). Consideration will also be given to those applicants who can demonstrate they routinely and competently fish in Alaska’s commercial herring fisheries with only 2 deckhands due to specialized equipment. The successful bidder(s) must be able to demonstrate at least 5 years’ participation in Alaska commercial herring sac roe fisheries, including at least 1 year in the Kamishak herring sac roe fishery.
3. All fishing equipment, including: purse seine vessel, seine skiff, herring seine net, and all necessary fishing gear and equipment.
4. Onboard accommodations (including individual bunk space) for one department observer, in addition to accommodations for the entire crew.
5. All personal and fishing related expenses including food, fuel, and living arrangements for all personnel onboard, including the department observer, for a charter lasting 10 days.
6. Information relating to protection and indemnity insurance. The State of Alaska will not be held liable for any damage to the vessel, the seine, or any personal injuries incurred during the fulfillment of this contract.

Note: Although a department-chartered aircraft with an onboard department surveyor may be available on an opportunistic basis to locate and set the vessel on herring schools, aerial spotter support will **not** be provided by the state during the contract period. One department observer, whose primary objectives are to collect herring and pathology samples and record data on water depth, temperature, location, etc., will be present on the purse seine vessel throughout the duration of the charter. The observer will not be expected to act as, and/or perform all duties of, a regular crewmember, but may assist in the operation of gear as required.

EVALUATION OF BIDS:

Bids for the 2 charters will be evaluated separately, and separate contracts will be issued for each charter. The department will evaluate all bids on the basis of their dollar amount using the following criteria: maximum 10 day charter consisting of 8 days of functional fishing activity to be paid at the daily bid rate plus 2 days of no fishing activity (“weather” days) to be paid at the daily standby rate. The State of Alaska reserves the right to request that the United States Coast Guard, Marine Safety Detachment make an inspection of the charter vessel's systems integrity. Should serious systems defects be identified upon inspection, the State of Alaska reserves the right to reject a bid.

Bid packets for these charters may be obtained from the Homer area office. Any questions regarding the bid procedure should be directed to Ted Otis or Glenn Hollowell at 907-235-8191. Interested bidders must submit bids to the Homer area office by the close of business (5:00 p.m.) on Friday, April 10, 2015. The winning bidder will be notified by April 13.

Bids should be sent to: Alaska Department of Fish and Game
Division of Commercial Fisheries
Attn: Ted Otis/Glenn Hollowell
3298 Douglas Place, Homer, AK. 99603
PH: (907) 235-8191 FAX: (907) 235-2448