

**Fishery Management Report No. 15-26**

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**Alaska Peninsula-Aleutian Islands Management Area  
Food and Bait Herring Fishery Management Plans,  
2015**

by

**Charles W. Russell**

May 2015

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Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics</b>	
centimeter	cm	Alaska Administrative		<i>all standard mathematical</i>	
deciliter	dL	Code	AAC	<i>signs, symbols and</i>	
gram	g	all commonly accepted		<i>abbreviations</i>	
hectare	ha	abbreviations	e.g., Mr., Mrs.,	alternate hypothesis	H <sub>A</sub>
kilogram	kg		AM, PM, etc.	base of natural logarithm	e
kilometer	km	all commonly accepted		catch per unit effort	CPUE
liter	L	professional titles	e.g., Dr., Ph.D.,	coefficient of variation	CV
meter	m		R.N., etc.	common test statistics	(F, t, $\chi^2$ , etc.)
milliliter	mL	at	@	confidence interval	CI
millimeter	mm	compass directions:		correlation coefficient	
		east	E	(multiple)	R
		north	N	correlation coefficient	
		south	S	(simple)	r
<b>Weights and measures (English)</b>		west	W	covariance	cov
cubic feet per second	ft <sup>3</sup> /s	copyright	©	degree (angular)	°
foot	ft	corporate suffixes:		degrees of freedom	df
gallon	gal	Company	Co.	expected value	E
inch	in	Corporation	Corp.	greater than	>
mile	mi	Incorporated	Inc.	greater than or equal to	≥
nautical mile	nmi	Limited	Ltd.	harvest per unit effort	HPUE
ounce	oz	District of Columbia	D.C.	less than	<
pound	lb	et alii (and others)	et al.	less than or equal to	≤
quart	qt	et cetera (and so forth)	etc.	logarithm (natural)	ln
yard	yd	exempli gratia		logarithm (base 10)	log
		(for example)	e.g.	logarithm (specify base)	log <sub>2</sub> etc.
<b>Time and temperature</b>		Federal Information		minute (angular)	'
day	d	Code	FIC	not significant	NS
degrees Celsius	°C	id est (that is)	i.e.	null hypothesis	H <sub>0</sub>
degrees Fahrenheit	°F	latitude or longitude	lat. or long.	percent	%
degrees kelvin	K	monetary symbols		probability	P
hour	h	(U.S.)	\$, ¢	probability of a type I error	
minute	min	months (tables and		(rejection of the null	
second	s	figures): first three		hypothesis when true)	α
		letters	Jan, ..., Dec	probability of a type II error	
<b>Physics and chemistry</b>		registered trademark	®	(acceptance of the null	
all atomic symbols		trademark	™	hypothesis when false)	β
alternating current	AC	United States		second (angular)	"
ampere	A	(adjective)	U.S.	standard deviation	SD
calorie	cal	United States of		standard error	SE
direct current	DC	America (noun)	USA	variance	
hertz	Hz	U.S.C.	United States	population	Var
horsepower	hp		Code	sample	var
hydrogen ion activity	pH	U.S. state			
(negative log of)			use two-letter		
parts per million	ppm		abbreviations		
parts per thousand	ppt,		(e.g., AK, WA)		
	‰				
volts	V				
watts	W				

***FISHERY MANAGEMENT REPORT NO. 15-26***

**ALASKA PENINSULA-ALEUTIAN ISLANDS MANAGEMENT AREA  
FOOD AND BAIT HERRING FISHERY MANAGEMENT PLANS, 2015**

by  
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## ABSTRACT

The commercial food and bait fisheries for Pacific herring *Clupea pallasii* in the Alaska Peninsula-Aleutian Islands Herring Management Area (Area M) occurs within the Unimak, Akutan, Unalaska, Umnak, and Adak districts. The Dutch Harbor food and bait herring fishery takes place from June 24 until February 28 and is allocated 7% of the Togiak sac roe herring total allowable harvest (minus the Togiak spawn-on-kelp fishery fixed allocation). The 2015 Dutch Harbor food and bait herring allocation is 2,184 tons, of which 306 tons (14%) is allocated to the gillnet fishery and 1,878 tons (86%) is allocated to the purse seine fishery. The Adak food and bait herring fishery is allocated 500 tons that may be harvested, from June 24 until February 28, with either purse seine or gillnet gear. This document describes how the fisheries will be managed, the industry requirements to participate in the fisheries, and how to contact and relay information to the Alaska Department of Fish and Game.

Key words: Pacific herring, *Clupea pallasii*, commercial food and bait fishery, Alaska Peninsula-Aleutian Islands, Area M, Dutch Harbor herring fishery, Togiak, herring gillnet, herring sac roe, herring seine, herring pound, Adak herring fishery, Fishery Management Plan.

## INTRODUCTION

This document is intended to provide commercial herring harvesters and buyers with information and guidelines for participating in the Alaska Peninsula-Aleutian Islands Management Area (Area M) Pacific herring *Clupea pallasii* food and bait fisheries. Information on inseason management of the Alaska Peninsula-Aleutian Islands Management Area herring sac roe fisheries can be found in Russell (2015).

The Alaska Peninsula-Aleutian Islands Herring Management Area consists of Bering Sea waters extending west of Cape Menshikof, and Pacific Ocean state waters extending west of Kupreanof Point, to the International Dateline (Figure 1; 5 AAC 27.600). Fishermen may only harvest food and bait herring in the Unimak, Akutan, Unalaska, Umnak, and Adak districts (Figures 1–4).

There are 2 food and bait fisheries in Area M, the Dutch Harbor (Unimak, Akutan, Unalaska, and Umnak districts) and the Adak (Adak District) herring fisheries. In recent years, 3 management plans have been used to manage the Dutch Harbor herring fishery: (1) the *Bering Sea Herring Fishery Management Plan* (5 AAC 27.060) mandates that if any of the southwest Alaska herring stocks between Port Clarence and Togiak districts are below their minimum threshold, the Dutch Harbor food and bait fishery will be closed for the season; (2) the *Bristol Bay Herring Management Plan* (5 AAC 27.865) establishes a 7% allocation of the Togiak Districts sac roe herring harvest to the Dutch Harbor food and bait fishery; and (3) the *Dutch Harbor Food and Bait Herring Fishery Allocation Plan* (5 AAC 27.655), which divides the 7% allocation by gear type, 86% for the purse seine fishery and 14% for the gillnet fishery. At the February 2010 Alaska Board of Fisheries (BOF) meeting, the BOF amended language to 5 AAC 27.655. It was decided that after July 25, if the gillnet fishery has not harvested its allocation, the remaining allocation may be taken by either group. Additionally, if the seine group exceeds its allocation before July 25, then that amount shall be deducted from any remaining quota for that year after July 25. If the seine group exceeds the total allocation after July 25, then the seine group overage shall be deducted from the next year's seine allocation as stated in 5 AAC 27.655(b).

In 2004, the BOF created the *Alaska Peninsula-Aleutian Islands Herring Management Plan* (5 AAC 27.657), establishing a herring fishery in the Adak District (Figure 3) with a 500-ton allocation independent of the Dutch Harbor food and bait allocation. This plan was amended at the 2010 BOF meeting, to allow both purse seine and gillnet gear to harvest the 500-ton Adak allocation. Since the plan's inception in 2004, there has been no harvest in the Adak District.

# **THE ALASKA PENINSULA-ALEUTIAN ISLANDS (DUTCH HARBOR) FOOD AND BAIT HERRING FISHERY**

## **FISHERY REQUIREMENTS**

In order for Alaska Department of Fish and Game (ADF&G) to open Unimak, Akutan, Unalaska, or Umnak districts (Figure 2) to food and bait herring fishing, each southwest Alaska herring biomass projection must surpass its BOF mandated district threshold (5 AAC 27.060). These biomass projections are for fisheries located in the Security Cove, Goodnews Bay, Cape Avinof, Nelson Island, Nunivak Island, Cape Romonzof, Togiak, and Norton Sound districts (Figure 1). The biomass of all the Bering Sea herring stocks are forecasted to be above their threshold levels and the probability of the 2015 Dutch Harbor food and bait herring fishery occurring is favorable (Appendix A1).

## **ALLOCATION**

ADF&G will attempt to manage the Dutch Harbor food and bait herring fishery so that the harvest remains within the allocation (Table 1; Appendix B1). A “rollover” provision was adopted during the 2001 BOF meeting (5 AAC 27.655(b)); during years when herring harvest exceeds the allocation, the amount of harvest over the allocation shall be deducted from the next year’s allocation, by gear group.

Of the Dutch Harbor food and bait harvest, 86% is allocated to the seine fishery and 14% to the gillnet fishery (5 AAC 27.655 (a)). These allocations are considered independent of each other so that 1 gear group may not harvest herring allocated to the other gear group. Furthermore, 100 tons may be reserved from the purse seine allocation for an experimental herring pound fishery (5 AAC 27.655 (c)). After July 25, if the gillnet fishery has not harvested its allocation, the remaining allocation may be taken by either group. Additionally, if the seine group exceeds its allocation before July 25, then that amount shall be deducted from any remaining quota for that year after July 25. If the seine group exceeds the total allocation after July 25, then the seine group overage shall be deducted from the next year’s seine allocation (5 AAC 27.655(b)). The 2015 harvest allocation is 306 tons for the gillnet fishery and 1,878 for the purse seine fishery (Table 1). The 2014 harvest was below the GHL and therefore no overharvest penalty will be applied to the 2015 GHL.

Inseason news releases will be broadcasted on VHF channel 12 in Dutch Harbor, which will serve as the designated ADF&G channel for communications during the herring fishery. Fishermen, tenders, and processors should monitor this channel.

## **REGISTRATION REQUIREMENTS FOR PERMIT HOLDERS, TENDERS, AND PROCESSORS**

All processors must make daily reports of all herring purchased from fishermen and other processing records as specified by ADF&G (5 AAC 27.662(2)). These daily reports can be provided to ADF&G by VHF, SSB, phone, fax, or e-mail. The following ADF&G offices can be contacted for information concerning the Dutch Harbor and Adak food and bait herring fisheries:



**Sand Point:**

Alaska Department of Fish and Game  
P.O. Box 129  
Sand Point, AK 99661

Phone: (907) 383-2066  
Fax: (907) 383-2606  
VHF channels 6 and 72

**Dutch Harbor:**

Alaska Department of Fish and Game  
P.O. Box 920587  
Dutch Harbor, AK 99692

Phone: (907) 581-1239  
Fax: (907) 581-1572  
VHF 12  
Single Side Band 4.125 MHz  
WIM 76 (call sign)

Prior to harvesting, tendering, buying, or processing any herring, permit holders must register at the ADF&G office in Dutch Harbor. Even if no herring are harvested or vessels are not actively fishing, each permit holder, tender, and processor must still report daily by 10:00 AM or until registration from the fishery is withdrawn. If conditions arise which require additional time for permit holders to report herring harvests, ADF&G must be informed of the situation prior to fishing operations. Catch reporting instructions will be explained in detail during registration.

**FISH TICKETS**

Permit holders must provide specific harvest locations (statistical area and specific landmark) to buyers, so that they can be recorded on fish tickets. **Fish tickets must be delivered, by mail or in person, to the Dutch Harbor, or Sand Point ADF&G offices within ten days after the closure of the fishery (5 AAC 27.662(3)).** If 10 days are insufficient time to submit fish tickets, other arrangements must be made by contacting ADF&G in Sand Point.

**FISHING PERIODS**

The herring gillnet fishery can open by emergency order beginning noon June 24 and may be extended until the allocation is reached, or until ADF&G decides that an additional fishing period might exceed the allocation or the season ends on February 28 (5 AAC 27.610(e)(2)(A)). It is the intention of ADF&G to begin the fishery no later than July 1. Effort levels and harvest rates will be considered when establishing fishery openings. If possible, the fishery will be conducted in the waters of Unalaska Bay (Figure 4).

The initial purse seine herring fishing period may occur as early as noon July 15 (5 AAC 27.610(e)(2)(B)). Unless harvesters form a combine, ADF&G anticipates that purse seine fishing periods will be short in duration and the fishery will be conducted within designated portions of Unalaska Bay. Short openings over several days may be required to prevent exceeding the allocation. Generally, there will be a 12-hour closure between fishing periods to allow permit holders an opportunity to deliver their catch and the department to assess the harvest and processing capacity. A shorter closed period may be allowed if ADF&G receives harvest reports promptly from all permit holders. ADF&G may cancel or extend a fishing period with little notice.

In the past, widespread overharvesting has occurred in the Dutch Harbor food and bait fishery. To avoid potential overharvest issues, ADF&G instituted the policy that if the average allocation per vessel fished (total allocation/number of vessels registered) is less than 150 tons per registered vessel, ADF&G will drastically limit both the length of the fishing periods and the size of the area open to commercial herring fishing.

Harvesters and spotter pilots are encouraged to relay biomass information to ADF&G prior to the opening. Past cooperation between ADF&G and the fishing industry has proven valuable in gaining information critical to management of the fishery. ADF&G will try to assess herring biomass in the area prior to opening the fishery.

### **HERRING SEINE POUND FISHERY**

One hundred tons of herring may be allocated to the herring seine pound fishery, which is deducted from the purse seine allocation. A person planning to operate a pound must check in with ADF&G and include detailed plans describing the design and operation of the pound, including exact location and timing of pound operation. These plans must be received by ADF&G in a timely manner to allow preparation of a Commissioner's permit for pound operation. A permit holder intending to operate a pound is encouraged to register with ADF&G in Dutch Harbor or Sand Point no later than 5:00 PM June 30, 2015.

Herring for pounding may only be harvested during purse seine fishery openings. If the herring pound allocation is not harvested, it will then be rolled over into the seine allocation. If 2 or more permit holders register for the pound fishery, the pound allocation is divided equally among them.

### **GEAR TESTING**

Prior to opening the fishery, purse seine gear may be tested during daylight hours until 5:00 PM July 14. Gear testing will only be allowed at a time and place designated by ADF&G. Permit holders must contact ADF&G in Dutch Harbor on VHF channel 12 or in person prior to setting gear. In addition, any fish caught during gear testing must immediately be released unharmed. After the fishery has been closed and all herring on the vessel have been offloaded, participants may, after notifying ADF&G, set their net to straighten, clean, and organize their gear at a time and place designated by ADF&G.

### **COMMERCIAL HARVEST SAMPLING**

Cooperation from harvesters, tender operators, and processors will be appreciated when ADF&G personnel request herring samples from the commercial catch. These samples will be used to determine the age, sex, and size composition of the stock.

## **ALASKA PENINSULA-ALEUTIAN ISLANDS (ADAK) HERRING FISHERY**

Beginning in 2004, the BOF authorized a herring set gillnet fishery in the Adak District (Figure 3) with a 500-ton allocation. However in 2010, the BOF amended the regulations to include both seine and gillnet gear in the harvest of up to 500 tons within the waters around Adak. This allocation is independent of the Dutch Harbor food and bait allocation. Herring can be harvested in this fishery as either sac roe or food and bait (Wilburn 2015). ADF&G has no information about the size, timing, or condition of herring stocks in the Adak area. ADF&G may station a representative in Adak to manage this fishery and collect herring samples.

### **COMMISSIONER'S PERMIT**

Each permit holder, tender operator, and buyer must register and obtain a Commissioner's permit for the Adak herring fishery at the ADF&G office in Sand Point or Dutch Harbor prior to

catching, tendering, buying, or processing herring. The buyer and tender reporting requirements are described in 5 AAC 27.662. Permit holders are encouraged to check with their markets prior to fishing to determine which products are acceptable.

### **FISHING SEASONS, AREA, AND GEAR OPERATION**

In that portion of the Adak District from 175°30' W long to 177° W long, herring may be taken in the food and bait fishery using seine or gillnet gear from June 24 through February 28 (5 AAC 27.657; Figure 3).

The permit holder must be physically present while the set gillnet is being fished. Each set gillnet in operation must be anchored and buoyed at both ends. Each buoy must be plainly and legibly marked with the permanent vessel license plate number (ADF&G number) of the vessel operating the gear. The numbers must be painted on the top one-third of the buoy in numerals at least 4 inches in height, one-half inch in width, and in a color contrasting to that of the buoy. The buoy markings must be visible above the water surface. (5 AAC 27.631(b)(c)). A purse seine may not be more than 1,000 meshes in depth and 250 fathoms in length. (5 AAC 27.632).

### **REFERENCES CITED**

- Russell, C. W. 2015. Alaska Peninsula-Aleutian Islands Management Area sac roe herring fishery management plans, 2015. Alaska Department of Fish and Game, Fishery Management Report No. 15-21
- Wilburn, D. M. 2015. Alaska Peninsula-Aleutian Islands herring sac roe and food and bait fisheries annual management report, 2014. Alaska Department of Fish and Game, Fishery Management Report No. 15-10



## **TABLES AND FIGURES**

Table 1.–Harvest allocation of the 2015 forecasted Pacific herring run biomass, Togiak District, Bristol Bay.

	Biomass ( Short Tons)	Harvest (Short Tons)
2015 Togiak District Forecasted Biomass Exploitation at maximum 20%	163,480	
Total Allowable Harvest		32,696
Togiak Spawn on Kelp Fishery (Fixed Allocation)		1,500
Remaining Allowable Harvest		29,012
Dutch Harbor Food/Bait Allocation <sup>a</sup>		2,184
Purse Seine Allocation (86%) <sup>b</sup>		1,878
Overharvest penalty from previous year.		0
<b>2015 Seine Allocation</b>		<b>1,878</b>
Gillnet Allocation (14%) <sup>c</sup>		306
Overharvest penalty from previous year.		0
<b>2015 Gillnet Allocation</b>		<b>306</b>

<sup>a</sup> The Dutch Harbor Food/Bait allocation is 7% of the remaining allowable harvest from the Togiak District.

<sup>b</sup> The purse seine allocation for 2015 is 86% of the Dutch Harbor allocation.

<sup>c</sup> The gillnet allocation for 2015 is 14% of the Dutch Harbor allocation.

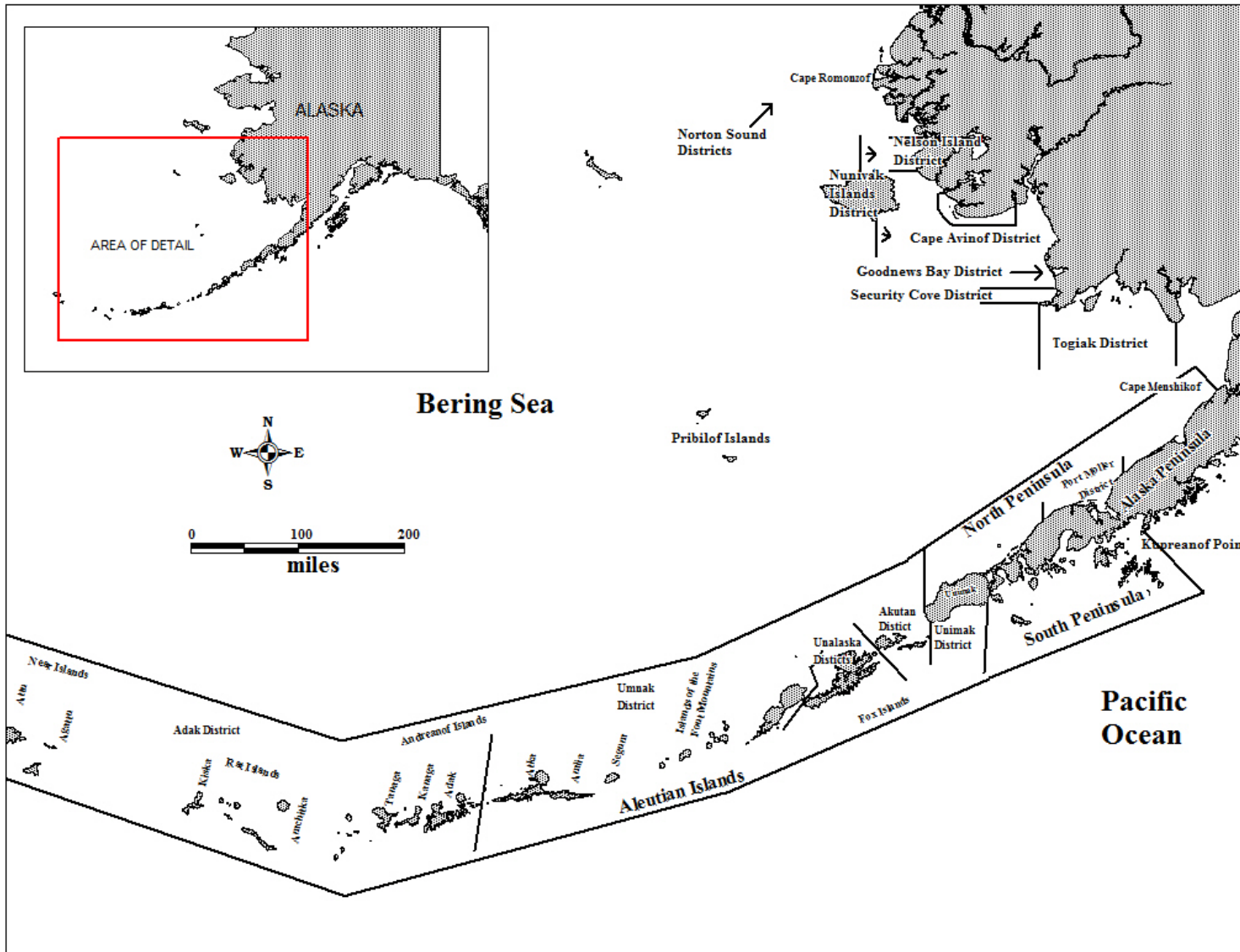


Figure 1.—Map of the Bering Sea Management Plan (5 AAC 27.060) commercial herring districts.

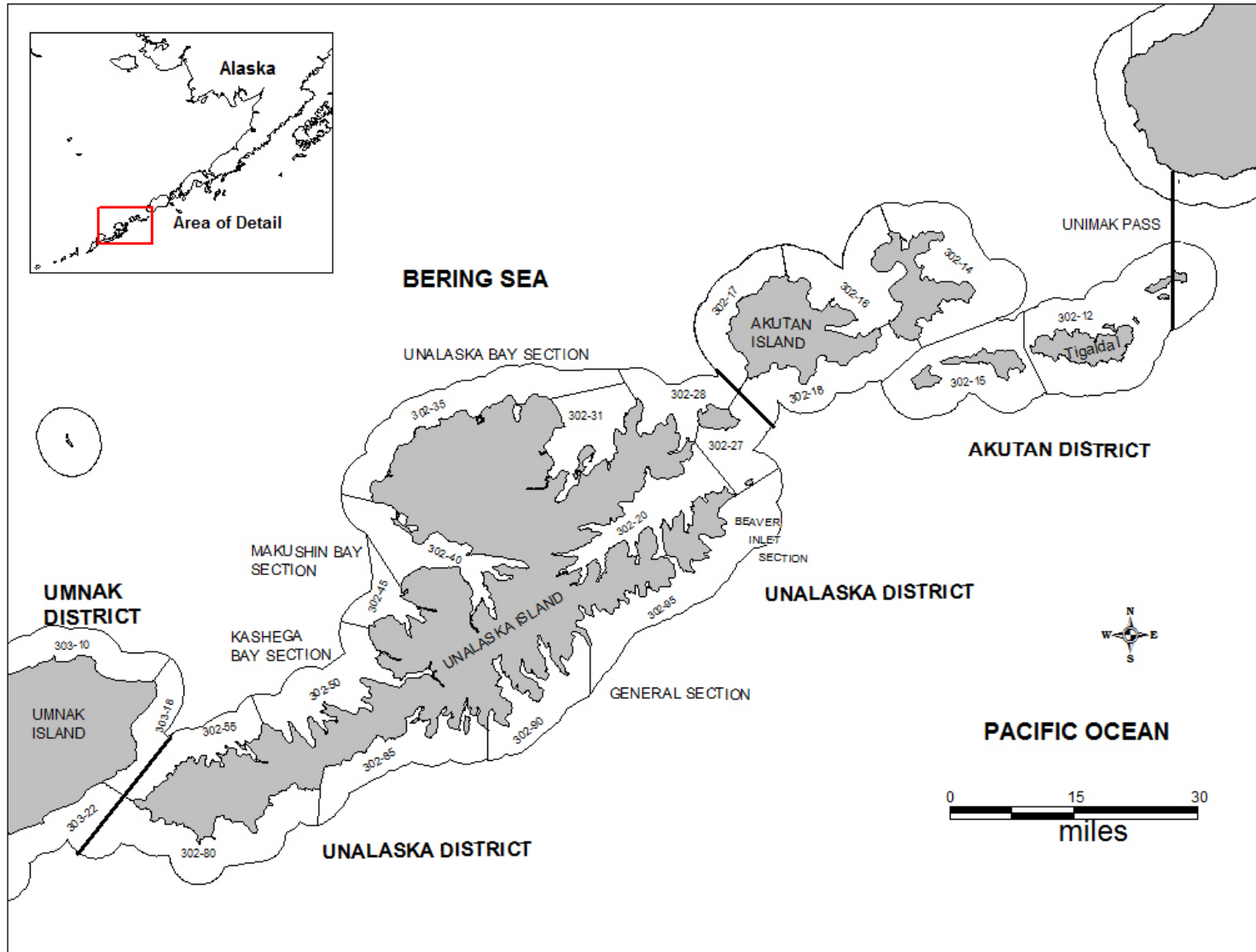


Figure 2.—Map of the Aleutian Islands from Tigalda Island to Umnak Island illustrating the herring fishing statistical areas.



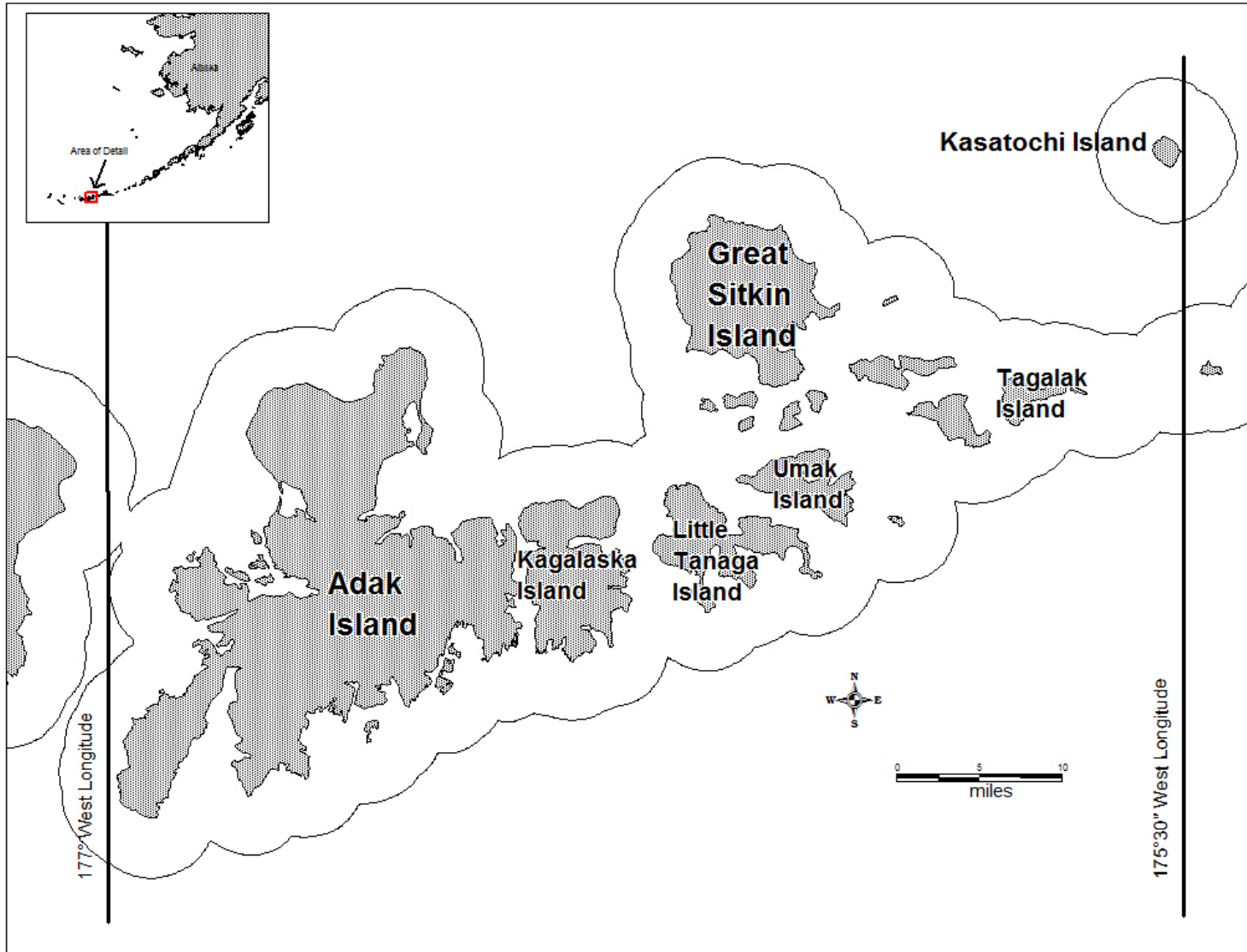


Figure 3.—Map of the Adak District illustrating the herring fishery boundaries.

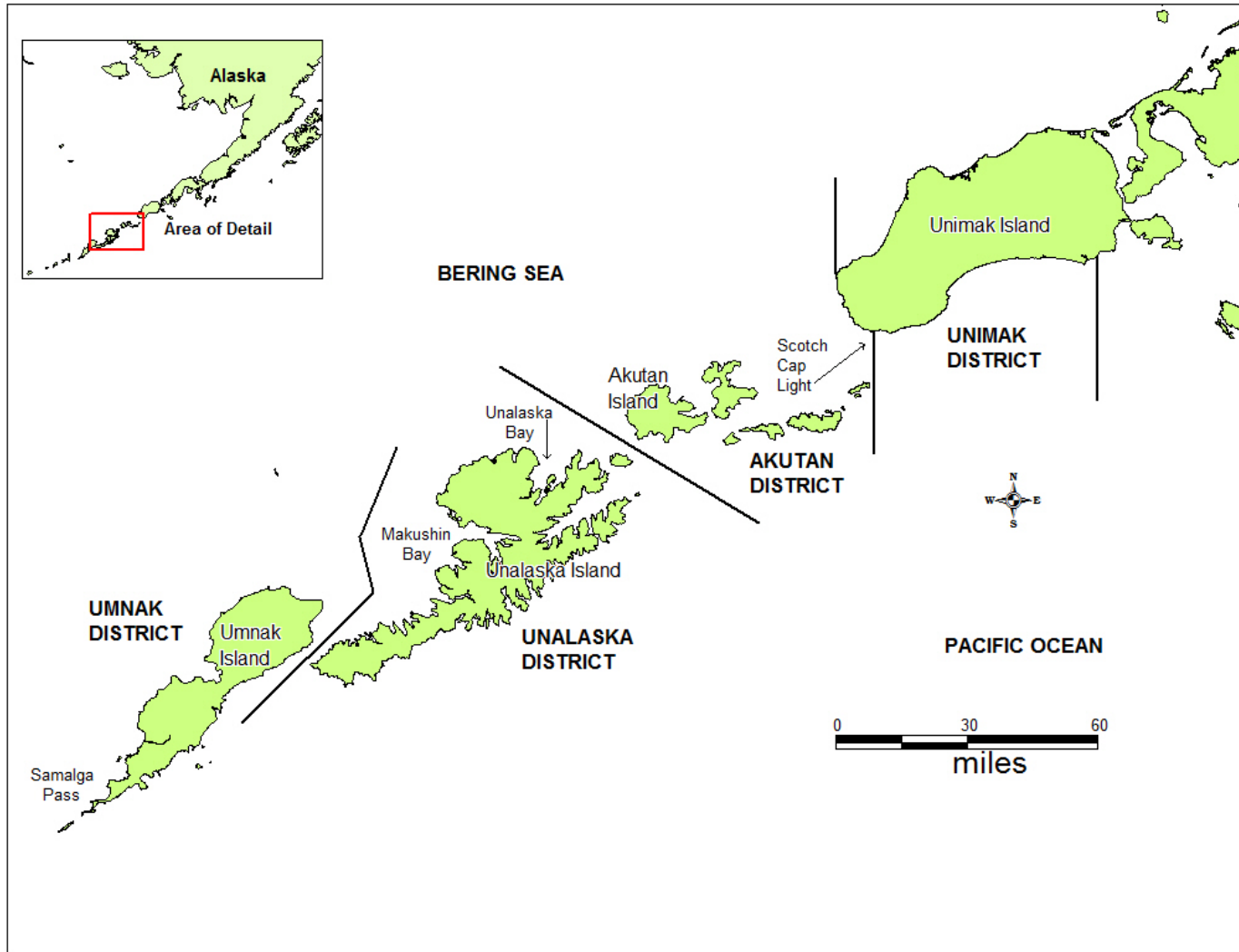


Figure 4.—Map of the eastern Aleutian Islands from Samalga Pass to Unimak Island illustrating the herring fishing district boundaries.

**APPENDIX A. ARCTIC-YUKON-KUSKOKWIM HERRING  
OUTLOOK AND MANAGEMENT STRATEGY FOR 2015**

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



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 Date issued: April 27, 2015

**2015 Arctic-Yukon-Kuskokwim Herring Outlook**

The 2015 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, 2015.

District	Threshold	2015 Projected Biomass (short tons)	Exploitation Rate (%)	2015 Harvest Guideline (short tons)
Security Cove	1,200	12,876	20	2,575
Goodnews Bay	1,200	18,532	20	3,706
Cape Avinof <sup>a</sup>	500	10,423	15	1,563
Nelson Island <sup>b</sup>	3,000	30,228	20	5,846
Nunivak Island	1,500	5,657	20	1,131
Cape Romanzof	1,500	4,813	20	963
Norton Sound <sup>c</sup>	7,000	53,786	20	10,757
Port Clarence <sup>d</sup>	–	–	–	165
<b>Totals</b>		<b>136,315</b>		<b>26,707</b>

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

<sup>b</sup> Nelson Island commercial harvest is 20% of projected biomass minus 200 tons for subsistence harvest (5 AAC 27.895 (d)).

<sup>c</sup> See Norton Sound District management strategies for more details on GHL allocations.

<sup>d</sup> See Port Clarence District management strategies for GHL allocation details.

-continued-

This news release is to inform fishermen of projected herring biomass and GHGs, 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 2015, most likely in the Norton Sound District. Each district may be opened by emergency order and the fishery will close by emergency order when GHGs are reached for each location. 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 2015 estimated spawning biomass for northeastern Bering Sea herring stocks (Security Cove to Norton Sound Districts) will be 136,315 tons. If the return is as anticipated the total allowable harvest could be 26,707 tons. A harvest of this magnitude in the AYK herring fishery would be one of the largest on record.

In previous years, the AYK region herring biomass projection was based on an age-structured assessment (ASA) model. The ASA model requires age composition information, harvest data, and good aerial survey biomass estimates from each of the northeastern Bering Sea stocks. In 2014, test fishing projects only occurred in Norton Sound and Goodnews Bay; therefore, stock-specific age composition information is only available for these two areas. Aerial surveys in 2014 were conducted for Security Cove, Goodnews Bay, Cape Avinof, and Nelson Island. Only a small commercial harvest, approximately 2,448 tons for bait, occurred in the Norton Sound District in 2014. Due to the limited data available from 2014, the AYK region herring biomass was not assessed using an ASA model. The 2015 projected biomass is the average of biomass estimates of “good” (rating 3 or higher) aerial surveys from the last five years. If “good” aerial surveys were not available in the last five years then the last “good” aerial survey biomass estimate was used.

The actual biomass observed in 2015 may fall above or below the preseason projections based on variability in the quality of aerial biomass assessments and annual fluctuations of survival and recruitment rates.

## **2014 TEST FISHERY DATA**

### **Goodnews Bay District**

Test fishing using variable mesh gillnet gear occurred in Goodnews Bay in 2014. Length, weight, and age were recorded for a subsample of the catch. A total of 581 scales were taken with 6% age-4 fish, 29% age-5 fish, 11% age-6 fish, 15% age-7 fish, and 12% age-8 fish. Additionally, 22% of the sample was fish aged nine and older, 3% were unable to be read, and there were no age-3 fish encountered through test fishing. Ages ranged between 4 and 18 years with an average age of seven. Lengths ranged from 177–399 mm with an average length of 284 mm. Weights ranged from 83–609 g with an average weight of 247 g.

### **Norton Sound District**

Test fishing using variable mesh gillnet gear occurred in Norton Sound in 2014. Length, weight, and age were recorded for a subsample of the catch. A total of 222 scales were taken with 3% age-4 fish, 23% age-5 fish, 8% age-6 fish, 25% age-7 fish, and 16% age-8 fish. Additionally, 26% of the sample was fish aged nine and older. Ages ranged between 4 and 19 years with an average age of

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eight. Lengths ranged from 220–325 mm with an average length of 271 mm. Weights ranged from 126–439 g with an average weight of 240 g.

### ***2015 Management Strategies***

The department will conduct aerial surveys and monitor catch statistics inseason if commercial fishing occurs. Guideline harvest levels may be adjusted according to inseason aerial assessments of herring biomass, except for the Norton Sound District where the preseason projection cannot be adjusted inseason. Given the new projection method requires reliable estimates of biomass from aerial surveys, the department will increase and prioritize efforts to conduct aerial surveys throughout the herring season. 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 will vary in each district depending on inseason biomass estimates, roe quality, spawning activity, weather conditions, fishing effort, and processor input.

#### **Cape Romanzof District**

Since water turbidity in the Cape Romanzof area generally prevents aerial observations of herring, spawn deposition and commercial catch rates will be used to determine the timing and duration of commercial fishing periods if fishing occurs.

#### **Norton Sound District**

The 2015 projected biomass for the Norton Sound District is 53,786 tons which surpasses the minimum biomass threshold of 7,000 tons. A 20% exploitation rate would result in a guideline harvest of 10,757 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; 5 AAC 27.965 (d,e)) leaving 10,437 tons for sac roe harvest. The beach seine harvest is allocated 10% of the sac roe projected harvest, or 1,044 tons (5 AAC 27.960 (a)). Varied harvest rates may be applied to individual subdistricts based on biomass distribution, roe quality, weather, and sea ice conditions.

#### **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. The Alaska Board of Fisheries set a guideline harvest of 165 tons in 1981 and this will be the allowable harvest in 2015. 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.

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**APPENDIX B. FORECASTED HARVEST ALLOCATION  
FOR TOGIAK SAC ROE AND DUTCH HARBOR FOOD  
AND BAIT HERRING FISHERIES, 2015**

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



*Sam Cotten, Commissioner  
Jeff Regnart, Director*



Contact:  
Tim Sands, Area Management Biologist  
Matt Jones, Assistant Area Biologist  
Phone: (907) 842-5227  
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Dillingham Area Office  
546 Kenny Wren Road  
Dillingham, AK, 99576  
Date Issued: February 27, 2015  
Time: 9:00 a.m.

**2015 TOGIAK HERRING OUTLOOK**

The 2015 Togiak District herring biomass is forecast to be 163,480 tons, approximately 110% of the recent 10 year average. This forecast is based on an age-structured analysis (ASA) model that has been used since 1993. Ages 4-6 herring are expected to comprise 17% of the projected biomass, ages -7 and -8 comprising 27%, ages 9-11 are expected to make up 50% while the remaining 6% will be age 12+ fish. Average weight for age-7 and older herring should exceed 300 grams. The forecasted individual average weight of herring in the harvested biomass is 383 grams.

The commercial fishery and spawn timing is largely related to water temperatures experienced by herring on the spawning grounds. Additional factors related to timing include sea surface temperature and sea ice trends across the southeastern Bering Sea in the weeks prior to spawning. We track the average sea surface temperature and Bering Sea ice coverage in February and March, as we consider these variables a useful index of timing for maturing herring ultimately bound for spawning grounds in and around the Togiak District. Currently sea surface temperatures are much higher than we would expect at this time of year and the Bering Sea is almost totally ice free. Given that these conditions are so far from normal, we have little confidence in our ability to accurately forecast timing this year.

The Bristol Bay Herring Management Plan (5 AAC 27.865) sets a maximum 20% exploitation rate for the Togiak District stock. Based on a forecast of 163,480 tons, up to 32,696 tons of herring will be available for harvest in 2015. Harvest allocation, in accordance with the management plan will be:

<b>Fishery</b>	<b>Harvest Allocation</b>
Spawn-on-Kelp	1,500 tons
Dutch Harbor Food and Bait	2,184 tons
Togiak Sac Roe	29,012 tons
Purse Seine (70%)	20,309 tons
Gillnet (30%)	8,704 tons



### **SAC ROE FISHERY**

The management strategy for the Togiak herring fishery is designed to provide for maximum sustained yield while affording the greatest economic benefit. In 2015, sac roe fisheries will again be managed to maximize product quality through long openings which allow permit holders to make smaller sets and harvest the highest quality fish. Long openings also allow processors to have flexible control of harvest volume so that holding time between harvest and processing is optimal. Based on a preseason poll processing capacity is expected to be approximately 2,200 tons per day based. This represents a 15% decrease from the 2014 daily capacity of 2,600 tons per day. The preseason poll also indicates that 5 processors will participate in the Togiak sac roe herring fishery with a fleet size of 10 gillnet and 16 purse seine vessels. For the last decade, the department has opened the herring fishery as soon as threshold biomass has been documented and anticipates using this strategy again in 2015 to maximize fishing time. The department believes this strategy allows individual companies to maximize their processing capacity and decide what quality is suitable for their individual market.

#### **Purse Seine**

For at least the last decade, the seine fishery has operated as individual processor controlled fleets. Indications are that this will be the case again in 2015 and therefore, fishing time and area will be very liberal. This should allow purse seine vessels to locate high quality herring and fill their company's daily needs. This approach should result in fresher, higher quality roe, thereby maximizing product quality and value. The department will not be coordinating any test fishing efforts. As always, the department will work with processors that want to make test sets to monitor roe quality prior to the threshold biomass being documented.

#### **Gillnet**

Management of the gillnet fishery will be similar to past years. Ample fishing time and area will be allowed in an effort to take the entire harvest guideline of 8,704 tons, while maintaining the specified 70/30 purse seine/gillnet harvest ratio. Product quality will be a priority throughout the gillnet fishery. In 2015, the department will primarily focus the gillnet fleet in the area east of Right Hand Point. The department will consider opening areas west of Right Hand Point to the gillnet fleet if weather conditions are unfavorable in the eastern section. As in 2014, the plan is to open the gillnet area to fishing when threshold biomass is documented. Processors and fishermen may organize test fishing to monitor fishery quality once the area is open to determine when to begin fishing. Until it is determined that commercial quality fish are present, participants should test cautiously with a small portion of gear to reduce waste.

### **ADF&G OPERATIONS 2015**

Beginning in late April or early May, current fishery information will be available by calling the telephone recorder in Dillingham at (907) 842-5226. Recordings will be updated regularly throughout the season as information becomes available. The department will conduct regular aerial surveys of Togiak District beginning in late April or early May, depending on weather conditions. The department will not relocate to a field office in Togiak for 2015. The department will monitor marine VHF channel 7 from Dillingham and be available at the phone number listed at the top of this document. Fishing announcements and regular fishery updates will be

2015 Togiak Herring outlook

February 27, 2015

communicated directly to each processor, published on the web, and distributed by fax and email.

Visit <http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main> to subscribe to herring fax and/or email updates and announcements. Harvest and fishery opening information will also be available at the Commercial Fisheries website at [http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareabristolbay.herring\\_announcements](http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareabristolbay.herring_announcements).