

Fishery Management Report No. 16-21

**Alaska Peninsula–Aleutian Islands Management Area
Food and Bait Herring Fishery Management Plans,
2016**

by

Charles W. Russell

June 2016

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



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Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	H_A
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, χ^2 , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient (multiple)	R
milliliter	mL	west	W	correlation coefficient (simple)	r
millimeter	mm	copyright	©	covariance	cov
		corporate suffixes:		degree (angular)	°
Weights and measures (English)		Company	Co.	degrees of freedom	df
cubic feet per second	ft ³ /s	Corporation	Corp.	expected value	E
foot	ft	Incorporated	Inc.	greater than	>
gallon	gal	Limited	Ltd.	greater than or equal to	≥
inch	in	District of Columbia	D.C.	harvest per unit effort	HPUE
mile	mi	et alii (and others)	et al.	less than	<
nautical mile	nmi	et cetera (and so forth)	etc.	less than or equal to	≤
ounce	oz	exempli gratia	e.g.	logarithm (natural)	ln
pound	lb	(for example)		logarithm (base 10)	log
quart	qt	Federal Information Code	FIC	logarithm (specify base)	log ₂ , etc.
yard	yd	id est (that is)	i.e.	minute (angular)	'
		latitude or longitude	lat. or long.	not significant	NS
Time and temperature		monetary symbols (U.S.)	\$, ¢	null hypothesis	H_0
day	d	months (tables and figures): first three letters	Jan, ..., Dec	percent	%
degrees Celsius	°C	registered trademark	®	probability	P
degrees Fahrenheit	°F	trademark	™	probability of a type I error (rejection of the null hypothesis when true)	α
degrees kelvin	K	United States (adjective)	U.S.	probability of a type II error (acceptance of the null hypothesis when false)	β
hour	h	United States of America (noun)	USA	second (angular)	"
minute	min	U.S.C.	United States Code	standard deviation	SD
second	s	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard error	SE
				variance	
Physics and chemistry				population sample	Var var
all atomic symbols					
alternating current	AC				
ampere	A				
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

FISHERY MANAGEMENT REPORT NO. 16-21

**ALASKA PENINSULA–ALEUTIAN ISLANDS MANAGEMENT AREA
FOOD AND BAIT HERRING FISHERY MANAGEMENT PLANS, 2016**

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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) can occur 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 2016 Dutch Harbor food and bait herring allocation is 2,166 tons, of which 303 tons (14%) is allocated to the gillnet fishery and 1,863 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 fishery. Information on inseason management of the Alaska Peninsula–Aleutian Islands Management Area herring sac roe fisheries can be found in Russell (2016).

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 2016 Alaska Peninsula, Aleutian Islands, and Chignik meeting, the Alaska Board of Fisheries (BOF) made changes to the *Dutch Harbor Food and Bait Herring Fishery Allocation Plan* (5 AAC 27.655). The date at which the herring seine fishery may harvest any remaining herring gillnet allocation was changed from July 25 to July 20. After July 20, 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 20, then that amount shall be deducted from any remaining quota for that year after July 20. If the seine group exceeds the total allocation after July 20, 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 2016 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)). Furthermore, 100 tons may be reserved from the purse seine allocation for an experimental herring pound fishery (5 AAC 27.655 (c)). After July 20, 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 20, then that amount shall be deducted from any remaining quota for that year after July 20. If the seine group exceeds the total allocation after July 20, then the seine group overage shall be deducted from the next year's seine allocation (5 AAC 27.655(b)). The 2016 harvest allocation is 303 tons for the gillnet fishery and 1,863 tons for the purse seine fishery (Table 1). The 2015 harvest was below the allocation, therefore, no overharvest penalty will be applied to the 2016 allocation.

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

Dutch Harbor:

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

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

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

Prior to harvesting, buying, or processing any herring, permit holders must register at the ADF&G office in Dutch Harbor, Sand Point, or Kodiak. 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 10 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)). Due to the harvest capabilities and competitive nature of the fleet, unless the harvesters form a combine, ADF&G anticipates that purse seine fishing periods will be short in duration. 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 ADF&G to assess the harvest and processing capacity. The fishery may be extended until the allocation is reached if the harvesters form a combine and 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, 2016.

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 (Russell 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. 2016. 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, Anchorage.
- Wilburn, D. 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, Anchorage.

TABLES AND FIGURES

Table 1.–Harvest allocation of the 2016 forecasted Pacific herring run biomass, Togiak District, Bristol Bay.

	Biomass (short tons)	Harvest (short tons)
2016 Togiak District forecasted biomass exploitation at maximum 20%	162,244	
Total allowable harvest		32,449
Togiak spawn-on-kelp fishery (fixed allocation)		1,500
Remaining allowable harvest		30,949
Dutch Harbor food/bait allocation ^a		2,166
Purse seine allocation (86%) ^b		1,863
Overharvest penalty from previous year		0
2016 Seine allocation		1,863
Gillnet allocation (15%) ^c		303
Overharvest penalty from previous year		0
2016 Gillnet allocation		303

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

^b The purse seine allocation for 2016 is 86% of the Dutch Harbor allocation.

^c The gillnet allocation for 2016 is 14% of the Dutch Harbor allocation.

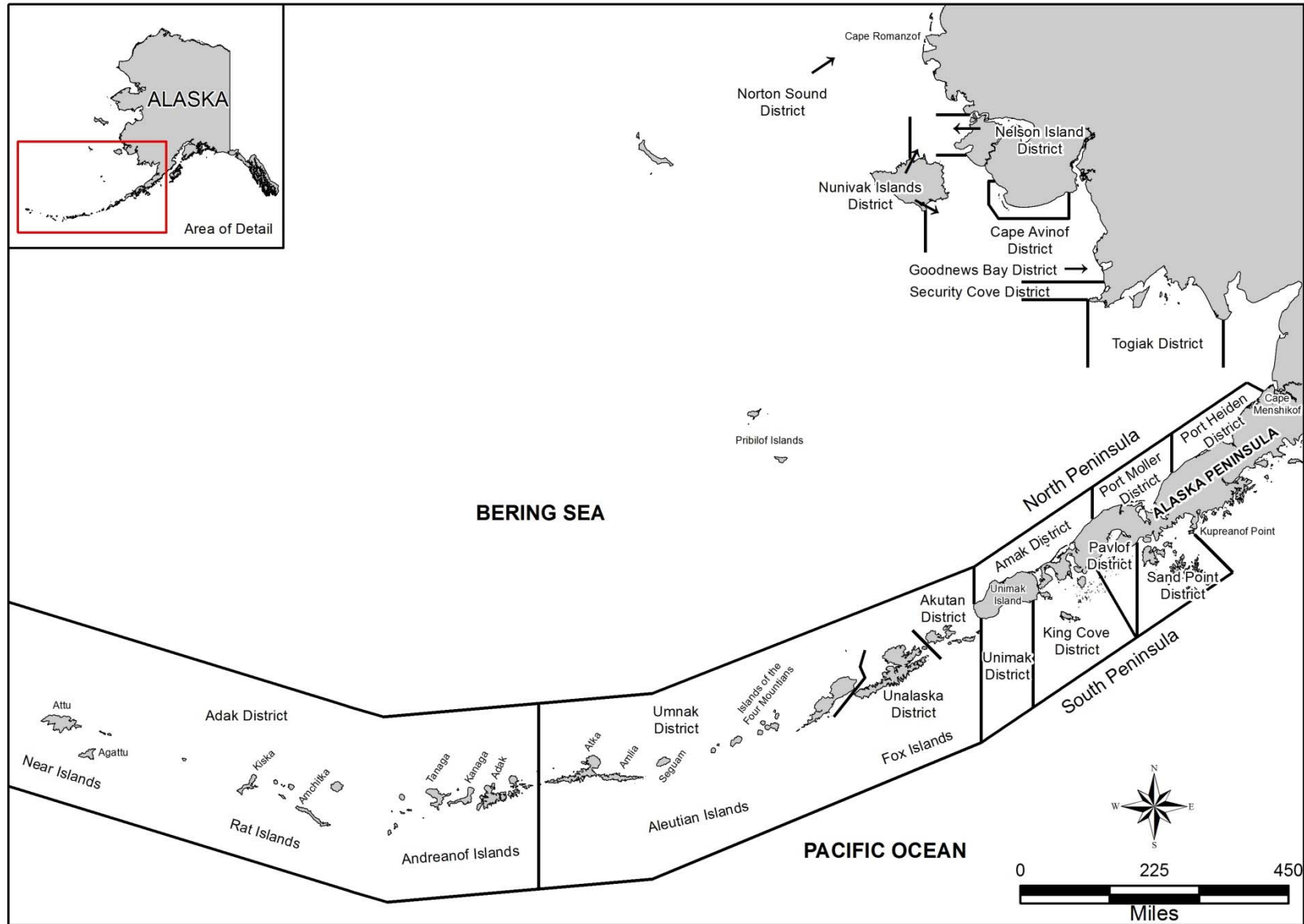


Figure 1.—Map of the Bering Sea Management Plan (5 AAC 27.060) commercial herring districts.

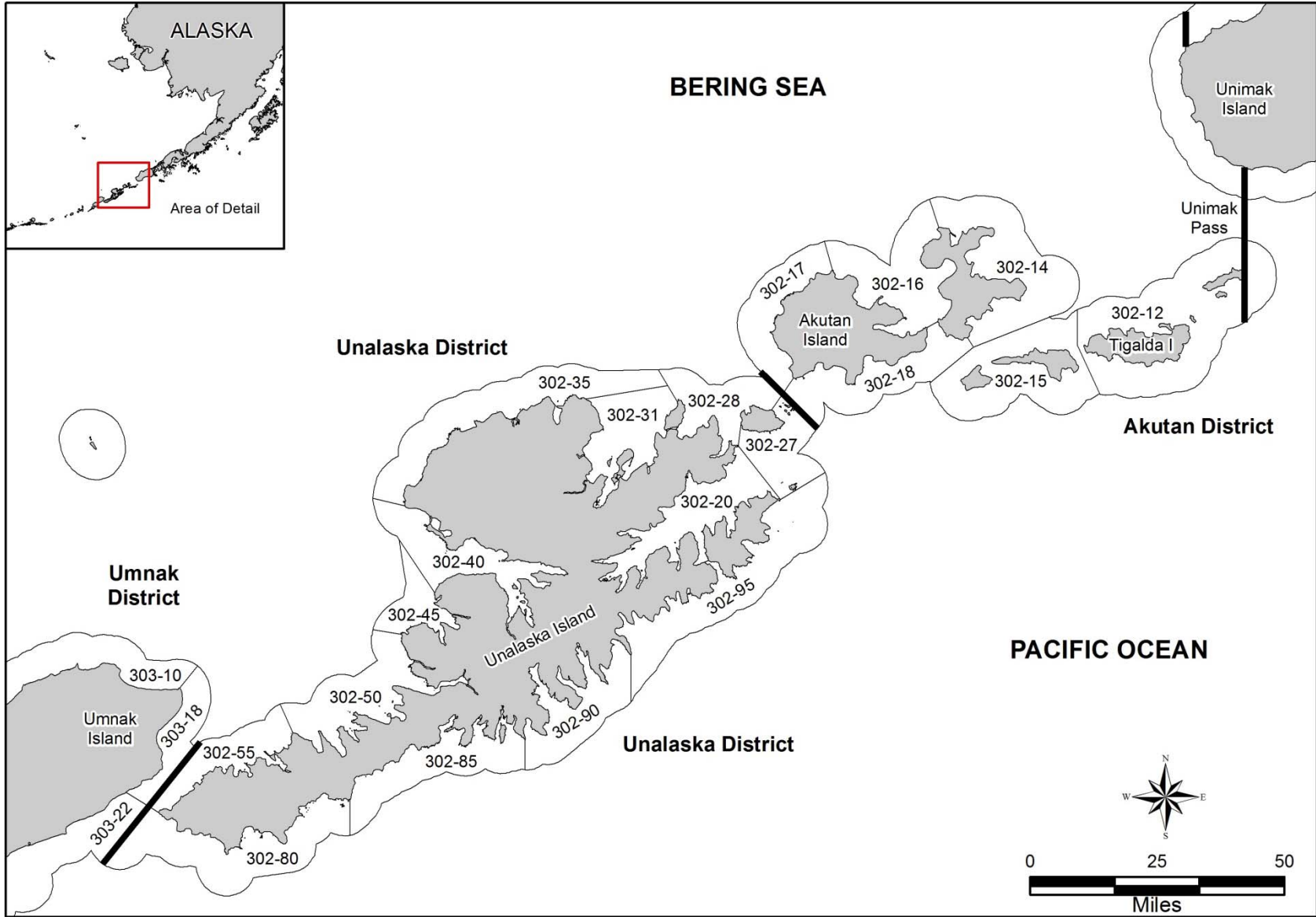


Figure 2.—Map of the Aleutian Islands from Tigalda Island to Umnak Island illustrating the herring fishing statistical areas.

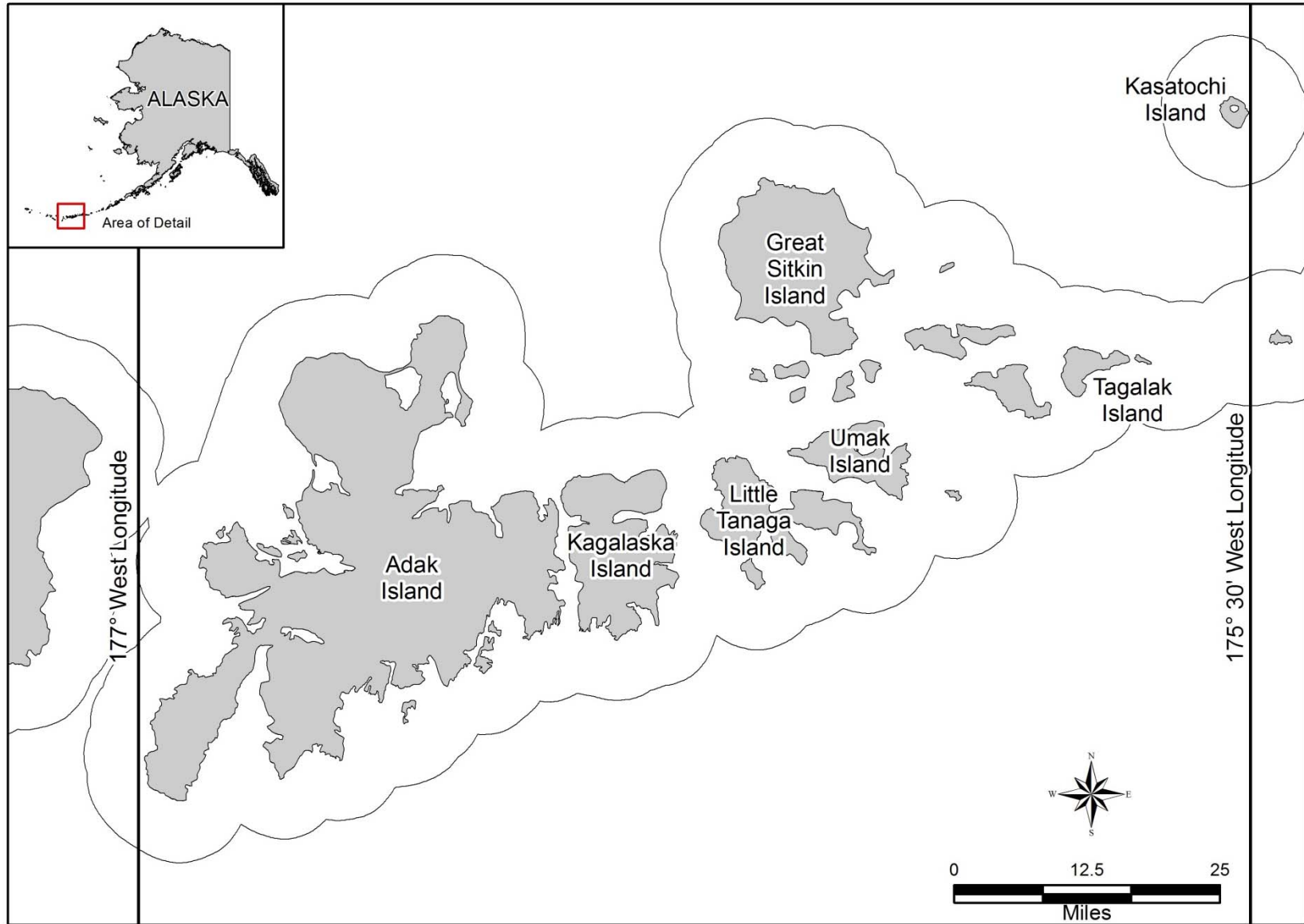


Figure 3.—Map of the Adak District illustrating the herring fishery boundaries.

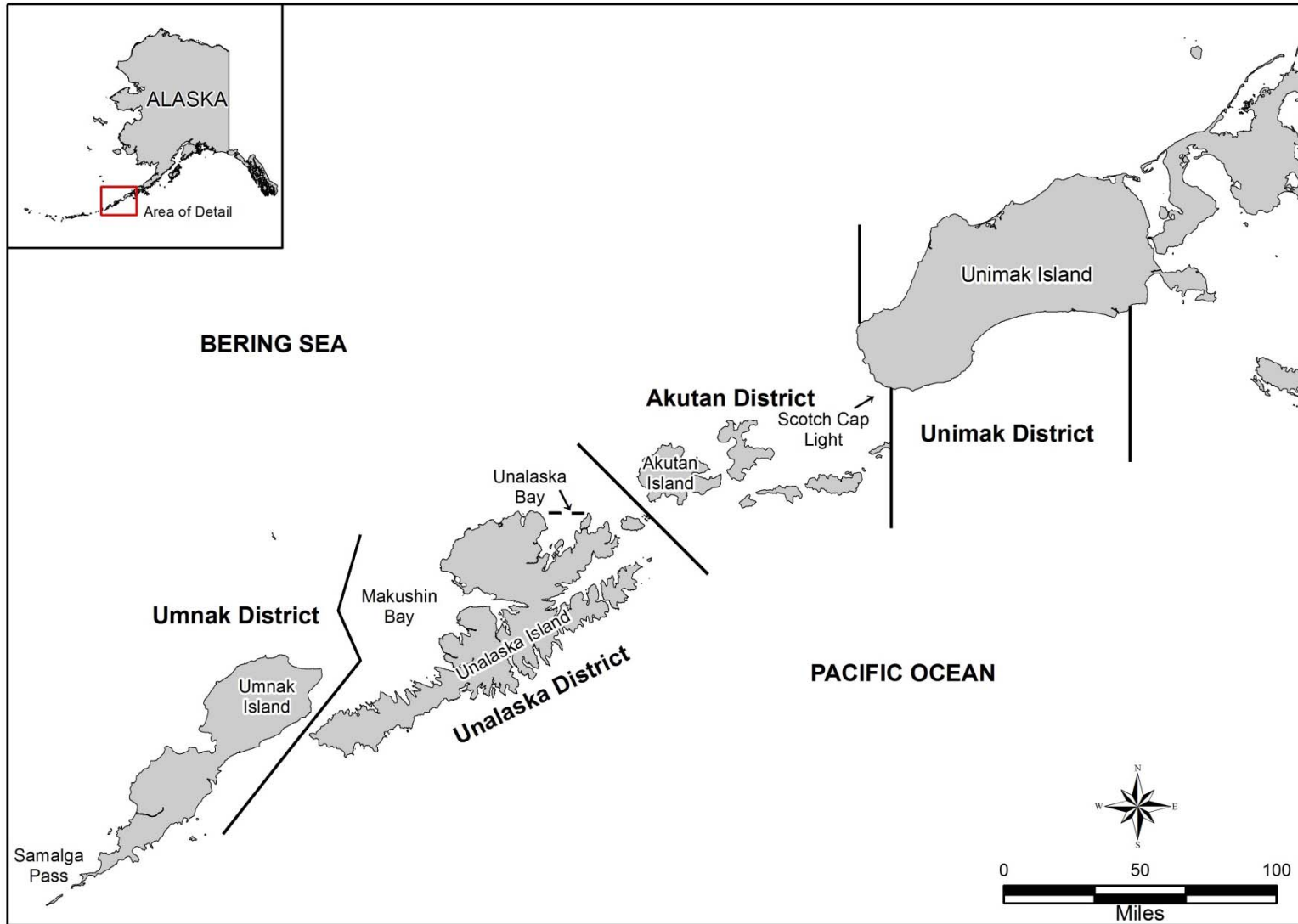


Figure 4.—Map of the eastern Aleutian Islands from Samalga Pass to Unimak Island illustrating the herring fishing district boundaries.

**APPENDIX A. ARCTIC-YUKON-KUSKOKWIM HERRING
OUTLOOK AND MANAGEMENT STRATEGY FOR 2016**

ALASKA DEPARTMENT OF FISH AND GAME
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NEWS RELEASE



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Date issued: April 5, 2016

2016 Arctic-Yukon-Kuskokwim Herring Outlook

This news release is to inform fishermen of projected herring biomass and GHs in the Arctic-Yukon-Kuskokwim (AYK) Region in 2016. At this time, it is anticipated that commercial herring fishing will occur in Norton Sound District for a small amount of bait. There has been very minimal commercial fishing in the AYK Region since 2006 because of a lack of markets. 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. Since all preseason projected biomass thresholds have been exceeded, commercial fishing may occur in any of the AYK districts unless inseason biomass assessments show that the thresholds will not be met.

The 2016 AYK herring forecast and guideline harvest levels (GHs), given a maximum 20% exploitation rate of the projected biomass, are listed below for the northeastern Bering Sea herring stocks (Table 1). The 2016 estimated spawning biomass for northeastern Bering Sea herring stocks (Security Cove to Norton Sound districts) is 72,748 short tons and the total allowable harvest is 14,148 short tons. Based on previous years, only a small portion of the total allowable harvest is anticipated to be taken in 2016.

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. Test fishing projects and aerial surveys were not conducted in any of the AYK herring districts in 2015, and these data have been severely limited since 2006. Data deficiencies make it impossible to continue using the ASA model to project herring biomass. The 2016 projected biomass is an average of the long-term (1981–2014) biomass estimates from “good” (rating 3 or higher) aerial surveys in AYK districts. The actual biomass observed in 2016 may fall above or below the preseason projections given that herring experience annual fluctuations in survival and recruitment rates.

2016 Management Strategies

The department will monitor catch statistics inseason if commercial fishing occurs. Given current resources available, it is unlikely the department will be able to conduct aerial surveys or test fishing projects for herring. Commercial fishery openings may be adjusted according to inseason

-continued-

assessments of herring biomass. 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 will vary in each district depending on inseason biomass estimates, roe quality, spawning activity, weather conditions, fishing effort, and processor input.

Kuskokwim and Cape Romanzof Districts

A commercial fishery is not anticipated in 2016 given the lack of a buyer.

Norton Sound District

The 2016 projected biomass for the Norton Sound District is 35,355 tons which surpasses the minimum biomass threshold of 7,000 tons. A 20% exploitation rate would result in a guideline harvest of 7,071 tons. The allocation for the herring pound spawn-on-kelp fishery may not be more than 320 tons leaving 6,751 tons of the guideline harvest remaining (5 AAC 27.965 (d)). Additionally, the spawn-on-kelp guideline harvest is no more than 90 tons of product (combined weight of herring roe and kelp; 5 AAC 27.965 (e)). The beach seine harvest is allocated 10% of the sac roe projected harvest, or 675 tons (5 AAC 27.960 (a)). The 2016 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.

Table 1. Projections of Pacific herring spawning biomass and GHGs for commercial fishing districts in the northeastern Bering Sea, Alaska, 2016.

District	Threshold (short tons)	2016 Projected Biomass (short tons)	Exploitation Rate (%)	2016 Harvest Guideline (short tons)
Security Cove	1,200	6,980	20	1,396
Goodnews Bay	1,200	7,448	20	1,490
Cape Avinof ^a	500	4,189	15	628
Nelson Island ^b	3,000	9,258	20	1,652
Nunivak Island	1,500	3,712	20	742
Cape Romanzof	1,500	5,843	20	1,169
Norton Sound ^c	7,000	35,355	20	7,071
Totals		72,748		14,148

^a Cape Avinof commercial harvest is 15% of projected biomass (5 AAC 27.895(a)).

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

^c See Norton Sound District management strategies for more details on GHL allocations (5 AAC 27.960).

**APPENDIX B. FORECASTED HARVEST ALLOCATION FOR
TOGIAK SAC ROE AND DUTCH HARBOR FOOD AND BAIT
HERRING FISHERIES, 2016**

**ALASKA DEPARTMENT OF FISH AND GAME
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Dillingham, AK, 99576
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2016 TOGIAK HERRING OUTLOOK

The 2016 Togiak District herring biomass is forecast to be 162,244 tons, very similar to the recent 10 year average spawning biomass. This forecast is based on an age-structured analysis (ASA) model that has been used since 1993. Herring ages 4–8 are expected to comprise 44% of the projected biomass, ages 9–11 are expected to make up 48% while the remaining 8% 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 350 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 region of the Bering Sea that we believe has predictive power is ice free. Currently 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 the forecast of 162,244 tons, 32,449 tons of herring will be available for harvest in 2016. Harvest allocation, in accordance with the management plan will be:

Fishery	Harvest Allocation
Spawn-on-Kelp	1,500 tons
Dutch Harbor Food and Bait	2,166 tons
Togiak Sac Roe	28,782 tons
	Purse Seine (70%)
	Gillnet (30%)

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 2016, 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 2,330 tons per day. This represents a 5% increase from the 2015 daily capacity of 2,200 tons per day. The preseason poll also indicates that 4 processors will participate in the Togiak sac roe herring fishery with a fleet size of 3 gillnet and 21 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 2016 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 2016 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 as much gillnet herring as possible. With only 3 permit holders expected to participate in 2016 it is clear that the whole gillnet quota will not be harvested. At the December 2015 Alaska Board of Fisheries meeting the board removed language from the Togiak herring management plan that tied purse seine and gillnet harvest together for the first 50% of the quota. With that language removed each gear type will be able to fish freely until their respective quotas are harvested. In 2016, 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 past years, the plan is to open the gillnet area to fishing when threshold biomass is documented. Processors and fishermen may organize test fishing to monitor product 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 2016

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 aerial surveys of Togiak District beginning in late April or early May, depending on weather conditions. 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

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regular fishery updates will be 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.