# ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES

# **NEWS RELEASE**



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UPPER COOK INLET 2011 OUTLOOK FOR COMMERCIAL SALMON FISHING

# **SOCKEYE SALMON**

A run of 6.4 million sockeye salmon is forecasted to return to UCI in 2011, with a harvest by all user groups of 4.9 million. The forecasted harvest in 2011 is about 1.1 million fish above the 20-year average harvest by all user groups of 3.8 million. The run forecast for the Kenai River is 3.9 million, which is 9% greater than the 20-year average run of 3.6 million. Age 1.3 sockeye salmon typically comprise about 64% of the run to the Kenai River. A sibling model based upon the return of age 1.2 sockeye salmon in 2010 (663,000; 20-year average: 373,000) predicted a return of 3.0 million age 1.3 sockeye salmon. A fry model based upon the abundance of age-0 fry rearing in Skilak and Kenai lakes in the fall of 2007 (9.1 million; 20-year average: 17.8 million) predicted a return of 1.4 million age 1.3 sockeye salmon. The sibling model was used for this forecast, because the 10-year mean absolute percentage error (MAPE) was lower for the sibling model (25%) than the fry model (62%). Age 2.3 sockeye salmon typically comprise about 17% of the run to the Kenai River. A sibling model based upon the return of age 2.2 sockeye salmon in 2010 (171,000; 20-year average: 248,000) predicted a return of 275,000 age 2.3 sockeye salmon in 2011. A fry model based upon the abundance of age-1 fry rearing in Skilak and Kenai lakes in the fall of 2007 (8.9 million; 20-year average: 1.6 million) predicted a return of 1.6 million age 2.3 sockeye salmon. The sibling model was used for this forecast because the 10-year MAPE was lower for the sibling model (28%) than the fry model (115%). The forecasted age 2.3 return is 56% less than the 20-year average return for this age class. The predominant age classes in the 2011 run should be age 1.3 (75%), age 1.2 (9%), and age 2.3 (7%). The 10-year MAPE for the set of models used for the 2011 Kenai sockeye salmon run forecast was 29%.

The sockeye salmon run forecast for the Kasilof River is 929,000, which is 3% greater than the 20-year average run of 902,000. Age 1.3 sockeye salmon typically comprise about 35% of the run to the Kasilof River. The forecast for age 1.3 sockeye salmon is 325,000 which is 3% greater than the 20-year average return (315,000) for this age class. A smolt model based upon the abundance

of age-1 sockeye salmon smolts in 2008 was used to forecast the return of age 1.3 sockeye salmon in 2011. The abundance of age-1 smolts in 2008 was 4.3 million, which is equal to the 20-year average abundance for this age class. A sibling model predicted a return of 316,000 age 1.3 sockeye salmon. The smolt model was used for this forecast because the 10-year MAPE was lower for the smolt model (23%) than the sibling model (27%). Age 1.2 sockeye salmon typically comprise about 30% of the run. The forecast for age 1.2 sockeye salmon is 242,000, which is 12% less than the 20-year average return (274,000) for this age class. A smolt model based upon the abundance of age-1 smolts (2.1 million) in 2009 was used to forecast the return of age 1.2 sockeye salmon in 2011. A sibling model forecasted a return of 309,000 age 1.2 sockeye salmon. The smolt model was used for this forecast because the 10-year MAPE was lower for the smolt model (39%) than the sibling model (50%). Age 2.2 sockeye salmon typically comprise about 24% of the run. The forecast for age 2.2 sockeye salmon is 286,000, which is 34% greater than the 20-year average return (213,000) for this age class. A smolt model based upon the abundance and mean weight of age-2 smolts in 2009 was used to forecast the return of age 2.2 sockeye salmon in 2011. The abundance of age-2 smolts in 2009 was 1.5 million, which is 9% less than the 20-year average abundance (1.7 million) for this age class. The mean weight of age-2 smolts in 2009 was 6.8 g. which is 22% greater than the 20-yr average smolt weight (5.5 g). The predominant age classes in the 2011 run should be age 1.2 (26%), age 1.3 (35%), and age 2.2 (31%). The 10-year MAPE for the set of models used for the 2011 Kasilof sockeye salmon run forecast was 27%.

The sockeye salmon run forecast for the Susitna River is 463,000, which is 61% of the 20-year average run of 780,000. This forecast was derived from historical aggregate weir counts rather than sonar and age composition catch allocation models, because recent mark–recapture studies have shown that the Yentna sonar project underestimated sockeye salmon escapement causing estimates of adult returns to also be underestimated. Since this is only the second year a weir-based method has been used, no MAPE can be estimated. However, the 2010 forecast was 112% greater than the estimated actual run. The 20-year average run was calculated by expanding sonar abundance estimates using mark–recapture and genetic stock composition estimates.

The sockeye salmon run forecast for Fish Creek is 105,000, which is 10% less than the 20-year average run of 116,000. Age 1.2 and 1.3 sockeye salmon typically comprise 78% of the run to Fish Creek. A fry model based upon the estimated abundance of age-0 fry entering Big Lake in 2008 (7.1 million; 15-year average: 13.7 million) predicted a return of 45,000 age 1.2 sockeye salmon. A sibling model based upon the abundance of age 1.2 sockeye salmon returning in 2010 predicted a return of 37,000 age 1.3 sockeye salmon in 2011. The age 1.2 forecast is 26% less than the 20-year average return (61,000) for this age class, while the age 1.3 forecast is 23% greater than the 20-year average return (30,000). The predominant age classes in the 2011 run should be age 1.2 (43%), age 1.3 (35%), and age 2.2 (12%).

The sockeye salmon run forecast for Crescent River is 131,000, which is 26% greater than the 20-year average run of 104,000. Age 1.3 and 2.3 sockeye salmon typically comprise 75% of the run to Crescent River. Sibling models based upon returns of age 1.2 and 2.2 sockeye salmon in 2010 were used to forecast returns of age 1.3 (75,000) and 2.3 (31,000) sockeye salmon in 2011. The predominant age classes in the 2011 run should be age 1.3 (58%) and age 2.3 (24%).

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System	Run	Goals <sup>a</sup>
Crescent River	131,000	30,000–70,000
Fish Creek	105,000	20,000–70,000
Kasilof River b, c	929,000	160,000–390,000
Kenai River <sup>b</sup>	3,941,000	1,000,000-1,200,000
Susitna River	463,000	
Larson Lake	N/A	15,000–50,000
Chelatna Lake	N/A	20,000–65,000
Judd Lake	N/A	25,000–55,000
Unmonitored	835,000	N/A
Total	6,404,000	

<sup>&</sup>lt;sup>a</sup> Goals listed here are as follows, Crescent River: BEG; Fish Creek: SEG; Kasilof River: OEG; Kenai River: Inriver; and Susitna River: weir goals.

## OTHER SPECIES' HARVEST PROJECTIONS

Very little information is available on which to base outlooks for the commercial harvests of the other salmon species. Using recent harvest trends and factoring in the expected intensity of the sockeye-based fishery, the following numbers represent our best estimate of the 2011 harvest:

Pink Salmon	106,000
Chum Salmon	101,000
Coho Salmon	178,000
Chinook Salmon	14,000

# REGULATORY CHANGES AND FISHING STRATEGY

There were several regulatory changes made by the Alaska Board of Fisheries during the March meeting that will be implemented during the 2011 fishing season. The following summary is for informational purposes only and is not a comprehensive review. Regulation booklets are currently being printed and may not be available prior to the beginning of some fisheries. Once published, booklets will be available to allow fishermen to become familiar with the new regulations prior to fishing. Fishermen should consult the new regulations to see how their specific fishery may have changed. Regulation language will be available from department offices prior to booklets being published.

# **Northern District Set Gillnet**

The Northern District king salmon fishery will open on the first Monday on or after May 25. The area from a point at the wood chip dock located approximately at 61° 02.56'
N. lat., 151° 14.36'
W. long., to the Susitna River is closed to commercial king salmon fishing for 2011. This area will open for the regular season beginning June 25.

<sup>&</sup>lt;sup>b</sup> Kasilof and Kenai rivers escapement goals are now DIDSON-based.

<sup>&</sup>lt;sup>c</sup> Kasilof River biological escapement goal is 160,000 to 340,000 sockeye salmon.

• Susitna River sockeye salmon remain a stock of yield concern. *The Susitna River Sockeye Salmon Action Plan* requires the Northern District set gillnet fishery to fish with no more than one net per permit from July 20 through August 6. At the 2011 meeting, the board modified this restriction, allowing for that portion of the General Subdistrict south of the Susitna River to fish with no more than two nets per permit after July 30. All areas in the Northern District return to a full complement of gear after August 6.

## **Central District Fisheries**

# **Upper Subdistrict Set Gillnet Fishery**

# **Kasilof Section Prior to July 8**

- The Kasilof Section opens on the first regular period on or after June 25, unless the department estimates that 50,000 sockeye salmon are in the Kasilof River prior to that date, at which time the commissioner may open the fishery, by Emergency Order (EO); however, the fishery may not open earlier than June 20.
- From June 25 through July 7 the department may not allow more than 48 hours of additional fishing time per week (Sunday through Saturday) and must close the fishery for 36 consecutive hours per week, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays.
- Beginning July 8, or after the Kenai and East Forelands Sections open, the Kasilof Section will be managed in combination with the Kenai and East Forelands Sections.

#### Kenai, Kasilof and East Forelands Sections

- After July 8, or after the Kenai and East Forelands Sections fishing season opens, the following fishing scenarios are possible depending on the sockeye salmon run strength to the Kenai River:
- If the Kenai assessment shows the run to be **less than 2.3 million Kenai sockeye salmon**, there will be no more than 24 hours of additional fishing time per week in the Upper Subdistrict and there are no mandatory window closures. If the Kenai and East Forelands Sections are not fished during regular or additional openings, the department may limit regular and additional periods in the Kasilof Section to within ½ mile of shore. If the Kasilof escapement is projected to exceed 390,000 fish, 24-hours of additional fishing time per week is available after July 15 within ½ mile of shore in the Kasilof Section.
- If the Kenai assessment is **between 2.3 and 4.6 million Kenai sockeye salmon**, the Department may allow up to 51 hours of additional fishing time per week and will close the Upper Subdistrict for a 36-hour closed period per week, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. In addition there will be a second 24-hour closed period per week on Tuesdays. If the Kenai and East Forelands Sections are not fished, the department may limit regular and extra periods in the Kasilof Section to within ½ mile of shore.
- If the Kenai assessment changes to a run of more than 4.6 million Kenai sockeye salmon, the department may allow up to 84 hours of additional fishing time per week and will close the Upper Subdistrict for a 36 hour closed period each week, which will begin between 7:00 p.m. on Thursdays and 7:00 a.m. on Fridays. There are no other mandatory windows at this

run strength. If the Kenai and East Forelands Sections are not fished, the department may limit regular and extra periods in the Kasilof Section to within ½ mile of shore.

• The Upper Subdistrict set gillnet fishery will close no later than August 15 and all restrictions and additional time regulations from July carry over into August, except that the fishery is restricted to regular periods only after August 10. The season closes if during two consecutive fishing periods (defined as a calendar day) the harvest is less than 1%.

# **Central District Drift Gillnet Fishery**

- The drift fishery opens the third Monday in June or June 19 whichever is later.
- From July 9 through July 15,
  - Drift gillnet fishing is restricted for the first regular fishing period to the Expanded Kenai and Expanded Kasilof Sections (Figure 2) described below.
  - Drift gillnet fishing is restricted for the second regular fishing period to the Expanded Kenai and Expanded Kasilof Sections (Figure 2) and Drift Area One (Figure 3) described below.
  - Additional fishing time between the first restricted period and the second period during this time frame may be allowed in the Expanded Kenai and Expanded Kasilof Sections.
  - In runs of over 2.3 million sockeye salmon to the Kenai River, there may be one additional 12-hour period in the expanded Kenai and expanded Kasilof Sections of the Upper Subdistrict and in Drift Area One.
- From July 16 through July 31,
  - In runs of less than 2.3 million sockeye salmon to the Kenai River there will be one regular 12-hour fishing period restricted to the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict;
  - In runs of between 2.3 and 4.6 million sockeye salmon to the Kenai River; there will be one regular 12-hour fishing period per week restricted to the Expanded Kenai and Expanded Kasilof Sections of the Upper Subdistrict and in Drift Area One;
  - In runs of greater than 4.6 million sockeye salmon to the Kenai River, there are no mandatory restrictions.
- From August 16 until closed by emergency order,
  - Drift Areas three & four (Figure 4) are open for regular periods;
  - Chinitna Bay may be opened by emergency order.

# **New Drift Gillnet Fishing Areas**

1.) Expanded Kenai Section: all waters enclosed by a line from a point located on the shore at 60° 40.35' N. lat., 151° 23.00' W. long. then west to a point located at 60° 40.35' W. long.,

- south to a point at the latitude of the Blanchard line located at 60° 27.10' N. lat., 151° 33.76' W. long. east to a point on the beach at 60° 27.10' N. lat., 151° 16.94' W. long.
- 2.) Expanded Kasilof Section: all waters enclosed by a line from a point on the beach at 60° 27.10' N. lat., 151° 16.94' W. long., west to a point at the Blanchard line located at 60° 27.10' N. lat., 151° 33.76' W. long., south to a point located at 60° 04.02' N. lat., 151° 46.60' W. long., east to an ADF&G regulatory marker located at 60° 04.02' N. lat., 151° 38.90' W. long.

# Other regulatory changes include:

- Permit stacking for set gillnets was authorized.
- A pink salmon fishery during even years was authorized for both drift and set nets; mesh size restrictions apply.
- After July 8, the Kasilof River Special Harvest Area may be fished for up to 48 hours, followed by a 24-hour closure, without an escapement trigger, if fish are there in sufficient numbers.
- The sockeye salmon escapement trigger for opening the Kasilof River Special Harvest Area to commercial fishing without limitation is now 365,000 fish.
- In the Kasilof Section, after July 8, if further restrictions beyond the ½ mile fishery are necessary to aid in achieving the lower end of the Kenai River escapement goal, this area may be further restricted to fishing within 600 feet of the high tide mark in the Kasilof Section.
- The board redefined what constitutes a fishing period for determining when the Upper Subdistrict set gillnet fishery may close after July 31 based on the 1% rule. A fishing period is now defined as a time period open to commercial fishing not to exceed 24-hours per calendar day.

# **SET NET REGISTRATION AND BUOY STICKERS**

All Cook Inlet setnet fishermen are required to register prior to fishing for one of three areas of Cook Inlet: 1) the Upper Subdistrict of the Central District; 2) the Northern District; or, 3) all remaining areas of Cook Inlet (Greater Cook Inlet). Once registered for one of these three areas, fishermen may fish only in the area for which they are registered for the remainder of the year. No transfers will be permitted. Set gillnet permit holders fishing in the Northern District or the Greater Cook Inlet area can register at Department offices in Soldotna, Homer, or Anchorage or by mail. department's homepage available at area offices or on the http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.salmon. Fishermen wishing to register in the Upper Subdistrict must register in the Soldotna ADF&G office only, and must purchase buoy stickers at the time of registering.

### **SEASON OPENING DATES**

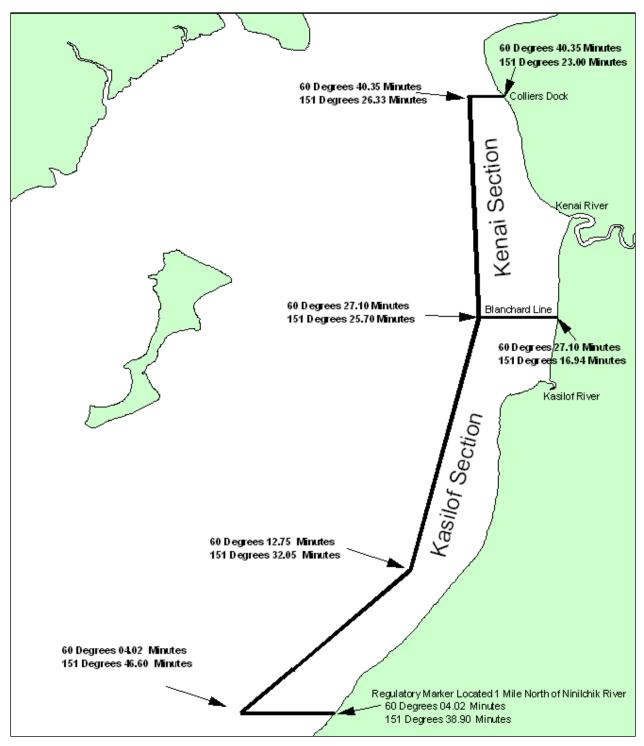
Season opening dates for the various fisheries around the inlet are as follows:

- *Big River Fishery:* June 1 and continuing through June 24, unless the 1,000 Chinook salmon harvest limit is reached prior to that date. Weekly fishing periods are Mondays, Wednesdays, and Fridays from 7:00 a.m. to 7:00 p.m.
- Northern District King Salmon Fishery: May 30. There will be up to four fishing periods in 2011, the remaining periods are scheduled for June 6, 13, and 20. Weekly fishing periods are Mondays only from 7:00 a.m. to 7:00 p.m. In that area from a point at the wood chip dock located approximately at 61° 02.56' N. lat., 151° 14.36' W. long., to the Susitna River is closed for the directed king salmon fishery in 2011.
- Northern District Regular Season Salmon Fishery: June 27,
- Western Subdistrict Set Net Fishery: June 16
- All remaining set gillnet fisheries, except the Upper Subdistrict: June 27.
- *Upper Subdistrict Set Net Fishery:* June 27 for the Kasilof Section (that portion south of the Blanchard Line), unless opened earlier by EO (if 50,000 sockeye are in the river before the June 28 opener), but will not open before June 20. The Kenai and East Forelands Sections (that portion north of the Blanchard Line) will open July 11. All sections of the Upper Subdistrict will close for the season on or before August 15.
- Drift Gillnet Fishery: June 20.

#### **GENERAL INFORMATION**

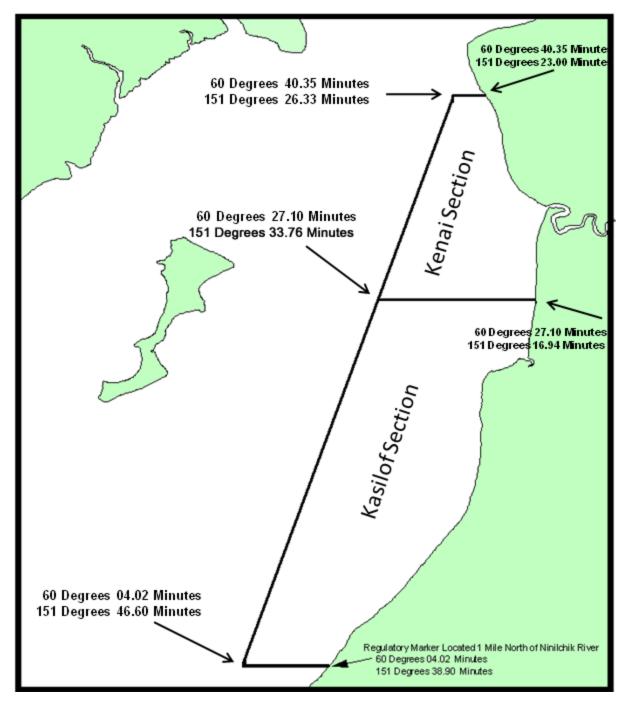
The UCI commercial fisheries information line will again be available by calling 262-9611. The most recent emergency order announcement is always available on the recorded message line and catch, escapement and test fishing information is included whenever possible. All emergency order announcements are also faxed to processors as quickly as possible and posted to the Upper Cook Inlet web page at <a href="http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.main">http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareauci.main</a>. For very general information, we invite you to visit the Commercial Fisheries web page on the Internet at <a href="http://www.adfg.alaska.gov/index.cfm?adfg=fishingCommercial.main">http://www.adfg.alaska.gov/index.cfm?adfg=fishingCommercial.main</a>.

If, during the summer, fishermen have information or questions concerning the commercial fishery, the Soldotna Division of Commercial Fisheries staff can be reached by phone at 262-9368, by fax at 262-4709, or by mail at 43961 Kalifornsky Beach Road, Suite B, Soldotna, 99669.



Latitude and Longitude are based on the North American Datum of 1983 (NAD 83), which is equivalent to the World Geodetic System 1984 (WGS 84).

Figure 1. Map of the Kenai and Kasilof Sections with waypoint descriptions.



Latitude and Longitude are based on the North American Datum of 1983 (NAD 83), which is equivalent to the World Geodetic System 1984 (WGS 84).

Figure 2. Map of the expanded Kenai and expanded Kasilof Sections with waypoint descriptions.

Drift Gillnet Area 1 & Area 2 Descriptions		
AREA 2 DESCRIPTION	COORDINATES	
1. Southwest Corner	60 <sup>0</sup> 20.43' N. lat., 151 <sup>0</sup> 54.83' W. long.	
2. Northwest Comer	60 <sup>0</sup> 41.08' N. lat., 151 <sup>0</sup> 39.00' W. long.	
3. Northeast Comer	60 <sup>0</sup> 41.08' N. lat., 151 <sup>0</sup> 24.00' W. long.	
4. Blanchard Line Corridor Boundary	60 <sup>0</sup> 27.10' N. lat., 151 <sup>0</sup> 25.70' W. long.	
5. Southeast Comer	60 <sup>0</sup> 20.43' N. lat., 151 <sup>0</sup> 28.55' W. long.	

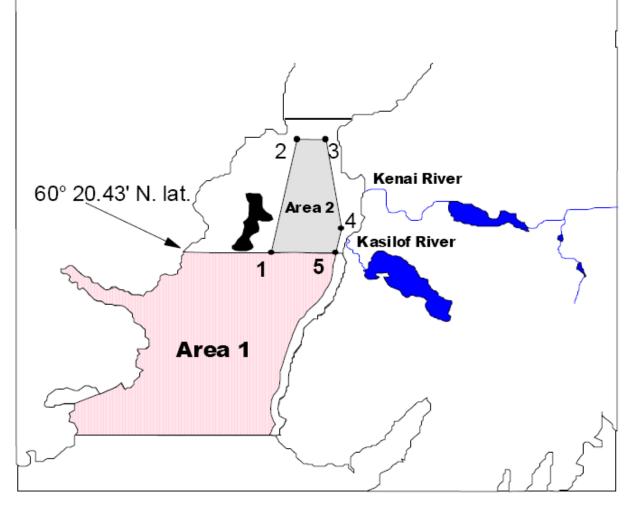


Figure 3. Map of drift gillnet fishing areas one and two.

AREA 4 LOCATION	COORDINATES
A. Southwest Corner	59° 46.15' N. lat., 153° 00.20' W. long.
B. Northwest Corner	60° 04.70' N. lat., 152 ° 34.74' W. long.
C. Northeast Corner (Kalgin Buoy)	60° 04.70' N. lat., 152° 09.90' W. long.
D. Southeast Corner	59° 46.15' N. lat., 152 ° 18.62' W. long.

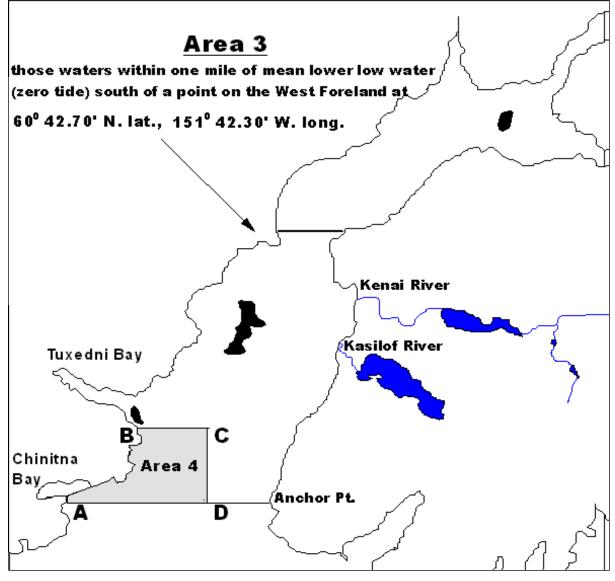


Figure 4. Map of the drift gillnet areas open beginning August 16.