

# **2011 Transportation Action Strategy**

## **Marine Mammal Survey Report**

### **Coeur Alaska Kensington Mine**



Prepared by

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## **Introduction**

Coeur Alaska's Berners Bay/Lynn Canal Transportation Plan (January 2008) includes the adoption of standard operating guidelines to ensure minimal disruption of marine mammals in the area from marine traffic. Some guidelines are designed to minimize impacts throughout the year, while others are specific to the spring eulachon and herring spawning runs when marine mammals congregate in large groups within Berners Bay. This report describes monitoring activities conducted during the April/May 2011 eulachon spawning season. The Coeur Alaska crew transportation vessel during this period was the M/V Majestic Fjord, a 65ft catamaran with four inbound diesel jet engines and crew of three people that transited between Yankee Cove and Slate Cove daily (Figure 1). A one-way trip from Yankee Cove to Slate Cove takes approximately 40 minutes and consumes around 55-60 gallons of fuel (personal comm. Clint Songer, F/V Majestic Fjord captain). No helicopters were used to transport crew during this time.

## **Methods**

Designation of the eulachon spawning season requires some information to be gathered regarding marine mammal activity within Berners Bay as this is a good indicator that eulachon migration is underway. One source of this information is the ADFG herring spawning aerial survey data for Lynn Canal, posted on the internet at <http://documents.cfl.adfg.state.ak.us/Topic-Contents.po#Herring>. These updates usually include a brief summary of the location of marine mammal concentrations. Observations for 2011 are attached to this report as an appendix. Coeur also conducts marine based surveys to monitor marine mammal numbers within Berners Bay. These surveys are undertaken by Coeur environmental personnel or contractors with marine mammal observation experience. Survey results are faxed to the NMFS Office of Protected Resources within 48 hours. When Coeur's marine mammal surveys and ADFG herring surveys show a substantial increase in marine mammals within Berners Bay the eulachon spawning season is declared to have commenced.

During the eulachon spawning run a marine mammal observer accompanies the Coeur transportation vessel on all crew transfers to help adjust the daily routing into Slate Cove to avoid congregations of fish and marine mammals. The marine observer keeps watch from the bridge of the vessel and uses binoculars as needed to identify marine mammals. Photography is

used to assist with counting total numbers present since at any one time a portion of the group may be submersed or in motion and difficult to count.

Vessel trips are also kept to no more than three per day (except for emergency environmental or safety situations), and the vessel is required to maintain a maximum speed of 13 knots within the bay (with Berners Bay designated as the area inside of Point St. Mary and Point Bridget, see Figure 1). Fuel and, if possible, concentrate shipments by barge are also restricted during the eulachon spawning period. The spawning period typically occurs approximately between April 15 to May 15, typically about 2-3 weeks. Marine mammal observations are categorized into two zones: Berners Bay and outside Berners Bay. All observations, including date, time, observer, weather, visibility, wave height/conditions, and counts of marine mammals, are recorded on a data sheet (see Figure 2). Each one-way trip is recorded on its own sheet.

## **Results**

Between April 26 and May 19, eighty-five marine mammal observation surveys were completed aboard the M/V Majestic Fjord (see Table 2). The official eulachon run transportation regulations as determined by Coeur Alaska and NMFS were put into effect on April 28, 2011. Special measures taken during the eulachon run included: having a marine observer on the vessel during all trips and maintaining a maximum speed of 13 knots within Berners Bay. Regular transit speed is approximately 21 knots. Transportation vessel trips during the eulachon run were limited to 1-2 trips daily (see Table 1) with the exception of a medical emergency trip on April 29 and an extra trip daily on May 15, 17 and 18 to transport gear and visiting miners for the MSHA Mine Rescue Competition. No more than 3 trips per day were conducted during the 2011 eulachon spawning window. The ADFG fisheries crew who were conducting daily salmon fry counts at Slate Creek used kayaks to transit across Slate Cove to avoid using motorized craft during the eulachon run.

The majority of pinniped activity was observed inside Berners Bay (see Table 3). A total of 216 Steller sea lions were counted during the observation period; 143 of these sightings (66.2%) occurred within Berners Bay. The vast majority (98.6%) of seal sightings also occurred within Berners Bay. Most of these sightings were at pinniped haulout areas, such as the entrance

to Slate Cove and Point Saint Mary. Gatherings of up to 60 seals were observed on haulouts. Pinniped activity was highest from May 4-8 with activity peaking again on May 18 and 19.

The majority of cetaceans were observed outside of Berners Bay with 221 humpback whale, 60 porpoise, and 51 killer whale sightings (71.8%, 75.9%, and 79.7% of the total sightings respectively). Humpback sightings were fairly consistent through the observation period, with at least one humpback being spotted each day and a maximum of 15 whales on the 06:30 April 26 trip. Killer whales were first seen on May 11, and were most commonly seen moving in small pods. Porpoise sightings were inconsistent and sporadic during the duration of the observation period. No recordable encounters with marine mammals occurred during the 2011 eulachon spawning season.

## **Discussion**

Historic records showed eulachon arriving in the Berners Bay area usually in late April and early May (Harris et al 2005). Unlike 2010 when eulachon were documented in the salmon fry trap in Slate Creek on March 29, April 14 to 19, 26, 30, May 1, 2, 9, 10 and May 12 to 15, there were no eulachon found in the salmon fry traps and only 4 eulachon seen in Slate Creek as documented by ADFG biologist Gordon Wilson.

The most intense herring spawn in Berners Bay appeared to have occurred around April 29 to May 6 (see Appendix 1). The three week restrictions were placed at the right time in 2011 to cover the greatest marine mammal activity surrounding the herring run. Careful observation of marine mammals and birds from the end of March is necessary in order to prepare for the official three-week period of transportation restrictions and ensure the goal of minimizing marine mammal encounters is achieved. The speed restriction helps reduce the likelihood of a collision with a marine mammal and also reduces the impact of engine noise underwater on whales and Stellar sea lions. The population of humpback whales in the North Pacific increased at around 7% per year since commercial whaling ceased in 1966 (Calambokidis et al 2008), but they are still considered endangered species owing to a worldwide population estimate being at only 8% of the historical population size (NMFS 1991). The Stellar sea lion population east of Cape Suckling is not considered endangered, but vessel operations must still comply with the Marine

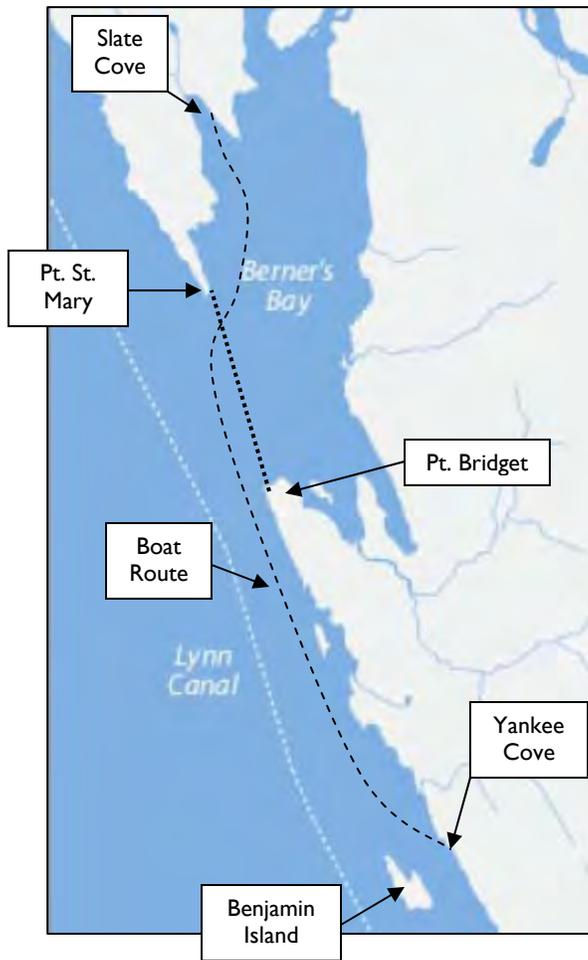
Mammal Protection Act of 1972. The measures taken under Coeur's Transportation Action Strategy are designed to ensure compliance with this Federal law.

## References

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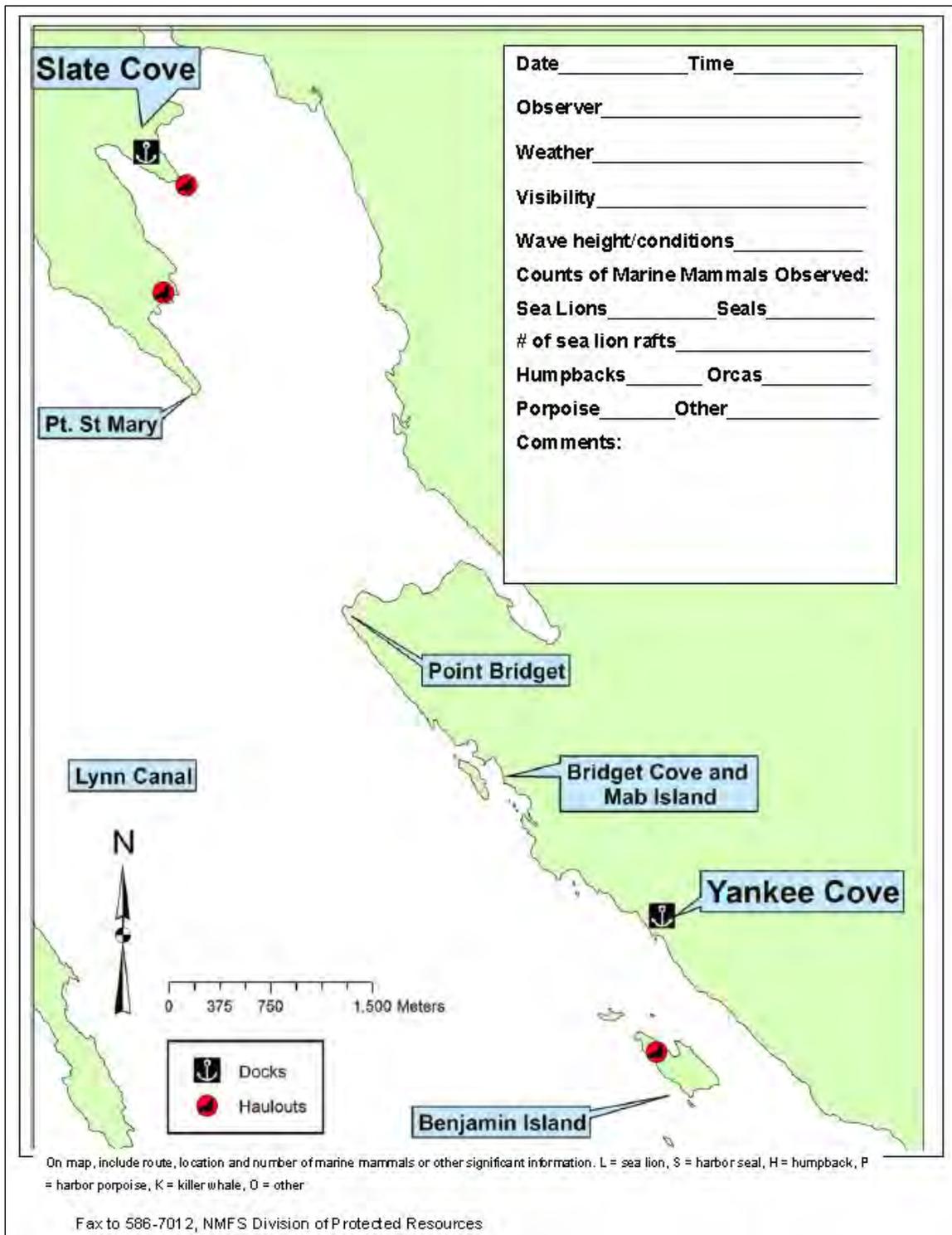
NMFS. 1991. Recovery Plan for the Humpback Whale (*Megaptera novaeangliae*). Prepared by the Humpback Whale Recovery Team for the National Marine Fisheries Service, Silver Spring, MD. 105 p. Website:  
[www.fakr.noaa.gov/protectedresources/whales/default/htm](http://www.fakr.noaa.gov/protectedresources/whales/default/htm)



**Figure 1:** Boat route to Slate Cove from Yankee Cove. Line between Pt Bridget and Pt St Mary defines the area inside which the 13 knot speed limit applies.

**Table 1:** M/V Majestic Fjord Schedule, Spring/Summer 2011

<b>Day</b>	<b>Morning</b>	<b>Evening</b>	<b>Departure</b>	<b>Total Trips</b>
Monday	5:40am	4:50pm	Yankee Cove	2
Tuesday	5:40am	4:50pm	Yankee Cove	2
Wednesday	5:40am	4:50pm	Yankee Cove	2
Thursday	5:40am	4:50pm	Yankee Cove	2
Friday	5:40am	4:50pm	Yankee Cove	2
Saturday	No boat	4:40pm	Yankee Cove	1
Sunday	No boat	4:40pm	Yankee Cove	1



**Figure 2:** Boat route to Slate Cove from Yankee Cove. Line between Pt Bridget and Pt St Mary defines the area inside which the 13 knot speed limit applies.

**Table 2: Summary of Marine Observations**

No.	Date	Time	Observer	Vessel	Route	Weather	Visibility	Wave Ht (Ft)
1	4/26/2011	5:00	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly overcast	good	<1
2	4/26/2011	6:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	good	0
3	4/26/2011	16:45	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	perfect	0
4	4/26/2011	17:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	clear, sunny	unlimited	0
5	4/27/2011	5:30	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	unlimited	0
6	4/27/2011	6:20	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	clear, sunny	unlimited	0
7	4/27/2011	16:45	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	sunny, clear	unlimited	0
8	4/27/2011	17:32	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	0
9	4/28/2011	5:30	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	unlimited	0
10	4/28/2011	6:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	clear, sunny	unlimited	0
11	4/28/2011	16:40	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	unlimited	0
12	4/28/2011	17:34	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	clear, sunny	unlimited	0
13	4/29/2011	5:35	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	1-2
14	4/29/2011	6:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	1-2
15	4/29/2011	16:43	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
16	4/29/2011	17:32	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
17	4/29/2011	18:21	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
18	4/29/2011	18:56	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
19	4/30/2011	16:30	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast, rain	3 miles	1-2
20	4/30/2011	17:20	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	≈ 3 miles	1-2, white caps
21	5/1/2011	16:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	0
22	5/1/2011	17:22	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	unlimited	<1
23	5/2/2011	5:37	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast, rain	unlimited	<1
24	5/2/2011	6:32	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	unlimited	<1
25	5/2/2011	16:41	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly cloudy	unlimited	0
26	5/2/2011	17:35	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	unlimited	0
27	5/3/2011	5:36	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<2, choppy
28	5/3/2011	6:26	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	1-2, choppy
29	5/3/2011	16:42	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast, rain	3-4 miles	1-2, choppy
30	5/3/2011	17:33	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	3-4 miles	1-3, choppy
31	5/4/2011	5:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast, rain	3-4 miles	0
32	5/4/2011	6:22	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	3-4 miles	0
33	5/4/2011	16:45	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast, rain	unlimited	<1
34	5/4/2011	17:33	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	unlimited	<1
35	5/5/2011	5:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	0
36	5/5/2011	6:22	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	0
37	5/6/2011	16:46	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly cloudy	unlimited	0
38	5/6/2011	17:31	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	unlimited	0
39	5/8/2011	16:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	mostly sunny	unlimited	<1
40	5/8/2011	17:24	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	mostly sunny	unlimited	<1
41	5/9/2011	5:31	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	cloudy	unlimited	<1
42	5/9/2011	6:26	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	cloudy	unlimited	<1

No.	Date	Time	Observer	Vessel	Route	Weather	Visibility	Wave Ht (Ft)
43	5/9/2011	16:44	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly cloudy	unlimited	<1
44	5/9/2011	17:37	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	unlimited	<1
45	5/10/2011	5:32	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	1-3
46	5/10/2011	6:33	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<2
47	5/10/2011	16:42	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
48	5/10/2011	17:34	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
49	5/11/2011	5:30	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
50	5/11/2011	6:21	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
51	5/11/2011	16:47	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly cloudy	unlimited	<1
52	5/11/2011	17:36	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	unlimited	<1
53	5/12/2011	5:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	1-2
54	5/12/2011	6:20	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	1-2
55	5/12/2011	16:41	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	rain, overcast	3 miles	1-3
56	5/12/2011	17:32	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	3 miles	1-3
57	5/13/2011	5:33	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
58	5/13/2011	6:17	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast, rain	3 miles	1-3
59	5/13/2011	16:45	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	partly cloudy	unlimited	0
60	5/13/2011	17:34	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	partly cloudy	unlimited	0
61	5/14/2011	16:38	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	unlimited	<1
62	5/14/2011	17:37	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	<1
63	5/15/2011	13:18	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	sunny, clear	unlimited	<1
64	5/15/2011	14:06	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	<1
65	5/15/2011	16:40	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	sunny, clear	unlimited	<1
66	5/15/2011	17:32	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	<1
67	5/16/2011	5:38	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	sunny, clear	unlimited	<1
68	5/16/2011	6:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	<1
69	5/16/2011	16:50	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	sunny, clear	unlimited	0
70	5/16/2011	17:41	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	sunny, clear	unlimited	0
71	5/17/2011	6:00	Kevin Eppers	M/V Majestic Fjord	Yankee Cove to Slate Cove	clear, sunny	good	0
72	5/17/2011	11:40	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	hazy	unlimited	0
73	5/17/2011	12:44	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	hazy	unlimited	0
74	5/17/2011	16:43	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	hazy	unlimited	<1
75	5/17/2011	17:34	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	hazy	unlimited	<1
76	5/18/2011	5:34	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	cloudy, rain	unlimited	1-2
77	5/18/2011	6:20	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	cloudy, rain	unlimited	1-2
78	5/18/2011	11:52	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
79	5/18/2011	13:01	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
80	5/18/2011	16:45	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	overcast	unlimited	<1
81	5/18/2011	17:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	overcast	unlimited	<1
82	5/19/2011	5:32	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	mostly cloudy	unlimited	<1
83	5/19/2011	7:14	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	mostly cloudy	unlimited	<1
84	5/19/2011	16:47	Jess Eller	M/V Majestic Fjord	Yankee Cove to Slate Cove	light rain	unlimited	0
85	5/19/2011	17:30	Jess Eller	M/V Majestic Fjord	Slate Cove to Yankee Cove	light rain	unlimited	<1

**Table 3:** Summary of Marine Mammal Counts

No.	Date	Time	Counts of MM Observed - Berners Bay							Counts of MM Observed - Outside Berners Bay							Counts of MM Observed - Total							Notes			
			L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O				
1	4/26/2011	5:00				6							4							10							
2	4/26/2011	6:30				5							10							15							
3	4/26/2011	16:45	1			2							3						1			5					
4	4/26/2011	17:30	1			1							5						1			6					
5	4/27/2011	5:30	3	5		5							1						3	5		6					
6	4/27/2011	6:20	2	5		3							1						2	5		4					
7	4/27/2011	16:45	15	2	2	1	2						5						15	2	2	6	2		2*	* River Otters	
8	4/27/2011	17:32	14	2	2	1							3						14	2	2	4					
9	4/28/2011	5:30											3	4								3	4		2*	* Eagles	
10	4/28/2011	6:30											2									2			2*	* Eagles	
11	4/28/2011	16:40		1																1							
12	4/28/2011	17:34				1							1									2					
13	4/29/2011	5:35				1							2									3					
14	4/29/2011	6:30											2									2					
15	4/29/2011	16:43				1							1									2					
16	4/29/2011	17:32				1							2									3					
17**	4/29/2011	18:21				1																1					
18**	4/29/2011	18:56																									
19	4/30/2011	16:30	1																	1							
20	4/30/2011	17:20											2									2					
21	5/1/2011	16:33		22																	22						
22	5/1/2011	17:22		18									1								18	1					
23	5/2/2011	5:37				1																1					
24	5/2/2011	6:32	2			1							1								2	2					

No.	Date	Time	Counts of MM Observed - Berners Bay							Counts of MM Observed - Outside Berners Bay							Counts of MM Observed - Total							Notes
			L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	
25	5/2/2011	16:41	6								1		2				6	1		2				
26	5/2/2011	17:35	2										3				2			3				
27	5/3/2011	5:36	2														2							
28	5/3/2011	6:26											1							1				
29	5/3/2011	16:42				1														1				
30	5/3/2011	17:33											1							1				
31	5/4/2011	5:33				1							2	2						3	2			
32	5/4/2011	6:22				3							1							4				
33	5/4/2011	16:45	1	38		1				1			1				2	38		2				
34	5/4/2011	17:33	10	54	1					1			1	5			11	54	1	1	5			
35	5/5/2011	5:33	2	8		1				1			10				3	8		11				
36	5/5/2011	6:22	10	5	1	1							3			1*	10	5	1	4			1*	* Swan
37	5/6/2011	16:46		45														45						
38	5/6/2011	17:31		45		1							2	3				45		3	3			
39	5/8/2011	16:33		20		2				1							1	20		2				
40	5/8/2011	17:24	1	20		1							2				1	20		3				
41	5/9/2011	5:31	1			2							1				1			3				
42	5/9/2011	6:26	1			2							7				1			9				
43	5/9/2011	16:44		1		1	2						2					1		3	2			
44	5/9/2011	17:37		1									3					1		3				
45	5/10/2011	5:32				2							3							5				
46	5/10/2011	6:33	6		1	3							2				6		1	5				
47	5/10/2011	16:42		2			3						2					2		2	3			
48	5/10/2011	17:34											1							1				
49	5/11/2011	5:30	6	1		1	4	3		1			3				7	1		4	4	3		
50	5/11/2011	6:21	6			2		5			6		4	5			6	6		6	5	5		

No.	Date	Time	Counts of MM Observed - Berners Bay							Counts of MM Observed - Outside Berners Bay							Counts of MM Observed - Total							Notes
			L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	
51	5/11/2011	16:47				2							2							4				
52	5/11/2011	17:36											6	6						6	6			
53	5/12/2011	5:33	1			1	3			2			6	2			3			7	5			
54	5/12/2011	6:20				2							5							7				
55	5/12/2011	16:41				3							1	1	6				4	1	6			
56	5/12/2011	17:32													2							2		
57	5/13/2011	5:33	6										4				6			4				
58	5/13/2011	6:17	2						1	2			3				4			3		1		
59	5/13/2011	16:45	2	8									1	7			2	8		1	7			
60	5/13/2011	17:34	2	8									2	11			2	8		2	11			
61	5/14/2011	16:38		8		1							2					8		3				
62	5/14/2011	17:37		8		1							2					8		3				
63	5/15/2011	13:18		30									2		6			30		2		6		
64	5/15/2011	14:06		15		1							2					15		3				
65	5/15/2011	16:40				2									8				2		8			
66	5/15/2011	17:32	1	1		1	3						4		13		1	1		5	3	13		
67	5/16/2011	5:38	5	6									7	2			5	6		7	2			
68	5/16/2011	6:30	1	6		2							3				1	6		5				
69	5/16/2011	16:50	2	3		1							1				2	3		2				
70	5/16/2011	17:41	1	3									3				1	3		3				
71	5/17/2011	6:00				3							5						8					
72	5/17/2011	11:40									1		4					1		4				
73	5/17/2011	12:44		2						10		1	4		16		10	2	1	4		16		
74	5/17/2011	16:43		30		1							1					30		2				
75	5/17/2011	17:34		30		1				3			5				3	30		6				
76	5/18/2011	5:34											3	2					3	2				

No.	Date	Time	Counts of MM Observed - Berners Bay							Counts of MM Observed - Outside Berners Bay							Counts of MM Observed - Total							Notes
			L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	L	S	Rafts	H	P	K	O	
77	5/18/2011	6:20	2			2				3			1				5			3				
78	5/18/2011	11:52								16		2	3				16		2	3				
79	5/18/2011	13:01				1	2			10		1	3	4			10		1	4	6			
80	5/18/2011	16:45		60						1			4				1	60		4				
81	5/18/2011	17:30		56									4					56		4				
82	5/19/2011	5:32	12		1					8		1	6	6			20		2	6	6			
83	5/19/2011	7:14		1		4		4		3			5				3	1		9		4		
84	5/19/2011	16:47	11	35		2					1		5				11	36		7				
85	5/19/2011	17:30	2	35						10		1	6				12	35	1	6				
<b>TOTALS</b>			<b>143</b>	<b>640</b>	<b>8</b>	<b>87</b>	<b>19</b>	<b>13</b>	<b>6</b>	<b>73</b>	<b>9</b>	<b>6</b>	<b>221</b>	<b>60</b>	<b>51</b>	<b>1</b>	<b>216</b>	<b>649</b>	<b>14</b>	<b>308</b>	<b>79</b>	<b>64</b>	<b>7</b>	

\*\* Medical Emergency on April 29 - did not observe 13 knot regulation inside Berners Bay on 18:21 and 18:56 trips

## Appendix 1: ADFG Herring Update Summary

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### ALASKA DEPARTMENT OF FISH AND GAME DIVISION OF COMMERCIAL FISHERIES FISHERY UPDATE



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*Cora Campbell, Commissioner*  
*Jeff Regnart, Director*



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Contact:  
Kevin Monagle

Phone: (907) 465-4250  
Fax: (907) 465-4944

Juneau Area Office  
PO Box 110024  
Juneau, AK 99811-0024  
Date: May 20, 2011  
Time: 3:00 p.m.

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#### JUNEAU HERRING UPDATE #15

This will be the final official herring update for the Juneau area. The department will continue to monitor the Lynn Canal herring population but on a less formal and less frequent basis. Please contact Kevin Monagle or Dave Harris at the phone number listed above if further information is desired.

Today's aerial survey was conducted of the Lynn Canal/Berners Bay area under fair to poor conditions with calm winds, low clouds, and light precipitation.

#### Lynn Canal/Berners Bay

There has been no significant change over the past 4 days of surveying. No herring spawn was observed on this survey. A moderate biomass continues to be seen in the northern portion of Bridget Cove and around Mabb Island. One school of herring was observed in north Tee Harbor. Berners Bay and the Point Bridget area remain relatively quiet. Sea lion numbers appear to be up to normal levels with concentrated groups seen near the Eagle River flats and Bridget Cove. No whales were observed today.

**2011 Juneau Herring Observations****Tenakee Inlet**


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April 15, 2011	No herring or herring spawn observed. Few predators.
April 18, 2011	No significant change. Approximately 50 sea lions, 4 whales.
April 20, 2011	Increase in predators. Approximately 67 sea lions, 8 whales.
April 22, 2011	No significant change. Approximately 80 sea lions, 5 whales.
April 25, 2011	No herring or spawn. Predators concentrated near Basket Bay.
April 27, 2011	No herring, no spawn, few predators.
April 29, 2011	No change.
May 01, 2011	No change.
May 04, 2011	No change.
May 06, 2011	No change.
May 09, 2011	~1.0 nm spawn from Kadashan to Crab Bay
May 10, 2011	No herring, no spawn, few predators.
May 11, 2011	No change.
May 13, 2011	No change.
May 16, 2011	No change. Aerial surveys done.

**Seymour Canal**


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April 15, 2011	No herring or herring spawn observed. Few scattered predators.
April 18, 2011	No herring or herring spawn. Increased number of predators with approximately 110 sea lions and 6 whales.
April 20, 2011	No significant change. Approximately 134 sea lions, 3 whales.
April 22, 2011	No significant change. Approximately 130 sea lions, 6 whales.
April 25, 2011	Small spawn and moderate biomass of fish in shallow water. Significant increase in Predators. Fishery put on notice.
April 26, 2011	Herring banded along 3 miles of shoreline. Opened fishery. No significant spawn.
April 27, 2011	Herring banded along 3-4 miles of shoreline. Commercial fishing activity done. No significant spawn.
April 28, 2011	Herring banded along 3 miles of shoreline. One small spot spawn but otherwise no significant spawn event.
April 29, 2011	Herring banded along 3 miles of shoreline. No significant spawn. Many predators still very active in the area.
April 30, 2011	Herring banded along 3 miles of shoreline. No spawn.
May 01, 2011	Herring more dispersed along 6+ miles of shoreline. No spawn.
May 02, 2011	Herring more dispersed along 8 miles of shoreline. One small spot spawn at Pt. Hugh but otherwise no significant spawn.
May 03, 2011	¼ nm of active spawn at Pt. Hugh dissipated in afternoon.
May 04, 2011	A couple large schools of herring near Cloverleaf rocks. No spawn. 250+ sea lions and 9 whales at Pt. Hugh.
May 05, 2011	2.5 nm of active spawn. Predators abundant and very active.
May 06, 2011	8.5 nm of active spawn. Predators abundant and very active.
May 07, 2011	2.5 nm of active spawn. Fewer predators in area.
May 08, 2011	0.8 nm of active spawn. Predator count continues to diminish.
May 09, 2011	No herring, no spawn, few predators. Aerial surveys done.

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**Lynn Canal/Berners**

April 15, 2011	No herring or herring spawn observed. Few predators mostly off the Berners tide flat.
April 20, 2011	No herring or herring spawn observed. Increase in predators in Berners Bay, 55 sea lions, 2 whales.
April 25, 2011	Decrease in predators; one school of herring near Cascade Point. 35 sea lions, 4 whales.
April 27, 2011	Small herring schools from Point Bridget to Yankee Cove, and in Tee Harbor and in Auke Bay. No spawn. Hooligan in the Berners river systems. Predators generally scattered.
April 29, 2011	Approximately 1 nm herring spawn beginning at Sawmill Creek and to the north. Lynn Canal from Pt. Bridget south is quiet.
April 30, 2011	2 <sup>nd</sup> day of herring spawn in same places. Few predators. Lynn Canal from Pt. Bridget south is quiet. Hooligan in river.
May 01, 2011	Light herring spawn at Cascade Point. Initial spawn at Sawmill Creek has dissipated. Few scattered predators.
May 02, 2011	No spawn, herring schools at Pt. Bridget and Sawmill Creek. No activity south of Point Bridget. Predators scattered.
May 04, 2011	Two small schools of herring near Cascade Point. Small dissipating spawn in Berners Bay. Few predators in area.
May 06, 2011	½ nm of dissipating spawn in Berners Bay. Few predators.
May 08, 2011	One school of herring near Tee Harbor, several small schools near Echo Cove in Berners Bay. No active spawn and few predators.
May 09, 2011	Herring schools throughout the area, no spawn. Few sea lions and 2 whales in Lena Cove.
May 11, 2011	Herring schools near Bridget Cove and in Tee Harbor, no spawn observed. Few sea lions and 3 whales in the area.
May 13, 2011	No herring or herring spawn observed. 2 whales near Point Bridget, 4 whales east of Benjamin Island, scattered seals and sea lions throughout the area.
May 16, 2011	1/3 nm active spawn observed in Bridget Cove, schools of herring observed in Bridget Cove and Tee Harbor.
May 17, 2011	Herring schools in Bridget Cove and Tee Harbor, no spawn.
May 18, 2011	No change.
May 19, 2011	No change.
May 20 2011	No change.

Juneau herring updates will be posted on the ADFG web site listed below, and on a recorded message phone at 465-8905.

<http://documents.cfl.adfg.state.ak.us/SubtopicContents.po?ERA=Current&TOPIC=07&SUBTOPIC=sac>

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