

**Alaska Department of Fish and Game
State Wildlife Grant
ANNUAL INTERIM PERFORMANCE REPORT**

Grant Number: T-1 **Segment Number:** 6
Project Number: 4
Project Title: Cooperative acoustic monitoring of Pacific Right Whales
Project Duration: July 1, 2003 – June 30, 2007
Report Period: July 1, 2005 – June 30, 2006
Report Due Date: September 30, 2006
Partner: University of California San Diego, Scripps Institution

Objectives:

1. Construct and deploy two High-frequency Acoustic Recording Packages (HARPs) to acquire information on population abundance and trend, important habitats, and spatial and temporal geographic distribution of the North Pacific Right Whale; project will include data on other cetaceans, including humpback, fin, and killer whales.
2. Increase the spatial extent of the current acoustic monitoring program across the historical summer range of the right whale with two new HARPs.
3. Analyze data and conduct analyses of seasonality.

Summary of Accomplishments:

The following accomplishments are related to Objectives 1 and 2.

1. One ADF&F funded HARP that had been deployed at mooring site M2 during April 2005 was successfully recovered using the NOAA Ship *Miller Freeman* in October 2005. This instrument recorded acoustic data continuously at 80 kHz between April and September 2005.
2. Two ADF&G funded HARPs were deployed at mooring sites M2 and M4 during October 2005 using the NOAA Ship *Miller Freeman*. These two HARPs were successfully recovered in May 2006, aboard the *Miller Freeman*. These HARPs recorded continuously at a sampling rate of 80 kHz until late January 2006.

The following accomplishment is related to Objective 3.

3. Data from these HARPs have been processed using automated right whale call detection software, configured to detect 'up' calls. Right whale up calls were detected on 10 separate encounters in October, November, and December 2005. Humpback whale calls were also detected throughout these recordings.
 4. HARP data were also studied for the presence of killer whale calls. A long-term spectral average of the data was scanned visually, and then promising times were examined in greater detail. On the M2 HARP 49 killer whale encounters were found between April 2005 and January 2006 (10 months). On the M4 HARP (located further north) 14 killer whale encounters were found between October 2005 and January 2006 (4 months).
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Significant Deviations:

1. No ADF&G funded HARPs were deployed in April 2006, owing to the occupation of the PMEL-NOAA moorings by PMEL-owned acoustic recorders. This means that we will not acquire acoustic data for the April – October 2006 period, a deviation from the original proposal.
2. We have initiated a new effort to identify killer whale calls in the Bering Sea HARP data, an expansion of the originally proposed data analysis effort, which will be undertaken by Dr. Erin Oleson (SIO-Postdoc).

Actual Costs during this Report Period (*personnel plus all operating expense totals*):

(Reported costs included ADF&G indirect calculated at 13.5%)

Federal (from ADF&G):	Partner (nonfederal share):
\$6,797	\$2,266

Project Leader (*or Report Contact Person*): J Hildebrand

Additional Information:

In April 2005, one NOAA-funded autonomous Acoustic Recording Packages (ARPs) was recovered along the Bering Sea shelf break between Dutch Harbor and the Pribilof Islands

1. Data were downloaded from the recovered ARP, and are being processed by graduate student Lisa Munger.