

## **Preliminary Satellite Telemetry Results for Bering-Chukchi-Beaufort Bowhead Whales**

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### **INTRODUCTION**

The Alaska Department of Fish and Game (ADF&G) has begun a cooperative project (with the AEWC and the NSB and funded by the US Minerals Management Service (MMS) to study bowhead whale movements and behavior using satellite telemetry.

### **METHODS**

Two satellite transmitters designed by M.P. Heide-Jorgensen were placed on bowhead whales near Barrow, Alaska in 2006. One was deployed in May and a second in September 2006.

### **RESULTS AND DISCUSSION**

A approximately 13.7 m (45 ft) male bowhead (#60010) was tagged on 12 May near Barrow and behaved in a manner consistent with our understanding of bowhead migratory behavior based on aerial and ship-based surveys, and harvest monitoring (Moore and Reeves, 1993). The whale travelled directly across the Beaufort Sea and arrived in Amundsen Gulf (east of 127° W Longitude) in early June and stayed there until early August when he travelled directly to the northwest end of Banks Island and back. While unexpected, this behavior is not unprecedented. This whale began his westward migration in early October when he moved rapidly across the Alaskan Beaufort Sea to arrive at Barrow on 14 October (Figure 1).

Another whale (#60009), tagged near Barrow on 21 September gave fewer locations but showed that both whales occurred together along the northern Chukotka coast in November (Figure 1).

The movements of the two whales described here are consistent with published literature regarding migratory behavior (Moore *et al.* 1995, Mate *et al.* 2000; Moore and Reeves, 1993). However, important new information on swimming speeds, probable feeding areas, precise migratory routes and migration timing are provided by these data (ADFG, unpublished data).

### **ACKNOWLEDGEMENTS**

This project would not be possible without the following cooperators: the North Slope Borough, the Alaska Eskimo Whaling Commission, the Barrow and Kaktovik Whaling Captains' Associations, and the Greenland Institute of Natural Resources, who developed and deployed the transmitters. This is a 5-year study funded by the Minerals Management Service.

### **REFERENCES**

- Moore, S.E. and Reeves, R.R. 1993. Distribution and movement. In: J.J. Burns, J.J. Montague and Cowles, C.J. (eds.) *The Bowhead Whale*. Special publication No. 2 of the Society for Marine Mammalogy. 787 pp.
- Mate, B.R., Krutzikowsky, G.K., Winsor, M.H. 2000. Satellite-monitored movements of radio-tagged bowhead whales in the Beaufort and Chukchi seas during the late-summer feeding season and fall migration *Can J. Zool.* 78 1168-1181.

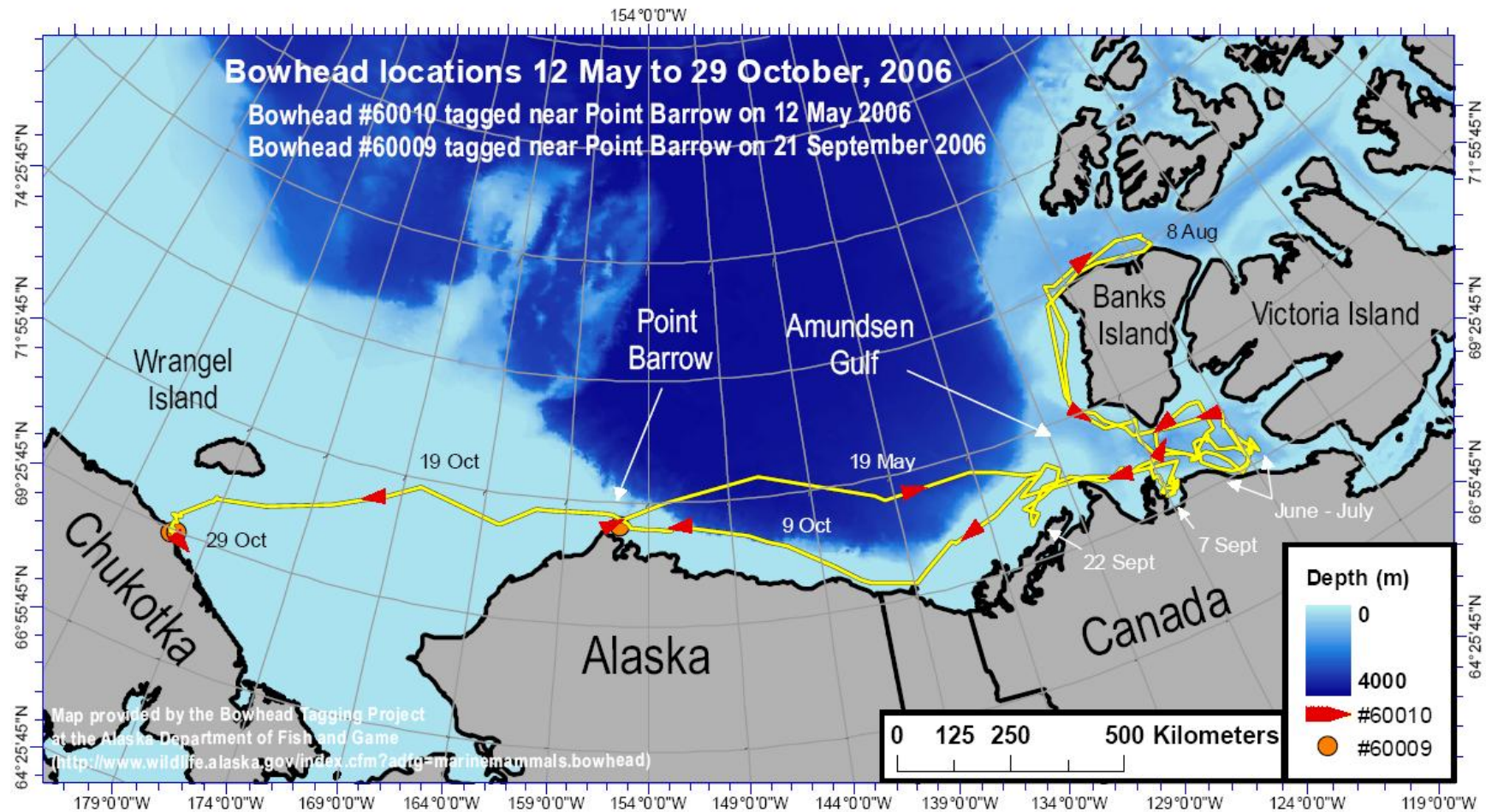


Figure1. Bowhead locations 12 May to 29 October 2006 from satellite telemetry. Arrows show track for whale 60010. The tag for whale 60009 only transmitted intermittently which transmitted at Barrow and several weeks later along the Chukotka coast.