



Marine Advisory Program
University of Alaska Fairbanks
School of Fisheries and Ocean Sciences
400 East Front Street • Nome, AK 99762
907.443.2397 • fax 907.443.5602

Re: Polar bear specimen collection at Kaktovik, September 2012

Prepared by: Gay Sheffield, University of Alaska Fairbanks, Marine Advisory Program

Three polar bears were reported dead during September 2012 (Table 1) and include:

- KAK-001-12: a male polar bear carcass located approximately one mile northeast of the Kaktovik airport hangar on an outer barrier island (Appendix 1). Carcass had moderate decomposition. A hairless patch in the armpit region of the right front leg was noted and is most likely a reflection of the state of decomposition. Head and all claws had been removed prior to arrival. The body cavity had been opened and the viscera were gone and/or rotten beyond recognition. Standard length from tip of tail to end of neck (carcass in supine position): 190 cm, testicle length: 7 cm, baculum length: 21 cm, skull length: 40.5 cm, skull width: 26.2 cm. During the subsequent MTRP tagging interaction, a white plastic ear tag was returned by the public (#32384). Tissue samples were recovered September 5, 2012.
- KAK-002-12: a male polar bear, freshly dead on the bluffs near the US Air Force Barter Island Installation (Appendix 2). A white plastic ear tag was retrieved (#21123). A green lip tattoo was present but unreadable. Upon examination, no external lesions or hair loss were seen. Of note, omentum, rump, kidneys, and other organs (heart, etc.) contained fat deposits. The stomach contained an estimated 0.75 L of fine sand and included, toward the proximal end, several small pieces of fresh bowhead whale blubber and gristle. Additionally the intestines were packed with fine sand. Lesions were noted on the lungs and sampled for North Slope Borough's subsequent analysis. Standard length from tip of tail to nose (carcass in supine position): 188 cm, axillary girth: 138 cm, sternal blubber depth: 3.2 cm, skull length: 35 cm, skull width: 18.5 cm. Samples were recovered within hours of death September 6, 2012.
- KAK-003-12: a polar bear carcass located on the northwest end of Bernard Spit was found by a community member during the first week of July 2012. Skull length: 33 cm, skull width: 19 cm. Frozen skin samples with hair were recovered September 14th, 2012.

Biological specimens were collected from each bear and are listed in Table 2.

Appendices 1 and 2 contain photographs of two carcasses. Tissue samples were collected, prepared for histological examination, and will be transferred to the North Slope Borough Department of Wildlife Management (Barrow) for general health assessment analyses. Additional tissues were collected and frozen for archive at the University of Alaska Museum of the North's Genomic Resources facility and will be available to the public for future studies. A US Fish and Wildlife Service Wildlife Biologist (Susi Miller) assisted in the collection of samples from these bears for a USFWS-MMM (Anchorage) project examining contaminant levels in polar bears. Lastly, samples were collected for use by the US Geological Survey (Anchorage).

Thank you to Susi Miller for assistance sampling KAK-002-12 and KAK-003-12 as well as to Robert Thompson for boat access to KAK-001-12. Collection of these polar bear tissues was done under a USFWS Letter of Authorization to the UAF Marine Advisory Program office (Nome).

The sampling of these polar bears was due to the patience and generosity of the Kaktovik community. Please feel free to contact me with any questions or if you need any additional information (907) 443-2397.

Table 1. Polar bears sampled at Kaktovik during September 2012.

ID Number	Ear tag	USFWS Hide / Skull Tag	Sampling date	Sex
KAK-001-12	32384	N0008 / N0009	Sept. 5	Male
KAK-002-12	21123	N0004 / -	Sept. 6	Male
KAK-003-12	-	- / N0051	Sept. 14	-

Table 2. Tissues collected from polar bears at Kaktovik during September 2012 and the recipient of those tissues.

	KAK-001-12	KAK-002-12	KAK-003-12
Serum	-	NSB / GS	-
Lung	-	NSB / GS / UAM	-
Kidney	-	NSB / GS / UAM	-
Skin	NSB / GS / UAM / FWS	NSB / GS / UAM	NSB / GS / UAM
Testis	NSB / FWS	NSB / GS / UAM	-
Fat	-	NSB / GS / UAM	-
Heart	-	NSB / GS / UAM	-
Liver	-	NSB / GS / UAM	-
Muscle	NSB / GS / UAM / FWS	NSB / GS / UAM	-
Spleen	-	NSB / GS / UAM	-
Bladder	-	NSB	-
Lymph node	-	NSB	-
Femur	FWS	GS	-
Baculum	NSB	-	-

NSB = North Slope Borough, Department of Wildlife Management (Barrow)

UAM = University of Alaska Museum (Fairbanks)

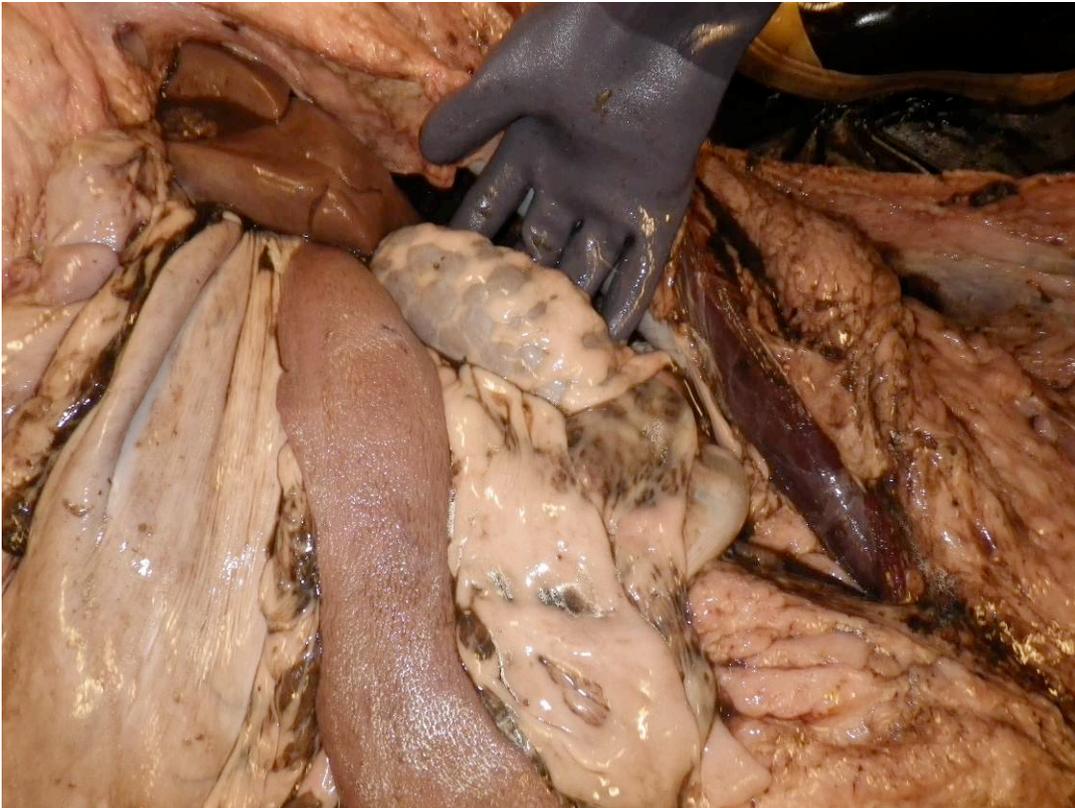
FWS = US Fish and Wildlife Service, Marine Mammals Management (Anchorage)

GS= US Geological Survey (Anchorage)

Appendix 1. Photographs of a male polar bear (KAK-001-12) sampled at Kaktovik during September 2012 (ear tag #32384).



Appendix 2. Photographs of a male polar bear (KAK-002-12) sampled at Kaktovik during September 2012 (ear tag #21123).



Appendix 2. (continued)

