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United States Department of the Interior

FISH AND WILDLIFE SERVICE
Arctic National Wildlife Refuge
101 12 th Ave. Rm236
Fairbanks, Alaska 99701
(907) 456-0250 fax (0428)

December 2, 2002

Point Thomson EIS Project Manager
CH2M HILL
301 W. Northern Lights Blvd., Suite 601
Anchorage, Alaska 99503

Dear Sir:

Enclosed is information that we are providing for inclusion in the Pt. Thomson Gas Cycling Project Environmental Impact Statement. The information covers 3 topics, use of the Pt. Thomson area and portions of the Arctic National Wildlife Refuge by the Central Arctic Caribou Herd, use of this area by muskoxen, and digital images recorded by Arctic NWR staff on the refuge looking toward Pt. Thomson. The images are provided to assist in the analysis of impacts of the project on the viewshed from the refuge.

If you have any questions regarding this information, please contact Assistant Refuge Manager Gary Wheeler at (907) 456-0549.

Sincerely,

A handwritten signature in cursive script that reads "Richard Voss".

Richard Voss
Refuge Manager

Enclosures

Use of the Pt. Thomson Area and Portions of the Arctic National Wildlife by the Central Arctic Caribou Herd

By

David Payer

Supervisory Ecologist, Arctic National Wildlife Refuge

Caribou from the Central Arctic Herd (Figure 1) and the Porcupine Caribou Herd (Figure 2) use the northwestern region of the Arctic National Wildlife Refuge adjacent to the Pt. Thompson area.

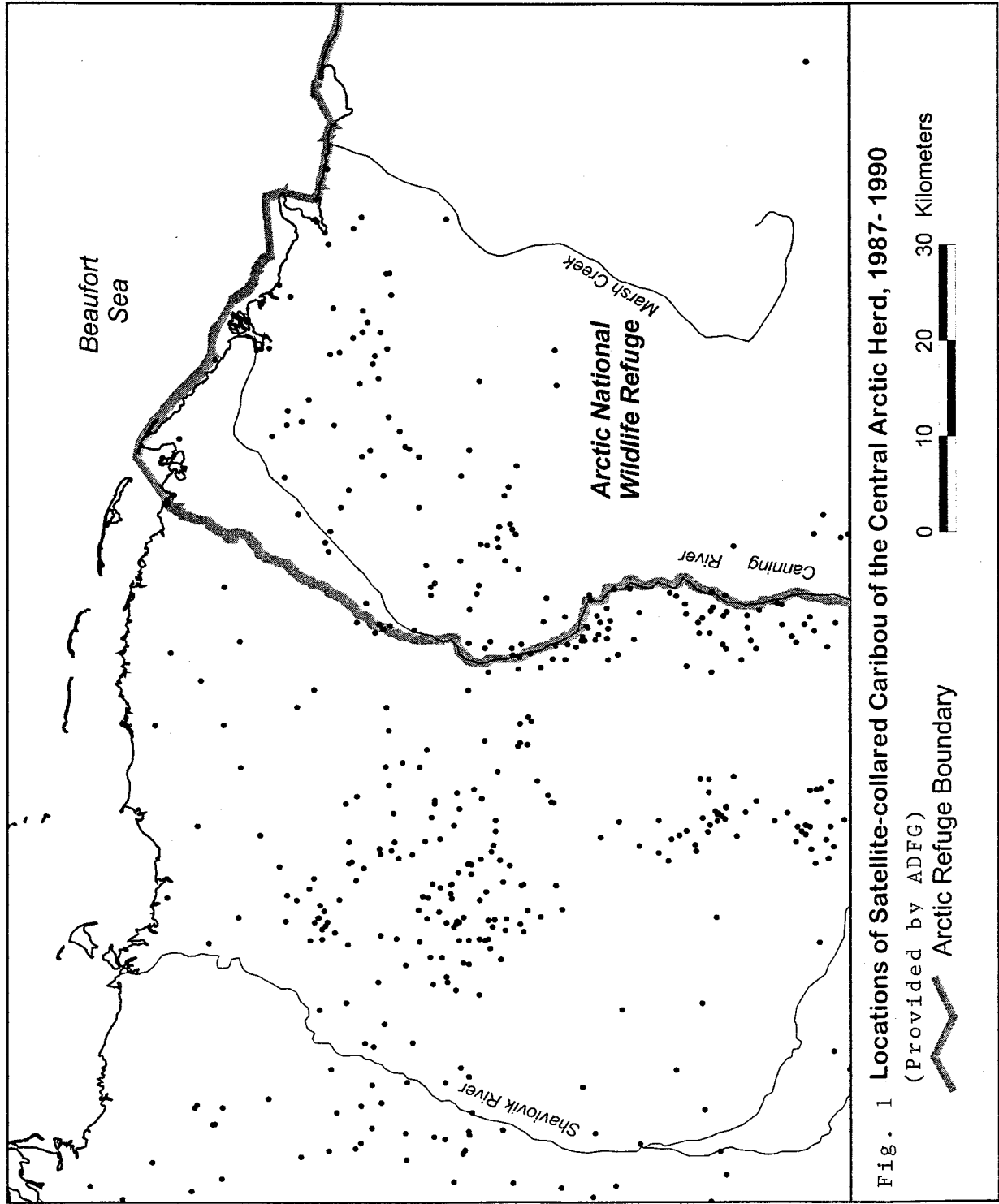
Calving in the Central Arctic Caribou Herd generally occurs in early June, and is concentrated within 2 core calving areas, east and west of the Sagavanirktok River (Wolfe 2000). The extent of the calving grounds during 1990-2002 included the northwestern region of the Arctic National Wildlife Refuge and the adjacent Pt. Thompson area (Figure 3).

The Alaska Department of Fish and Game conducted radiotracking studies of caribou cows and calves from the Central Arctic Herd in 2001 and 2002. Calves from both calving areas used the Pt. Thompson area and the northwestern region of the Arctic National Wildlife Refuge during late summer and fall (Figure 4). In 2002, 66% of surviving radiocollared calves from both calving areas were present within the Arctic National Wildlife Refuge on 6 October (Stephen Arthur, ADFG, unpublished data).

Central Arctic Herd caribou typically migrate south to wintering grounds north and south of the Brooks Range. During winter, adults and calves are frequently found within and adjacent to the Arctic National Wildlife Refuge (Figure 5; Stephen Arthur, ADFG, personal communication).

Literature Cited

Wolfe, S.A. 2000. Habitat selection by calving caribou of the Central Arctic Herd, 1980-95. M.S. Thesis, University of Alaska, Fairbanks.



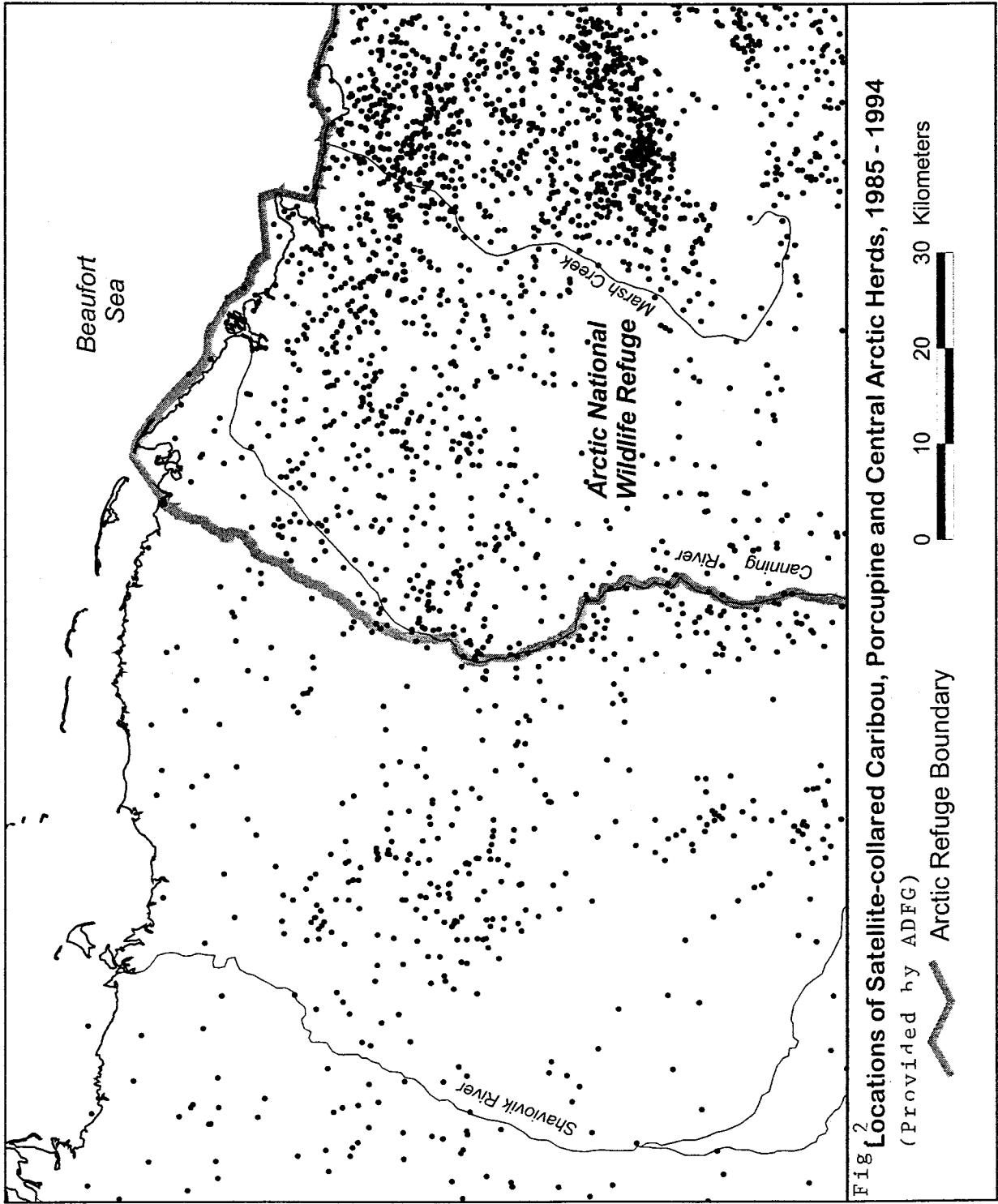


Fig 2 Locations of Satellite-collared Caribou, Porcupine and Central Arctic Herds, 1985 - 1994

(Provided by ADFG)

Arctic Refuge Boundary

0 10 20 30 Kilometers

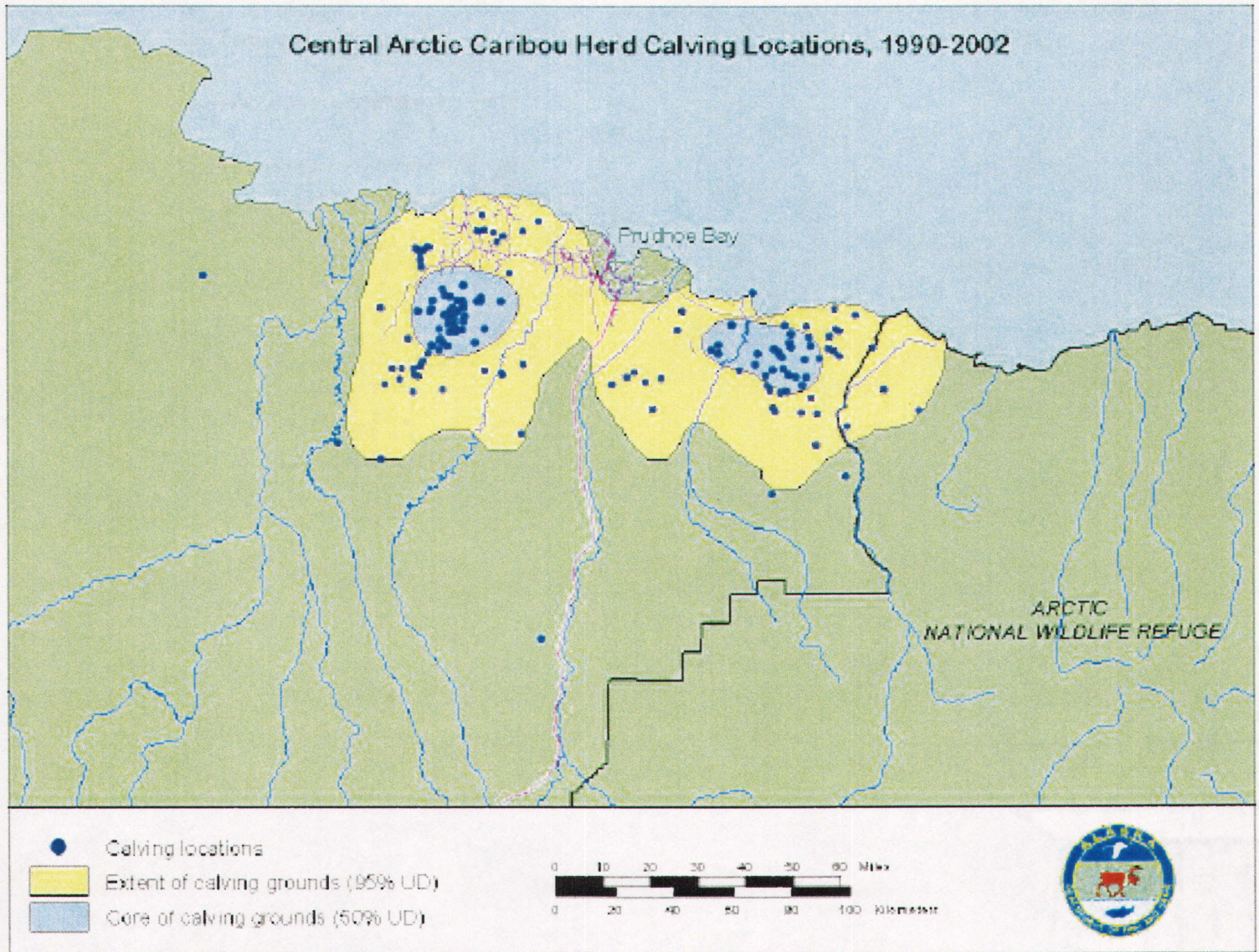


Figure 3. Central Arctic Caribou Herd calving locations, 1990-2002
(Source: Alaska Department of Fish and Game).

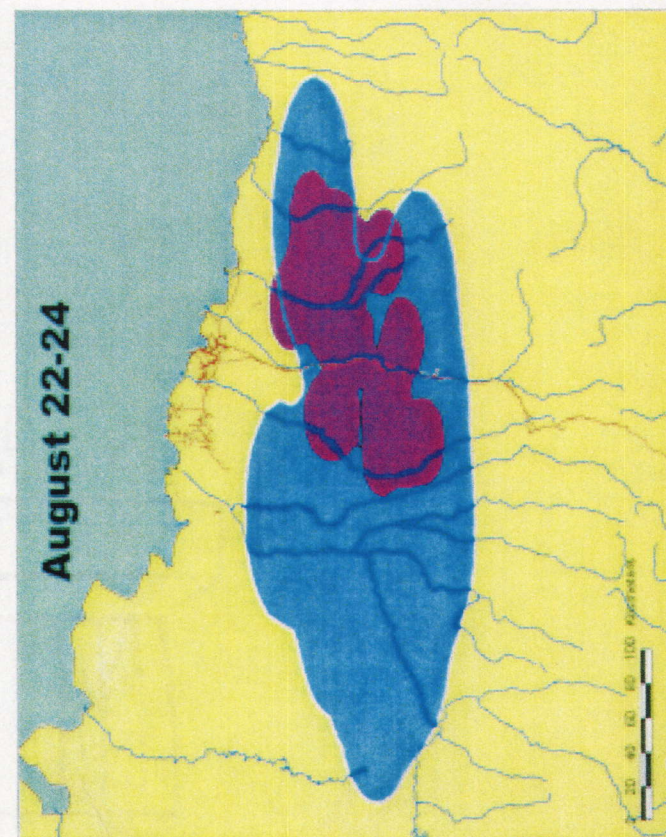
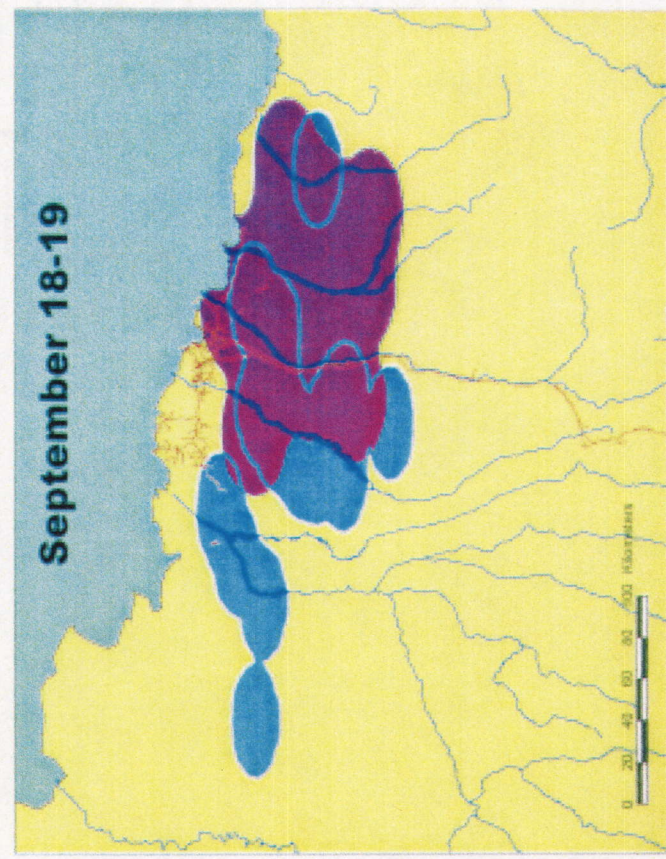
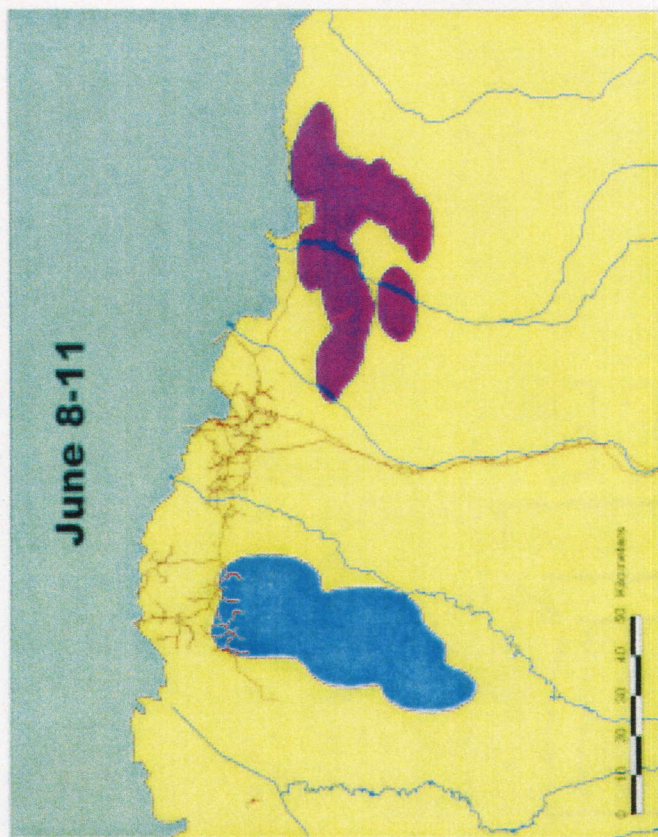
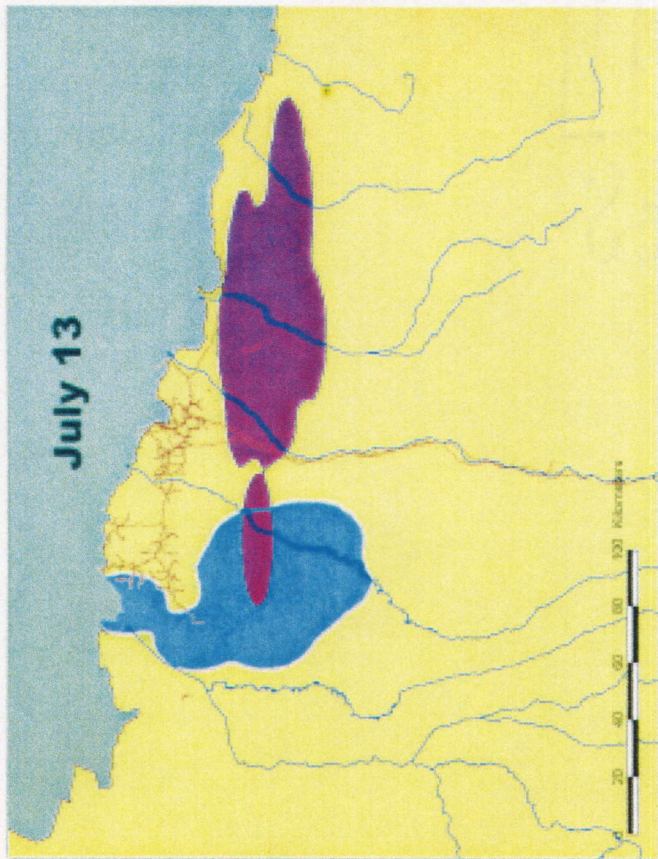


Fig. 4. Distribution of radiocollared caribou calves, summer 2001. Distributions were modeled using the 99% fixed kernel utilization distribution. Colors indicate locations where calves were captured during 8-11 June (Source: Alaska Department of Fish and Game).

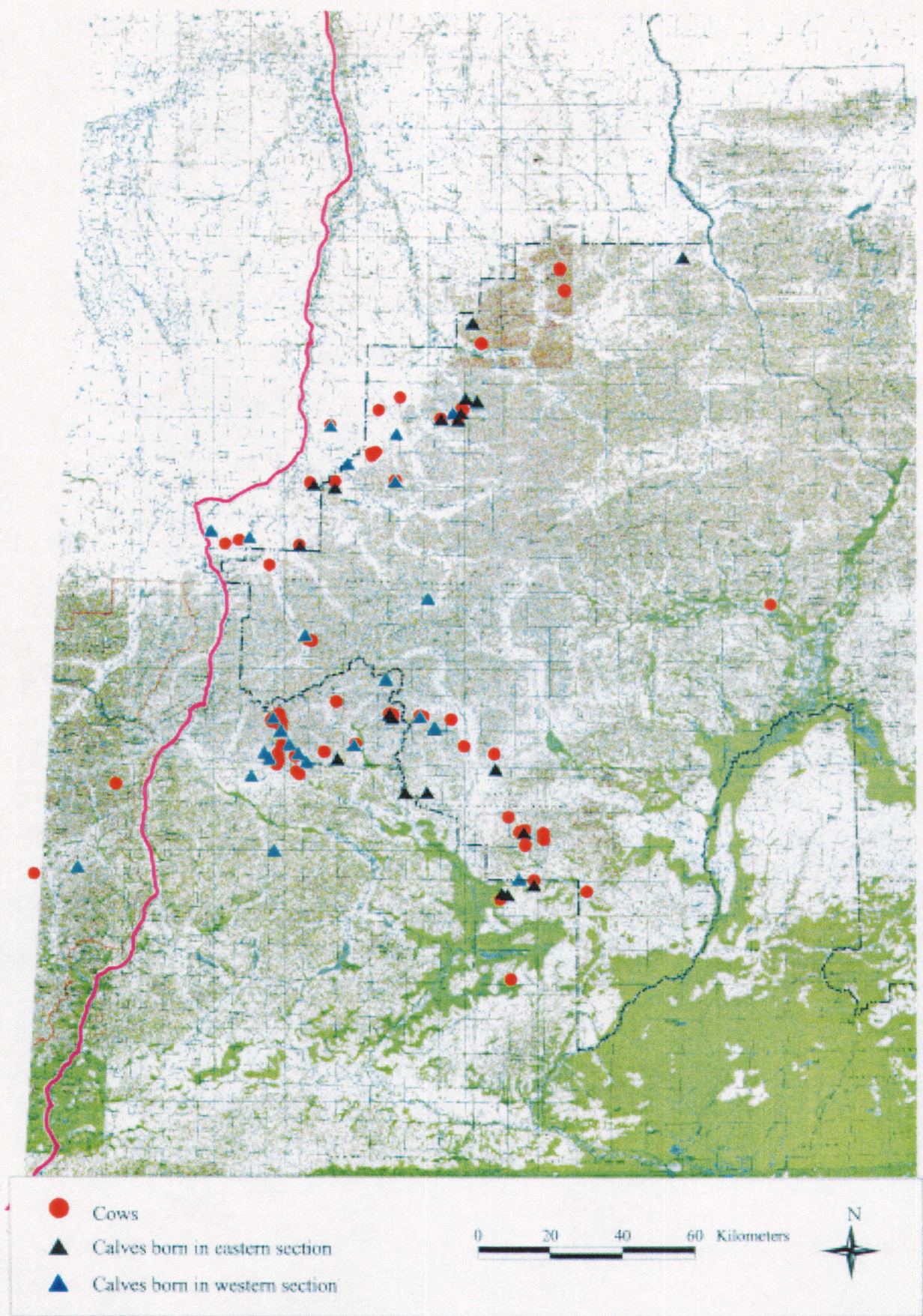


Fig. 5. Distribution of radiocollared caribou from the Central Arctic Herd, 26 - 28 February 2002. (Source: Alaska Department of Fish and Game).

Use of the Pt. Thomson Area and Northwestern Portion of the Arctic National Wildlife Refuge by Muskoxen

by

Patricia Reynolds, Ecologist, Arctic National Wildlife Refuge

Fig. 1 shows locations of muskoxen observed within a 30-mile radius of Point Thompson from 1982 to 2002. These observations were made during muskox surveys and flights to locate radiocollared animals. Observations of muskoxen seen during other surveys or provided by pilots, local residents and other biologists working in the area were also included in the data set.

Muskoxen were not often seen in the area between the Staines River (western boundary of the Arctic National Wildlife Refuge) and the Shavioviak River. This is a relatively flat region with little micro-relief that does not contain habitats preferred by muskoxen. Muskoxen in northeastern Alaska are frequently found along river corridors containing a diversity of plant communities (Reynolds et. al 2002) and adjacent uplands with relatively rugged terrain (Nellemann and Reynolds 1997). In winter, muskoxen select heavily vegetated areas covered by shallow snow, such as windblown bluffs and hills (Wilson 1992). Although few muskoxen were seen near Point Thompson, muskoxen frequently used rivers adjacent to this area (Shavioviak and Kavik rivers to the west and Staines and Canning rivers to the east). Small groups of muskoxen also lived on Flaxman Island in winter and summer during some years.

Literature cited

- Nellemann, C.H. and P.E. Reynolds. 1997. Terrain preferences associated with patterns of late winter distribution of muskoxen (*Ovibos moschatus*). *Arctic and Alpine Research*. 29(3).
- Reynolds, P.E., K. J. Wilson, and D. R. Klein. 2002. Pages 54-65 in Douglas, D. C, P. E. Reynolds and E. B. Rhode, editors. Arctic Refuge coastal plain terrestrial wildlife research summaries. U.S. Geological Survey, Biological Resources Division, Biological Science Report USGS/BRD/BSR-2002-0001.
- Wilson, K. J. 1992. Spatial scales of muskox resource selection in late winter. Thesis. University of Alaska, Fairbanks, Alaska, USA.

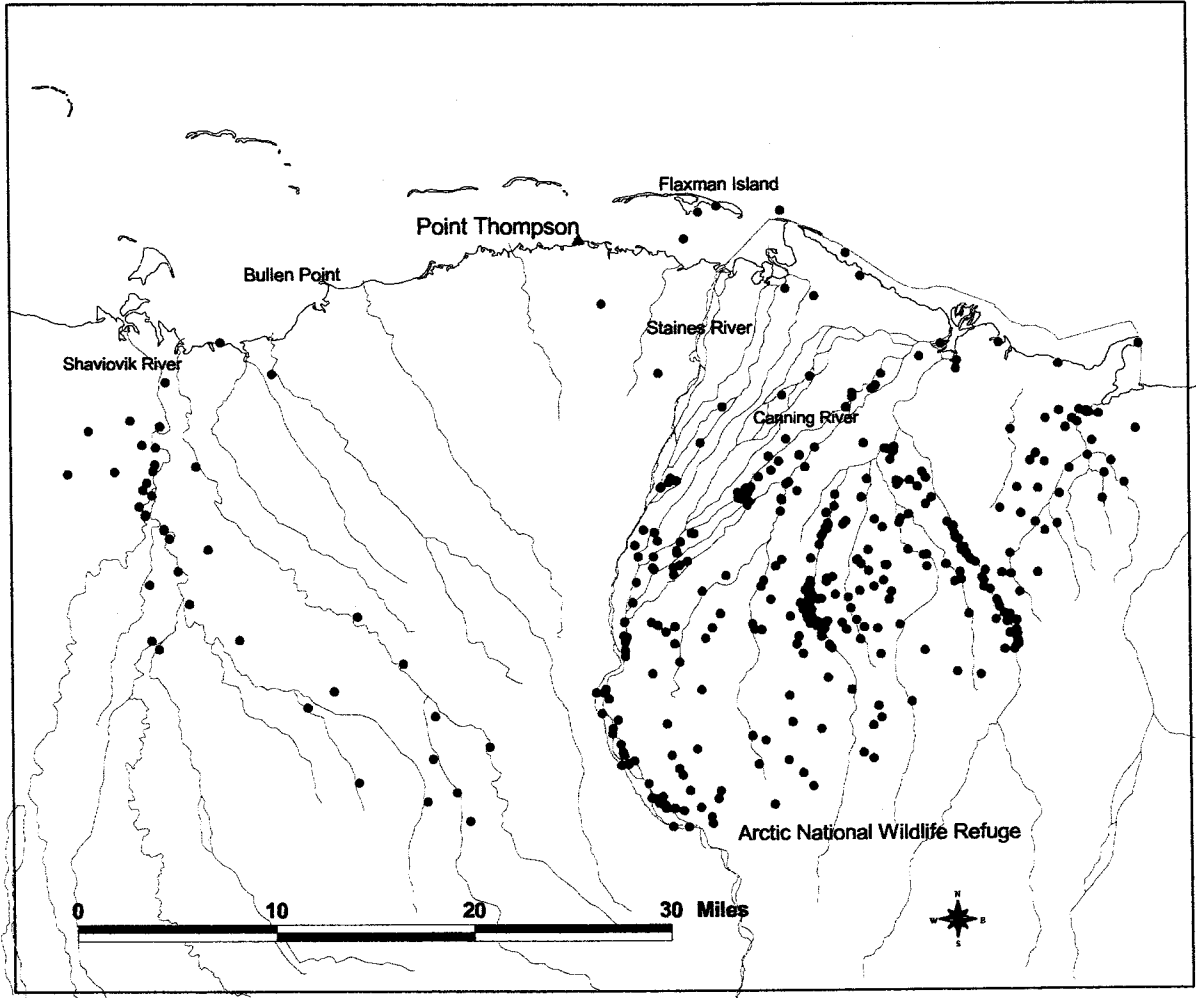


Fig. 1. Locations of muskoxen within 30 miles of Point Thompson, Alaska, 1982-2002.