

Polar Bear Denning Map

Female polar bears den during the winter they give birth to young. Other polar bears do not den, but are active year-round.

The pink dots on this map show the distribution of maternal dens occupied by radio-collared polar bears between 1981 and 2000 on the mainland coast of Alaska and Canada. The collared bears are a subset of the total number of bears that use this area. Tracking of the collared bears identified 53 dens along the mainland coast, 26 (50%) of which were within the bounds of the Arctic National Wildlife Refuge. Twenty-two of the 53 dens (42%) were within the bounds of the 1002 area.

Other dens have been located on Alaska's north slope since the turn of the century, but those observations cannot be considered to have an unbiased distribution because visual searches only locate dens in areas where investigators looked. In contrast, the dens shown on this map represent an unbiased estimate of denning distribution because the radio-collared bears led investigators to the den sites. Statistical tests (see below) confirmed that the distribution of these dens was not biased by the distribution of the sampling (radio-tagging) efforts.

This information was collected from:

- 1. Arctic 46:246-250, Human disturbances of denning polar bears in Alaska;
- 2. Journal of Wildlife Management 58:1-10, Polar bear maternity denning in the Beaufort Sea; and
- 3. Amstrup (unpubl. data).

Additional information is available in:

Amstrup, S.C. 2002. Movements and population dynamics of polar bears. Pages 65-70 in D.C. Douglas, 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.