

# POPULATION CHARACTERISTICS OF POLAR BEARS IN SOUTHERN HUDSON BAY

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*Abstract:* During 1984-86, we captured 457 different polar bears (*Ursus maritimus*) 536 times along the Ontario coast of southern Hudson Bay. The sex ratio of different bears captured (53 M:47 F) was similar ( $P = 0.30$ ). The mean age of captured males and females was 6.9 and 5.5 years, respectively. The calculated mean annual survival rate for males and females was 0.89 and 0.85, respectively. The mean natality rate for females aged 5-21 was 0.85. Seventy-five percent of females  $\geq 5$  years were accompanied by young. Most females produced their first litters at age 5 or 6. There was no evidence of reproductive senescence in our samples as 4 of 6 females  $\geq 19$  years were accompanied by young. Mean summer litter sizes ranged from 1.4 to 1.8 and averaged 1.6. Weights of solitary females considered to be pregnant ( $338 \pm 43$  kg,  $N = 20$ ) were heavier than the non-pregnant group ( $283 \pm 47$  kg,  $N = 14$ ). When captured, 38% of the yearlings were alone, suggesting a 2-year breeding interval. We estimated a population of about 900 in southern Hudson Bay in 1985 and 1986.

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