

## TOPOGRAPHIC SELECTION BY GRIZZLY BEARS: SEX AND AGE DIFFERENCES

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Patterns of topographic habitat selection by grizzly bears (*Ursus arctos*) in the northcentral Alaska Range were determined for 103 bears captured during 1982-91. Aerial relocations of radio-marked individuals and family groups occurred from 15 April through 1 October. Topographic habitat was defined and measured using slope, aspect and elevation categories. Habitat use was measured using the log-likelihood technique for categorized habitats and estimated availability of habitat (Manly et al. 1993). Females with cubs and females with yearlings used slopes  $>45^\circ$ , adult males did not use slopes  $>35^\circ$ . Females with young used all aspects in proportion to availability, except the NNE aspect which was avoided. Adult females and juvenile females preferred SSE, SSW, and WNW aspects and this was the only significant preference for aspect measured in any class. Females with young used elevations above 1560m in proportion to availability and adult males avoided elevations above 1560m. Overall, all sex and age classes used the topographic habitats differently to some degree. Selection of habitats by all age classes probably enhances fitness and increases reproductive success through a balance of nutrition, avoidance of intraspecific interactions and mating.

# ABSTRACTS

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