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**DEMOGRAPHICS OF BROWN BEAR POPULATIONS ON THE ALASKA  
PENINSULA UNDER DIFFERENT HARVEST RATES**

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Abstract: Managing hunted brown bear (*Ursus arctos*) populations is complicated by difficulty in assessing population status and by incomplete understanding of effects of hunting on population dynamics. In lieu of manipulative experiments on brown bear populations, I compare demographics of 3 populations in pristine habitats on the Alaska Peninsula having different harvest rates of marked bears >2 years old: >1% for a protected population believed to be at carrying capacity (KAT); 6.6% for a stable population under moderate harvest (BKLK90s); and 13.5% for a population in the same area that appeared to be over-exploited (BKLK70s). The KAT population had the highest proportion of adult males, lowest proportion of subadults, oldest age structure, highest density, and lowest recruitment rate. These parameters were at the opposite extreme for BKLK70s, and were intermediate for BKLK90s. Survival rates for bears >2 years old suggest that hunting mortality was additive to natural mortality. Preliminary results indicate that production and survival of cubs was highest in the most heavily exploited population, but this may be related more to population density than to the proportion of males in the population.

# ABSTRACTS

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