

Kenai Peninsula (Units 7 & 15) Brown Bear Population Demographics

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The population demographics of Kenai brown bear has been under investigation for upwards of 8 years. However, data in general on productivity and mortality have been collected since the late 1990's. Currently 39 adult female brown bears are tracked via radio VHF collars. Data that are collected on these animals include: cub production, litter size, cub survival, adult survival, population growth trends, and general movements.

As of early spring 2019 there are 39 bears being monitored across the Kenai Peninsula from the lowlands up onto the glaciers. Mean adult female survivorship has consistently fluctuated around 94%, except for a decrease to around 80% during 2010–2012 when harvest was greatly increased. Overall population trends show consistent growth except for a downward trend during 2010–2012 when harvest was increased.

During the years 1995–2005, cubs of the year had a survival rate of approximately 70%. This dropped to about 60% for yearlings, then increased to approximately 100% for two and three year old bears. The same pattern was seen from 2006 to 2017 for cubs of the year. However, yearlings had close to 80% survival (an increase). Two- and three-year-old young continued to have around 100% survival.

The average litter size during 1995–2005 was slightly more than 2 (2.16), whereas during 2006–2018 the mean litter size was less than 2 (1.94).

Population demographics continue to be modeled for detecting trends in Kenai brown bear numbers. Recent harvest (2015–2018) has been 70% subadult animals. Future modeling efforts will focus on assessing the effect of sub-adult harvest on the Kenai brown bear population.

The following manuscripts were completed and submitted/accepted within the last year.

Keay, J.A., C. T. Robbins, S.D. Farley (2018). Characteristics of a Naturally Regulated Grizzly Bear Population. JWM. 82(4):789–801; 2018; DOI: 10.1002/jwmg.21425

Mashintonio, A. G. Harris, S. Farley, G. Russell (submitted 2018). A Hybrid Approach to Modeling Habitat Selection of Brown Bears. Journal of Wildlife Management and Wildlife Monographs.

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