Increase in bear infanticide linked to hunting
14 November 2014, by Robert Spakovskis

Unlike their North American counterparts, Scandinavian brown bears have an increased propensity towards sexually selected infanticide (SSI). In cases of limited mating possibilities, it may be advantageous for a member of a sex (usually male) to eliminate the offspring of another member of the same sex to prompt a member of the opposite sex into a reproductive cycle. A female brown bear may become receptive only two to four days after losing her young during the mating season.

As expected, the bear population declined during times of high hunting pressure and grew under low hunting pressure. The analysis of the data indicated that the 2 percent decline in fecundity rates (reproductive rates of a population) was greater than expected, estimated after a period of high hunting pressure. Cub survival is important to population growth, with cub mortality reaching 81 percent over the course of the study. The cub loss is mostly attributed to SSI during mating season (mid-May to mid-July). The data showed that without SSI, and with other factors for survival being equal, cub survival would be 81 percent higher. This illustrates that other factors besides hunting are responsible for the overall local population decline and that male behaviour appears to have an important effect on population dynamics.

The high hunting pressure resulted in 57 percent of males harvested in 2006–2011, compared with 52 percent in 1990–2005 (low hunting pressure). With more males bears killed, there was a higher likelihood of other male bears encountering cubs and females with cubs that are not related to the male, and thus SSI occurrence increased, causing the larger decrease in bear population.

Other indirect causes for the bear population decline due to hunting are also influenced by the male bear population. In order to counter SSI, female bears (with cubs) during the mating season avoid good habitats in favour of those in close proximity to humans. This has detrimental effect on...
the diet of the bear and could subsequently influence female reproductive output, lowering the fecundity.

The study hopes these new findings will be used when establishing hunting quotas and management policies.


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