## LYNX MANAGEMENT IN THE FAIRBANKS AREA

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In 1987, we began managing lynx trapping and hunting in the Fairbanks Area with a "tracking harvest strategy", whereby seasons are more liberal when lynx are abundant and more conservative when lynx are scarce. The goal of this study is to monitor the lynx population so that regulation changes can be recommended when necessary. During the last 3 years, we have examined 187 lynx carcasses from Game Management Subunits 20A and 20B, which encompass 15,800 mi<sup>2</sup> around Fairbanks and probably represent the most intensively trapped portions of our area. Each year, our collection represented 41-65% of the reported harvest from these 2 subunits. The annual percentage of kittens in the collection declined from 30% (13/43), to 20% (18/91), to 16% (8/51) from 1988-89 to 1990-91, respectively. However, the collections still had very young age structures. During the first 2 years combined, (cementum ages not available for 1990-91 yet), 85% (105/123) of the known-age carcasses were kittens or yearlings, and only 3% (4/123) were older than 2 years. Most females had placental scars and/or corpora lutea. Pelt length alone did not appear to provide a useful index to the % kittens in the harvest. Only 59% (17/29) of the known-age kittens were ≤35 inches, which is the cutoff used by some managers. A cutoff of ≤36 inches included 82% (3/28) of the kittens, however 20% (6/30) of the pelts  $\leq$ 36 inches were from yearlings or adults. Because of changes in age structure throughout the lynx cycle, I believe that the effects of these misclassifications on an index can be substantial and inconsistent. Conceivably, an increase in % kittens can occur in a declining population, and therefore, should not be used as the sole indicator of population trend. Data on age structure, reproduction, harvest, and from trapper questionnaires, when examined together, help misinterpretations of any 1 parameter. Lynx and snowshoe hare populations in the Fairbanks Area appear to be increasing and are probably within 1-2 years of their peak. I recommend retaining the current regulations through 1991-92. Next winter, we plan to collect carcasses from other subunits to determine whether the absence of older lynx occurs in less intensively trapped areas.

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