(16) HARVEST STRATEGIES FOR A HIGH-DENSITY MOOSE POPULATION

Young, Donald D., C. Tom Seaton, and Rodney D. Boertje. Alaska Department of Fish and Game, 1300 College Road, Fairbanks, AK 99701-1599;
don_young@fishgame.state.ak.us

Abstract: To meet demand for high levels of human consumptive use (Intensive Management [IM]) of moose (*Alces alces*) in Unit 20A, the Alaska Department of Fish and Game has recommended moving from harvest strategies directed towards antlered bulls, where yields tend to be lower, to a selective harvest strategy that includes all sex and age classes where yields tend to be higher. Although harvest strategies historically focused on antlered bulls, antlerless hunts were introduced as early as 1963. Initially, antlerless hunts were of limited magnitude (≤1% prehunt population), but were gradually expanded until by the mid-1970s harvests had became significant (4%–9% prehunt population). Due to the combined effects of severe winters, increased predation, and overharvest of cows, moose numbers plummeted from an estimated 23,000 (1968) to 2800 (1975). That and the ensuing lack of public support culminated in the suspension of antlerless hunts from 1975–1995, during which time only bulls were legal. Consequently, considerable hunting opportunity was lost, particularly during the 1980s and early 1990s when the moose population grew rapidly. With tenuous public support, antlerless hunts were reinstituted in 1996, primarily to limit population growth, but harvests were low ($\bar{x}$ = 68, 1996–2001; ≤1% prehunt population) and likely had minimal effect. High harvest rates of bulls 1995–1999 ($\bar{x}$ = 604), which resulted in low sex ratios (23 bulls:100 cows, 1999–2000), subsequently lead to shorter (5 days) seasons in 2000–2001 and lower bull harvests ($\bar{x}$ = 544), but harvests still exceeded the estimated sustainable harvest of 400 bulls annually. In 2002–2003, unit-wide antler restrictions, expanded antlerless hunts, and hunts targeting calves were adopted to better distribute the harvest across sex and age classes. This resulted in reduced harvests of antlered bulls (approximately 350), increased harvests of cows ($\bar{x}$ = 127), but only minimal harvests of calves ($\bar{x}$ = 28.5). To increase yield, our long term strategy is to harvest across sex and age classes at approximately 60 bulls:20 cows:20 calves.

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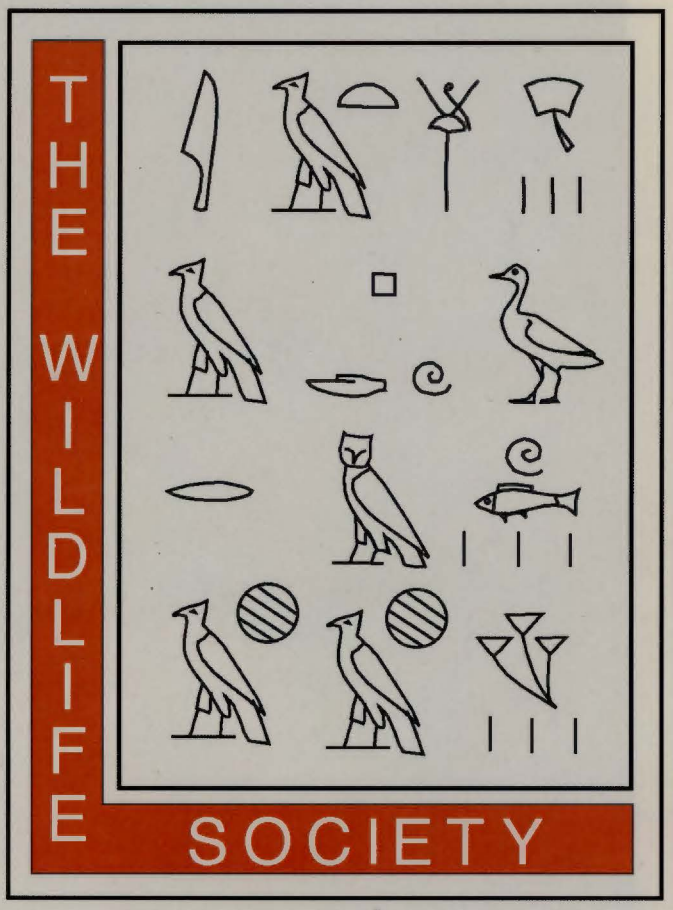

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