

SNOW DEPTH AS A LIKELY FACTOR CONTRIBUTING TO THE DECLINE OF A SHEEP
POPULATION IN THE CENTRAL YUKON

NORMAN BARICHELLO AND JEAN CAREY, Yukon Renewable Resources, Box 2703,
Whitehorse, YT Y1A 2C6

Abstract: A thinhorn sheep population was counted and classified in the
Glenlyon Range of the Pelly Mountains in response to a decline in the
average age of the sheep kill, and the outfitter's concerns that sheep had
severely declined in the area. The population was found to have declined
by about 40% of the estimated 1976 population, with the virtual absence of
one-half-curl rams and large full-curl rams.

The winter of 1982-83 was a particularly severe one with deeper than
average snow conditions during all but one month ($p < 0.5$). The loss of the
1982 cohort and older-aged animals during this winter, compounded by the
reproductive failure of the 1983 lamb crop, adequately explains the
decline of the population and the average age of the kill. Relatively
poor lamb production in 1981 and 1982 possibly contributed to the
decline.

The concentrated distribution of sheep during the winter of 1976-77,
in what was possibly an average winter, in comparison to the wide distri-
bution observed in the relatively snow-free winter of 1986-87, further
suggests that winter snow conditions may play a key role in the dynamics
of sheep in the area.