

DALL'S SHEEP (*OVIS DALLI DALLI*) SEXUAL SEGREGATION: ENVIRONMENTAL FACTORS AND SPATIAL IMPLICATIONS

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Abstract: Sexual segregation is a characteristic of polygynous ungulates, and it has been documented among many species in temperate-cold climates. However, reasons for this phenomenon and its potential use in conservation and management remain poorly understood.

I carried out my study during summer at Hoge Pass, Kluane National Park, Yukon. Objectives were to observe and determine the location of sheep groups, relating habitat and group characteristics. I tested two hypotheses reviewed in Main *et al.* (1996):

- 1) Dall's sheep socially segregate, because rams are trying to optimise their fitness, foraging in the best patches of vegetation, which also are areas with higher predation risk. Ewes of the same population are selecting habitats for raising their offspring (low predation risk), using cliffs or talus (security terrain) where food availability may be lower.
- 2) The proportions of security terrain, vegetation distribution, quality and availability determine the spatial segregation of Dall's sheep at Hoge Pass. Males distribute themselves in habitat with higher quality and availability of vegetation, and further from security cover; while females were expected in habitats with lower quality and availability of vegetation, but closer to security cover.

Collected data were used to generate a regression model of sexual segregation, to provide data for management guidelines, and to explain potential causes of sexual segregation in ungulates.
