

Population ecology of Alpine ibex: ibex are not deer!

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Recent research on the ecology of Alpine ibex based on individual monitoring of marked individuals and on an analysis of long-term population counts in the Gran Paradiso National Park reveals that many aspects of the population dynamics of this species are very different from those of all other ungulates studied so far. In particular, the survival of adult males to about 10 years of age is much higher than for any other ungulate, which is surprising given the extreme level of sexual dimorphism of this species. Although changes in population size are affected by both density and snow depth, they appear to occur through changes in adult survival rather than juvenile recruitment, unlike most other ungulates. By comparing ibex ecology and growth with that of other mountain ungulates, I will present an hypothesis suggesting that males (and possibly both sexes) in this species are adapted to a strategy of high longevity and low reproductive effort. Consequently, in an un hunted population there will typically be many older animals. I will suggest that both density and weather affect ibex population dynamics through changes in mortality of individuals aged over 10 years. If my speculations are correct, this species should be both very sensitive to predation and very effective at avoiding it, and results from studies of other ungulates may have little utility to guide management of Alpine ibex. A key test of these hypotheses will require data on individual reproductive success of both sexes. Ongoing research in several study areas holds much promise that our knowledge of ibex ecology will advance substantially over the next few years.