



Corlatti L., Caroli M., Pietrocini V., Lovari S. (2013)

**Rutting behaviour of territorial and nonterritorial male chamois: is there a home advantage?
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Abstract

Males using alternative male mating tactics (AMTs) may express their mating effort in a variety of ways. In polygynous species with limited sexual dimorphism, differences in male aggressiveness may affect mating opportunities. We recorded the behaviour of 8 territorial and 7 nonterritorial male Alpine chamois *Rupicapra rupicapra*, a nearly monomorphic ungulate, during the 2011 rut in the Gran Paradiso National Park (Italy), to analyse differences in mating effort and mating opportunities between AMTs. The chamois showed a rich behavioural repertoire (31 behavioural patterns), with a prevalence of indirect aggression. Territorial males had higher frequency of aggressive and courtship behaviour than nonterritorial males over the early rut. Later, nonterritorials increased their mating effort, possibly because of reduced competition with dominant males. Territorial males monopolised all observed mating events. Our results support the hypothesis that chamois may assert dominance through intense aggressiveness rather than through horn size or body mass as found in other polygynous ungulates. Most important, differences in mating effort mediated by AMTs resulted in different mating opportunities; these benefits, however, are traded off against greater costs, due to higher levels of hormone metabolites and parasitism. Data on AMTs flexibility, lifetime reproductive success and survival are needed to clarify the mechanisms underlying the evolution and maintenance of AMTs within chamois populations.