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**Differential space use and endoparasite costs of alternative mating tactics in Alpine chamois.
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Abstract

The Northern chamois *Rupicapra rupicapra* is a mountain ungulate with a wide ranging from Western Europe to Asia Minor. Recent studies have investigated alternative male mating tactics, yet still many questions remain unanswered. While some males adopt a territorial behaviour, other animals avoid the effort implied to occupying territories. Territoriality is likely to be associated with greater mating benefits, but also with greater costs. In this study, 19 radio- and GPS-collared males were monitored to investigate relative feeding time, elevation, parasite and hormone metabolite levels. The hypotheses were that territorial males would a) inhabit lower elevations, b) have higher parasite loads, c) have higher levels of stress and d) show greater relative feeding time than nonterritorial males. Generally speaking, e) elevation, mating behaviour and age should influence the mentioned variables. Territorial males used significantly lower elevations, but did not show significantly higher parasite burden, higher faecal androgen metabolite levels, or greater feeding activity than nonterritorials. Nonterritorial males showed a slightly higher level of faecal cortisol metabolites. Only faecal cortisol metabolite values were positively related to elevation. While territorial males pay greater costs for their behaviour during the rut, costs appear low during the summer months, likely due to less competition for resources and to lack of intrasexual aggression.