



**Seasonal variations of spatial behaviour in female Alpine ibex (*Capra ibex ibex*) in relation to climatic conditions and age**

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The spatial behaviour of female Alpine ibex *Capra ibex ibex* L. 1758, was analysed in Gran Paradiso National Park (Italy). Data were collected on 14 radio-collared females from September 2000 to August 2002, using radio-tracking and direct observations. Seasonal spatial behaviour was influenced by environmental conditions, in particular climatic factors. In presence of thick snow cover, females significantly reduced winter home range sizes. Snow cover limited ibex mobility and reduced localization altitudes. Annual home range and winter home range sizes were inversely related to age. Temperature modified the use of space by females during summer. During the hottest summer females moved over larger ranges at higher altitudes. Annual home range sizes (mean 186.2 ha  $\pm$  71.7 in 2000 and 182.2 ha  $\pm$  70.0 in 2001) and seasonal home range sizes were significantly smaller than those of reintroduced populations, moreover they were smaller than those of males calculated in a close study area in Gran Paradiso National Park.

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