

**6TH WORLD CONGRESS ON MOUNTAIN UNGULATES AND
5TH INTERNATIONAL SYMPOSIUM ON MOUFLON**

BOOK OF ABSTRACTS

SECOND EDITION - ebook

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5TH INTERNATIONAL SYMPOSIUM ON MOUFLON

Cleopatra Hotel, Nicosia (Lefkosia) Cyprus,



Male Cyprian mouflon, Pafos Forest. Photo: © E. Hadjisterkotis

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PASTURE DEPLETION AND SOCIAL STRESS IN APENNINE CHAMOIS

Fattorini N¹, Ferretti F¹, Brunetti C¹, Baruzzi C¹, Lovari S¹, Pagliarella MC², Macchi E³.

¹Dipartimento di Scienze della Vita, Università di Siena, Italia

²Dipartimento di Bioscienze e Territorio, Università del Molise

³Dipartimento di Scienze Veterinarie, Università di Torino, Italia

Vegetation changes have been recently documented on the upper meadows of the central Apennines, with a local reduction of pasture quality for wild herbivores. This reduction has led to depletion of food availability, resulting in kid winter mortality, for the vulnerable Apennine chamois *Rupicapra pyrenaica ornata* (Fig. 1) in the core of its distribution (Abruzzo, Lazio and Molise Nat. Park; ALMNP). The negative effects of temperature rising on the cold-adapted vegetation grazed by chamois, as well as the interspecific competition with red deer *Cervus elaphus*, have been suggested as factors underlying pasture depletion.

We examined behavioural and hormonal stress indicators of female chamois in sites with different resource availability, to test whether pasture quality may have an effect on social stress. We also assessed ambient temperature at which each site was exposed, to test whether pasture quality may be related to temperature.

Sites with poorer resources were exposed to significantly greater temperatures. Aggressive and vigilance behaviour of female chamois increased significantly in sites with a lower pasture quality. Levels of cortisol raised accordingly.

Intraspecific competition between chamois, in turn social stress, increased where resources were scarce and/or less nutritious.



Fig. 1. Apennine chamois kid. Photo: © F. Ferretti.