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Luca Rossi was born in Turin (Italy) in 1957. He was a DVM in 1981. Since 1999, he worked as a Full Professor at the Faculty of Veterinary Medicine of the University of Turin, Chair in Parasitic Diseases of Animals. At the same University, is currently Vice President of the School of Agriculture and Veterinary Medicine, President of the Bachelor Course “Animal Production and Wildlife Conservation and Management”, Board member of the PhD School "Veterinary Sciences for Animal Health and Food Safety", and lecturer in "Veterinary Parasitological and Zoology" and "Identification and Management of Cloven-hoofed Game". Since 1991, he was a Co-president of the working group on Ecopathology of Mountain-dwelling Wildlife (GEEFSM). Evaluating Expert of the European Association of Establishments for Veterinary Education (EAEVE). Referee of scientific journals focussed on Veterinary Parasitological and Wildlife Management. Author/co-author of 190 full papers on national and international scientific journals.

WHEN LIVESTOCK KEEPING MEETS CONSERVATION

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In national parks worldwide, conservation of flagship (“umbrella”) animal species is an obvious priority and an acknowledged means of protecting the corresponding habitats. Two Caprines, namely Flare-horned markhor (*Capra falconeri falconeri*) and Asiatic ibex (*Capra ibex sibirica*) deserve this title in the Central Karakoram National Park (CKNP). In the Northern Areas of Pakistan, effective conservation of either species may also turn into significant economic benefit to local Communities in form of trophy hunting-related revenues.

Amongst factors limiting population size in Markhor and Asiatic ibex, a high rank is attributed to livestock-keeping related issues, such as forage competition and cross-transmission of infectious and parasitic diseases. Outbreaks have been recently reported in wild Caprines in Pakistan and bordering countries. While the rising number of such events may partly mirror increased awareness by a range of stakeholders, there is little doubt that ongoing demographic recovery of wild Caprines within protected areas in the Country will result in more opportunities for the spill-over of pathogens from the domestic small ruminants and their free-ranging relatives.

In transitional and summer pastures within CKNP Buffer Zone, there is currently limited evidence of overgrazing by flocks of small domestic ruminants. On the other hand, malnutrition in sheep and goats is widespread in late winter months suggesting qualitative and quantitative shortage of winter fodder. Malnutrition is a major determinant of impaired reproductive success in adult sheep and goats and of low survival to first year in their offsprings, and a predisposing factor for number of livestock diseases.

The need to prioritize attention to animal health at the livestock/wildlife interface has been adequately addressed in the recently drafted Version 1 of CKNP Integrated Park Management Plan (IPMP). In this document, livestock-keeping in the Park Buffer Zone is encouraged provided that Good Practices are adopted to minimize impact on wildlife and their habitats. In view of this, a policy of improved health and productivity in return for gradual reduction of livestock heads has been suggested. Community Controlled Hunting Areas and Conservation Areas within CKNP are understood as pilot zones to start implementation of this project. Targeted vaccination and mass antiparasitic treatment programs in cooperation with regional agencies in charge of livestock health

affairs, and the promotion of improved techniques for storage of winter fodder will be the cornerstones of the new policy.

In preparation to this, data are being collected amongst other aspects on: main causes of mortality and prevalence of selected infectious and parasitic diseases in sheep and goats within CKNP; frequency, chronology and type of contacts between wild and domestic Caprines; anecdotal evidence of spontaneous diseases in wild Caprines; perception by key shepherds of the risk of cross-transmission of diseases between wild and domestic Caprines; compliance of villagers on prospective livestock vaccination and mass treatment programs, and suggestions on optimal timing. Preliminary results will be illustrated.

Keywords:

Caprines - transmissible diseases - malnutrition - livestock/wildlife interface - vaccination