

HELMINTH COMMUNITY OF AN ALPINE ROCK PARTRIDGE (*Alectoris græca*) POPULATION IN DEMOGRAPHIC CRASH

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Alpine rock partridge (*Alectoris græca*) populations are drastically decreasing mainly due to habitat degradation and climate change. From 2003 to 2011, we investigate the helminth community of a rock partridge population from Lepontine Alps (Western Alps), showing a demographic crash in the last few years (2009-2010-2011), to analyse the helminth distribution within population in relation to different factors (sampling year, age, gender) and to disclose the parasites' role in this population trend.

From 213 intestinal contents of hunted rock partridges we recorded *Ascaridia compar*, *Heterakis gallinarum* and *Aoncotheca caudinflata*: the most abundant species is *H. gallinarum* with a significant greater abundance in adults. A significant increase of abundance of all the three helminths was recorded in 2010. Juveniles and females were infected by the three helminths while in males we recorded *H. gallinarum* and *A. caudinflata* with lower abundances and prevalence.

Data show a temporal association between the demographical population crash and the abundance peak of all the three helminths suggesting a possible health impact of parasites. Even if data did not show any effect of parasites on body weights, the known effects of these parasites on fecundity indicate the likely effect of parasites as a predisposing factor for the observed demographic crash and points out the importance of the health monitoring in wildlife.