INFRACOMMUNITIES OF INTESTINAL HELMINTHS OF THE RED FOX *VULPES VULPES* (LINNÆUS, 1758) FROM ITALIAN ALPS

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Vulpes vulpes (Linnæus, 1758) is one of the most common carnivore in Italy and its spread includes almost the whole national territory. The species shows an high ecological plasticity and a variable diet composition connected in part to human sources. This high adaptability permits the red foxes to colonize different habitats like the suburbs of large cities as well as the small villages located in mountain areas. On the other hand, the tourism pressure seems to assume a great importance in the Alps, also in those areas where the foxes live. So, indirect interactions could take place between these animals and the humans. The role of *V. vulpes* in the zoonoses has not to be understated since this carnivore could transmit parasitic diseases that are able to cause serious pathologies in humans. This study aims just to investigate on intestinal communities of helmiths of *V. vulpes* in order to make progress in current knowledge on epidemiological situation in Italian Alps.

During 1998-2003, we have examined 450 foxes from Trentino Alto Adige, Veneto, Lombardia and Valle d'Aosta. The specimens collected were found dead or have been hunted (according to national law n. 157/92) in localities situated between 170 and 2200 m a.s.l.. The carcasses were carried to the provincial sections of Zooprofilattici Institutes, where the intestine was drawn by each sample and all the material was sent to the Faculty of Veterinary Medicine of Milan. Parasitological examination of the small intestines was performed by the analysis of the whole sediment and counting technique (SCT). Parasites were preserved in alcohol 70° before to be clarified or stained and identified by microscope (Zeiss Axioscop). Mean abundance, mean intensity and prevalence were calculated for each *taxon* of helminth. Dates of sampling were grouped within the four seasons. Statistic tests were performed with software package SPSS rel. 11.5 and spatial analysis with the software GRASS rel. 5.1. The species recorded belong to Cestoda (*Mesocestoides*

lineatum, *Taenia* spp, *Echinococcus multilocularis*), Nematoda (*Uncinaria stenocephala*, *Toxocara canis*, *Pterygodermatites affinis*, *Molineus legerae*, *Trichuris vulpis*, Subulurinae) and Trematoda (*Pharingostomum cordatum*). The most part of foxes captured harboured intestinal helminths (over 80 %). Taenidae (except for *E. multilocularis*) *U. stenocephala* and *T. canis* constitute the core species of the helminthic community. The others behave as satellite species. The nematode belonging to the subfamily Subulurinae and the trematode *P. cordatum* were found for the first time in Italian foxes. Our data confirm also the presence of *E. multilocularis* in Italy already reported by Manfredi *et al.* (2002).