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BOOK OF ABSTRACTS

Parasites in conservation: worming their way into the picture

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Parasites by definition have a negative impact on their host, but equally they infer some overlooked benefits at both the individual and population levels. From driving genetic dynamics, to modulating community resilience, parasite diversity is an integral component of the ecosystem. With recent methodological advances it is now easier than ever to characterise parasite ensembles from non-invasive samples (e.g., faeces) without encountering the host. Yet studies involving parasites often investigate a limited subset of taxa associated with host disease or zoonoses, while parasite diversity is seldom considered in wildlife management and conservation as an insight of ecosystem complexity and resilience. This lack of attention to parasite diversity is an oversight, as characterising this community not only provides vital insight into the health of the host, but also that of its ecosystem. For example, the parasite community can serve as a sentinel for pollutants, and can signal the presence of other hosts, including prey items and invasive species that may bring novel parasites. Besides formalising this change of perspective, we also aim to provide an overview of the metabarcoding and sequencing methodologies we are incorporating into our research on the Apennine wolf (*Canis lupus italicus*, a vulnerable subspecies of grey wolf), to monitor and explore parasite communities alongside other parameters of host and ecosystem health, such as diet. By considering the parasite community as an integral element of biodiversity, and not solely as a threat to health, conservationists can develop a more holistic approach to monitoring endangered species and their habitat.