Individual variation in parasite infections in lemurs

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Parasite prevalence and associated infectious diseases play an important role in ecological, social and evolutionary processes, but the potential drivers of parasitic loads are still unclear. However, differences in age, sex and social organisation between individuals within a population have been shown to influence parasite prevalence in several animal species. This study aims to explore individual differences in susceptibility to parasites and the spread of infectious parasites amongst individuals. Methods include the non-invasive sampling of focal animal behaviour and collection of faecal samples to assess gastrointestinal parasite prevalence in prosimian primates. Samples were taken from two congeneric lemur species (*Eulemur rufifrons* and *E. rubriventer*) to explore the general mechanisms of parasite infections and transmission of lemurs ranging in social groups of different sizes. In addition, we explored whether the individual variation in age (adults versus sub-adults) and sex (males versus females) have an influence on parasite prevalence, diversity and infection intensity in lemurs. The association between parasite prevalence and reduced host fitness, combined with the parasites' potential to spread infectious diseases among wildlife and human populations, underlines the importance of this project from an ecological, a social developmental, and a conservation perspective.

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