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Abstracts

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Shared blood parasite infections may drive competition dynamics in lacertids

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We set out to analyze the haemogregarine blood parasites infecting two competing lizard species, *Iberolacerta horvathi* and *Podarcis muralis*, in syntopic and allotopic populations with the idea of observing potential differences in their parasite prevalence and infection intensity. Host species, in our case lizards, may differ in their ability to fight of parasitic infection and this ability might be further impacted by other ecological dimensions, such as competition, that influence their behavioral and physiological state. We confirmed parasitic infection with haemogregarine parasites belonging to the genus *Karyolysus* in both species. Using the 18S rRNA gene, we identified six new *Karyolysus* haplotypes clustering with other Central and Eastern European samples, and shared between both lizard hosts. We detected infections by haemogregarines at all sampled sites and over 50% individuals were parasitized. Overall, *I. horvathi* was more frequently and also more intensely parasitized than *P. muralis*. Males of both species tended to be more frequently infected and showed a higher infection intensity. In line with the hypothesis of a higher susceptibility to parasites under competition, we observed higher infection rates in *I. horvathi* when syntopic with *P. muralis*. This pioneering study sheds light on the complex ecological interaction between competing lizards. Further studies are needed to understand the role of parasites in systems of sympatric host species.