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Salle E 206 - UFR LSHS
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Choosing friends with benefits: Coevolution detected by interspecific social selection on behavioural traits

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In mixed-species assemblages, antipredator benefits for a timid species nesting close to a more pugnacious one are often reported. Advantages for the protected species are usually manifested in terms of higher reproductive success than conspecifics nesting remote to the protector species. In social species, fitness consequences are associated with both individual and social phenotypes. Social selection analysis has quantified the contribution of conspecific social traits to individual fitness. We proposed a novel social selection based approach integrating the role of all social interactions at the community level. We extended multilevel selection analysis by including a term accounting for the group phenotype of heterospecifics. We applied our analysis in two separate and diverse systems that commonly shared interspecific interactions, both agonistic and non-agonistic. The first system was focused on nest activity as a model social trait common to two species, the lesser kestrel (*Falco naumanni*) and jackdaw (*Corvus monedula*), nesting in either single- or mixed-species colonies. The second system revolved around the role of nest defence, and its individual and social learning, in the avian brood parasitism investigated both in the New and Old World. Our approach provided an easy framework to translate behavioural responses between species in quantitative measures of potential selective agents favouring or preventing the coevolution of behavioural traits.