**OR068**

*Incipient social parasitism in the microgyne form of* Myrmica rubra

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Ant microgynes are miniaturized queen forms found together with normal queens (macrogynes) across the ant phylogeny. Their status is not yet fully understood: in some cases they seem to be alternative reproductive morphs, in others incipient social parasites and thus potential models for studying the evolution of social parasitism. Whether they are regarded as parasitic or not has traditionally been based on genetic differentiation from syntopic macrogynes rather than measuring fitness traits. We measured virulence and infectivity of microgynes of *Myrmica rubra* from the Danish island of Læsø in a controlled laboratory experiment. Nests headed only by macrogynes (controls), only by microgynes, and naturally and artificially mixed nests were kept under identical conditions. We found reduction in host fitness in both naturally and artificially infected nests compared with controls, suggesting that they act primarily as social parasites. On the other hand, there was surprising variation in fitness of nests headed only by microgynes, suggesting that in some cases they can also act as independent alternative reproductive morphs (i.e. intraspecific temporary social parasites). Microgynes did not themselves reproduce in artificially mixed nests, but reproduced most in orphaned host nests. This, together with higher mortality of field-collected macrogyne queens from naturally infested colonies, suggests that they preferentially exploit older host colonies.