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Behavioural effect of Rickia wasmannii *(Laboulbeniales) on* Myrmica scabrinodis *workers*

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The interactions of parasitic Laboulbeniales (Ascomycetes) fungi and their hosts are understudied. *Rickia wasmannii* is the commonest ant parasitic Laboulbeniales species in Europe. Workers of *Myrmica scabrinodis* (Hymenoptera: Formicidae), the commonest host in Hungary, are heavily infected with this fungus and can be easily collected in high numbers. *Rickia wasmannii* is therefore a quite available model species of Laboulbeniales to study the effect of such fungi on their hosts. Thalli of this fungus can form a strong surface on the ant body and we supposed this structural cuticular change could influence the behaviour of the infected ants. The behaviour of infected and uninfected *M. scabrinodis* workers were studied individually under lab conditions, by using hundreds of infected and uninfected specimens in two different experiments. The time of leaving a dark tube was measured in the bravery test and the number of aggressive behaviour patterns was registered in the one-to-one aggression test. Based on our results the infected individuals were significantly less aggressive and brave than the uninfected ones. According to these, we can conclude that *R. wasmannii* has an effect on the behaviour of *M. scabrinodis*. Reduced aggression and braveness suggest this effect to be negative as these can cause disadvantage against the competitors of the host ants. Further research would be necessary to explore the level of this negative effect and it also would be important to do similar research with other Laboulbeniales species. Supported by: the scholarship of Collegium Talentum; aa ‘Bolyai János' scholarship (MTA); the ‘AntLab’ Marie Curie CIG.