

Abstract*

The first records of *Rickia wasmannii* CAVARA, 1899, a myrmecophilous fungus, and its *Myrmica* LATREILLE, 1804 host ants in Hungary and Romania (Ascomycetes: Laboulbeniales; Hymenoptera: Formicidae)

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Myrmecol. News 10: 123

Rickia wasmannii CAVARA, 1899 (Ascomycetes: Laboulbeniales) obligately exploits ants (for a review on Laboulbeniales: WEIR & BLACKWELL 2005; and for one especially on myrmecophilous species: HERRAIZ & ESPADALER 2007). The ants appear to be neutral to the presence of this fungus on their cuticles (A. Tartally, pers. obs.). *Myrmica* LATREILLE, 1804 (Hymenoptera: Formicidae) species are reported to be the usual hosts of *R. wasmannii* (HERRAIZ & ESPADALER 2007). To the best of our knowledge, this fungus has not been reported previously from the Carpathian Basin. The occurrence of *R. wasmannii* was checked on 5788 *Myrmica* specimens from 580 colonies collected between 2001 and 2006 at 26 sites in Hungary and three sites in Transylvania, Romania (Fig. 1), and the density of the fungus on the different parts of the body of infected *Myrmica* specimens was estimated. The fungus was present on 353 infected ant specimens in 45 colonies at nine Hungarian and two Transylvanian sites (Fig. 1). Although 11 *Myrmica* species (*M. gallienii* BONDROIT, 1920; *M. lobicornis* NYLANDER, 1846; *M. lonae* FINZI, 1926; *M. rubra* (LINNAEUS, 1758); *M. ruginodis* NYLANDER, 1846; *M. sabuleti* MEINERT, 1861; *M. salina* RUZSKY, 1905; *M. scabrinodis* NYLANDER, 1846; *M. schencki* VIERECK, 1903; *M. specioides* BONDROIT, 1918 and *M. vandeli* BONDROIT, 1920) were involved in our work, only four of them (*M. salina*, *M. scabrinodis*, *M. specioides* and *M. vandeli*) were found to be infected. *M. scabrinodis* was the most common host, and *M. salina* was most heavily infected. The fungus was present on workers (Figs. 2 - 4) and dealate (old) queens, but not on males, alate (young) queens and larvae. However, the numbers of males, alate queens and larvae examined were small. Our results indicate that it is quite probable that *R. wasmannii* could be found at several other sites in the Carpathian Basin with a more intensive survey.

Acknowledgements: To B. Bisballe, M. Blackwell, J.J. Boomsma, X. Espadaler, D.R. Nash, E. Tóth, Z. Varga; EVK2-CT-2001-00126 and NKFP-3 B/023/2004.

Figs. 2 - 4: *Rickia wasmannii* on a *Myrmica scabrinodis* worker (photo by J.R. Ebsen, SEM photos by D.R. Nash). →

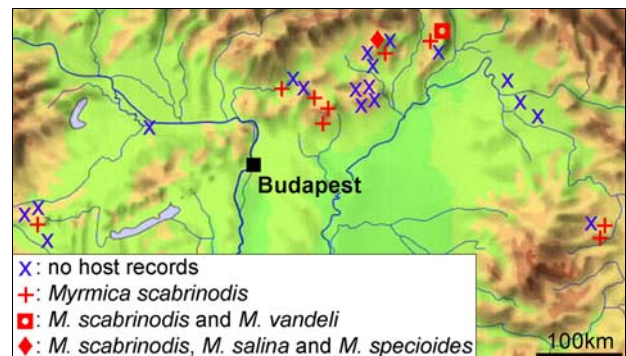
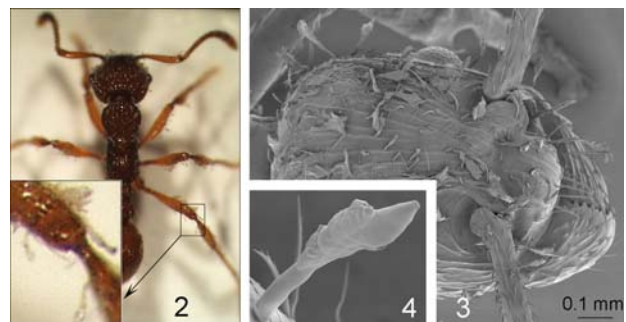


Fig. 1: Investigated sites in the Carpathian Basin and the recorded host ants of *Rickia wasmannii* (map by L. Zentai).

References

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* Based on a presentation at the 2nd Central European Workshop of Myrmecology at Szeged, Hungary, 17 - 19 May 2007