

Abstract*

Host ant specificity of the Large Blue butterfly, *Maculinea alcon* (DENIS & SCHIFFERMÜLLER, 1775), in the Carpathian Basin (Hymenoptera: Formicidae; Lepidoptera: Lycaenidae)

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There are four endangered species of the genus *Maculinea* in Hungary. The *Maculinea alcon* (DENIS & SCHIFFERMÜLLER, 1775) - *M. rebeli* (HIRSCHKE, 1904) complex is indicated by the latest genetic research to consist of ecological races of one species, whereas some authors regard them as subspecies (ALS & al. 2004, BERECZKI & al. 2005). During the 20th century, most of the populations declined. Today Large Blue butterflies are highly endangered throughout the Carpathian Basin: All species are included in both, the Hungarian and the European red data lists. These butterflies display a particular parasitic lifestyle: The early instars consume flower buds of specific host plants, but the later instars live in *Myrmica* ant nests, where they either devour the brood (predators), or are fed mouth-to-mouth by the adult ants (cuckoos) (HÖLLDOBLER & WILSON 1990, ELMES & al. 1998).

In the present study, we have examined twelve habitats of the *Maculinea alcon-rebeli* complex in Hungary in two vegetation periods. All of the butterflies proved to be host ant specialists: *Maculinea alcon alcon* prefers *Myrmica scabrinodis* NYLANDER, 1846, while for *Maculinea alcon rebeli* the main hosts are, almost equally frequently, *Myrmica sabuleti* MEINERT, 1861 and *M. schencki* VIER-

ECK, 1903 – the caterpillars always choose the dominant ant from among the potential hosts. There is no overlapping in the host ants between the *Maculinea* ecological races.

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