

**Micomitra stupida (Diptera, Bombyliidae):
a new parasite of Euroleon nostras
(Neuroptera, Myrmeleontidae)**

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ÁBRAHÁM, L.: *Micomitra stupida* (Diptera, Bombyliidae): a new parasite of *Euroleon nostras* (Neuroptera, Myrmeleontidae).

Abstract. The author hatched *Micomitra stupida* from cocoon of *Euroleon nostras*. Some remarks are given on life history, phenology and distribution as well.

In summer of 1995 I collected pit building antlion larvae to do ecological experiments and follow their development in the region of the River Dráva.

After determining the larvae, each them were fed on one ant a day until antlion larvae pupated, then cocoon balls were removed and kept separately to let specimen develop in them. A series of experiments were made with *Myrmeleon inconspicuus*, *Myrmeleon bore* and *Euroleon nostras*.

However, a few of the larvae collected in natural habitat were already infected by one and the same species of parasite. According to my observation, infected larvae did not behave differently, either. Although they seemed to show normal level of development before they were pupated and stopped catching ants to feed on two days before their pupation. The pupation took place in normal conditions and they made their cocoons about 4-5 cm below the sand surface. After pupation, the cocoons were sifted and put into small glass bottles among some dry grass so that the hatched antlions could climb on the grass blades while having their wings ready for flying.

However, after ten days bombyliid fly hatched in the bottle, then in the following two days two more flies hatched.

In lab condition (20 °C, day/night length: 14/10 hours) half of the parasites hatched during the day, the other half at night. 3-3 *Micomitra stupida* hatched from every cocoon of antlion. I checked it by cutting one of the cocoons as well. Parasites divided the cocoon into three equal parts, nearly eating up the antlion larvae.

Antlions do not belong to widespread insects as their larvae live mainly in loose soil, especially spots covered by sand, so their parasites are not common. Studying literature on parasites of the antlions I found that *Micomitra stupida* is a rather rare species in Hungary (TÓTH 1978, 1987). Ágasegyháza (UTM code: CS88) was the only site known for this species to live in. However, it may be widely spread in Europe.

It occurs in southern part of Europe from Spain to Greece, in northern part of Europe from Germany via Poland to Finland. On the other hand, it was collected in Ukraine, Moldavia as well as in Transcaucasian region, Kasakhstan and Middle East Asia territories in Iran (ZAITZEV 1989). New occurrences in Hungary are at Órtilos (XM42) and at Darány (XN99). It has been bred out of *Myrmeleon inconspicuus*, *Creoleon plumbeus* and *Megistopus flavicornis* species.

STEFFAN (1967) published some very interesting information data on its life history. Generally Bombyliid flies occur from June to September.

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Literature

- STEFFAN, J. R. 1967: *Exoprosopa stupida* (Rossi) parasite de Fomilions dans l'Ancien monde (Dipt. Bombyliidae) – *Entomologiste* 23: 78-79.
- TÓTH S. 1978: Ökológiai és faunisztikai adatok Magyarország pöszörlegyeinek ismeretéhez (Diptera: Bombyliidae) – *A Veszpr. Megy. Múz. Közl.* 13: 35-56.
- TÓTH, S. 1987: Therevidae, Bombyliidae and Syrphidae in the Kiskunság National Park (Diptera)- The Fauna of the Kiskunság National Park, pp. 258-264.
- ZAITZEV, V. F. 1989: Family Bombyliidae. - In: Soós Á. et Papp L. (eds.): *Catalogue of Palaearctic Diptera* 6: 43-169.

Az *Euroleon nostras* (Neuroptera, Myrmeleontidae) faj új parazitája, a *Micomitra stupida* (Diptera, Bombyliidae)

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A Dráva mentén 1995-ben ökológiai kísérletekhez *Euroleon nostras* lárvákat gyűjtöttem. A szabadban begyűjtött hangyaleső lárvák már parazitáltak voltak a Bombyliidae családba tartozó *Micomitra stupida* (Rossi, 1870) faj által. A kísérletek során a ritka élősködőnek 3-3 példánya fejlődött ki minden egyes hangyaleső bábgyűjtésből. A Palearktikum nyugati és középső részén elterjedt faj hazánkban csak Ágasegyházáról volt ismert. Új lelőhelyi adatai: Darány és Órtilos. Az irodalom szerint ez a faj számos más hangyaleső fajt is parazitál (*Myrmeleon inconspicuus*, *Creoleon plumbeus*, *Megistopsis flavicornis*). Az *Euroleon nostras* faj parazitái között viszont most sikerült először kimutatni a *Micomitra (Exoprosopa) stupida* fajt. A Bombyliidae faj meghatározásáért Dr. Tóth Sándor dipterológusnak tartozom köszönettel.

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