

## ***HYBOMITRA ARPADI* (SZILÁDY, 1923) (DIPTERA: TABANIDAE) HAS NOT BEEN CONFIRMED IN LITHUANIA**

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### **Introduction**

*Hybomitra arpadi* (Szilády, 1923) is a Holarctic species of taiga zone with a continuous Palaearctic distribution in Scandinavia, Estonia, northern Belarus, Russia south to the Moscow region, and east to Primorye, Korea, and Japan (Chvála *et al.*, 1972; Olsufjev, 1977). It has also been recorded from the three isolated regions south of the continuous distributional border. The largest region comprises the Czech Republic (Chvála, 2009) and adjacent parts of some surrounding countries: SW Poland (Trojan, 1979), Bavaria in Germany (Schacht, 1979; 1994), and Upper Austria (Mally, 1989). The second isolated region in West Europe – in Belgium and the Netherlands (Leclercq, 1965; Zeegers, 2002). The third isolated area, according to published data (Podėnas, 1988), was Lithuania.

All the available material from Lithuania is discussed in the current contribution.

### **Material and Methods**

The second author found all the available material at the Museum of Zoology of Vilnius University (MZVU) identified as *H. arpadi* (see Table 1) and took the photographs of the abdomen, frons, antennae, and palpi. The first author studied all the pictures, compared them with the pinned material from different countries and with the available identification keys (Chvála *et al.*, 1972, Olsufjev, 1977). The results of identification were discussed with several specialists on the family Tabanidae (see Acknowledgements).

### **Results and discussion**

The most recent checklist of Lithuanian Diptera (Pakalniškis *et al.*, 2006) cited the only reference concerning the occurrence of *Hybomitra arpadi* in Lithuania: Podėnas (1988). This only paper by S. Podėnas, mentioning *H. arpadi* in Lithuania, was a contribution to a conference proceedings, and it contained no specimen data. On the other hand, data on fourteen specimens on paper cards were found at the MZVU (Table 1); twelve of these specimens were found also as voucher specimens deposited in the collection, all identified as *Hybomitra arpadi* by S. Podėnas.

Table 1. Data on the material earlier identified as *Hybomitra arpadi* and deposited at MZVU (p.c. – paper cards. Two records represent data from the paper cards kept at the museum, but the voucher specimens were not found)

Locality	Date	Legit	Numbers
Varėna district			
	Puvočiai 20 08 1980	V. Balčius	1 ♀
	Puvočiai 20 07 1983	Barkauskas	1 ♀
	Puvočiai 18 07 1985	Jankauskas	1 ♀
	Puvočiai 27 06 1987	Maruvičiūtė	1 ♀
	Puvočiai 29 06 1987	G. Buožiutė	1 ♀
	Puvočiai 20 07 1987	p.c.	1 ♀
	Puvočiai 28 07 1987	-	1 ♀
	Puvočiai -	Muraška	1 ♀
	Puvočiai 20 06 1990	V. Mockus	1 ♀
	Perloja 12 07 1981	p.c.	1 ♀
Ignalina district			
	Ginučiai 15 07 1981	V. Gedminas	1 ♀
Druskininkai	24 07 1987	-	1 ♀
Biržai	11 08 1983	-	1 ♀
Trakai district			
	Tolkiškės 08 07 1978	-	1 ♂

Identification of this species is really difficult and requires more experience and exactly identified material for comparison. Some members of the *Hybomitra bimaculata* (*H. bimaculata* (Macquart, 1826), *H. distinguenda* (Verrall, 1909), *H. muehlfeldi* (Brauer, 1880)) and *Hybomitra montana* (especially *H. lundbecki* Lyneborg, 1959) groups are very similar to *H. arpadi*, and their differentiation is not that easy.

All the available material was studied from the photographs by the senior author. Unfortunately, no specimens were found to belong to *H. arpadi*. All the specimens belong to other species of the *H. bimaculata* group, but a closer identification is needed to tell which ones particularly. Therefore our conclusion is evident: according to the present knowledge, *H. arpadi* should be removed from the checklist of Lithuanian fauna.

### Acknowledgements

We are obliged to Wolfgang Schacht (Germany), Theo Zeegers (the Netherlands), and Anthony Thomas (Canada) for their comments on some photos of the horse flies mentioned in our study.

### References

- Chvála M. 2009. Tabanidae Latreille, 1802. In: Jedlička L., Kúdela M. & Stloukalová V. (eds): Checklist of Diptera of the Czech Republic and Slovakia. Electronic version 2. <<http://zoology.fns.uniba.sk/diptera2009>> + CD-ROM: ISBN 978-80-969629-4-5.
- Chvála M., Lyneborg L., Moucha J. 1972. The horse flies of Europe (Diptera,

- Tabanidae). Entomological Society of Copenhagen. Copenhagen. 499 pp.
- Leclercq M. 1965. Un Tabanidae (Diptera) nouveau pour la faune de Belgique *Hybomitra arpadi* Szilady. *Bulletin et Annales de la Société royale belge d'Entomologie* 101: 40–41.
- Mally M. 1989. Catalogus Faunae Austriae, Teil XIXk: Diptera: Tabanidae. VÖAW, Wien, 54 pp.
- Olsufjev N.G. 1977. Slepni, semeistvo Tabanidae. Nasekomye dvukrylye, tom VII, vyp. 2. Fauna SSSR. (Novaya seriya) no. 113: 1–435. Akademiya Nauk CCCP, Leningrad, Russia.
- Pakalniškis S., Bernotienė R., Lutovinovas E., Petrašiūnas A., Podėnas S., Rimšaitė J., Saether O.A., Spungis V. 2006. Checklist of Lithuanian Diptera. *New and Rare for Lithuania Insect Species* 18: 16–124.
- Podėnas S. 1988. Skroblaus hidrologinio-landšaftinio draustinio dvisparniai vabzdžiai, pp. 143–148. In: Aktualios gamtosaugos problemos. Vilnius.
- Schacht W. 1979. Die Bremsen-Fauna des Murnauer Moores, Oberbayern (Dipt., Tabanidae). *Nachrichtenblatt der Bayerischen Entomologen* 28(2): 22–23.
- Schacht W. 1994. Zweiflüger aus Bayern V (Diptera: Coenomyiidae, Xylophagidae, Xylomyiidae, Tabanidae, Athericidae, Rhagionidae). *Entomofauna (Zeitschrift für Entomologie)* 15(46): 521–534.
- Trojan P. 1979. Tabanidae – ślepaki (Insecta: Diptera). Fauna Polski, tom 8. PWN, Warszawa, 309 pp.
- Zeegers T. 2002. A new horsefly for the Netherlands: *Hybomitra arpadi* (Diptera: Tabanidae). *Nederlandse Faunistische Mededelingen* 16: 81–84 (in Dutch).

### ***Hybomitra arpadi* (Szilády, 1923) (Diptera: Tabanidae) – ne Lietuvos faunos rūšis**

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#### **Santrauka**

*Hybomitra arpadi* pirmą kartą Lietuvos dvisparnių faunoje buvo paminėta S. Podėno 1988 metais. Vėlesniuose dvisparnių kataloguose buvo tik cituojamas pirmasis straipsnis, o naujesnių duomenų nebuvo publikuota. Kadangi *H. arpadi* yra labai panaši į keletą kitų šios genties rūšių, o jos aptikimas Lietuvoje yra mažiau tikėtinas, buvo patikrinti Vilniaus universiteto zoologijos muziejuje saugomi, S. Podėno apibūdinti kaip *Hybomitra arpadi* egzemplioriai. Remdamasis svarbių identifikavimui struktūrų nuotraukomis, pirmasis autorius neaptiko nei vieno *H. arpadi* egzemplioriaus, todėl ši rūšis turėtų būti išbraukta iš Lietuvos dvisparnių sąrašo.

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