

Short communication

***Myrmecophyes (Myrmecophyes) alboornatus* (Stål, 1858) (Hemiptera: Miridae: Halticini)
– first observation in Poland**

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Abstract. The genus *Myrmecophyes* Fieber, 1870 with *M. alboornatus* (Stål, 1858) (Hemiptera: Miridae) is recorded for the first time from the territory of Poland.

Key words: Heteroptera, true bugs, plant bugs, new record, faunistics, distribution, Podkarpacie Region, Sandomierz Lowland.

Plant bugs (Miridae) are the most abundant family within the suborder Heteroptera in Poland, and contain 277 species (Gierlasiński & Tazsakowski 2013–2021). However, it should be noted that this number is not final, and species new to our country are still being discovered. During the last 15 years, 11 new species of this group of insects have been discovered in Poland, for example: *Acetropis longirostris* Puton, 1875 (Lis B. & Dubiel 2013), *Charagochilus spiralifer* Kerzhner, 1988 (Tazsakowski & Gorczyca 2018), *Criocoris quadrimaculatus* (Fallén, 1807) (Gierlasiński et al. 2020), *Deraeocoris flavilinea* (A. Costa, 1862) (Gierlasiński 2015), *D. ventralis* Reuter, 1904 (Tazsakowski et al. 2020), *Dichrooscytus gustavi* Josifov, 1981 (Gierlasiński et al. 2019), *Psallus albicinctus* (Kirschbaum, 1856) (Bugaj-Nawrocka et al. 2018) and *P. montanus* Josifov, 1973 (Tazsakowski & Gorczyca 2018).

The Holarctic genus *Myrmecophyes* Fieber, 1870 belongs to the subfamily Orthotylinae, and the tribe Halticini (Kerzhner & Josifov 1999). This ant mimetic genus takes its name from the similarity of its brachypterous specimens with the ants, and includes 30 recently recognized species (Schuh 2002–2013; Tatarnic & Cassis 2012; Konstantinov et al. 2013; Konstantinov & Simov 2018).

Most *Myrmecophyes* species have restricted distribution ranges, and only *M. alboornatus* Stål, 1858 is found in an extensive area from the eastern and northern parts of Europe to Siberia, Kazakhstan, Mongolia, the Far East of Russia to the northern regions of China in the south (Konstantinov & Simonov 2018). In Europe, *M. alboornatus* was found in Central, North and South European Russia, Ukraine and Finland (Aukema & Rieger 1999), and has not been reported from Poland, so far.

The biology of *M. alboornatus* is relatively poorly understood, but most data suggest it as a phytophagous species being food-related to grasses (Poaceae) (Kerzhner & Jaczewski 1967; Bykov 1971). The species has two

morphological forms, long and short-winged (Tatarnic & Cassis 2012); the observation described in this paper concerns the less common macropterous form (Fig. 1).

The boundaries of the zoogeographical regions of Poland were based on the "Catalog of Polish Fauna" [KFP] (Burakowski et al. 1973), whereas the names of the mesoregions [RFG] are given after Kondracki (2002). The identification key to species of the genus is provided in Tatarnic & Cassis (2012). The map was created with the use of the noncommercial program MapUTM ver. 5.4 (<https://www.heteroptera.us.edu.pl/mapautm.html>; author: G. Gierlasiński).



Fig. 1. *Myrmecophyes alboornatus* Stål, 1858, the specimen observed in Rakszawa, photo by J. Bury.

Material examined. [KFP] Sandomierz Lowland (Nizina Sandomierska), [RFG] Kolbuszowa Plateau (Płaskowyż Kolbuszowski): Rakszawa EA85, 27.06.2021, 1 female, dry forest clearing, on the grasses, det. J. Bury & J. Mazepa (Figs 1–2). The evidence material was deposited in the first author private collection.

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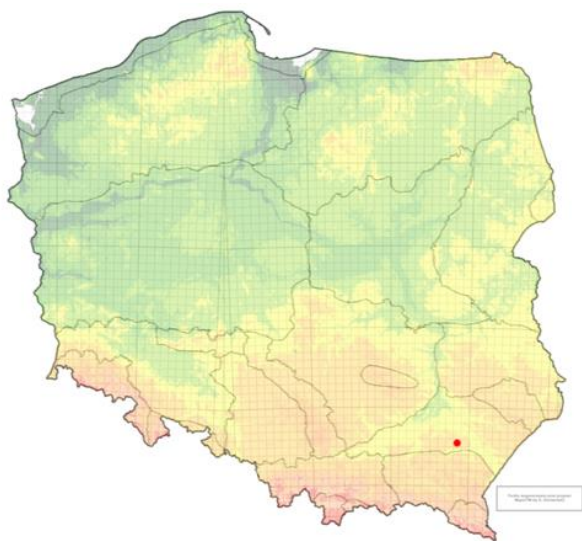


Fig. 2. The only known locality of *Myrmecophyes alboornatus* Stål, 1858 in Poland.

References

- Aukema B., Rieger Ch. (eds.) 1999. *Catalogue of the Heteroptera of the Palearctic Region. Volume 3.* The Netherlands Entomological Society, Wageningen, XIV + 577 pp.
- Bugaj-Nawrocka A., Wieczorek K., Herczek A. 2018. Terrestrial true bugs (Hemiptera: Heteroptera) communities of selected phytocoenoses of the Trzebnica Hills. *Monographs of the Upper Silesian Museum* **9**: 1–97.
- Burakowski B., Mroczkowski M., Stefańska J. 1986. *Katalog Fauny Polski, Część XXIII, Tom 11. Chrzęszcze Coleoptera, Dermestoida, Bostrichoidea, Cleroidea i Lymexyloidea.* PWN, Warszawa. 243 pp.
- Bykov A.A. 1971. Plant bugs of the genus *Myrmecophyes* Fieb. (Heteroptera, Miridae) in the fauna of the Tien-Shan and the Pamir-Alai. *Entomologicheskoe Obozrenie* **59**: 870–881 [in Russian].
- Gierlasiński G. 2015. *Deraeocoris flavilinea* (A. Costa, 1862) (Heteroptera: Miridae: Deraeocorinae) w Polsce. *Heteroptera Poloniae – Acta Faunistica* **9**: 45–46.
- Gierlasiński G., Fiedor M., Rutkowski T. 2020. *Criocoris quadrimaculatus* (Fallén, 1807) (Heteroptera: Miridae: Phyllinae) – gatunek pluskwiaka nowy w faunie Polski, wraz z wykazem gatunków zebranych w dolinie Bugu na Nizinie Mazowieckiej. *Heteroptera Poloniae – Acta Faunistica* **14**: 199–210. <http://doi.org/10.5281/zenodo.4126950>
- Gierlasiński G., Lis B., Woźniak A. 2019. *Dichrooscytus gustavi* Josifov, 1981 (Heteroptera: Miridae) – pierwsze potwierdzone stanowisko w Polsce. *Heteroptera Poloniae – Acta Faunistica* **13**: 55–57. <http://doi.org/10.5281/zenodo.3263842>
- Gierlasiński G., Tazsakowski A. 2013–2021. Pluskwiaki różnoskrzydłe (Hemiptera: Heteroptera) Polski <http://www.heteroptera.us.edu.pl> (access: 28.06.2021).
- Kerzhner I.M., Jaczewski T.L. 1967. Order Hemiptera (Heteroptera). In: Bei-Bienko G.Y. [ed]. *Keys to the insects of the European USSR. Vol 1. Apterygota, Paleoptera, Hemimetabola.* Moskva, Leningrad: Zoological Institute, USSR Academy of Sciences, 851–1118.
- Kondracki J. 2011. *Geografia regionalna Polski.* Wydawnictwo Naukowe PWN, Warszawa, 441 pp.
- Konstantinov F.V., Luo Z., Vinokurov N.N. 2013. Two new species, new synonymies, and new records of plant bugs (Hemiptera: Heteroptera: Miridae) from North-western China. *Zootaxa* **3666(2)**: 203–220. <https://doi.org/10.11646/zootaxa.3666.2.6>
- Konstantinov F.V., Simov N. 2018. Review of the subgenus *Plumiger* of *Myrmecophyes*, with description of a new species (Heteroptera, Miridae, Halticini). *ZooKeys* **796**: 215–239. <https://doi.org/10.3897/zookeys.796.21877>
- Lis B., Dubiel G. 2013. *Acetropis longirostris* Put. i *Oxycarenus pallens* (H.-S.) – dwa gatunki pluskwiaków różnoskrzydłych (Hemiptera: Heteroptera) nowe dla fauny Polski, z wykazem gatunków zebranych w okolicach Bystrej w Beskidzie Śląskim. *Heteroptera Poloniae – Acta Faunistica* **7**: 33–44.
- Schuh R.T. 2012–2013. On-line Systematic Catalog of Plant Bugs (Insecta: Heteroptera: Miridae) <http://research.amnh.org/pbi/catalog/> (access: 28.06.2021).
- Tatarnic N.J., Cassis G. 2012. The Halticini of the world (Insecta: Heteroptera: Miridae: Orthotylinae): generic reclassification, phylogeny, and host plant associations. *Zoological Journal of the Linnean Society* **164**: 558–658. <https://doi.org/10.1111/j.10963642.2011.00770.x>
- Tazsakowski A., Górczyca J. 2018. Lądowe pluskwiaki różnoskrzydłe (Hemiptera: Heteroptera) Beskidu Wschodniego – geneza fauny. *Monographs of the Upper Silesian Museum* **8**: 1–159.
- Tazsakowski A., Bunalski M., Gierlasiński G. 2020. First records of *Deraeocoris ventralis* in Poland, with notes on distribution of Polish Deraeocorinae (Hemiptera: Heteroptera, Miridae). *Annals of the Upper Silesian Museum in Bytom, Entomology* **29** (on-line 005): 1–10.



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