



# World Scientific News

An International Scientific Journal

WSN 134(2) (2019) 335-338

EISSN 2392-2192

---

---

## SHORT COMMUNICATION

### **New localities a primeval forest relict bugs *Mezira tremulae* (Germar, 1822) (Hemiptera: Aradidae) in central and east part of Poland**

**Dawid Marczak<sup>1,2</sup>, Adam Kwiatkowski<sup>3,4</sup>, Karol Szawaryn<sup>5</sup>, Robert Lasecki<sup>6</sup>**

<sup>1</sup>Kampinos National Park, 38 Tetmajera Street, 05-080 Izabelin, Poland

<sup>2</sup>University of Ecology and Management in Warsaw, 12 Olszewska Street, 00-792 Warsaw, Poland  
E-mail address: [dawid.marczak@gmail.com](mailto:dawid.marczak@gmail.com)

<sup>3</sup>Regional Directorate of the State Forests in Białystok, 51 Lipowa Street, 15-424 Białystok, Poland

<sup>4</sup>Białystok University of Technology, 45A Wiejska Street, 15-351 Białystok, Poland  
E-mail address: [akfiatek1@wp.pl](mailto:akfiatek1@wp.pl)

<sup>5</sup>Museum and Institute of Zoology, Polish Academy of Sciences,  
64 Wilcza Street, 00-679 Warsaw, Poland  
E-mail address: [k.szawaryn@gmail.com](mailto:k.szawaryn@gmail.com)

<sup>6</sup>20a/1 Czarnoleska Street, 05-230 Kobylka, Poland  
E-mail address: [petrel@o2.pl](mailto:petrel@o2.pl)

#### ABSTRACT

Adult and nymphs of *Mezira tremulae* were collected in Kampinoski National Park and Łomna in Mazovian Lowland and Knyszyńska Forest in Podlasie. It is two record of this species in Mazovian Lowland and first record in Podlasie.

**Keywords:** Hemiptera, Heteroptera, Aradidae, *Mezira tremulae*, faunistic, new records, Mazovian Lowland, Podlasie, Poland

*Mezira tremulae* (Germ.) is one of the largest Polish representatives of the flat bugs (Aradidae). It is a Euro-Siberian species (Lis 2001), however, it has been reported from some European countries only recently, e.g. Romania (Heiss 2006) and Austria (Eckelt & Heiss 2017), always single specimens and from few localities. In its range of occurrence it is a very rare species, in many European countries known only from historic or single localities. Only historic localities of this species are known from Hungary (Vásárhelyi 1975), while about 9 current sites are known from Slovakia (Hemala & al. 2018), one from the Czech Republic from 1980s (Kment & al. 2003); the species has recently also been confirmed in Byelorussia (Marczak & Lukashuk 2013). In Poland it has been reported from 6 regions: the Eastern Beskid, Mazowiecka Lowland, Wielkopolsko-Kujawska Lowland, Białowiecka Forest, Roztocze and Lubelska Upland (Gierlasiński & Taszakowski 2013-2019). Due to its rarity the species has been red-listed in some countries, e.g. in the Czech Republic, in CR – critically endangered category (Kment & al. 2017), in Norway as NT – near threatened (Ødegaard & al. 2010).

*Mezira tremulae* is a saproxylic species, depending on a vast availability of dying and dead trees (Wachmann & al. 2007), thus it can be considered a relict species of primeval forests (Hebda & al. 2016). It occurs both in deciduous trees, like the beech, poplar, ash, lime, walnut, birch, maple, and in coniferous trees, namely the spruce and pine (Wachmann & al. 2007). Both its larvae and imago can be found on trunks, under loose bark and in its cracks. There are grounds to think they prefer fungi-infected trees (Stehlík & Heiss 2001, Heiss & Péricart 2007).



**Photo 1.** Nymphs and an imago of *Mezira tremulae* (Photo Dawid Marczak)



The data below concerns new localities on Mazowiecka Lowland and the first record of this species in Podlasie.

**Mazowiecka Lowland:** Kampinoski Park Narodowy, Wólka [DC89], 1 VI 2015, 2 imagines on a windfallen poplar *Popoulus* sp., leg. & det. Robert Lasecki, 8 VI 2015, 5 imagines on a windfallen poplar *Popoulus* sp., leg. & det. Dawid Marczak; Kampinoski National Park, Lipków [DC89], 1-30 VI 2017, 3 imagines caught in an IBL-5 barrier trap hung on a poplar *Populus* sp. in moist broadleaved forest, leg. & det. Dawid Marczak; Kampinoski National Park, Zaborówek [DC89], 1-30 VI 2019, 16 imagines caught in an IBL-5 barrier trap hung on a birch *Betula pendula* (14 imagines) and a common oak *Quercus robur* (2 imagines) in a mixed forest habitat after windfall, leg. & det. Dawid Marczak; Łomna [DD80], 12 VI 2018, 1 imago under the bark of a dying poplar *Populus* sp. in a riverside forest by the Vistula, leg. & det. Dawid Marczak.

**Podlasie:** Knyszyńska Forest, Budzisk Reserve [FE51], 10 VI 2019, 8 imagines and 6 nymphs in bark cracks and under the bark of a dead aspen *Populus tremula* a moist broadleaved forest habitat (Photo 1), leg. & det. Dawid Marczak, Adam Kwiatkowski and Karol Szawaryn, 18 VI 2019, 5 imagines under the bark of an aspen, leg. & det. Dawid Marczak; 1-30 VI 2019, 7 imagines caught in an IBL-5 barrier trap hung on an aspen *Populus tremula* in a moist broadleaved forest habitat (Photo 2), leg. & det. Dawid Marczak and Adam Kwiatkowski.



**Photo 2.** An IBL-5 barrier trap in which *Mezira tremulae* was caught in Budzisk Reserve, Knyszyńska Forest (Photo Adam Kwiatkowski)

Research in Budzisk Reserve was conducted at the consent granted by the Regional Director for Environment Protection in Białystok, thanks to which we could depart from prohibitions applied in nature reserves.

## References

- [1] Eckelt, A., Heiss, E. 2017. *Mezira tremulae tremulae* (Germar, 1822) (Heteroptera: Aradidae), Erstnachweis für Österreich. *Beiträge zur Entomofaunistik*, 18: 151-153.
- [2] Gierlasiński G., Taszakowski A. 2013-2019. Pluskwiaki różnoskrzydłe (Hemiptera: Heteroptera) Polski. <http://www.heteroptera.us.edu.pl>
- [3] Hebda G., Melke A., Plewa R., Szafraniec S., Rutkowski T. 2016. New localities of flat-bugs (Hemiptera: Heteroptera: Aradidae) in Poland. *Acta Entomologica Silesiana*, 24: 1-10.
- [4] Heiss, E. 2006. New records of Aradidae from the Balkan countries (Heteroptera, Aradidae). *Acta entomologica serbica*, 11(1/2): 1-10.
- [5] Heiss, E., Péricart, J. 2007. Faune de France. France et régions limitrophes. 91. Hémiptères Aradidae Piesmatidae et Dipsocoromorphes Euro-Méditerranéens. Fédération Française des Sociétés de Sciences Naturelles, Paris, 509 pp + 8 pls.
- [6] Hemala V., Wiezik M., Franc V. 2018. Rediscovery of the rare flat bug *Mezira tremulae* (Hemiptera: Heteroptera: Aradidae) in Slovakia. *Nature Tutela*, 22, 1: 69-78.
- [7] Kment, P., Bryja, J., Jindra, Z., Hradil, K., Baňář, P. 2003. New and interesting records of true bugs (Heteroptera) from the Czech Republic and Slovakia II. *Klapalekiana*, 39: 257-306.
- [8] Kment, P., Hradil, K., Straka, M., Sychra, J. 2017. Heteroptera. Ss. 137–147. In: Hejda, R., Farkač, J., Chobot, K. (eds): Red List of threatened species of the Czech Republic. Invertebrates. *Příroda* 36: 1-612.
- [9] Marczak D., Lukashuk A.O. 2013. Dva novych dlja territorii Berezhinskogo Biosfernogo Zapovednika vida poluzhestkokrylych nasekomykh (Heteroptera). Osobo ochraniajemyje prirodnyje territory Belarusi. *Issledovanija, Zbornik nauchnyh statiej* 8: 80-84.
- [10] Ødegaard, F., Endrestøl, A., Hågvar, S., Roth, S. 2010. Nebbmunner. Hemiptera. Ss. 241–250. In: Kålås, J. A., Viken, Å., Henriksen, S., Skjelseth, S. (eds): Norsk rødliste for arter 2010. The 2010 Norwegian Red List for species. Norwegian Biodiversity Information Centre, Trondheim, 480 pp.
- [11] Stehlík, J. L., Heiss, E. 2001. Results of the investigations on Heteroptera in Slovakia made by the Moravian museum (Aradidae, Pyrrhocoridae). *Acta Musei Moraviae, Scientiae Biologicae*, 86: 177–194.
- [12] Vásárhelyi, T. 1975. Új adatok hazánk kéregpoloska-faunájának (Heteroptera: Aradidae) ismeretéhez. *Folia Entomologica Hungarica (Series Nova)*, 28(1): 213-216.
- [13] Wachmann, E., Melber, A., Deckert, J. 2007. Wanzen. Band 3. Pentatomomorpha I. 78 Die Tierwelt Deutschlands. 78. Teil. Verlag Goecke & Evers, Keltern, 272 pp.