

First record of *Metreletus balcanicus* (Ulmer, 1920) from Greece (Ephemeroptera: Ameletidae)

KRISTÓF FÖLDI & DÁVID MURÁNYI

ABSTRACT: In this paper we present the first Greek record of *Metreletus balcanicus* (Ulmer, 1920), based on larval specimens collected in Thrace. Photo of the habitat and a map of the locality are provided.

Among the two known European members of the mayfly family Ameletidae, *Metreletus balcanicus* (Ulmer, 1920) is a rare but relatively widespread species known to inhabit small to medium watercourses ranging from the plains to foothill regions (KOVÁCS *et al.* 2003, REDING 2006). It prefers summer-dry temporary waters, and having a life cycle characterized by rapid winter larval growth and spring emergence period (BAUERNFEND & SOLDÁN 2012). According to the Fauna Europaea database, the species is present in Bulgaria, Czech Republic, Germany, Luxemburg, French Mainland, Hungary, Poland, and the European part of Turkey (DE JONG *et al.* 2014). However, it was reported also from Croatia (VILENICA *et al.* 2015), Kosovo (XËRXA *et al.* 2019), North Macedonia (RIMCHESKA & VIDINOVA 2018), Slovakia (SOLDÁN 1978), Switzerland (REDING 2006) and Ukraine (MARTYNOV 2018), but not yet from Greece.

Material and methods

The specimens were collected by waternet, during a one week sampling in Bulgarian and Greek Thrace in February 2025. The specimens were preserved in 70% ethanol. Identification based on BAUERNFEND & SOLDÁN 2012, a Nikon SMZ 10 binocular was used for the study.

Results and Discussion

Six larvae of *Metreletus balcanicus* were found in Greek Thrace (Fig. 1). Collection data: Evros regional unit, Anatoliki Rodopi, Roussa, open brook along the road to M. Dereio, 360 m, N41.3106°, E26.0176°, 08.02.2025, leg. K. Földi, A. & D. Murányi. The closest known locality of the species is the Krumovitsa River in Bulgarian Rhodope (VIDINOVA 2006).

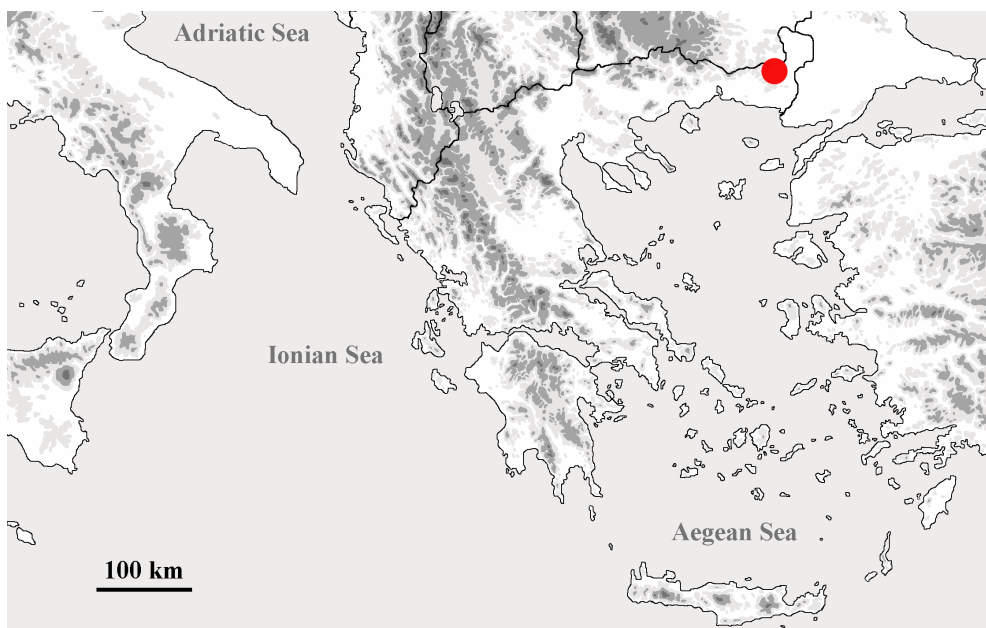


Fig. 1. The Greek locality (dot) of *Metreletus balcanicus* (Ulmer, 1920)



Fig. 2. Habitat of the species: open brook, Roussa, Anatoliki Rodopi (photo: D. Murányi)

The habitat is a small, intermittent and temporary stream, passing through a degraded pasture (Fig. 2), surrounded by open *Juniperus* bush and oak forest. The streambed is a mosaic of sandy patches, large stones and submerged mosses. The only other water insect found was a young larva of *Brachyptera* sp. (Plecoptera). Full length of the larvae are between 5 to 9 mm, and the species presumably emerged a month later.

References

- BAUERNFEIND E. & SOLDÁN T. (2012): The mayflies of Europe (Ephemeroptera). – Apollo Books, Ollerup, 778 pp.
- DE JONG Y., VERBEEK M., MICHELSEN V., BJORN P. P., LOS W., STEEMAN F., BAILLY N., BASIRE C., CHYLARECKI P., STLOUKAL E., HAGEDORN G., WETZEL F. T., GLÖCKLER F., KROUPA A., KORB G., HOFFMANN A., HÄUSER C., KOHLBECKER A., MÜLLER A., GÜNTSCH A., STOEY P. & PENEV L. (2014): Fauna Europaea - all European animal species on the web – Biodiversity Data Journal, 2: e4034. <https://doi.org/10.3897/BDJ.2.e4034>
- KOVÁCS T., AMBRUS A. & JUHÁSZ P. (2003): Data to the Hungarian mayfly (Ephemeroptera) fauna arising from collectings of larvae II. – Folia historico-naturalia Musei matraensis, 27: 59–72.
- MARTYNOV A. V. (2018): New records of some rare mayflies (Insecta, Ephemeroptera) from Ukraine. – Ecologica Montenegrina, 16: 48–57. <https://doi.org/10.37828/em.2018.16.6>
- REDING J.-P. G. (2006): Notes faunistiques sur *Metreletus balcanicus* (Insecta: Ephemeroptera) et *Ironoquia dubia* (Insecta: Trichoptera), deux espèces d'insectes aquatiques du Jura nouvelles pour la Suisse. – Bulletin de la Société Neuchâtoise des Sciences Naturelles, 129: 73–86.
- RIMCESKA B. & VIDINOVA Y. N. (2018): New records of *Metreletus balcanicus* (Ulmer, 1920) (Ephemeroptera: Ameletidae) from Republic of Macedonia. – Journal of the Entomological Research Society, 20(3): 123–127.
- SOLDÁN T. (1978): Mayflies (Ephemeroptera) new to the fauna of Czechoslovakia found in 1972–1977. – Acta entomologica bohemoslovaca, 75: 319–329.
- XËRXA B. L., SARTORI M., GASHI A. & GATTOLLIAT J.-L. (2019): First checklist of mayflies (Insecta, Ephemeroptera) from Kosovo. – ZooKeys, 874: 69–82. <https://doi.org/10.3897/zookeys.874.38098>
- VIDINOVA Y. (2006): Mayflies (Ephemeroptera, Insecta) from the Rhodopes Mountains (Bulgaria and Greece) – In: BERON P. (ed.): Biodiversity of Bulgaria. 3. Biodiversity of Western Rhodopes (Bulgaria and Greece). Pensoft & National Museum of Natural History, Sofia, pp. 269–281.
- VILENICA M., GATTOLLIAT J.-L., MIHALJEVIĆ Z. & SARTORI M. (2015): Croatian mayflies (Insecta, Ephemeroptera): species diversity and distribution patterns. – ZooKeys, 523: 99–127. <https://doi.org/10.3897/zookeys.523.6100>

Kristóf FÖLDI
Department of Zoology
Eszterházy Károly Catholic University
Leányka u. 6
H-3300 Eger, Hungary
E-mail: foldikristof2002@gmail.com

Dávid MURÁNYI
Department of Zoology
Eszterházy Károly Catholic University
Leányka u. 6
H-3300 Eger, Hungary
Department of Agrochemistry and Plant Protection
Samarkand State University named after Sharof Rashidov
University Boulevard
140104 Samarkand, Uzbekistan
E-mail: d.muranyi@gmail.com

