

Scientific note

Isophya rectipennis Brunner von Wattenwyl, 1878
– the first record for Serbia

(Orthoptera, Tettigoniidae, Phaneropterinae)

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Fig. 1. *Isophya rectipennis* Brunner von Wattenwyl, 1878 habitus. A. male. B. female. Photo: S. Ivković.

With 91 valid species, the genus *Isophya* Brunner von Wattenwyl, 1878, is one of the richest and most complicated phaneropterid Palearctic genera for identification (Heller et al. 2004, Chobanov et al. 2013, Cigliano et al. 2021). Even though the species are morphologically similar to each other, in some cases it is possible to identify some species from photos at a country level. On 2.VI.2021 MŠ took a photo of *Isophya* male and female near the village of Vajuga (44.548407°N, 22.653066°E, 43 m a.s.l.), and, after careful analysis, it was determined that male specimen had longer wings and slender, almost straight cerci, while female possessed a short ovipositor (Fig. 1A,B). These morphological characteristics are not present in any *Isophya* species occurring in Serbia, thus several days later, SI and MĐ went to the same locality to collect specimens and recorded a song. During a field investigation, 10 males and 7 females of the *Isophya* species were observed. The species was, in this particular case, found in a small wasteland covered with weeds, primarily brambles, surrounded by arable fields and semi-aquatic vegetation such as rush and cattail. According to the

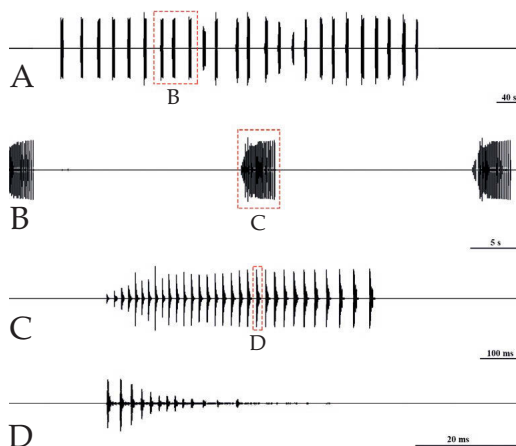


Fig. 2. *Isophya rectipennis* male calling song at four different speeds (recording date: 9.VI.2021; air temperature: 25°C).

morphological descriptions provided by Harz (1969) and Únal (2003), it was established that the collected

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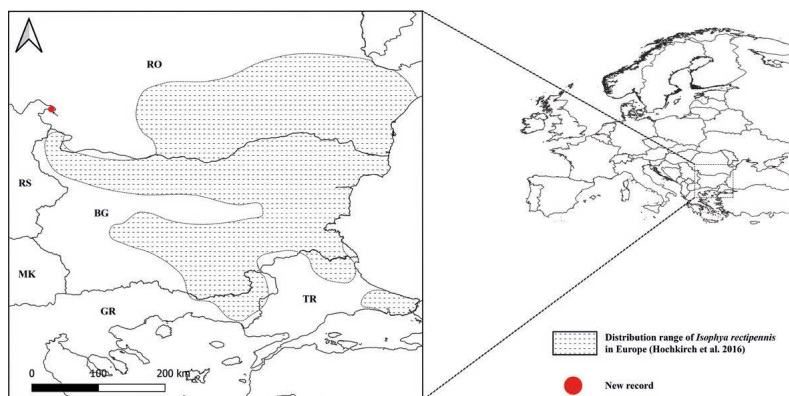


Fig. 3. Current distribution of *Isophya rectipennis* in Europe (Hochkirch et al. 2016) with a new record from Serbia.



Fig. 4. Habitat of *Isophya rectipennis* near the village of Vajuga (Serbia). Photo: S. Ivković.

specimens belong to species *Isophya rectipennis* Brunner von Wattenwyl, 1878. This identification was additionally confirmed by song analyses of the one recorded male specimen (without male-female duetting) (Fig. 2A–D), which showed phrases consisting of 30–32 (mean 31.9 ± 0.9) syllables with 13–19 (mean 17.1 ± 1.7) impulses.

In Europe *I. rectipennis* has been so far reported from Turkey, Bulgaria, southeastern Romania and locally in Greece (Fig. 3), while introduced populations were found in France in 2009 (Chobanov et al. 2013, Hochkirch et al. 2016). The nearest known population is located 85 km away, at Vrška čuka, on the border between Bulgaria and Serbia (Chobanov et al. 2013), thus it is expected that populations can be found on the Serbian side and also locally along the Danube.

This new record represents a starting point for future studies that should confirm wider distribution of this species in Serbia and also for developing conservation strategies. We can consider that *I. recti-*

pennis is currently highly threatened in Serbia, since the small meso-xerophytic meadow (Fig. 4), where the species was found, is surrounded by cultivated land, and that implies a possibility that in future it might also be converted for agricultural purposes.

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