

Tropidia scita (Harris, 1780) (Diptera: Syrphidae), a new hoverfly species for Slovenia

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Abstract. The hoverfly genus *Tropidia* Meigen, 1822, with the species *T. scita* (Harris, 1780), is recorded for the first time in the hoverfly fauna of Slovenia. This species was found at Draga ponds near Ig, Slovenia, on the 16th of June, 2024. With this new record, the number of hoverfly species in Slovenia has increased to 363.

Izvleček. *Tropidia scita* (Harris, 1780) (Diptera: Syrphidae), nova vrsta muhe trepetavke za Slovenijo – Rod *Tropidia* Meigen, 1822 z vrsto *T. scita* (Harris, 1780) je prvič zabeležen v favni muh trepetavk Slovenije. Ta vrsta je bila najdena 16. junija 2024 na ribnikih v Dragi pri Igu v Sloveniji. S tem novim zapisom se je število vrst muh trepetavk Slovenije povečalo na 363.

In Slovenia, there are 362 reported species of hoverflies (Diptera: Syrphidae) and many other species likely remain to be still found there (Kočić et al. 2023). Of these, the genus *Tropidia* Meigen, 1822 is completely lacking from the Slovenia fauna. Members of *Tropidia* are medium-sized (7–12 mm) flies that may resemble *Xylota* Meigen, 1822, and some species of *Myolepta* Newman, 1838, but are recognizable by their enlarged hind femur with a triangular lamina on the apical part, and a carinate face with a medial ridge (Reemer et al. 2009; Bot & van de Meutter 2023). Because of triangular lamina on the apical part of the hind femur, *Tropidia* may be confused with *Merodon* Meigen, 1803, but in *Merodon* vein M1 is recessive. The genus has two species in Europe, *Tropidia scita* (Harris, 1780) and *T. fasciata* Meigen, 1822. Shorter hairs on the body and gently curved vein R4+5 differentiate *Tropidia scita* from *T. fasciata* (Bot & van de Meutter 2023). Both species are likely to occur in Slovenia, based on records in surrounding countries and the presence of suitable habitats, but have not been previously reported. The known range of *T. scita*

includes the entire Palearctic from western Europe to Japan (Reemer et al. 2009; Speight 2020) and includes the surrounding countries of Austria, Italy, and Hungary (Speight 2020; Reverté et al. 2023). In this article, we present the first record of *T. scita* in Slovenia.

The species occurs in humid and wet eutrophic habitats with open water, including marshy forests. Adults are found close to their reproduction sites, where they fly low through the vegetation or sit low at ground level on leaves or reed stems. Little is known regarding the larval stage, but it is assumed that it lives in decomposing plant material found in reed beds and other wetland areas (Reemer et al. 2009; Speight 2020). The published red list of hoverflies of Europe showed that this species has the status of »Least Concern« (Vujić et al. 2022). An assessment of the status in Slovenia is presently not possible due to data deficiency.

Material examined (Fig. 1): Slovenia, Draga pri Igu, along Srednji ribnik; one of a series of ponds along a small valley ~13 km south of Ljubljana (WGS84: 45.93649 N, 14.55108 E), 16.06.2024, 310 m a.s.l., 1♂, leg. B. Schwartz.



Figure 1. Male *Tropidia scita* found at the fish ponds at Draga pri Igu in June 2024 (photo: B. Schwartz).

Slika 1. Samec *Tropidia scita*, najden pri ribnikih v Dragi pri Igu junija 2024 (foto: B. Schwartz).

Habitats within 50 m of the observation site (Figs. 2-3) include open ponds with deep water, marshy pond edges and adjacent open marshes with abundant rushes, sedges, scouring rushes and other emergent vegetation, forested swamps, small forest seeps and springs, and dry adjacent forested hillslopes. The specimen was found perching on leaves of *Carex* sp. (Cyperaceae) in the morning sun

at 09:00 hrs. It seemed to prefer perching on leaves that were partly sheltered by an open overhanging canopy of the same plant, and moved frequently, but spent most of its time perching rather than flying or hovering. It was quite wary and did not allow a close approach. A single photo of a male was taken from several meters away using a 100-400mm zoom lens with a 1.4× teleconverter (560mm equivalent) on a Sony a7Rv full-frame digital camera.

The location where the specimen was found is typical habitat for *T. scita*. In Slovenia, many similar places like fishing ponds occur throughout the central and eastern parts of the country and with a thorough survey many more locations with this species may be found.

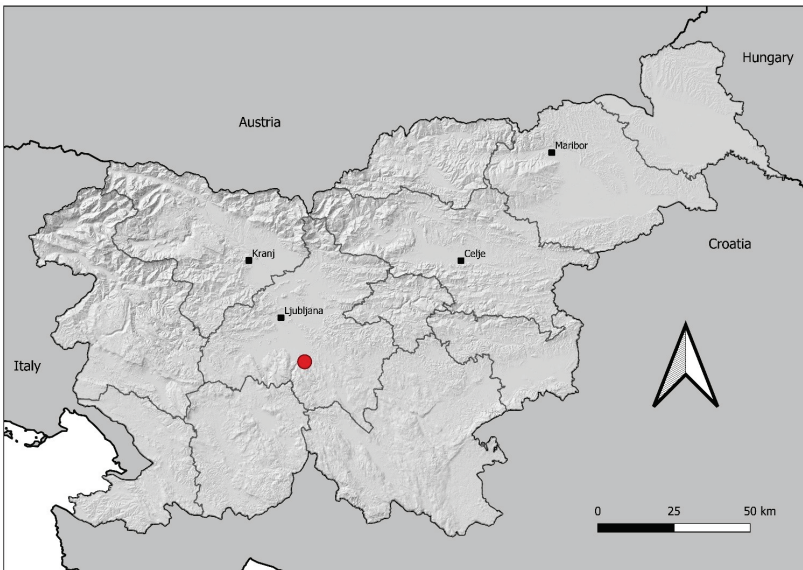


Figure 2. Map of Slovenia showing location of new record for *Tropidia scita* (red circle), major cities (black squares), and statistical regions.

Slika 2. Zemljevid Slovenije, ki prikazuje lokacije novo odkrite vrste *Tropidia scita* (rdeči krogec), večjih mest (črni kvadrati) in statističnih regij.



Figure 3. Satellite image of new record location (yellow circle) showing ponds, adjacent marshy forests, and hillslope forests. Source of image: Google Earth, 12 August 2024.

Slika 3. Satelitska slika lokacije novo odkrite vrste (rumeni krog) z ribniki, okoliškimi močvirnatimi gozdovi in gozdovi na pobočjih. Vir satelitske slike: Google Earth, 12. avgust 2024.

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References

- Bot S, van de Meutter F. 2023. Hoverflies of Britain and North-west Europe: A photographic guide. London (UK): Bloomsbury Wildlife.
- Kočič A, Vujić A, Tot T, Milosavljević MJ, de Groot M. 2023. An updated checklist of the hoverflies (Diptera: Syrphidae) of Slovenia. *Zootaxa*. 5297: 189-227. <https://doi.org/10.11646/zootaxa.5297.2.2>
- Reemer M, Renema W, van Steenis W, Zeegers T, Barendregt A, Smit JT, Van Veen MP, van Steenis J, van der Leij LJJM. 2009. De Nederlandse zweefvliegen (Diptera: Syrphidae). *Nederlandse Fauna* 8. Leiden: Natuurhistorisch Museum Naturalis, KNNV uitgeverij, European Invertebrate Survey - Nederland.
- Reverté S, Miličić M, Ačanski J, Andrić A, Aracil A, Aubert M, Balzan MV, Bartomeus I, Bogusch P, Bosch J et al. 2023. National records of 3000 European bee and hoverfly species: A contribution to pollinator conservation. *Insect Conservation and Diversity*. 16(6): 758-775. <https://doi.org/10.1111/icad.12680>
- Speight MCD. 2020. Species accounts of European Syrphidae, 2020. *Syrph the Net*, the database of European Syrphidae (Diptera), vol. 104. Dublin: Syrph the Net publications.
- Vujić A, Gilbert F, Flinn G, Englefield E, Ferreira CC, Varga Z, Eggert F, Woolcock S, Böhm M, Mergy R et al. 2022. The European Red List of Hoverflies. Brussels: European Commission.