



The first record of *Ctenophora (C.) elegans* Meigen & Wiedemann, 1818 (Diptera: Tipulidae) in Poland

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Abstract: *Ctenophora (C.) elegans* Meigen & Wiedemann, 1818, a scarce West Palaearctic crane fly, is reported for the first time from Poland, specifically from a private garden within the administrative borders of the city of Słubice (W Poland). This addition to the national Tipulidae fauna represents the seventh species of this saproxylic fly genus known from the country. The possibility of the occurrence of an additional European *Ctenophora* species in Poland is also briefly discussed.

Keywords: comb-horn, crane fly, Ctenophorinae, *Ctenophora nigriceps*, faunistics, Central Europe

INTRODUCTION

The genus *Ctenophora* Meigen, 1803 contains 23 species of eye-catching Tipulidae distributed throughout the Holarctic and Oriental realms (Oosterbroek 2025). The saproxylic larvae of these flies develop in the decaying, rotting wood of many species of deciduous trees. Their confinement to habitats with over-mature trees, such as old-growth forests, orchards, and parks or urban areas with veteran trees, contributes to the scarcity of these crane flies (Oosterbroek et al. 2006, Stubbs 2021). This perceived rarity has prompted many species of this genus to be included in Red Lists and Red Books of various European countries, e.g. the Czech Republic (Martinovský & Barták 2005), Ukraine (Korneev & Lantsov 2009), Finland (Salmela et al. 2019), as well as Poland (Palaczyk et al. 2002, Palaczyk 2004).

Due to their striking, often ichneumon- or wasp-like colouration, and the males exhibiting conspicuously branched flagellomeres, a relatively high number of recent articles concerning the genus in Poland have been published, in comparison to the subfamily Tipulinae (Hebda 2010, Bąkowski et al. 2011, Dominiak 2011, Malkiewicz et al. 2012, Żurawlew et al. 2016, Kania et al. 2023). According to the Catalogue of the Crane flies of the World (Oosterbroek 2025), six of the eight European *Ctenophora* species are known from Poland thus far: *C. (C.) flaveolata* (Fabricius, 1794); *C. (C.) guttata* Meigen & Wiedemann, 1818; *C. (C.) pectinicornis* (Linnaeus, 1758); *C. (Cnemoncosis) fastuosa* Loew, 1871; *C. (Cnemoncosis) festiva* Meigen, 1804; *C. (Cnemoncosis) ornata* Meigen & Wiedemann, 1818.

Another species, *Ctenophora (C.) elegans* Meigen & Wiedemann, 1818, was erroneously listed for Poland in the Catalogue of Palaearctic Diptera (Oosterbroek & Theowald 1992, cf. Oosterbroek 2025). The species is, correctly, absent from the later national Tipulidae checklists (Krzemiński 1991, Skibińska & Chudzicka 2007). Hence, *C. (C.) elegans* has not yet been officially recorded from Poland. It is a European species with a range from Spain in the west to Germany, Romania and Bulgaria in the southeast. The larvae have been found in the rotting

wood of *Malus*, *Fraxinus*, *Platanus*, and *Salix* trees (Oosterbroek & de Jong 2001, citing various sources). The flight period spans from April to July, barring one recent observation in October in Western France (Quindroit 2020, Oosterbroek 2025).



Fig. 1. Female imago of *Ctenophora* (*C.*) *elegans* Meigen & Wiedemann, 1818 found in Słubice, W Poland. Photo by R. Piekarski.

FIRST RECORD IN POLAND

One specimen of *Ctenophora* (*C.*) *elegans* was found and photographed (Fig. 1) on 8 May 2024 in the SE outskirts of the city of Słubice (Lubuskie Province, Poland; GPS: 52°20'45.0"N, 14°36'06.9"E; UTM: VT79). According to the latest physico-geographical regionalisation of Poland (Solon et al. 2018), the site lies on NW edge of the Torzym Plain, adjacent to the Lubuski Gap of the Odra River. The female imago was observed sitting on a *Syringa* sp. bush in a woodland garden (Figs 2–4) with a wide array of habitats including tree stands dominated by coniferous species (mainly *Pinus sylvestris*). A variety of deciduous tree species can be found throughout the property: *Acer* spp., *Quercus* spp., *Betula pendula*, *Fagus sylvatica*, *Robinia pseudoacacia*, as well as a single ancient *Prunus* cf. *serotina* (Fig. 2). Estimated to be 100–150 years old, this cherry tree has started to partially decay and may provide a suitable habitat for *Ctenophora* larvae.

In the immediate vicinity of the garden, apart from the aforementioned species, *Populus tremula* and *Salix* spp. also occur. Furthermore, the site borders the western edge of the Rzepin Forest complex. The nearest stands predominantly consist of fresh mixed forests, dominated by *Pinus sylvestris* of over 120 years old.

The specimen was not collected. Identification to species was confirmed based on external morphological features, using the key provided in Oosterbroek et al. (2006).



Figs. 2–4. Site of observation – garden in Stubice, W Poland: 2 – over-100-year-old *Prunus cf. serotina* tree; 3, 4 – garden overview. Photo 2 by E. Parka-Barańska, photos 3–4 by R. Piekarski.

DISCUSSION

This observation constitutes the first confirmed record of *Ctenophora (C.) elegans* in Poland. The occurrence of this species in the country was to be expected, as it has been previously reported from neighbouring Slovakia (Martinovský 1968, Oosterbroek 2025) and Germany, including the border states of Saxony (Jentzsch et al. 2024) and Brandenburg (Schumann 2011, confirmed by later iNaturalist observations, e.g. <https://www.inaturalist.org/observations/45464665> by Jakob Jilg).

With this newest addition to the national Tipulidae fauna, seven *Ctenophora* species have been reported from Poland thus far. Only one European *Ctenophora* species remains to be found in the country. The nominotypical subspecies of *C. (C.) nigriceps* (Tjeder, 1949) has a disjunct distribution, being mostly found in northern Scandinavia with three records from Slovakia, where Starý (2009b) considers it to be an extremely local and ecologically significant species. It is plausible that *C. (C.) nigriceps nigriceps* occurs in the montane habitats of Southern Poland, where dedicated research on Tipulidae has not yet been carried out.

It should be noted that Martinovský's (1984, 1995) records of *C. (Xiphuromorpha) sibirica* Portschinsky, 1873 from the Slovak Karst and Bukovské Hills constitute a misidentification and they in fact concern specimens of *C. (C.) nigriceps*. Thus, *C. (X.) sibirica* is now excluded from the Slovak, and European, fauna (cf. Starý 2009a, b).

The remarkable morphology and possibility to identify species from adequate photos, coupled with their presence in Red Lists and Books, and as such heightened general interest among amateur entomologists, contribute to *Ctenophora* craneflies being regularly reported by

naturalists. Over 70 individual observations of the genus in Poland have been made on iNaturalist (2025) alone. Further involvement of citizen scientists could facilitate the discovery of additional sites of these scarce craneflies, including *C. (C.) elegans* and *C. (C.) nigriceps*.

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STRESZCZENIE

[Pierwsze stwierdzenie *Ctenophora (C.) elegans* Meigen & Wiedemann, 1818 (Diptera: Tipulidae) w Polsce]

Ctenophora Meigen, 1803 jest rodzajem saproksylicznych muchówek z rodziny koziułkowatych (Tipulidae) o holarktyczno-orientalnym rozmieszczeniu. Dzięki efektownemu ubarwieniu upodabniającemu je do os i gąsieniczników oraz grzebykowatym czułkom samców stosunkowo często są tematem doniesień faunistycznych, w przeciwieństwie do pozostałych krajowych przedstawicieli Tipulidae. Dotąd wykazano sześć gatunków z rodzaju *Ctenophora* w Polsce należących do dwóch podrodzajów: *Ctenophora* s.s. oraz *Cnemoncosis* Enderlein, 1921. Ponadto, *Ctenophora (C.) elegans* Meigen & Wiedemann, 1818 została omyłkowo podana jako występująca w Polsce w Katalogu Palearktycznych Diptera (Oosterbroek & Theowald 1992), jednak dotychczas nie została wykazana z kraju (Oosterbroek 2025). W niniejszej pracy przedstawiono pierwsze stwierdzenie tego gatunku z Polski. Jedna samica została sfotografowana w ogrodzie w Słubicach przy zachodniej granicy Polski w województwie lubuskim. Uwzględniając niniejsze stwierdzenie, z terenu Polski wykazano dotychczas siedem gatunków z rodzaju *Ctenophora*. W obszarach górskich południa kraju możliwe jest odnalezienie kolejnego rzadkiego europejskiego gatunku – *C. (C.) nigriceps nigriceps* (Tjeder, 1949) o dysjunktywnym rozmieszczeniu, znanym obecnie jedynie ze Skandynawii oraz Słowacji.