

Long-Legged Flies (Diptera: Dolichopodidae) from the Upper Thracian Plain New to Bulgaria: Habitats and Distribution

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Abstract: *Hercostomus convergens* LOEW, *Syntormon mikii* STROBL and *Teuchophorus cristulatus* MEUFFELS & GROO-TAERT were collected in the Upper Thracian Plain and are new to the fauna of Bulgaria. *Teuchophorus cristulatus* is new to Continental Europe.

Key words: Diptera, Dolichopodidae, Bulgaria, fauna, new records

Introduction

In Bulgaria are known 150 dolichopodid species (KECHEV 2011b). Most of them were recorded from Bulgarian Black Sea area (BESCHOVSKI 1964, 1967, 1971, 1973) and the West Rhodopes (KECHEV 2006, 2007, 2010). Data on Dolichopodidae from the Upper Thracian Plain are scarce. NEDELKOV (1909) listed *Poecilobothrus nobilitatus* from Pazardzhik. BESCHOVSKI (1967) reported *Sciapus longulus* from Popovitzha (near Plovdiv). KECHEV (2005) encountered *Poecilobothrus regalis* near Chirpan, and the same author (KECHEV 2011a) reported the species *Rhaphium discigerum* as new to Bulgaria, from Tsenovo village (6 km from Chirpan).

Studied Area

Sampling sites are located in the surroundings of the town of Chirpan (UTM: LG67, altitude: 170m) in the Upper Thracian Plain (Fig. 1). Two different habitats were investigated:

Site 1: Tekirska River – a shallow and slowly running river intersecting the town of Chirpan (42° 12' 41" N 25° 19' 30" E): well-developed hygrophilous vegetation, with *Mentha* sp., *Scirpus* sp. and *Sparganium* sp, dominating the banks. The trees on the banks are *Salix* sp. and *Populus* sp.

Site 2: a small marshy pond near a fountain for livestock, situated to the northeast of Chirpan (42° 12' 36" N 25° 21' 12" E). In June and July duckweed (*Lemna* sp.) floats on the water surface. The pond is overgrown with reedmace (*Typha* sp.) and the banks are covered by diverse hygrophilous vegetation. The south bank of the pond is canopied by a few willow trees (*Salix* sp.), and shows a well-developed herb and bush layer with nettle (*Urtica* sp.), blackberry (*Rubus* sp.), dock (*Rumex* sp.), and arum (*Arum* sp.) as most abundant. In summer (from the middle of July to the end of August) 2/3 of the pond is dried up.

Material and Methods

The material was collected by means of sweeping in the period from May 2011 to September 2011. The investigated sites were visited once a week (from 5 to 7 p.m.). Adults collected in the field were put in vials containing 70% ethanol. The samples were sorted in the laboratory using a binocular microscope. The faunistic list gives the following information: the sampling site where the species were collected, habitat, number and sex of each specimen

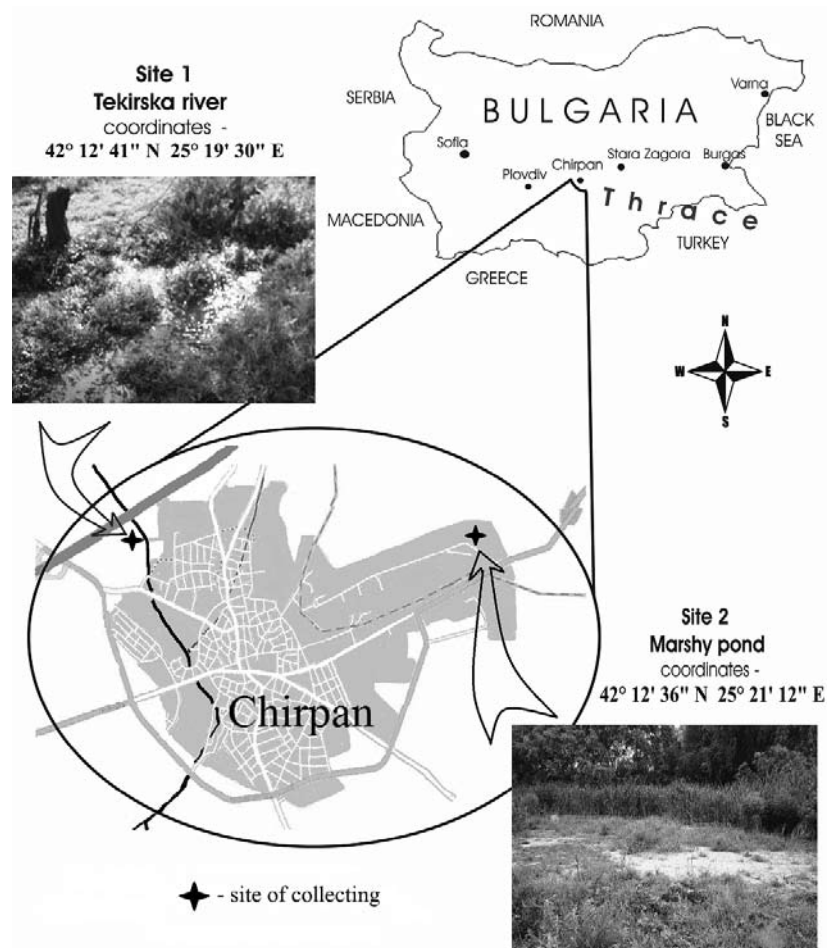


Fig. 1. Map of the sampling sites.

examined, name of collector and distribution. Table 1 presents Dolichopodidae known for Bulgaria and found in this survey, with an indication of number of specimens per site and month.

The material is preserved in the author's personal collection.

Results

***Hercostomus convergens* Loew, 1857.** New to Bulgaria.

Material examined: Chirpan, site 2, 29. 06. 2011, 4 males, 3 females; site 1, 16. 07. 2011, 2 males, 2 females, leg. Kechev.

Distribution: Austria, Canary Islands, France, Germany, Hungary, Italy, Poland, Romania (POLLET 2011), Russia (South: Krasnodar), Spain, Ukraine; Asia: Azerbaijan, Izrael (GRICHANOV 2007).

***Syntormon mikii* Strobl, 1899.** New to Bulgaria.

Material examined: Chirpan, site 2, 29. 06. 2011, 1 male, leg. Kechev.

Distribution: Europe: Britain, Corsica, Crete, Czech Republic, France, Greece, Ireland, Italy, Poland, Portugal, Sweden (POLLET 2011); North Africa: Morocco, Tunisia (GRICHANOV 2007).

***Teuchophorus cristulatus* Meuffels & Grootaert, 1990.** New to Bulgaria.

Material examined: Chirpan, site 1, 25. 07. 2011, 3 males, leg. Kechev.

Distribution: Europe: Sicily (MEUFFELS & GROOTAERT 1990); Asia: Turkey (Yatağan) (TONGUÇ *et al.* 2010).

Discussion

In Great Britain *S. mikii* was recorded as marsh and fen dweller (FOLK, CROSSLEY 2005). The single specimen collected here was found in a similar habitat. *Teuchophorus* LOEW encompasses small flies (1.5-3mm) with 18 representatives in the Palaearctic. Information on the distribution and habitat affin-

Table 1. List of species collected during the studied period, including number of individuals (males and females) per site and month.

Species	Site of sampling	May	June	July	August	September
<i>Argyra argyria</i>	Site 1	-	-	-	-	-
	Site 2	-	1	-	-	-
<i>Argyra leucocephala</i>	Site 1	-	-	-	-	-
	Site 2	-	-	1	1	1
<i>Dolichopus linearis</i>	Site 1	-	-	-	-	-
	Site 2	-	1	-	-	-
<i>Dolichopus excisus excisus</i>	Site 1	-	-	2	-	-
	Site 2	-	-	-	-	-
<i>Poecilobothrus regalis</i>	Site 1	2	107	69	23	-
	Site 2	28	262	218	90	11
<i>Sybistroma impar</i>	Site 1	-	-	5	-	-
	Site 2	-	-	-	-	-
<i>Raphium caliginosum</i>	Site 1	2	8	5	1	1
	Site 2	4	12	10	11	5
<i>Syntormon pallipes</i>	Site 1	2	4	1	-	-
	Site 2	6	6	7	-	2
<i>Syntormon pumilus</i>	Site 1	1	1	1	7	8
	Site 2	4	6	2	5	9
<i>Teuchophorus spinigerellus</i>	Site 1	-	-	7	3	-
	Site 2	-	-	-	1	-
<i>Hydrophorus balticus</i>	Site 1	-	-	-	-	-
	Site 2	-	2	-	-	-

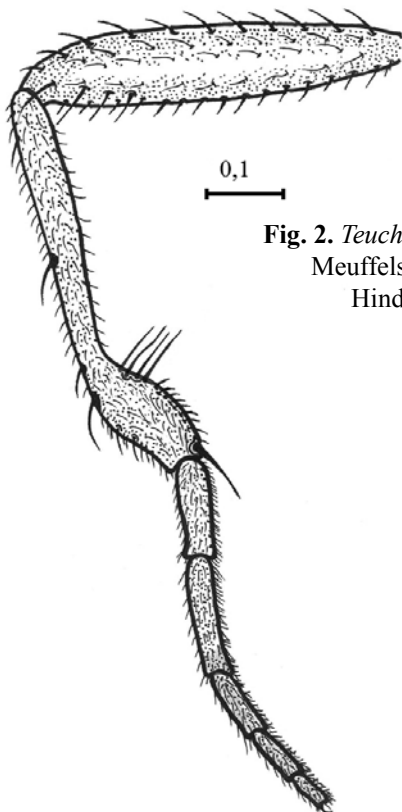


Fig. 2. *Teuchophorus cristulatus*
Meuffels & Grootaert 1990.
Hind leg. Scale bar: 0,1.

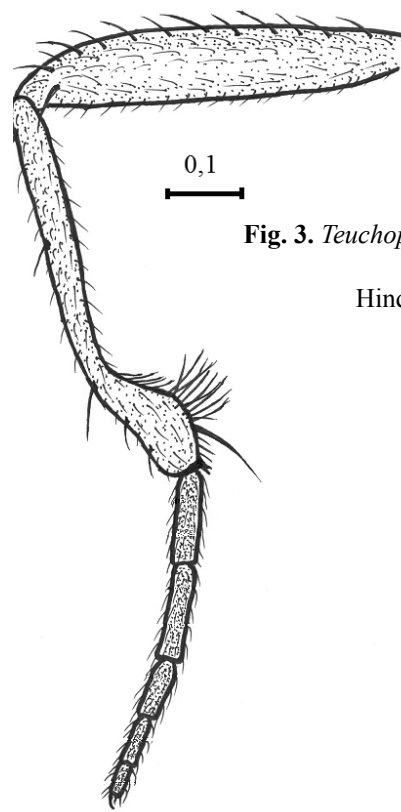


Fig. 3. *Teuchophorus spinigerellus*
(Zetterstedt 1843).
Hind leg. Scale bar: 0,1.

ity of the most recently described Mediterranean *Teuchophorus*, *T. cristulatus* (Sicily, MEUFFELS & GROOTAERT 1990), *T. samraouii* (Algeria, GROOTAERT *et al.* 1995), *T. chaetifemoratus* (Bulgaria, POLLET & KECHEV 2007), and *T. quadrisetosus* (Turkey, NAGLIS 2009) is still largely lacking.

Chirpan (Bulgaria) is the third and northernmost location of *T. cristulatus* in Europe. This species was found together with *Teuchophorus spinigerellus* (ZETTERSTEDT 1843). Diagnostic differences

between the two species are shown on Fig. 2 and 3, and both species are keyed out in the key to males by POLLET & KECHEV (2007). As a result of this study the total number of Dolichopodidae species known in Bulgaria increases from 150 to 153.

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