

Pipunculid records from Germany (Diptera : Pipunculidae)

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Samenvatting : Pipunculidae-gegevens uit Duitsland (Diptera : Pipunculidae)

De auteurs vermelden het voorkomen van 17 Pipunculidae uit Duitsland, verzameld te Mötzlich, Halle (district Sachsen/Anhalt) tijdens 1990. Twee soorten, *Dorylomorpha anderssoni* en *Tomosvaryella palliditarsis*, zijn nieuw voor de Duitse fauna.

Zusammenfassung. Meldung über das Vorkommen von Fliegen der Familie Pipunculidae in Deutschland (Diptera : Pipunculidae)

Die Autoren berichten über den Nachweis von 17 Pipunculiden-Arten im Ergebnis von Aufsammlungen in Mötzlich bei Halle (Sachsen/Anhalt) im Jahre 1990. Von diesen sind zwei Arten, *Dorylomorpha anderssoni* und *Tomosvaryella palliditarsis*, neu für die deutsche Fauna.

Résumé. Renseignements faunistiques au sujet des Pipunculidae de la faune allemande (Diptera : Pipunculidae)

Les auteurs signalent la présence de 17 espèces de Pipunculidae d'Allemagne, récoltées à Mötzlich, Halle (district Sachsen/Anhalt) au cours de l'année 1990. Deux espèces sont nouvelles pour la faune allemande, *Dorylomorpha anderssoni* et *Tomosvaryella palliditarsis*.

Abstract. Pipunculid records from Germany (Diptera : Pipunculidae). The authors report the occurrence of 17 Pipunculid species from Germany, collected at Mötzlich, Halle during 1990. Two species, *Dorylomorpha anderssoni* and *Tomosvaryella palliditarsis*, are new to the German fauna.

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Introduction

Pipunculidae (Diptera) are small, inconspicuous flies, closely related to Syrphidae (hoverflies). They can be easily differentiated from the latter by the large compound eyes, occupying most of the hemispherical head; and by differences in the wing venation (no vena spuria). During their larval stage, they are parasitoids of Auchenorrhyncha, Homoptera.

The German pipunculid fauna is fairly well known. Approximately 60 species (excluding the genus *Chalarus*) are reported from (unified) Germany, out of 125 species known from Europe (for comparison: 82 species are reported from Czechoslovakia; 74 species from the U.K., and 70 species from Belgium). However, no comprehensive study of the German pipunculid fauna has been undertaken, and the exact distribution of most species throughout the country is poorly known.

The present study is based on samples taken with 2 yellow water traps (each 24 cm diameter and 7 cm deep) during the months June to August in 1990, at Mötzlich near Halle/Saale (in former East Germany, now district Sachsen/Anhalt). The traps were placed at two different localities in a predominantly agricultural landscape. One trap was located in a small draining ditch (dry during the period of trapping), approximately 60 cm above ground level. The

ditch was bordered by *Sambucus* and *Prunus* shrubs on one side and a field of barley on the other side. The second trap was situated at the edge of a moist biotope: a silted up small lake. The surrounding vegetation was dominated by *Juncus*, *Typha* and *Phragmites* and bordered a wheat field.

Results

Although water traps are usually not considered very effective for Pipunculidae (DE MEYER 1989a), the samples taken at this field during a few months resulted in a relatively high number of pipunculid flies. In all, 128 specimens were collected belonging to at least 19 species. Of these, 115 specimens were collected in the second trap at the moist biotope. *Chalarus* sp. were not identified because most species recognized at the present moment are in fact species complexes and the genus is under revision by Dr M. JERVIS (Cardiff, U.K.). Also, one *Cephalops* specimen is not identified to species level (see discussion below).

The results are summarized in table 1. Most of the 17 identified species are quite common species throughout Europe (like *Verrallia aucta*, *Pipunculus campestris*, *Cephalops semifumosus*, *Eudorylas subterminalis* and *Tomosvaryella sylvatica*). A few species however are relatively uncommon and two species were not previously mentioned for the German fauna. These and a few other interesting species are discussed in detail below.

Dorylomoprha anderssoni ALBRECHT, 1979

New to the German fauna. ALBRECHT (1990) reports this species from Denmark, Finland, the Netherlands, Norway, Sweden and U.K., and refers to it as a temperate-hemiboreal species. It resembles *D. xanthopus* superficially and has probably been confused previously with the latter. The males can be easily differentiated by the differences in the shape of male surstyli as indicated by ALBRECHT (1990). The females are more difficult to differentiate the ovipositor in *D. xanthopus* having a narrower basal part and proportionally longer piercer than *D. anderssoni* (ALBRECHT pers. comm.). The differences in the third antennal segment do not seem to be reliable. Most specimens in our study were collected between mid July and mid August (with one additional record from 3.IX). This does not correspond with the flight period mentioned for *D. anderssoni* by ALBRECHT (1990) which is from mid May till mid July. Variations in voltinism have however been reported before for Pipunculidae (DE MEYER & DE BRUYN 1989) and seem to depend on climatological conditions.

Tomosvaryella palliditarsis (COLLIN, 1931)

New to the German fauna. So far, the species was only reported from Belgium, Czechoslovakia, Spain, Sweden and the U.K. These irregular records may indicate that the species has been confused previously with other *Tomosvaryella* spp., although it is easily differentiated by the black humeri. According to LAUTERER (1981) this is a psychrophilous and hygrophilous species, and seems to be confined to sedge stands in Czechoslovakia.

Table 1. Pipunculidae captured at Halle, Mötzlich (Germany) during 1990 with yellow water traps.

Species	males	females
<i>Chalarus</i> spp.	3	
<i>Verrallia setosa</i> VERRALL	1	1
<i>Verrallia aucta</i> (FALLÉN)	1	
<i>Pipunculus thomsoni</i> BECKER	1	
<i>Pipunculus campestris</i> LATREILLE		1
<i>Cephalosphaera germanica</i> ACZÉL		1
<i>Cephalops subultimus</i> COLLIN	1	1
<i>Cephalops semifumosus</i> (KOWARZ)		1
<i>Cephalops</i> sp.	1	
<i>Eudorylas ruralis</i> (MEIGEN)	1	2
<i>Eudorylas horridus</i> (BECKER)	9	5
<i>Eudorylas obscurus</i> COE	2	2
<i>Eudorylas fuscipes</i> (ZETTERSTEDT)	1	
<i>Eudorylas subterminalis</i> COLLIN	1	
<i>Tomosvaryella sylvatica</i> (MEIGEN)	20	17
<i>Tomosvaryella palliditarsis</i> (COLLIN)	8	2
<i>Dorylomorpha hungarica</i> (ACZÉL)	7	8
<i>Dorylomorpha anderssoni</i> ALBRECHT	16	6
<i>Dorylomorpha xanthopus</i> (THOMSON)	4	4

Eudorylas horridus (BECKER, 1897)

This species is mainly reported from Eastern and Central Europe. In addition it is also found in the U.K. and Belgium. LAUTERER (1983) reports it as a xerothermophilous species. This was confirmed by the findings in Belgium where the species was mainly recorded from calcareous regions (DE MEYER & DE BRUYN 1985). It is therefore surprising to notice that the species was fairly abundant in our study site.

Dorylomorpha hungarica (ACZÉL 1939)

D. hungaria is easily recognized by the enlarged terminalia in both sexes. It is however often confused with *D. haemorrhoidalis* (ZETTERSTEDT). ALBRECHT (1990) clearly indicates the morphological differences. According to this author, *D. haemorrhoidalis* is a predominantly boreal species, with southernmost records from Denmark, South Sweden and the Baltic countries. *D. hungarica* is a temperate hemiboreal and montane species with a more southern distribution. It is a bivoltine species (ALBRECHT 1990) with a first peak period in May and a second in July-August. At our study site we only found records for the second peak period (between 27.VII and 16.VIII). A similar lack of indication of first peak periods for bivoltine species, was also noticed in other species like *Tomosvaryella sylvatica*, *T. palliditarsis* and *Dorylomorpha xanthopus* (see below). *D. hungarica* seems to occur mainly in extremely humid conditions (LAUTERER 1981, ALBRECHT 1990).

Dorylomorpha xanthopus (THOMSON, 1870)

An Holarctic species, superficially resembling *D. anderssoni* (see above). It is usually a bivoltine species in temperate regions (DE MEYER & DE BRUYN 1989, ALBRECHT 1990). However, as in the previous species, only the second

peak period was clearly indicated at our study site: most captures being between 3.VIII and 16.VIII, except for one specimen from 22.VI.

Cephalops sp. (near *varius*)

A single male *Cephalops* specimen, captured at 22.VI, does not seem to be related to any known European *Cephalops* sp. The structure of the male genitalia shows some resemblance to the Nearctic *Cephalops varius* (CRENSON) (see DE MEYER 1989b for illustration). Because of the lack of additional material, we prefer to keep this specimen unnamed for the time being.

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