

On the presence of *Dolichopeza* (subgenus *Oropeza*) in the Westpalaeartic (Diptera, Tipulidae)

Autor(en): **Oosterbroek, Pjotr / Dufour, Christophe / Pilipenko, Valentin**

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ON THE PRESENCE OF *DOLICHOPEZA*
(SUBGENUS *OROPEZA*) IN THE WESTPALAEARCTIC
(DIPTERA, TIPULIDAE)

PJOTR OOSTERBROEK¹, CHRISTOPHE DUFOUR² & VALENTIN PILIPENKO³

¹ Section Entomology, Zoological Museum, University of Amsterdam, Plantage Middenlaan 64, 1018 DH Amsterdam, the Netherlands. *E-mail*: oosterbroek@bio.uva.nl

² Muséum d'histoire naturelle de Neuchâtel, 14 rue des Terreaux, CH-2000 Neuchâtel, Switzerland. *E-mail*: christophe.dufour@mhnn.unine.ch

³ Moscow State University, Department of Biology, Moscow 119899 Russia.
E-mail: vep@mail.ru

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Résumé: *Sur la présence du genre Dolichozeza (sous-genre Oropeza) dans la région paléarctique occidentale (Diptera, Tipulidae)*

Après avoir été découvert en Italie, le tipulide est-paléarctique *Dolichozeza (Oropeza) modesta* (Savchenko, 1980) est maintenant également connu de Suisse et de la partie centre européenne de la Russie. Il s'agit du seul représentant de ce sous-genre à être connu de la région paléarctique occidentale, et les données provenant de Suisse montrent que cette espèce appartient bien à la faune indigène de ce pays. Les habitats en Suisse et en Russie sont décrits et les premiers sont illustrés par des photographies. Les cas de disjonctions transpaléarctiques chez les tipulides sont brièvement esquissés.

Abstract

After having been discovered in Italy, the Eastpalaeartic crane fly species *Dolichozeza (Oropeza) modesta* (Savchenko, 1980) has become known from Switzerland and the Central-European part of Russia as well. It is the only member of the subgenus known from the Westpalaeartic, and the data from Switzerland show that the species is a true inhabitant of that country. The Swiss and Russian habitats are described and the first shown by photographs. Transpalaeartic disjunctions among crane flies are briefly outlined.

INTRODUCTION

The subgenus *Dolichozeza (Oropeza)* Needham is a small taxon with 25 recognized species, distributed in the Nearctic (13 species, BYERS, 1961), Oriental (5 species,

ALEXANDER & ALEXANDER, 1973) and Eastpalaeartic (8 species, OOSTERBROEK & THEOWALD, 1992).

A few years ago, the Eastpalaeartic species *D. (O.) modesta* (Savchenko, 1980), described from the Primorye Region, was found among Italian material collected in August 1974 near Padova by Prof. Alessandro Minelli (OOSTERBROEK & STARY, 1995). The species was recently discovered near Moscow (PILIPENKO, 1997), and is now recorded from Tessin in Switzerland as well.

SWISS AND MOSCOW HABITATS

The first Swiss specimens of *D. (O.) modesta* were collected by Willy Geiger in September 1979, along the Tresa river in Tessin. Unfortunately, for 17 years they remained unrecognized among Limoniidae sent for study to Sigitas Podėnas in Vilnius, Lithuania. Only in 1996 they were returned with a few other undetermined Tipulidae and recognized as belonging to *Dolichopeza*, subgenus *Oropeza*.

In June 1997, Christophe Dufour returned to the Tresa river, accompanied by Philippe Thorens, in an attempt to collect more specimens and observe the locality. After an hour's search, one male was captured flying in thick vegetation on the riverside bordered with *Tilia*, *Fraxinus*, *Robinia* and *Rubus*. Shortly afterwards, one male and one female were caught along a small, clear tributary of the Tresa, bordered with trees.

The Tresa river, an outflow of the Lake of Lugano, is fast-flowing and remarkable for its high water temperature. It remains unclear whether *D. (O.) modesta* comes from the sidestream only (fig. 1) or if it can also reproduce along the main riverside (fig. 2).

The habitat near the biological station of the Moscow University just outside the city is a stream of 1-1,5 meter wide at the

edge of a *Picea-Betula* forest. The shores of the stream are covered with a dense growth of *Urtica*. The plants are about two meters high and hang over the stream, forming a kind of tunnel. The species occurs only within this tunnel, on a plot of 250-300 meters. The shores of the stream and the stones in it are covered with moss, in which the larvae develop. Adults are on the wing from mid June to mid July, with the peak of activity near the end of June (PILIPENKO, 1997).

MATERIAL

Italy

1 male; VIII.1974; Padova; A. Minelli; Zoological Museum, Amsterdam

Switzerland

1 male; 1 female; 10-11.IX.1979; Ponte Tresa; 270m; W. Geiger; Muséum d'histoire naturelle de Neuchâtel (MHNN).

1 male; 18.VI.1997; Ponte Tresa, Mad. del Piano/rive de la Tresa; 270m; *Tilia*, *Fraxinus*, *Robinia*, *Rubus*; station 1a; C. Dufour & P. Thorens; MHNN.

1 male; 1 female; 18.VI.1997; CH Ponte Tresa, Mad. del Piano/ruisseau latéral clair; 270m; cordon boisé; station 1b; C. Dufour & P. Thorens; MHNN.

Russia

All material: Moscow area, Solnechnogorsk region, Chashnikovo (56°02'N 37°12'E): V. Pilipenko; Moscow State University, Department of Biology, Moscow

4 male; 1 female; 26.VI.1995; 1 male; 14.VI.1996; 2 female; 25.VI.1996; 1 male; 1 female; 27.VI.1996; 1 male; 15.VII.1997;

TRANSPALAEARTIC DISJUNCTIONS

The fact that the species is present in European Russia, Italy and Switzerland, and has been collected in Switzerland as



Figure 1: Habitat of *Dolichopeza (Oropeza) modesta* (Savchenko, 1980) along a tributary of the Tresa river in Tessin (Southern Switzerland).



Figure 2: *D. (O.) modesta* was also collected along the main stream of the Tresa river at a short distance from where this view was taken.

well as Russia in more than one season, strongly suggest that *D. (O.) modesta* is a true inhabitant of the Westpalaeartic, possessing a widely disjunct distribution. Among the palaeartic crane flies there are a fair number of species which are distributed more or less continuously throughout the Palaeartic, such as *Nephrotoma cornicina* (Linnaeus, 1758) and *N. scurra* (Meigen, 1818) (for maps see OOSTERBROEK, 1978; TANGELDER, 1984). Species inhabiting mountainous habitats can be widely distributed as well but their ranges are more fragmented, showing a pattern of isolated spots throughout the Palaeartic, always including the central Asiatic mountains (for maps see DUFOUR, 1992).

Widely disjunct patterns, including the western and far-eastern parts of the Palaeartic, are much less common. They are found in six species of crane flies distributed in northern Europe and in only three species from Central Europe. It seems noteworthy that the distributions of these last-mentioned species in all three cases include Switzerland on the one side and Primorye on the other.

Species showing large disjunctions between northern Europe and the eastern Palaeartic are:

Diogma caudata Takahashi, 1960 (Cylindrotomidae: Finland and Hokkaido);

Erioptera (Erioptera) tordi Tjeder, 1973 (Limoniidae: Sweden and Kuril Islands);

Ormosia (Oreophila) sootryeni (Lacksche-

witz, 1935) (Limoniidae: Norway, Sweden and Primorye, Sakhalin, Kuril Islands, North Korea, Honshu);

Rhabdomastix (Sacandaga) lapponica Tjeder, 1936 (Limoniidae: Norway, Sweden and Chukotka, Kuril islands);

Prionocera chosenicola Alexander, 1945 (Tipulidae: Norway and North Korea) (BRODO, 1995);

Tipula (Yamatotipula) pruinosa stackelbergi Alexander, 1934 (Tipulidae: Sweden, Finland and Yakutia, Primorye).

Species showing large disjunctions between central Europe and the eastern Palaeartic are:

Dicranomyia (Idiopyga) megacauda Alexander, 1924 (Limoniidae: Switzerland and Primorye, Sakhalin, Kuril islands);

Tipula (Pterelachisus) apicispina Alexander, 1934 (Tipulidae: Switzerland, Slovakia, Ukraine and Primorye).

Dolichocheza (Oropeza) modesta (Savchenko, 1980) (Tipulidae: Switzerland, Moscow region and Primorye).

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