

Redescription of the type specimen of *Chironomus oppositus* Skuse, 1856

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Abstract

The type male of *Chironomus oppositus* Walker, 1856 was redescribed and illustrated before the specimen was lost in transport back to the Natural History Museum London. The redescription enables the type to be associated with one of the currently recognised forms of *Chironomus oppositus*.

Introduction

Chironomus oppositus was described by Walker (1856) in Latin from a single male collected in “Van Diemen’s Land” (i.e. Tasmania), Australia. This brief description was translated into English by Skuse (1889), who does not appear to have re-examined the type. The translation reads:

“Pale testaceous, green while living. Antennae brown. Thorax with three reddish stripes. Abdomen pubescent, green, with brown band on each segment. Legs pale green, long, slender, pubescent; tarsi brown towards the tip; fore tibia very much longer than the fore metatarsus. Wings limpid; veins whitish; discal transverse vein brown. Length of body 3 1/2 lines; of the wings 5 lines. *Hab.* – “Van Diemen’s Land.”

Freeman (1961) examined the type and considered it to be a synonym of *Chironomus alternans* Walker (1856). However rearing of specimens from larvae indicated that there were morphological differences as well as differences in the banding patterns of the larval polytene chromosomes (Martin 1969, 1971) indicating that there were several species included in Freeman’s grouping of *C. alternans*. These could not be separated on the basis of existing descriptions particularly since the types of a number of the species were no longer available. However the type of *C. oppositus* was in the British Museum Natural Sciences (BMNS) who were kind enough to send it to me for further examination. I was able to record a more detailed description and take photographs and draw the terminalia. This more detailed description is given below because the type cannot be located in the BMNS and is assumed to have been lost on its return journey.

Material & Methods

The type male of *Chironomus oppositus* Walker, 1856 was obtained on loan from the Natural History Museum London (previously the British Museum Natural Sciences (BMNS)). The specimen was examined, details recorded, and reference photographs taken. These latter proved unsatisfactory for publication, but the details of the hypopygium were drawn using a WILD drawing tube. Unfortunately it appears that the specimen was lost in the mail on the return trip to the Museum. These measurements and figures are hence the only detailed record of the morphology of this specimen.

Terminology is according to Sæther 1980:

Results

Coloration: Antennae and palps brown; thorax greenish, stripes, sternopleuron and pronotum brown, halteres greenish. Abdomen greenish with saddle spots. Legs greenish, only hind tarsi present and darkened.

Thoracic setae: Acrostichal not obvious; dorsocentral about 10+; prealar 6, 7; supraalar 1; scutellum with a posterior row of about 10 setae, anteriorly with about 4 setae.

Wing with anterior veins hardly darker than posterior, crossvein only slightly darkened. R4+5 ends slightly proximal to M, at 0.08 of the distance between Cu1 and M. R2+3 evanescent at tip, ending 0.34 of the distance between the apex of R1 and R4+5. Anal ends distal to f-CU, at 0.61 of the distance between f-Cu and apex of Cu2. Anal lobe well developed, right angled.

Wing length 4.56 mm, width 0.96 mm; 4 SCf on stem vein, squama fully fringed..

Legs: Many tarsi missing, only one of the hind legs complete, so only the hind LR able to be calculated;

Available leg lengths (mm) and proportions in Table 1.

Table 1. Leg segment lengths and proportions.

	Fe	Ti	Ta1	Ta2	Ta3	Ta4	Ta5	LR	F/T
PI	1580	1420	-	-	-	-	-	-	1.11
PII	1660	1560	-	-	-	-	-	-	1.06
PIII	1920	2020	1420	760	600	380	200	0.70	0.95

Abdominal segment TIX and hypopygium (Fig. 1): about 6 setae in individual pale areas near centre of TIX. SVo closest to D(e) of Strenzke (1959). IVo reaching only about half way along the anal point, with simple setae. Anal point long and slightly broadened at distal end, reaching about 2/3 of length of the gonostylus which is moderately broadened and narrows relatively gently over distal third.



Figure 1. Male terminalia of *C. oppositus* type specimen. General view (left), superior volsella (right).

Discussion

This more extensive description of the holotype would have little value unless it can be correctly attributed to a currently recognised species. In this regard, the fact that the specimen comes from Tasmania is useful, as the Tasmanian fauna is reduced compared to the mainland fauna. Martin and Lee (1984) recognized four forms of *C. oppositus* (*f. oppositus*, *f. connori*, *f. whitei*, and *f. tyleri* (now considered a separate species)) mainly on the basis of the banding patterns of the larval polytene chromosomes, and a fifth form occurs in Western Australia. These forms were further defined by Martin (2011) and a further related species, *C. tasmaniensis* with only three polytene chromosomes, is known from a single Tasmanian larva – so can be excluded from this discussion of the adult males.

All forms of *C. oppositus* are recorded from Tasmania but only forms *oppositus* and *connori* are common. Tasmanian researchers (Prof. Bill Jackson and Dr. Peter Tyler, both deceased) believed that Walker collected in the vicinity of the large central lakes, and only one form has been collected in that region, wing length range of 3.68–4.58 mm which covers the type specimen, so it has been designated as ‘form *oppositus*’. This form tends to be more common in Tasmanian lakes (Martin and Lee (1981).

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