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New data on the genus *Chaetopteryx* in Northern Italy and a description of *C. morettii* sp.n.

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Abstract

Data on the distribution of the *Chaetopteryx* specimens in northern Italy are given, with the description of a specimen in Verona Museum which cannot be attributed to a known species. *Chaetopteryx morettii* n.sp. from the Venetian Alps is described and figured.

Key Words: Trichoptera, New species, *Chaetopteryx*, North Italy.

Introduction

Italy is known to be home to 8 species of the genus *Chaetopteryx*, including *C. vulture*, endemic to the Southern Apennines, and *C. trinacriae*, endemic to Sicily. The most common species is *C. gessneri*, an Alpine and Apennine species, originally described from Switzerland. Its area extends from the province of Trento, in the Alps, to the Central Apennines.

The highest number of species belonging to this genus in Italy is found in the Eastern Alpine range. *Chaetopteryx major*, which is known throughout Central-Eastern Europe, was found in Friuli close to the national borders, and *C. fusca*, a widespread species in Central-Eastern Europe, was found in Trentino Alto Adige and Friuli Venezia Giulia in Italy, which constitutes the southernmost limit of its distribution (VALLE 2001). In addition to these widespread species, we should also mention two rare species that are found only in certain areas of Friuli and Slovenia: *C. goricensis* and *C. marinkovicae*.

Moreover, *C. euganea*, a rare species described in 1986, on the basis of specimens from the province of Padova and not taken in this location since then, has been reported in two new locations in the province of Vicenza.

Species of the “villosa” group sensu SCHMID (1952)

Chaetopteryx morettii n.sp.

Material studied: Holotype: VENETO: Cesiomaggiore (BL) m 590, Val Canzoi, spring, N46°06'39" E11°56'15", 14.X.2002, 1♂, leg. Lodovici & Pantini P., Bergamo Natural History Museum. Paratypes: same location and date as holotype 10♂ 3♀. Same site and date: 1♂ in coll. Malicky. Val Canzoi, m 520, stream Caorame 14.X.2002 1♂ leg. Lodovici & Pantini P.; 15.X.2003 10♂ 3♀ leg. Lodovici & Pantini P.; 13.X.2006 7♂ leg. Lodovici & Pantini; Feltre (BL) m 600, Val San Martino, spring 13.X.2006 12♂ 2♀ leg. Lodovici & Pantini. - More specimens from the holotype site, but 21.10.2004, 9.11.2005 and many bred adults in 2006 and 2007 in coll. Malicky.

Unless otherwise indicated, all the typical material is conserved at Bergamo Natural History Museum.

Description: Length of forewing 10-14 mm. Length of body: 9-13mm. Dark coloured body and antennae, testaceous anterior wings and transparent posterior wings with dark tip. Male: The IX segment, lateral view, presents a narrow upper section, which expands in the ventral half and has a deep depression that indicates a carina. Upper appendages, lateral view, with slightly convex edge. In the caudal view they display a regular shape, with concave surface and edge. Strong intermediate appendages, lateral view, with irregular

edge and pointed tip facing in a dorsal direction. In the caudal view, it faces the outside. In the dorsal view, these appendages present a wide base that creates a pyramid structure. Narrow and elongated subanal plate. Solid lower appendages, lateral view, facing upwards and sharply tapered at the tip. The caudal view shows a triangular base and a blade-shaped upper edge. Phallus with lateral expansions that circumscribe a distal concavity. Dorsal profile of the apex comprised of a terminal hook facing in a ventral direction, differentiated by a subterminal lamella. The parameres are

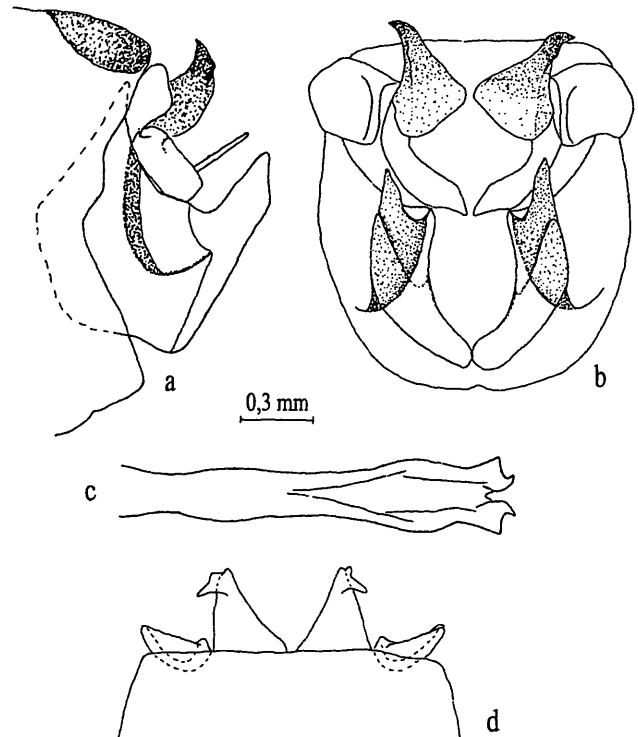


Fig. 1 – *Chaetopteryx morettii* sp. n. male genitalia: a lateral; b caudal; c phallus; d dorsal.

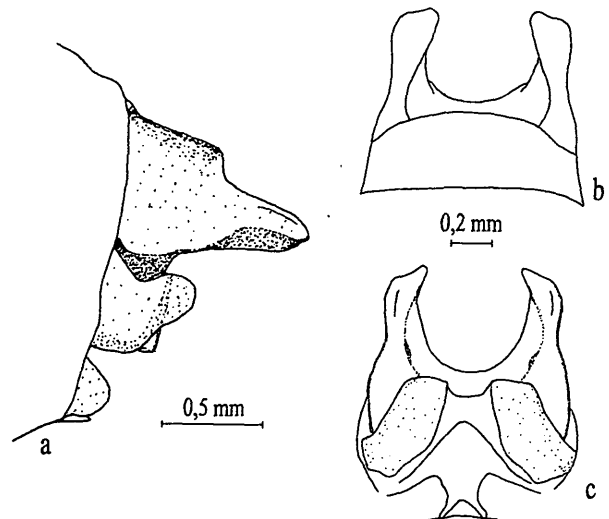


Fig. 2 – *Chaetopteryx morettii* sp. n. female genitalia: a lateral; b dorsal; c caudal.

absent (Fig. 1). - Female: The IX segment, lateral view, presents a truncated edge at the halfway point, while the lower edge forms a sclerotised U at the base. In dorsal view, X segment is comprised of two parallel extroflexions, sunken at the base, and pointed at the tip of the inner edge. The

ventral parts of the IX segment, lateral view, display a longer dorsal edge, while, in the ventral view, they have an elongated rectangular form and are separated by a wide depression.

The vulvar scale is clearly defined, with the two prominent rounded external lobes facing towards the inside. The central lobe is triangular and clearly visible (Fig. 2).

Diagnosis: The species is similar to *C. bosniaca*, from which it differs due to the complete lack of parameres observed in all specimens collected over several years of sampling. The species is dedicated to Professor Giampaolo Moretti, who marked a milestone in Italian trichopterozoology, ten years after his sad disappearance.

Ecological notes: *C. morettii* n. sp. was found in just two locations, a few kilometres apart, in an environment characterised by spring waters with a modest current and located at the edges of the main water courses.

Chaetopteryx sp.

A male specimen was collected in Verona in December 1982. It displays characteristics similar to *C. bosniaca*, from which it differs due to the shape of the phallus and the parameres. Despite several excursions to the site, no further specimens have been found in recent years.

VENETO: Verona m 60, Montorio c/o Fibbio spring, 5.XII.1972, leg. Osella, coll. Museo Civico di Storia Naturale, Verona.

Anterior wing 10 mm, body 9 mm. Colour no longer identifiable due to prolonged storage in alcohol. Large upper appendages, lateral view, with straight edge. In the caudal view they display a quadrangular shape, with concave surface and edge. A spiny ridge is present in the proximal part of the upper appendage. Strong intermediate appendages, lateral view, with very pronounced pointed tip facing in a dorsal direction and the presence of a crest on the internal proximal edge. Strong lower appendages, lateral view, with pointed tip at the base and regular edge, which is concave in the caudal view (Fig. 3). Phallus with lateral expansions that circumscribe a distal concavity. Falciform appendage in proximity to the tip, connected to the small lateral wing. Elongated parameters, with distal tip and a small number of bristles.

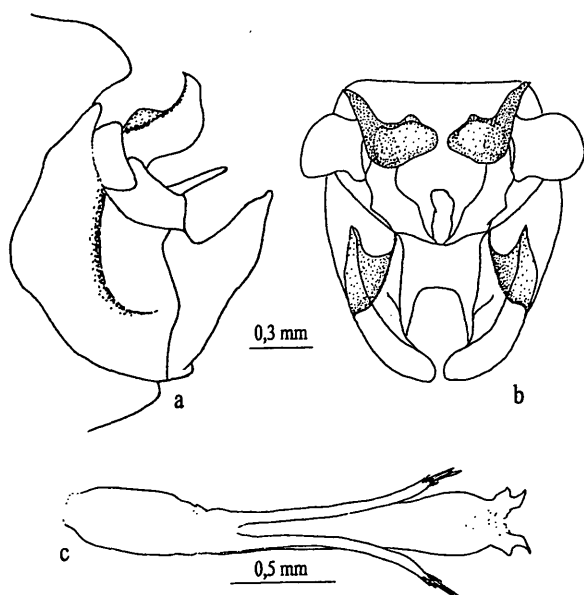


Fig. 3 – *Chaetopteryx* sp. male genitalia: a lateral; b caudal; c phallus.

Chaetopteryx gessneri MCLACHLAN, 1876

Described from Switzerland, this species is found on the southern slopes of the central-western Alps, in the central-northern Apennines and throughout the northern Italian Alps, extending to the province of Trento (River Sarca and Torbiera di Lagabrun), which represents the eastern limit (BONETTINI & CANTONATI, 1996, MARCUZZI, 1948).

LIGURIA: Masone (GE) m 450, Val Vesulla c/o Rian Nia 12.X.2001, 1♂ leg. Museo Caffi BG; **Calizzano (SV)** m 650, località Frassino c/o torrente Frassino 11.X.2001, 1♂ leg. Museo Caffi BG; **Triora (IM)** m 650, rivolo sorgentizio 9.X.2001, 5♂ leg. Museo Caffi BG; m 1100, torrente Verdeggia c/o Verdeggia 9.X.2001, 1♂ leg. Museo Caffi BG; **Mendatica (IM)** m 1230, spring c/o Valcona Sottana 10.X.2001, 6♂ leg. Museo Caffi BG

LOMBARDIA: Torre dé Roveri (BG) m 280, stream Zerra 26.X.2004, 1♂ leg. Soderi A.; **Vertova (BG)** m 480, torrente Vertova 21.X.2004, 3♂ leg. Lodovici & Pantini; **Villa d'Almé (BG)** m 480, tributary stream Giongo 19.X.2004, 1♂ leg. Lodovici, Malicky & Valle.

Species belonging to the “*rugulosa*” group:

Chaetopteryx euganea MORETTI & MALICKY, 1986

Endemic Italian species described in 1986 on the basis of specimens collected in 1967 in Vò Euganeo (PD). Some more specimens were found in 1987 by H. Malicky there. We found it recently in two locations in the province of Vicenza:

VENETO: Crespadoro (VI) m 420, torrente Chiampro 16.X.2003 1♂ leg. Lodovici & Pantini; **Schio (VI)** m 650, affluente torrente Timonchio 8.X.2002 1♂ leg. Lodovici & Pantini.

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