



## A brachypterous *Bryophaenocladus* (Diptera: Chironomidae: Orthoclaadiinae) with hypopygium inversum from Heggie's Rock, Georgia, U.S.A.

J.H. EPLER

461 Tiger Hammock Road, Crawfordville, Fl 32327, U.S.A. E-mail: johneppler3@comcast.net

### Abstract

The adult male and female, pupa and larva of a new species, *Bryophaenocladus chrissichuckorum*, are described from Heggie's Rock, Georgia, U.S.A. Males and females of the species are brachypterous; males have a hypopygium inversum. Pupae differ from other described *Bryophaenocladus* by the presence of three pairs of small setae on the prefrons. Larvae have a mentum with 2 broad median teeth and AR of about 0.99, but are not realistically separable from many other *Bryophaenocladus* species. The immature stages inhabit shallow ephemeral pools.

**Key words:** Diptera, Chironomidae, *Bryophaenocladus*, new species, brachypterous, Nearctic, Heggie's Rock

### Introduction

The orthoclad genus *Bryophaenocladus* is a species rich taxon, with over 100 species described from all continents except Antarctica; no species are described from Australia but Cranston (1996) noted the occurrence of larvae in terrestrial samples from orchards in western Australia. Fifteen described species are known from the Nearctic; Wang *et al.* (2004) provided a key to adult males for 13 of those species. Some of the difficulties concerning the systematics of the genus were discussed in Wang *et al.* (2006) and Du *et al.* (2011).

Larvae are found in a variety of habitats ranging from completely terrestrial to aquatic, with relatively few species definitely aquatic.

This paper reports the existence of the first known brachypterous *Bryophaenocladus* and the first with a hypopygium inversum (twisted 180° from the normal position), and describes the adult male and female, the pupa and the larva of the species.

### Material and methods

Unless indicated otherwise, all measurements are in  $\mu\text{m}$ , and consist of the minimum, maximum and mean (if 4 or more specimens were measured); the number of specimens (n) measured/counted is given in parentheses if different from the number cited at the beginning of the description. Because the wing veins are obsolete, "R complex" is used for the combined R veins which bear setae. Wing length was measured from the most proximal seta of the brachiolum to the apex of the wing; larval head length was measured from the base of the antenna to the postoccipt; other measurements follow Epler (1988). Abbreviations used: Pex—pupal exuviae; Lex—larval exuviae; other abbreviations and terms follow standard chironomid taxonomy (Sæther 1980).

The holotype and several paratypes are deposited in the William L. Peters Museum Collection of Aquatic Insects (part of the Florida State Collection of Arthropods) at Florida A & M University, Tallahassee, Florida, U.S.A.; some paratypes are also deposited in the University Museum of Bergen, Bergen, Norway; the Zoologische Staatssammlung, München, Germany and the author's collection.