



The *Neotrichia caxima* Group (Trichoptera: Hydroptilidae) in the southeastern United States

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Abstract

The *Neotrichia caxima* Group in the southeastern United States is reviewed and a new species from Virginia is described. New figures for the males are provided and females of the 8 species are illustrated and diagnosed. Keys are provided to separate the males and associated females of the *N. caxima* Group occurring in the southeastern United States.

Key words: Trichoptera, Hydroptilidae, microcaddisflies, *Neotrichia*, new species, Virginia, southeastern United States

Introduction

The genus *Neotrichia* is currently divided into 6 species groups (Keth 2002), 4 of which have representatives in the United States. The *Neotrichia caxima* Group is currently composed of 16 species (Keth 2002). Herein, we describe another new species of the *N. caxima* Group from Virginia. Members of this group occur in Argentina, Brazil, Chile, Mexico, Peru, Surinam, and the islands of the Caribbean, but exhibit their highest diversity in the southeastern United States. Eight members occur in this region, although their distribution within the Southeast is often limited.

Females have been described for only 3 members of the *N. caxima* Group: *N. falca* Ross, *N. riegeli* Ross, and *N. mobilensis* Harris. Recent collections by Rasmussen and others throughout the southeastern United States have enabled us to associate the females of the remaining species, including the newly described species. Descriptions of these females are included herein, along with new illustrations of the previously known females and males. Keys are provided to separate the males and females of the *N. caxima* Group in the southeastern United States.

Larvae of *Neotrichia* have been associated for only a few species (Wiggins 1996), so reliable characters for separation into species groups are not known. Cases of *Neotrichia* are made of sand grains, and the larvae occur on rocks and gravel in the faster sections of streams (Wiggins 1996).

The *N. caxima* Group, as defined by Keth (2002), is delineated by the following male synapomorphic characters: highly reduced inferior appendages with the length equal to or less than the width and with abdominal segment X usually wrapping ventromesally around the subgenital plate. Because females for most species of *Neotrichia* had not been associated, female morphology has not been used to characterize species groups. For the *N. caxima* Group females associated in this paper, we follow the general terminology for *Neotrichia* females as discussed by Keth (2002). Abdominal segments VII and VIII are annular with a ring of stout setae on the posterior margin of segment VIII, and the sternum of segment VIII typically possesses a mesal sclerotized plate. Segment VIII has 2 pair of lateral apodemes, the outermost originating from the anterior portion of the segment and extending into segment VI, and the innermost originating from posterior portion of the segment and extending into VI (Fig. 12B). Segment IX tapers posteriorly and bears a pair of sclerotized, internal rods that extend into segment VIII. Segment X is conical and bears a pair of posterolateral papillae. The bursa copulatrix has a narrow, elongate copulatory channel, and lateral margins of the genital