TWO NEW SPECIES OF MICROCADDISFLIES (TRICHOPTERA: HYDROPTILIDAE) FROM NORTHERN FLORIDA

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ABSTRACT

Two new species of microcaddisflies, Hydroptila apalachicola and Ochrotrichia apalachicola, from northern Florida are described and illustrated.

Key Words: Trichoptera, Hydroptilidae, Hydroptila, Ochrotrichia, microcaddisflies

RESUMEN

Se de describen e ilustran dos especies nuevas de microtricópteros, Hydroptila apalachicola y Ochrotrichia apalachicola, del norte de Florida.

Northern Florida is notable for the large number of endemic caddisflies, as well as other fauna and flora. The small, cold, spring-fed streams of the region are one of the primary habitats of the endemic fauna of northern Florida. In this paper we describe two new species of microcaddisflies from spring runs within the Nature Conservancy Apalachicola Bluffs and Ravines Preserve in Liberty County. In a recent comprehensive study of the caddisfly fauna of Florida (Pescador et al. 1996), 15 species of the genus Hydroptila and 3 species of Ochrotrichia were reported in the state. The 2 new species described herein will increase the number to 16 species for Hydroptila and 4 species for Ochrotrichia. Except for the species O. tarsalis which occurs in a wide variety of streams and rivers throughout Florida, the other 3 species of Ochrotrichia have only been collected in cold, spring-fed streams of northern and central Florida.

Terminology for the descriptions follows that of Marshall (1979). Specimen length was measured from the tip of the head to the end of the wings and is given as a range when more than one specimen was available. Type specimens are deposited in the National Museum of Natural History, Smithsonian Institution, Washington, DC (NMNH) and the Florida A & M University, Tallahassee, FL (FAMU).

Hydroptila apalachicola, Harris, Pescador and Rasmussen, new species
(Figs. 1A-1D)

Diagnosis: Hydroptila apalachicola is similar in most respects to H. recurvata Harris and Kelley, a species endemic to the Black Warrior system in Alabama. Both species have in common the distinctive inferior appendages of the genitalia which are folded back distally. The new species is distinguished by the structure of the tenth tergum. In H. recurvata the tenth tergum ends in a pair of large spines which project posteriorly; in H. apalachicola, these spines are small and sharply down-turned.
Description: Male. Length 2.9-3.2 mm. 23 antennal segments. Brown in alcohol. Venter of abdominal segment VII with short apicomesal process. Segment VIII elongate posteroventrally, bearing numerous heavy spines; in ventral view truncate posteriorly with row of heavy spines along margin; reduced to a narrow band dorsally. Segment IX retracted within segments VII and VIII: in dorsal aspect deeply incised anteriorly, posteriorly with wide truncate incision mesally, elongate laterally. Tenth tergum narrow at attachment to IX, widening distally, forked at midlength with each

Fig. 1. Hydroptila apalachicola n. sp., male genitalia. A. Lateral view; B. Dorsal view; C. Ventral view; D. Phallus, dorsal view.
bearing a short spine apically; in lateral view widest at midlength, narrowing distally to downturned apex. Inferior appendages thin and elongate in lateral view; in dorsal view, bases widely separated and bearing stout setae, converging mesally and partly fused, diverging distally; in ventral view apices of inferior appendages bearing a thin,

**FIG. 2. Ochrotrichia apalachicola**, n. sp., male genitalia. A. Lateral view; B. Dorsal view; C. Ventral view; D. Phallus, dorsal view.
elaborate process from ventrolateral margin, small spine on lateral margin apically
and subapically. Phallus wide at base, thin paramere encircling shaft near midlength.

Female and larva: Unknown.

Type Material: Holotype, male. FLORIDA, Liberty County, Nature Conservancy
Apalachicola Bluffs and Ravines Preserve, Little Sweetwater Creek, 19-V-1994, M. L.
Pescador, A. K. Rasmussen, and S. C. Harris (NMNH). Paratypes, same locality and
date as holotype, 2 males (NMNH, FAMU).

Etymology: Named for the type locality within the Apalachicola Bluffs and Ra-
vines Preserve.

Ochrotrichia apalachicola, Harris, Pescador and Rasmussen, new species
(Figs. 2A-2D)

Diagnosis: The lack of sclerotized processes from the tenth tergum places Ochrot-
richia apalachicola with the species group O. unio Ross, O. xena Ross, O. elongiralla
Harris, and O. weoka Harris. However, in O. unio, O. xena, and O. elongiralla the in-
ferior appendages of the genitalia are thin and elongate. In both O. weoka and O.
apalachicola the inferior appendages are shorter (less than 3× the width), but in O.
weoka these appendages are only slightly longer than wide and are at least twice as
long as wide in O. apalachicola.

Description: Male. Length 3.4 mm. 37 antennal segments. Brown in alcohol. Ven-
ter of abdominal segment VII with short mesal process. Segment VIII annular. Seg-
ment IX generally square in lateral view; in ventral view rectangular, slightly incised
posterolaterally; in dorsal view incised laterally, fused mesally with segment X. Tenth
tergum ovate, bearing short seta and shallow ridge on lateral margin; in lateral view
rounded posterolaterally, narrowing in lateral view slightly near midlength, rounded apically; in dorsal and ventral views tri-
angular bearing peglike spines on mesal margin at apex and base. Phallus sinuate,
widening at base and subapically, narrow indentation at apex.

Female and larva: Unknown.

Type material: Holotype, male. FLORIDA, Liberty County, Nature Conservancy
Apalachicola Bluffs and Ravines Preserve, Beaver Dam Creek, 19-V-1994, M. L.
Pescador and A. K. Rasmussen, and S. C. Harris (NMNH).

Etymology: Named for the type locality in the Apalachicola Bluffs and Ravines
Preserve.

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