

Enochrus (Methyrus) grossi sp. n. from
the Southeastern United States (Coleoptera:
Hydrophilidae)

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ABSTRACT

Enochrus grossi (Coleoptera: Hydrophilidae) is described as new from the southeastern United States. It is distinguished from other Nearctic *Enochrus* by the sparse pubescence of the hind femora being restricted to the basal two thirds. Subgeneric placement is discussed and diagnostic features illustrated.

INTRODUCTION

The 21 Nearctic species of the genus *Enochrus* were revised by Gundersen (1977, 1978). Of six subgenera, *Enochrus* s. str., *Lumetus*, and *Methyrus* are found in North America. Many species are common in standing water and the margins of small to medium size streams. This new species was discovered during a review of the *Enochrus* subgenus *Lumetus* in the Nearctic region. It has previously been misidentified as *Enochrus (Lumetus) hamiltoni* s. l. and *Enochrus (Methyrus) fimbriatus* (= *Enochrus perplexus*; see Short 2003). Here *Enochrus (Methyrus) grossi* is described as new and its subgeneric placement discussed.

ABBREVIATIONS

Abbreviations for collections in which material was examined are as follows:

- AEZS: Collection of the Author, Ithaca, NY.
ANSP: Department of Entomology, Academy of Natural Sciences, Philadelphia, PA.
CBBC: Collection of Cheryl B. Barr, Pinole, CA.
CUIC: Cornell University Insect Collection, Ithaca, NY.
EMEC: Essig Museum of Entomology, University of California, Berkeley, CA.
FSCA: Florida State Collection of Arthropods, Gainesville, FL.
KSUC: Department of Entomology Collection, Kansas State University, Manhattan, KS.
LSUC: Department of Entomology, Louisiana State University, Baton Rouge, LA.
MEMU: Mississippi Entomological Museum, Mississippi State University, MS.
MCZC: Museum of Comparative Zoology, Harvard University, Cambridge, MA.
MSUC: Department of Entomology, Michigan State University, East Lansing, MI.
NHW: Naturhistorisches Museum Wien, Austria.
TAMU: Department of Entomology, Texas A & M University, College Station, TX.
UADE: Department of Entomology Collection, University of Arkansas, Fayetteville, AR.
UDCC: Insect Reference Collection, University of Delaware, Newark, DE.
USNM: United States National Museum, Washington, DC.

***Enochrus (Methyrus) grossi*, new species**

Fig. 2-5

Type Locality.—Welder Wildlife Refuge, Sinton, Texas.

Diagnosis.—Length 4.3 -5.7 mm. Fifth visible abdominal ventrite apparently entire, lacking coarse bristles. Pubescence of hind femur sparse and restricted to basal three fifths. Parameres of aedeagus outwardly bent.

Color.—Head black; clypeus with lateral margins beneath eyes yellow. Palpi uniformly yellow. Pronotum and elytra dark brown, slightly paler toward margins. Venter of head, thorax (including epiplura), and abdomen uniformly dark brown. Legs are usually paler than the sternum.

Structure.—Anterior margin of clypeus broadly emarginate. Antennae with nine segments. Maxillary palpi with apical segment shorter than penultimate (fig. 3). Prosternum not carinate; slightly bulged medially and with sparse pubescence. Mesosternal crest glabrous or with a few sparse setae, raised to a point anteriorly; moderately truncate at posterior edge (fig. 4). Pubescence of the hind femur restricted to basal three fifths and glabrous distally on posterior margin (fig. 2). Inner and outer claws of male unmodified on all legs. Punctuation on pronotum and elytra uniformly distributed, moderately coarse; distinct sutural stria present on basal three fourths. Abdomen with five visible, evenly pubescent ventrites; fifth visible ventrite without posteromedial emargination; rarely with a few short yellow bristles posteromedially. Median lobe of the aedeagus short. Dorsal strut nearly as long as parameres and even in width throughout. Parameres with tips slightly bent outward (fig. 5).

Remarks.—*Enochrus grossi* can be distinguished by the pubescence of the hind femur, which is both more basally restricted and sparser than other Nearctic species of *Enochrus*. The pattern of pubescence on the hind femur has been used successfully as a taxonomic character in other hydrophilid genera including *Cymbiodyta* (Smetana 1974) and *Sternolophus* (pers. obs.) but has not previously been used in Nearctic *Enochrus*. *Enochrus grossi* most closely resembles several species of the *cinctus-perplexus* group and *hamiltoni* complex. *Enochrus grossi* can be separated from *E. fimbriatus* and *E. interruptus* by the restricted pubescence of the hind femur. The tip of the median lobe of *E. interruptus* is enlarged, which also separates it from *E. grossi*. The outwardly bent tips of the parameres separate this species from the *hamiltoni* complex.

Biology.—Nothing is known about the biology or immature stages of this species. Most specimens examined were collected at lights.

Distribution.—Arkansas, Florida, Kansas, Louisiana, Mississippi, Texas.

Specimens Examined.—Holotype. Male. "Texas, Sinton/ Welder Wildlife/ found. V-3-1967/ A & M. E. Blanchard", "HOLOTYPE/ *Enochrus (M.) grossi* / A. E. Z. Short" (USNM). Paratypes. UNITED STATES: ARKANSAS: "Wash. Co., AR", 6.VI.1975, W.D. Wylie (UADE 1). FLORIDA: Flagler Co., stream nr. Andalusia, 1.IV.1939, F. N. Young (FSCA 1); Glades Co., 2 mi. SE Harrisburg, 10.V.1971, F. N. Young (FSCA 1); Gulf Co., stream nr. Wetappo, 16.X.1941, F. N. Young (FSCA 1); Liberty Co., Pool 6 mi. s. Wilma, 22.VI.1979, F. N. Young (FSCA 2); Putnam Co., Ditch 10.7 mi. N. Palatka, 2.X.1937, F. N. Young (FSCA 1). KANSAS: "Sand dunes, Medora Kans., R.C. Smith Collection" (KSUC 1). LOUISIANA: "LA Jennings, J. Davis, 9.VI.1975 (TAMU 1); Baton Rouge, LSU, 18.VII.1985, D.A. Rider (LSUC 1); Acadia Par., Crowley, 29.IX.1992, A. O. Ameen & K. F. N'Guessan (LSUC 1); Claiborne Par., Buck Creek at Hwy. 2, W. of Homer, 15.VI.1980, C. B. Barr (LSUC 1). MISSISSIPPI: Jackson Co., "MS Sandhill Crane NWR", 29.VIII.1995,

T. L. Schieffer (MEMU 6, UDCC 1); Jackson Co., Grand Bay Savannah, 6.IX.1994, T. L. Schieffer (MEMU 9, UDCC 2); Jackson Co., Grand Bay Savannah, 28.VIII.1994, J. A. MacGown (MEMU 10); TEXAS: Same data as Type (USNM 214, UDCC 18, AEZS 15, NHW 5, CUIC 5, ANSP 5); San Patricio Co., Welder Wildlife Refuge, 16.VI.1978, J. C. Schaffner (TAMU 5); San Patricio Co., Welder Wildlife Refuge, 19.VI.1971, J. C. Schaffner (TAMU 1); San Patricio Co., Welder Wildlife Ref., 25.VI.1970, J. C. Schaffner (TAMU 1); San Patricio Co., Welder Wildlife Ref., 28.VI.1969, Board & Harfern timer (TAMU 1); San Patricio Co., Sinton-Welder Wildlife Ref., 8 mi. N. Sinton, 22.V.1981, J. Doyen (EMEC 9, UDCC 1); San Patricio Co., Sinton-Welder Wildlife Ref., 8 mi. N. Sinton, 21-22.V.1981, J.K. Liebherr & J.Doyen (EMEC 1); San Patricio Co., "Welder Wildlife Found.", 27.IX.1976, J.E. Wappes Collection, (FSCA 1, TAMU 2, UDCC 1); San Patricio Co., Welder Wildlife Ref., blacklight trap, 27.IX.1976, R. Turnbow (FSCA 2); Bexar Co., 6.V.1993, D.M. Pollock, Blacklight trap (MEMU 1); Cameron Co., "Sabal Palm Grove Sanct., nr. southmost, at lite", 30.IV.1979, R. Turnbow (FSCA 1); "Sabal Palm Grove Sanct., nr. southmost, at lite", 11.VI.1981, blacklight trap, R. Turnbow, E. Ortiz (TAMU 1); "Brownsv'le Tex.", 11-16.VI.1933, Darlington (MCZC 3); Aransas Co., Goose Isl. St. Park, 7.VI.1983, D. A. Rider (LSUC 2); Aransas Co., Goose Isl. St. Rec. Area, 7.VI.1983, C. B. Barr (CBBC 1, LSUC 2, UDCC 1); Cameron Co., Brazos Isl. St. Rec. Area, Boca Chica, 7.VI.1983, C. B. Barr (LSUC 1); Cameron Co., Brownsville, 15.III.1972, H. M. Graham, USDA light trap (MSUC 10, UDCC 2); Cameron Co., Brownsville, 16.III.1972, H. M. Graham, USDA light trap (MSUC 6); Cameron Co., Brownsville, 16.III.1972, H. M. Graham, USDA light trap (MSUC 1); Corpus Christi, 31.V.1970, C. W. Griffin (TAMU 1); Corpus Christi, 3.VI.1970, C. W. Griffin (TAMU 2); Corpus Christi, 26.VI.1970, C. W. Griffin (TAMU 1); Williamson Co., Taylor, 26.IV.1968, J. E. Hafernimer (TAMU 1); Williamson Co., Taylor, 23.IV.1963, J. E. Hafernimer (TAMU 1); College Station, 29.IV.1930, S. E. Jones (TAMU 1); College Station, 28.IV.1930, H. J. Reinhard (TAMU 1); College Station, 7.V.1930, S. E. Jones (TAMU 3, UDCC 1); College Station, 18.IV.1930, H. J. Reinhard (TAMU 1); Weslaco, 20.V.1930, S. W. Clark (TAMU 2); Bryan, 19.V.1966, J. C. Schaffner (TAMU 2); Brazos Co., Bryan, 22.V.1969, J. C. Schaffner (TAMU 1); Hidalgo Co., 25.V.1930, J. C. Gaines (TAMU 1); Neuces Co., 12.IV.1970, C. W. Griffin (USNM 1).

Etymology.—This species is named after Robert H. Gross Jr., a long-time mentor of the author.

DISCUSSION

The subgenus *Methydrus* is traditionally distinguished from the subgenus *Lumetus* by the fifth visible ventrite having a small emargination lined with coarse yellow bristles, although some specimens of *E. fimbriatus* have only the coarse bristles (d'Orchymont 1939). While some specimens of *E. fimbriatus* lack the emargination or possess a shallow emargination, they always have distinguishable bristles. All *E. grossi* specimens lack this emargination and more than 90% lack coarse bristles. A few specimens do have a small number of short bristles. The shape of the aedeagus, including the shape of the parameres and the length and position of the dorsal strut and median lobe, is nearly identical to the *cinctus-perplexus* group sensu Gundersen (1967). The protarsal claws of the male are not modified, consistent with other species of *Methydrus*. Because of these aforementioned characters, *E. grossi* is placed here within *Methydrus*. Until the subgeneric classification of *Enochrus* can be revised at the global level, the current distinction between these two subgenera (and others) will remain unsatisfactory.

ACKNOWLEDGMENTS

I thank Charles R. Bartlett (UDCC) and Jon K. Gelhaus (ANSP) for their advisement and suggestions on the manuscript. Cheryl Barr (EMEC) also provided helpful comments on drafts of the manuscript. This research was supported in part by National Science Foundation Research Experiences for Undergraduates grant # 9731186 to the Academy of Natural Sciences of Philadelphia.

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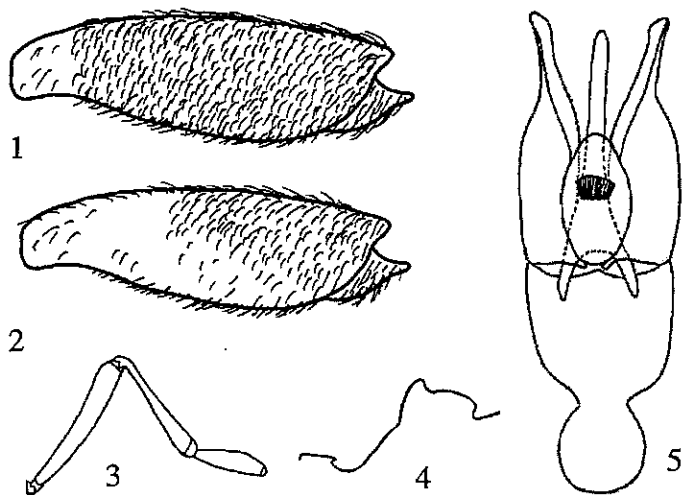


Fig. 1. *Enochrus fimbriatus*, ventral view of metafemur and trochanter. Fig. 2-5. *Enochrus grossi*, sp. n. 2. Ventral view of the metafemur and trochanter. 3. Maxillary palpus. 4, lateral view of mesosternal crest. 5, Ventral view of the aedeagus.