

NOTE

A Cantharid Beetle Host for a Parasitic Phorid Fly New to the Nearctic Region  
(Coleoptera: Cantharidae; Diptera: Phoridae)

During studies on fireflies (Coleoptera: Lampyridae) and related beetles, one of us (LF) reared parasitoid phorid fly larvae from a cantharid beetle (Fig. 1). The collection site was at 311 m elevation in Hardin Valley, northwest Knox County, Tennessee, coordinates 35.93°N, 84.17°W, in the hill-valley region of East Tennessee between the Appalachian Mountains in the east and the Cumberland Mountains to the northwest. The beetle was collected April 24, 2008 in an open kudzu thicket adjoining open farmland and oak/hickory/pine woodland. It died April 26, 2008 just as three phorid larvae emerged. The larvae pupated within two days. Attempts to rear the pupae failed, although development occurred for approximately two weeks before pupae appeared dead. One larva developed sufficiently that it could be dissected from the puparium and identified by BVB. This specimen is a male *Apocephalus (Mesophora) tritarsus* Brown, a species previously known only from southern Mexico and Costa Rica (Brown 1993, 1996). It had been reared previously from a species of *Lucidota* LeConte (Lampyridae) in Costa Rica (Brown 1996).

Previous host records for species of *Apocephalus* Coquillett subgenus *Mesophora* Borgmeier include bees, wasps, spiders, and fireflies. Additionally, *Apocephalus (M.) mortifer* Borgmeier was reared from *Chauliognathus fallax* Germar (Coleoptera: Cantharidae) in Brazil (Borgmeier 1937); BVB reared larvae that failed to mature from a cantharid in Costa Rica.



The phorid specimen differed from most Central American specimens of this species by the presence of large black setae on the venter of abdominal segment six (a few Costa Rican specimens are now known to have these setae), which makes the specimen key incorrectly at couplet 9 in Brown's (1993) key to all New World species and at couplet 17 in Brown's (1996) key to Neotropical species. To correct this problem, the following change is proposed to the key to New World species in Brown (1993):

- 9(8) Venter of abdominal segment 6 with large, black setae (as in Figs. 46-48, 50) . . . . . 9A
- Venter of abdominal segment 6 apparently bare, with minute setulae only . . . . . 12
- 9A(9) Midtarsomeres 1-3 apically expanded . . . . . A. tritarsus, in part
- Midtarsomeres 1-3 not apically expanded . . . . . 10

The key to Neotropical species in Brown (1996) requires the following change:

- 17(1) Venter of abdominal segment 6 with distinct, black setae . . . . 17A
- Venter of abdominal segment 6 bare . . . . . 22

\* Accepted by

17A(17) Midtarsomeres 1–3 apically expanded. . . . . *A. tritarsus*, in part  
Midtarsomeres 1–3 not apically expanded . . . . . 18

The cantharid host of *A. tritarsus* was a female of *Atalantycha neglecta* (Fall) (identified by JMC), unassociated with a male at the time of capture. Although the strongest diagnostic features belong to males, the group of genera including this species has recently been given considerable attention, allowing for certainty of identification (Ramsdale 2002, Kasantsev 2005). Adults of *A. neglecta* have a pink pronotum, as do local fireflies of the genera *Photinus* Laporte, *Ellychnia* LeConte, and *Pyractomena* LeConte to which they have strong resemblance. The specimen is deposited at the *Natural History Museum of Los Angeles County*, California (LACM), voucher LACM ENT 228642.

LITERATURE CITED

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Brian V. Brown, Lynn Frierson Faust, and Joseph M. Cicero, (BVB) *Entomology Section, Natural History Museum of Los Angeles County, 900 Exposition Boulevard, Los Angeles, CA 90007, USA (e-mail: bbrown@nhm.org); (LFF) 11828 Couch Mill Road, Knoxville, TN 37932, USA (e-mail: TNLFaust@cs.com); (JMC) Plant Sciences Department, 303 Forbes Hall, P.O. Box 210036, University of Arizona, Tucson, AZ 85721, USA (e-mail: mycantharoidea@gmail.com)*