

**NEW HOST RECORDS, DISTRIBUTION AND NOTES ON THE BEHAVIOR
OF SOME SEED BEETLES (COLEOPTERA: BRUCHIDAE)**

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Abstract

Megacerus schaefferianus Bridwell and *Amblycerus piurae* (Pierce) glue their eggs to the seed pods of their hosts. Their oviposition behavior places them in Oviposition Guild A. New host or distribution records are reported for them as well as *Acanthoscelides biustulus* (Fall), *A. desmanthi* Johnson, *A. kingsolveri* Johnson, *A. machala* Johnson, *A. sennicola* Johnson, *Ctenocolum acapulcensis* Kingsolver and Whitehead, *C. martiale* Kingsolver and Whitehead, *Megacerus callirhipis* (Sharp), *Mimosestes humeralis* (Gyllenhal), *M. mimosae* (Fabricius), *M. ulkei* (Horn), *Stator limbatus* (Horn), and *S. trisignatus* (Sharp).

New host and distribution records are reported (Appendix 1) to make them available for ecological and evolutionary research currently under way and because they are of general interest. For example, the first host and distribution record from Colombia, a new host from Mexico, and the first host from the United States are reported for *Acanthoscelides kingsolveri* Johnson. Heretofore, *Amblycerus piurae* (Pierce) has only been reliably reported to feed in seeds of species of *Prosopis* (Kingsolver, *et al.* 1977), but it feeds readily in seeds of *Parkinsonia aculeata* (Linnaeus) in Ecuador. *Ipomoea murucoides* Roem. & Schult. and *I. longifolia* Benthham have never been reliably reported as being fed upon by bruchids before. Species of *Megacerus* commonly feed in the seeds of the Convolvulaceae (Terán and Kingsolver 1977). *Megacerus callirhipis* (Sharp) is known to feed in seeds of two species of *Ipomoea*, but the first record for *M. schaefferianus* Bridwell is reported here.

Oviposition Behavior

Eggs of *M. schaefferianus* are glued to the seed pods of *Ipomoea longifolia*. Similar oviposition behavior was reported for *M. discooidus* (Say) on pods of *Calystegia sepium* (L.) Brown by Wang and Kok (1986). These species are then in Guild A of Johnson (1981). My observations of *M. schaefferianus* and those of Wang and Kok (1986) on *M. discooidus* indicate that adult bruchids congregate in flowers of their hosts in the family Convolvulaceae where they probably consume nectar and pollen prior to bouts of oviposition and perhaps mating.

Amblycerus piurae (Pierce) glue their eggs to the outside of seed pods of *Parkinsonia aculeata* (L.), thus placing them in Guild A as well.

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Appendix 1

New host and distribution records for some species of Bruchidae. Collection numbers refer to lot numbers in the field notebooks of C. D. Johnson.

Acanthoscelides biustulus (Fall)

Desmodium molliculum (HBK.) DC. **Mexico.** *Oaxaca:* 17 km N Oaxaca, 20-XII-78 (CDJ#281-78).

Acanthoscelides desmanthi Johnson

Desmanthus bicornutus S. Watson. **Mexico.** *Guerrero:* 360 m, Lat 18° 27'N Long 101° 8'W, 15 km W Zirandaro, 23-XI-93 (C. E. Hughes #1837).

Acanthoscelides kingsolveri Johnson

Indigofera suffruticosa Mill. **Colombia.** *Valle del Cauca:* near Miranda, XI-9-83 (CDJ#3237-83). **U.S.A.** *Texas:* Val Verde Co., ca 1700', 3 mi W Comstock, IX-17-92 (CDJ#4873-92).

Indigofera thibaudiana DC. **Mexico.** *Oaxaca:* 28 km N Pochutla, I-4-80 (CDJ#1350-80).

Acanthoscelides machala Johnson

Senna bicapsularis (L.) Roxb. **Ecuador.** *El Oro:* 10 km SW Santa Rosa, I-18-89 (CDJ#4229-89).

Senna bicapsularis var. *augusti* (Harms) I. & B. **Ecuador.** *Guayas:* 41 km N Santa Elena, I-14-89 (CDJ#4187-89).

Acanthoscelides sennicola Johnson

Senna viciifolia (Benth) I. & B. **Venezuela.** *Lara:* Carora, II-15-89 (CDJ#4455).

Amblycerus piurae (Pierce)

Parkinsonia aculeata L. **Ecuador.** *El Oro:* Machala, I-17-89 (CDJ#4223-89).

Ctenocolum acapulcensis Kingsolver and Whitehead

Lonchocarpus eriocarinalis Micheli. **Mexico.** *Jalisco:* Rancho Cuixmala, Mpio. de La Huerta, 1992 (L. Rico #1033).

***Ctenocolum martiale* Kingsolver and Whitehead**

Lonchocarpus eriocarinalis Micheli. **Mexico.** Jalisco: Rancho Cuixmala, Mpio. de La Huerta, 1992 (L. Rico #1033).

***Megacerus callirhipis* (Sharp)**

Ipomoea murucoides Roem. & Schult. **Mexico.** Oaxaca: Miahuatlan District, ca. 6000', 16° 10'N 96° 30'W, Near San Jose del Pacifico, ca. April 1994 (D. Theodoropoulos, coll.)

***Megacerus schaefferianus* Bridwell**

Ipomoea longifolia Benth. **U.S.A.** Arizona: Cochise Co., 2-3 mi. E Coronado Natl. Mem., X-7-77 (CDJ#130-77).

***Mimosestes humeralis* (Gyllenhal)**

Acacia schaffneri (S. Watson) F. J. Hermann. **Mexico.** Oaxaca: 2310 m, 17° 40'N 97° 37'W, ca. 35 km E Huajuapán de Leon, II-18-92 (C. E. Hughes #1632).

***Mimosestes mimosae* (Fabricius)**

Caesalpinia sclerocarpa Standley. **Mexico.** Oaxaca: 100 m, Lat 16° 20'N Long 95° 20'W, 12 km NW Tehuantepec, 7-XI-93 (C. E. Hughes #1769).

***Mimosestes ulkei* (Horn)**

Cercidium peninsulare (Rose) Carter. **Mexico.** Sonora: 300 m, Lat 29° 3'N Long 110° 25'W, ca. 4 km E Guaymas, I-27-92 (C. E. Hughes #1562).

***Stator limbatus* (Horn)**

Cercidium peninsulare (Rose) Carter. **Mexico.** Sonora: 300 m, Lat 29° 3'N Long 110° 25'W, ca. 4 km E Guaymas, I-27-92 (C. E. Hughes #1562).

Chloroleucon confine Standley. **Mexico.** Baja California Sur. 375 m, Lat 23° 50'N, Long 110° 10'W, ca 11 km SSE San Pedro, I-19-92 (C.E. Hughes #1539).

Lysiloma tergeminum Benth. **Mexico.** Guerrero: 390 m, Lat 18° 26'N Long 101° 21'W, 5 km S Aratichanguia, 23-XI-93 (C. E. Hughes #1833).

***Stator trisignatus* (Sharp)**

Acacia articulata Ducke. **Venezuela.** Zulia: Encontrados, II-21-89 (CDJ#4539-89).