The occurrence of the genus *Maruina* (Diptera: Psychodidae) in Texas

David E. Bowles
Texas Parks and Wildlife Department
River Studies Program
P.O. Box 1685
San Marcos, TX 78667

I recently collected immature stages of the aquatic dipteran genus Maruina from a spring-run located in the Big Bend region of western Texas. The spring-run, Ojito Adentro, is located in the Bofecillos Canyon Drainage, Presidio County, Texas at N 29° 29' 27.7", W 104° 3' 45.6" (measured with a Garmin GPS40 global positioning system). I collected specimens from the wetted vertical surface of a large boulder in the stream channel. A thin film of water flowed over this boulder creating a madicolous habitat. The habitat was thoroughly described in Sites and Bowles (1995) and Bowles et al. (1999). No adults were collected.

I determined the identity of the larvae and pupae as Maruina lanceolata (Kincaid), using the key of Hogue (1973). Maruina lanceolata is widely distributed in the western U.S., with records from California, New Mexico and Washington (Quate & Wirth, 1951). Other collections have been made in western Canada (Downes, 1972) and Baja California, Mexico (Hogue, 1973). However, Quate & Wirth (1951) suggested that, given the broad range of observed variation among populations, M. lanceolata might be a species-complex in western North America or possibly several subspecies distributed over its broad geographic range. Two additional species, Maruina pennaki (Vaillant), and Maruina boulderina (Vaillant) are known from Colorado (Vaillant, 1963; Hogue, 1973). Although my collections of Maruina in Texas were taken from the same approximate latitude (29°) as collections made by Hogue (1973) in Baja, California (30°-35°), they represent the easternmost known distributional record for this species. Ojito Adentro, has yielded several other records of aquatic insects (Sites and Bowles, 1995; Abbott, 1996; Bowles et al., 1999), suggesting that the distributions of a significant component of the insect fauna from the southwestern U.S. and Mexico may extend into the Big Bend Region of Texas. The relatively broad seasonal distribution of larvae and pupae, and the occurrence of at least two larval instars in November indicates M. lanceolata has an extended emergence period in Ojito Adentro. Specimens that I examined are deposited in the Texas A&M University Entomology Collection, College Station, Texas. I thank Drs. Peter Adler and Greg Courtney for reviewing this note.

Material examined: USA, Texas, Presidio County, Big Bend Ranch State Park, Ojito Adentro, 29 Dec 1995, 3 larvae; same data, but 29 Apr 1996, 5 larvae, 1 pupa; same data, but 29 Nov 1997, 32 larvae, 4 pupae.

References

Abbott, J. C. 1996. New and interesting records from Texas and Oklahoma. Argia, 8:14-15.

Bowles, D. E., S. C. Harris, and J. Bueno-Soria. 1999. An assessment of new world Stactobiini (Trichoptera: Hydroptilidae: Hydroptilinae) larvae with new larval descriptions of *Alisotrichia*, *Mejicanotrichia*, and *Scelobotrichia*. *In*, H. Malicky and P. Chantaramongkol [eds.], Proc. 9th Int. Sym. Trichoptera, Chiang Mai, Thailand.

Downes, J. A. 1972. Canadian records of *Phlebotomous vexator*, *Trichomyia nuda*, and *Maruina lanceolata* (Diptera: Psychodidae). Canadian Entomologist, 104:1135-1136.

Hogue, C. L. 1973. A taxonomic review of the genus *Maruina* (Diptera: Psychodidae). Los Angeles County Natural History Museum Science Bulletin, 17:1-69.

Quate, L. W., and W. W. Wirth. 1951. A taxonomic revision of the genus *Maruina* (Diptera: Psychodidae). Wasmann Journal of Biology, 9:151-166.

Sites, R. W., and D. E. Bowles. 1995. *Ambrysus hungerfordi hungerfordi* (Hemiptera: Naucoridae) occurrence in the United States. Journal of the Kansas Entomological Soceity, 68:476-478.

Vaillant, F. 1963. Les *Maruina* d'Amerique du Nord. (Dipt. Psychodidae). Bulletin de la Société Entomologique de France, 68:71-91.