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# PARAGONATAS DIVERGENS (HEMIPTERA: RHYPAROCHROMIDAE): FIRST CONFIRMED RECORD FOR FLORIDA AND THE UNITED STATES

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A specimen of *Paragonatas divergens* (Distant) (Hemiptera: Heteroptera: Rhyparochromidae: Lethaeini) was collected in northeastern Lee County, Florida, May 16, 2003, by the senior author during a routine survey. The specimen was taken by general sweep-net collecting along a roadside at the intersection of North River Road (Hwy. 78) and Parkinson Road. A variety of herbaceous plants at the site was sampled but ragweed, *Ambrosia artemisiifolia* L., was particularly abundant.

In general, members of the Lethaeini are poorly represented in Florida. Slater and Baranowski (1990) noted the presence of only three genera: *Cistalia* Stål, *Cryphula* Stål, and *Paragonatas* Barber, each with a single species reported from Florida. One additional genus, *Valtissius* Barber, has been reported from Florida as *Petisius* Distant (Van Duzee 1917) but without specific locality data.

*Paragonatas divergens* occurs throughout tropical America and the West Indies (O'Donnell 1986; Slater 1964; Slater and Baranowski 1990). This species has been referred to as the most common lethaeine in the New World (O'Donnell 1986), yet it was not previously known to occur in the United States. Palmer and Bennett (1988) reported this bug (as *Palagonatas* [sic]) on *Baccharis halimifolia* L. in Florida but without a specific locality. The current location of the specimen upon which their record was based is unknown, resulting in Slater and Baranowski (1990) considering this a questionable Florida record.

The single female was initially identified by the senior author. The identification was later confirmed by Thomas J. Henry (USDA-ARS-SEL, Washington, D.C.) on July 7, 2003, and the specimen is currently housed at the National Museum of Natural History, Smithsonian Institution, Washington, D.C.

*Paragonatas* contains two known species, *P. costaricensis* (Distant) and the type species, *P. divergens* (Distant). The former has been known to occur in the South Florida counties of Miami-Dade and Monroe for some time, but *P. divergens* has not been reliably reported from the United States until now (Slater and Baranowski 1990). *Paragonatas divergens*, however, has been intercepted on imported commodities numerous times at several of Florida's ports of entry (Fort Lauder-

dale, Jacksonville, Miami, and West Palm Beach) as well as other ports of entry in at least seven other states, including Texas and California.

The generic limits for *Paragonatas* need to be redefined. O'Donnell (1986) stated that she could find no common diagnostic characters that united the two species. Slater and Baranowski (1990) questioned whether the two species are congeneric, observing that *P. divergens* more closely resembles species of *Cistalia*. In addition, we have noted substantial differences in the general appearance of some *P. divergens* specimens from the West Indies compared with those from Central America. In our opinion, at least one additional species occurs in the West Indies. The specimen captured in Florida in May, 2003, more closely resembles those we have seen from Central America.

*Paragonatas divergens* is a ground-dwelling species that apparently feeds on fallen seeds of a variety of plants characteristic of old field habitats (Slater and Baranowski 1990). *Paragonatas divergens* can be easily distinguished from *P. costaricensis* by the following characters: dorsal surface dull, or at most sub-shining, pubescent, reddish-brown, usually with an obvious comma-shaped, pale macula distally on the corium; forefemora possessing 2-3 acute spines distally; scent gland auricle slender, not strongly curved posteriorly. *P. costaricensis*: dorsal surface strongly polished, brown, lacking a distinct comma-shaped pale macula distally on the corium; forefemora lacking acute spines distally, scent gland auricle broad and distinctly curved posteriorly.

The authors express appreciation to Thomas J. Henry for verifying the identification and for reviewing an earlier version of this manuscript. In addition, we thank Charles F. Brodel (USDA-APHIS-PPQ, Miami, FL) and James A. Slater (University of Connecticut, Storrs, CT) for critically reviewing the manuscript. We thank T. J. Henry and A. G. Wheeler (Clemson University, Clemson, SC) for companionship during the trip in which the specimen was taken.

## SUMMARY

The establishment of *Paragonatas divergens* (Distant) in Florida and the United States is confirmed for the first time. A female was captured

on May 16, 2003, by general sweep-net collecting in Lee County, located in southwestern Florida.

#### REFERENCES CITED

- O'DONNELL, J. E. 1986. Systematics of the Western Hemisphere Lethaeini (Insecta: Hemiptera: Lygaeidae). Ph.D. Dissertation, Univ. of Connecticut, Storrs. 253 pp.
- PALMER, W. A., AND F. D. BENNETT. 1988. The phytophagous insect fauna associated with *Baccharis halimifolia* L. in the eastern United States. Proc. Entomol. Soc. Washington, 90: 216-228.
- SLATER, J. A. 1964. A Catalogue of the Lygaeidae of the World. Univ. of Connecticut, Storrs. 2 vols. 1668 pp.
- SLATER, J. A., AND R. M. BARANOWSKI. 1990. The Lygaeidae of Florida (Hemiptera: Heteroptera). Arthropods of Florida and Neighboring Land Areas, Vol. 14. Florida. Dept. Agr. & Consumer Services, pp. i-xv + 211 pp.
- VAN DUZEE, E. P. 1917. Catalogue of the Hemiptera of America North of Mexico. Berkeley: Univ. California Press. 902 pp.