

COMMENTS ON A WATER STRIDER, *RHEUMATOBATES MEINERTI* FROM THE ANTILLES AND A CHECKLIST OF THE SPECIES OF THE GENUS (HEMIPTERA: GERRIDAE)¹

Paul J. Spangler², Richard C. Froeschner²,
John T. Polhemus³

ABSTRACT: The first record of the gerrid *Rheumatobates meinerti* is reported from the Dominican Republic and its known distribution is summarized. A checklist of species and subspecies in the genus is provided.

During a fieldtrip, 5-19 November 1984, to the Dominican Republic to collect aquatic Coleoptera, numerous aquatic Hemiptera were also collected. Among them was a series of 634 specimens of the gerrid *Rheumatobates meinerti* Schroeder. The neotropical species of these small water striders are reported infrequently. For example, a review of the 33 species presently described in the genus shows that 81% of them are reported only from one country (or island) and 33% are from the type-locality. Consequently, these comments were prepared to summarize briefly the distribution data available for this species; to report several new locality records; and provide some information on the number of adults versus nymphs, winged versus apterous specimens, and males versus females in the sample collected. A checklist of the species in the genus *Rheumatobates* also is provided.

Schroeder (1931) based his description of *R. imitator* var. *meinerti* on six specimens from Aux Cayes, Haiti, collected 14 June 1894 by H. Nepperschmidt; holotype, allotype, and four paratypes are in the Snow Entomological Museum, University of Kansas, Lawrence, Kansas. The few distribution records published since the original description are discussed below.

Rheumatobates meinerti is very similar to *R. bergrothi* Meinert and some records for it were given under the latter name. The records for Jamaica given under the name *R. bergrothi* by Barber (1939) were transferred to *R. meinerti* by Drake and Harris (1942), who also raised it to species level from the varietal status under *R. imitator* as originally assigned by Schroeder (1931). Apparently the Dominican Republic records from Bajos de Haina, as given by Drake and Maldonado Capriles

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²Department of Entomology, National Museum of Natural History Smithsonian Institution, Washington, D.C. 20560.

³3115 So. York, Englewood, Colorado 80110.

(1956), were also based on a misidentification; our examination of the Drake collection found that these specimens were now correctly identified with a Drake determination label as *R. meinerti*. More recently, Alayo (1967, 1974a, 1974b) reported *R. meinerti* from Cuba.

In comparing NMNH specimens of *R. meinerti* with *R. bergrothi*, we found a single slightly damaged male of *R. meinerti* which apparently is one of the same series Nepperschmidt collected but which somehow became separated from the six specimens Schroeder had available when he described this species. The old, yellow, handwritten locality label reads: "Aux Cayes (Hayti) 3.5.94 H. Nepperschmidt leg ded. 14.6.1894." Beneath the locality label is an identification label that reads: "Rheumatobates bergrothi Meinert [male sex sign] det. Kirkaldy '01."

The specimens recently collected in the Dominican Republic are labeled Dominican Republic, Distrito Nacional, Guerra (4 km north), 15 Nov 1984, P. & P. Spangler, R. Faitoute. The specimens, part of a very large aggregation estimated to consist of several thousand individuals, were collected from a narrow, open but shaded area between the shore of a large freshwater pond and large patches of emergent vegetation growing about 1 or 2 meters from the shore. A summary of the stage and sex of 634 individuals collected is given in Table I. Specimens from this collection will be deposited in the National Museum of Natural History, Smithsonian Institution; the Museo Nacional de Historia Natural, Santo Domingo, Republica Dominicana; and the collection of John T. Polhemus, Englewood, Colorado.

The body length of adult females ranged from 2.89 to 2.97 mm and exceeded that of the males, which ranged from 2.54 to 2.66 mm.

The sexes of the fourth-instar and fifth-instar nymphs may be readily determined by the differences in the length versus the width of the last abdominal segment (measured dorsally). Male nymphs have the last segment almost as long as the basal width; female nymphs have the last segment twice as long as the basal width. The instar of the nymphs was determined by the comparative sizes of the fourth and fifth instar reported by Silvey (1931) in his life history study of *R. rileyi* Bergroth, a species only slightly larger in body length than that of *R. meinerti*.

Because no recent checklist is available for the species and subspecies in the genus *Rheumatobates* and new distribution records are available for many of them, the following checklist has been prepared. The previously unpublished locality records indicated by an asterisk were provided by John T. Polhemus.

**Checklist of the species and subspecies
in the Genus *Rheumatobates*
(Hemiptera: Gerridae)**

***RHEUMATOBATES* Bergroth 1892:321**

- aestuarius* Polhemus 1969:509 Mexico
bergrothi Meinert 1895:1 El Salvador*, Grenada, Honduras*,
 Panama, Venezuela
bonariensis (Berg) 1898:5 Argentina, Brazil, Peru
 syn. *wrighti* Drake & Harris 1937:360
carvalhoi Drake & Harris 1944:269..... Brazil
citatus Drake & Hottes 1951:150..... Mexico
clanis Drake & Harris 1932:157..... Cuba, British Honduras, Florida,
 Guatemala*, Jamaica*
crassifemur crassifemur Esaki 1926:149..... Argentina, Paraguay
crassifemur esakii Schroeder 1931:77 Brazil, British Guiana, Peru*
crassifemur schroederi Hungerford 1954:556 Brazil
creaseri Hungerford 1936:146 Mexico
curracis Drake & Carvalho 1954:223 Brazil
drakei Hungerford 1954:541 British Guiana, Suriname*, Peru*
hamatus Drake & Chapman 1954:151 Brazil
hungerfordi Wiley 1923:202 Belize*, Mexico, Texas to Utah
imitator (Uhler) 1894:214 Grenada, Martinique*, Puerto Rico,
 Trinidad, Virgin Islands
klagei Schroeder 1931:75..... Brazil
mangrovensis (China) 1943:77 Trinidad
meinerti Schroeder 1931:70 Cuba, Dominican Republic, Haiti,
 Jamaica
mexicanus Drake & Hottes 1951:152 Mexico
minus Drake 1958:109..... Peru
minus minus Hungerford 1936:147 Costa Rica*, Florida, Mexico,
 Panama, Peru, Puerto Rico, Trinidad
minus flavidus Drake & Harris 1942:401 Bolivia*, Brazil, Costa Rica*,
 Peru
ornatus Polhemus & Cheng 1977:321 Costa Rica
palosi Blatchley 1926:982 E. U.S.A.
petilus Drake & Hottes 1951:147..... Mexico
praeposterus Bergroth 1908:376 Guatemala
prostatus Polhemus 1975:243 Costa Rica
rileyi Bergroth 1892:321..... E. U.S.A.
spinosus Hungerford 1954:562 Bolivia*, Brazil
tenuipes Meinert 1895:1 E. U.S.A., Belize*
trinitatis (China) 1943:72..... Trinidad
trulliger Bergroth 1915:63 SE. U.S.A to Oklahoma
vegatus Drake & Harris 1942:401 Cuba, Florida, Puerto Rico
 syn. *crinitus* Herring 1949:160

Table 1. Composition of collection of *Rheumatobates meinerti* Schroeder from the Dominican Republic.

	MALES	FEMALES
ADULTS		
Apterous	227	135
Winged	2	3
FOURTH INSTARS	37	22
FIFTH INSTARS		
Without wing pads	113	77
With wing pads	16	2
TOTALS	395	239

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