# A REMARKABLE NEW RHAGOVELIA FROM THE DOMINICAN REPUBLIC 

(Hemiptera: Veliidae)

By C. J. Drake ${ }^{1}$ and J. Maldonado-Capriles ${ }^{2}$

During the latter part of last December (1955), the junior author spent ten days collecting Hemiptera in the Dominican Republic of the West Indies. Among the aquatic Hemiptera netted, there are several specimens of an undescribed ripplestrider belonging to the genus Rhagovelia Mayr. This peculiar water-treader differs from all its congeners of the Americas in having the third segment of the antennae in the male very strongly dorso-ventrally compressed so as to make it very broad, thin, nearly flat and nearly elongate-ovate in outline. In female specimens this segment is not modified, is cylindical and similar in general aspect to that found in other members of the genus. As almost all of described species of Rhagovelia are represented in the collection of the authors, we feel that the strongly modified third antennal segment should be treated as a specific character peculiar to the male sex of the new species characterized below.

Rhagovelia secluda, n. sp.

## Plate 7 figs. 1-4

Apterous form: Moderately large, black, with the transverse, subapical, orange band divided at the middle; anterior third of pronotum and entire body beneath heavily coated with bluish pruinose; all acetabula stramineous. Head with median longitudinal line and V-shaped basal mark impressed, black, shining; beset with the usual long bristly hairs; anterior part of frons brown, lightly frosted; rostrum testaceous, with terminal segment and inferior side blackish; eyes blackish; width across eyes, 0.80 mm . Antennae blackish fuscous with base of proximal segment testaceous or stramineous, clothed with short dark brown pubescence, the first two segments with the usual long bristly hairs; segment III (male; fig. 1) very strongly dorso-ventrally flattened, thin, elongate-ovate, or (female) cylindrical and not modified, measurements-(male) I, 90; II, 30; III, 55; IV, 45 and (female) I, 86; II, 30; III, 55; IV, 18.

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PLATE 7
Rhagovelia secluda, n. sp. (male). Fig. 1. Antenna. Fig. 2. Left fore leg (inferior side). Fig. 3. Right hind leg (anterior side showing ventral spines. Fig. 4. Right male paramere.

Pronotum produced posteriorly, covering about two-fifths of mesonotum in both male and female, broadly rounded behind, the width across orange band less than twice median length (90:50); mesonotum with uncovered part shorter than pronotum ( $38: 50$ ), sharply obliquely narrowed posteriorly on both sides, with apex fairly wide and feebly rounded, the width across apex much narrower than its width just behind pronotum (54:105); metanotum not visible behind mesonotum but uncovered on each side of posteriorly narrowed sides of mesonotum.

Legs (male; figs. 2 \& 3) black-fuscous, with basal part of anterior femora, all coxae and all trochanters stramineous or testaceous, pubescent, with the usual long, black, bristly hairs. Anterior legs (fig. 2) with femora subcylindrical, with a thin row of long black hairs on median line of inferior surface, subequal to tibiae in length ( $98: 97$ ); tibiae strongly dilated beyond the basal two-fifths, widest in front of middle, with superior surface
slightly convex, with inferior side broadly longitudinally scooped out on the apical three-fifths (fig. 2), the anterior edge beset with a long brush of moderately long, dense, stiff, brownish hairs; tarsi with first two segments very short, the third moderately long; measurements-femora, 98; tibiae, 96; tarsi I, 4; II, 3; III, 24. Middle legs very long, slender; tarsi III with a deep apical cleft (about five-sevenths of the length of the segment), with the usual fanlike, plumose hairs arising from the bottom of the cleft; measurements-femora, 180; tibiae, 150; tarsi I, 3; II, 80; III, 70. Hind legs (fig. 3) with femora moderately swollen, thickest at basal two-fifths, there provided with a long, stout spines (all spines slightly bent outward), which is preceded by four or five very short spines and then followed by nine or ten short spines (each decreasing in size apically), also provided with another row of five to seven spines in front of and parallel to median row (first spine placed opposite long spines-spines short and a little difficult to find); tibiae straight, feebly tapered apically, without a distinct spur at apex, armed beneath with a median longitudinal row of fifteen to eighteen, short, stout spines;-tarsi I, 5; II, 16; III, 31. Male parameres as in fig. 4.

Legs (female): Color and bristly hairs as in male; anterior tibiae scarcely widened apically; hind femora very little swollen, sometimes with a short spine near apical fifth of inferior surface. All coxae and trochanters unarmed in both sexes. Measurements (middle legs) -femora 160; tibiae, 140; tarsi I, 4; II, 80; III, 70 and (hind legs)-femora, 140; tibiae, 160;-tarsi I, 5; II, 16; III, 30.

Abdomen (male) slightly tapered posteriorly, with last tergite nearly one-half longer than preceding segment; connexiva reflexed obliquely upwards, slowly narrowed posteriorly, not produced at apex, terminating at end of last tergite in a narrow, acute angle. Male parameres fairly large, shaped as in fig. 4. Abdomen in female more tapering posteriorly than in male; last tergite much longer than preceding segment, the last ventrite deeply roundly excavated on hind margin (slightly more so at middle); connexiva strongly reflexed, with last three segments resting on surface of abdomen but with outer margins not meeting within; last tergite and ends of connexiva provided with dense patches of long black hairs; exposed basal tergites (not concealed by reflexed connexiva) provided with pubescence, the other tergites almost nude. Macropterous form of both sexes unknown.

Length, 3.90 mm . (male) and 4.15 mm . (female); width, 1.35 mm .

Type (male) and allotype (female), on the road from Contanza to Valle Nuevo, Province de la Vega, Dominican Republic,
altitude 6,000 feet，along the margin of a small stream，Dec．27， 1955．Paratypes； 7 specimens，taken in same school as type，also 3 nymphs．Type in Drake Collection．

The antennal and leg characters distinguish this insect at once from other members of the genus；it belongs to the group of Rhagovelia，which have the pronotum（apterous form）pro－ duced posteriorly so as to cover around half of the mesonotum． The flattened third antennal segment of the male is peculiar to this species．

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# A NEW CANTACADERID FROM BRASIL <br> （Hemiptera：Tingidae） 

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Up to the present time，the genus Zetekella Drake（1938）has been known only from the genotype（Z．zeteki Drake）collected in Panama．The present paper describes a second species of the genus from southern Brasil．The following notes are intended to supplement the original generic description；－

Head moderately long to long，subquadrate，armed with five stout spines－three anterior spines and a pair between these and eyes；no spines between or behind eyes．Bucculae long，parallel－ sided，open in front，the ends slightly surpassing apex of head． Rostrum extremely long，extending on venter．Antennae moder－ ately long（ slender，pubescent；segments I and II very short， with tip of latter barely surpassing apex of head；III longest， straight，very little thinner than others；IV moderately long，pro－ vided with longer pubescence．Macropterous form unknown．

In size，form and general aspect，the two described species of Zatekella resemble members of the genus Acalypta Westwood （1840）．However，the subfamily characters of Cantacaderinae Stal（1873）separate at once Zetekella from Acalypta and other genera of Tinginae．

## Zetekella pulla，n．sp．

Brachypterous form：Small，ovate，brown with head and pronotum black and collar white，slightly shining，especially pronotum．Female broader than male．Long－winged form un－ known．Length，1．75－2．00 mm．；width， 1.00 mm ．

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