

A new species of *Zetekella* from Suriname (Insecta: Heteroptera: Tingidae: Cantacaderinae)

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Zetekella caroli spec. nov. from Suriname is described and a key to the species of this genus is provided.

Introduction

The specimens described in this paper were collected by sifting litter during the Suriname Kabalebo Expedition 1981-2. The sifting was done in primary forest along a side trail from km 80.5 of the expedition's track, direction ESE to the Dalbana creek, a tributary of the Kabalebo river (about 57°32'W, 4°40'N) (See fig. 6).

The new species is dedicated to Dominus Prof. Dr Carolus Linnaeus on occasion of the 250th anniversary of the publication of the tenth edition of his *Systema Naturae* in 1758. The date of 1 January 1758 is arbitrarily fixed as the date of the starting point of zoological nomenclature (International Code of Zoological Nomenclature, 1999).

In this tenth edition of his *Systema Naturæ*, two tingid species are mentioned under *Cimex: cardui* (P. 442), now: *Tingis cardui* (L.) and *clavicornis* (p.443), now: *Copium clavicorne* (L.) (fig. 1). All measurements are in mm.

Cardui. 17. *C. abdomine membranaceo depresso, scutello lineis tribus elevatis, antennis apice nigris. Fn. svec. 660.*
Habitat in Cardui capitulis.

clavicor- 12. *C. elytris abdomen occultantibus reticulato punctatis, nis, antennis clavatis. Fn. svec. 687.*
Habitat in Europa.

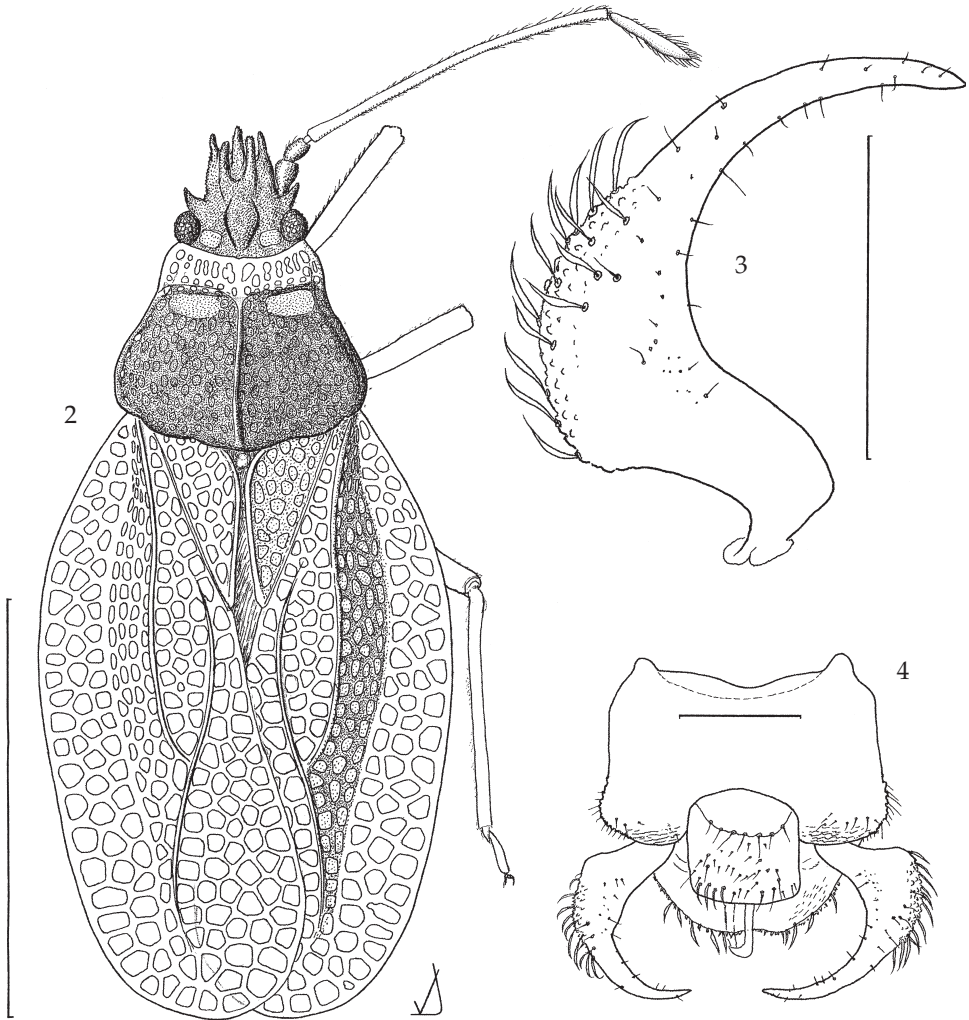
Fig. 1. Facsimiles of the quotations of Linnaeus' *Cimex clavicornis* and *Cimex cardui* resp. on pp 442 and 443 of *Systema Naturae*, Tomus I (1758).

Systematic part

Zetekella Drake

Zetekella Drake, 1944: 139, type species: *Zetekella zeteki* Drake, 1944: 139, 140, fig. 1; Hurd, 1946: 439; Monte, 1947: 4; Drake & Plaumann, 1956: 17 (supplementary description of the genus); Drake & Ruhhoff, 1960: 31, 1965: 41; Froeschner, 1996: 37.

For keys to *Zetekella* see: Froeschner, 1996: 4, 17.



Figs 2-4. *Zetekella caroli* spec. nov., male holotype. 2, dorsal aspect of holotype, bar = 1 mm, 3, pygophore, dorsal aspect, 4, right paramere dorsal aspect, bars = 0.1 mm.

Zetekella caroli spec. nov.
(figs 2-5)

Material.— Holotype, ♂ (RMNH), Suriname, District Nickerie, Km 80.5 road from Avanovero airstrip to Amotopo, 16.xi.1981, HH 222, J. Huijbregts, sifted from litter in primary forest. Allotype, ♀ (RMHN), same data, but HH 221. Paratype, ♂ (RMNH), same data as holotype.

Minute tingids (2 mm), oval (♂ fig. 2) to broadly oval (♀, fig. 5), light yellowish brown with blackish brown head and pronotum and white collar; body parts devoid of setation. The male is fully winged, the female brachypterous for the hind wings. Closely related to *Zetekella pulla* Drake & Plaumann, 1956.

Head.— Head including eyes wider than long (without the cephalic spines); surface blackish, finely rugulose punctured; eyes black, of moderate size (male) to small (female), far back at the sides of the head, attaining the pronotum, oval in shape, shorter than wide; mesial of each eye a round to slightly oval, discrete flat area, shining, reddish-brown; vertex with 1+1 longitudinal fine grooves, anteriorly a little, posteriorly stronger converging; antennophores anterior of eyes, short, laterally sharply extended; anterior of vertex the two occipital spines, on the frons the dorsomedial and the two frontal spines, somewhat longer than the first antennal segment, in the female larger than in the male; antennae slender, of normal shape, yellowish, first segment short, oval, stalked, second smaller, almost spherical, both darkened, bare, third thin and long, in the male longer than in the female, very finely, remotely and decumbently setose, fourth slenderly fusiform, densely clothed with silvery, short and longer setae, ratio of antennal segments in female: 2:1:9.5:4.5, length, 0.9, in male, ratio: 2:1:12:3.5, length, 1.1; bucculae rather high, areolate, posteriorly widened and rounded, reaching base of head, dark coloured; labrum parallel-sided, half as long as the bucculae, tip rounded; rostrum rather stout, in the male somewhat more slender, reaching middle (♂) or just surpassing posterior coxae (♀), yellow with a blackish end, ratio of lengths of segments 1-4, 7:9:7:10.

Thorax.— pronotum trapezoid, wider than long, moderately convex, finely areolate; paranota narrowly elevated, 1-seriate; lateral margins in middle slightly concave; posterior angles rounded; posterior margin slightly convex, ante-



Fig. 5, *Zetekella caroli* spec. nov., female allotype, dorsal aspect; the left interocular plaque is well visible. Length: 2 mm.

rior margin weakly concave, median carina strongly elevated, especially behind, uni-areolate; transverse furrow rather deep; calli large, dark, two times wider than long, smooth, shining, impunctate; collar finely two-seriate, white; rest of pronotum very dark (♂) to lighter brown (♀), lateral margins lighter; sides of pro, meso and metanotum with the same texture and colour as the pronotum dorsally; metathoracal scent glands with a long narrow canal ending at the sides with a dilated/expanded circular ostiolar orifice, just under the hypocostal ridge of the fore wings; scutellum just visible behind the pronotum as a pale yellowish rounded tip; fore wings unicolorous pale yellowish brown, rounded apically, amply surpassing abdomen, overlapping each other from tip of clavus (♂) or only the sutural area (♀); clavus and claval suture well developed, discoidal area horizontal; subcostal area strongly descending; costal area broad, with three rows of large areolae, somewhat elevated; hind wings in the male well developed, almost attaining top of fore wings; in the female at least short-winged.

Legs well developed, brown, femora apparently bare, tibiae clothed with fine, short decumbent setae

Abdomen.— In male parallel-sided, sub-cylindrical, dark brown, semi-shining, lateral margins finely short-lashed; pygophore (fig. 3) small, rectangular, posterior (ventral) margin posteriorly extended and rounded; parameres (fig. 4) short, apically widened and setose, with a long and slender recurved hook; anal tube almost square, dorsally set with fine setae. Abdomen in female more oval, posteriorly cut off, light brown.

Measurements.— Holotype, ♂; tl, 2.14; lw, 1.48; ww, 0.91; lh, 0.29; wh, 0.32; la, 1.1; lr, 0.79; lp, 0.46; wp, 0.57; Allotype, ♀, tl, 2.0; lw, 1.35; ww, 1.15; lh, 0.34; wh, 0.31; lp, 0.43; wp, 0.59; tla 0.9, 0.55; lr, 0.8; lt. Paratype, ♂, tl, 2.14; lw, 1.48; ww, 0.94; lh, 0.29; wh, 0.31; la, 0.9; lp, 0.49; wp, 0.6.

(la = length of antenna; lh = length of head; lp = length of pronotum; lr = length of rostrum lw = length of wings; tl = total length; wh = width of head; wp = width of pronotum; ww = width of both wings in rest position = max width of specimen).

Remarks.— Remarkable is the presence of the interocular plaques, as far as I know, not earlier mentioned, even not for *Zetekella*. Péricart (1983: 12) described postocular plaques: 'Ces dernières [des yeux] présentent dans divers genres [Tinginae] (*Galeatus*, *Hyalochiton*, *Dictyla*, *Monosteira*) une région semi-circulaire, lisse et brillante, souvent de coloration claire qui prolonge le globe oculaire et que j'appelle *plaque post-oculaire*'. He did not mention these for the Cantacaderinae. Although in texture apparently resembling the interocular plaques of *Zetekella*, the plaques post-oculaire (Péricart) are part of the eyes and are to be seen as an extension of the posterior margin of the compound eye, while the interocular plaques of *Zetekella* are clearly separated from the eyes.

Comparative notes

Two other *Zetekella* species are known: *Z. zeteki* Drake, 1944, from Panama, Canal Zone, and *Z. pulla* Drake & Plaumann, 1965, from Nova Teutonia, Brazil.

Minitingis minusculus Barber, 1954 from the Bahamas, which was placed in *Zetekella* by Drake & Ruhoff, 1965, was replaced in *Minitingis* by Froeschner, 1968.

The new species, *Z. caroli* is distinguished from *Z. zeteki* by the shorter rostrum, the much narrower paranota of the pronotum and costal area of the elytrae; from *Z. pulla* by the shorter rostrum, the less wide pronotum, the less rounded lateral margins and humeral corners of the pronotum, the broader costal area of the fore wings with three

in stead of two rows of areolae, by the partly overlapping of the sutural area (membrane) of the fore wings and by the absence of the 'seta-like pubescens' on head, pronotum and elytrae.

Etymology.— *caroli*, after Carolus Linnaeus. A noun in genitive case.

Key to the species of *Zetekella*

1. Paranota and costal area of elytrae wide, both with 5 rows of areolae; costal area wider than subcostal area *Z. zeteki* Drake
- Paranota narrow; costal area with only 2 or 3 rows of areolae, not wider than subcostal area 2
2. Costal area with 2 rows of areolae; rostrum considerably surpassing end of thorax; pronotum and elytrae dorsally pubescent *Z. pulla* Dr. & Pl.
- Costal area with 3 rows of areolae; rostrum not or hardly surpassing end of thorax; pronotum and elytrae bare *Z. caroli* spec. nov.

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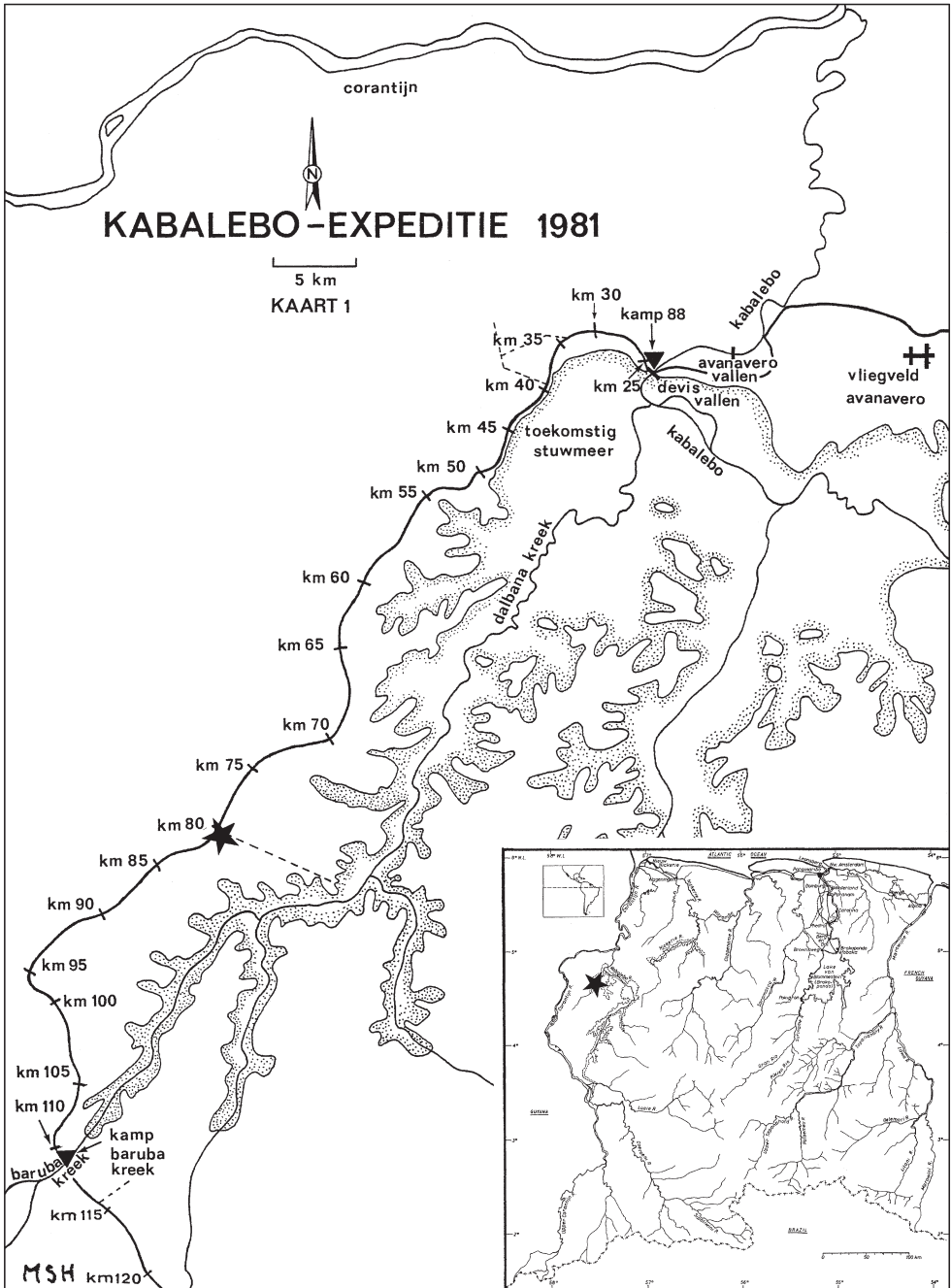


Fig. 6. Map 1 of the Kabalebo Expedition in West Suriname. Inset: sketch map of Suriname. The star marks the type locality of *Zetekella caroli* spec. nov. (after M.S. Hoogmoed, 1981, adapted).