Great Basin Naturalist

Volume 22
Number 1 – *Number 3*

Article 2

10-15-1962

A new myrmecophilous lacebug from Panama (Hemiptera: Tingidae)

Carl J. Drake
Smithsonian Institution, Washington, D.C.

Richard C. Froeschner
U.S. Department of Agriculture, Washington, D.C.

A NEW MYRMECOPHILOUS LACEBUG FROM PANAMA (HEMIPTERA: TINGIDAE)

Carl J. Drake[1] and Richard C. Froeschner[2]

Among miscellaneous hemipterons in the United States National Museum, the authors found two specimens of an undescribed species of a myrmecophilous tingid belonging to the subfamily Vianaidinae. These specimens were obtained in Panama by the late James Zetek, who collected many rare and curious insects of various orders in the American tropics.

The four members of the vianaidines, including the new species described herein, are indigenous to and known only from the Neotropical region. The literature contains scant information relative to their natural history and coexistence with ants in subterranean ant nests. One species, *Anommatocoris coleopteratus* (Kormilev) (1945), was found in the nests of a leaf-cutting ant (*Acromyrmex lundi* Guérin) in Argentina. According to M. J. Viana, who collected the type series and subsequent specimens, adults and nymphs alike feed on the sap sucked from the fine rootlets of the introduced honey locust, *Gleditsia triacanthos*, growing in the ant nests.

In a recent paper on the higher classification and morphology of Tingidae, Drake and Davis (1960) included an illustrated monograph of the subfamily Vianaidinae. Certain features of the vianaidines, which have not shared similar development in the other two subfamilies, set them apart as a subfamilial taxon. These structures are: 1) Inordinate development of tht ostiole and furcate ostiolar channel with the backward branch forming a somewhat Y-shaped sulcus (fig. 2); 2) an unusually large evaporatorium that covers the entire metapleuron, hind part of mesopleuron and then extends downward on the respective thoracic sterna to the laminae of rostral sulcus; 3) vestigal compound eyes with only a small number of poorly developed, usually irregularly distributed ommatidia in each eye; and 4) punctate elytra without the characteristic lacy network present in the other subfamilies. The macropterous form is unknown.

Anommatocoris zeteki, n. sp.

Figures 1 and 2

Brachypterous form. Small, polished, elongate-ovate, widest across middle of elytra, there width less than half of median length; elytra distinctly transversely depressed near base, meeting behind apex of scutellum in a straight commissural line, convexly deflexed laterally so as to cover sides and apex of abdomen. Length ♂ 1.88 mm., ♀ 2.02 mm., width (widest part of elytra) ♂ 0.88 mm. and ♀ 1.00 mm.

1. Smithsonian Institution, Washington, D. C.
2. Entomology Research Division, ARS, U. S. Department of Agriculture, Washington, D. C.

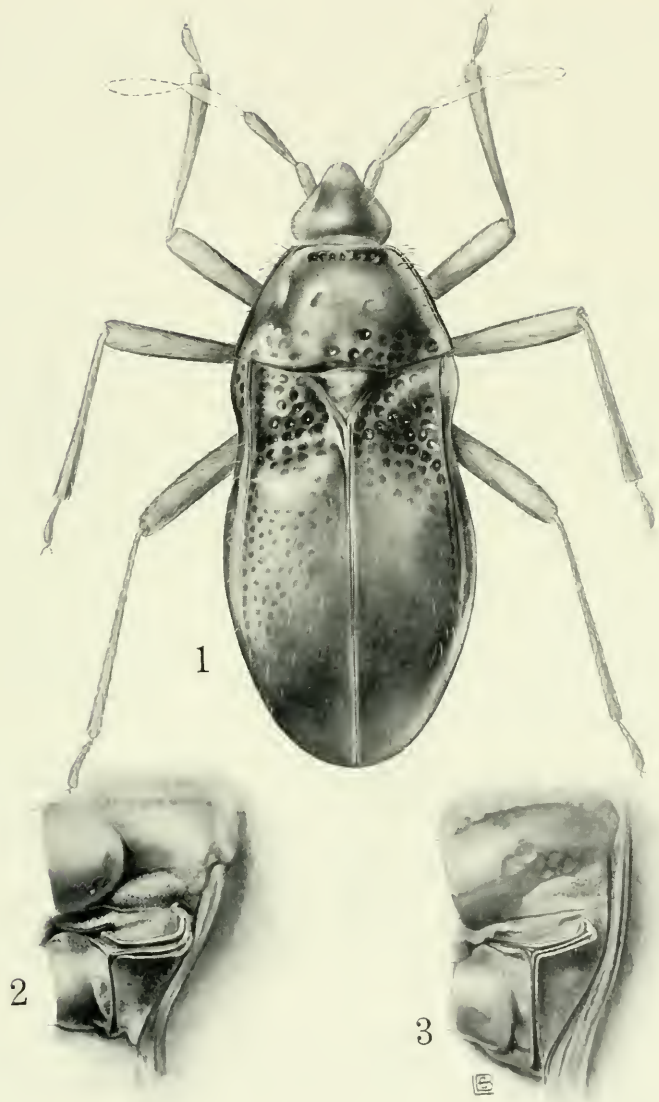

Fig. 1. Anommatocoris zeteki, n. sp., dorsal aspect (type ♂).

Fig. 2. *Anommatocoris zeteki*, n. sp., profile of meso- and metapleura showing evaporatorium; furcate ostiolar canal on metapleuron.

Fig. 3. *Anommatocoris minutissimus* China, profile of meso- and metapleura showing evaporatorium; furcate ostiolar canal on metapleuron.

Color. Reddish brown, slightly shiny, sparsely clothed with fine, erect, yellowish hairs; beneath reddish brown, scarcely shiny, clothed with thinly dispersed, short, yellowish hairs. Head with clypeus paler than vertex; compound eyes vestigial, each represented by a large pale subreniform spot bearing several scattered, poorly formed, hardly discernible ommatidia. Labium pale testaceous long, extending on fourth abdominal sternite. Legs yellowish brown, sparsely clothed with short, pale, setalike hairs. Antennae yellowish brown.

Head. Fairly long, convex above, subporrect; tylus wider and slightly higher than either jugum, together with their apices jointly rounded; compound eyes sparsely clothed with short pale hairs, each eye bearing 10-12 irregularily scattered ommatidia, each with a rounded instead of an hexagonal facet. Bucculae foliaceous, open in front, not extending backwards beyond base of head, with inferior margin convex. Antennal segment I not attaining apex of clypeus, measurements: I, 0.11 mm.; II, 0.20 mm.; other segments missing.

Pronotum. Subdepressed, without discal carinae, median length slightly more than half of basal width (0.38 mm.:0.66 mm.), lateral margins slightly sinuately narrowed anteriorly, each margined above with a narrow, dark fuscous, carinal ridge; posterior border slightly convex, nearly rectate in front of scutellum; anterior lobe very large, impunctate, except for transverse row of punctures at base of narrow collar; posterior lobe much shorter, coarsely punctate. Scutellum small, impunctate, triangular. Ostiole furcate and ostiolar sulcus as shown in illustration (fig. 2).

Elytra. Strongly convex, slightly surpassing apex of abdomen, strongly deflexed on sides so as to conceal abdomen from lateral aspect, coarsely punctate in depressed basal part, impunctate dorsally on convex apical two-thirds; costal area absent; corium not divided into the usual divisions, but with a distinct ridgelike carina or perhaps vein running straight backwards for nearly half its length (fig. 1); hypocostal ridge (often mistaken for costal area) very narrow, feebly wider at base, composed of a single row of minute punctures. Sexes very similar in general aspect, distinguishable by genital segments.

Types. Holotype ♂ and allotype ♀, Barro Colorado Island, Panama Canal Zone, Panama, vii-viii.1942, collected by James Zetek, in whose honor the species is named (U. S. National Museum, Type No. 65840).

The holotype was illustrated by Caroline B. Lutz, Arlington, Virginia. This species can be separated easily from other members of the genus by the backward projecting branch of the ostiolar canal which divides the part of the metapleural evapatorium behind the transverse channel into two quite unequal divisions as shown in the illustration (fig. 2). In *A. minutissimus* China (1955) and *A. coleopteratus*, the backward branch of the transverse ostiolar sulcus divides the hind part of the evaporating area of the metapleuron into

two almost equal divisions as depicted in the illustration (fig. 3). And the ommatidia of *zeteki* are not as numerous as in *minutissimus* nor closely clustered as in *coleopteratus*.

Literature Cited

China, Willam E. 1945. A completely blind bug of the family Lygaeidae (Hemiptera: Heteroptera). Proc. Roy. Soc. London, vol. 14, nos., 9-10, pp. 126-128, 1 fig.

Kormilev, Nicolas A. 1955. A new Myrmecophyl family of Hemiptera from the delta of Rio Paraná, Argentina. Rev. Ecuat. Ent. Paras., vol. 2, nos. 3-4, pp. 465-477, 1 pl.

Drake, Carl J. and Norman T. Davis. 1960. The Morphology Phylogeny, and Higher Classification of the family Tingidae, including the description of a new genus and species of the subfamily Vianaidinae (Hemiptera-Heteroptera). Entomologica Americana, vol. 39, pp. 1-100, 75 figs. (Subfamily Vianaidinae, new status, pp. 84-100, 4 figs.)