Studies on Oriental Cydnidae (Heteroptera). XI. A new species of *Paraethus* Lis, 1994, from Java, with remarks on the systematic position of the genus

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Key words: Heteroptera; Cydnidae; *Paraethus*; Java; taxonomy; new species.
Paraethus jani spec. nov. from Java is described, figured and compared with *P. ajmericus* Lis, 1994, from India (the only known species of the genus up to now). Remarks on the systematic position of the genus are added.

Introduction

The genus *Paraethus* was described recently (Lis, 1994) including only the type species from India, *P. ajmericus* Lis, 1994. During my visit to the National Museum of Natural History in Leiden in 1992, I found two males and one female collected in Java that undoubtedly belong to the genus *Paraethus* Lis, but differing conspicuously in several characters (also morphological) from the known species of the genus. A fourth specimen of this taxon (also from Java) was present in my collection. The new species (three males and one female) is described below. For the terminology, see Lis (1994).

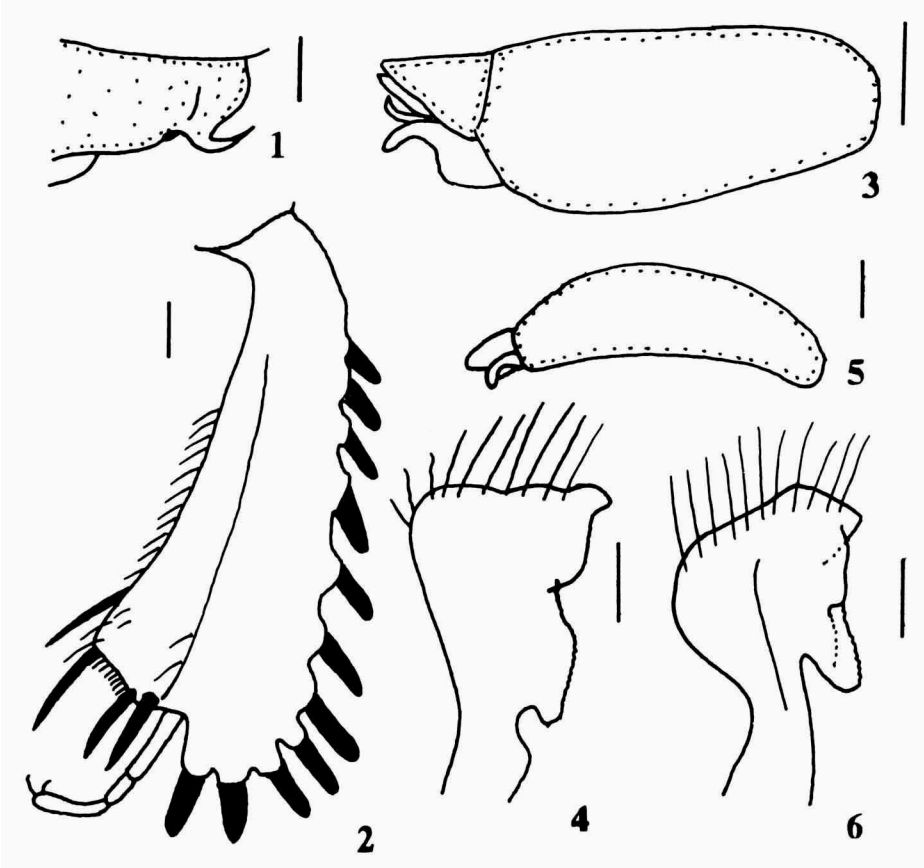
Paraethus jani spec. nov.
(figs. 1-4)

Material.— Holotype, ♂ (National Museum of Natural History, Leiden), "Java, Samarang [= Semarang], viii.1909, E. Jacobson". Paratypes (2♂♂, 1♀): 1♂, 1♀ (National Museum of Natural History, Leiden), topotypic; 1♂ (author's collection), "Java, Preanger, Ardja-Sari, near *Lactistes* sp.n."

Body length: 7.25-7.55 mm; body width: 3.75-4.00 mm.

Head.— Black or blackish-brown, lateral parts dark reddish-brown; dorsal surface (except clypeus and area between ocelli) densely coarsely punctured, its lateral parts slightly wrinkled; clypeus free, tapering apicad, slightly shorter than paraclypei and subapically without setigerous punctures; each paraclypeus submarginally with a row of 12-13 setigerous punctures (10-11 peg-like setae, 2-3 hair-like setae); eyes blackish-brown or reddish-brown, each with long and slender apical spine; ocular index 3.20-3.40; ocelli large, yellow or red, interocellar index 5.5-8.0; antennae pale brown, 2nd and 3rd segments almost equal in length (0.28-0.30 mm and 0.29-0.30 mm, respectively); rostrum pale brown, long, reaching posterior coxa.

Thorax.— Pronotum about 1.6 times broader than long, anterior half blackish-brown, posteriorly reddish-brown, umbones not swollen; pronotal disc densely, almost evenly punctured (except callal areas); each lateral margin with 10-12 submarginal setigerous punctures bearing hair-like setae. Scutellum dark reddish-



Figs. 1-4, *Paraethus jani* spec. nov.; figs. 5, 6, *Paraethus ajmericus* Lis. 1, peritreme; 2, fore tibia; 3, 5, penis; 4, 6, paramere. Scale = 0.1 mm; figs. 5, 6 from Lis (1994).

brown, its disc densely and evenly punctured, punctures of same size as those on pronotum. Corium reddish-brown, distinctly punctured; clavus with one complete and two partial rows of punctures; mesocorium with two rows of punctures, parallel to clavo-corial sutures, mesocorial disc with dense puncturation, punctures smaller than those on scutellum; exocorium weakly punctured; costa with 3-4 setigerous punctures; membrane semihyaline, slightly browned, distinctly surpassing tip of abdomen. Propleuron with many coarse punctures in depression, several punctures occur also on posterior convexity; evaporative areas large, this of metapleuron with wedge-shaped polished band running to apex of peritreme, latter with claw-like tooth posteriorly (fig. 1). Legs reddish brown or dark reddish brown; fore tibia apically broadened and compressed, its apex slightly prolonged (fig. 2) forming a short process similar to that found in the subgenus *Eolactistes* Linnavuori of the genus *Lactistes* Schiødte, dorsal margin of fore tibia with 10-11 short stout spines, tarsus yellowish-brown, not arising from the apex; middle tibia slightly flattened; posterior tibia conspicuously compressed and somewhat broadened, margins with many long spines.

Abdomen.— Sternites reddish-brown or dark reddish-brown, lateral thirds with many distinct punctures, especially numerous close to spiracles.

Male genitalia.— Penis as in fig. 3; paramere as in fig. 4.

Etymology.— The species is dedicated to Mr Jan van Tol, Curator of Hemiptera at the National Museum of Natural History in Leiden, who kindly arranged a loan of the specimens from the Leiden Museum.

Comparative notes.— The new species is closely allied to the type species, *P. ajmericus*. Nevertheless, it can be easily distinguished from the latter by the characters presented below.

Table 1. Comparison of *Paraethus ajmericus* and *P. jani*.

Characters	*P. ajmericus*	*P. jani*
1. Body length in mm	7.60-8.15	7.25-7.55
2. Ocular index	2.91-3.06	3.20-3.40
3. Interocellar index	2.0-3.0	5.5-8.0
4. Second/third antennal segment length ratio	1.10-1.15	0.94-1.00
5. Propleural depression	weakly punctured	densely punctured
6. Apex of fore tibia	normal	with a short process
7. Penis	recurved	straight
8. Apical margin of paramere	strongly convex (fig. 6)	almost straight (fig. 4)
9. Distribution	India	Java

Remarks.— The genus *Paraethus* possesses a combination of characters which makes it easy to recognize it within the tribe Geotomini, as defined by Lis (1994). These characters are: the posterior margin of the peritremal apex with a claw-like tooth, the hind tibia conspicuously compressed, and the head bearing both peg-like and hair-like setae in a submarginal row.

The genus seems to be closely related to the African *Geocnethus* Horváth, 1919 and the Old World *Aethus* Dallas, 1851 (the latter as defined by Lis (1994)). The claw-like spur of the peritremal apex is also found in the genus *Geocnethus*, while the presence of both types of submarginal setae (peg-like and hair-like) on the head suggests its affinities with *Aethus*. Additionally, the shape of genitalia indicates an intermediate position between the genera *Geocnethus* and *Aethus*.

According to Linnavuori (1993: 9, 35) there exists a group of African species of the genus *Aethus* (*capicola*-group) which bridges a gap between the *Aethus* and the *Geocnethus*. As I have already pointed out in my revision of the Oriental Cydnidae (Lis, 1994) part of species placed by Linnavuori (op. cit.) within the *capicola*-group of the *Aethus* should be transferred to the genus *Paraethus*. Judging from Linnavuori's descriptions and figures, I conclude that this should be done for (at least) four Afrotropical species, namely *A. capicola* (Westwood, 1837), *A. laevis* Wagner, 1951, *A. saprinoides* Gerstaecker, 1873, and *A. lucidus* Linnavuori, 1977.

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