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STAPHYLINIDAE (Coleoptera) FROM NEW GUINEA

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In 1966 Prof. J. Illies made a collecting trip to the Australian-Polynesian region. Beside his limnological research he collected some ripicolous Staphylinid-beetles which are the subject of this paper.

1. **Stenus (s. str.) toxopei** Cameron, 1952

Stenus toxopei Cameron, 1952, *Treubia* **21**: 245 f. — Puthz, 1968, *Deut. Ent. Zs.* (N. F.) **15**: 450 f.

NEW GUINEA: 1 ♂, 2 ♀♀, Kunai-River, 1500 m, 10. X. 1966, Illies. Remarks on this species see Puthz (l. c.)

2. **Stenus (s. str.) illiesi** Puthz, 1968

Stenus illiesi Puthz, 1968, *Deut. Ent. Zs.* (N. F.) **15**: 451 ff.

NE NEW GUINEA: 1 ♀, Wau, Eastern Highlands, 1700 m, near small creek in Adams Memorial Park, 6. X. 1966, Illies.

3. **Paederus politus** Fauvel, 1878

Paederus politus Fauvel, 1878, *Ann. Mus. Civ. Stor. Nat. Genova* **12**: 237. — Cameron, 1937, *Nova Guinea* (N. S.) **1**: 95.

NE NEW GUINEA: 3 ♂♂, 3 ♀♀, Kunai-River, 1500 m, 10. X. 1966, Illies.

This species is well known from New Guinea and apparently is common. It is easy to identify by its color, its head which is denticulated at the base, and its slender parameres.

4. **Paederus illiesi** Puthz, new species

This new species resembles closely *P. cyaneus* Cameron.

Winged, head, prothorax, and elytra bright blue, scutellum black, abdomen dark with greenish lustre, ventral surface black, somewhat aeneous. Antennae dark-brown, 1st joints reddish-brown. Palpi brownish. Legs pitchy, fore-femur reddish-yellow basally, mid-femur and hind-femur reddish-yellow on basal 1/2. Length: 7.0 mm.

Head denticulated at base (fig. 1a), lozenge-shaped, bi-impressed between antennal tubercles, with 2 large punctures behind antennal tubercles and some scattered punctures of varying size over rest of surface but centrally almost impunctate. *Antennae* long and slender, when reflexed nearly extending to posterior margin of elytra. *Pronotum* somewhat longer than broad (51:40), oval, more narrowed in front than behind, with a trace of a fine impressed median line in pos-

terior 1/2, not extending to base, finely and sparingly punctured. *Elytra* larger than head (68: 46), distinctly longer than broad (79: 68) with rectangular humeri, sides nearly parallel, posterior margin nearly straight. Puncturation fine, diameter of puncture about as large as 1 eye-facet, of dense, interspaces between punctures about 2 × as large (sometimes more) than diameter of puncture. *Abdomen* narrowed posteriorly, basal furrows of 1st tergites deep, paratergites as broad as basal section of 2nd antennal joint, with 1 line of punctures, 7th tergite with a distinct membranous fringe. Puncturation fine and moderately close, on sides and last tergites (7-10) distinctly closer than on elytra. *Legs* long and slender, posterior tarsi about 2/3 as long as tibia, 1st segment nearly as long as the 2nd and 3rd together, distinctly longer than the last. Fore-parts without any ground sculpture, scutellum deeply horizontally coriaceous, bases of 1st tergites, paratergites, and 7th to 10th tergite with distinct but shallow ground sculpture.

♂. 8th tergite triangular, posterior angle somewhat acute (fig. 1 d), 8th sternite with a deep and narrow notch in posterior 1/2 (fig. 1 c), 9th sternite long and slender, rounded at apex, 10th tergite taped posteriorly with 3 posterior setae. Aedeagus (fig. 2 a) symmetrical, apex of median lobe strongly sclerotized, internal structure completely different to that of *cyaneus* Cam.

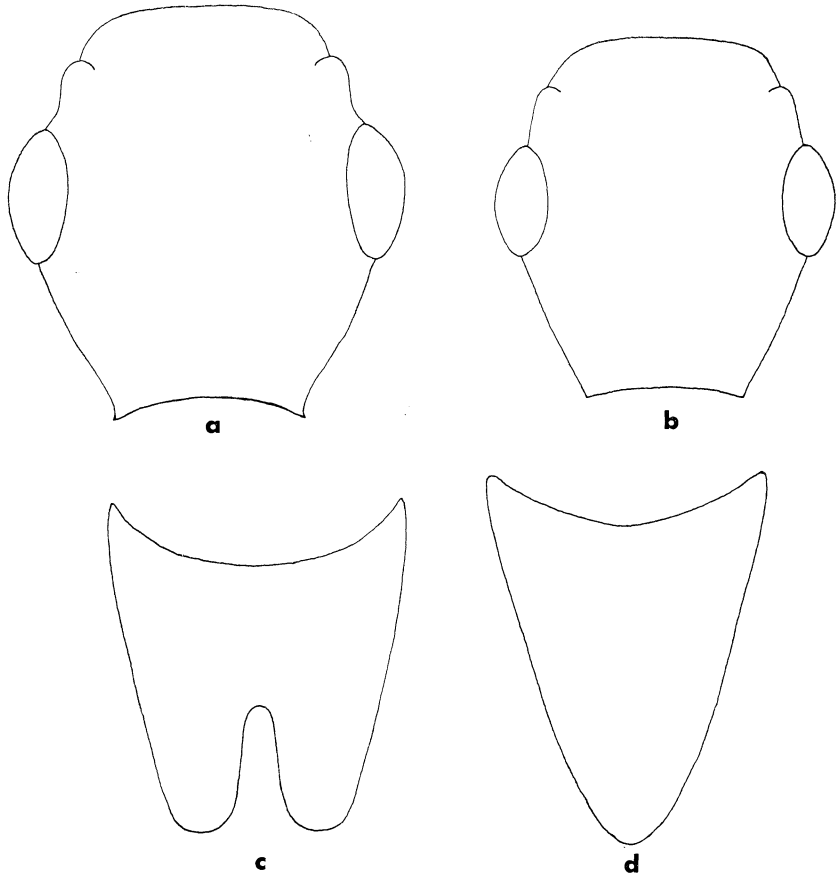
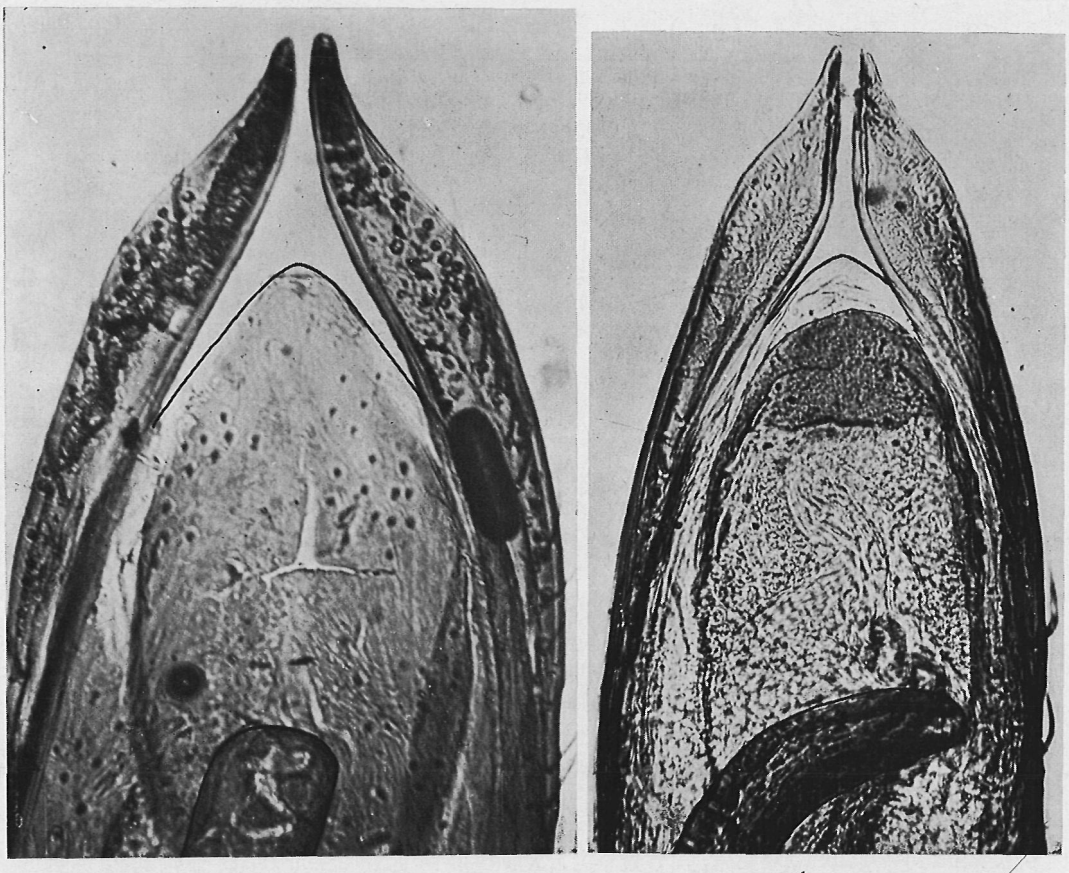


Fig. 1, Shape of head without mandibles: a, *Paederus illiesi* n. sp.; b, *P. cyaneus* Cameron; c, *Paederus illesi* n. sp. 8thsternite of ♂; d, 8th tergite of ♂

(fig. 2b), parameres less enlarged towards apex (cf. fig. 2).

♀. 8th tergite less acute posteriorly, rounded, 8th sternite narrowed behind.



a b

Fig. 2 Apical 1/2 of edeage: a, *Paederus illiesi* n. sp.; b, *P. cyaneus* Cameron.

Paederus illiesi differs from *cyaneus* Cam. (type!) by the denticulated head (compare fig. 1 a, b), its different coloration, different puncturation of pronotum, and the sexual characters. From the common *politus* Fauv. it is at once distinguished by coloration of legs and the elytral and abdominal puncturation.

I dedicate this remarkable new species to its collector, Prof. Dr. J. Illies (Schlitz).

Holotype ♂ (BISHOP 8204), Zokizoi River, ca. 2000 m, near Goroka, 27. IX. 1966, Illies. 1 ♂, 1 ♀ paratopotypes, same data.

Holotype in the B. P. Bishop Museum, Honolulu; paratypes in my collection.

5. (**Euphyleucitus illiesi** Scheerpeltz n. gen., n. sp. in litteris)

NEW GUINEA: 2 ♂♂, 1 ♀, Kunai-River, 1500 m, 10. X. 1966, Illies. This new genus is being described by Prof. Scheerpeltz, Vienna.

Genus **Benickia** Puthz, new genus, n. gen.

Head prominent, temples bordered behind but not below. Labrum transverse, the anterior angles rounded, front margin somewhat emarginated. Mouthparts (fig. 3 b, c ,d). Mandible stout, curved and pointed apically, the right with a distinct tooth. 2nd segment of labial palpi 2 × as long as broad, galea slender.

Prosternum carinate, the pronotal epipleura visible from side. Mesosternal process narrow, extending between intermediate coxae and confluent with intercoxal process of metasternum. Intermediate coxae distinctly separated. Scutellum normal. Hind margin of elytra not emarginated inside posterior angles. Wings well developed.

Abdomen more or less parallel-sided for most of its length, tergites 3-6 with a transverse impression behind basal ridge, segment 7 about as long as 6, posterior margin of its tergite with a distinct membranous fringe.

Legs moderately long and slender, tibiae setose, tarsal formula 4-4-4, hind tarsal segments 1 and 2 subequal in length, 3 somewhat shorter, 4 longer than 1, the claws abruptly angulated between the middle and the base.

Type-species: *Benickia athetoides* n. sp.

RANGE: At present known only from New Guinea.

The genus differs in the structure of its mouthparts from all known genera of the *Hygronomini* subtribe *Hygronomae*, from *Hygronoma* by its longer 2nd segment of labial palpi, differently shaped glossa, and the galea which is more slender and less setose apically. (Prof. Scheerpeltz to whom I sent the type is also convinced of the state of this new genus.) The sister-genus (sensu Hennig) might be *Hygrochara* Cameron, also described from localities near swiftly running waters. *Benickia* differs from this genus by its shape of tongue, and the shorter lacinia.

6. **Benickia athetoides** Puthz, new species Fig. 3.

Head black, pronotum dark-brown, elytra darkish-brown, abdomen with 1st 2 visible segments yellowish-brown, the following dark-brown, the apex lighter brown. Entire dorsal surface with fine, pale-colored recumbent pubescence which arises from punctures or granules. Antennae yellowish-brown. Palpi and legs yellowish. Length: 2.1 mm (without abdomen: about 1.0 mm)

Head narrower than pronotum (315: 357 My), eyes (dorsal aspect) nearly as long as temples which are prominent cheek-like, middle of front broadly but shallowly concave. Punctuation fine and close, each puncture about as large as 1 eye-facet, distances about 1/2 as large. Ground sculpture lacking. Antennae slender, when reflexed extending to middle of elytra: I: 102; II: 85; III: 85; IV: 68; V: 68; VI: 72; VII: 72; VIII: 72; IX: 77; X: 81; XI: 136. *Pronotum* larger than head (357: 315), slightly broader than long (357: 323), broadest in 1st 1/3, sides to anterior margin convex, to posterior margin straightly narrowed. A superficial median impression on apical 1/2, sculpturation finely granulate, more or less shining. *Elytra* slightly broader than long (518: 468) with ground sculpture distinctly stronger than on pronotum but denser than on head, not so shining, punctures shallowly impressed. Abdominal tergites with a distinct wide-meshed horizontal microsculpture and small granules, posterior margin of tergites with 15-

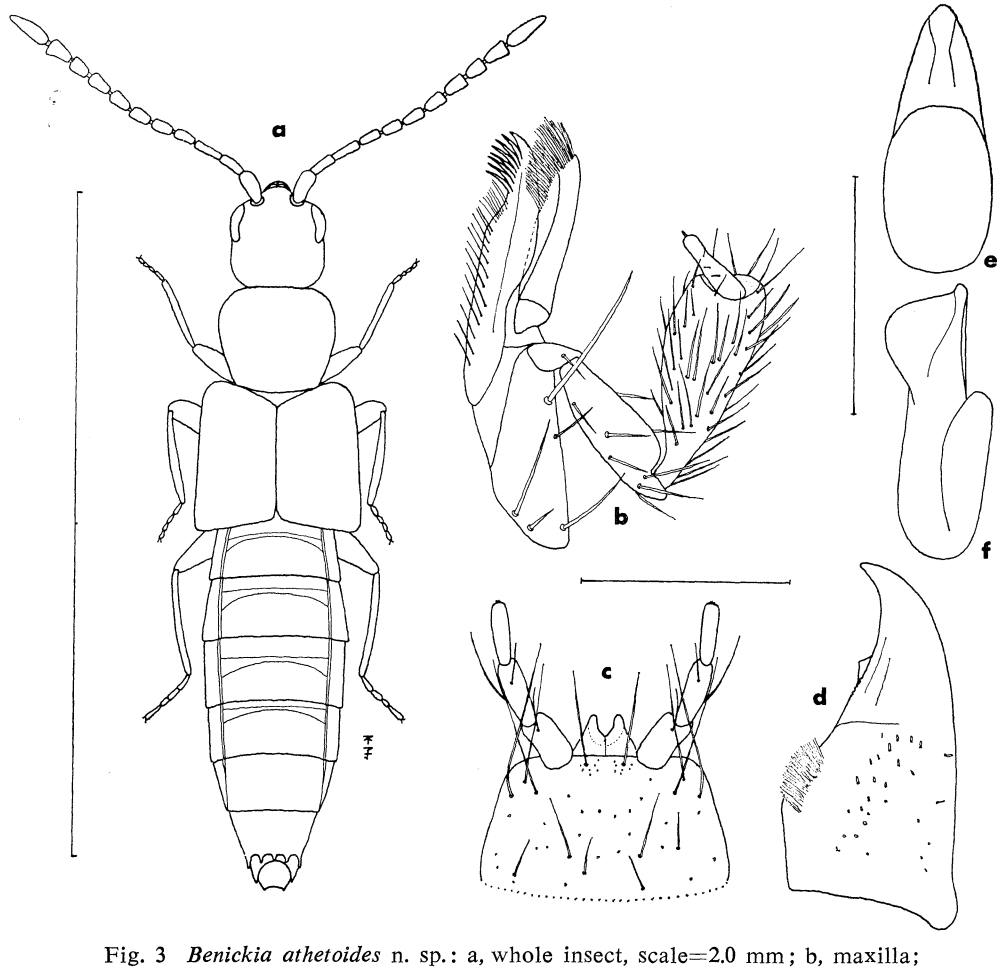


Fig. 3 *Benickia athetoides* n. sp.: a, whole insect, scale=2.0 mm; b, maxilla; c, labium; d, mandible, scale = 0.05 mm; e, f, ventral and lateral aspect of edeage, scale=0.1 mm.

20 granules with long setae, shining.

♂. Tergite of abdominal segment 8 as in fig. 3a with 5 teeth, 9th sternite equally rounded, 10th tergite shallowly emarginated at posterior margin. Median lobe as in fig. 3 e, f.

♀. Unknown.

Because of its "athetoid" general facies I call this new insect "*athetoides*". It might be easily confused with *Atheta*-species, if the tarsi are not studied carefully. I dedicate this new genus to Dr Ludwig Benick (+), famous *Stenus*-specialist, and my teacher in Staphylinidae.

Holotype ♂ (BISHOP 8205), Zokizoi River near Goroka, 2000 m, 27. IX. 1966, Illies.

Holotype in the B. P Bishop Museum, Honolulu.

BIBLIOGRAPHY

Cameron, M. 1937. Staphylinidae (Col.) collected by Miss L. E. Cheesman in Eastern New Guinea. *Nova Guinea* (N. S.) **1**: 83-111.

1939. The Fauna of British India, including Ceylon and Burma, Coleoptera. Staphylinidae IV (I). London.

1952. New Species of Staphylinidae (Col.) from New Guinea and Misool. *Treubia* **21**: 241-56

Casey, Th. L. 1893. Coleopterological Notices V. *Ann. N. Y. Acad. Sci.* **7**: 281-606.

Fauvel, A. H. 1878. Les Staphylinidies des Moluques et de la nouvelle Guinée. *Ann. Mus. Civ Stor. Nat.* Genova **12**: 171-315.

Hennig, W. 1965. Phylogenetic Systematics. *Ann. Rev. Ent.* **10**: 97-116.

Puthz, V. 1968. Über indo-australische Steninen I (Coleoptera, Staphylinidae) 49. Beitrag zur Kenntnis der Steninen. *Deut. Ent. Z.* (N. F.) **15**: 445-474.