# ZOOLOGISCHE MEDEDELINGEN 

RIJKSMUSEUM VAN NATUURLIJKE HISTORIE TE LEIDEN (MINISTERIE VAN CULTUUR, RECREATIE EN MAATSCHAPPELIJK WERK) Deel 44 no. 22

15 april 1970

# NEW SPECIES OF EUPARIA LEPELETIER \& SERVILLE FROM NEW GUINEA (COLEOPTERA: APHODIIDAE) 

by<br>J. KRIKKEN<br>Rijksmuseum van Natuurlijke Historie, Leiden<br>With 18 text-figures


#### Abstract

Three species of the genus Euparia Lep. \& Serv. found in the mountains of New Guinea are described and figured, viz. E. rugulopunctata, E. uniseriata and E. spuria spp. nov. A tentative key to the species hitherto discovered in the Australian region is given.


The scarab beetles of the genus Euparia Lepeletier \& Serville are usually separated from related Eupariini, like those referred to Ataenius Harold and Saprosites Redtenbacher, by their prothoracic sides being more or less deplanate and in many species fringed with setae. Hitherto five species of Euparia have been reported from the Australian region. In the collections of the Leiden museum I found several series from localities in the mountains of New Guinea, representing three apparently undescribed species, closely allied inter se. The genus Euparia, in its present state, further includes three species from tropical Asia (fortuitously I came across the type of Aulonocnemis sumatrae Fairmaire in the Paris museum, a species which I consider to be congeneric with the Asian Euparia acutula A. Schmidt and E. sicardi Paulian), two or three from tropical Africa including Madagascar, and nearly ten from the Americas.

The genus is undoubtedly heterogeneous; the type-species Euparia castanea Lepeletier \& Serville, occurring in the U.S.A. and Mexico, as well as some other American representatives of the genus that I have been able to study are not closely affined to the new species described below. Some aberrant American forms have already been accommodated in newly proposed
genera. When Lea described E. squamosa he had doubts as to the affinities of that species (1923: 16): "...the strongly flattened prothoracic margins would associate it [squamosa] with Euparia; with which it would also be associated in Leconte's table (Class. Col. N. Am., pt. I., p. 127), it is therefore referred to that genus, although with considerable doubt, as probably a new one should have been proposed for it ; certainly it doesn't look at all close to any of the species of Euparia figured by Schmidt (Wytsman's Gen. Insect. fasc. IIO, pl. II)". I have similar thoughts, but I am not in a position to deal with the matter extensively. In any case, the Asian species just mentioned and at least some of the the Australian species hitherto discovered are certainly congeneric with the three species described and figured in the present paper.

Hardly anything is known of the habits of these beetles. Several of the specimens before me were attracted to light. Lea (1923: 16) wrote that "seven specimens [of $E$. squamosa] were obtained from fallen leaves...". Some American species have been collected from ants' nests, in which they probably feed on the refuse of their hosts.

Euparia rugulopunctata sp. nov. (figs. I-4, 12-I 3 )
Description (holotype). - Approximate length 5.5, greatest width 2.5, height 1.5 mm . Colour greyish black, opaque; marginal portions of head, some ventral elements and legs brownish; mouth-parts, antennae and tarsi brown.
Clypeus vaguely obtusangular beside the very shallow median emargination; sides feebly curving to distinctly projecting, shortly rounded genae; cephalic borders very finely marginate; suture between clypeus and genae faintly indicated; face convex, closely, finely punctate throughout, except for the zone immediately behind the anterior border; distance separating punctules merely a fraction of their diameters; central punctules longitudinal, length distinctly exceeding width; many punctures of dorsal and ventral sides filled with some pale brown substance. Greatest width of head capsule r .6 mm .

Anterior-lateral angles of pronotum arcuately rounded, sides somewhat irregularly subparallel; posterior angles almost truncate, i.e. pronotal sides rather abruptly converging caudad; lateral and basal borders marginate, with small setigerous punctures; anterior-lateral surface distinctly depressed; anterior pronotal emargination with narrow, pale brown velum; surface of pronotum closely punctate; punctures rather large, sharply defined, subisodiametric, evenly distributed; their diameters increasing laterad and caudad (diameter of lateral punctures about two times that of the antero-
median ones) ; separating distance merely a fraction of punctural diameters; many punctures provided with a short, pale, erect bristle. Median length of pronotum 1.5, greatest width 2.2 mm ; ratio $1 / \mathrm{w} 0.65$. Scutellum elongately semielliptic, opaque.


Figs. I-4. Euparia rugulopunctata sp. nov., paratype from Tenma Sigin. I, outline of body, dorsal view; 2-4, head and prothorax: 2, dorso-lateral view, 3, dorso-frontal and 4, frontal view.
Figs. 5-6. Euparia uniseriata sp. nov., holotype from Sibil. 5, outline of body, dorsal view; 6, head and prothorax, dorso-lateral view.

Elytra elongate, disc somewhat flattened; with distinct humeral dentation; sides nearly straight, slightly divergent caudad, elliptically rounded at apex; seven striae between suture and humeral tooth, three on the lateral declivity. Striae rather wide, more so laterally, one fourth (on the disc) to half the width of the adjacent interstriae; strial punctures small but distinct. Edges
of discal interstriae noticeably crenulate, interstrial surface hardly convex; juxtasutural interstriae with a series of coarse, subisodiametric, setigerous punctures (resembling those of pronotum); other interstriae with two irregular, apically confluent series of such punctures, their diameters about one third of the interstrial width; these punctures laterad increasingly affecting the interstrial surface, outer interstriae even rather coarsely rugulate-tuberculate. Sutural length of elytra to base of scutellum 3.4, greatest width of elytra combined 2.2 mm ; ratio $1 / \mathrm{w}$ I. 55 .

Prosternum with anterior-median prominence, bearing coarse setae; beside this brush-like structure the prosternum has a conspicuous concavity (presumably for the reception of the antennal club), limited by the coxa, and a posterior-lateral crest. Adjacent episternal surface very shallowly concave anteriorly, finely pubescent, limited by the marginal crest. Mesosternum elongate, wide, intercoxal width subequal to coxal width, surface finely pubescent; separated from metasternal disc by two fine ridges, which are divergent caudad, and a median, flat, triangular callosity; front tip of triangle tapering to a fine median ridge, obsolete on the anterior portion of the mesosternal surface. Metasternal disc with median groove, extending from base to apex; discal surface coarsely, moderately densely punctate; punctures rather evenly distributed, their distances varying, in many places not exceeding punctural diameters; metasternal wings largely scabrous. Sternites coalescent; with numerous, rather coarse punctures separated by a distance subequal to their diameter; this diameter decreasing from anterior to posterior sternites, punctules of posterior sternites somewhat crowded; bases of sternites 3-6 with narrow zone of longitudinal costulae ("längsgerieft"), width of this zone and development of its elements increasing caudad. Pygidial surface rough.

Inferior surface of fore femora very finely punctate-rugulate, nearly so in the middle femora; fore femora robust, their anterior-dorsal surfaces elongately hollow, to receive the tibiae. Fore tibiae tridentate, with apical spur about as long as the proximal two tarsal segments combined; superior tibial surface polished, inferior surface punctulate. Middle femora slender, inferior surface with indistinct groove behind. Middle tibiae widening toward apex, very slightly bent outwards; tibial surface with series of short, scale-like bristles; superior terminal spur about half as long as metatarsus, inferior spur much shorter; apex fringed with equal-sized, short, fine bristles. Middle and hind tarsi with numerous setae. Hind femora very slender; lower side closely punctate, punctures moderately evenly distributed, distances hardly exceeding their diameters; imperfect groove along posterior edge. Hind tibiae very slightly bent outwards; with distinct series
of short, scale-like bristles; apex fringed with equal-sized, short, fine bristles, superior terminal spur half as long as the metatarsus, inferior spur about one third of the length of the superior; approximate length proportions of superior spur and tarsal segments $1-5: 19 / 36 / 8 / 7 / 6 / \mathrm{I}$.

Variation. - Approximate length $5.5-6.5$, width $2.5-3 \mathrm{~mm}$. I do not find noteworthy qualitative differences between the three individuals before me.

Diagnostic remarks. - Euparia rugulopunctata may be distinguished by the following combination of characters. Discal elytral interstriae with series of large, sharply defined punctures, lateral interstriae markedly irregularly rugulate-tuberculate, both bearing serially arranged short, erect bristles, namely, in the punctures or their substitutes. Pronotum with closely arranged, sharply defined punctures bearing similar short bristles. Lower surface of hind femora, metasternum and sternites also with numerous distinct punctures; front and middle femora punctulate-rugulate inferiorly, or nearly so. Hind angles of pronotum obsolete. Clypeus shallowly emarginate anteriorly, limiting protrusions widely rounded or vaguely obtusangular. Pronotal base and sides marginate. There is a distinct median metasternal groove, posterior to a flat, triangular meso-metasternal callosity. Dorsum opaque, greysh black.

Material examined. - 3 specimens. Holotype from central New Guinea, with a single label: "Museum Leiden, Neth. New Guinea Exp., Star Range, 1260 m , Sibil, op licht [at light], 2-V-1959". Two paratypes, also in the Leiden museum: Central New Guinea: Star Range: Tenma Sigin, 1800 m , at light, 21-v-1959, Neth. N. G. Exped. Western New Guinea: Wissel Lakes: Paniai, 26-ix-1939, K.N.A.G. Exped.

Euparia uniseriata sp. nov. (figs. 5-6)
Description (holotype). - Approximate length 6.0, greatest width 2.5, height about 1.5 mm . Colour greyish black, opaque; marginal portions of head, some ventral elements and legs brownish; mouth-parts, antennae and tarsi brown.

Clypeal border very shallowly emarginate in the middle, limiting protrusions denticulate; sides weakly curving to distinctly projecting, shortly rounded genae ; suture between clypeus and genae faintly indicated; cephalic margination extremely fine; face convex, excepting the smooth area immediately behind the clypeal emargination, densely punctured throughout; punctures fine, separated by merely a fraction of their own diameter, which is increasing laterad; central punctules longitudinal; many punctures (including those of other parts of the body) filled with some pale brown substance. Greatest width of head capsule i. 6 mm .

Pronotum with arcuate anterior-lateral angles; anterior-lateral surface
depressed, sides hardly explanate, straight, subparallel; posterior-lateral angles obsolete, widely rounded; pronotal sides and base distinctly marginate, margin punctulate; anterior emargination with narrow, pale brown velum; pronotum entirely closely punctate; punctures immediately behind velum very fine, less close; punctural diameters increasing caudad and laterad (diameters of lateral punctures twice as large as on the disc), separating distance merely a fraction of punctural diameter; many punctures with a minute, pale, central bristle. Median length of pronotum I.4, greatest width 2.1 mm ; ratio $1 / \mathrm{w} 0.65$. Scutellum elongately subtriangular, sides less divergent in front; opaque.

Elytra elongate, disc somewhat flattened; with humeral tooth well pronounced; anteriorly the elytral sides are nearly straight, slightly diverging caudad; posterior border elliptically rounded; with ten sharply defined striae, width of discal striae about a quarter of interstrial width; seven striae between suture and humeral tooth. Strial punctures small but distinct ; edges of discal interstriae inconspicuously crenulate; interstrial surface shallowly convex, lateral interstriae slightly more convex, their surface somewhat uneven; in the middle of the discal interstriae a series of very fine, closely arranged punctures bearing minute whitish protuberances. Sutural length to base of scutellum 3.I, greatest width of elytra combined 2.3 mm ; ratio $1 / \mathrm{w} \quad 1.36 \mathrm{~mm}$.

Prosternum with anterior-median prominence bearing coarse, laterally directed setae ; on each side with a distinct concavity, limited by front coxa and the posterior-lateral crest; median callosity behind the coxae inconspicuous. Proepisternal surface finely pubescent, laterally limited by the marginal prothoracic crest. Mesosternum elongate, finely pubescent; intercoxal width subequal to coxal width. Metasternal dise with distinct, shallowly impressed median groove, extending from apex to triangular mesometasternal callosity, the front tip of which is tapering to a fine median ridge obliterate half-way the mesosternum; metasternal disc with mediumsized, distinctly impressed, moderately evenly distributed punctures; their interspaces approximately equal to their own diameters; areas anterior to hind coxae depressed; distal portions of metasternal wings scabrous, proximal portions punctate like the disc. Punctation of abdominal sternites also resembling that of metasternal disc; punctures of apical sternites more closely arranged; basal zone of distal sternites with a series of longitudinal costulae, proximal segments less distinctly so; sternites coalescent. Pygidial surface rough.

Front femora robust, anterior surface elongately concave; lower side finely punctate-rugulate; in the more slender middle and hind femora the
punctules are separated by a distance subequal to their own diameter. Front tibiae tridentate, apical spur about as long as the two proximal tarsal segments combined; superior surface polished, inferior surface with some fine punctures. Middle tibiae very slightly bent outwards, slightly dilated apically; apex fringed with equal-sized, short, fine bristles; tibial surface with some series of short, scale-like bristles; superior terminal spur slightly surpassing middle of first tarsal segment, inferior one much shorter; middle and hind tarsi setose. Hind tibia much like the middle one; approximate length proportions of superior spur and tarsal segments $1-5$ : 22/33/9/7/6/II (in the paratype from the Baliem Camp; tarsi partly broken off in the holotype).

Variation. - Approximate length 6-6.5, width $2.5-3 \mathrm{~mm}$. The specimen from the Kubor Range is slightly different from those collected in central and western New Guinea, i.a. by the anterior-lateral lobes of the clypeus being rounded, not denticulate. Other differences seem to be of a quantitative nature; for a more precise evaluation additional material is needed.

Diagnostic remarks. - Euparia uniseriata may be distinguished by the following combination of characters. Elytral interstriae with a single median series of fine but conspicuous punctures; interstriae (at least those of the disc) lacking coarsely crenate edges, neither rugulate, nor tuberculate. Pronotum with obsolete hind angles, punctation of surface close, sharply defined, with inconspicuous bristles. Metasternum and sternites also with numerous distinctly impressed punctures. Antero-lateral lobes of clypeus finely dentate or simply rounded. Base and sides of pronotum marginate. Median metasternal groove present, anterior to this groove a flat triangular callosity. Dorsum opaque, greyish black. In my key (see below) it stands near E. ambrymensis Paulian.

Material examined. - 3 specimens. Holotype from central New Guinea, with a single label: "Museum Leiden, Neth. New Guinea Exp., Star Range, Sibil, $\mathbf{1 2 6 0 \mathrm { mm } , 1 6 - \mathrm { V } - 1 9 5 9 \text { ". Two additional specimens in the same collec- }}$ tion: Eastern New Guinea: Kubor Range: Nona Minj Divide: Wimba, 1950 m , at light, viii-ix-1963, leg. W. Vink (excluded from type-series). Western New Guinea: Baliem Camp, 1600 m , xii-1938, leg. L. J. Toxopeus (paratype).

Euparia spuria sp. nov. (figs. 7 -11, 14-18)
Description (holotype). - Approximate length 6.o, greatest width 2.5, height nearly 2.0 mm . Colour shiny black; margins of head and pronotum, legs brownish, ventral side also largely more or less brownish; mouth-parts and antennae brown.

Clypeus inconspicuously denticulate beside the very shallow anterior emargination, laterally feebly curving to shortly rounded, conspicuously projecting genae; cephalic edging very fine; suture between clypeus and genae faintly indicated; face convex, closely, finely punctured throughout; punctures separated by about their own diameters; central punctules longitudinal;


Figs. 7-9. Euparia spuria sp. nov., specimen from Tenma Sigin. Fig. 10. Same species, paratype from Paniai. 7, outline of body, dorsal view; 8-9, head and prothorax, 8, dorsolateral view, 9, dorso-frontal view; 10, ventral view.


Figs. 1I-12. Right hind leg, ventral view. II, Euparia spuria, paratype from Paniai; 12, E. rugulopunctata, holotype from Sibil.

Figs. 13-14. Outline of punctation of pronotal disc. 13, Euparia rugulopunctata, paratype from Tenma Sigin, with erect bristles in centre; 14, E. spuria, from Tenma Sigin. Figs. 15-17. Structure of mouth-parts in Euparia spuria, paratype from Paniai, ventral view. 15, mentum, with palpi; 16, maxilla; 17, mandibula. Fig. 18. Outline left antenna, ventral view, same specimen.
as in the preceding species many punctures of head, pronotum, etc., filled with some indefinable substance. Greatest width of head capsule 1.7 mm .
Pronotum with arcuate anterior-lateral angles, lateral borders extremely weakly curvilinear, faintly converging to blunt but conspicuously prominent posterior angles (110-120 , seen from above); marginal zone of pronotal sides narrowly, distinctly depressed, with raised edging; base marginate; anterior emargination provided with narrow pale brown velum; pronotal surface densely punctate, punctures shallow, evenly distributed, their diameters increasing laterad and caudad (by about two times); separating distance of discal punctures subequal to their own diameters. Median length of pronotum I.4, greatest width 2.4 mm ; ratio $1 / \mathrm{w} ~ 0.54$. Scutellum elongately subtriangular, very shiny.

Elytra elongate, disc somewhat flattened; with distinct humeral tooth; sides nearly straight anteriorly, slightly diverging caudad, apical borders elliptically rounded; seven striae between suture and humeral dentation, three on the lateral declivity. Discal striae narrow, shallowly impressed basally, widened apically; strial punctures rather coarse, medial border of discal interstriae strongly crenate; lateral striae wide (about half the width of the adjacent interstriae), deep, punctures large. Discal interstriae flat, costate at apex; interstriae $4+$ ro confluent apically; interstrial surface sparsely, finely, locally subserially punctured; on the juxtasutural interstriae with one, on the following with two such imperfect series. Sutural length to base of scutellum 3.7, greatest width of elytra combined 2.5 mm ; ratio $1 / \mathrm{w}$ I.44.

Prosternum with anterior-median prominence bearing long, laterally directed setae ; on each side of this prominence the prosternum has a distinct concavity, limited by coxal cavity and posterior-lateral crest; median protuberance behind the coxae poorly developed. Proepisternal surface finely pubescent, laterally limited by marginal crest. Mesosternum elongate, limiting coxal cavities widely separated; with fine median ridge, obliterate in front, bifurcate behind, the two diverging ridges enclosing a triangular space anterior to the metasternal disc. Metasternum with median depression; anterior lobe of metasternal disc with elongate impressions adjacent to the middle coxae; metasternal surface sparsely provided with small, shallow punctures, distal portions of lateral wings scabrous. Sternites with fine punctation, similar to that of metasternum; basal zone of sternites 5 and 6 with well developed zone of longitudinal costulae, merely indicated on proximal sternites; sternites coalescent. Pygidial surface rough.

Fore tibia tridentate, superior surface polished, inferior surface punctulate; apical spur about as long as tarsal segments $\mathrm{I}+2$. Anterior femora
robust, their anterior faces elongately concave; inferior surface closely punctulate, almost punctulate-rugulate. Middle tibiae slightly dilated apically; apex fringed with equal-sized, short, fine bristles; tibial surface with some series of short, scale-like bristles; superior terminal spur reaching half-way metatarsus, inferior spur much shorter ; middle and hind tarsi with numerous setae. Middle and especially hind femora more slender than fore femora; lower surfaces with numerous fine, shallow, rather evenly distributed punctures, separating distances markedly exceeding punctural diameters. Hind femora with noticeable posterior groove on lower surface. Hind tibiae slender, nearly straight, slightly dilated from base to apex; surface with some series of short, scale-like bristles; apex with equal-sized, short, fine bristles; superior spur about half as long as the first tarsal segment, inferior spur much shorter; approximate length proplortions of superior spur and tarsal segments I-5 in the hind legs: 25/40/12/9/7/II.

Variation. - Approximate length $4.5-6.5$, width $2-3 \mathrm{~mm}$. The three specimens from Tigibi are strikingly smaller than those from western localities, their length not exceeding 5 mm , whilst the numerous western specimens are practically all $6-6.5 \mathrm{~mm}$. There are some very delicate differences in structure and sculpture between the Tigibi specimens and those from central and western New Guinea; more material, epecially from eastern localities, is needed. The material from central and western New Guinea is quite homogeneous, except for the form of the antero-lateral lobes of the clypeus, which may be rounded, obtusangular or finely dentate.

Diagnostic remarks. - Euparia spuria may be distinguished by the following combination of characters. Pronotum with distinct hind angles; pronotal punctures, as well as those of metasternum, sternites and femora shallow but distinct, interspaces equalling or exceeding punctural diameters. Clypeus denticulate, obtusangular or rounded beside the very shallow anterior emargination. Elytral interstriae with very fine, scattered to subserially arranged punctures; discal striae narrow, widened apically, lateral striae wide. Colour shiny black to brownish black. Base and lateral borders of pronotum distinctly marginate. Fine mesosternal ridge bifurcate posteriorly, divergent lateral ridges enclosing a triangular space in front of metasternal disc.

Judging from the original description the present new species is very similar to Euparia frankenbergeri Balthasar, that species however, has "...die Seiten fast bis zur Mitte parallel, dann plötzlich zur Basis konvergierend, daher die Hinterwinkel stumpf" (Balthasar, 1936: 15).

Material examined. - in specimens. Holotype from western New Guinea, with a single label: "Museum Leiden, Nieuw Guinea Exp. K.N.A.G.

1939, Paniai, 25-IX-1939". Further specimens, including 8I paratypes from Paniai (specimens from other localities excluded from type-series), also in the Leiden museum: Eastern New Guinea : Tari subdistr.: Tigibi, 1600 m , at light, r-II-vi-1966 (2), Tigibi : native gardens, $1600 \mathrm{~m}, 28-\mathrm{v}-\mathrm{I} 2$-vi-1966 (1), leg. W. Vink. Central New Guinea: Sibil, $1260 \mathrm{~m}, 2$-v-1959, at light (3), 17-v-1959 (2), 23-vi-1959, at light (1), Neth. N. G. Exped.; Tenma Sigin, $1800 \mathrm{~m}, 20-\mathrm{v}-\mathrm{I} 959$, Neth. N. G. Exped. (1). Western New Guinea: Baliem Camp, $1700 \mathrm{~m}, 16-17$-xi-1938, leg. L. J. Toxopeus (8), same, but 1600 m (5). Wissel Lakes: Araboebivak, 9-x-1939 (1), 17-x-1939 (2), I-xi-1939 (1), 2-xi-1939 (2), K.N.A.G. Exped.; Paniai (paratypes), various dates: 30-viii-1939 (1), 5 -ix-r939 (3), ı2-ix-1939 (6), 16-ix-1939 (1), 24-ix-1939 (1), 25-ix-1939 (ir), 26-ix-1939 (20), 29-ix-1939 (25), If-x-1939 (I), 7-xi-1939 (3), it-xi-1939 (9), K.N.A.G. Exped.

Approximate location and altitude of places mentioned above

| Araboebivak | $3^{\circ}{ }^{\circ} 6^{\prime} \mathrm{S}$ | $136^{\circ} 35^{\prime} \mathrm{E}$ | 1760 m |
| :--- | :--- | :--- | :--- |
| Baliem Camp | $4^{\circ}{ }^{\circ} 2^{\prime} \mathrm{S}$ | $139^{\circ} 02^{\prime} \mathrm{E}$ | $1600-1700 \mathrm{~m}$ |
| Paniai | $3^{\circ} 50^{\prime} \mathrm{S}$ | $136^{\circ}{ }^{\circ} 5^{\prime} \mathrm{E}$ | 1750 m |
| Sibil | $5^{\circ} 0^{\prime} \mathrm{S}$ | $141^{\circ} 0^{\prime} \mathrm{E}$ | 1260 m |
| Tenma Sigin | $4^{\circ} 48^{\prime} \mathrm{S}$ | $140^{\circ} 38^{\prime} \mathrm{E}$ | 1800 m |
| Tigibi | $6^{\circ} 00^{\prime} \mathrm{S}$ | $143^{\circ} 0^{\prime} \mathrm{E}$ | 1600 m |
| Wimba | $5^{\circ} 58^{\prime} \mathrm{S}$ | $144^{\circ} 37^{\prime} \mathrm{E}$ | 1950 m |

## Tentative key to the species of Euparia found in the Australian region

I. Elytra, and most of head and pronotum opaque. Interstriae finely serially, or coarsely punctate, or more or less tuberculate. Sternites and other portions of ventral surface at least in some cases with distinctly impressed punctures . 2

- Dorsal surface shiny (in clean specimens). Elytral interstriae with scattered or more or less serially arranged fine punctures; in the latter case the posteriorlateral angles of the pronotum neither widely rounded, nor simply truncate; interstrial surface even, only interstrial edges more or less crenate

2. Interstriae of elytral disc punctulate, punctules distinctly serially arranged 5

- Elytral interstriae coarsely punctate or even tuberculate. Clypeal edge rounded or indistinctly angular on each side of the shallow median emargination. Pronotal base marginate

3. Hind angles of pronotum more or less rounded, obsolete; pronotal base and sides with punctured margin. Body length 6.6 .5 mm . - Mountains of New Guinea uniseriata sp. nov.

- Hind angles of pronotum distinct, almost rectangular, base sinuate laterally; pronotal base and sides not distinctly marginate. Elytral interstriae slightly more shiny. Length of type-specimen ca. 4.5 mm . - New Hebrides ambrymensis Paulian (1941: 78)

4. Dorsum densely clothed with more or less muddy-brown scales. Interstriae tuberculate. Length $5-5.25 \mathrm{~mm}$. - Lord Howe Island . . squamosa Lea (1923: 15)

- Discal elytral interstriae with relatively large punctures, not completely tuberculate. Punctures of dorsal surface with erect bristles. Length $5.5-6.5 \mathrm{~mm}$. - Mountains
of central and western New Guinea
rugulopunctata sp. nov.

5. Posterior-lateral borders of pronotum in some way emarginate (see below, supplementary note on $E$. olliffi) 7

- Hind angles of pronotum not emarginate. Elytral interstriae with numerous fine, scattered or subserially arranged punctures . . . . . . . . . . 6

6. Hind angles of pronotum formed by parallel sides abruptly converging half-way the pronotal length. Sternites smooth. Clypeus broadly rounded beside shallow median emargination. Length 6 mm . - Coast of eastern New Guinea
frankenbergeri Balthasar (1935: 14)

- Sides not abruptly curving inward half-way the pronotal length, but lateral edges gently curving to distinct posterior angles. Sternites distinctly punctate. Clypeal border denticulate, obtusangular or rounded on each side of median emargination. Length $4.5-6.5 \mathrm{~mm}$. - Mountains of New Guinea . . . . spuria sp. nov.

7. Clypeal border rounded beside median emargination. Elytral striae finely impressed, punctures slightly affecting interstrial edges. Dorsum lacking setae. Length 5-6 mm. - New South Wales olliffi Blackburn (1904: 171)

- Clypeal border denticulate. Elytral striae finely impressed, punctures strongly affecting interstriae, which have serially arranged setigerous punctures. Length 5.3-5.5 mm. - Northern New Guinea and New Britain 1)
papuana Petrovitz (1965: 174)
It should be noted that Schmidt's world monograph on the Aphodiidae contains a deceptive inconsistency. In his tabulation of the species of Euparia (Schmidt, 1922: 391) he wrote in couplet 4 that the pronotal hind angles of $E$. olliffi are rounded, whereas in his concise description (p. 395) they are said to be emarginate. The original diagnosis (Blackburn, 1904: 171) reads: "prothorace... lateribus antice sinuatim sat rectis (ante angulos posticos emarginatis), angulis anticis obtusis posticis retrorsum prominentibus, basi ad latera fortiter sinuata".


## References

Balthasar, V., i935. Zwei neue Aphodiinae-Arten aus N.-Guinea und Key-Inseln. Ent. NachrBl., 9: 14-17.
Blackburn, T., 1904. Revision of the Australian Aphodiides, and descriptions of three new species allied to them. - Proc. roy. Soc. Vict., (N.S.) 17: 145-181.
Lea, A. M., 1923. On Australian Aphodiides (Coleoptera). - Proc. roy. Soc. Vict., (N.S.) 36: 1-20.

Paulan, R., i94i. Description d'une nouvelle espèce de Scarabéide (Col.). - Ann. Soc. ent. France, ino: 78.
Petrovitz, R., ig65. Neue Aphodiinae (Coleopt., Scarab.). - Mitt. zool. Mus. Berlin, 41: 161-176, fig. 1.
Schmidt, A., 1922. Coleoptera. Aphodiinae. - Das Tierreich, 45, xxxvi + 6 I 4 pp ., figs. I-34.

1) The holotype of E. papuana is from "D. N. Guinea, Simpsonhafen", which 1 suppose to be the same as New Britain: Rabaul.
