

# ANOTHER COLLECTION OF SCOLYTIDAE AND PLATYPODIDAE OF ECONOMIC IMPORTANCE FROM THE TERRITORY OF PAPUA AND NEW GUINEA

## 254. CONTRIBUTION TO THE MORPHOLOGY AND TAXONOMY OF SCOLYTOIDEA

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### Synopsis

In this paper six new species are described. The first, *Xylechinus papuanus*, n. sp. collected in flight, is a species of Scolytidae. The remainder are new species of Platypodidae: *Crossotarsus coxalis*, n. sp. in logs of *Syzygium* sp., *Podocarpus* sp., *Nothofagus* sp. and Hardwood sp.; *Platypus enormis*, n. sp. in bark of *Cryptocaria* sp.; *Platypus incertus* n. sp., in log of *Casuarina* sp.; *Platypus morigerus* n. sp., in stump of dead hardwood; and *Platypus truncatigranosis* n. sp., in logs of *Podocarpus* sp. and Hardwood sp.

### INTRODUCTION

This is the third of a series of taxonomic papers on Scolytidae and Platypodidae collected from New Guinea. The specimens were sent for determination by Mr. B. Gray, Entomology Section, Department of Forests, Bulolo, New Guinea. The Section is currently engaged upon an extensive survey of bark and ambrosia beetles since they cause considerable economic loss in terms of destruction and degradation of logs and timber in the Territory of Papua and New Guinea. Further papers on these collections will be published, and details of distribution data recorded in a monograph (under preparation) on the Scolytidae and Platypodidae of the New Guinea region.

In this paper one new species of Scolytidae and five new species of Platypodidae are described. The numbers following the collector's name refer to the consignment number allocated to the specimens by Mr. Gray. The following abbreviations are used: L.A. (logging area); Estrn. Hlds. Dist. (Eastern Highlands District) and Wstrn. Hlds. Dist. (Western Highlands District).

### DESCRIPTION OF NEW SPECIES

#### A. SCOLYTIDAE

##### XYLECHINUS PAPUANUS n. sp.

Dark reddish-brown, 1.63 and 1.87 mm. long, 2.2 times as long as wide, somewhat allied to *Xylechinus leai* Schedl from Queensland, but with quite different vestiture on the pronotum and the elytra.

*Front* aplanate to feebly impressed on a semicircular area below bearing slender scale-like hairs directed upwards to the median line, convex, silky shining, minutely punctulate and indistinctly punctured above. Antennal club large, about twice as wide.

*Pronotum* wider than long (23:19), base feebly bisinuate, widest near the base, sides subparallel on the basal fourth, thence gradually incurved, apex broadly rounded, with a few small asperities around the antero-lateral angles; disc rather feebly convex, subshining, minutely punctulate, regularly and rather coarsely punctured, the punctures bearing short, slender scales directed to the median line in the basal part of the disc. Scutellum not visible.

*Elytra* distinctly wider (25:23) and 1.8 times as long as the pronotum, sides parallel on the basal half, gradually incurved behind, apex moderate broadly rounded declivity commencing after the basal two-fifths, obliquely

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convex; disc regularly and strongly striate-punctate, the striae rather deeply impressed, the strial punctures rather coarse near the base, indistinct behind, the interstices narrow, subcarinate, each one with a regular row of short, slender, inclined pale-yellow scales, the scales little shorter than the distances of indistinct punctures from which they arise, these punctures replaced by minute granules on the declivity.

*Holotype* in the collection of the Division of Entomology, CSIRO in Canberra; one *paratype* in the collection Schedl.

*Locality*: New Guinea, Long Island, L.A. Bulolo, Morobe District, in flight, 8.00 p.m., 4.x.1967, B. Gray (33).

#### B. PLATYPODIDAE

##### CROSSOTARSUS COXALIS n. sp.

*Male*.—Piceaus, 4.5 mm. long, 2.9 times as long as wide. Allied to *Crossotarsus pellicidus* Lea of the *Crossotarsi barbati* but much larger, the apical margin of the horizontal elytra rounded at the sides, the subperpendicular face of the declivity longer and opaque, the coxae of the hind legs extended to a horizontal plate of considerable length, divided medially by a narrow triangular emargination.

*Front* flat, separated from the vertex by a distinct angle, silky shining, minutely punctulate above a line connecting the insertions of the antennae, besides with rather coarse punctures bearing long semi-erect fuscous hairs, more shining and with several groups of minute setose punctures on a transverse band below, vertex irregularly punctured, medially with a longitudinal polished line.

*Pronotum* about as wide as long, femoral emarginations shallow, disc shining, minutely shagreened and with scattered very fine punctures, a few larger and setose ones along the anterior margin, median sulcus short.

*Elytra* feebly wider (11:10) and 1.8 times as long as the pronotum, widest behind the basal half, sides straight, feebly divergent, subparallel on the distal fourth; disc horizontal, apical margin transverse near the suture, rounded at the sides, with rows of very fine punctures in hardly impressed lines, interstices very wide, flat, each one with very fine scattered punctures, base of the third triangularly widened, somewhat elevated, connected at the base with the narrow fifth interstice, a small group of coarse punctures on the triangular elevation; the striae rather abruptly strongly impressed near the apical margin, the interstices becoming carinate and terminating in blunt short teeth projecting a short distance over the subperpendicular declivity face and each bearing a group of fuscous bristles, a few of these hairs also in continuation of the discal intervalles on the declivity, the apical margin of the latter broadly emarginate as in some *Platypi lunati*.

Hind coxae developed into horizontal plates of considerable length, medially divided by a narrow triangular emargination; abdomen dull, ascending, the last sternite feebly concave and distinctly punctured, ascending, sternites 2, 3 and 4 with a transverse row of long erect hairs, the second one with an additional seam of hairs on its anterior border.

*Female*.—a little larger, 4.8 mm. long, and somewhat more slender than the male. Front flat, shining, with a subcircular impression in the centre, anteriorly with some groups of small setose punctures, on the sides and above the impression with punctures of moderate size, bearing semi-erect fuscous hairs, convex towards the vertex, the latter polished, with a few setose punctures only. Pronotum similar to that of the male, but the median sulcus longer, the punctation largely reduced.



*Elytra* a little more than twice as long as wide, sides parallel on the basal four-fifths, apex transverse near the suture when viewed from above, postero-lateral angles rounded, declivity short, convex, restricted to the distal fifth of the elytra; disc brightly shining, minutely shagreened, with rows of extremely fine and remotely placed punctures, in impressed lines near the base, interstices very wide, each one with a few scattered fine punctures, the third feebly widened near the base and with a very few transverse regae; declivity rugosely punctured and with short pubescence, postero-lateral angles terminating in a minute triangular tubercle.

Hind coxae with the horizontal extensions much shorter than in *Copellicidus* Lea, the median emarginating narrower.

*Holotype* and *allotype* in the collection of the Division of Entomology, CSIRO in Canberra; *paratypes* in the collection of the Entomology Section, Department of Forests, Bulolo, TPNG and in collection Schedl.

*Locality*: New Guinea, Porotop Lutheran Mission Sawmill, Wstrn. Hlds. Dist., 11.viii.1967, in log of *Syzygium* sp. (10), in log of *Podocarpus* sp. (11), in log of *Nothofagus* sp. (13), and in log of hardwood sp., Coll. B. Gray. (14).

#### PLATYPUS ENORMIS, n. sp.

*Male*.—Reddish-brown, 3.5 mm. long, 4.3 times as long as wide. It is difficult to place this peculiar species in one of the known groups of the genus *Platypus* Herbst, but, provisionally, it might be kept in the *Platypi pseudospinulosi*.

*Front* subopaque, flat minutely punctulate, very densely reticulate-punctate, with remotely placed upward directed fine pubescence, gradually convex towards the vertex.

*Pronotum* longer than wide (33:24), widest behind the short but deep femoral emarginations, disc brightly shining, very finely and remotely punctured, median sulcus moderately long, surrounded by a small cordate patch of densely placed punctures.

*Elytra* about as wide and 1.7 times as long as the pronotum, brightly shining, horizontal, declivity abruptly perpendicular, disc with rows of minute remotely placed punctures in not impressed lines, the first row replaced by a narrow stria, the interstices wide and impunctate, the first and fifth narrowed behind and not reaching the declivity, interstices 2, 3, 4 and 6, distally drawn out into blunt and flat teeth surpassing the upper margin of the declivity, separated from each other by short impressed lines; declivity low, shining, crescent in outline, apical margin broadly concave, with a small tubercle on each side near the suture and rather long, slender and pointed lateral processes.

Coxae of the hind legs each one with a long and slender horizontal spine, abdomen ascending, feebly concave, the sternites very densely punctured.

*Holotype* in the collection of the Division of Entomology, CSIRO in Canberra; *paratypes* in the collection of the Entomology Section, Department of Forests, Bulolo, TPNG. and in collection Schedl.

*Locality*: New Guinea, Okasa Pine Forest, Estrn. Hlds. Dist., 23.viii.1967, in bark of *Cryptocaria* sp., Coll. F. R. Wylie and S. Auno (22).

#### PLATYPUS INCERTUS n. sp.

*Male*.—Piceous, 4.9 mm. long, 3.8 times as long as wide. More closely allied to *Platypus furcatus* Samps., but the elytra with rows of very fine punctures in hardly impressed lines, the apical processes longer and more slender, the seventh interstices on the sides of the declivity just before the commencement of the apical processes distinctly dentate.



*Front* large, flat, separated from the vertex by a more or less distinct angle, frontal face very densely and coarsely punctured, the punctures somewhat finer anteriorly, pubescence sparse on the anterior third and on the vertex.

*Pronotum* little longer than wide (41:37), widest at the angulate posterior limitation of the well-developed femoral emarginations; disc brightly shining, with very scattered minute punctation, a small irregularly placed group of larger punctures on each side of the long and fine median sulcus, another row of larger punctures bearing long fuscous hairs along the anterior margin.

*Elytra* but feebly wider (38:37) and twice as long as pronotum, general shape as is typical in the *Platypi oxyuri*, the sides parallel on little more than the basal half, obliquely narrowed behind, the distal processes of moderate length, trifid, similar as in *Platypus furcatus* Samps., sutural emargination well-developed, narrow and triangular; disc with rows of very fine, partly indistinct punctures in feebly impressed very narrow lines, interstices very wide and flat, with a few minute punctures here and there; declivital convexity commencing behind the basal three-fifths of the elytra, opaque, the striae and strial punctures obsolete, the interstices indicated by scattered fine punctures bearing long semi-erect hairs. Abdominal sternites with a sparse but long pubescence.

*Holotype* in the collection of the Division of Entomology, CSIRO in Canberra; *paratypes* in the collection of the Entomology Section, Department of Forests, Bulolo, TPNG. and in collection Schedl.

*Locality*: New Guinea, Wabag, Wstrn. Hlds. Dist., 9.viii.1967, in log of *Casuarina oligodon*, Coll. B. Gray (8).

PLATYPUS MORIGERUS, n. sp.

*Male*.—Reddish-brown, 3.9 mm. long, 3.7 times as long as wide. Another species of the *Platypi sulcati* more closely allied to *Platypus omissus* Schedl, but little larger, the patch of punctures surrounding the median sulcus of the pronotum very small, the elytra striate-punctate, the four tubercles of the elytral declivity larger and not as low down as in *P. omissus*.

*Front* opaque and feebly impressed above the insertions of the antennae, somewhat more shining, flat, minutely punctulate and remotely punctured below, a few setae on the sides of the upper part of the front and towards the convex vertex, on the latter with a transverse row of coarse setose punctures.

*Pronotum* feebly longer than wide (34:31), widest at the posterior angulate limitation of the shallow femoral emarginations, disc fairly shining, minutely chagreened in parts, remotely covered by punctures of varying size, a row of setose ones along the anterior margin, median sulcus moderately long, surrounded in its anterior half by a very small cordate patch of densely placed punctures.

*Elytra* as wide and not quite 1.9 times as long as the pronotum, sides parallel on more than the basal half, thence gradually incurved, apex rather broadly rounded, declivity commencing well behind the middle of the elytra, obliquely convex; disc shining, with rows of fine, partly confluent punctures in fine impressed lines, interstices very feebly convex, each one with some irregularly placed fine punctures more numerous near the striae, base of the third triangularly widened, with some punctures in the centre, connected with the narrow and also feebly elevated first interstices; on the upper more



feebly convex part of the declivity the interstices becoming narrowly subcarinate and each one with a row of setose fine granules, a large upright tubercle on the fused interstices two and three, another one on the fifth interstices rather similar to the arrangement in *Platypus omissus* Schedl, the part of the declivity semicircular in outline, opaque, and minutely punctulate.

*Female*.—feebly larger and somewhat more slender, the upper opaque of the front more flat and more distinctly punctured, pronotum with the cordate patch of punctures much larger, wider than long, the base of the third interstices of the elytra more strongly elevated and covered with small granules, the declivity less opaque, the four tubercles much smaller, and the granules on the interstices above less distinct.

*Holotype* and *allotype* in the collection of the Division of Entomology, CSIRO in Canberra; pair of *paratypes* in the collection of the Entomology Section, Department of Forests, Bulolo, TPNG, another pair of *paratypes* in collection Schedl.

*Locality*: New Guinea, Awande, Estrn. Hlds. Dist., 24.viii.1967, in stump of dead hardwood, Coll. F. R. Wylie and S. Auno (23).

#### PLATYPUS TRUNCATIGRANOSUS n. sp.

*Male*.—Reddish-brown, 3.4 mm. long, 3 times as long as wide. Allied to *Platypus truncatipennis* Schedl, but the elytra sulcate-carinate on the distal half, the interstices not widened distally to form blunt teeth surpassing the upper limitation of the declivity, and the teeth on the declivital face merely indicated.

*Front* flat and opaque, minutely punctulate, finely and indistinctly punctured, the punctures bearing short erect hairs, a short median sulcus just below the centre, near the anterior margin more shining, the punctation coarser, the front separated from the vertex convex but distinct, the latter opaque, with a short median longitudinal carina.

*Pronotum* about as long as wide, widest at the posterior limitation of the short but deep femoral emarginations, this posterior angle drawn out into a very pointed prejection, disc brightly shining, covered by remotely placed punctures of varying size, median sulcus fine and moderately long.

*Elytra* feebly wider (34: 31) and 1.7 times as long as the pronotum, widest near the apex, the sides straight and with a seam of minute pointed granules, declivity restricted to the distal fifth of the elytra, truncate, subperpendicular and subcircular in outline; disc horizontal, sulcate-carinate in the distal half, the sulci minutely punctulate, therefore subopaque, gradually becoming deeper towards the declivity, fading out anteriorly and here replaced by rows of rather coarse punctures in more or less impressed lines, the interstices wide, rather shining and nearly impunctate near the base, gradually elevated and less opaque and, with a few minute pointed granules behind, more distinct on the alternate interstices, all of them abruptly ceasing on the upper margin of the declivity face, contained on the upper third of the declivity by short rows of uniseriate blunt tubercles and a dense plush of short reddish hairs, the lower part of the declivity face irregularly and densely granulate and covered with short slender scale-like setae, apical margin finely carinate up to the seventh interstices. Abdomen normal.

*Holotype* in the collection of the Division of Entomology, CSIRO, in Canberra; one *paratype* in the collection Schedl.

*Locality*: New Guinea, Porotop Lutheran Mission Sawmill, Wstrn. Hlds. Dist., 11.viii.1967, in hardwood sp. log, Coll. B. Gray (9: 11).





Schedl, Karl E. 1970. "Another collection of Scolytidae and Platypodidae of economic importance from the territory of Papua and New Guinea. 254. Contribution to the morphology and taxonomy of Scolytoidea." *Proceedings of the Linnean Society of New South Wales* 94, 128–132.

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