

NEW SPECIES OF STAPHYLINIDAE FROM AUSTRALIA.

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(Communicated by J. W. T. Armstrong.)

(Twelve Text-figures.)

[Read 27th July, 1955.]

Synopsis.

Four new species are described: *Megalopinus acaciae* (Steninae), *Paederus armstrongi*, *Dibelonetes rufoniger*, and *Stilicoderus aberrans* (Paederinae).

Thanks are due to Mr. J. W. T. Armstrong, Nyngan, N.S.W., and Mr. C. E. Chadwick, N.S.W. Department of Agriculture, for the opportunity of examining the insects described below.

Family STENINAE.

MEGALOPINUS ACACIAE, n. sp.

Shining. Head and pronotum very dark brown, elytra dark brown, each with two yellow marks, one elongate, extending along the median part of the suture, the other transverse, behind the middle, extending from the external margin on to the disc, abdomen dark brown in front, becoming lighter apically. Antennae, palpi and legs yellowish-brown. Length: 2.6–2.7 mm.

Head across eyes a little wider than the pronotum, not as broad as the elytra, lateral angles of clypeus only slightly produced; clypeus depressed, impunctate, elsewhere very strongly, coarsely and closely punctured, the punctures tending to become confluent anteriorly. Antennae short, the first segment short and stout, almost hidden by the antennal tubercles, the second stout, not much shorter than the third, the third elongate, narrower than the second, the fourth quadrate, much shorter than the third, the fifth to seventh about as long as broad, the eighth very slightly transverse, the fourth to eighth about equal in breadth, the ninth a little wider, strongly transverse, the tenth strongly transverse, much longer and wider than the ninth, the eleventh large, as broad as the tenth, rounded apically.

Pronotum about one and one-sixth times as broad as long, broadest in front of middle, each side (seen from above) with three small teeth, one at the anterior angles, one a little behind this and one behind middle; surface irregular due to the very strong, coarse and close punctures which are confluent in places. Scutellum with an elongate fovea on each side extending to apex, the foveae separated by a narrow keel.

Elytra transverse, distinctly broader than the pronotum, the sutural length scarcely longer than the pronotum, widest behind the middle, the sides slightly rounded, the humeri well marked, the posterior angles hardly rounded, the posterior margin almost straight, the sutural striae well marked; each with an elongate impression at about the middle in which are some three or four indistinct, rather coarse punctures, external to this with a row of some five similar but well marked punctures which tend to form an elongate impression, surface otherwise smooth.

Tergites of abdomen smooth, without visible puncturation, those of the third to seventh (first to fifth visible) segments with eight small longitudinal keels basally.*

Tarsi simple, distinctly five-segmented, the posterior nearly three-quarters as long as the tibiae.

♂.—Posterior margin of tergite of the eighth segment lightly emarginate.

♀.—Posterior margin of tergite of the eighth segment rounded.

New South Wales: Acacia Plateau, 2 ex. (J. W. T. Armstrong).

* In some lights these keels appear as four small foveae, which would appear to indicate that the alternate spaces between them are somewhat depressed.

Holotype (♂) in the collection of J. W. T. Armstrong, allotype (♀) in the collection of the author.

This species is quite distinct from the other Australian species of the genus, *nodipennis* (MacL.), *denticollis* (Fvl.) and *melbournensis* (Wilson) by reason of its sculpture and the markedly smaller size.

From the material in the British Museum collection it seems that *M. denticollis* (Fvl.) and *M. nodipennis* (MacL.) are conspecific. An examination of Macleay's type would finally settle the matter.

Family PAEDERINAE.

PAEDERUS ARMSTRONGI, n. sp. (Text-figs. 1 to 3.)

Shining. Head black, pronotum red, elytra blue-black, abdomen black, the eighth segment with at least the basal half red, sometimes wholly red, terminal segment red. Antennae with the first to tenth segments black, sometimes obscurely reddish at base, the eleventh light yellowish-red. Mandibles dark reddish-brown, maxillary palpi with the first to third segments black, the fourth reddish. Femora and tibiae black, tarsi reddish-brown. Length: *ca.* 11 mm. (with abdomen normally extended).

Head about as long as broad, the post-ocular region about twice as long as the eyes (seen from above), the sides rounded from the posterior margin of the eye to the neck. Surface finely and rather diffusely punctured, the punctures setiferous and somewhat unequal in size. Antennae long and slender, reaching (if extended backwards) to the base of the pronotum, the third segment about twice as long as the second, the fourth to tenth gradually decreasing in length but scarcely increasing in breadth, the fourth about twice as long as broad, the tenth about one and one-quarter times as long as broad, the eleventh nearly twice as long as the tenth, bluntly pointed apically.

Pronotum strongly convex, distinctly broader than head, very slightly longer than broad, broadest at about middle, the sides strongly rounded, the anterior and posterior angles completely rounded. Surface with punctures similar to those on head.

Elytra very short, about one and one-fifth times as broad as long, about as broad as pronotum, the sutural length about two-thirds as long as pronotum, distinctly widened behind, the sides almost straight, the humeral angles rounded. Surface with setiferous punctures which are about as close as those on head and pronotum but distinctly coarser.

Tergites of abdomen with setiferous punctures similar to those on pronotum.

♂.—Apical margin of sternite of the fourth segment slightly emarginate in middle, with a small, indistinct, tubercle on each side of the emargination and a superficial semicircular impression behind it, apical margin of sternite of fifth segment emarginate in middle, the right-hand side of the emargination produced into a more or less straight, apically truncate process which is directed obliquely inwards, the left-hand side produced into a straight pointed tooth with a small tubercle at base internally, behind the emargination with a distinct semicircular impression (Text-fig. 2). Sternite of the eighth segment with a deep, narrow, parallel-sided, median excision, the edges of which are bordered. Aedeagus with the median lobe asymmetrical, as in Text-figure 3.

New South Wales: Mount Irvine, 2 ex., including holotype (J. W. T. Armstrong), Megalong, 3 ex. (J. W. T. Armstrong), Mount Wilson, 1 ex. (Olliff).

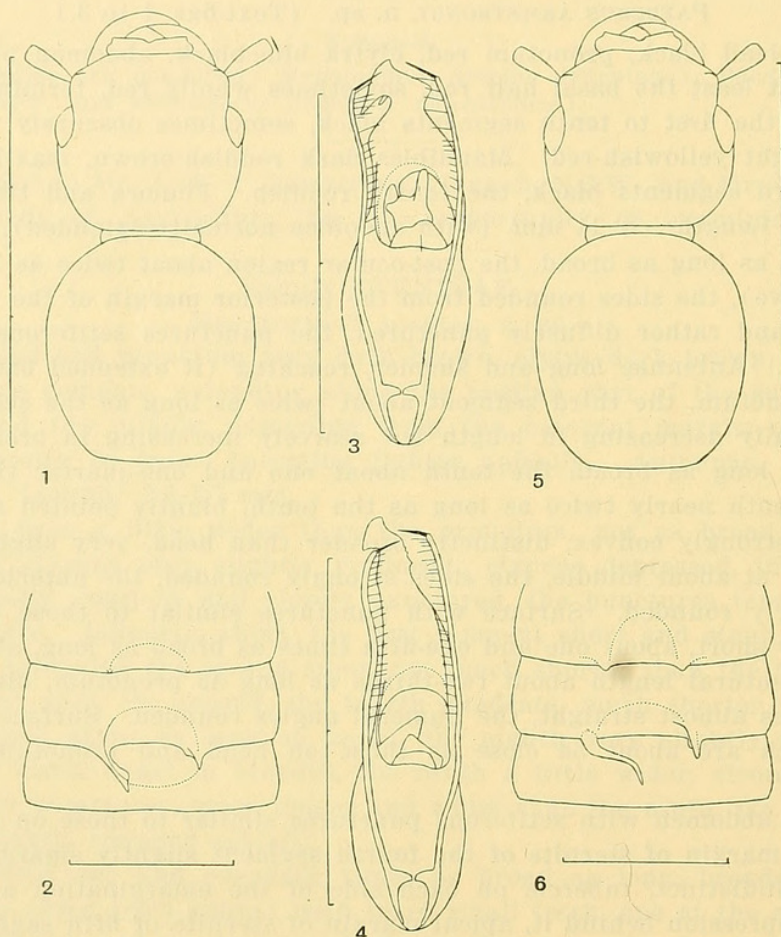
Holotype (♂), allotype (♀), and one paratype in the collection of J. W. T. Armstrong, two paratypes in the collection of the author, one paratype in the collection of the N.S.W. Department of Agriculture.

Paederus armstrongi is very similar to *P. sparsus* Fvl. (Text-figs. 4 to 6), but differs in the smaller eyes, the shorter, more rounded pronotum, the slightly closer puncturation on all parts and the red apex of the abdomen, as well as in the male secondary sexual characters and the aedeagus. As *P. sparsus* was described from a unique female and neither the male secondary characters nor the aedeagus have since been described, descriptions and figures of these are given here.

The sternites of the fourth and fifth abdominal segments show similar modifications to those of *armstrongi*, but, on the fourth, the lateral tubercles are more distinct and

the impression is half oval and, on the fifth, the right-hand side of the emargination is produced into a sinuate, apically pointed, inwardly directed process, the left-hand side is similar to *armstrongi*. The sternite of the eighth segment is identical with that of *armstrongi*, and the aedeagus, which also has the median lobe asymmetrical, is as in Text-figure 4.

P. armstrongi and *P. sparsus* are the only species of *Paederus* known to me which show such modifications of the sternites of the fourth and fifth abdominal segments. The modification of the sternite of the eighth segment is normal and is practically constant throughout the genus.



Text-figures 1-6.

1. *Paederus armstrongi*, n. sp., head and pronotum (scale = 3 mm.). 2. *P. armstrongi*, n. sp., sternites of 4th-6th abdominal segments (scale = 1 mm.). 3. *P. armstrongi*, n. sp., aedeagus (scale = 2 mm.). 4. *P. sparsus* Fvl., head and pronotum (scale = 3 mm.). 5. *P. sparsus* Fvl., sternites of 4th-6th abdominal segments (scale = 1 mm.). 6. *P. sparsus* Fvl., aedeagus (scale = 2 mm.).

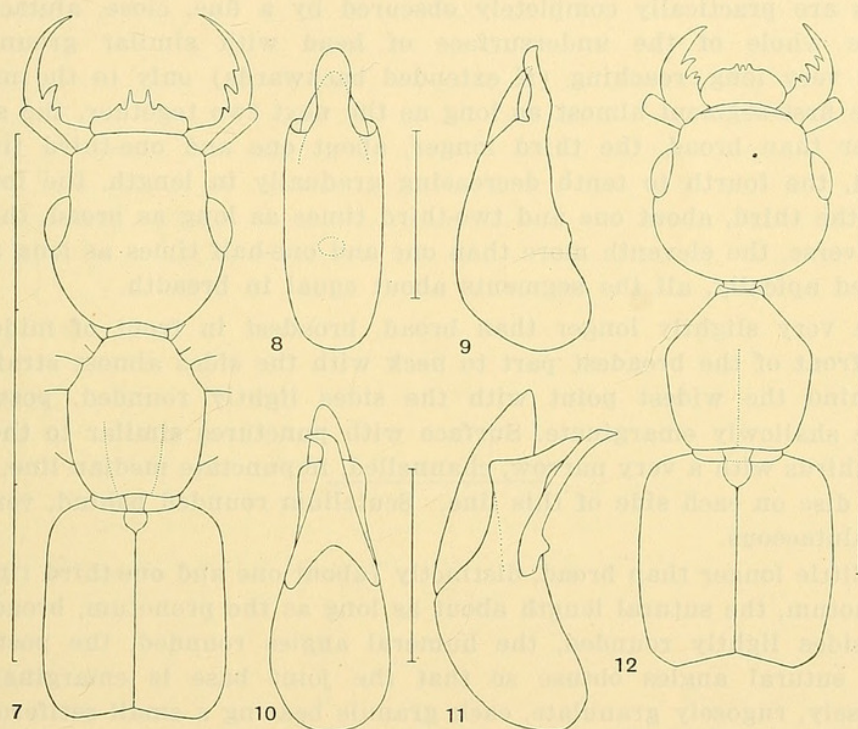
DIBELONETES RUFONIGER, n. sp. (Text-figs. 7-9.)

Rather dull. Head and abdomen black, pronotum red, elytra with the basal half black, the rest red, the two colours sharply differentiated. Antennae and mouthparts yellowish-red. Femora yellowish-red, darker apically, tibiae with about apical third yellowish-red, the rest darker, tarsi yellowish-red, the anterior legs (on the only specimen seen) have less darkening than the others. Length: 5.8 mm.

Head very slightly longer than broad, the eyes moderate and rather prominent, the ante-ocular region very slightly (about one and one-sixth times) longer than the eyes (as seen from above), with the sides almost straight, the post-ocular region a little less than one and one-half times as long as the eyes, distinctly broader immediately behind eyes than the ante-ocular portion, the sides rounded to the neck, the posterior angles obsolescent. Surface with close, rather large, irregularly shaped, umbilicate punctures, the intervals between the punctures forming a raised, irregular network,

with a few long setae towards sides. Antennae moderate, reaching (if extended backwards) a little beyond base of pronotum, the first segment as long as the next two together, the second short, longer than broad, the third distinctly longer, rather more than one and one-half times as long as the second, the fourth to tenth about equal in breadth, about as broad as the third, but decreasing gradually in length, the fourth only slightly shorter than the third, the tenth scarcely more than half as long as the third, all the segments longer than broad, the eleventh distinctly longer than the tenth, bluntly pointed apically.

Pronotum longer (about one and one-fifth times) than broad, broadest in front of middle, narrowed in front of widest point to neck with the sides slightly angulate, slightly narrowed behind, with the sides lightly rounded, the posterior angles rounded, the base shallowly emarginate, the sides somewhat impressed on basal half. Surface with punctures as on head. Scutellum alutaceous, indistinctly punctured.



Text-figures 7-12.

7. *Dibelonetes rufoniger*, n. sp., head and pronotum (scale = 3 mm.). 8. *D. rufoniger*, n. sp., aedeagus, ventral view. 9. *D. rufoniger*, n. sp., aedeagus, lateral view (scale for figs. 8 and 9 = 0.5 mm.). 10. *Stilicoderus aberrans*, n. sp., aedeagus, ventral view. 11. *S. aberrans*, n. sp., aedeagus, lateral view (scale for figs. 10 and 11 = 0.5 mm.). 12. *S. aberrans*, n. sp., head and pronotum (scale = 3 mm.).

Elytra distinctly (about one and one-fifth times) longer than broad, much broader (about one and one-third times) than the pronotum, the sutural length about as long as the pronotum, the sides more or less parallel, the humeral and posterior angles rounded, sutural angles obtuse so that the joint base is emarginate. Surface rather closely, indistinctly, granulate, each granule bearing a small setiferous puncture.

Tergites of abdomen finely, moderately closely, superficially punctured, the punctures setiferous. Surface distinctly alutaceous between the punctures.

♂.—Apical margin of sternite of the eighth segment emarginate in the middle, aedeagus as in Text-figures 8, 9.

New South Wales: Acacia Plateau, 1 male (J. W. T. Armstrong).

Type in the collection of J. W. T. Armstrong.

Four Australian species have previously been placed in the genus *Dibelonetes*—*antipodum* Bernh., *brevicollis* Lea, *mjoebergi* Bernh. and *palaeotropicus* Bernh. *D. rufoniger* is markedly different from these in the larger size and the coloration. The

only examples seen of any of the previously described Australian species—*D. palaeotropicus* Bernh., det. Bernhauer—do not agree at all well with *Dibelonetes* and are probably referable to *Sunesta* Blackwelder.

Besides the coloration, *D. rufoniger* differs from all other described species of the genus in the granulate sculpture of the elytra.

STILICODERUS ABERRANS, n. sp. (Text-figs. 10–12.)

Rather dull, the abdomen a little more shining. Body black, antennae, mouthparts and legs reddish-brown. Length: 7.25 mm.

Head about as broad as long, moderately convex, almost semicircular behind the eyes, the post-ocular region about one and two-third times as long as the eye (seen from above). Surface very finely and extremely closely punctured, the punctures to a large extent confluent, setiferous, the setae mostly very short but some longer, only the extreme apex of each antennal tubercle impunctate; on the sides, behind the eyes, the punctures are practically completely obscured by a fine, close, alutaceous ground sculpture, the whole of the undersurface of head with similar ground sculpture. Antennae not very long, reaching (if extended backwards) only to the middle of the pronotum, the first segment almost as long as the next two together, the second short, slightly longer than broad, the third longer, about one and one-third times as long as the second, the fourth to tenth decreasing gradually in length, the fourth a little shorter than the third, about one and two-third times as long as broad, the tenth very slightly transverse, the eleventh more than one and one-half times as long as the tenth, bluntly pointed apically, all the segments about equal in breadth.

Pronotum very slightly longer than broad, broadest in front of middle, strongly narrowed in front of the broadest part to neck with the sides almost straight, slightly narrowed behind the widest point with the sides lightly rounded, posterior angles rounded, base shallowly emarginate. Surface with punctures similar to those on head, on basal two-thirds with a very narrow, channelled, impunctate median line, superficially impressed on disc on each side of this line. Scutellum rounded behind, very finely and very closely alutaceous.

Elytra a little longer than broad, distinctly (about one and one-third times) broader than the pronotum, the sutural length about as long as the pronotum, broadest at about middle, the sides lightly rounded, the humeral angles rounded, the posterior angles rounded, the sutural angles obtuse so that the joint base is emarginate. Surface extremely closely, rugosely granulate, each granule bearing a small setiferous puncture.

Tergites of abdomen closely and extremely finely punctured and pubescent, the surface between the punctures with a close, fine, alutaceous ground sculpture.

♂.—Apical margins of the sternites of the seventh and eighth abdominal segments very shallowly emarginate over their whole length and fringed with close-set long setae. Aedeagus as in Text-figures 10, 11.

New South Wales: Acacia Plateau, 1 male (J. W. T. Armstrong).

Type in the collection of J. W. T. Armstrong.

Although this species agrees perfectly with *Stilicoderus* Sharp in the structure of the mouthparts, legs and thoracic sterna, it differs markedly from the other members of the genus in the sculpture and the length of the elytra. In these the pronotum is distinctly granulate, with the granulation extending on to the pronotum, and the elytra are markedly transverse, the sutural length much shorter than the pronotum, and the surface has a number of very large punctures arranged more or less in rows and between these fine setiferous granules. The humeral angles, although broadly rounded, are distinctly rectangular. In *S. aberrans* the pronotum is very closely punctured, without trace of granules, and the prosternum finely and closely alutaceous, the elytra are much longer and have no large punctures, but are closely, rugosely granulate. An undescribed species from New Guinea is in some ways intermediate between typical *Stilicoderus* spp. and the present species in that the elytra are somewhat longer, with the humeral angles obtuse, the elytral punctures rather less distinct with the granules

less fine and much more numerous; the pronotum (and prosternum) is, however, granulate.

Blackwelder (1939, *Proc. U.S. Nat. Mus.*, 87: 107) places *Stilicoderus* Sharp as a synonym of *Stiliderus* Mots. (= *Psilotrachelus* Kraatz). Whilst there is no doubt that the two genera are very similar in general facies, there are so many small points of difference that *Stilicoderus* must be given at least subgeneric rank. In *Stiliderus* the labrum is differently formed, the sides of the head are strongly bordered below and the fourth tarsal segment is strongly bilobed.



Steel, W O. 1955. "New species of Staphylinidae from Australia." *Proceedings of the Linnean Society of New South Wales* 80, 180–185.

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