

AUSTRALIAN WASPS OF THE FAMILY PROCTOTRUPIDAE (HYMENOPTERA: PROCTOTRUPOIDEA)

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(Manuscript received June 23, 1954)

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Summary

A key to the six genera of Proctotrupidae occurring in Australia is given. Two new species of *Proctotrupes*, *P. doddi* and *P. splendidus*, and a new species of *Cryptoserphus*, *C. sulcatus*, are described, making a total of 12 species for Australia.

INTRODUCTION

Almost nothing is known concerning the habits or host relationships in this family. The species are very poorly represented in Australian collections, less than 30 specimens being known. *Proctotrupes janthinae* (Dodd), which was bred from a larva of the fungus beetle, *Thallis janthina* (family Erotylidae), is the only species which has been bred. *Acanthoserphus albicoxa* Dodd was collected on a decaying log in rain-forest in north Queensland and may have emerged from some host inhabiting such a situation.

The two endemic genera, *Austroserphus* and *Acanthoserphus*, are extremely interesting for they show quite distinct and complete venation. In both genera there is a peculiar development of the scape.

Austroserphus is most distinct in that the fore trochanter is clearly 2-segmented, a character not found in any other Australian species.

Specimens in this family have been collected from north Queensland to Tasmania and also from South Australia. *Austroserphus* has been collected in Victoria and Tasmania, while the related *Acanthoserphus* is known from north Queensland. The other genera occur in widely scattered areas.

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Nine species have been described from Australia. All but one of these were described by Dodd in a series of three papers (1915, 1920, 1933). The other species, *Proctotrypes australiae* Kieffer 1907, was subsequently transferred to *Phaenoserphus* by Kieffer (1914). There are several species of *Proctotrupes* in the fauna but most other genera are represented by single species. Two new species of *Proctotrupes* and one of *Cryptoserphus* are described.

Although Dodd has stated that the eyes are bare in some of the species described by him there are fine scattered hairs in all Australian material. They are generally more distinct on the larger specimens and are only seen readily when the preservation is good.

The key characters given by Kieffer for the separation of *Cryptoserphus* from *Proctotrupes* are not good though the species groups on which the separation is based may be distinct. All the Australian species of this complex have at least one stria (or sulcus) on the propleuron and so fall into *Proctotrupes*, though Dodd placed two of the species in *Cryptoserphus*.

Those species in which the anterolateral margin of the declivity of the propleuron is emarginate at the middle are placed here in *Cryptoserphus*. In these species, the striae, when present, radiate more or less from this emarginate zone whereas in those species placed in *Proctotrupes* the striae are coarser and parallel and the anterolateral margin of the declivity is entire. In the key to genera the standard separation is retained as these characters for *Phaenoserphus* are not known.

KEY TO GENERA* OF THE FAMILY PROCTOTRUPIDAE OCCURRING IN AUSTRALIA

1. Forewing with 3 distinct veins arising from the base; scape produced at apex into an acute spine.....2
Forewing with only a single vein from base; scape not produced.....3
2. Fore trochanter subdivided, 2-segmented; abdominal petiole at least as long as wide; postscutellum not distinctly produced; veins *M* and *CuA* of forewing distinct*Austroserphus*
Fore trochanter not subdivided; abdominal petiole very short; postscutellum strongly produced at meson; veins *M* and *CuA* of forewing not fully defined*Acanthoserphus*
3. Parapsidal furrows complete except possibly at caudal margin.....*Disognus*
Parapsidal furrows absent or distinct only at anterior margin.....4
4. Propleuron striate; parapsidal furrows defined anteriorly; ovipositor with more or less parallel sides.....*Proctotrupes*
Propleuron not striate, glabrous or nearly so.....5
5. Ovipositor gradually tapering to a point; parapsidal furrows entirely absent; tergites 3-5 transverse.....*Phaenoserphus*
Ovipositor with more or less parallel sides; parapsidal furrows defined anteriorly or absent; tergites 3-5 long and slender.....*Cryptoserphus*

* The only other common genera in the family are *Codrus*, which has teeth on the fore and middle tarsi and the apical segment of the fore tarsus thickened, and *Paracodrus*, which has wingless females.

Genus AUSTROSERPHUS Dodd

Austroserphus Dodd, 1933, Proc. Linn. Soc. N.S.W. 58: 275.

Genotype *Austroserphus albofasciatus* Dodd, 1933, op. cit. 276 (original designation).

Venation very well developed, with 3 veins arising from the base in the forewing (*R*, *M* + *Cu*, 1*A* + *CuP*) and extending as distinct veins to the wing margin; scutum with parapsidal furrows percurrent, just touching caudally, scutum caudally with a sharp median carina, anteriorly with a pair of indistinct carinae; pronotum with distinct transverse carina at the declivity, with the posterolateral angle somewhat produced; propleuron not striate but with a single deep sulcus; scutellum with a deep transverse groove at base, subdivided by strong longitudinal carinae into 5 fovea; postscutellum only slightly produced at meson; petiole of abdomen distinct, longer than wide in both sexes; abdomen smooth at base; antenna 13-segmented, scape rather stout, its upper margin carinate, produced at apex dorsally into a large acute spine, covering the pedicel and base of 1st funicle; mandibles small, the teeth indistinct; fore trochanter distinctly 2-segmented, middle and hind only 1-segmented.

The very complete venation and divided trochanter of the fore leg distinguish this genus.

AUSTROSERPHUS ALBOFASCIATUS Dodd

Plate 1, Figs. 1-3

Austroserphus albofasciatus Dodd, 1933, Proc. Linn. Soc. N.S.W. 58: 276.

Female

Shining black; antenna mostly black except for white 9th and most of 10th segments of antenna, apex of 10th brownish; legs black except for white cinctus towards base of tibiae and white 3rd and 4th segments of middle and hind tarsi; fore tibia and tarsus with similar areas whitish; palps whitish.

Body shining, smooth, with scattered pin-punctures, the propodeum rugose except anteriorly; scutum and parapsides strongly convexed; propodeum smooth at basal third and with almost smooth patches posteriorly on either side of the median carina, otherwise rugose, irregularly produced posterolaterally, almost at anterior margin the propodeum bears 4 rounded teeth directed anteriorly, almost touching corresponding teeth directed caudally from the anterior margin of propodeum; abdominal petiole slightly longer than wide at base, glabrous widely at meson, carinate towards lateral margin, irregularly longitudinally carinate laterally; abdomen smooth at base, surface with scattered fine setae; forewing long, broad, slightly infuscated, venation fuscous; funicle segments long and slender, 1st longest, as long as scape, 10th funicle slightly more than half 1st, apical segment almost as long as 1st funicle, rounded at apex.

Male

Similar colouring to female.

First funicle a little longer than scape, apical segment three-quarters as long as 1st funicle, pointed at apex; petiole long and slender, 4 times as long as wide, with 2 median striae diverging somewhat at base and apex, laterally with a few strong, irregular, longitudinal striae.

Types.—Holotype, allotype, and paratype in the F. E. Wilson collection; one male and one female paratype in both the Queensland Museum and the Division of Entomology Museum, C.S.I.R.O., Canberra (ex Dodd collection).

Type locality.—Beech Forest, Vic. (Jan. 1932, F. E. Wilson).

Localities.—VICTORIA: Millgrove (November, F. E. Wilson). TASMANIA: Mt. Wellington (Lea), in Division of Entomology Museum, C.S.I.R.O., Canberra.

The two females and a male from Tasmania agree in all essential characters with the type series.

Genus ACANTHOSERPHUS Dodd

Acanthoserphus Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 384.

Genotype *Acanthoserphus albicoxa* Dodd, 1915, op. cit. 385 (original designation).

Venation relatively well developed, with 3 veins arising from the base in the forewing (*R*, *M* + *Cu*, 1*A* + *CuP*); scutum with parapsidal furrows percurrent and with a median sulcus; pronotum with posterolateral angle produced into a strong dorsally projecting spine with apex flattened; propleuron not striate; scutellum with a deep transverse groove at base; postscutellum produced at meson into a long, backwardly curved projection, with rounded apex; petiole of abdomen very short; abdomen smooth at base; antenna 13-segmented, scape rather stout, produced at apex dorsally into an acute spine, covering the pedicel and base of 1st funicle; mandible small, appearing to be absent.

The form of the scape, apparent absence of mandibles, spined pronotum and postscutellum, slender pterostigma, and well-developed venation readily distinguish this genus.

ACANTHOSERPHUS ALBICOXA Dodd

Acanthoserphus albicoxa Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 385.

Female

Black, thorax mostly black, scutum and parapsides paler, abdomen as scutum; tegula yellowish; coxae all white, otherwise legs reddish; antenna mostly black, scape and pedicel golden yellow, segments 9 and 10, except at apex, white.

Body shining, smooth, with very scattered pin-punctures, the propodeum rugose but almost glabrous at meson, median carina indistinct; scutum and parapsides strongly convexed; abdomen smooth at base; forewing long, broad, uniformly, darkly infuscated, the venation fuscous; funicle segments long and slender, gradually shortening, the 1st longest, 10th not twice as long as wide, the apical segment one-third longer than preceding, broadly rounded at apex.

Male

Similar to female but pale areas of the thorax larger; funicle wholly black.

The 10th funicle segment $2\frac{1}{2}$ times as long as wide, apical segment pointed at apex.

Types.—Holotype and allotype in the South Australian Museum. Specimens card-mounted, heads, antennae, and wings on a slide.

Type locality.—Kuranda, Qld. (3.iv.1915, A. P. Dodd), 1200 ft. Taken on decayed log in jungle.

Only the type specimens are known.

Genus DISOGMUS Foerster

Disogmus Foerster, 1856, Hym. Stud. 2: 99.

Genotype *Proctotrupes areolator* Haliday, 1839, Hym. Brit. 1: 13 (monobasic).

DISOGMUS NIGERRIMUS Dodd

Disogmus nigerrimus Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 386.

Female

Shining black; tegula dark; legs dark, except joints, tarsi, and less so fore tibia.

Thorax convex dorsally; scutum and scutellum smooth, shining; parapsidal furrows deep and percurrent; propodeum with a deep transverse groove at base, interrupted at meson, with a median carina only over the caudal half, anteriorly irregularly foveate; propodeal spiracle raised; petiole visible as a transverse line; abdomen compressed laterally, somewhat narrowed at base, as long as the thorax, striate at base; ovipositor about as long as rest of abdomen; forewing long, broad, subhyaline but with a large, square blotch, commencing at base of pterostigma and continued some distance beyond the radial vein, extending fully half way across the wing, dusky; venation fuscous; pterostigma large, semi-circular; radial cell small, not half as large as pterostigma; scape moderately long, pedicel short, wider than long; funicle segments long, filiform, 1st at least twice as long as wide, 10th a little shorter, apical somewhat longer.

Type.—Holotype ♀ in the South Australian Museum. Female on a card, head, antennae, and forewings on a slide.

Type locality.—Hobart, Tas. (A. M. Lea).

Only the holotype is known.

Genus PROCTOTRUPES Latreille

Proctotrupes Latreille, 1796, Précis Caract. Gen. Ins.: 108.

Genotype *Proctotrupes brevipennis* Latreille, 1802, Hist. Crust. Ins. 3: 307 (Int. Comm. Zool. Nomencl. Op. 178, 1946).

PROCTOTRUPES JANTHINAE (Dodd)

Proctotrupes janthinae Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 387.

Proctotrupes janthinae Dodd, 1920, Trans. Ent. Soc. Lond. 1919: 364.

Female

Shining black, antenna all black; legs black, paler at joints, tarsi, and basal half of hind tibia; fore tibia and tarsus golden yellow.

Head, scutum, and scutellum smooth, with fine pubescence; propleuron smooth, but with some striae; mesopleuron striate on dorsal half; parapsidal furrows completely absent; propodeum rugose, the anterior portion short at meson, the dividing carina thus V-shaped with its apex cephalad; petiole not visible from above; abdomen abruptly convex above from its base (in lateral view), produced into a long ovipositor, longer than the rest of the abdomen; forewing long, broad, hyaline; venation fuscous; pterostigma large, as wide as long, radial vein small, almost confluent with the pterostigma, radial cell very narrow; scape as long as 1st funicle, pedicel much wider than long, 1st funicle at least twice as long as wide, succeeding shortening, penultimate one-third longer than wide, apical segment distinctly longer than scape.

Type.—Holotype ♀ in the National Museum, Melbourne. The female on a card, antennae and forewings on a slide.

Type locality.—(? Melbourne), Vic. (16.ix.1913, F.S.), bred from larva of fungus beetle, *Thallis janthina* (family Erotylidae).

Only the holotype is known. The black legs and antennae, striate mesopleuron, and complete absence of parapsidal furrows distinguish this species.

PROCTOTRUPES TURNERI Dodd

Proctotrupes turneri Dodd, 1920, Trans. Ent. Soc. Lond. 1919, 1920: 363.

Female

Shining black, antenna all dark; legs all reddish, except coxae; venation blackish; tegula reddish.

Head with scattered minute punctures and pubescence, transverse; eyes large and nearly bare; antenna long, filiform, segments longer than wide, apical club segment twice as long as wide; propleuron smooth, with a few striae in centre; mesopleuron smooth; scutum rather densely pubescent, scutellum similar, depressed at base; parapsidal furrow distinct only anteriorly; propodeum divided into 2 parts, anterior portion long, finely rugose, with distinct median carina, forking and diverging behind, posterior portion shorter and coarsely rugose; forewings long, broad, hyaline, pterostigma rather longer than wide, radial cell distinct but narrow, radial vein longer than the pterostigma; petiole not visible above; abdomen slightly convex above from lateral aspect, with a median sulcus and several short, lateral striae at base, otherwise smooth.

Male.—Femora dusky, otherwise as female.

Types.—Holotype and cotypes in the British Museum.

Type locality.—Mt. Wellington, Tas. (R. E. Turner).

There is a female from Lucindale, S.A. (A. M. Lea) in the South Australian Museum determined by Dodd. This agrees with the description of the type female except that only the hind coxae are dark.

The pale legs and smooth mesopleuron distinguish this species.

PROCTOTRUPES NITENS Dodd

Proctotrupes nitens Dodd, 1920, Trans. Ent. Soc. Lond. 1919, 1920: 364.

As specimens were not seen the description is taken from Dodd (1920).

Female

Shining black; legs fuscous, tarsi, bases and apices of femora and tibiae, yellow; antenna with scape yellow, otherwise black.

Head normal, vertex rather narrow, smooth and shining but with microscopic punctures, a distinct silvery pubescence below antennal insertions; scape stout, about as long as 1st funicle; pedicel very short; flagellum filiform, the segments slender, the 1st about 4 times, the penultimate about twice as long as wide; propleuron smooth, with several striae in the centre; mesopleuron entirely striate; metapleuron smooth for basal half, the remainder finely rugose; scutum smooth and shining, without distinct pubescence, wholly gently convex; scutellum convex, depressed at base; propodeum gradually declivous, not divided, finely rugose and with a deep, median longitudinal groove; forewing long, broad, hyaline but with a deep smoky patch beneath the pterostigma, venation fuscous, pterostigma large, as wide as long, the radial vein almost confluent with its distal margin, the radial cell thus subobsolete; basal, median, and recurrent veins faintly indicated; petiole not visible; base of abdomen without depression or striae; abdomen compressed, with a long compressed ovipositor, somewhat longer than the abdomen itself.

Male

Antenna wholly black, the segments hardly as long as in the female; smoky patch below the pterostigma small; base of propodeum smooth on either side of the median channel.

Types.—Holotype and allotype in the British Museum.

Type locality.—Yallingup, W.A. (Nov. 1913, R. E. Turner).

The yellow scape in the female, the fuscous legs marked with yellow, and the entirely striate mesopleuron distinguish this species.

PROCTOTRUPES DODDI, sp. nov.

Plate 1, Fig. 6

Female

Black; legs pale except coxae, trochanters, bases of femora narrowly, and less so tarsi; antennae brown-black; tegula pale.

Head, scutum, and scutellum smooth, with scattered, fine pubescence; eye nearly bare; propleuron smooth in part but with a horizontal series of several (9-10) striae increasing in length ventrad, the lower striae almost joining a series of foveae before the caudal margin on its lower half; mesopleuron smooth but with scattered hairs anterodorsally and ventrally; parapsidal furrows distinct only anteriorly; scutellum with a deep, undivided pit anteriorly; propodeum indistinctly divided into anterior and posterior portions, transverse carina indistinct but ornamentation quite different, anteriorly with median and lateral carinae, the area between smooth anteriorly but becoming increasingly rugose posteriorly, posterior region rather abruptly declivous and then tapering caudally, strongly irregularly rugose, except caudally and there longitudinally striate; petiole not visible from above; abdomen only gradually convex above from its base (in lateral view), produced into a long ovipositor but only half as long as the rest of the abdomen; abdomen at base with a short median sulcus and lateral striae of two types, 2 or 3 short stout striae from base and several very fine sulci rather than striae extending almost in line with the caudal end of the median sulcus; forewing long, broad, hyaline but densely setose; venation fuscous; pterostigma only about as long as wide; radial vein longer than pterostigma, radial cell distinct; scape short and stout, not as long as 1st funicle, pedicel almost quadrate, 1st funicle at least 3 times as long as wide, succeeding shortening, penultimate almost twice as long as wide, apical segment longer, not quite as long as 1st funicle. Length, excluding ovipositor 4.5 mm; ovipositor 1.2 mm.

Type.—Holotype ♀ in the Division of Entomology Museum, C.S.I.R.O., Canberra.

Type locality.—Barrington Tops, N.S.W. (5.ii.1931, A. P. Dodd).

The species differs from *nitens* in lacking ornamentation of the mesopleuron and from *turneri* in the structure of the propleuron. The species *janthinae* is quite distinct, lacking any sign of parapsidal furrows. It also has an ornamented mesopleuron. Only the holotype is known.

PROCTOTRUPES SPLENDIDUS, sp. nov.

Plate 1, Fig. 4

Female

Shining black; antenna all black; legs all reddish, except coxae and less so trochanters; venation fuscous; tegula reddish.

Head with scattered fine punctures and setae, transverse; eyes large, distinctly pubescent; face transversely rugose above the clypeus; antenna long, filiform, scape very short and stout, at most only twice as long as wide, pedicel transverse, funicle segments very long, 1st funicle at least 4 times as long as wide, 10th funicle at least $2\frac{1}{2}$ times as long as wide; apical segment not as long as 1st funicle; propleuron mostly smooth, with 4 short, stout, longitudinal sulci at about the middle; mesopleuron mostly smooth, setae anterodorsally and ventrally, the normal row of foveae at the caudal margin and several distinct striae below towards the caudal margin; scutum and scutellum rather densely pubescent, scutellum depressed at base; propodeum not distinctly divided into 2 parts, with a distinct, strong, median longitudinal carina extending three-quarters of the way to the caudal margin, bordered on each side by a series of foveae which become elongated into irregular rugae caudad, lateral carina distinct only to level of spiracle, area mesad to this carina almost smooth, laterally propodeum coarsely rugose, short caudal region finely rugose and densely finely setose, propodeum without marked declivity; petiole very short; abdomen slightly convex above from lateral aspect, with a median sulcus at base, otherwise smooth at base except for the lateral rounded carina and tuft of hairs; forewing long, broad, hyaline but densely setose, pterostigma a little longer than wide, radial cell distinct, radial vein longer than pterostigma. Length, excluding ovipositor, 12.0 mm; ovipositor 3.5 mm.

Type.—Holotype ♀ in the Division of Entomology Museum, C.S.I.R.O., Canberra.

Type locality.—Bendora, A.C.T. (21.iii.1951, E. F. Riek).

The species is most closely allied to *turneri* but differs in the structure of the propodeum and the eyes are distinctly hairy. Only the holotype is known.

Genus PHAENOSERPUS Kieffer

Phaenoserphus Kieffer, 1908, in André, Spec. Hym. Eur. Alg. 10: 298.

Genotype *Proctotrupes curtipennis* Haliday, 1839, Hym. Brit. 1: 12 (designated by Muesebeck, Krombein, Townes, etc. 1951).

PHAENOSERPUS AUSTRALIAE (Kieffer)

Proctotrypes australiae Kieffer, 1907, Berl. Ent. Z. 52: 266.

Phaenoserphus australiae Kieffer, 1914, Das Tierreich 42: 35.

Proctotrypes australiae Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 387.

Type locality.—Guildford, W.A.

The species has not been recognized.

Genus CRYPTOSERPUS Kieffer

Cryptoserphus Kieffer, 1907, in André, Spec. Hym. Eur. Alg. 10: 288.

Genotype *Cryptoserphus longicalcar* Kieffer, 1908, in André, Spec. Hym. Eur. Alg. 10: 317 (designated by Kieffer, 1914).

CRYPTOSERPUS NIGRISCUTUM Dodd

Cryptoserphus nigriscutum Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 388.

Female

Black; thorax red-brown, scutum somewhat darker, less so parapside and propodeum; tegula pale; legs all pale, golden yellow; antenna brown, scape yellow.

Head very transverse, with scattered short pubescence; scutum convex, smooth and with denser short pubescence, parapsidal furrows distinct only anteriorly; scutellum rather small, somewhat convex; propodeum divided into 2 portions, anterior part with a median and lateral carinae, the area between smooth, separated from the posterior portion by a transverse carina, posterior portion somewhat declivous, rugose, covered with dense whitish pubescence; petiole only narrowly visible from above; abdomen compressed, oval, with a filiform ovipositor nearly as long as the rest of the abdomen; abdomen at base with a fine median longitudinal sulcus and a few short, obscure carinae, its anterior margin carinate; forewing long, broad, subhyaline; pterostigma longer than greatest width, the radial vein longer than pterostigma; radial cell narrow; scape stout, somewhat shorter than 1st funicle, pedicel stout, quadrate, funicle segments slender, 1st much narrowed at base, the succeeding less so, 1st more than twice length of pedicel, succeeding shortening, penultimate $1\frac{1}{2}$ times as long as wide, apical segment as long as 1st funicle.

Type.—Holotype ♀ in the South Australian Museum, Adelaide. Female on a card, antennae and forewings on a slide.

Type locality.—Cairns district, Qld. (18.ix.1913, A. P. Dodd), 1500 ft, sweeping.

One female, Macpherson Range, Qld., 2600 ft (Dec. 1929, A. P. Dodd) in the Division of Entomology Museum, C.S.I.R.O., Canberra, agrees with the above but the scape is only slightly pale below and the propleuron has a single short longitudinal sulcus at about its middle.

In 1 ♀ from Belgrave, Vic. (26.xii.1926, A. P. Dodd) in the Division of Entomology Museum, C.S.I.R.O., Canberra, the scape is pale at basal

half, there are three short sulci on the propleuron, and the mesopleuron has a few weak striae below at caudal margin in addition to the normal marginal foveae.

CRYPTOSERPHUS NITIDUS Dodd

Plate 1, Fig. 5

Cryptoserphus nitidus Dodd, 1915, Trans. Roy. Soc. S. Aust. 39: 388.

Male

Shining black; legs, including coxae, tegula, scape, and pedicel, golden yellow.

Prothorax and mesothorax finely densely pubescent; parapsidal furrows present anteriorly; propodeum, petiole, and base of abdomen as in *nigriscutum*; forewing long, broad, hyaline; pterostigma somewhat longer than greatest width, the radial vein almost parallel with its distal margin; radial cell narrow; venation fuscous; 1st funicle segment $2\frac{1}{2}$ times as long as wide, distinctly longer than 2nd, the 10th (penultimate) $1\frac{1}{2}$ times as long as wide, the apical as long as the 1st funicle.

Type.—Holotype ♂ in the South Australian Museum. Male on a card, head, antennae, and forewings on a slide.

Type locality.—Cairns district, Qld. (24.vii.1913, A. P. Dodd), sweeping.

1 ♂, Cairns district (Dec. 1925, A. P. Dodd), agrees with the above description but the basal funicle segments are yellow below and the propleuron has three short transverse sulci (two carinae) at the middle of its height and towards the anterior margin and the anterolateral margin of the declivity is emarginate. Also the mesopleuron below is almost without hairs and has a few weak striae caudally near the margin.

This species is most probably the male of *nigriscutum*, the fine differences in antennal structure and difference in colour being most probably sexual.

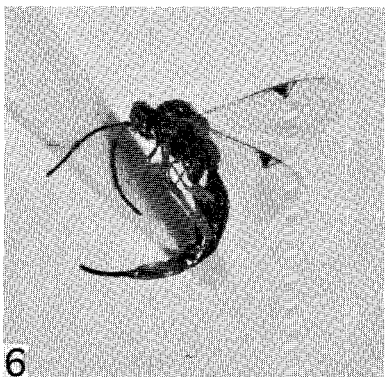
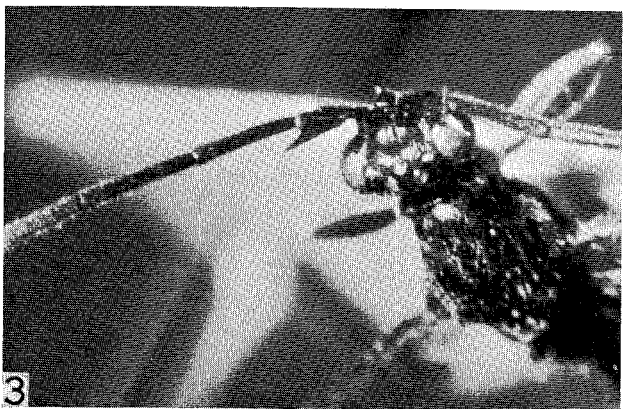
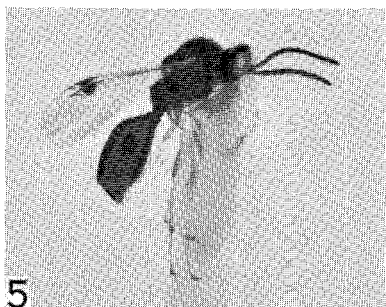
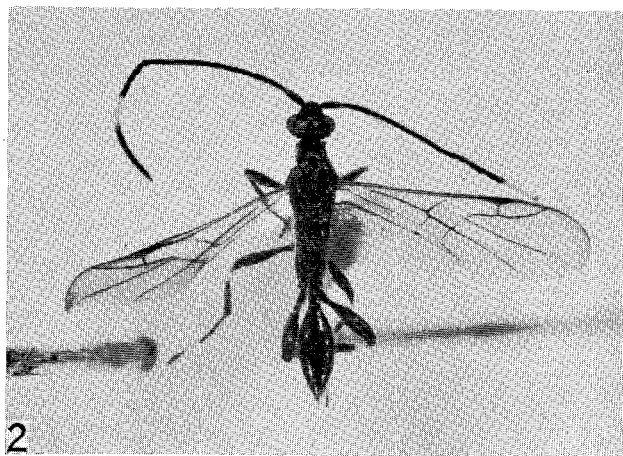
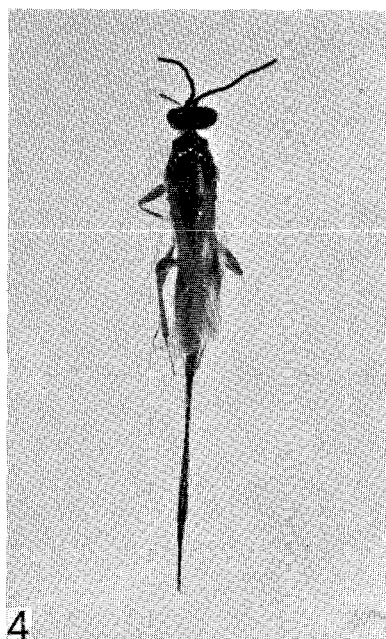
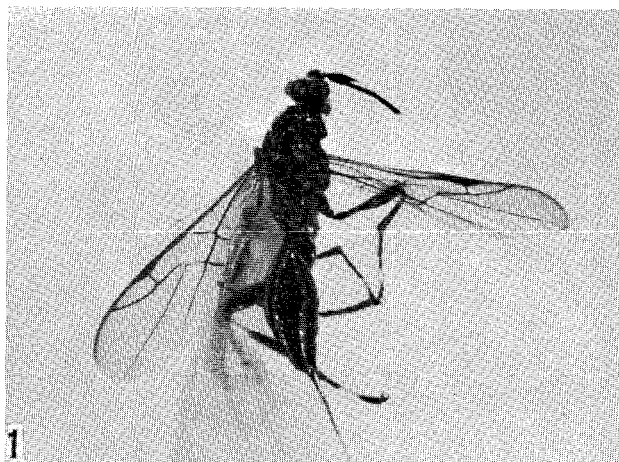
CRYPTOSERPHUS SULCATUS, sp. nov.

Female

Black with reddish hues, ovipositor not deep black; legs, including coxae, all pale, golden yellow; at least scape and pedicel golden yellow (remainder of antennae missing).

Ornamentation of head, scutum, and scutellum as in *nigriscutum*; propleuron with several (6-7) fine, short, somewhat radiating sulci situated in the middle towards the anterior margin; mesopleuron with a few weak striae below caudally; propodeum with median and lateral carinae over anterior half, the area between not smooth, but with irregular rugae becoming fainter and more longitudinally disposed anteriorly; a transverse carina at middle, posterior portion as in *nigriscutum*; abdomen at base with distinct median sulcus and on each side with several fine

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striae converging towards the median sulcus. Length, excluding ovipositor, 3.0 mm; ovipositor 0.5 mm.

Type.—Holotype ♀ in the Division of Entomology Museum, C.S.I.R.O., Canberra.

Type locality.—Marysville, Vic. (28.ii.1932, A. P. Dodd).

This species, though coming close to *nigriscutum*, can be distinguished on the ornamentation of the propleuron, propodeum, and base of the abdomen. Only the holotype is known.

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EXPLANATION OF PLATE 1

- Fig. 1.—*Austroserphus albofasciatus* Dodd, paratype female. × c. 6.
 Fig. 2.—*Austroserphus albofasciatus* Dodd, paratype male. × c. 6.
 Fig. 3.—Head and antenna of Figure 2, enlarged.
 Fig. 4.—*Proctotrupes splendidus*, sp. nov., holotype female. × c. 6.
 Fig. 5.—*Cryptoserphus nitidus* Dodd, male, Cairns district. × c. 6.
 Fig. 6.—*Proctotrupes doddi*, sp. nov., holotype female. × c. 6.

LIST OF SPECIES

Genus				Page	Genus				Page
Genus <i>Acanthoserphus</i>					Genus <i>Disogmus</i>				
<i>A. albicoxa</i>	Dodd	..	..	109	<i>D. nigerrimus</i>	Dodd	..	..	110
Genus <i>Austroserphus</i>					Genus <i>Phaenoserphus</i>				
<i>A. albofasciatus</i>	Dodd	..	..	108	<i>P. australiae</i>	(Kieffer)	..	..	115
Genus <i>Cryptoserphus</i>					Genus <i>Proctotrupes</i>				
<i>C. nigriscutum</i>	Dodd	..	..	115	<i>P. doddi</i> , sp. nov.	..	..	..	113
<i>C. nitidus</i>	Dodd	..	..	116	<i>P. janthinae</i>	(Dodd)	..	..	111
<i>C. sulcatus</i> , sp. nov.	..	..	..	116	<i>P. nitens</i>	Dodd	..	..	112
					<i>P. splendidus</i> , sp. nov.	..	..	..	114
					<i>P. turneri</i>	Dodd	..	..	111