

The Australian Longicorn Beetle Genus *Coleoptus* Aurivillius (Coleoptera: Cerambycidae)

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The monotypic phoracanthine genus *Coleoptus* is reviewed and redescribed. *C. senio* (Newman) is redescribed and illustrated. The distribution and biology of *C. senio* are noted.

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INTRODUCTION

Coleoptus Aurivillius 1893 is a monotypic phoracanthine genus of exclusively Australian-New Guinean distribution. Aurivillius (1893) proposed the genus based on *Coptocercus sexmaculatus* Hope 1844. In 1912, Aurivillius synonymised *Coleoptus sexmaculatus* (Hope) with *C. senio* (Newman) (= *Phoracantha senio* Newman 1840). The synonymy was confirmed when the types of these two species were examined.

Coleoptus is most closely related to *Phoracantha* Newman, and according to Wang's (1994b) cladistic analysis, they are in fact sister genera. *Coleoptus* differs from *Phoracantha* in having the prothorax distinctly longer than wide, and the elytra with truncate apices. Although *Coleoptus* is monotypic, its distribution is almost as extensive as that of *Phoracantha* which includes at least forty species, many of which have very localised distributions (Wang 1995b). The adult of *C. senio* has never been well described and illustrated but the immature stages were well described by Duffy (1953, 1963) based on specimens obtained from *Syncarpia* in New South Wales.

Taxonomic terminology follows Wang (1993a,b; 1994a,b; 1995a,b; 1996) and Wang et al. (1994). Specimens for this study were borrowed from the following: Australian Museum, Sydney (AM), Australian National Insect Collection, Canberra (ANIC), Natural History Museum, London (BMNH), Museum of Victoria, Melbourne (MV), Northern Territory Museum, Darwin (NTM), Oxford University Museum, Oxford (OUM), Queensland Museum, Brisbane (QM), South Australian Museum, Adelaide (SAM), and University of Queensland Insect Collection, Brisbane (UQIC). The author's collection has been deposited in MV. Distribution data were obtained from specimens examined.

GENUS *COLEOPTUS* AURIVILLIUS

Coleoptus Aurivillius 1893:160. Type species: *Coptocercus sexmaculatus* Hope 1844:195, by monotypy; Carter 1929:119, McKeown 1947:33.

Diagnosis

Distinguished by combination of head, pronotum, thoracic sterna and abdomen with depressed hairs; segments 3–7 of antennae with sharp apical unispines; prothorax longer than wide, with small spine at each side; 5 feebly raised nodules on pronotal disc; densely and heavily punctate throughout entire disc except medial nodule and anterior pair of nodules; elytra with pale unraised fascia(e); a cylindrical hair arising from each puncture on elytral disc; apex obliquely truncate without spines or processes; femora lineate or gradually thickened, with depressed hairs. Tegmen of male terminalia with 2 parameres; spined region of internal sac of aedeagus with 3 sections; styli of ovipositor arising terminally.

Comments

This genus is closely related to *Phoracantha* (Wang 1995b) but differs in having the prothorax distinctly longer than wide and the elytral apices truncate. It is also similar to *Phytocaria* Wang (Wang 1996) but differs in having prothorax distinctly longer than wide, each puncture on head and basal half of elytral disc with only 1 cylindrical depressed hair, and styli of ovipositor arising terminally.

COLEOCOPTUS SENIO (NEWMAN) (FIGS 1–3)

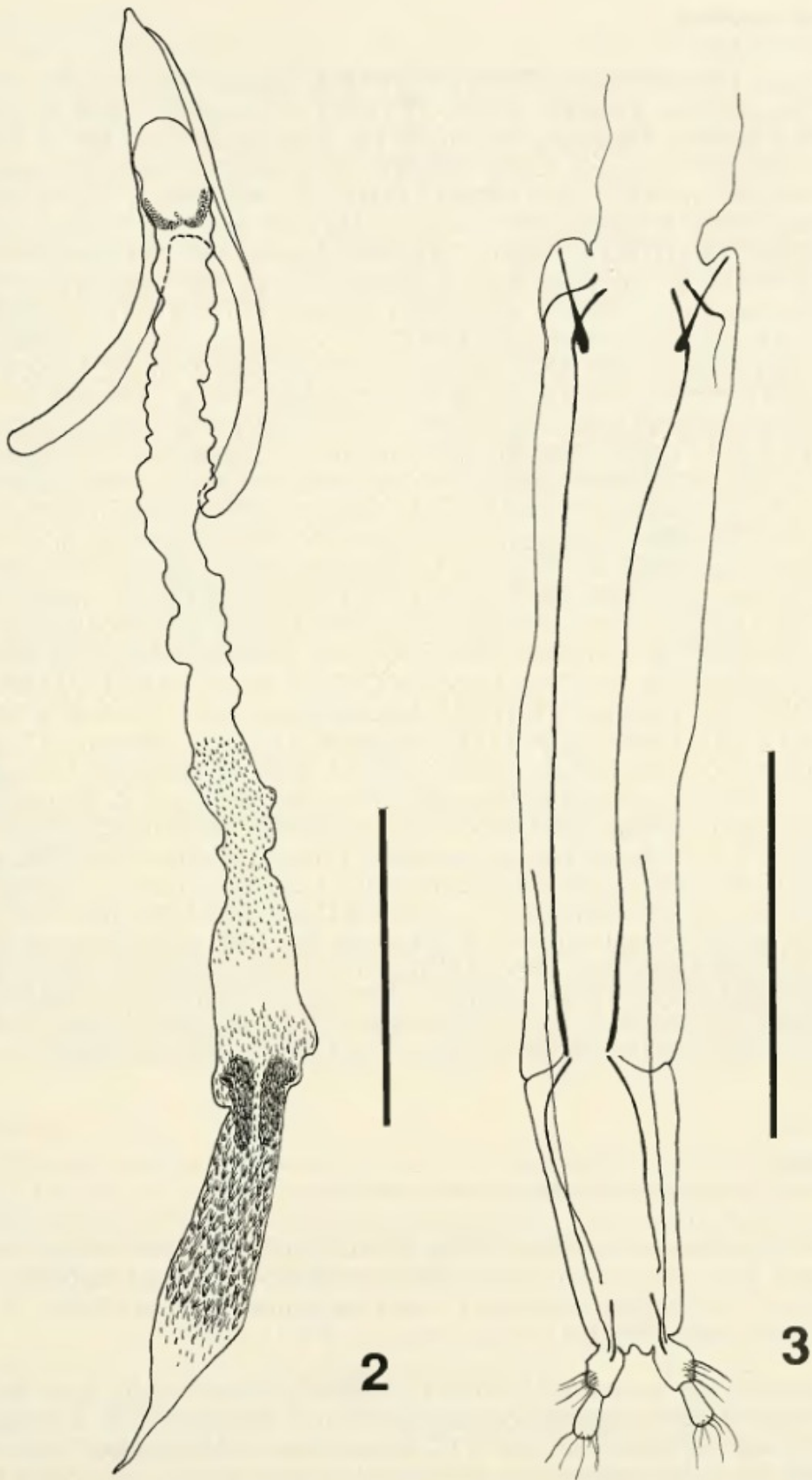
Phoracantha senio Newman 1840:4. — Newman 1842:352; Erichson 1842:247; Gahan 1893:172; Lea 1917:617; Lever 1946:10.

Coleocoptus senio. — Aurivillius 1917:5; McKeown 1947:33; Gressitt 1959:95; Duffy 1953:179, 1963:75.

Coptocercus sexmaculatus Hope 1841a:51. — Hope 1841b:63, 1844:195; Aurivillius 1893:160, 1912:93 (synonymy).



Fig. 1. Dorsal view of *C. senio*.



Figs. 2-3. Genitalia of *C. senio*: 2, median lobe and internal sac of male genitalia; 3, ovipositor.

Material examined

Types

P. senio. Holotype, female, SOUTH AUSTRALIA: Adelaide (BMNH, Ent Club 44-12).

C. sexmaculatus. Holotype, female, AUSTRALIA: no locality (OUM, Col 1786).

Other material, 235 males, 298 females [10 males, 8 females (AM); 12 males, 15 females (ANIC); 14 males, 18 females (BMNH); 46 males, 69 females, terminalia slides Nos Coleoctopus m-920613-1 and f-920613-1 (MV); 2 males, 1 female (NTM); 32 males, 36 females (QM); 86 males, 101 females (SAM); 33 males, 50 females (UQIC)]. NORTHERN TERRITORY: Casuarina, 19.x.1976; Victoria River, 11.xi.1984; Barrow Ck (21°32'S, 133°53'E); McArthur River, 1.vi.1967; Port Darwin; Daly River (14°10'S, 131°20'E); Tennant Ck (19°39'S, 134°11'E); Cockatoo Ck (15°56'S, 129°03'E); Ranken Store, 65 km SE of Alexandria, 23.ix.1977; Alice Springs; Flora River, Sept.1912; Katherine River; QUEENSLAND: Springbrook, 26.iii.1966; Kedron, 5.iv.1958; South Percy Island (21°45'S, 150°18'E), 23-29.xi.1992; Flora (21°56'S, 148°33'E), Sept.1912; Lake Broadwater, via Dalby, 26-28.i.1985; Mornington Island (16°36'S, 139°21'E), 29.v.1960, at light; Fulham Vale, Jan.1892; Mt Spec, 7.xi.1969; Normanton, 25.v.1972; Birdsville, 17.ix.1977; Riversleigh HS, nr. Gregory River, 26-30.iv.1986, malaise trap; Lawes, 6.ii.1952; Wulguru, 12.x.1962; Mt. Nebo, 7.v.1959; Stanthorpe, 7.xii.1923; Toowoomba, 7.xii.1964; Cunnamulla; Augathella, 4.i.1974; Charleville, under bark of *Eucalyptus camaldulensis*, 8.i.1974; Mutchilba, Dec.1933; Brisbane, Nov.1909; Warwick, 1948; Blackburn, 10.iii.1940; NEW SOUTH WALES: Broken Hill, 10.xii.1966; Acacia Plateau, via Legume, 9.i.1967; Walgett, 30.xii.1971; Grafton, 26.ii.1967; Forest Reefs; Bourke, 26.xii.1973, at light; Merrimbula, 23.ii.1950; Mullaley, Nov.1957; Canowindra, 10.i.1955; Sydney; Glen Roy, 25.xii.1953; Red Cliffs, 28.xii.1954; AUSTRALIAN CAPITAL TERRITORY: Canberra; VICTORIA: Mitchell Gorge, Jan.1929; Mildura, Jan.1937; Kiata, 27.xii.1918; Caulfield, 26.ii.1918; Benetook, 25.xi.1951; Rosanna, 17.iii.1953; Gippsland; Officer, 20.vii.1924; Ararat, 8.ii.1937; SOUTH AUSTRALIA: Leigh Ck (30°29'S, 138°25'E); Whyalla, 10.xi.1947; Scorpion Springs C.P., Nanam's Well, 17.xii.1983, at light; Blackwood, 18.xii.1960, at light; Devon Downs; Roxby Downs, 23.x.1976, at light, in *Acacia sowdenii* woodland; Ooldea; Athelstone, 1.iii.1986, at light; Kimba; Kangaroo Island, Feb.1888; Tumby Bay; Ardrossan; Yumbarra National Park, 11.xi.1975, at light; Emu Junction, Great Victoria Desert, 11.x.1976; Sturt Vale Station, 17.xi.1975, at light; Sandplain (29°09'S, 134°06'E), 25.x.1984, at light; Aldinga Sellicks, 2.iv.1987, at light; Olary, 19.xi.1975, under bark of red gum (*Angophora costata*); WESTERN AUSTRALIA: Swan River; Derby, 29.viii.1953; Gill Pinnacle, 10.xi.1963, at light; Meekatharra-Billiluna Pool, April 1930-Aug.1931; Esperance (33°52'S, 121°54'E), 5.i.1944; Kimberley; PAPUA NEW GUINEA: Port Moresby, Nov.-Dec.1958.

Description

Body length

male, 10-16.2 mm; female, 10.2-19.5 mm.

Colour

Antennae, legs and ventrites reddish brown with apical half of femora dark reddish brown; head, pronotum and elytra dark reddish brown to blackish brown. Elytra with following pale yellow markings: 1 narrow incomplete fascia at sub-base, 1 wider, more or less complete fascia at middle, and apices (Fig.1).

Head

Head with very dense large punctures of irregular form, each bearing a pale depressed hair. Distance between lower lobes of eyes 1.2-1.4 times distance between antennal socket and lateral angle of postclypeus, and 1.7-2 times distance between upper lobes of eyes. Antennae 1.3-1.5 times length of body in male and just slightly longer than body in female; segment 3 distinctly longer than segment 4 or 5, and 3-4 times length of its apical spine.

Thorax and abdomen

Nodules on pronotal disc: median one and anterior pair obvious and nitid but posterior pair vague and punctate; each puncture on pronotal disc with a long pale erect hair; sparse pale depressed hairs on disc; very small spine or process at each side. Elytra nitid, about 2.8–3 times length of prothorax in male but about 3–3.3 times length of prothorax in female; dense, large and deep punctures on basal half of disc, more than 50% of punctures with short pale depressed hair each, at most as long as diameter of punctures, and remaining punctures bearing long erect or sub-erect hair each; dense but small punctures on apical half of disc, more than 50% of punctures with very short pale depressed hair each, and remaining punctures with long erect hair each; punctures on basal half of disc aligned in rows. Abdomen nitid with dense pale depressed hairs.

Male terminalia

Apex of median lobe sharply pointed (Fig.2). Spined region of internal sac slightly longer than unspined region; spined region divided into 3 sections: first section about 1.5 times as long as second section, with fairly dense simple small and long spines; second section with fairly dense simple large and long spines in basal 2/5 and with mixture of dense multi-branched spines and sparse simple small and long spines in apical 3/5; 2 longitudinal dark areas, composed of very dense multi-branched spines in apical 3/5; third section about twice as long as second section, with mixture of dense multi-branched spines and sparse basally forked spines; a wide unspined gap between first and second sections (Fig.2). Eighth sternite obliquely truncate at terminal sides; dense long setae arising from it laterally and terminally; setae present in mid-terminal area; dense microspines on ventral surface. Apex of eighth tergite more or less rounded.

Ovipositor

As in Fig.3.

Variation

The two pale fasciae of the elytra may be widened and connected with each other to form a broad fascia.

Biology

Hosts are *Syncarpia laurifolia* (Duffy 1953 and 1963), *Acacia leiocalyx* (Hockey and Baar 1988), *A. sowdenii* (?), *Eucalyptus botryoides*, *E. crebra* (Webb 1987), *E. camaldulensis* and *Angophora costata*. Larvae feed under the bark of the hosts. Adults were collected at light and under the bark of their hosts during all months except June and July.

Distribution

Northern, southern, eastern and central Northern Territory, northern, eastern and southern Queensland, eastern, northern, southern and western New South Wales, Australian Capital Territory, Victoria, southern and south-eastern South Australia, south-western, northern and far south-eastern Western Australia, south-eastern Papua New Guinea; introduced into New Zealand and Fiji.

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