

**Contributions to the taxonomy of
Australian Buprestidae (Coleoptera)
Part III. A new genus and species of buprestid from
Queensland and comments about its placement**

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Abstract. *Barakula* Peterson & Bellamy, **gen. n.** and *B. petersonorum* Peterson, **sp. n.** are described from Barakula, Queensland.

Coleoptera, Buprestidae, Australia, new genus, new species

Introduction

As the third contribution to our collaboration, a new Australian jewel beetle genus and species are described from Queensland. This new genus is provisionally placed in the subtribe Thomassetiina Bellamy, 1987 (Buprestinae: Anthaxiini) and contrasted to the known fauna of that group (e.g. Bellamy et al. 1987, Bellamy 1991, 1996, 1997, Bílý 1993a, 1993b).

Materials and methods

The Western Australian Museum, Perth, is abbreviated WAMA. Label data are presented verbatim and information not presented in full on locality labels, e.g. state / territory, is given in [square brackets]. Surface sculpture descriptors are from Harris (1979).

***Barakula* Peterson & Bellamy, gen. n.**

Type species. *Barakula petersonorum* Peterson, **sp. n.** (present designation).

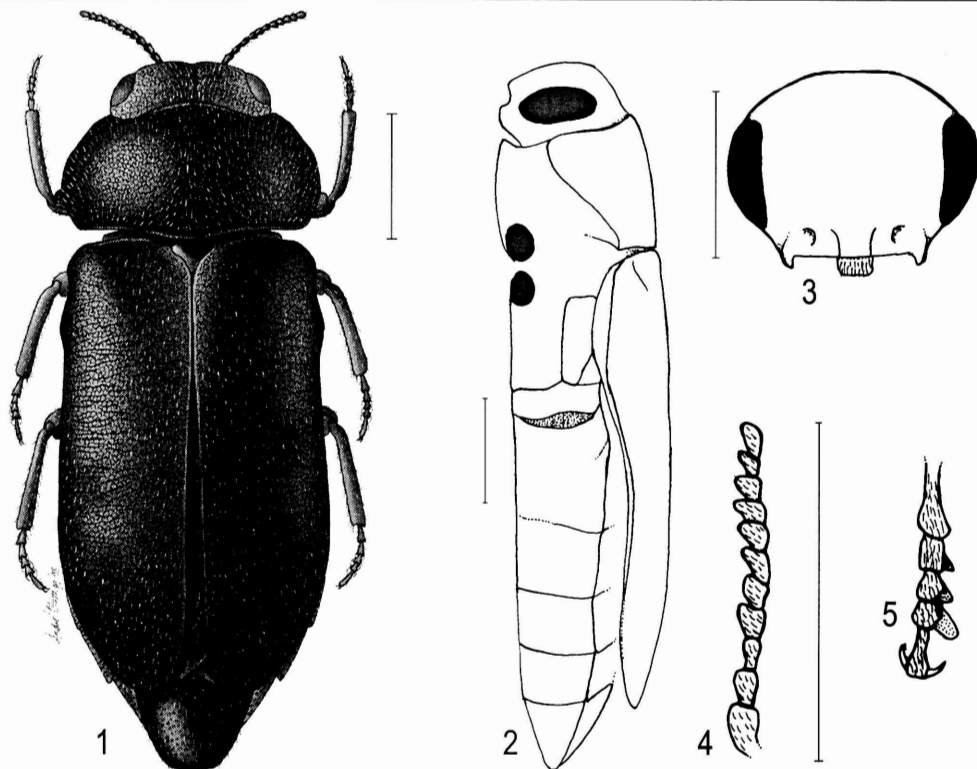
Description. Small, less than 6.0 mm, elongate ovoid, flattened above and below; head broad, small eyes widely separated, not touching pronotum; antennal cavities small, separated by distance greater than their individual width; frontoclypeal margin emarginate; genal with transverse channel to receive basal antenno-

Table 1. Character state differences between *Barakula* gen. n. and three other Australian anthaxiine genera.

Character	<i>Barakula</i> gen. n.	<i>Pseudanilara</i>	<i>Neocuris</i>	<i>Maoraxia</i>
	Character state			
Vestiture	sparsely setose	sparsely setose	without dorsal setae	moderately setose
Head, eye size, distance	eyes small, widely separated	eyes of moderate size, separation	eyes large, dorsal separation near	eyes of moderate size, separation
Head, inner margin of eyes	nearly parallel	converging dorsally	strongly converging dorsally	converging dorsally
Head, eye projection	equal to outline of head	strongly projecting beyond outline of head	strongly projecting beyond outline of head	equal to outline of head
Pronotum	very broad, widest at posterior 1/3	widest near base, just before posterior margin	widest near base, just before posterior margin	widest at middle, strongly narrowing in posterior 1/2
Elytra, length	short, pygidium mostly visible	entire, pygidium only partly visible, if at all	entire, pygidium only partly visible, if at all	entire, pygidium only partly visible, if at all
Elytra, latero-apical margin	entire	serrate	serrate	serrate
Metacoxal plate	anterior / posterior margins subparallel	anterior / posterior margins subparallel	anterior / posterior margins subparallel	posterior margin strongly arcuate, narrowed laterally
Tarsomeres, length	2 subequal to 1	1 as long as 2+3+4	1 as long as 2+3	1 longer than 2+3+4+5
Tarsomeres, pulvilli	1-4 each with short pulvillus	2-4 with short pulvillus, 1 without	2-4 with short pulvillus, 1 with elongate pulvillus	1-2 without, 3-4 with broad distal pulvilli
Tarsomeres, claws	simple	simple	simple	appendiculate

meres in repose; genal tooth small, obtuse; labrum narrow, rounded, setose distally; mandibles moderately robust; palpi short, not exerted; antennae serrate from antennomere 4. Pronotum wider than long, widest at middle; disk entire, not otherwise modified; disk separated from hypomeron by nearly entire lateral carina which extends from posterior margin almost to anterior margin. Elytra widest near apical 1/3, short, separately rounded; pygidium nearly completely exposed beyond apices; epipleuron broad basally, thereafter narrow and extending to about apical 1/3. Underside: prosternum width subequal to length, process acuminate, received by mesosternal lobes laterally, metasternum distally; metacoxal plate with posterior margin feebly sinuate, oblique; abdominal sterna with sutures transverse; femora fusiform; tibiae nearly straight, unmodified; tarsomeres 1-4 each with ventral pulvillus, 5 with claws appendiculate.

Remarks. *Barakula* gen. n. is related to other Australian genera currently placed in the Melanophilina nearest, in relative terms, perhaps to *Pseudanilara* Théry, 1910, although rather distinct. *Pseudanilara* differs with the head having much larger, laterally projecting eyes, the pronotum is trapezoidal and the elytra are not



Figs 1-5. *Barakula petersonorum* gen. n., sp. n., holotype. 1 – dorsal habitus; 2 – lateral aspect; 3 – head, frontal view; 4 – antenna; 5 – metatarsus. Scale bars = 1 mm.

short, or shortened proportionally to the body. Some species of *Pseudanilara* exhibit elongate palpi, similar to other Australian buprestid florivores. Outside of the Australian fauna, *Barakula* gen. n. is related to *Philanthaxia* Deyrolle, 1864 (see Bílý 1993b), *Karenaxia* Bílý, 1993 from Thailand and *Ceylonaxia* Bílý, 1993, from Sri Lanka and India (see Bílý 1993a). Due to the condition of certain external characters, there is an approximation of character states observed in some Afrotropical thomassetiines: the broad tarsal pulvilli are similar to those found in *Augrabies* Bellamy, 1987 and *Thomassetia* Théry, 1928 (see Bellamy *et al.* 1987) from South Africa. The Australian genera that come near to *Barakula* gen. n. are differentiated from one other in Table 1.

***Barakula petersonorum* Peterson, sp. n.**

(Figs 1-5)

Diagnosis. Female. Total length from frontovertex to elytral apex 5.70 mm, to apex of pygidium 6.20 mm, total width 2.30 mm, widest at about apical 1/3 of

elytra; minimum ocular distance on vertex (1.05 mm) 72.4% of total head width (1.45 mm); pronotal length (1.25 mm) 56.8% of width (2.20 mm); elytral length 4.10 mm, width 2.30 mm; head width 63.0% of pronotal width; maximum eye length (0.60 mm) 41.4% of head width; elongate ovoid, flattened above; subnitid black above and below, with a strong, nearly uniform aeneous lustre; head, pronotum, hypomeron, prosternal process areolate; elytra rugose; meso-, metathoracic and abdominal sterna punctate; surface sparsely clothed with short, recurved white setae.

Description. Head broad, entire; antennal cavities moderate, separated by a distance greater than their individual width; frontoclypeal distal margin feeble bi-arcuate; gena with transverse depression for reception of basal antennameres, with small, stout, obtuse tooth distally; antennamere 2 and 3 subequal in length, 2 more stout; 4-10 triangularly serrate, each slight longer than wide; 11 oblong. Pronotum wider than long, widest posteriad to midpoint; anterior margin arcuate on either side of narrow middle convexity; lateral margins broadly arcuate in anterior 2/3, thereafter straight, converging strongly to obtuse laterobasal angles; posterior margin straight on either side of arcuate median lobe; lateral carinae extend from posterior margin almost to anterior margin; disk entire, without carinae or other elevations; scutellum triangular, width subequal to length. Elytra with only small, shallow depressions near anterior margin between suture and humeri; lateral margins carinate, more or less straight in anterior 2/3, widening slight to apical 1/3, then gradually narrowing to separately rounded apices; epipleura broad from near anterior margin to opposite suture between metasternum and metacoxa, the narrowing to thin margin extending to area opposite length of 3rd abdominal sternum. Lateral portion of abdominal pleura and pygidium visible from above; pygidium attenuate laterally, rounding to truncate apex. Underside with broad hypomeron; prosternum longer than wide, lateral margins straight, narrowing to opposite procoxae, process then narrowing between procoxae, slightly expanding before narrowing to round apex; metacoxal plate with anterior and posterior margins subparallel, slightly oblique; abdominal sterna with sutures generally transverse, slightly arcuate laterally; sternum 1 longer than 2, 2 longer than 3, 3 longer than 4, 5 longer than 2, 3 or 4, but shorter than 1; 5 with truncate apical margin, also with preapical groove. Legs: femora fusiform, tibiae elongate, subequal in length to femora, armed with two short spines distally on inner side of apex; tarsi with tarsomeres 1-4 each with ventral pulvillus, each of which is progressively longer and wider, with that on 4 being about 2x longer and wider than the tarsomere itself; 5 narrow, and the claws broadly appendiculate; tarsomere 5 missing on all three right legs and the complete tarsi missing on the foreleg.

Male unknown.

Holotype. ♀, AUSTRALIA QLD Barakula, 22.xii.1983, M. Peterson [26.17S 150.52E] (WAMA 23198).

Biology. *Barakula petersonorum* gen. n., sp. n. was collected after it landed on the collector's shirt, at 13h00. Consequently, host plant data are unavailable at

this time. However, the collection site was a *Eucalyptus* spp. dominated open forest with an *Allocasuarina* / *Callitris* understory on a red-brown soil.

R e m a r k s. Since there is only the single specimen to work from, it was decided not to risk further damage by dissecting, for illustration, either the wing or ovipositor. In terms of superficial appearance, *Barakula petersonorum* gen. n., sp. n. resembles members of the chrysobothrine genus *Sphaerobothris* Semenov-Tian-Shankij & Rikhter, 1934 recently re-evaluated by Bellamy & Volkovitsch (1997). This is not a relationship statement, as the resemblance is likely only coincidental or convergent, mostly with the very broad and rounded pronotum and the shortened elytra both taxa exhibit.

E t y m o l o g y. The specific epithet of this enigmatic and unique taxon is dedicated to my parents (father, Magnus A. Peterson (1929-1997); mother, Ursula M. Peterson (*1934)), for their love, and support of my passion for biology.

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