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A new species of the genus *Pogonus* Nicolai from Northwestern Australia

(Insecta, Coleoptera, Carabidae, Pogoninae)

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Pogonous sumlini, spec. nov. from northwestern Australia is described. A revised key to the depigmented Australian species of *Pogonus* is provided. The new record fills in the final gap in distribution of the genus *Pogonus* all around Australia and demonstrates that virtually all suitable habitats along the coasts of Australia are inhabited by at least one *Pogonus* species.

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Within a small sample of carabid beetles collected by Mr. William D. Sumlin, III, San Antonio, during his research work on Cicindelids in Western Australia, a peculiar new species of *Pogonus* was recognized that is described herein. The new species was collected in the vicinity of Onslow and Port Headland, respectively, at the coast of northwestern Australia. It belongs to a group of large, depigmented species and is in some ways intermediate between *Pogonus hypharpagoides* Sloane from southern Australia and *P. variabilis* Moore from tropical northern Australia. It is the first *Pogonus* species detected in the northwestern part of Western Australia between Murchison River in the south and the southern border of the Kimberleys in the north. A revised key to the depigmented Australian *Pogonus* is provided that includes all species described since Moore's paper of 1977 and replaces the keys of Baehr (1984), Moore (1991) and Baehr (1997). For the pigmented species my recent key (Baehr 1997) still applies, though the reader should be aware that Peter Hudson (Adelaide) soon will describe a new pigmented species from Western Australia (material seen by me).

Measurements

Measurements were taken using a stereo microscope with an ocular micrometer. Length has been measured from apical margin of labrum to apex of elytra, measurements, therefore, may slightly differ from those of other authors. Length of pronotum was taken along the midline, width of base between the posterior lateral angles.

Location of material

The holotype is donated to the Western Australian Museum, Perth (WAM), the paratype is kept in the working collection of the author (CBM) at Zoologische Staatssammlung München.

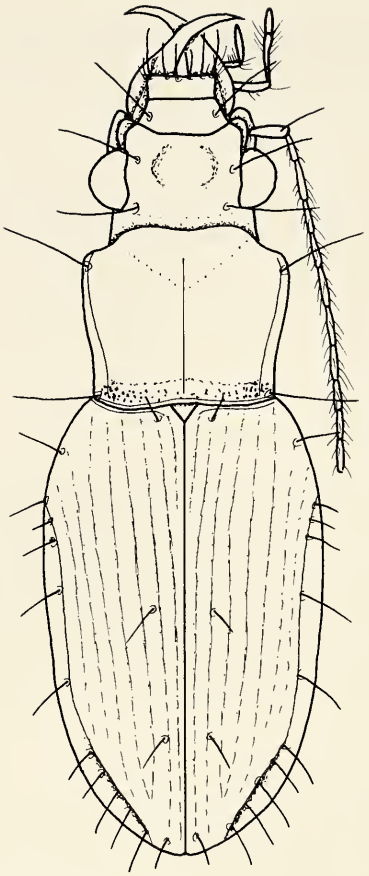

Fig. 1. *Pogonus sumlini*, spec. nov. Habitus. Length: 9 mm.

Pogonus sumlini, spec. nov.

Figs 1, 2

Types. Holotype: ♂, AUSTRALIA: W.A. Onslow, 21°38'59"S, 115°07'29"E, 26.XI.1997, Sumlin & Shatterly, mangrove salt flats (WAM). – Paratype: 1♂, AUSTRALIA: W.A. Port Hedland – Gray St., 20°19'42"S, 118°39'13"E, 19.XI.1997, Sumlin & Gage, magrove flats @ lights (CBM).

Diagnosis. Large, rather depressed, depigmented species, distinguished from both most similar species *P. hypharpagoides* Sloane and *P. variabilis* Moore by wider, more oval-shaped and more depressed elytra with conspicuously explanate lateral margins, and rather quadrate pronotum with barely sinuate lateral margins, almost rectangular basal angles, conspicuously bisinuate basal border, and characteristically widened basal part of marginal channel. It is further distinguished from *P. hypharpagoides* by longer mandibles, longer and more hirsute penultimate maxillary palpomere, longer antenna, less convex pronotum, distinct basal pronotal puncturation, more complete and deeper elytral striation, and distinct puncturation of striae. From *P. variabilis* it is further distinguished by more depressed eyes, shallower and less complete elytral striation, and finer puncturation of striae.

Description

Measurements. Length: 9.1-10.0 mm; width: 3.3-3.8 mm. Ratios. Width/length of pronotum: 1.12-1.13; width base/apex of pronotum: 1.04-1.06; width of pronotum/width of head: 1.19-1.20; length/width of elytra: 1.56-1.60; width elytra/pronotum: 1.36-1.40.

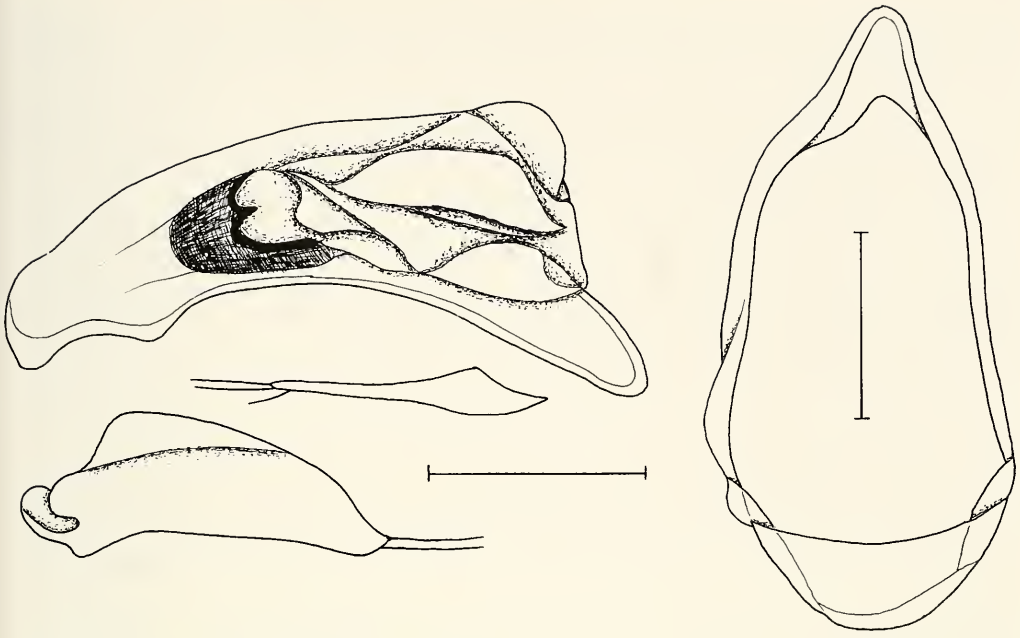

Fig. 2. *Pogonus sumlini*, spec. nov. ♂ genitalia. Scales: 0.5 mm.

Colour. Uniformly light reddish, labrum, palpi, antennae, and legs yellow. Lower surface yellow-red, epipleurae light yellow. Eyes blackish, mandibles brown.

Head. Large, convex, slightly narrower than pronotum. Eyes large though rather depressed, laterally not much projecting, posteriorly not enclosed. Labrum short and wide, apex slightly concave. Mandibles very elongate, somewhat decussate, apex strongly incurved. Palpi very elongate, markedly hirsute. Clypeus and frons in middle convex, frontal furrows very short, shallow, frons behind clypeal suture with some shallow, irregular impressions, frons also in middle with small ovalish impression. Antennae rather elongate, surpassing base of pronotum by about two antennomeres, pilose from middle of 3rd antennomere. Surface rather glossy, impunctate, with fine, rather superficial, isodiametric microreticulation.

Pronotum. Slightly wider than long, quadrate, widest in anterior quarter about at position of anterior lateral seta. Apex remarkably produced beyond anterior angles, in middle slightly excised. Anterior angles widely rounded off. Lateral border faintly rounded in apical half, then gently sinuate in front of the basal angles. Marginal channel anteriorly narrow, suddenly widened and slightly explanate towards base. Base in middle bisinuate, laterally remarkably oblique, hence, basal angles angulate though very wide. Apex unmargined, base margined, base in front of margin transversely swollen. Anterior transverse sulcus barely indicated, median line very shallow, abbreviated at apex and base, basal transverse sulcus shallow though distinct. Apex with some shallow corrugations at the site of anterior transverse sulcus, base coarsely punctate-striolate, laterally even rather coriaceous. Basal grooves rather shallow. Disk with finest and highly superficial traces of microreticulation only, extremely finely punctulate and striolate, highly glossy.

Elytra. Rather elongate, wide, strongly depressed, markedly oval-shaped. Humeri sharply projecting, strongly angulate, tightly adpressed to base of pronotum. Lateral margin gently convex to anterior fourth, then faintly narrowed and slightly oblique. Marginal channel narrow, even more narrowed from between 3rd and 4th anterior marginal pore. Margin explanate from anterior quarter backwards. Striation almost complete, though external striae abbreviated at base. Striae distinct, though external striae barely impressed, internal striae more coarsely punctate in anterior three quarters. 8th stria remarkably deepened and widened in apical fourth. Intervals depressed to very feebly convex. 3rd interval with two setiferous punctures, one at middle adjacent to 3rd stria, the other in posterior third

attached to 2nd stria. Submarginal pores consisting of 4(-5) pores in anterior group, 4-5 pores in posterior group, and one or two intercalar pores between. Microreticulation rather superficial, isodiametric. Wings fully developed.

Legs. Moderately elongate. Tarsi rather elongate, 1st tarsomere of metatarsus almost as long as both following tarsomeres. Metatrochanter (in males!) extremely elongate, c. two third of length of femur, apex acute, incurved. In males elongate 1st and short 2nd tarsomeres biseriately squamose, squamae remarkably elongate.

♂ genitalia (Fig. 2). Genital ring wide, triangular, rather symmetric. Aedeagus short and compact, laterally depressed, slightly asymmetric, lower surface regularly curved, apex rather elongate, rounded at tip, slightly turned to right side. Internal sac with a coiled, circular, heavily sclerotized plate near base. Right paramere narrow, slightly shorter than left, with two elongate and one additional short apical setae, the latter situated below the longer ones. Left paramere large, rather quadrangular, suddenly narrowed to obtusely angulate apex, with two elongate apical setae.

♀ genitalia. Unknown.

Variation. Some variation of size, relative width of elytra, and distinctness of striation und puncturation of striae noted.

Habits. The two specimens were collected at light in mangrove salt flats near Port Hedland and Onslow, respectively, which is exactly the same habitat that was recorded for the related *Pogonus variabilis* Moore of the Kimberleys, far Northern Territory, and far northern Queensland.

Distribution. Northwestern Australia south of the Kimberleys, in the vicinity of Port Hedland and Onslow.

Etymology. The name is a patronym in honour of the collector, Mr. Willam D. Sumlin, III.

Relationship. Judging from habitus, the closest relative of the new species seems to be *P. hypharpagoides* Sloane from inland salt lakes of the Lake Eyre basin in South Australia. The northern *P. variabilis* Moore is perhaps more remotely related, although it inhabits exactly the same tidal habitat as *P. sumlini*.

Recognition

For recognition of this conspicuous species the most recent key (Baehr 1997) has been partly revised. Since nothing has been altered for the metallic green or black Australian species of *Pogonus*, for those species the mentioned key should be further used as far as the new species to be described by Peter Hudson is not at hand. Therefore, the present key begins at couplet 6, that heads the fully depigmented Australian species.

Revised key to the depigmented Australian species of the genus *Pogonus* Nicolai

6. Large species (body length >9 mm); **either** pronotum distinctly sinuate in front of basal angles and base about as wide as apex, **or** pronotum rather quadrate with characteristicallly bisinuate base, and elytra wide, oval-shaped, and depressed with wide, explanate lateral margin. Northern Australia from northwestern Queensland to Exmouth Gulf, coastal and along tidal rivers ..... 7.

– Smaller species (body length <8.5 mm); pronotum distinctly sinuate or not in front of basal angles; but when distinctly sinuate, then base markedly narrower than apex; when not sinuate, then elytra not remarkably wide, oval-shaped, and depressed; and with narrower, not explanate lateral margin. Inland in southern half of Australia ..... 8.

7. Pronotum distinctly sinuate in front of basal angles, lateral margin not explanate at base; eyes convex, laterally markedly protruding; elytra less wide and depressed, lateral margin not explanate, striation deeper and more complete, striae distinctly punctate. Northern Australia from northwestern Queensland to the Kimberleys ..... *variabilis* Moore

- Pronotum rather quadrate, lateral margin conspicuously explanate at base; eyes depressed, laterally little protruded; elytra wide and depressed, lateral margin explanate, striation shallow and laterally incomplete, striae more finely punctate. Coast of Northwestern Australia south of Great Sandy Desert ..... *sumlini*, spec. nov.

8. Elytra broad; pronotum distinctly sinuate in front of basal angles and base markedly narrower than apex; left paramere with two apical setae, right paramere with a single apical seta. South Australia, Lake Eyre Basin ..... *gilesi* Moore
- Elytra narrow; pronotum either not distinctly sinuate in front of basal angles or base about as wide as apex; left paramere with three, right paramere with two apical setae ..... 9.

9. Large, convex species (body length 7.2-8.2 mm); head large, pronotum dorsally and laterally markedly convex. South Australia, Lake Eyre Basin ..... *hypharpagoides* Sloane
- Smaller, more depressed species (body length <6.5 mm); head smaller, pronotum dorsally more depressed, laterally less convex ..... 10.

10. Pronotum rather quadrate, lateral margin evenly curved from apex to base, widest in middle; elytral striae shallow, only three inner striae distinct, microreticulation conspicuous. Interior of Western Australia ..... *diplochaetoides*, spec. nov.
- Pronotum more narrowed to base than to apex, widest in anterior third, lateral margin not evenly curved; elytral striae deep, at least five inner striae distinct, microreticulation inconspicuous. South Australia, Lake Eyre Basin ..... 11.

11. Larger species (body length 5.2-6.4 mm); lateral margin of pronotum convex to base, basal angle obtuse, little projecting. Lake Eyre ..... *grossi* Moore
- Smaller species (body length 4.1-4.9 mm); lateral margin of pronotum straight or slightly concave in front of base, basal angle almost right, distinctly projecting. Vicinity of Lake Gairdner and Island Lagoon ..... *saskiae*, spec. nov.

Acknowledgements

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