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A new species of *Minuthodes* Andrewes from Australia

(Insecta, Coleoptera, Carabidae, Lebiinae)

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Minuthodes walfordi, spec. nov. from the Windsor Tableland, North Queensland is being described. It belongs to the *papuana*-group, but is not very closely related to *M. queenslandica* (Sloane) of the same group that also occurs in North Queensland.

New records of *M. queenslandica* (Sloane), *M. froggatti* (Macleay), and *M. minima* (Macleay) are dealt with and a revised distribution map of *M. froggatti* is presented.

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Introduction

During reidentification of some groups of Australian Carabidae of the Walford-Huggins Collection, kindly submitted by R. Davidson from the Carnegie Museum, Pittsburgh (CMP-WHC), I found three specimens of an apparently undescribed species of *Minuthodes* from North Queensland, that belong to the multispotted *papuana*-group, but are clearly different from *M. queenslandica* (Sloane) which also occurs in North Queensland. The new species was collected at two localities on the Windsor Tableland west of Mossman and northeast of Mt. Carbine, respectively, which is a large, rather isolated upland notable for its endemism (Baehr 1991, 1992). The new species is being described herein and an updated key to the Australian species of *Minuthodes* is presented.

New records of *M. queenslandica* (Sloane), *M. froggatti* (Macleay), and *M. minima* (Macleay) are also dealt with, and *M. froggatti* which was known only from the northern parts of Western Australia and the far Northern Territory (Baehr 1990) is for the first time recorded from North Queensland, where this species is apparently rather common.

Key to the Australian species of *Minuthodes* Andrewes

- 1. Elytra with a pattern of numerous yellow or reddish linear spots 2.
- Pattern of elytra different, consisting of an elongate stripe or of two serrate spots on each elytron, though the posterior spots may be united in middle 3.
- 2. Length c. 5 mm; pronotum wider, >2 × as wide as long, uniformly dark piceous to black; head and pronotum in middle without microreticulation, glossy; elytra prevailing dark, the interval adjacent to the lateral channel not spotted. Northeastern Queensland *queenslandica* (Sloane)
- Length <4.5 mm; pronotum less wide, <2 × as wide as long, margins widely yellow, only centre light piceous; head and pronotum in middle with distinct microreticulation, dull; elytra prevailing light, the interval adjacent to the lateral channel spotted. Windsor Tableland, northeastern Queensland *walfordi*, spec. nov.

3. Large species, c. 5 mm long 4.
 – Small species, <3.5 mm long 5.
4. Elytra with a regular, longitudinal, discal stripe on either side; puncturation on frons and on centre of pronotum superficial, microreticulation almost absent, surface glossy. Northern Australia from North Queensland to northwestern Australia *froggatti* (Macleay)
 – Elytra with a large, anterior, lyra-shaped common spot that is narrowly interrupted at suture, and with a serrate, semilunar, common posterior spot; puncturation on frons and on centre of pronotum coarse, microreticulation distinct, surface rather dull. Far Northern Territory *demarzi* Baehr
5. Elytra with a large anterior spot and a common, narrow, v-shaped posterior spot laterally not surpassing 5th interval; posterior part of frons and vertex as coarsely microreticulate as anterior part of head; pronotum less wide on the average, apex more concave, lateral parts of base more oblique, posterior angles obtuse. Eastern Australia *minima* (Macleay)
 – Elytra with a large anterior spot that is more or less interrupted at 5th interval, and with a markedly serrate posterior spot more or less touching the anterior spot on 5th interval and usually laterally surpassing 6th interval; posterior part of frons and vertex with superficial microreticulation, vertex almost smooth; pronotum wider on the average, apex less concave, lateral parts of base less oblique, posterior angles angulate. Far Northern Territory, northwestern Australia *serrata* Baehr

Minuthodes walfordi, spec. nov.

Figs 1, 2

Types. Holotype: ♀, Windsor Tableland NE Mt. Carbine, N. Qld, 5 March 1981, A. & M. Walford-Huggins (CMP-WHC). - Paratypes: 2 ♀ ♀, same data (CBM, CMP-WHC); 1 ♀, Australien, Qld. Devils Thumb n. Mossman, 8.1.1982, M. Baehr (CBM).

Note. The holotype and one paratype are mounted on the same card, though the holotype - on the left - is signed "HT".

Diagnosis. Species of the *papuana*-group of *Minuthodes* by virtue of the multispeckled elytral pattern. Easily distinguished from related species by the wide, yellow margins of the pronotum, the prevailing light elytra with distinctly spotted interval adjacent to the lateral channel.

Description

Measurements. Length: 4.3-4.4 mm; width: 2.0-2.05 mm; ratio width/length of pronotum: 1.87-1.90; ratio width of head/width of pronotum: 1.22-1.25; ratio length/width of elytra: 1.30-1.32.

Colour. Head dirty yellowish-reddish, centre, lateral parts behind eyes, and some small, ill delimited areas on clypeus and labrum light piceous. Pronotum and elytra dirty yellow, centre of pronotum and many narrow, elongate spots on the elytra light piceous. Lateral interval of elytra conspicuously spotted. Ventral surface yellow, all episterna and lateral margin of head behind eyes piceous. Mouth parts, base of antenna, and legs yellowish, antenna darkened from 5th segment.

Head. Wide. Frons depressed, laterally slightly impressed. Eyes large, protruding, though head distinctly narrower than prothorax. Clypeo-frontal suture deep. Clypeus depressed, bisetose, anterior margin straight. Labrum elongate, slightly longer than wide, apex convex, in middle slightly excised, 6-setose, proximal seta removed from margin, lateral margins with additional short hairs. Terminal segment of labial palpus as long as penultimate segment. Mentum with sharp, unidentate tooth. Antenna short, just surpassing posterior angle of pronotum, median segments but slightly longer than wide, densely pilose from 5th segment, basal segments sparsely setose. Microreticulation of frons and clypeus coarse, about isodiametric, surface punctate, though punctures difficult to detect within microreticulation. Frons medially of eyes with four to five rather fine, slightly irregular, longitudinal furrows that reach about to middle of eyes. Surface rather dull, with sparse, very short, erect pilosity.

Pronotum. Very wide, somewhat heart-shaped. Apex wider than base, fairly concave, anterior angles rounded off. Sides widest in anterior third, at anterior lateral seta. At this position margins with a very obtuse angle, then narrowed to base in a very faintly convex curve, without any prebasal sinuosity. Posterior angles open, at apex obtuse. Base gently convex, lateral parts slightly oblique. Apex and base

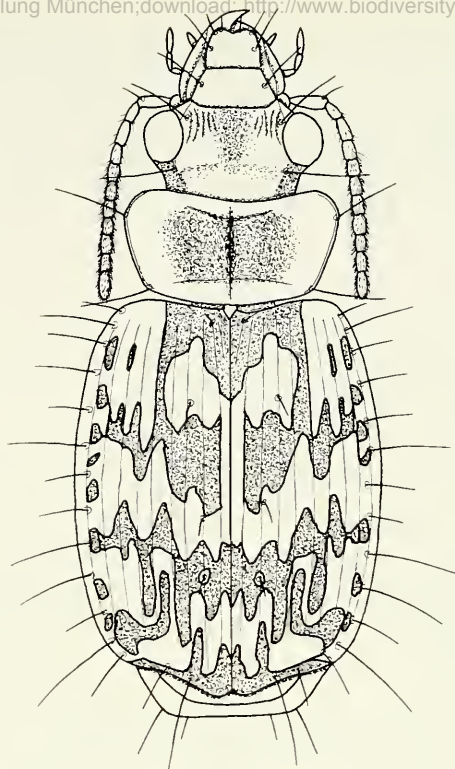


Fig. 1. *Minuthodes walfordi*, spec. nov. Habitus. Length: 4.4 mm.

laterally bordered, lateral channel rather narrow throughout. Disk in middle somewhat raised. Median line distinct, in middle deeply impressed. Basal grooves fairly deep, prebasal transverse sulcus distinct. Microreticulation coarse on whole surface, about isodiametric, somewhat rugose, puncturation present, though extremely difficult to detect within microreticulation. Surface markedly dull, with elongate, though very depressed, yellow pilosity.

Elytra. Rather short and wide, widest about in middle, depressed. Shoulders completely rounded, sides evenly convex, apex oblique, sinuate, sutural angles rounded off, elytra slightly dehiscent at suture. Striae well impressed, intervals perceptibly convex, odd intervals even slightly raised. Anterior discal seta near 3rd interval, both median and posterior discal setae near 2nd interval, all pores well visible. Whole surface strongly microreticulate and densely punctate, surface dull, with elongate, depressed, yellow pilosity. Winged.

Lower surface. Rather sparsely pilose. Metepisternum almost 2 x as long as wide at apex. Terminal sternum 4-setose.

♂ genitalia. Unknown.

♀ genitalia. Stylomere 2 short, with one large dorsomedial ensiform seta and two large mediolateral ensiform setae.

Variation. Due to limited material little variation noted.

Distribution. Windsor Tableland, northeastern Queensland. Known only from two localities.

Habits. Barely known, though the species lives most probably under the bark of trees. It is unknown, however, whether this is a rain forest species, or whether it lives in open eucalypt forest. The specimen from Devils Thumb captured at light.

Etymology. Named in honour of the collector of the most specimens, A. Walford-Huggins.

Relationships. *M. walfordi*, spec. nov. is a species of the *papuana*-group that is characterized by the elytral pattern consisting of many narrow light stripes. However, *M. walfordi* is not very closely related

neither to *M. papuana* (Sloane) from New Guinea, nor to *M. queenslandica* (Sloane) from North Queensland, nor to *M. lineella* (Chaudoir) from the Moluccas, but it may be related to *M. rossi* Darlington, *M. sedlaceorum* Darlington, and *M. subnitens* Darlington, all from New Guinea (Darlington 1968), if these are actually different species. It is distinguished from these species, however, by the apical position of the anterior lateral seta of the pronotum, the light colour of pronotum and elytra, and the highly microreticulate and rather dull surface of head and pronotum.

Further collecting work will reveal the actual distribution, especially, whether this is an endemic species of the Windsor Tableland.

New records

For the recorded species only the original description is quoted, accompanied by the page number in my review, where the full synonymy list may be found.

Minuthodes queenslandica (Sloane)

Platia queenslandica Sloane, 1917, p. 432.

Baehr 1990, p. 36.

1 ♂, Nth Qld, Gordonvale, 2.X.1970, A. & M. Walford-Huggins 5084, *Minuthodes queenslandicus* Sl. det. B. P. Moore '75 (CMP-WHC); 1 ♀, Tully Falls, N. Qld. 11.IX.1983, Walford-Huggins, *Minuthodes queenslandicus* (Sl.) [Series det. by A. Walford-Huggins] (CMP-WHC).

Minuthodes froggatti (Macleay)

Fig. 2

Philophloeus froggatti Macleay, 1888, p. 455.

Baehr 1990, p. 36.

2 ♀ ♀, Australia, Qld 93/24, Morehead R., 35 km se. Musgrave, 29.5.1993, M. Baehr (CBM); 2 ♀ ♀, Australia, Qld 93/26, Laura R., 28 km n. Laura, 29.-30.5.1993, M. Baehr (CBM); 1 ♂, 2 ♀ ♀, Australia, Qld 93/8, Palmer River, 32 km s. Lakeland, 23.-24.5.1993, M. Baehr (CBM); 1 ♀, Australia, Qld 93/32, 2 km s. Black Mt., 28 km s. Cooktown, 1.6.1993, M. Baehr (CBM); 1 ♀, Australia, Qld 93/2, 5 km n. Mareeba, 22.5.1993, M. Baehr (CBM); 1 ♂, Australia, Qld 93/48, Walsh R. 20 km ssw. Mareeba, 7.6.1993, M. Baehr (CBM); 4 ♂ ♂, 4 ♀ ♀, Australia, Qld 93/49, Walsh River, 8 km e. Dimbulah, 7.-8.6.1993, M. Baehr (CBM, ZSM); 3 ♀ ♀, Australia, Qld 93/50, Eccles Bridge, 10 km wsw. Dimbulah, 8.6.1993, M. Baehr (CBM); 5 ♀ ♀, Australia, Qld 93/64, Einasleigh R., 2 km e. Einasleigh, 11.-12.6.1993, M. Baehr (CBM); 1 ♂, Australia, Qld 93/69, Mc Kinnons Ck., 9 km ssw. The Lynd Jct., 13.6.1993, M. Baehr (CBM).

The present records enlarge the known range of this species into northern Queensland, where this species is apparently rather common and widely distributed. Hence a revised distribution map is given. All specimens were collected under bark of River Gum or other gum-type eucalypts.

Minuthodes minima (Macleay)

Sarothrocrepis minima Macleay, 1864, p. 111.

Baehr 1990, p. 38.

1 ♀, Australia, Qld 93/4, Mt. Molloy, 22.5.1993, M. Baehr (CBM); 2 ♂ ♂, Australia, Qld 93/73, 5 km e. Innot Hot Springs, 14.6.1993, M. Baehr (CBM); 2 ♀ ♀, Australia, Qld 93/73a, Wild River, 8 km e. Innot Hot Springs, 14.6.1993, M. Baehr (CBM); 1 ♂, 1 ♀, Australia, Qld 93/74, 20 km w. Ravenshoe, 14.6.1993, M. Baehr (CBM).

A widely distributed species, known from northeastern Queensland to southeastern Australia. The mentioned specimens were collected under bark of large, gum-type eucalypts in open forest.



Fig. 2. Distribution. ◆: *Mimuthodes walfordi*, spec. nov.; ●: *M. froggatti* (Macleay).

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