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A NEW SPECIES OF *NESOTRINCHUS* OBENBERGER FROM TONGA (COLEOPTERA: BUPRESTIDAE)

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ABSTRACT

Nesostrinchus orientalis is described from Niue and the Tonga Islands. Illustrations and a short discussion are given to separate the new species from other members of the genus.

The genus *Nesotrinchus* (Buprestinae, Dicercini) was erected by Obenberger (1924) for his new species, *N. simondsi,* from Fiji. Théry (1925, 1943) believed that Obenberger's species was synonymous with *Haplotrinchus coeruleipennis* (Fairmaire), while Obenberger (1926, 1930) maintained that his species was valid and generically distinct from that of Fairmaire. Subsequent attention has been given to the genus by Théry with two new species described from the Solomon Islands, *N. solomonensis* Théry (1937) and *N. ignitus* Théry [1943 as *Nosotrinchus* (*sic*)], as well as two species transferred into *Nesotrinchus, H. coeruleipennis* and *H. australicus* Kerremans.

This paper is the result of an examination of material in preparation for a review of the Buprestidae of Fiji by Dr. Brian Levey and myself. Subsequent study of type material from the British Museum (Natural History) convinced me that the Tongan material represented an undescribed species.

Material was provided by the following curators and collections: R. C. Craw, New Zealand Arthropod Collection, DSIR, Auckland (NZAC); L. Herman, American Museum of Natural History, New York (AMNH); J. M. Kingsolver, U.S. National Museum of Natural History, Washington, D.C. (USNM); E. R. Peacock, British Museum (Natural History), London (BMNH); and G. A. Samuelson, Bishop Museum, Honolulu (BPBM) with the acronyms as used in Watt (1979). Other abbreviations are BLCE, B. Levey collection, Walthamstow, England; CLBC, my research collection, currently at this dept.; GHNC, G. H. Nelson collection, Pomona, California; GWCA, G. A. Williams collection, Lansdowne, N.S.W., Australia; and RLWE, R. L. Westcott collection, Salem, Oregon.

Nesotrinchus orientalis Bellamy, **sp. nov.**
(Figs. 1, 3, 5, 7, 9)

HOLOTYPE MALE. 11.0 × 3.7 mm (maximum length vs. width); elongate; flattened above, slightly more convex below; head, pronotum, thoracic and basal abdominal sternites and legs shining cupreous; distal abdominal sternites dark steel blue; elytra dark with various and irregularly reflected shades of blue and purple.

Head (Fig. 3): Vertex flat, with fine longitudinal groove midway between eyes; frons depressed medially, between dorsal ½ of oblique supra-antennal carinae; eyes large, inner margins on vertex parallel; antennal insertions small, widely separated; frontoclypeus narrowed between antennal insertions; clypeus arcuately emarginate; genae with one rounded tooth beneath each eye; visible portion of labrum wider than long, feebly bilobed

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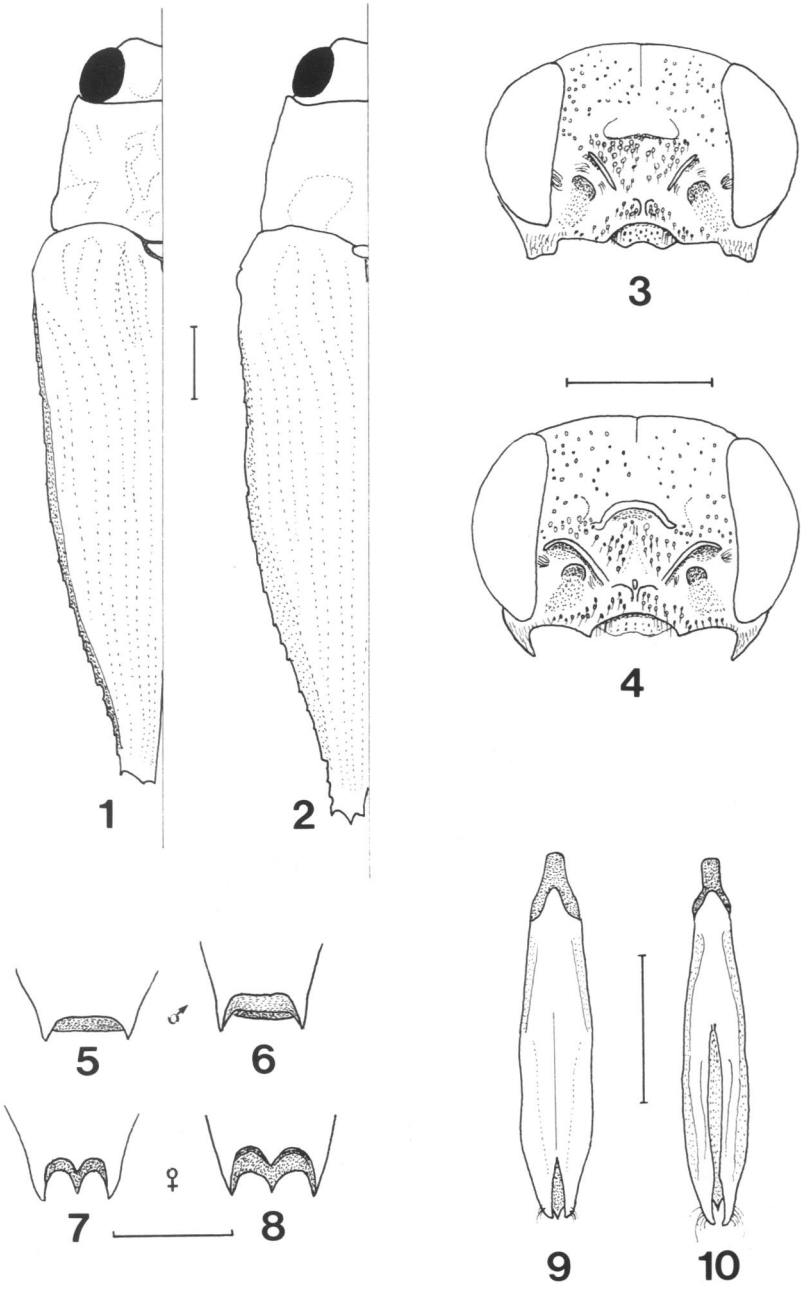

Figs. 1, 3, 5, 7, 9. *Nesotrinchus orientalis,* sp. nov.; Figs. 2, 4, 6, 8, 10. *N. coeruleipennis* (Fairmaire). 1, 2, left dorsal habitus. 3, 4, head, frontal view. 5, 6, male abdominal sternite 5, ventral view. 7, 8, female abdominal sternite 5, ventral view. 9, 10, male genitalia, dorsal view (scale bars = 1 mm).

distally; surface with vertex sparsely, irregularly punctate, becoming more dense around frontal depression to clypeus, each puncture with one short recumbent seta, setae longer on clypeus, with small dense patch laterally inside and outside of each antennal insertion. *Antenna* with segment 2 shorter than 3, 3 and 4 subequal in length, 4 slightly swollen distally, 5–10 serrate, with rounded lateral lobes, 11 oblong, curved; 4–11 sparsely covered with erect setae.

Pronotum: 1.5× wide as long, widest ahead of base; anterior margin almost evenly transverse, laterally feebly arcuate; basal margin strongly biarcuate; lateral margins gradually narrowing from base to apex, one broadly rounded, slightly ventrally-deflexed costa on each side from base to apical ⅓; basal angle subrectangular; disc irregularly, shallowly depressed on lateral ⅓, flattened medially; surface sparsely punctate medially, slightly more so laterally. *Scutellum* transverse, depressed medially.

Elytra: Wider than pronotum, widest opposite humeri; lateral margins subparallel from humeri to past middle, then narrowing gradually to trispinose, slightly diverging apices, margins serrate on apical ½; disc striatopunctate between feebly elevated, flattened longitudinal costae.

Underside: Hypomera separated from deflexed marginal costae of pronotum by narrow sparsely setose groove; prosternum with anterior margin shallowly arcuate, with one slightly elevated rugose lobe on either side past margin; disc flat, sparsely punctate, with pair of longitudinal, coarsely punctate striae, each puncture with several semi-erect setae, striae widest on disc, narrowing towards process; process with slightly dorsally-deflexed angulate lateral lobes, apex roundly attenuate; mesepimeron with rounded, slightly elevated, lateral tubercle; metasternum moderately convex; thoracic sternites sparsely punctate, otherwise finely imbricate; basal abdominal sternites strongly imbricate laterally, finely so throughout, disc sparsely punctate; apex of sternite 5 (Fig. 5) laterally produced into two projecting spines, apical margin with transverse preapical groove separating disc from transverse, finely, densely punctate band, margin very slightly convex.

Legs: Femora moderately fusiform; tibiae slightly arcuate basally, each armed with two short spines distally; metatibiae each with dense concentration of stiff white setae on dorsal surface; tarsi with segments 1–4 each progressively shorter, ventral pulvilli each progressively broader; segment 5 with claws widely separated, slightly appendiculate basally.

Genitalia: As in Figure 9.

VARIATION. Within the type series, the color varies on the head, pronotum, underside and legs from cupreous to aeneous, while the elytral color often changes from purple at the base to blue past the middle to almost black apices. The females differ most importantly with the sexually dimorphic abdominal sternite 5 being trispinose (Fig. 7) on both the preapical and apical margins. The size range varies from 10.8–13.2 × 3.4–4.8 mm.

MATERIAL EXAMINED. Holotype male (NZAC): TONGA: Eua I., 21 Aug. 1975, J. C. Watt; 47 paratypes as follows: 2 females, same data as holotype; 2 males, 2 females, Vava'u, Talau Forest, on tree trunks, 17.I.75, T. Langi; 6 males, 7 females, Vavao, iii.1925, G. H. E. Hopkins; 2 males, 1 female, Neiafu, Vavau, Tonga, 11.iii.25, S. Pacific, Buxton & Hopkins; 1 male, same data, except 18.vi.25; 11 males, 3 females, Vavau, Neiafu, 0–100 m, III-1974, N. L. H. Krauss; 1 female, Tongatabu I., Haamea, II-1956, N. L. H. Krauss; 2 males, 3 females, NIUE I. coll 66, 30.ix.64, A. C. Eyles; 1 female, same data except, Matulau, L. Tavelima; 1 male, Alof: Liku Rd., 22 Sep 1975, G. Kuschel; 1 male, Liku F., 16 Sep 1975, G. Kuschel; 1 male, Tongakila's bush, Matulau, 14 Jun 1975, J. S. Dugdale. Paratypes are deposited in AMNH, ANIC, BLCE, BMNH, BPBM, CLBC, GHNC, GWCA, NZAC, RLWE and USNM.

REMARKS. *Nesotrinchus orientalis* is named for being the eastern-most occurring member of the genus. It can be distinguished from *N. coeruleipennis* (Figs. 2, 4, 6, 8, 10) by the illustrated differences, most noticeably the elytral

apices, the last visible abdominal sternite and the male genitalia. I was fortunate to be able to study type material of *N. coeruleipennis* (holotype), *N. simondsi* (syntype) and *N. australicus* (holotype) from BMNH and will discuss them in more detail in the planned Fiji faunal project. The latter species is somewhat of an enigma as I could find very little difference between it and *N. coeruleipennis*; further material from Australia is needed to confirm *N. australicus* as a valid species.

Fiji and the Tonga island group are separated by a distance of slightly over 800 km and a number of authors have traditionally and more recently considered them as separate historical entities (*e.g.,* Lever 1953; Menard and Hamilton 1963; Setchell 1935). That this age and separation can allow speciation within a buprestid genus was demonstrated by Bellamy and Williams (1985) in which two species of *Maoraxia* Obenberger (Buprestinae, Anthaxiini), one from each island, were described.

Raven and Axelrod (1972:1,384) list a number of plant taxa which reach their eastern limits in the Pacific on Fiji, most importantly *Agathis* (Araucariaceae). Smith (1955) lists *Agathis vitiensis* as endemic to Fiji and the eastern termination of the generic range. Specimens of *Nesotrinchus coeruleipennis* from NZAC are labelled as "on *Agathis* log." More specific host information is needed for *N. orientalis* before any explanation regarding age and means of emigration can be put forth.

The known distribution, again with the exception *N. australicus,* of the species of *Nesotrinchus,* from Tonga and Nuie, Fiji and the Solomon Islands, is entirely within the Outer Arc area of Melanesia discussed by Holloway (1984).

Acknowledgments

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SCIENTIFIC NOTE

A NEW SYNONYM IN *ACROTRICHIS* MOTSCHULSKY (COLEOPTERA: PTILIIDAE)

Types of the Japanese ptiliid species *Acrotrichis longipennis* Kubota (1943:5) were recently forwarded by Dr. Kubota to Dr. Eivind Sundt for study. Doctors Eivind Sundt and Colin Johnson each examined the type material of *A. longipennis* Kubota and found it to be clearly synonymous with *Actinopteryx fuscicola* Allibert resulting in the following nomenclatural changes:

Actinopteryx fuscicola Allibert 1841.
Acrotrichis longipennis Kubota 1943:5 (nec Casey 1885:166) **new synonym** (subjective synonymy).
Acrotrichis kubotai Waltz 1984:255 [proposed new name for *A. longipennis* Kubota 1943:5, preoccupied by *A. longipennis* (Casey) 1885:166] **new synonym** (objective synonymy).

Although attempts to locate the type material of *A. longipennis* Kubota were made by this author prior to 1984, such attempts were unproductive.

I thank Eivind Sundt for bringing the above synonymy to my attention based upon his recent examination of the type material. I also thank Colin Johnson for his examination of the type material.

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