

FURTHER RECORDS OF PSEUDOSCORPIONIDEA FROM THE SOLOMON ISLANDS

By M. Beier

NATURHISTORISCHES MUSEUM, VIENNA, AUSTRIA

Abstract : This paper records 10 species of pseudoscorpions from the Solomon Islands, including 1 new genus, 4 new species and 2 new records.

The following pseudoscorpions were hitherto known from the Solomon Islands :

Tyrannochthonius (*T.*) *beieri* Morikawa, 1963 (Guadalcanal)

Alocobisium solomonense Morikawa, 1963 (Guadalcanal)

Euryolpium salomonis (Beier), 1935 = *Xenolpium* (*E.*) *tokiokai* Morikawa, 1963 (Guadalcanal, Rendova, Tulagi)

Xenolpium bougainvillense Morikawa, 1963 (Bougainville)

Paratemnus salomonis Beier, 1935 (Rendova)

Gelachernes salomonis Beier, 1940 (Guadalcanal)

Parachernes insularis Beier, 1935 (Rendova)

The rich material of chiefly soil-inhabitant pseudoscorpions collected by Mr P. Greenslade in Guadalcanal contains four of these known species and, furthermore, another five species, of which four are new to science : *Ideobisium pugil* n. sp., *Acanthicochernes biseriatum* n. gen., n. sp., *Smeringochernes salomonensis* n. sp., and *Hebridochernes* (?) *echinatus* n. sp. The twelfth species, *Lophochernes hians* (Thorell), seems to be widely distributed in southern East-Asia.

The types of the new species described below are preserved in the British Museum (Natural History) ; paratypes also in the Natural History Museum in Vienna and in the Bishop Museum, Honolulu.

***Tyrannochthonius* (*T.*) *beieri* Morikawa, 1963**

MATERIAL : Guadalcanal, Mt Austen : 3♀♀, 20.V.1963, no. 6164 ; 1♂, 2♀♀, 7.V.1963, no. 6282 ; 5♂♂, 1♀, 1.V.1963, no. 6410 ; 2♂♂, 1♀, 12.VI.1963, no. 6679 ; 7 ♂♂, 1♀, 4.III.1963, no. 6712 ; 7♂♂, 8♀♀, 3 tritonymphs, 11.III.1963, no. 6762 ; 1♂, 2♀♀, 23.III.1963, no. 6829 ; 9 ♂♂, 1 tritonymph, 23.VI.1963, no. 6893 ; 7♂♂, 2♀♀, 1.VII.1963, no. 6971 ; 5 ♂♂, 1 tritonymph, 9.VII.1963, no. 8114 ; 1♂, 4♀♀, 6. X. 1963, no. 9799 ; 9 ♂♂, 8♀♀, 6 tritonymphs, 14.VIII.1963, no. 9896 ; 6 ♂♂, 1♀, 19.I.1963, no. 9950 ; 13 ♂♂, 4♀♀, 2 tritonymphs, 13.XI.1963, no. 11095 ; 4♂♂, 3♀♀, 2.VIII.1963, no. 11225 ; 8♂♂, 5♀♀, 2 tritonymphs, 15.IX.1963, no. 11264 ; 1♂, 22.VII.1963, no. 11308 ; 3 ♂♂, 3♀♀, 3 tritonymphs, 13. X. 1963, no. 11347 ; 1♂, 1♀, 27. IX. 1963, no. 11424 ; 4 ♂♂, 3♀♀, 3 tritonymphs, 7. XII. 1963, no. 11471 ; 1♂, 1♀, 1 tritonymph, 27. XII. 1963, no. 11472 ; 2 ♂♂, 25.IV.1963 ; Guadalcanal, Kukum : 1♀, 1 tritonymph, 22.VI.1963, no. 6785.

Ideobisium pugil Beier, n. sp. Fig. 1.

Carapace about 1.2× as long as broad, pale yellowish brown anteriorly and yellowish posteriorly, smooth, with 24 bristles, of which 4 stand on anterior and 6 on posterior margin; oral border with a small, blunt median tubercle. No eyes. Abdomen long and slender, with tergites rather weakly sclerotized and pale yellowish brown. Tergites 1, 2, 10 & 11 each with 7, the others with 9 hind-border bristles, of which the lateral and the median pair of the 2 posterior segments are elongate. Sternites each with 9 bristles, the ultimate only with tactile bristles. Palm of chelicera with 5 bristles. Fixed cheliceral finger finely denticulate, movable one irregularly and rather shortly dentate in the distal 1/3. Galea slender, acute, and slightly bent outward. Maxillary lobe acute, with 2 bristles. Pedipalps reddish brown, smooth, but femur dorso-basally, tibia and hand mediodistally, and fixed finger laterobasally sparsely granulate. Femur shortly and abruptly pedicellate, 2.6×, tibia 2×, hand 1.6×, chela with pedicel 2.5×, without pedicel, 2.3× longer than broad. Hand, therefore, rather clumsy. Fingers much shorter than hand without pedicel and scarcely longer than hand is broad, with tactile setae disposed as usually in the genus. Telofemur of the 1st legs little longer than basifemur. Body, length (♀) 1.55 mm; carapace, length 0.39 mm, breadth 0.32 mm; pedipalps: femur, length 0.33 mm, breadth 0.125 mm, tibia, length 0.33 mm, breadth 0.17 mm, hand, length 0.34 mm, breadth 0.22 mm, fingers, length 0.24 mm.

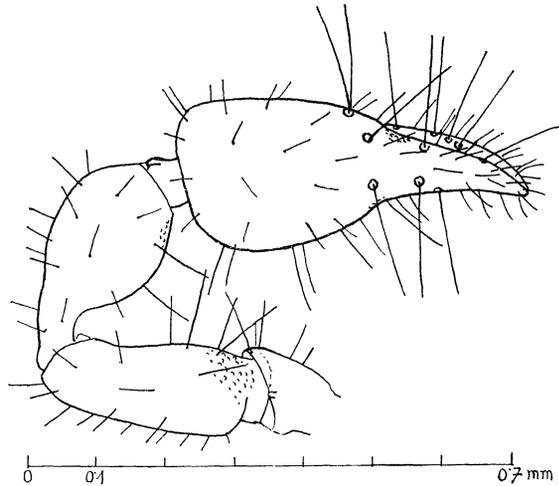


Fig. 1. *Ideobisium pugil* n. sp., ♀, left pedipalp.

Holotype ♀ (BMNH), Solomon Is., Guadalcanal, Mt Austen, 19. I. 1963, no. 9950, P. Greenslade.

The new species is distinguished from closely related *I. bipectinatum* Daday from New Guinea and the Bismarck Archipelago by the much larger size, short teeth of movable cheliceral finger, palpal femur granulate dorsobasally, and very clumsy hand.

Alocobisium salomonense Morikawa, 1963

MATERIAL: Guadalcanal, Mt Austen: 4 ♂♂, 4 ♀♀, 20.V.1963, no. 6164; 6 ♂♂, 3 ♀♀, 7.V.1963, no. 6282; 3 ♂♂, 9 ♀♀, 1.V.1963, no. 6410; 2 ♂♂, 7 ♀♀, 10.IV.1963, no. 6470; 4 ♂♂, 4 ♀♀, 12.VI.1963, no. 6679; 7 ♂♂, 2 ♀♀, 4.III.1963, no. 6712; 1 ♂, 6 ♀♀, 11. III. 1963, no. 6762; 2 ♂♂, 1 ♀, 23.III.1963, no. 6829; 1 ♂, 1 ♀, 23.VI.1963, no. 6893; 10 ♂♂, 15 ♀♀, 1.VII.1963, no. 6971; 9 ♂♂, 5 ♀♀, 9.VII.1963, no. 8114; 1 ♂, 2 ♀♀, 6.X.1963, no. 9799; 6 ♂♂, 3 ♀♀, 1 tritonymph, 14.VIII.1963, no. 9896; 2 ♂♂, 7 ♀♀, 19.I.1963, no. 9950; 3 ♂♂, 2 ♀♀, 12.XI.1963, no. 11095; 1 ♂, 3 ♀♀, 2.VIII.1963, no. 11225; 1 ♂, 3 ♀♀, 15.IX.1963, no. 11264; 12 ♂♂, 10 ♀♀, 22. VII. 1963, no. 11308; 7 ♂♂, 26 ♀♀, 13. X. 1963, no. 11347; 2 ♀♀, 27.IX.

1963, no. 11424; 8 ♂♂, 20 ♀♀, 7.XII.1963, no. 11471; 2 ♂♂, 3 ♀♀, 6.X.1963, no. 11472; 3 ♂♂, 5 ♀♀, 25.IV.1963; Guadalcanal, Kukum: 22.VI.1963, no. 6785.

This species is regularly associated with *Tyramochthonius beieri* Morikawa.

Euryolpium salomonis (Beier), 1963

Xenolpium salomonis Beier, 1935, Ann. Mag. Nat. Hist. **16** (10): 637, fig. 1.

Xenolpium (Euryolpium) tokiokai Morikawa, 1963, Bull. Osaka Mus. Nat. Hist. **16**: 4, tab. 2, fig. d-g.

MATERIAL: 2 ♂♂, Solomon Is., Guadalcanal, Mt Austen, 25.IV.1963, P. Greenslade.

Paratemnus salomonis Beier, 1935

MATERIAL: 1 ♀, Solomon Is., Guadalcanal, Koga, 26.VIII.1963, no. 9723, P. Greenslade.

Stenatemnus fuchsi (Tullg.)

MATERIAL: 1 ♂, 2 ♀♀, Solomon Is., Guadalcanal, Lume, nr Mt Tatuve, 18.V.1960, C. W. O'Brien.

The specimens are somewhat bigger than the types from Sumatra. Body, length ♂ 2 mm, ♀ 2.0-2.8 mm; Carapace, length 0.7 mm, breadth 0.58 mm; pedipalpes: ♂ femur, length 0.85 mm, breadth 0.24 mm, tibia, length 0.90 mm, breadth 0.27 mm, hand, length 0.92 mm, breadth 0.35 mm, fingers, length 0.53 mm; ♀ femur, length 0.78 mm, breadth 0.27 mm, tibia, length 0.82 mm, breadth 0.3 mm, hand, length 0.90 mm, breadth 0.42 mm, fingers, length 0.54 mm.

This species was hitherto known only from Sumatra and Celebes, and is, therefore, new for the Solomon Islands.

Genus **Acanthicochernes** Beier, n. gen.

Carapace longer than broad, broadest at middle, slightly narrowed posteriorly, densely and sharply granulate, without eye-spots; disc with numerous vestitural bristles, which are very short, thick, stout, strongly clavate, and almost cup-shaped; both transverse furrows well developed, subbasal one approached to hind margin. Abdominal tergites divided except ultimate tergite, densely and sharply granulate, each with 2 transverse rows of very short vestitural bristles shaped as on the carapace. Ultimate tergite with tactile bristles. Intercalar membranes extraordinarily densely prickly-granulate. Abdominal sternites each with 2 rows of acute bristles. Ultimate sternite with tactile bristles. Paim of chelicera with 5 bristles, *B* and *SB* dentate. Pedipalps with vestitural bristles very short and strongly clavate on medial side of joints, but long and dentate on lateral side, hand with short and very thin bristles medially. Hand ovate with pedicel long. Fingers short and thick, with small accessory teeth distally. Only the movable finger with venom apparatus. Tactile seta *ist* proximad of middle and opposite *est*, *it* in the distal part of fixed finger close to *et*; *st* of movable finger almost 1/2 way between *b* and *t*. Articulation between basi- and telofemur of the first leg well developed, but slightly oblique. Hind tarsus with long tactile bristle distad of middle. Claws very slender.

Genotype: *Acanthicochernes biseriatus* n. sp.

DISTRIBUTION: Solomon Islands.

The new genus is related to *Sundowithius* Beier from Indonesia, which belongs not to the *Withiini*, but to the *Chernetini*, and also to *Teratochernes* Beier from the Caroline Islands. It differs from both by the strongly clavate vestitural bristles of the body and biseriata on the abdominal tergites, by the intercalar membranes densely and prickly-granulate, by the vestitural bristles of pedipalps stout and strongly clavate on the medial side, but long and dentate on the lateral side of the joints, and by the palpal femur abruptly pedicellate.

***Acanthicochernes biseriatus* Beier, n. sp.** Fig. 2.

Carapace 1/4 longer than broad at middle, slightly narrowed posteriorly, densely and sharply granulate, but with smooth spots in middle; both transverse furrows broad, sub-basal one shallower and a little approached to hind border; posterior border with 16 bristles, which are as the other vestitural bristles very short, thick, stout, strongly cup-shaped clavate, and dentate. No eye-spots. Abdominal tergites divided, densely and sharply granulate, with very short, stout, and strongly clavate bristles, which are but slightly longer on the posterior segments; only ultimate tergite with longer and throughout acute bristles. The bristles stand on all tergites in 2 transverse rows, so that each half tergite has generally 5 to 6 bristles in anterior row, and 7 to 8 in posterior one; anterior row of bristles is sometimes irregular. Ultimate tergite with 6 marginal bristles and 4 discal bristles, of which the lateral marginal bristles and the median pair of discal bristles are longer tactile bristles. Sternites even with 2 rows of bristles, which are all acute. Ultimate sternite with 4 tactile bristles. Intercalar membranes extraordinarily densely prickly-granulate. Galea with short lateral branches and with terminal fork. Pedipalps rather roughly granulate medially, but almost smooth laterally. Vestitural bristles of medial side of femur and tibia very short and stout (almost 2× as long as thick apically), strongly clavate cup-shaped, and dentate, somewhat longer and less thick on trochanter. On dorsal side of these joints bristles become gradually a little longer, especially on the tibia, where lateral bristles are strongly elongate and only finely dentate. Bristles on medial side of hand very short, slender, and acute, on dorsal side gradually longer lateralward, and on the lateral side long and thin. Ventrally all bristles acute. Trochanteral tubercles round. Femur abruptly pedicellate, than almost of equal breadth, 2.7×, tibia 2.5×(♀)-2.7×(♂), hand 1.8-1.9×, chela with pedicel 3-3.1×, without pedicel 2.7-2.8× longer than broad. Fingers thick, as long as hand without pedicel, both with 3 or 4 very small, reduced accessory teeth medio-apically, without such teeth laterally.

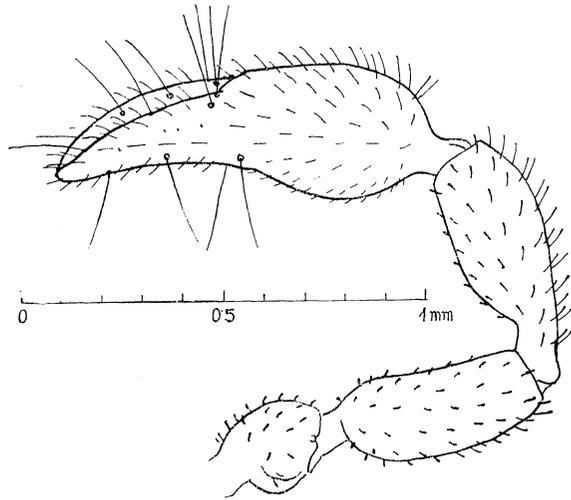


Fig. 2. *Acanthicochernes biseriatus* n. gen. n. sp., ♂, right pedipalp.

Movable finger with venom tooth, fixed one with

short terminal claw. Disposition of tactile setae as in generic diagnosis. Tactile bristle of hind tarsus shortly distad of middle of joint. Body, length 2.2–2.3 mm; carapace, length 0.72–0.75 mm, breadth 0.59–0.60 mm; pedipalps: femur, length 0.57–0.58 mm, breadth 0.21–0.22 mm, tibia, length 0.62–0.63 mm, breadth 0.23(♂)–0.25(♀) mm, hand, length 0.62–0.64 mm, breadth 0.33–0.35 mm, fingers, length 0.50 mm.

Holotype: 1♂, Solomon Is., Guadalcanal, Savo 9s, 5.VIII.1963, no. 8312, P. Greenslade.

Allotype: 1♀, 1 tritonymph, the same date.

***Smeringochernes* (S.) *salomonensis* Beier, n. sp.** Fig. 3.

Carapace as long as broad posteriorly, rather coarsely granulate, with anterior part pale yellowish-brown, posterior part yellowish. Submedian transverse furrow distinct and finely granulate, subbasal one shallow and roughly granulate, approached to the hind border. Hind margin with 6 clavate bristles. No eye-spots. Abdominal tergites coarsely granulate, divided except ultimate tergite. Segments 1–4(♂) or 1–3(♀) and segment 10 each with 10 clavate tergal bristles; segments 5–9(♂) or 4–9(♀) each with 12 similar bristles, lateral hind-corner bristle short and lateral border bristle somewhat elongate. Ultimate tergite with 6 marginal bristles, of which the lateral pair is elongated but even thickened and dentated distally, and with 2 rather long discal bristles. Sternal bristles thin and acute. Intersegmental membrane transversely granulate, pleural membrane almost as roughly granulate as tergites. Palm of chelicera with 5 bristles, *B* and *SB* finely and sparsely dentate. Galea with ventral row of long branches in both sexes, proximal branch arising near base. Pedipalps moderately stout, densely and roughly granulate, medial granules sharp and bristle bearing granules a little larger. Medial and dorsal verstitural bristles strongly clavate, the former even very elongate. Trochanteral tubercles round. Femur abruptly pedicellate, 2.3×, tibia 2.1× longer than broad. Hand [of ♂ 1.4–1.5×, chela with pedicel 2.4×

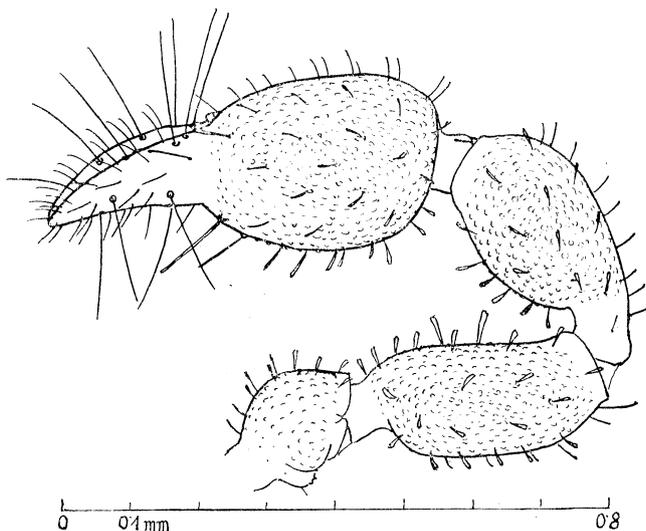


Fig. 3. *Smeringochernes salomonensis* n. sp., ♂, right pedipalp.

(♂)— $2.8 \times$ (♀), without pedicel $2.2 \times$ (♂)— $2.6 \times$ (♀) longer than broad. Fingers much shorter than hand without pedicel, those of male scarcely longer than hand is broad. Tactile seta *ist* close to *it* and, at least, $3 \times$ farther off *isb*; *est* somewhat nearer to *ist* than to *isb*. Hind tarsus without acute tactile bristle, but with a distad dentate bristle elongate. Body, length (♂) 1.2–1.3 mm, (♀) 1.7 mm; carapace, length and breadth (♂) 0.48 mm, (♀) 0.52 mm; pedipalps: (♂) femur, length 0.39 mm, breadth 0.17 mm, tibia, length 0.39 mm, breadth 0.19 mm, hand, length 0.39 mm, breadth 0.26–0.27 mm, fingers, length 0.28–0.29 mm; (♀) femur, length 0.37 mm, breadth 0.16 mm, tibia, length 0.37 mm, breadth 0.175 mm, hand, length 0.40 mm, breadth 0.22–0.23 mm, fingers, length 0.26–0.27 mm.

Holotype: 1 ♂, Solomon Is., Guadalcanal, Mt Austen, 20.V.1963, no. 6164, P. Greenslade.

Allotype: 1 ♀ from the same locality, 19.I.1963, no. 9950.

Paratypes: 2 ♂♂, 2 ♀♀, 2 tritonymphs, 2 deutonymphs, 13.I.1963, no. 11096; 2 ♀♀, 27.IX.1963, no. 11424; 1 ♀, 2 protonymphs, 27.XII.1963, no. 11472, all from Guadalcanal, Mt Austen, P. Greenslade.

Closely related to *S. guamensis* Beier from the Southern Mariane and Eastern Caroline Islands, but the size larger, the vestitural bristles more clavate, the palpal femur somewhat slenderer, the hand of the male broader, the fingers relatively shorter (scarcely longer than hand is broad in the male, contrasting to *guamensis*, where the fingers of the male are nearly $1/3$ longer than hand is broad), and the tactile seta *est* somewhat closer to *ist* than to *isb*. Chamberlin (1938) has described a species *navigator* from Samoa under the generic name "*Rhopalochernes*." It is, however, a true *Smeringochernes*, which is distinguished from *salomonensis* by the vestitural bristles of pedipalps shorter, the fingers relatively much longer (scarcely as long as hand without pedicel), and by the longer subdistal bristle of hind tarsus acute.

Hebridochernes (?) echinatus Beier, n. sp. Fig. 4.

Unfortunately, this remarkable species is represented only by a single deutonymph. It is, however, very characteristic so that it can be determined, without any doubt as a new species. Its generic position can not, at this time, be given certainly. It seems to belong to *Hebridochernes* or to a related new genus. The carapace is about $1/4$ longer than broad and rather densely granulate, with some larger bristle bearing granules anteriorly; the anterior transverse furrow is distinct, the posterior one very shallow and approached to the hind border. Eye-spots are present. The abdominal tergites are granulate and bear clavate bristles, which are longer on the posterior segments. Each half-tergite has 4 hind-border bristles and up to segment 5 even one lateral-border bristle; tergite 11 with 6 marginal bristles and 2 discal bristles, without tactile bristles. Pedipalps roughly granulate, with larger bristle-bearing granules, and with long, stout, erected, and slightly clavate bristles on all joints medially, dorsally and laterally. Hand very slender. Fingers shorter than hand without pedicel, with tactile seta *est* subbasally and *it* somewhat distad of middle of fixed finger. Hind tarsus without tactile bristle.

Holotype: 1 deutonymph, Solomon Is., Guadalcanal, Mt Austen, 13.I.1963, no. 11095, P. Greenslade.

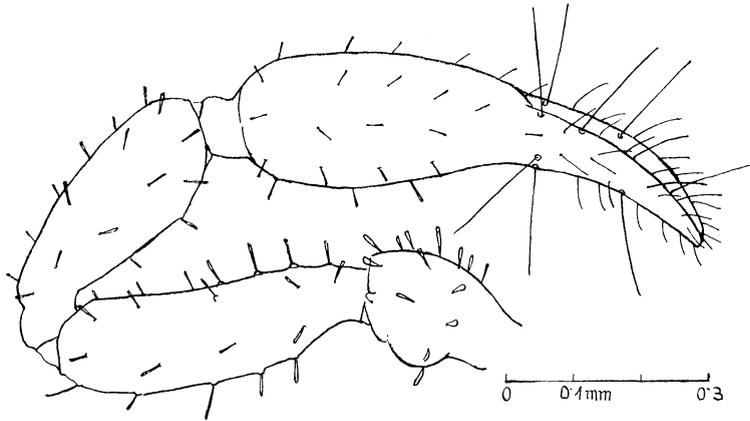


Fig. 4. *Hebridochernes* (?) *echinatus* n. sp., deutonymph, left pedipalp.

Lophochernes hians (Thor.), 1890

Chelifer hians Thorell, 1890, Ann. Mus. Stor. Nat. Genova **10**(2): 355.—With, 1906, Danske Selsk. Skr. **7/3**: 153.

Lophochernes hians, Beier, 1932, Tierreich **58**: 249.

MATERIAL: 1 ♀, Solomon Is., Guadalcanal, Mt Austen, 12.VI.1963, no. 6679, P. Greenslade.

I am certain that the specimen before me belongs to this species, which is known only from the Penang Island near Malacca. The shape of palpal femur, which is but 2.5× longer than broad and, therefore, relatively stout for the genus, is the same as in *L. hians*. The vestitural bristles are rather long. The disposition of tactile setae is typical. The tactile bristle near the middle of the hind tarsus is very long. Body, length 2 mm; carapace, length 0.79 mm, breadth 0.65 mm; pedipalps: femur, length 0.69 mm, breadth 0.27 mm, tibia, length 0.65 mm, breadth 0.31 mm, hand, length 0.78 mm, breadth 0.42 mm, fingers, length 0.58 mm.

LITERATURE

Beier, M. 1935 New Pseudoscorpionidea from the Solomon Islands. *Ann. Mag. Nat. Hist.* **16** (10): 637–41.

1940 Die Pseudoscorpionidenfauna der landfernen Inseln. *Zool. Jahrb. Syst.* **74**: 161–92.

Chamberlin, J. C. 1938 New and little-known false-scorpions from the Pacific and elsewhere. *Ann. Mag. Nat. Hist.* **2** (11): 259–85.

Morikawa, K. 1963 Pseudoscorpions from Solomon and New Britain. *Bull. Osaka Mus. Nat. Hist.* **16**: 1–8.