

REPORT ON A COLLECTION OF PHALANGIDS  
FROM NEW GUINEA

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## REPORT ON A COLLECTION OF PHALANGIDS FROM NEW GUINEA

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This paper is based on a collection of animals made at Hollandia, Netherlands New Guinea by Borys Malkin, L. Saylor, and H. Hoogstraal; at Oro Bay, Papua, New Guinea by B. Struck; and a single specimen from Mt. Dafansero in the Cyclops Mountains, Netherlands New Guinea by G. G. Jewett.

The Phalangid fauna of New Guinea is poorly known. Most recorded specimens are from the narrow coastal belt of tropical rain forest. There fore any additions to our knowledge of the fauna of this island is of importance in increasing our understanding of the distributions of arachnids.

The holotypes of the new species are deposited in the collection of the American Museum of Natural History in New York.

Suborder Laniatores Thorell, 1876

Family Phalangodidae Simon, 1879

Subfamily Phalangodinae Roewer, 1912

### *Euzalmoxis neoguineensis* Roewer

*Euzalmoxis neoguineensis* Roewer, 1915, Arch. Naturgesch. vol. 81, sect. A, no. 3, p. 16, fig. 7; Roewer, 1923, Die Weberknechte der Erde, p. 92, fig. 90.

*Record:* Hollandia, May 23, 1945 (Borys Malkin). Collected in a rotten log in a rain forest.

### *Metagjellerujia*, n. gen.

Dorsum with five distinct areas, the boundaries of which are parallel. First area without a median line. Fourth area and second and third free tergites each with a median pair of spines. Eye tubercle removed from the anterior margin of the cephalothorax, with a pair of small spines above. Femur of palpus with an apical median spine. Tarsal segments: 3-6 (or 7) -5-6. Distitarsus of first tarsus with 2 segments; second, with 3.

*Genotype:* *Metagjellerujia jewetti*, n. sp.

This new genus is related to *Gjellerujia* Roewer. It differs in two respects: it lacks spines on the third area and also the number of tarsal segments differs.

### *Metagjellerujia jewetti*, n. sp.

Figures 10 and 11.

Dorsum finely granulate. Eye tubercle clearly removed from the anterior margin of the cephalothorax, smooth above except for a very small spine

over each eye. Cephalothorax without tubercles or other armament. Boundaries of areas parallel; first area very large, without median line or tuberculations. Second, third, and fourth areas each with a transverse row of tubercles, the median ones of which are somewhat larger. Fourth area with a median pair of small spines. Fifth area with a transverse row of granulations and with a posterior lateral spine on each side. Lateral margins of the scute with a row of very fine tuberculations. Each free tergite with a transverse

TABLE I. Length of legs

Segment	Leg I mm	Leg II mm	Leg III mm	Leg IV mm
Trochanter	0.3	0.4	0.5	0.7
Femur	1.0	1.8	1.3	2.1
Patella	0.6	0.8	0.7	1.0
Tibia	0.8	1.5	1.1	1.9
Metatarsus	1.3	1.6	1.6	1.8
Tarsus	0.8	1.8	1.0	1.2
Total length	4.8	7.9	6.2	8.7

row of hair-tipped tubercles and a small spine at the posterior lateral margin. A pair of median spines on the second and third free tergites. Anal operculum with a few scattered hair-tipped tubercles. Each free sternite with a transverse row of small hair-tipped tubercles. Coxae and anal operculum with scattered hairs. Third coxa with a posterior and anterior row of teeth. Surface of first coxa with a few tuberculations. Fourth coxa with a small dorsal apical spine. Spiracles visible.

*Legs:* trochanters globular, with scattered hairs and a few tuberculations. Femora, patellae, and tibiae of all legs somewhat heavier, those of the fourth leg heaviest. All legs clothed throughout with hairs and with scattered tubercles on the femora, patellae, and tibiae. Fourth femur with heavy tuberculations, an irregular retrolateral row of several spines and a dorsal apical spine. Patella spinose with a distal row of spines. Tibia with scattered spines and tubercles, including a larger retrolateral row. Metatarsus with tuberculations. Tarsal segments: 3-6 (or 7)-5-6. Distitarsus of first tarsus with 2 segments, second, with 3.

*Palpus:* trochanter, 0.3 mm long; femur, 0.7; patella, 0.4; tibia, 0.6; and tarsus, 0.5. Total length, 2.5 mm. Palpus armed retrolaterally as in Figure 10. Prolaterally armed as follows: femur with a median apical spine; patella with a median apical spine; tibia with three spines; and tarsus with two spines.

*Chelicera:* normal, with scattered hairs. First segment smooth, with a dorsal elevation.

Dorsum reddish brown with much darker brown mottling. The abdomi-

nal areas very dark brown. Venter and chelicerae lighter; legs and palpus with much dark brown, more or less mottled in appearance.

*Measurements of body:* total length, 3.2 mm. Cephalothorax, 0.8 mm. Width at widest portion, 2.1 mm.

*Type locality:* female holotype from Mt. Dafansero, Cyclops Mountains, Netherlands New Guinea, April 22, 1945, at 4,700 feet in a Sago Palm. (G. G. Jewett, Jr.).

Subfamily Ibaloniinae Roewer, 1912

*Heteroibalonius*, n. gen.

Dorsum with five areas, paired tubercles on areas one to five. Free tergites without median armature. First area without a median line. Median spine between the eyes widened at the base and with tubercles. Femur of palpus with an apical median spine. Femur of first leg armed dorsally and ventrally. Tarsal segments: 6-more than 6-5-5. Distitarsus of first tarsus with 2 segments, second, with 3.

*Genotype:* *Heteroibalonius malkini*, n. sp.

*Heteroibalonius* is related to *Ibalonius* Karsch, but the dorsal armature is different.

*Heteroibalonius malkini*, n. sp.

Figure 12.

TABLE II. Length of legs

Segment	Leg I mm	Leg II mm	Leg III mm	Leg IV mm
Trochanter	0.4	0.5	0.5	0.6
Femur	1.8	3.7	2.6	3.3
Patella	0.5	0.8	0.7	0.9
Tibia	0.9	3.2	1.8	2.6
Metatarsus	1.1	2.6	2.6	3.5
Tarsus	0.7	1.5	0.7	0.7
Total length	5.4	12.3	8.9	11.6

Anterior margin of cephalothorax with a row of thickly set small spines. This row extends in front of the eye and onto the base of the median spine. Eyes widely separated, area between them thickly tuberculate. Median spine between eyes extending acutely from its prominent tuberculate base almost directly forward. Median portion of cephalothorax thickly tuberculate. Lateral portion smooth except on the lateral margin which is somewhat tuberculate. One robust spine and several heavy tubercles in the lateral region near the second coxa. Abdominal scute heavily tuberculate. First area without a median line. Boundaries of areas ill-defined and of irregular

outline. Median paired tubercles of first three areas not prominently enlarged and in some cases difficult to distinguish from other enlarged tubercles. Paired tubercles of the fourth and fifth areas prominent. Fifth area with an additional heavy tubercle between the median ones. Each free tergite with a row of thickly set heavy tubercles. Anal operculum tuberculate, surface of the coxae and sternites tuberculate. A transverse row of heavier tubercles on the first coxa, all with prominent anterior and posterior rows of teeth. Spiracles hidden by interlocking teeth from the fourth coxa and the anteriormost sternite. The spiracle is partially visible beneath these teeth. Fourth coxa with several dorsal apical spines.

*Legs:* clothed throughout with hairs. All trochanters with spines which are particularly prominent on the first and second. Femora with tuberculations. First femur armed dorsally and ventrally as in Figure 12, prolaterally unarmed; patella and tibia also unarmed. Tarsal segments: 6-8-5-5. Distitarsus of first tarsus with 2 segments; second, with 3. Third and fourth tarsi with scopulae, claws smooth. The scopula not heavy.

*Palpus:* trochanter, 0.6 mm long; femur, 1.1; patella, 0.8; tibia, 0.7; and tarsus, 0.7. Total length, 3.9 mm. Palpus armed retrolaterally as in Figure 12. Prolaterally the femur has a spine at the base and an apical median spine patella with two spines; tibia with three; and tarsus with two.

*Chelicera:* with proximal segment somewhat enlarged, with a small apical median swelling. Distal segment with an anterior row of four or five small spines irregularly arranged.

Dorsum dark brown with the central portion irregularly mottled with darker and lighter brown. In this area the dark brown arranged in streaks. Lateral portion of cephalothorax and first area lighter, with enlarged irregular white spot of glandular secretion. Ventral surface of body mottled with darker brown areas on the free sternites. There are some light-colored areas also present on the free sternites. Appendages with much darker brown mottling, irregularly arranged into light and dark bands on the tibiae and metatarsi of the legs.

*Measurements of body:* total length, 6.5 mm. Cephalothorax, 1.9 mm. Width at widest portion, 4.8 mm.

*Type locality:* male holotype from Hollandia, Netherlands New Guinea, May 15, 1945 (B. Malkin).

*Heteropodectis quinquespinosus* Roewer

*Prodoctis quinquespinosus* Roewer, 1911, Nova Guinea, vol. 9, no. 2, p. 159, pl. 6, figs. 1-7.

*Heteropodectis quinquespinosus* Roewer, 1912, Arch. Naturg. vol. 78, sect. A, no. 3, p. 201; Roewer, 1923, Die Weberknechte der Erde, p. 161, figs. 178-179.

*Record:* Oro Bay, Papua, New Guinea (B. Struck).

*Metibalonius longipalpis* Roewer

*Metibalonius longipalpis* Roewer, 1915 Arch. Naturg. vol. 81, sect. A. no. 3, p. 33, fig. 16 Roewer, 1923, Die Weberknechte der Erde, p. 168, fig. 186.

*Record*: Oro Bay, Papua, New Guinea (B. Struck).

*Metibalonius strucki*, n. sp.

Figures 4 and 5.

TABLE III. Length of legs

Segment	Leg I mm	Leg II mm	Leg III mm	Leg IV mm
Trochanter	0.3	0.4	0.4	0.4
Femur	1.1	7.1	3.9	5.9
Patella	0.5	0.8	0.7	0.7
Tibia	0.7	5.9	2.7	4.3
Metatarsus	1.4	3.9	3.1	5.0
Tarsus	0.5	0.9	0.4	0.6
Total length	4.5	19.0	11.2	16.8

Cephalothorax with a median spine, the apical portion slightly curved anteriorly and with a bifurcation near the tip. Each eye on a slight elevation, with three spines over each carina. The anterior spine long and curved, being curved in such a manner as to come in contact with one of the spines of the anterior margin. On each side posterior to the eye, a short spine. At the lateral area of the cephalothorax, a group of four spines in the region of the second trochanter. On the anterior margin, medial to the anterior one of the lateral group of spines three more spines; the medial one of this latter group curves posteriorly to meet the anterior spine of the eye elevation. Entire cephalothorax and remainder of dorsum granulate. First area of abdomen with a median pair of large divergent spines. First area without a median line. Second and third areas narrow, boundaries not well defined. and without median armature; but each with a pair of widely separated tubercles. Tubercles of the third area only very slightly laterad to those of the second. Fourth area with a pair of spines similar to those of the first area. Fifth area with a pair of spines similar to those of the second. Fourth area with a pair of spines similar to those of the first area. Fifth area without median armature, but with a transverse row of spinose tubercles. First and second free tergites each with a transverse row of spines varying somewhat in size. Third free tergite with a transverse row of low tubercles. Anal operculum tuberculate; each free sternite with a transverse row of tubercles. Stigmen hidden. Genital operculum granulate, with a row of teeth at the

anterior margin. Coxae tuberculate. First coxa narrow, fourth coxa widened at the distal portion. Distal portion of fourth coxa with several short spines as in figure.

*Legs* : trochanters of legs with several spinose tubercles irregularly arranged. First trochanter with enlarged spinose tubercles. Femur, patella, and tibia of first leg armed with large spines, armed retrolaterally as in Figure 5. Prolaterally femur with a few small apical spinules; patella with three spines; tibia with three spines and some small spinules; metatarsus and tarsus clothed only with hairs. Second to fourth legs slender, clothed with hairs, with a few small spines on the patellae and femora of the second and fourth legs. Tarsal segments: 3-2-5-5. Distitarsus of first tarsus with 2 segments; second, with 1. Double claws of third and fourth tarsi simple; scopula present, but not heavy.

*Palpus*: trochanter, 0.4 mm long; femur, 0.8 ; patella, 0.7; tibia, 0.7; and tarsus, 0.7. Total length, 2.6 mm. Palpus armed retrolaterally as in Figure 4. Prolaterally armed as follows: femur with a median apical spine; patella with two spines, one in the median portion, one in the apical; tibia with three; and tarsus with three long spines.

*Chelicera*: normal, proximal segment with a slight dorsal elevation. Both segments clothed throughout with hairs.

Entire dorsum and appendages reddish brown, spines and legs slightly darker, palpus light.

*Measurements of body*: total length, 2.5 mm. Cephalothorax, 0.8. Width at widest portion, 1.9 mm.

*Type locality*: type from Oro Bay, Papua, New Guinea. (B. Struck). Paratype from same locality.

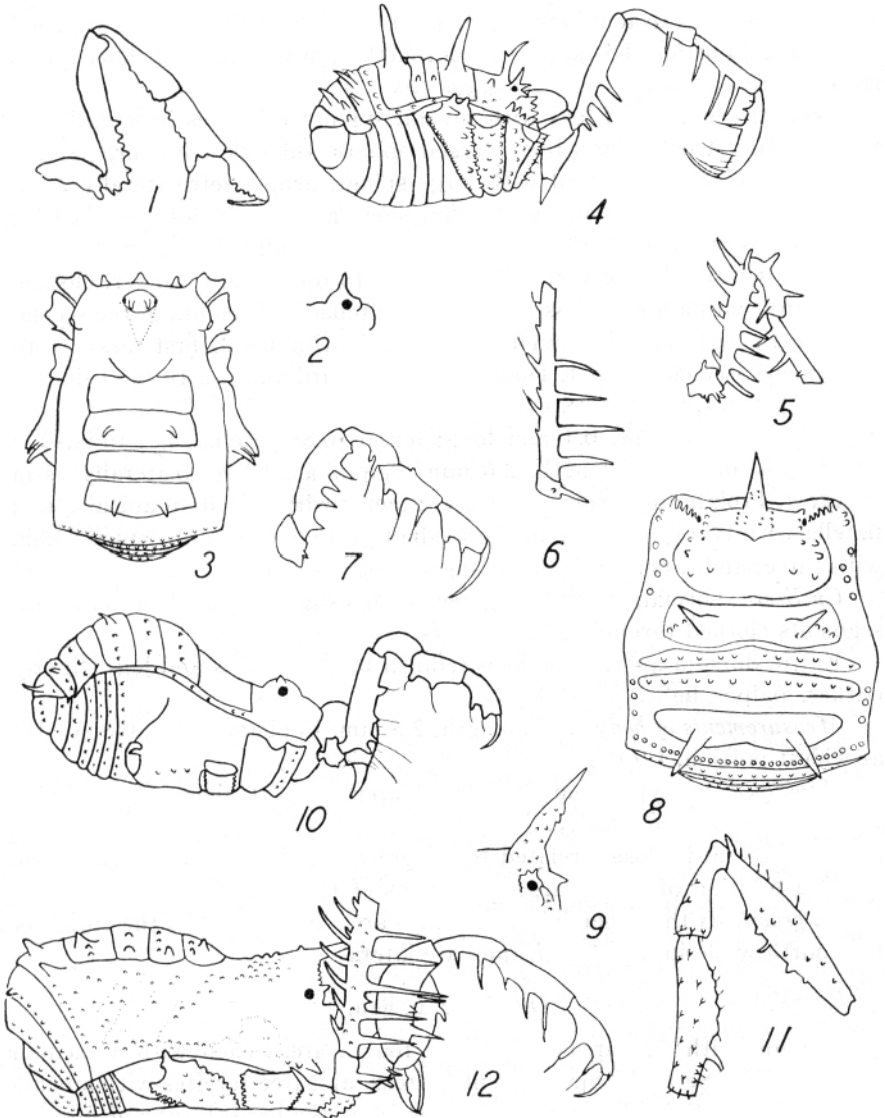
This animal is closely related to *M. gracilipes* Roewer. It differs in the relative position of the enlarged tubercles of the second and third areas. In *M. gracilipes* the tubercles of the third area are median to the spines of the fourth while in *M. strucki*, they are lateral.

#### *Orobunus*, n. gen.

Dorsum with five areas. First and fourth areas each with a median pair of spines. Second, third, and fifth areas, and tree tergites without median armature. Spine between eyes widened at the base. Femur of first leg with dorsal and ventral spines. Femur of palpus with an apical median spine. Spiracles partially visible. *Tarsal segments*: 4-more than 6-5-5. Distitarsus of first tarsus with 2 segments; second, with 4. Third and fourth tarsi with scopulae; claws smooth.

*Genotype*: *Orobunus quadrispinosus*, n. sp.

*Orobunus* is related to *Ibalonius* Karsch, but has paired spines on both the first and fourth areas rather than only on the first.



## EXPLANATION OF PLATE

FIG. 1. *Mosoia saylori*, n. sp., retrolateral view of palpus of type.

FIG. 2. Idem, lateral view of eye tubercle of type.

FIG. 3. Idem, dorsal view of type.

FIG. 4. *Metibalonius strucki*, n. sp., lateral view of type.

FIG. 5. Idem, retrolateral view of trochanter, femur, patella, and tibia of first leg of type.

FIG. 6. *Orobunus quadrispinosus*, n. sp., retrolateral view of trochanter and femur of first leg of female holotype.



*Orobunus quadrispinosus*, n. sp.

Figures 6, 7, 8, and 9.

TABLE IV. Length of legs

Segment	Leg I mm	Leg II mm	Leg III mm	Leg IV mm
Trochanter	0.4	0.5	0.5	0.6
Femur	1.9	8.0	5.1	7.4
Patella	0.5	0.9	0.9	1.0
Tibia	1.5	6.3	3.2	4.4
Metatarsus	1.3	6.1	5.1	7.9
Tarsus	0.8	2.2	0.8	0.9
Total length	6.4	24.0	15.6	22.2

The cephalothorax with a pair of prominent tubercles in the posterior third, scattered tuberculations along the lateral portion. A row of tubercles over each eye. Median spine between the eyes curved, widened at the base and covered with tuberculations. Base of spine slightly removed from the anterior margin of the cephalothorax. At the lateral margin of the cephalothorax in the region of the second coxa is a row of four or five white tuberculations. First area with a pair of robust spines, diverging out from each other. Spines granulate and with a row of three or four tubercles laterad to each spine. First area without a median line. Second and third areas characteristically narrow, each with a transverse row of prominent tubercles. Fourth area with a pair of large divergent spines and a few scattered tuberculations around the base of each spine. Fifth area with a transverse row of round tubercles. These tubercles extend to the lateral margin where they join up with a lateral row of three or four similar tubercles in the region of the fourth area. These lateral tubercles and those of the fifth area all white. Each free tergite with a transverse row of small hair-tipped tubercles. Venter and coxae thickly covered with hairs and small tuberculations. Fourth coxa with a dorsal apical spine. Anal operculum with hairs. Spiracle visible, but covered somewhat by the fourth coxa.

*Legs:* first femur and trochanter armed retrolaterally as in Figure 6. First patella with two small dorsal apical spines; tibia with only tubercles. Entire leg unarmed on the prolateral surface. Trochanters of all legs with

EXPLANATION OF PLATE (*continued*)

FIG. 7. *Idem*, retrolateral view of palpus of female holotype.

FIG. 8. *Idem*, dorsal view of female holotype.

FIG. 9. *Idem*, lateral view of eye and median spine of female holotype.

FIG. 10. *Metagjelleruja jewetti*, n. sp., lateral view of female holotype.

FIG. 11. *Idem*, prolateral view of femur, patella, and tibia of fourth leg of female holotype.

FIG. 12. *Heteroibalonius malkini*, n. sp., lateral view.

small spines. Remainder of legs clothed throughout with hairs, and the femora with a few very small tubercles. Tarsal segments: 4-11-5-5. Distitarsus of first tarsus with 2 segments: second, with 4. Third and fourth tarsi with scopulae; claws smooth.

*Palpus*: trochanter, 0.4 mm long; femur, 1.0; patella, 0.5; tibia, 0.5; and tarsus, 0.6. Total length, 3 mm. Palpus armed retrolaterally as in Figure 7. Prolaterally armed as follows: femur with an apical median spine; patella with two spine-bearing tubercles, one of which is apical median; tibia and tarsus each with three.

*Chelicera*: somewhat enlarged. First segment with a dorsal elevation. Second segment with two small anterior spines.

Entire animal reddish brown except for the white tubercles noted above. These white tubercles are quite conspicuous on the type specimen. Entire body with scattered darker brown mottlings. Dorsal spines somewhat darker. Legs and palpus with irregular darker brown bands.

*Measurements of body of female*: total length, 3.2 mm. Cephalothorax, 1 mm. Width at widest portion, 2.5 mm.

*Type locality*: female holotype from Oro Bay, Papua, New Guinea (B. Struck).

The male paratype is very similar in appearance to the female, but the spine between the eyes is much more tuberculate in appearance. The anterior third thus appears to have three or four smaller spine-like projections. The chelicera differs by having the second segment with spines along the anterior surface. The body of the male somewhat darker brown than that of the female with the numerous tubercles of the dorsum white.

*Measurements of body of male*: total length, 21. mm. Cephalothorax, 0.9 mm. Width at widest portion, 1.8 mm.

*Record*: male paratype from Hollandia, Netherlands New Guinea, November 15, 1944 (H. Hoogstraal).

Assamiidae Soerensen, 1884

Dampetrinae Roewer, 1912

*Granobunus ferrugineus* Roewer

*Granobunus ferrugineus* Roewer, 1912, Arch. Naturg., vol. 78, sect. A, no. 3, p. 19, fig. 2; Roewer, 1923, Die Weberknechte der Erde, p. 226, fig. 265.

*Record*: Oro Bay, Papua, New Guinea (B. Struck).

*Mecrodampetrus bicoloripes* Roewer

*Macrodampetrus bicoloripes* Roewer, 1915, Arch. Naturg., vol. 81, sect. A, no. 3, p. 74, fig. 38; Roewer, 1923, Die Weberknechte der Erde, p. 232, figs. 263a-c.

*Record*: Hollandia, Netherlands New Guinea (B. Struck).

*Mosoia saylori*, n. sp.

Figures 1, 2, and 3.

TABLE V. Length of legs

Segment	Leg I mm	Leg II mm	Leg III mm	Leg IV mm
rochanter	0.4	0.5	0.5	0.5
Femur	2.2	4.3	3.1	4.4
Patella	0.7	0.8	0.8	0.8
tibia	1.6	3.5	1.8	2.4
Metatarsus	2.7	5.0	3.3	4.5
Tarsus	1.6	3.8	2.1	2.7
Total length	9.2	17.9	11.6	15.3

Dorsum smooth. Cephalothorax without a projecting anterior spine in front of the eye. Under margin of cephalothorax with spines: 2-1-2. Eye tubercles with a pair of spines, otherwise smooth. Scent glands with openings on a slight elevation. Second and fourth areas of abdomen each with a middle pair of sharp spines. First area without a median line. First, third, and fifth areas without median armature. Fifth area with a transverse row of very small tubercles, lateral margins of the scute smooth without tuberculations. Anal operculum and sternites smooth. Coxae with scattered hairs, a row of tubercles across the ventral surface of the first coxa. Stigmen hidden. Dorsal apical region of fourth coxa with two spines. Third coxa without dorsal spine.

*Legs*: smooth except for scattered hairs. Trochanters with scattered tubercles. Tarsal segments: 6 (or 7)-13-7-9. Distitarsus of first tarsus with 3 segments; second, with 4. Third and fourth tarsi without false claws, claws simple.

*Palpus*: trochanter, 0.4 mm long; femur, 1.0; patella, 0.7; tibia, 0.5; and tarsus, 0.4. Total length, 3 mm. Palpus armed retrolaterally as in Figure 1. Prolaterally armed as follows: femur unarmed; patella with three small apical tubercles; tibia with two small tubercles; tarsus with only small hairs.

*Chelicera*: normal, armed with hairs.

Dorsum reddish brown, abdominal scute with much darker brown marking. Cephalothorax light except for a darker triangular patch on the margin of the cephalothorax extending back to include the eye tubercle. Eye tubercle with a very dark brown ring around each eye, with a lighter median area. Venter and coxae light reddish brown; trochanters of legs light. Remainder of legs, palpus, and chelicera with much dusky brown marking.

*Measurements of body*: total length, 2.9 mm. Cephalothorax, 1 mm. Width of body at widest portion, 1.7 mm.

*Type locality:* holotype from Hollandia, Netherlands New Guinea, December 31, 1944 in tropical rain forest (L. W. Saylor).

This species differs from all described species of *Mosoia* by lacking the apical median spine of the femur of the palpus; however since it is obviously so closely related to the other species of this genus, it was thought best to retain it in the genus. Its third coxa is unarmed as in *M. albiceps*, but the fourth coxa has spines as is not the case with *M. albiceps*. Also it lacks the light oval flecks of *albiceps*.

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