

## NEW SULCOMESITIUS SPECIES FROM BORNEO

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### Abstract

We publish here *Sulcomesitius kuncheriai* sp. n., *S. maai* sp. n., *S. rieki* sp. n., *S. malayensis* sp. n. and *S. borneoensis* sp. n. from Borneo, collected by Collectors from the Bernice P. Bishop Museum, Honolulu.

In the interesting material kindly sent me by Mr. KARL V. KROMBEIN (Washington) and originating from the Bernice P. Bishop Museum, Honolulu, more specimens are proved to be new species. These belong to the Group-*benoitii* MÓCZÁR (*kuncheriai* sp. n.), to the Group-*luzonicus* (KIEFFER) (*maai* sp. n., *rieki* sp. n. and *malayensis* sp. n.) and to the Group-*orientalis* (FOUTS) (*borneoensis* sp. n.) and were all collected in Borneo, and some also in Viet-Nam and Malaya.

*Sulcomesitius kuncheriai* sp. n.

(Fig. 1—4)

♀. — Unknown.

♂. — Length 3 mm. Black, mandibles, clypeus, eyes, antennae, tegulae and legs yellowish brown, antennal joints 2—6, tarsi lighter yellow, thorax (particularly pronotum and propodeum) and abdomen proximally and distally dark reddish translucent, on paratype eyes black and the lighter parts, listed above, darker, more brownish, less yellowish. Wings normal, fore-wings only weakly brownish infuscated. lighter spots indistinct, veins yellowish brown. Body covered with a scattering of short light hairs, hairs of antennae yellowish brown, longer, but distinctly shorter than width of joints.

Head as long as broad (33), only slightly broadened behind eyes, posterior margin arched, occipital carina with a row of punctures; ocelli in an acute angle, posterior ocelli separated by a distinctly shorter distance from each other than from eyes, POL:OOL=5:7, the small groove distinct on outer margin only of fore ocellus; frontal sulcus indistinct, head rather densely but not deeply punctured, shagreened, weakly shining, anterior margin of clypeus strongly protruding medially, nearly straight laterally, lateral corners obtuse, lateral sides diverging backwards, surface raised sharply in a longitudinal keel medially; eye convex, distinctly longer than it is broad (17:14), separated from mandible by about one-third the distance of its length (5:17); antennae long, joint 2 only slightly longer than it is broad (5.5:4.5), joints 1, 3—13 at least twice as long as they are broad (Fig. 3), joint 3 nearly twice

as long as 2 (10:5.5), length (and breadth) proportions of joints 1—13 = 10 (4.5):5.5 (4.5):10 (4.5):8 (4):8 (3.5):8 (3):8 (3):8 (3):7 (2.5):7 (2.5):7 (2.5):6 (2):8 (2), on paratype joints 2:3 = 5:9.5. Pronotum (Fig. 4) slightly longer than two-thirds of its breadth in front (16:22), anterior corners triangular protruding owing to wrinkle emerging on lateral side and reaching to the corner, lateral side concave behind corners and gradually diverging towards tegulae, posterior margin arched, only shallowly and broadly impressed, surface with large and rather deep but scattered punctures, surface shagreened and weakly shining, longitudinal furrow narrow. Mesonotum smooth, shagreened, weakly shining with only some fine punctures, parapsidal furrow shallow and narrow, notauli very deep and sharply margined, longitudinal furrow distinct only on its distal half and gradually deepening towards posterior margin. Mesonotum well separated from scutellum by a broad transversal groove and a pair of deep pits laterally. Scutellum shagreened weakly shining with a few larger, shallower punctures. Propodeum (Fig. 1) remarkably long, distinctly longer than half of its diameter (16:13), lateral sides weakly converging and convex beginning from spine, lateral spine acute, longer than one-third of length of propodeum medially (6:16), on paratype acute seen from above, and rounded in lateral view, central and lateral areas finally transversally wrinkled, sublateral ones only striated and more shining, breadth of central, sublateral and lateral areas = 4:6:3. Lateral sides of propodeum with a parallel wrinkle below upper margin and reaching to the spine. Episternum coarsely punctured. Abdomen smooth and shining, tergite 1 polished, tergite 2 (Fig. 2) and sternite 2 evenly scattered and very finely (on paratype finely) punctured, tergite 3—6 alutaceous basally, very finely punctured medially and polished posteriorly.

Specimens examined: "North Borneo (SE) Forest Camp, 19 km N. of Kalabakan, 60 m, 21. XI. 1962", "K. I. Kuncheria Collector Bishop" 1 ♂ holotype, Bernice P. Bishop Museum, Honolulu, Cat. No. 10,509; "Viet Nam: Fyan, 900—1000 m. 11. VII.—9. VIII. '61", "N. R. Spencer Collector Bishop" 1 ♂ paratype, Hym. Typ. No. 3632 (Mus. Budapest).

This species differs from *Sulcomesitius benoiti* MÓCZÁR, 1970, because of anterior corners of pronotum not being rectangular, of propodeum not having parallel sides, of sculpture of abdominal tergite 2, of different proportions of antennal joints etc.

*Sulcomesitius maai* sp. n.

(Fig. 5—7)

♀. — Unknown.

♂. — 3 mm. Black, mandibles, clypeus, antennae, tegulae, legs, last abdominal segments brown, lower side of antennae, tarsi yellowish brown, anterior abdominal segments dark reddish translucent. Wings normal, fore wings brownish infuscated with a lighter spot outside of cells, veins brown. Body covered with sparse white short hairs, antennae with very dense and very short light yellowish hairs.

Head nearly as long as it is broad (27:29), rounded and converged backwards, posterior margin arched, occipital carina with a row of punctures; ocelli in an acute angle, hind ocelli separated from each another by a shorter distance than from eyes, POL:OOL = 4:6, outer margins of ocelli with a small shining groove, frontal sulcus hardly developed, head shagreened, only weakly shining, very densely but not deeply punctured, eye very convex, longer than it is broad (15:13), separated from mandible by a larger distance than one-quarter of its length (4:15), anterior margin of clypeus



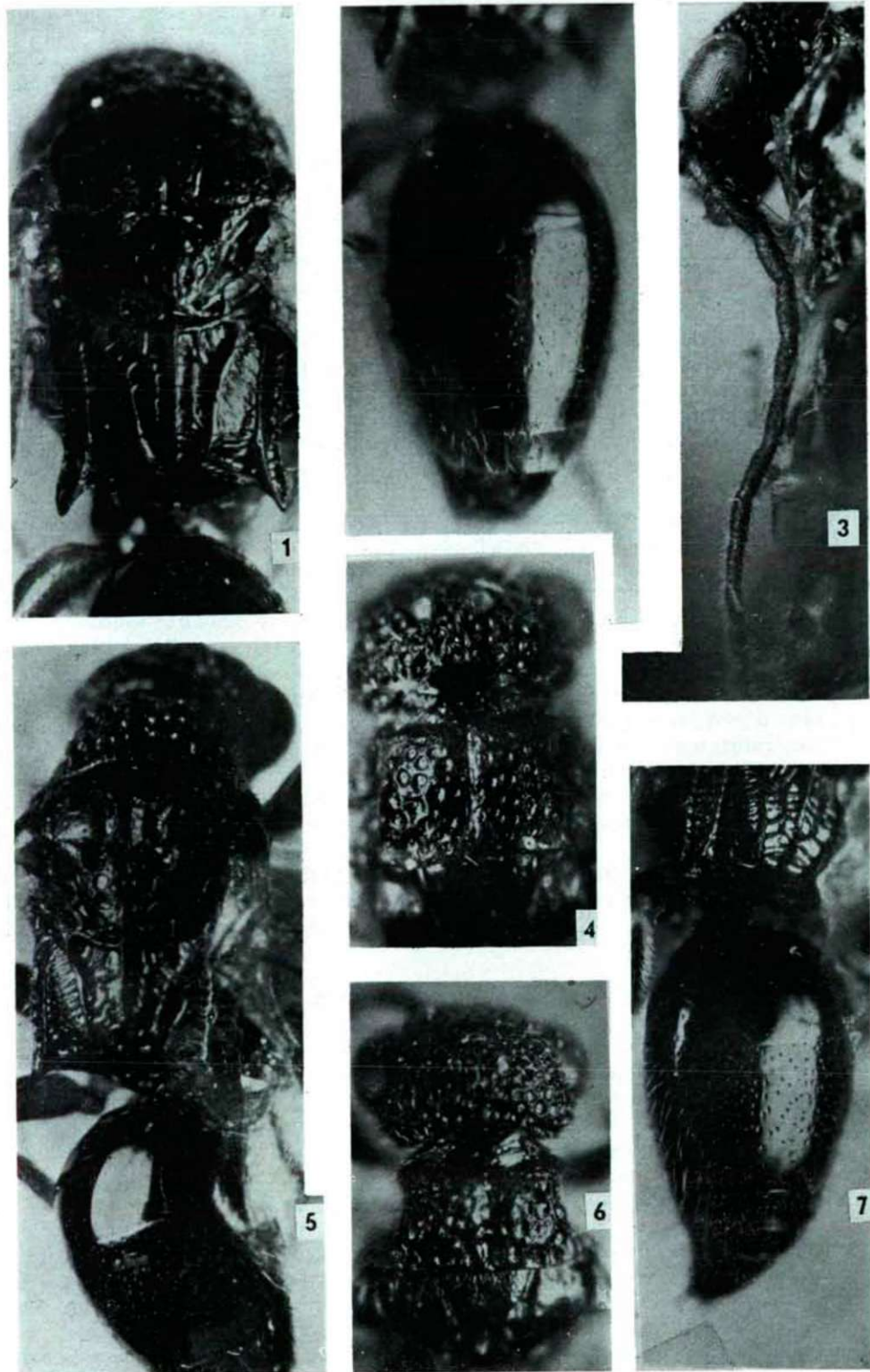


Fig. 1—4: *Sulcomesitius kuncheriai* sp. n., 1: notum, 2: abdomen, 3: head and antenna, 4: head and pronotum. — Fig. 5—7. *Sulcomesitius maai* sp. n., 5: thorax and abdomen, 6: head and pronotum, 7: propodeum and abdomen (Orig.)

protruding medially, strongly diverging laterally with obtuse lateral corners, lateral sides diverging backwards, surface raised sharply in a longitudinal keel medially; antennae slender, joint 2 longer than it is broad (4:3), joints 1, 3—13 generally twice as long as they are broad, differences in length of joints 2:3:4 distinct (4:7:6), length (and breadth) proportions of joints 1—13=8 (4):4 (3):7 (3.5):6 (3.5):6 (3.5):6 (3):6 (3):6 (3):6 (2.5):5 (2):5 (2):6 (2). Pronotum very short only slightly longer than half its breadth (13:10) anterior corners weakly protruding (Fig. 6) owing to wrinkle emerging on lateral side and reaching to corners, lateral sides nearly parallel anteriorly and gradually diverging posteriorly, posterior margin distinctly arched and rather broadly impressed, surface here with a row of larger punctures, in another place shagreened and weakly shining, with scattered large punctures longitudinal furrow sharp, not very deep. Mesonotum shagreened, weakly shining only with very few small punctures, parapsidal furrow shallow (Fig. 5), notauli very deep and sharply margined, longitudinal furrow weakly developed, posteriorly deeper. Mesonotum well separated from scutellum by a deep transversal groove and a pair of deep pits laterally. Scutellum shagreened, shining with about 5 large punctures round the lateral sides. Propodeum long, slightly longer than half its diameter transversally (12:11), lateral sides slightly convex medially and concave before spine (Fig. 5, 7), lateral spine short stumpy, only one-fourth as long as the propodeum medially (3:12), sublateral area finely transversally wrinkled, breadth of central: sublateral: lateral area=3.5:5.5:2. Lateral side of propodeum with a parallel wrinkle below upper margin which reaches the spine. Episternum coarsely punctured and with a granulate area below tegulae. Abdomen smooth, shining, tergite 2 rather scattered with deep punctures (Fig. 7), tergites 3—6 only finely punctured and polished distally. Sternite 2 deeply and densely punctured.

Specimen examined: "British N. Borneo Keningan Jan. 12—17, 1959", "T. C. Maa Collector Bishop" 1 ♂ holotype, Bernice P. Bishop Museum, Honolulu, Cat. No. 10,511.

This species differs from *Sulcomesitius luzonicus* (Kieffer), 1914, because of shorter lateral angles of propodeum, of mesonotum not having a very sharp margined longitudinal furrow, of abdominal tergite 2 being deeply and more densely punctured etc.

*Sulcomesitius rieki* sp. n.

(Fig. 8—10)

♀. — Unknown.

♂. — Length 2,9 mm. Black, clypeus, antennae, tegulae, legs, last abdominal segments brown, mandibles yellowish red, tarsi yellowish brown. Abdominal segment 1 and side of 2 dark reddish translucent. Wings normally developed, fore-wings weakly brownish infuscated with a lighter spot outside of cells. Veins brown. Body with sparse white hairs. Antennae with longer light yellowish brown hairs, hairs distinctly shorter than joints.

Head as long as it is broad (25:25), only slightly broadened and distinctly rounded behind eyes (Fig. 9), posterior margin nearly straight, occipital carina with a row of punctures, ocelli at a right angle and separated from each other by a distance half of that from eyes (POL:OOL=3:6), outer margins of ocelli with deep grooves, frontal sulcus indistinct, surfaces of head shagreened, weakly shining, rather densely but shallowly punctured; eyes very convex, long-shaped, longer than they are broad



(12:9), separated from mandibles by about one-third the distance of its length (3.5:12), anterior margin of clypeus weakly protruding in the middle, nearly straight laterally, with obtuse corners and broadly diverging in lateral side and raised in a sharp longitudinal ridge medially; antennae slender, joint 2 hardly longer than it is broad (4:3), joints 1, 3—13 at least twice as long as they are broad, joint 3 nearly twice as long as joint 2 (7:4), length (and breadth) proportions of antennal joints 1—13 = 7 (3.5):4 (3):7 (3):6 (3):6 (3):6 (2.5):6 (2):5.5 (2):5.5 (2):5 (2):5 (2):5 (2):7 (1.5). Pronotum about two-thirds shorter than its breadth (11:18) anterior corner with a minute protrusion (Fig. 9) owing to wrinkle emerging on lateral side and reaching the corners, lateral side hardly concave, beginning from middle distinctly diverging towards tegulae, posterior margin slightly arched, shallowly impressed, surface, shagreened weakly shining with scattered larger punctures, longitudinal furrow deep but not sharply margined. Mesonotum (Fig. 8) shagreened, shining, parapsidal furrow only weakly developed, notauli very deep and sharply margined, longitudinal furrow weakly developed, distinct as deep puncture, just before the posterior margin. Mesonotum separated from scutellum by a broad transversal groove and pair of deep pits laterally. Scutellum shagreened, shining with only 4 larger punctures along the lateral and posterior margins. Propodeum about as long as half of its breadth transversally (12:11), lateral sides distinctly converging to spines and diverging beginning with spines (Fig. 8), lateral spines slender, acute (seen from above) and rounded in lateral view, longer than one-third the length of propodeum medially (5:4), sublateral area finely striated, shining, lateral area transversally wrinkled, breadth proportions of central: sublateral: lateral area = 3:6:2.5. Lateral side of propodeum with a parallel wrinkle below upper margin and reaching the spine. Episternum coarsely punctured, shagreened, only weakly shining, and with a row of large transversal punctures. Abdomen smooth, shining, tergite 1 polished, tergites 2—6 with scattered very fine punctures (Fig. 10), posterior margin broadly polished. Sternite 2 scattered with fine punctures.

Specimens examined: "Viet Nam: Fyan 900—1000 m. 11. VII.—9. VIII. '61", "N. R. Spencer Collector" 1 ♂ holotype, Cat. No. 10,512 and 1 ♂ paratype Bernice P. Bishop Museum, Honolulu; "Viet Nam Fyan, 900—1000 m 11. VII.—9. VIII. '61", "N. R. Spencer Collector" 2 ♂ paratype, Hym. Typ. No. 3633—4 (Mus. Budapest); the same localities and data 1 ♂ paratype Bernice P. Bishop Museum, Honolulu; 3 ♂ same localities and data: Borneo: Sarawak, Kapit. District, Merirai Valley 28—31. VII. 1958. leg. T. C. Maa.

This species differs from *Sulcomesitius luzonicus* (KIEFFER), 1914, because of abdominal tergite 2 being indistinctly and rather deeply punctured, of anterior margin of pronotum having with a minute protrusion, of length of body not being 3.6 or larger, but only 2.9 mm, etc.

I have named this species in honour of the outstanding Australian specialist in Hymenoptera as well as in other Insecta orders, Mr. E. F. Riek, Canberra.

*Sulcomesitius malayensis* sp. n.

(Fig. 11)

♀. — Unknown.

♂. — Length 3 mm. Brown, mandibles, antennae and legs lighter yellowish brown. On paratypes thorax partly lighter and on specimen from Borneo body except antennae mandibles and legs, black and dark reddish translucent. Wings normally



developed, fore-wings brownish infuscated with indistinct lighter spots outside of cells. Body covered with scattered short white hairs, antennae with longer yellowish brown hairs, the hairs distinctly shorter than the diameter of joints.

Head as long as it is broad (25:25), only slightly broadened behind eyes, lateral sides remarkably convergent (Fig. 11), posterior corners with obtuse angles, posterior margin slightly arched, occipital carina with a row of punctures. ocelli at an acute angle, separated by a smaller distance from each another than from eyes, POL:OOL = 3:4, outer margins of ocelli with small shining grooves, frontal sulcus indistinct, surface of head granulated, scattered with very shallow punctures space between punctures as large as the punctures; eyes very convex, long-shaped, distinctly, longer than they are broad (13:11) and separated from mandibles by about one-quarter the distance of its length (3:13); anterior margin of clypeus semicircularly protruding in the middle, nearly straight laterally with obtuse corners, lateral angles obtuse, lateral sides diverging backwards; antennae slender, joint 2 shorter than twice its width (4:2.5), antennal joint 2 (Fig. 11) remarkably shorter than joint 3 (4:7), length (and breadth) proportions of joints 1—13 = 7 (3):4 (2.5):7 (2.5):5 (3):5 (3):5 (2.5):5 (2.5):5 (2.5):5 (2):4 (2):7 (2). Pronotum (Fig. 11) short, about two-thirds as long as its breadth (12:17), anterior corners rectangular with very small protrusion owing to the wrinkle emerging on the lateral side and reaching the corners, this protrusion on the Borneo specimen a little sharper, lateral side concave just behind the protrusion the latter gradually diverging towards tegulae, posterior margin slightly arched and shallowly impressed, surface granulated only weakly shining with larger but not deep punctures, longitudinal furrow deep but not sharply margined. Mesonotum shagreened, with some minute punctures, parapsidal furrow hardly distinct, notauli very deep and sharp margined, longitudinal furrow short and narrow, only distally and weakly developed. Mesonotum separated from scutellum by a transverse deep groove and by a pair of pits at its base laterally. Scutellum shagreened, with 4 larger punctures on lateral sides. Propodeum distinctly longer than half its breadth transversally (12:9.5), lateral sides parallel, spines short and acute only slightly diverging backwards, lateral spines one-quarter as long as propodeum medially (3:12), sublateral area shining, only finely striated, lateral area transversally wrinkled, breadth proportions of central: sublateral:lateral areas = 2.5:5.5:1.5. Lateral sides of propodeum with a parallel wrinkle below upper margin, which reaches spine. Episternum coarsely sculptured and with a granulate field below tegulae. Abdomen smooth shining, tergite 1 polished, tergite 2 scattered with very fine punctures, tergites 3—6 finely alutaceous, shining. Sternite 2 shining, very finely punctured.

Specimens examined; "North Borneo Liawan 14—17. I. 1959", "T. C. Maa Collector" 1 ♂ holotype, Bernice P. Museum, Honolulu, Cat. No. 10,513; "Malaya: Pahang King Geo. V. Nat. 1 Part, Gue-Che Yatin, Dec. 16. 1958", "L. W. Quate Collector" 1 ♂ paratype Hym. Typ. No. 3635 (Mus. Budapest); "British N. Borneo Gomantong Caves 22—26 XI. 1958", T. C. Maa Collector Bishop" 1 ♂ paratype Bernice P. Bishop Mus. Honolulu; Borneo: Kalabakan leg. Kuncheria 14. XI. 1962 1 ♂; Laos: Sayaboury 12 II. 1966 1 ♂.

This species differs from *Sulcomesitius luzonicus* (KIEFFER), 1914, because of abdominal tergite 2 being indistinctly and rather deeply punctured, of shorter lateral spines of propodeum, of lack of black body, etc.



*Sulcomesitius borneoensis* sp. n.  
(Fig. 12—13)

♀. — Unknown.

♂. — Length 5 mm. Black, mandibles, clypeus, antennae joints 2—4, both ends of tibia, tarsal joints yellowish brown, abdomen partly reddish translucent, on paratype antennae joints 1, 5—13, tegulae and legs dark reddish brown. Wings normal, fore-wings only slightly brownish infuscated, with lighter spots on the base, top and outside of cells. Veins brown. Body sparsely covered with white hairs, antennae with rather long light yellowish brown dense hairs, which are distinctly shorter than the diameter of joints.

Head as long as it is broad (39:39), only slightly broadened but strongly rounded behind eyes, posterior margin slightly arched, occipital carina with a row of larger deeper punctures; ocelli at a right angle, hind ocelli separated by about half the distance from each another than from eyes (4:8), outer margin of eyes with deep shining narrow grooves; surface of head shagreened, weakly shining, very densely and deeply punctured, space between punctures distinctly smaller than punctures; eyes very convex and remarkably long-shaped, longer than they are broad (17:15), separated from mandibles by about one-third the distance if its length (6:17); anterior margin of clypeus largely semicircularly protruding in the middle, straight laterally with obtuse corners, lateral sides strongly diverging backwards, surface raised into a high longitudinal keel medially; antenna slender, all joints at least twice as long as they are broad, length (and breadth) proportions of antennal joints 1—13 = 12 (5):6 (3):11 (4):10 (4):10 (4):10 (4):10 (3):9(3):9 (3):8 (3):8 (3):8 (2):11 (1.5). Pronotum hardly shorter than it is long (17:20), anterior corners sharply rectangular, lateral sides concave only just behind corners, diverging backwards from the middle, posterior margin slightly arched, surface shagreened, weakly shining, with deep and in part very deep but not dense punctures, space between punctures in some places as large as punctures, longitudinal furrow narrow, rather deep. Mesonotum shagreened shining with very few small punctures (Fig. 13), parapsidal furrow distinct but shallow, notauli very deep and sharply margined, longitudinal furrow distinct only just before posterior margins where it is form longshaped, shining and deepening. Mesonotum well separated from scutellum by a transverse groove and by a pair of pits at its base laterally. Scutellum shagreened, shining, with a fine impression on its base medially and with about 7 larger punctures. Propodeum about as long as half of its breadth transversally (18:17), lateral side slightly convergent, divergent only beginning with spines (Fig. 13), lateral spine acute nearly half as long as its length medially (8:18), sublateral area shining, only weakly striated, lateral area wrinkled transversally, breadth of central: sublateral: lateral area = 5.5:8:3.5. Lateral sides of propodeum with a distinct parallel wrinkle below upper margin and reaching the spines. Episternum densely and rather deeply punctured with granulate spot below tegulae. Abdomen smooth, shining, tergite 1 polished, tergite 2 scattered with fine punctures (Fig. 12), tergites 3—6 altaceous basally, polished distally and very finely and more densely punctured medially. Sternite 2 with scattered but rather deeper punctures.

Specimens examined: "North Borneo (S. E.) Forest Camp 19 km. N. of Kalabakan 60 m. 24, X. 1962", "K. J. Kuncheria Collector Bishop" 1 ♂ holotype Bernice P. Bishop Museum, Honolulu. Cat. No. 10.515; "British N. Borneo W. Coast

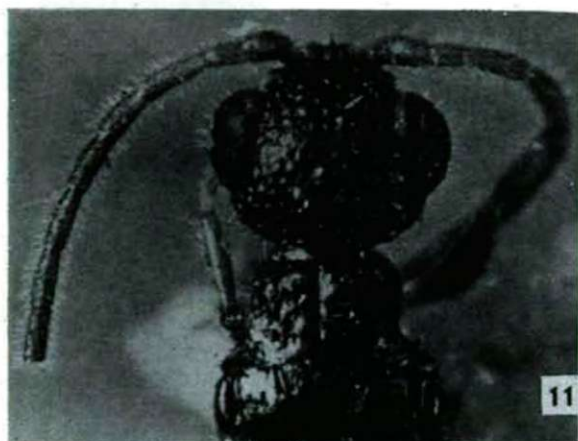


Fig. 8—10: *Sulcomesitius rieki* sp. n., 8: notum, 9: head and pronotum, 10: abdomen. Fig. 11: *Sulcomesitius malayensis* sp. n., head and pronotum. Fig. 12—13: *Sulcomesitius borneoensis* sp. n., 12: abdomen, 13: notum (Orig.)



Residency, Ranau, 8. mi. N. Paring Hot Springs 500 m. X—9—18 '58" "T. C. Maa Collector" 1 ♂ paratype Hym. Typ. No. 3636 (Mus. Budapest).

This species differs from *Sulcomesitius orientalis* (FOUTS), 1930, because of lateral sides of propodeum not being convex, of mesonotum lacking the few dense and large punctures, of mesonotal furrow not being very shallow, of length of body not being 3,5 mm. etc.

### References

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