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DESCRIPTIONS OF A NEW GENUS AND TEN
NEW SPECIES OF LAMPROTATINAE
(HYMENOPTERA, PTEROMALIDAE)

By KAZUAKI KAMIJO

Entomological Institute, Hokkaido University, Sapporo

In 1955, Delucchi¹⁾ revised the European species of the subfamily Lamprotatinae, while, as far as I am aware, no species of this subfamily has hitherto been recorded from Japan. Recently, however, I have found six new species of the genus *Stictomischus* Thomson, three new species of the genus *Skeloceras* Delucchi and one species of the genus *Neoskeloceras* (gen. nov.), all of which will be described in this paper. Types excluding some ones are deposited in the collection of the Entomological Institute, Hokkaido University. It is said that the species of *Stictomischus* and *Skeloceras* are parasitic on larvae of Dipterous miners. No information is, however, available regarding the host association of any Japanese species.

I would like to express my sincere appreciation to Prof. T. Uchida and Prof. C. Watanabe for their kind advice and encouragement. I am also greatly indebted to the following gentlemen for the loan of specimens: Prof. K. Yasumatsu, Prof. Y. Hirashima, both of the Entomological Laboratory, Kyushu University, and Prof. M. Sasakawa, of the Entomological Laboratory, Kyoto Prefectural University.

Subfamily **Lamprotatinae**

Genus *Stictomischus* Thomson

Stictomischus Thomson, 1876. Hymen, Scand., 4, p. 234.

Type species: *Stictomischus scaposus* Thomson.

Key to the Japanese species: females

1. Abdominal petiole distinctly shorter than propodeum, sharply and roundly margined anteriorly; gaster (not including abdominal petiole) much longer than thorax *marginatus* sp. nov.

1) Acta Univ. Lund (new series), 50 (20), 1-97, 1955.

[Insecta Matsumurana, Vol. 23, No. 1, January, 1960]

- Abdominal petiole as long as or longer than propodeum, not margined anteriorly; gaster shorter than thorax 2
- 2. Body elongate; thorax not strongly arched in profile; propodeum elongate, its dorsum usually broadly smooth; first tergite occupying about half length of gaster *elongatus* sp. nov.
- Body not elongate; thorax strongly arched in profile; propodeum not elongate, more or less reticulate dorsally; first tergite occupying more than half length of gaster 3
- 3. Petiole slender, at least 1.5 times as long as wide, obviously longer than propodeum; fore wing without speculum outside basal vein 4
- Petiole robust, 1.3 times as long as wide, about as long as propodeum; speculum outside basal vein weakly developed along basal vein and parastigma 5
- 4. Scape much shorter than first and second funicle segments combined; sensillae rather numerous, irregularly disposed; upper surface of costal cell of fore wing with numerous hairs from basal one-fourth to apex of the cell *momoi* sp. nov.
- Scape almost as long as first and second funicle segments combined; funicle segments each with two rows of sensillae which are sparse; upper surface of costal cell of fore wing with a single row of hairs *japonicus* sp. nov.
- 5. Hind margin of mesoscutum weakly sinuate; basal cell of fore wing with very sparse hairs in apical area and along submarginal vein; body bluish green with gaster indigo-blue *apoianus* sp. nov.
- Hind margin of mesoscutum strongly sinuate; basal cell of fore wing moderately hairy; body dark green *curvatus* sp. nov.

1. *Stictomischus marginatus* sp. nov.

Female. Length 3.0 mm. Head, seen from above, three times width of its median length, much wider than thorax (58 : 46). Postocellar line slightly longer than ocellular line (11 : 10). Clypeus reticulate like face, with right tooth rather slender. Malar space slightly longer than one-third height of eye. Scape much shorter than combined length of first and second funicle segments (FI and FII), about 15 : 18, slightly shorter than club; pedicel slightly longer than wide, more than half length of FI (5 : 9); FI and FII about equal in length, almost twice as long as wide; FVI about 1.7 times as long as wide. Club as long as two preceding segments combined. Sensillae rather sparse, one-fourth to one-third length of FI, irregularly disposed in two or three rows upon each funicle segment. Mesoscutum convex, finely shingled, with hind margin moderately sinuate. Parapsidal furrows rather deep. Scutellum moderately convex, 1.5 times as long as wide, shorter than mesoscutum, finely reticulate, more coarsely so on central portion; frenum reticulate with longitudinal strong

carinae. Metanotum as long as frenum, with metascutellum feebly reticulate. Propodeum twice as long as metanotum, somewhat flattened dorsally, weakly reticulate; median carina strong; plicae distinct on posterior half. Flange supracoxal small, with posterior margin deeply emarginate. Prepectus with an oblique carina strong, its triangular area practically smooth, shining. Ratio of lengths of marginal, postmarginal and stigmal veins as 37 : 46 : 21. Stigma rather small, subrectangular (fig. 3, A). Upper surface of costal cell of fore wing with hairs irregularly arranged in anterior half area from basal one-third to apex of the cell; speculum outside basal vein absent. Petiole (fig. 2, B) shorter than propodeum (14 : 17), longer than wide (14 : 12), ovate, widest at middle, roundly and sharply margined anteriorly; its dorsum somewhat flattened, depressed at central portion, coarsely and deeply sculptured, with longitudinal strong carinae posteriorly. Gaster (fig. 2, A) elongate, spindle-shaped, longer than thorax, and more than twice as long as wide. First tergite shorter than half length of gaster.

Dark green. Head with coppery reflections. Scape brown; pedicel and flagellum black. Legs light brown; coxae dark green; trochanters and femora dark brown with metallic reflections, with tips of femora brown; hind tibiae darker at middle.

Male: unknown.

Holotype (♀): Daisetsu, Hokkaido, 24. VII. 1957, K. Kamijo leg.

Distribution: Japan (Hokkaido).

This species is similar to *S. scaposus* Thomson, from which it may be distinguished by the shape of the petiole and by the scape which is much shorter than combined length of first and second funicle segments.

2. *Stictomischus elongatus* sp. nov.

Female. Length 2.5–3.0 mm. Head, seen from above, about 2.6 times as wide as long, wider than thorax (47 : 37). Postocellar line about as long as ocellocular line. Malar space slightly longer than one-fourth height of eye. Clypeus semicircular, virtually smooth, with right tooth large. Scape (fig. 1, A) shorter than FI and $\frac{1}{2}$ FII combined; pedicel half as long as FI, which is twice as long as wide and is usually longer than FII; FVI about 1.7 times as long as wide; club longer than scape (15 : 12), as long as two preceding segments combined. Sensillae irregularly disposed in two or three rows upon each funicle segment. Thorax not strongly arched in profile. Mesoscutum usually elongate, rugulose anteriorly, shingled posteriorly, with hind margin moderately sinuate. Parapsidal furrows deep. Scutellum elongate, about 1.5 times as long as wide, evenly and weakly convex, finely shingly-reticulate; frenum reticulate,

with irregular strong carinae posteriorly. Metanotum about as long as frenum, with metascutellum smooth except extreme anterior portion weakly sculptured. Propodeum (fig. 2, E) elongate, more than twice as long as metanotum (16 : 7), about as long as three-fourths distance between spiracles, usually smooth, shining except sides irregularly and weakly sculptured; median carina distinct; plicae strong, restricted to posterior half. Flange supracoxal feebly reticulate laterally; its posterior margin somewhat straight. Prepectus with triangular area weakly sculptured. Ratio of lengths of marginal, postmarginal and stigmal veins as 35 : 45 : 21. Stigma smaller, subrectangular (fig. 3, B). Upper surface of costal cell of fore wing with numerous hairs irregularly arranged from basal one-third to apex of the cell. Speculum absent. Petiole slender, about as long as propodeum, a little less than twice as long as wide (16 : 9), irregularly sculptured; its posterior half usually with longitudinal rugae; its sides weakly rounded seen

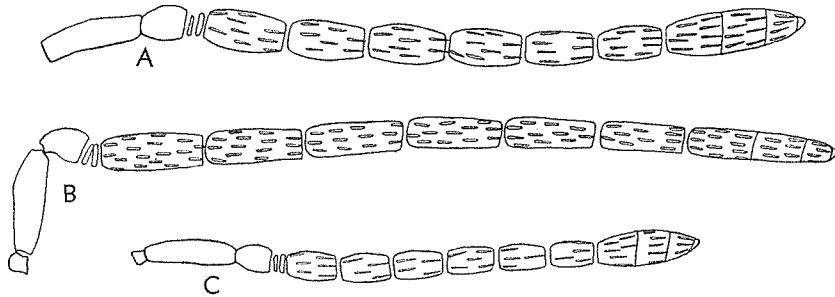


Fig. 1. Antenna. A-B. *Stictomischus elongatus* sp. nov., female and male.
C. *S. japonicus* sp. nov., female.

from above, usually widest at posterior one-third. Gaster spindle-shaped, a little shorter than thorax, less than twice as long as wide. First tergite occupying half length of gaster.

Dark green with coppery reflections on face and thorax. Scape brownish basally, darker apically; pedicel and flagellum black. Legs light brown; coxae dark green; femora usually darker at middle with metallic reflections. Sometimes all legs light brown; for eand middle coxae brownish black with metallic reflections, hind coxae dark green.

Male. Length 2.2-2.7 mm. Scape (fig. 1, B) about as long as FI; pedicel slightly longer than wide, less than half length of FI; funicle segments slender; FI more than twice as long as wide, slightly longer than FII; FVI twice as long as wide. Sensillae short, numerous. Propodeum feebly reticulate dorsally. Petiole shorter than propodeum, about 13 : 15, a little longer than wide (10), sometimes with hairs anteriorly. Gaster shorter than thorax; first tergite

occupying half length of gaster. Scape dark brown. Petiole brownish with greenish reflections. Gaster blackish in posterior half. Legs light brown; coxae dark green; femora dark brown in greater part, sometimes with metallic reflections on fore and hind femora.

Holotype (♀): Daisetsu, Hokkaido, 24. VII. 1957, K. Kamijo leg. Paratypes (8♀♀, 5♂♂): 5♀♀, 2♂♂, with same data as holotype; 3♀♀, 1♂, Rishiri, Hokkaido, 5. VIII. 1958, K. Kamijo leg.; 1♂, Okushiri, Hokkaido, 14. VII. 1958, K. Kamijo leg.; 1♂, Hieizan, Honshu, 14. IV. 1955, M. Sasakawa leg.

Distribution: Japan (Hokkaido and Honshu).

3. *Stictomischus momoi* sp. nov.

Female. Length 2.2 mm. Head, seen from above, a little less than three times as wide as long, much wider than thorax (47 : 39). Postocellar line nearly as long as ocellocular line. Frons and face rather deeply reticulate. Malar space less than one-third height of eye (7 : 24). Scape as long as club, shorter than FI and FII combined (14 : 16); pedicel much shorter than FI (5 : 8); FI nearly twice as long as wide, as long as or slightly shorter than FII; FVI nearly 1.7 times as long as wide; Club as long as two preceding segments combined. Sensillae rather numerous, about one-fourth length of FI, irregularly disposed in two or three rows upon each funicle segment. Mesoscutum reticulate-rugulose anteriorly, densely and deeply reticulate posteriorly, with hind margin moderately sinuate. Parapsidal furrows very shallow, not strongly convergent. Scutellum about 1.3 times as long as wide, strongly convex, broadly and truncately rounded on anterior margin; frenum reticulate with very short carinae posteriorly. Metanotum slightly shorter than frenum, with metascutellum smooth. Propodeum (fig. 2, F) more than twice as long as metanotum (14 : 6) and longer than half distance between propodeal spiracles, about 14 : 22, coarsely reticulate at sides, very feebly so on central area; median carina distinct; plicae visible only posteriorly. Flange supracoxal large, with posterior margin produced behind. Prepectus with an oblique carina distinct, triangular area weakly reticulate, shining. Ratio of lengths of marginal, postmarginal and stigmal veins as 32 : 40 : 17. Stigma large, subtriangular (fig. 3, C). Upper surface of costal cell of fore wing with numerous hairs irregularly arranged from basal one-fourth to apex of the cell; speculum absent. Petiole similar to that of *elongatus* sp. nov., longer than propodeum (17 : 14), much longer than wide (17 : 10), widest at middle; its dorsum flattened, densely reticulate anteriorly, irregularly and more coarsely sculptured posteriorly. Gaster shorter than thorax, 1.5 times as long as wide. First tergite longer than half length of gaster.

Drak green with coppery reflections. Scape brown basally, darker with greenish metallic reflections apically; pedicel and flagellum black. Legs light brown; coxae dark green; basal half of fore and hind femora dark brown with metallic reflections. Gaster without coppery reflections.

Male: unknown.

Holotype (♀): Rebun, Hokkaido, 1. VIII. 1958, K. Kamijo leg. Paratypes (2♀): 1♀, Nukabira, Hokkaido, 14. VII. 1959, S. Momoi leg.; 1♀, Nikko, Honshu, 13. IX. 1957, S. Momoi leg.

Distribution: Japan (Hokkaido and Honshu).

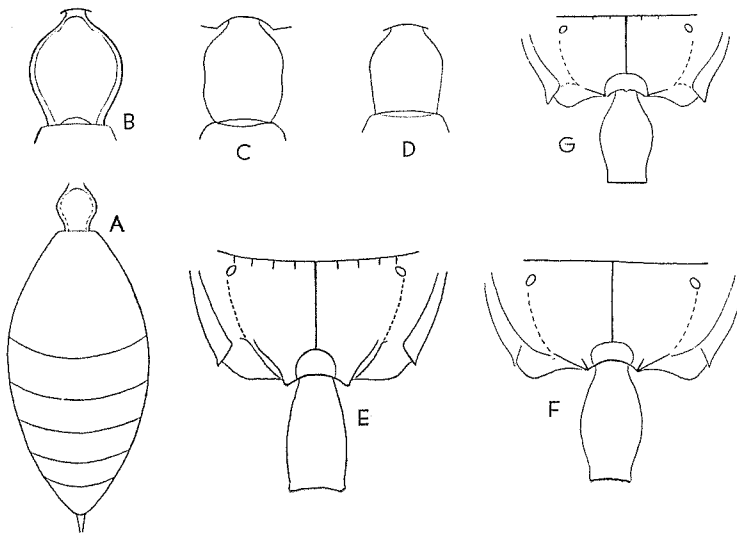


Fig. 2. A. Abdomen of *Stictomischus marginatus* sp. nov., female. B-D. Abdominal petiole of female: B, *S. marginatus* sp. nov.; C, *S. apoianus* sp. nov.; D, *S. curvatus* sp. nov. E-G. Propodeum and petiole of female: E, *S. elongatus* sp. nov.; F, *S. momoi* sp. nov.; G, *S. japonicus* sp. nov.

4. *Stictomischus curvatus* sp. nov.

Female. Length 2.3 mm. Head, seen in front, transverse, 1.3 times as wide as high, with genae short, sharply narrowed to mouth. Clypeus somewhat transverse, feebly reticulate. Malar space one-fourth height of eye. Postocellar line slightly longer than ocellocular line. Scape much shorter than FI and FII combined (12.5 : 15.5), nearly as long as club; pedicel, seen from above, slightly longer than wide, much shorter than FI (5 : 8); FI less than twice as long as wide (8 : 5), slightly longer than FII; FVI nearly 1.5 times as long as wide; club as long as two preceding segments combined. Sensillae like those of *momoi*

sp. nov. Mesoscutum convex, irregularly reticulate, with posterior margin strongly sinuate. Parapsidal furrows of moderate depth. Scutellum strongly convex, about 1.3 times as long as wide, truncately rounded on anterior margin; frenum with weak longitudinal carinae. Metanotum as long as frenum, with metascutellum practically smooth. Propodeum evenly and strongly convex, twice as long as metanotum, much longer than half distance between propodeal spiracles, about 14 : 21, rather strongly reticulate laterally, more coarsely and weakly so medially, with a distinct median carina; plicae visible only posteriorly. Flange supracoxal small, with posterior margin slightly emarginate. Prepectus with an oblique carina strong, triangular area smooth, shining. Ratio of lengths of marginal, postmarginal and stigmal veins as 28 : 36 : 18. Stigma moderate in size, rectangular (fig. 3, D). Upper surface of costal cell of fore wing with a single row of hairs from basal one-third to apex of the cell; speculum weakly developed along basal vein and parastigma. Petiole (fig. 2, D) slightly shorter than propodeum (13 : 14), longer than wide (13 : 10), irregularly reticulate-punctate; its sides, seen from above, subparallel behind basal one-third. Gaster shorter than thorax, nearly 1.5 times as long as wide. First tergite longer than half length of gaster.

Dark green. Scape brown basally, darker apically; flagellum brownish black. Thoracic dorsum darker except central area dark green. Propodeum blackish with a feeble greenish tinge. Legs light brown; coxae dark green; femora dark brown in greater part with greenish metallic reflections. Petiole blackish. Gaster dark green anteriorly, darker posteriorly.

Male: unknown.

Holotype (♀): Sapporo, Hokkaido, 20. V. 1958, K. Kamijo leg.

Distribution: Japan (Hokkaido).

5. *Stictomischus apoianus* sp. nov.

Female. Length 2.0 mm. Head, seen from above, 2.5 times as wide as long, much wider than thorax (47 : 38). Postocellar line almost as long as ocellular line. Malar space slightly longer than one-fourth height of eye. Clypeus smooth, with right tooth robust. Scape shorter than FI and FII combined (12 : 15), as long as club; pedicel half as long as FI, which is longer than FII (8 : 7) and is twice as long as wide; FVI 1.5 times as long as wide. Club as long as two preceding segments combined. FI with sensillae irregularly disposed, following funicle segments each with two rows of sensillae which are half as long as FVI. Mesoscutum coarsely and deeply reticulate, with hind margin weakly sinuate. Parapsidal furrows shallow. Scutellum evenly convex, about 1.3 times as long as wide, truncately rounded on anterior margin, finely

reticulate, more coarsely so on central area; frenum reticulate with irregular longitudinal carinae. Metanotum shorter than frenum (4.5 : 6), with metascutellum about three times as wide as long, feebly reticulate. Propodeum weakly convex, short, nearly three times as long as metanotum, longer than half distance between propodeal spiracles, about 13 : 23, reticulate laterally as in mesoscutum, very feebly so medially; median carina distinct; plicae visible only posteriorly. Flange supracoaxal with posterior margin weakly emarginate. Metanotum and anterior portion of propodeum, seen in profile, somewhat sunken. Prepectus with an oblique carina distinct, triangular area smooth. Ratio of lengths of marginal, postmarginal and stigmal veins as 25 : 33 : 15. Stigma of moderate size, subrectangular (fig. 3, E). Basal cell of fore wing with very sparse hairs distally and with a row of hairs along submarginal vein; upper surface of costal

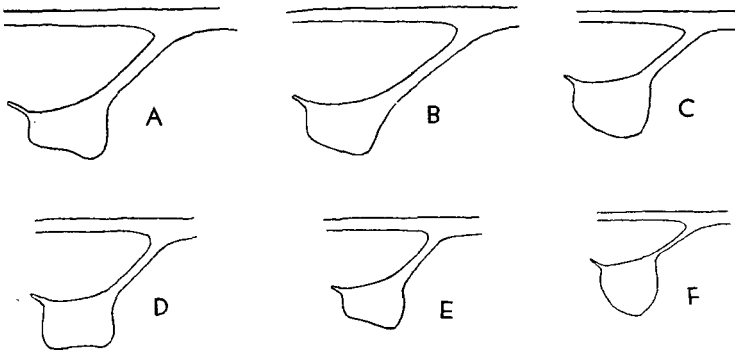


Fig. 3. Stigma of female. A. *Stictomischus marginatus* sp. nov. B. *S. elongatus* sp. nov. C. *S. momoi* sp. nov. D. *S. curvatus* sp. nov. E. *S. apoianus* sp. nov. F. *S. japonicus* sp. nov.

cell with a single row of hairs from basal one-third to apex of the cell. Speculum weakly developed along basal vein and parastigma. Petiole (fig. 2, C) ovate, about as long as propodeum (14 : 13), longer than wide (11), somewhat flattened above, deeply and irregularly reticulate-punctate. Gaster ovate, shorter than thorax, nearly 1.6 times as long as wide. First tergite much longer than half length of gaster.

Bluish green. Scape brownish yellow; flagellum dark brown. Pronotum and parapsides darker. Legs light brown; coxae bluish green; femora in greater part dark brown with feeble metallic reflections. Petiole dark brown, with greenish reflections on central region. Gaster indigo-blue, shining.

Male: unknown.

Holotype (♀): Apoi, Hokkaido, 21. VIII. 1957, S. Momoi leg.

Distribution: Japan (Hokkaido).

This species seems to be closely allied to *S. groschkei* Delucchi from which it may be separated by the longer petiole and by the presence of the narrow speculum.

6. *Stictomischus japonicus* sp. nov.

Female. Length 1.6 mm. Clypeus transverse, smooth. Malar space about one-third height of eye. Vertex and frons coarsely reticulate. Postocellar line as long as ocellular line. Scape (fig. 1, C) almost as long as FI and FII combined; pedicel rather slender, more than two-thirds length of FI (4.3 : 6); FI slightly longer than FII (6 : 5); FVI 1.5 times as long as wide; club nearly as long as scape. Funicle segments each with two rows of sensillae which are sparse. Mesoscutum flattened, coarsely reticulate, its posterior margin moderately sinuate. Parapsidal furrows very shallow. Scutellum strongly convex, about as long as wide, broadly and truncately rounded on anterior margin, coarsely reticulate; frenum reticulate with irregular carinae posteriorly. Metanotum slightly shorter than frenum, with metascutellum smooth. Propodeum (fig. 2, G) about 2.5 times as long as metanotum, longer than half distance between spiracles (10 : 18), more coarsely reticulate than mesoscutum; median carina distinct. Flange supracoaxal large, with hind margin produced behind. Prepectus with an oblique carina strong; triangular area smooth. Ratio of lengths of marginal, postmarginal and stigmal veins as 21 : 29 : 13. Stigma large, semicircular (fig. 3, F). Basal cell of fore wing with sparse hairs distally and with a row of hairs along submarginal vein; upper surface of costal cell with a single row of hairs from basal one-third to apex of the cell; speculum absent. Petiole slightly longer than propodeum (12 : 10), 1.5 times as long as wide, widest at middle, flattened dorsally, irregularly reticulate-punctate. Gaster a little shorter than thorax, nearly 1.4 times as long as wide. First tergite much longer than half length of gaster.

Bluish green to dark green. Scape light brown, sometimes darker distally; pedicel and flagellum dark brown. Legs light brown; fore and middle coxae usually dark brown; hind coxae bluish green; basal half of all femora darker.

Male: unknown.

Holotype (♀): Apoi, Hokkaido, 26. VIII. 1956, K. Kamiyo leg. Paratypes (4♀): 1♀, Teshio, Hokkaido, 6. IX. 1956, K. Kamiyo leg.; 1♀, Rishiri, Hokkaido, 3. VIII. 1958, K. Kamiyo leg.; 2♀, Nukabira, Hokkaido, 14. VII. 1959, S. Momoi leg.

Distribution: Japan (Hokkaido).

This species is closely related to *S. miniatus* Delucchi and *S. apoiamus*

sp. nov. It may be distinguished from *miniatus* by the shape of the stigma and by the colour of the body. From *apoianus* it may be separated by the characters given in the key and also by the semicircular stigma and by the scutellum which is about as long as wide.

Genus *Skeloceras* Delucchi

Skeloceras Delucchi, 1953. Mitt. Schweiz. Ent. Ges., 26, p. 216.

Type species: *Skeloceras seiunctum* Delucchi.

Key to the Japanese species: females

- 1. Costal cell of hind wing without hairs; stigma small, subrectangular; club as long as two preceding segments combined; petiole about as long as wide; all femora metallic green in greater part *duplicatum* sp. nov.
- Costal cell of hind wing with sparse hairs; stigma large, triangular; club much longer than two preceding segments combined; petiole longer or shorter than wide; at least middle and hind femora light brown without metallic reflections 2
- 2. Petiole wider than long with conspicuous sharp anterior margin; flagellum about as long as thorax; first segment of club 1.5 times as long as wide; basal cell of fore wing closed below by a line of hairs on cubital vein in apical half, open in basal half; median carina on propodeum irregular, branched; fore femora metallic green in greater part *hikosanus* sp. nov.
- Petiole obviously longer than wide, with anterior margin not strong; flagellum slender, longer than thorax; first segment of club nearly twice as long as wide; basal cell of fore wing almost closed below by a line of hairs on cubital vein; median carina on propodeum distinct, straight; fore femora light brown *cariniferum* sp. nov.

1. *Skeloceras duplicatum* sp. nov.

Female. Length 3.1 mm. Postocellar line as long as ocellular line. Malar space about one-fourth height of eye. Head, seen in front, much wider than high (58 : 43). Scape as long as FI and $\frac{1}{2}$ FII combined, less than club (17 : 19); pedicel much shorter than FI (6 : 11); basal three funicle segments each equal in length and width, twice as long as wide (11 : 5); FVI 1.7 times as long as wide (8.5 : 5); club as long as two preceding segments combined; first segment of club as wide as and a little shorter than FVI. Sensillae like those of *hikosanus* sp. nov. Pronotum half as long as mesoscutum; anterior margin of pronotum with weak flange moderately emarginate. Mesoscutum a little longer than scutellum, strongly convex, finely shingly-reticulate. Para-

psidal furrows deep, rather strongly convergent. Scutellum 1.3 times as long as wide, reticulate, with a longitudinal median groove anteriorly; frenum with longitudinal strong carinae; flange on posterior margin of scutellum well developed. Metanotum nearly as long as frenum, with metascutellum practically smooth. Propodeum (fig. 5, D) 2.2 times as long as metanotum, very feebly reticulate, shining, with short carinae anteriorly; median carina restricted to anterior half, two submedian carinae extending from nucha, which is about one-sixth of total length of propodeum; plicae distinct, complete. Spiracular sulci shallow. Distance between spiracles 1.5 times as long as median length of propodeum. Flange supracoxal of moderate size, with hind margin weakly sinuate. Basal cell of fore wing with a row of hairs along submarginal vein and with hairs in apical area of the cell; distal half of basal cell closed below by a line of hairs on cubital vein, basal half open. Upper surface of costal cell with hairs in apical half. Speculum large, narrowly open below. Costal cell of hind wing without hairs. Ratio of lengths of submarginal, marginal, postmarginal and stigmal veins as 66 : 34 : 46 : 22. Stigma rather small, subrectangular (fig. 5, A). Petiole longer than half length of propodeum (11 : 18), about as long as wide, shining, with a few longitudinal carinae and with a few arched transverse carinae posteriorly; anterior margin of petiole not strong. Gaster shorter than thorax, about 1.6 times as long as wide. First tergite much longer than half length of gaster.

Dark green with coppery reflections. Scape dark green; pedicel and flagellum blackish. Legs light brown; coxae dark green; femora dark green except basal and apical tips light brown. Petiole blackish. Posterior half of gaster blackish with a purplish tinge.

Male: unknown.

Holotype (♀): Sapporo, Hokkaido, 8. VI. 1957, S. Momoi leg.

Distribution: Japan (Hokkaido).

2. *Skeloceras hikosanus* sp. nov.

Female. Length 3.2 mm. Head, seen in front, much wider than high (63 : 46). Postocellar line as long as ocellocular line. Malar space more than one-fourth height of eye (8 : 28). Scape (fig. 4, B) as long as FI and $\frac{1}{2}$ FII combined, much shorter than club (17 : 22); pedicel a little longer than wide, half as long as FI, which is twice as long as wide; first segment of club slightly wider and shorter than FVI, 1.5 times as long as wide; third segment of club with a band of micropilosity. Sensillae moderate in length, irregularly disposed in three or four rows upon each funicle segment. Pronotum half as long as mesoscutum; anterior margin of pronotum with strong flange rather

deeply emarginate. Mesoscutum convex, finely shingly-reticulate. Parapsidal furrows deep. Scutellum elongate, about 1.5 times as long as wide, reticulate as in posterior area of mesoscutum, with a longitudinal median groove short, restricted to anterior portion; frenum about as long as metanotum, with strong irregular longitudinal carinae, interspaces between carinae smooth, shining. Metascutellum about three times as wide as long, practically smooth. Propodeum (fig. 5, E) a little more than twice as long as metanotum, weakly and irregularly sculptured, shining, with carinae extending from nucha and plicae toward median carina, which is variable, branched posteriorly or anteriorly; plicae very strong, usually complete; spiracular sulci very shallow. Distance between spiracles 1.6 times as long as median length of propodeum. Flange supracoxal of moderate size, with hind margin almost straight. Basal cell of fore wing open below in basal half, with a row of hairs along submarginal vein and with

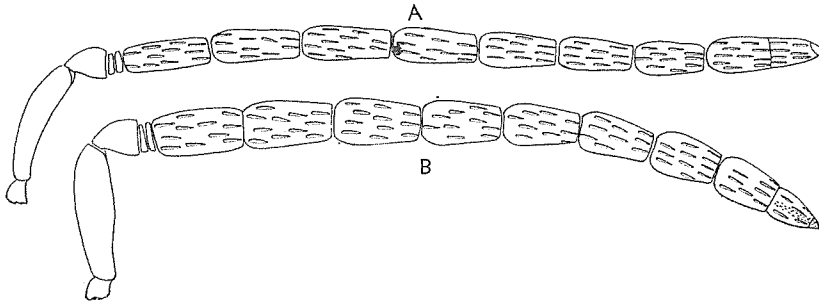


Fig. 4. Antenna of female: A, *Skeloceras cariniferum* sp. nov.,
B, *S. hikosanus* sp. nov.

hairs in apical area of the cell; upper surface of costal cell with sparse hairs in apical half; speculum large, almost closed below. Costal cell of hind wing beneath with sparse hairs. Ratio of lengths of submarginal, marginal, post-marginal and stigmal veins as 70 : 35 : 52 : 23. Stigma large, triangular (fig. 5, B). Petiole about half as long as propodeum, wider than long, finely sculptured with a few longitudinal carinae; anterior margin of petiole very strong, sharp. Gaster shorter than thorax, about 1.7 times as long as wide. First tergite longer than half length of gaster.

Dark green. Face, vertex, anterior and posterior areas of mesoscutum, and scutellum with coppery reflections. Scape dark green; pedicel and flagellum blackish. Pronotum and pleura darker. Legs light brown with coxae and basal two-thirds of fore femora dark green. Petiole dark brown. Gaster blackish with a purplish tinge.

Male: unknown.

Holotype (♀) and paratypes (2♀♀): Hikosan, Kyushu, 19-20. V. 1959, K. Kamijo leg.

Distribution: Japan (Kyushu).

3. *Skeloceras cariniferum* sp. nov.

Female. Length 3.0-3.3 mm. Head, seen in front, much wider than high (50 : 38). Malar space nearly one-third height of eye. Vertex strongly and evenly convex. Postocellar line nearly as long as ocellocular line. Scape slender (fig. 4, A), as long as FI and $\frac{1}{2}$ FII combined, much shorter than club (15 : 21); pedicel about half as long as FI. Flagellum longer than thorax; first four funicle segments each equal in length and width, a little more than twice as long as

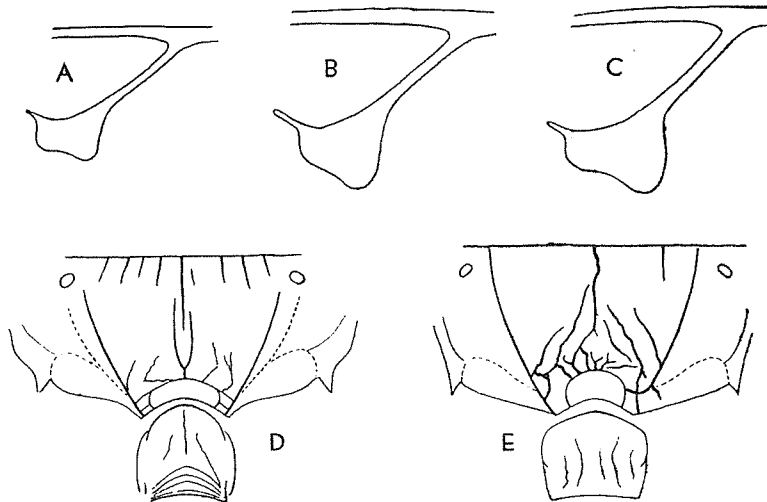


Fig. 5. A-C. Stigma of female: A, *Skeloceras duplicatum* sp. nov.; B, *S. hikosanus* sp. nov.; C, *S. cariniferum* sp. nov. D-E. Propodeum and petiole of female: D, *S. duplicatum* sp. nov.; E, *S. hikosanus* sp. nov.

wide; FI sometimes slightly shorter than each of following three segments; FVI twice as long as wide; first segment of club a little shorter than FVI (9 : 8), third segment with a narrow band of micropilosity beneath. Sensillae moderate in length, irregularly disposed in three or four rows upon each funicle segment. Pronotum half as long as mesoscutum; anterior dorsal flange of pronotum well developed, deeply emarginate. Mesoscutum weakly convex, finely shingly-reticulate. Parapsidal furrows rather shallow. Scutellum 1.4 times as long as wide, sculptured as in posterior area of mesoscutum, with a longitudinal median groove deep, short; frenum more finely sculptured than area before frenal furrow,

with weak longitudinal carinae. Metanotum as long as frenum, with metascutellum weakly reticulate. Propodeum about twice as long as metanotum, feebly reticulate, shining, with a distinct median carina; plicae strong, usually complete. Spiracular sulci shallow. Distance between spiracles 1.4 times as long as median length of propodeum. Flange supracoxal of moderate size, with hind margin weakly sinuate. Basal cell of fore wing hairy distally and anteriorly, almost closed below by a line of hairs on cubital vein; upper surface of costal cell with hairs in distal half. Speculum large, closed below. Costal cell of hind wing beneath with sparse hairs. Ratio of lengths of submarginal, marginal, postmarginal and stigmal veins as 68 : 40 : 55 : 24. Stigma large, triangular (fig. 5, C). Petiole much longer than half length of propodeum (11 : 17), a little longer than wide, finely sculptured, shining, with a few longitudinal carinae; anterior margin of petiole not strong. Gaster shorter than thorax, about 1.6 times as long as wide. First tergite occupying half length of gaster.

Dark green. Head, especially vertex, with coppery reflections. Scape dark green; pedicel and flagellum blackish. Legs light brown; coxae dark green; hind tarsi darker.

Male. Length 2.9 mm. Scape swollen distally, as long as FI; pedicel less than half length of FI (6 : 14); flagellum much longer than head and thorax combined (125 : 100); FI about three times as long as wide; following three segments each slightly longer than FI; FVI three times as long as wide (12.5 : 4); first segment of club slightly shorter than FVI; combined length of apical two segments of club longer than FI (20 : 14). Sensillae sparse.

Holotype (♀): Sapporo, Hokkaido, 20. X. 1959, K. Kamijo leg. Paratypes (5 ♀♀, 2 ♂♂): 3 ♀♀, 2 ♂♂, with same data as holotype; 1 ♀, Sapporo, Hokkaido, 21. X. 1959, S. Takagi leg.; 1 ♀, Sapporo, Hokkaido, 4. XI. 1959, S. Ueda leg.

Distribution: Japan (Hokkaido).

This species seems to be closely related to *S. seiunctum* Delucchi, from which it may be distinguished by the more slender flagellum, by the presence of the distinct median carina on the propodeum and by the light brown femora.

Genus *Neoskeloceras* nov.

Head much wider than high, much wider than thorax. Occiput not margined. Anterior margin of clypeus deeply incised medially, with asymmetric teeth; two on left side, the inner one larger than the outer, and one on right side. Left mandible with three, right with four teeth; teeth obtuse. Antennae inserted a little above lower margins of eyes, thirteen-segmented (11263). Scape

swollen distally; pedicel much shorter than first funicle segment; flagellum filiform; club with first segment distinctly separated from the second. Sensillae short, numerous. Pronotum short, not margined. Parapsidal furrows complete, deep. Scutellum elongate; frenum deeply marked off, with irregular strong carinae. Metascutellum rather small, widely and deeply depressed medially. Propodeum deeply and reticulately sculptured; median carina present but variable; plicae usually complete; spiracles ovate, small, separated from posterior margin of metanotum by about their own length. Callus moderately haired. Prepectus without an oblique carina. Hind tibia with two spurs. Wings hyaline. Marginal vein relatively short, a little longer than stigmal, much shorter than postmarginal. Stigma small. Speculum large. Abdomen petiolate. Anterior margin of petiole very sharply margined, with several long hairs at each side. Gaster shorter and narrower than thorax. Hind margins of tergites not incised medially. First tergite occupying half length of gaster.

Type species: *Neoskeloceras longistriatum* sp. nov.

This genus is closely related to *Skeloceras* Delucchi, from which it may be distinguished by the mandibles with asymmetric obtuse teeth (three in left, four in right mandible), by the medially depressed metascutellum, by the propodeum which is deeply, coarsely and reticulately sculptured, by the relatively shorter marginal vein, by the funicle segments with more numerous sensillae, and by the abdominal petiole with several long hairs on the anterior margin laterally.

Neoskeloceras longistriatum sp. nov.

Female. Length, 4.0–4.4 mm. Head, seen from above, transverse, 2.5 times as wide as long, much wider than thorax (77 : 66), with temples evenly rounded off behind eyes. Occiput moderately emarginate. Vertex weakly convex. Post-ocellar line nearly as long as ocellocular line. Eyes bare, 1.4 times as long as wide, separated by 1.6 times their own length; inner orbits parallel. Distance between centers of antennal toruli nearly as long as distance between one of them and adjacent eye. Malar space about one-third height of eye; genal sulcus distinct. Head, seen in front, much wider than high, about 77 : 52, with genae roundly narrowing toward mouth. Face weakly elevated below antennal toruli. Clypeus (fig. 6, F) transverse, 1.7 times as wide as long, nearly smooth to finely reticulate. Left mandible with three, right with four teeth; all teeth obtuse (fig. 6, E). Head finely reticulate. Antennal scrobe shallow. Scape (fig. 6, A) swollen distally seen in profile, about 2.5 times as long as wide, not reaching anterior ocellus, almost as long as FI and $\frac{1}{2}$ FII combined, and equal to combined length of apical two segments of club. Combined length of pedicel

and flagellum a little less than thorax. Pedicel a little longer than wide, about half as long as FI (fig. 6, D); FI and FII equal in length and width, twice as long as wide; FVI 1.8 times as long as wide. Club much longer than combined length of two preceding funicle segments (28 : 22); first segment of club as wide as and slightly shorter than FVI; narrow band of micropilosity extending to distal half of second segment of club (fig. 6, C). Funicle segments and club with short numerous sensillae which are irregularly disposed in five rows upon each funicle segment.

Thorax about 1.7 times as long as wide, not strongly arched in profile. Pronotum about half as long as mesoscutum, irregularly rugulose, with a smooth

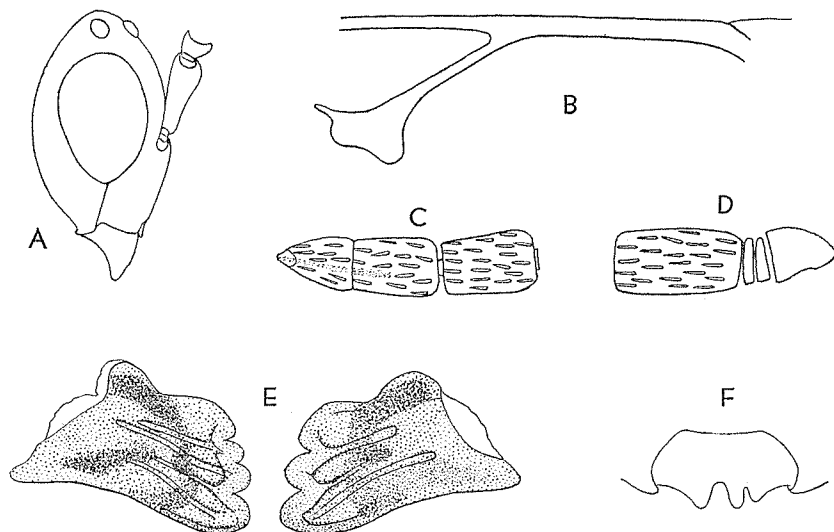


Fig. 6. *Neoskeloceras longistriatum* gen. et sp. nov., female.
A, head in profile; B, marginal and stigmal veins;
C, club; D, pedicel, ring segments and first funicle
segment; E, mandibles; F, clypeus.

strip along its hind margin; anterior dorsal margin with flange moderately emarginate. Mesoscutum slightly longer than scutellum, weakly convex, finely shingly-reticulate, with hind margin weakly sinuate. Parapsidal furrows deep. Scutellum 1.3 times as long as wide, much narrowed and acute anteriorly, moderately convex, with a deep longitudinal median groove usually almost reaching frenal furrow; its surface finely reticulate as in posterior portion of mesoscutum; frenum deeply marked off, with irregular strong carinae. Metanotum as long as frenum; metascutellum about half as long as metanotum, small, crescent-shaped, connected with anterior and posterior margins of metanotum by several

longitudinal carinae; surface of metascutellum indistinctly and weakly sculptured, its median area widely and deeply depressed with a few transverse costae (fig. 7). Propodeum usually a little more than twice as long as metanotum; distance between spiracles 1.5 times as long as median length of propodeum. Sculpture of propodeum very variable; its dorsum deeply, coarsely and reticulately sculptured; median carina and plicae usually complete though irregular. Spiracles oval, small, separated from posterior margin of metanotum by about their own length. Spiracular sulci shallow. Propodeal callus moderately hairy. Flange supracoxal narrow, with hind margin sinuate. Prepectus rugose-reticulate, without an oblique carina; its upper margin slightly longer than tegula. Hind tibia longer than its tarsus (62 : 52), with inner spur as long as maximum width of the tibia. Basitarsus in dorsal view a little longer than second segment (15 : 12).

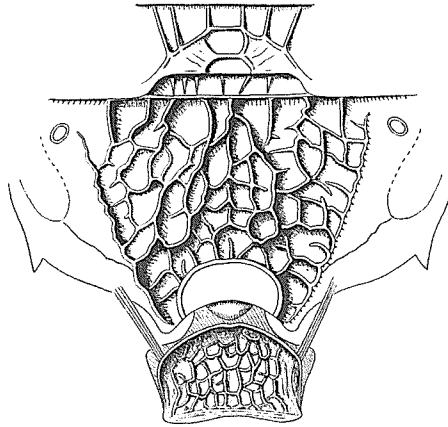


Fig. 7. *Neoskeloceras longistriatum* gen. et sp. nov.
Part of metanotum, propodeum and abdominal
petiole.

Basal cell of fore wing hairy anteriorly and distally, widely open below with a short line of hairs on cubital vein apically; upper surface of costal cell with hairs in distal half anteriorly, lower surface with two rows of hairs basally, wholly hairy apically; speculum large, narrowly open below. Costal cell of hind wing beneath with several hairs. Marginal vein relatively short; ratio of lengths of submarginal, marginal, postmarginal and stigmal veins as 85 : 33 : 54 : 27. Stigma small, rectangular (fig. 6, B).

Petiole a little less than half length of propodeum, much wider than long; sculpture of dorsum very variable, more finely reticulate than propodeum; anterior margin of petiole strong, sharp, with several long hairs at each side. Gaster shorter than thorax, 1.4 times as long as wide. First tergite occupying

about half length of gaster.

Bluish green. Scape bluish green; pedicel and flagellum blackish. Coxae, trochanters and femora bluish green; distal tips of femora, tibiae and tarsi light brown. Petiole black. Posterior half of gaster with a purplish tinge.

Male: unknown.

Holotype (♀): Hikosan, Kyushu, 12. V. 1953, Y. Hirashima leg. Paratypes (2♀♀): Hikosan, Kyushu, 13. V. 1955, T. Esaki, K. Yasumatsu and Y. Hirashima leg.

Distribution: Japan (Kyushu).

The holotype and one paratype are deposited in the Entomological Laboratory, Kyushu University and the other paratype is in the Entomological Institute, Hokkaido University.