

NEW OR LITTLE KNOWN COLEOPTERA FROM JAPAN
AND ITS ADJACENT REGIONS. X.

Descriptions of some new species from Shikoku, Japan.*

By Takehiko Nakane

(Biological Laboratory, Saikyo University, Kyoto)

1. *Falagria* (*Stenagria*) *hisamatsui* K. Sawada et Nakane n. sp.

(*Staphylinidae*)

Shining dark brown in general, with elytra sombre reddish brown, first 2 or 3 visible tergites, basal part of hind legs yellowish, and fore part of breast, tarsi and antennae towards apex more or less paler.

Head non-transverse suborbicular, slightly depressed anteriorly, postocular lateral broadly, very fluently rounded, and strongly converging to neck, eyes small, interspace between antennal cavities with a broad moderately deep transverse impression, which is almost impunctate, vertex with a feeble short median sulcus extending forwards and fully met with posterior margin of the front impression. Granules much denser and finer at occiput. Mouth part relatively produced, maxillary palpi rather robust. Antennae long, rather robust, feebly thickened towards apex, 1st joint rather distinctly incrassate, but not so strongly as in *japonicus* Bernhauer, 2nd of the length of 1st, less distinctly constricted at base, 3rd slightly longer than 2nd and feebly thickened towards apex, 4th to 9th longer than broad, 10th scarcely longer than broad, 11th longer than 10th, but distinctly shorter than 9th and 10th together, not paler at apex. Thorax strongly oblong-cordate, markedly dilated anteriorly and suddenly converging posteriorly, lateral marginal edge distinctly elevated and sinuated, hind angles acute but not projecting, disc finely and rather densely granulated along the median sulcus. Scutellum uneven, with a strong median keel. Elytra densely and finely granulated basally, sutural depression near base small but rather deep. Abdomen moderately retracting towards base, first 3 visible tergites rather strongly and finely emarginate at each junction of sides. Yellowish minute pubescence throughout. Length: 3 mm.

Holotype: 1 ex. Omogokei, Iyo, Shikoku, 19. V. 1952, S. Hisamatsu leg.

Allied to *F. japonicus* Bernhauer, but differs from the latter in having different construction of antennae and paler coloration of body.

* All the type-specimens here described are preserved in the Entomological Laboratory, Matsuyama Agricultural College unless otherwise indicated.

2. *Stenus* (s. str.) *yanoi* K. Sawada et Nakane n. sp.

(Staphylinidae)

Form slender, shining black; antennae dark brown, somewhat lighter distally, with first 2 joints pitchy, maxillary palpi yellowish, with last visible joint brownish red, each joint slightly darker terminally, and tarsi reddish.

Head with eyes markedly broader than thorax, but hardly broader than elytra, above with a rather deep excavation, in which there is a weak, short and impunctate median carina. Eyes large and strongly prominent, whitish hairs on front sparse but distinct. Clypeus of normal shape, with short yellowish pubescence on the surface and front margin. Antennae moderately long, extending to the basal third of thorax, 3rd joint as long as, or feebly longer than 4th and 5th together, 10th spherical, apparently but not so strongly larger than 9th, 11th slightly longer than 10th. Thorax subcylindrical, moderately longer than broad, as long as, or invisibly shorter than elytra, the anterior half gently narrowed forwards, with sides feebly arcuate, just behind the widest point shortly, suddenly and linearly converging backwards, and then quite parallel on the basal fourth; disc densely and rugosely punctured, with a narrow, rather elongate sulcus above and discal sculpture feebly elevated. Elytra only slightly longer than broad, feebly converging anteriorly at sides, moderately convex posteriorly along suture, with the punctation as in thorax, but less rugose. Abdomen convex, subcylindrical, strongly bordered and gradually converging distally, sparsely and rather deeply punctured, but the punctation somewhat finer and shallower near apex, very finely and rather densely pubescent, each base of first 4 visible tergites distinctly and broadly depressed, without projections, but weak short keel-lines fixing. Length 4.5 mm.

Holotype: 1♀ Omogokei, Iyo, Suikoku, 14. VII. 1952, T. Yano leg.

Near *S. anthracinus* Sharp, but differs from the latter in having narrower and shorter form and different proportion of antennal articulation.

3. *Phytolinus variegatus* K. Sawada et Nakane n. sp.

[Fig. 1; Fig. 2, a-d] (Staphylinidae)

Form elongate, stout, not converging in front and behind, and subopaque generally. Body above black or blackish brown, labrum reddish brown, mandibles reddish, antennae, maxillary palpi and legs brownish yellow, and 4 or 5 outer joints of antennae, femora (except narrow apical portion), underside of protibiae more or less infuscate.

Head subquadrate, a little broader than long and than thorax, slightly dilated anteriorly, densely and finely and on the basal fourth apparently coarsely punctured, intervals between the punctures flat, not so densely variegated with golden pubescence mainly, just in front of neck invisibly grooved longitudinally and between eyes with a small obscure excavation loosely im-

punctate. Eyes large and prominent, genae stout, mandibles acutely pointed, and labrum broadly triangular with rounded margins, extremely produced and

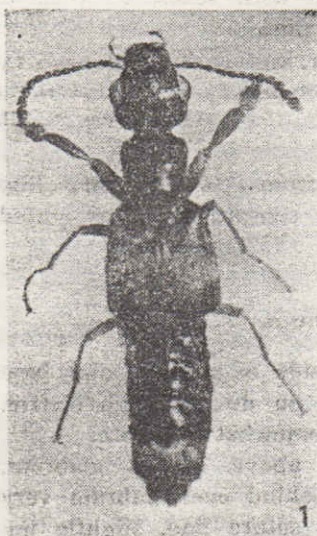


Fig. 1. *Phytolinus variegatus*
n. sp.

fully cleft in two along the median line. Antennae elongate, extending to base of thorax, terminal 5 or 6 joints thickened distally, scape elongate, almost as long as 2nd and 3rd together, 3rd much longer than 2nd, 10th subquadrate, 11th oval, a good deal longer than the preceding, with apex gently pointed. Thorax rather strongly longer than broad, a little shorter than elytra, convex, less distinctly converging posteriorly, densely and moderately punctured, with some large umbilicate punctures on lateral face, variegated as in head, but more strikingly intermixing silvery pubescence, four angles rounded but the front ones somewhat angular, median smooth keel distinct and also set a pair of callosities in the middle at a considerable distance from the keel, with scanty silvery pubescence. Elytra distinctly broader than thorax and a little longer than broad, with sides gently converging from middle to base, disc covered with rather cohered thick silvery pubescence, including 2 spots of

golden pubescence along suture, one of which is situated just below the scutellum and the other is located subapically. Abdomen parallel-sided, basal majority of 5th visible tergite densely covered with silvery pubescence as in elytra,

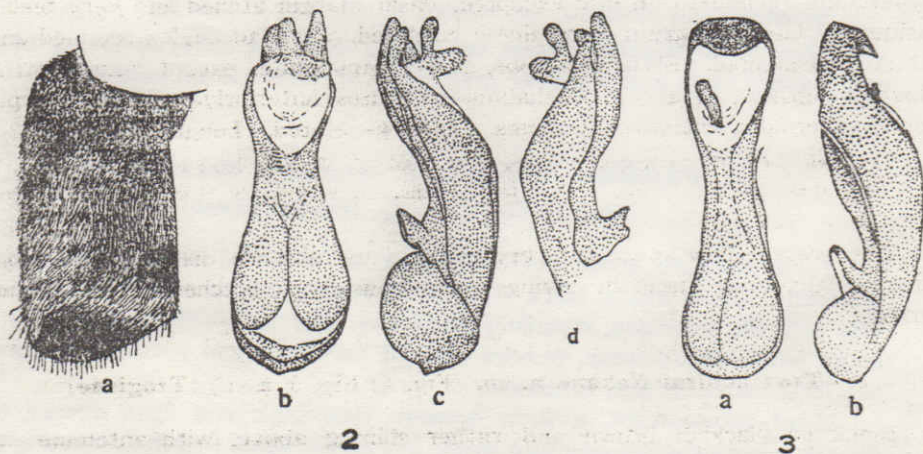


Fig. 2. *Phytolinus variegatus* n. sp. a.—left elytron, b—d.—male genitalia (b.—dorsal, c and d., —lateral).

Fig. 3. *Phytolinus lewisi* Sharp, male genitalia, a.—dorsal, b.—lateral.

6th very feebly emarginated in middle of apical margin. Sides of head and pronotum, elytra and abdominal segments bear very sparingly long erect dark hairs. Legs rather long, protarsi strongly dilated in both sexes, with claws very fine but slender and unequal. Length: 11-11.5 mm.

Holotype: 1♂ Mt. Omogo, Iyo, Shikoku, 26. VII. 1948, T. Kobayashi leg.; **allotype:** 1♂ Mt. Ishizuchi, Iyo, Shikoku, 25. VII. 1947, M. Miyatake leg.; **paratypes:** 1♂ Mt. Ondaigahara, Kii Alps, Honshu, 3. VIII. 1953, T. Nakane leg. (in coll. Nakane), 1♀ Hirayu, Hida, Honshu, 23. VII. 1946, M. Hayashi leg. (in coll. K. Sawada).

This new species may easily be distinguishable from *P. lewisi* Sharp (Fig. 3, a-b) in having entirely blackish elytra and more conspicuously variegated pubescence on upper surface.

4. *Agathidium* (*Neoceble*) *derispioides* Nakane n. sp. (Lioididae)

Reddish testaceous, with a large patch on each side of pronotal disc, base and suture of elytra, and an oblique oblong patch on disc of each elytron blackish, and median and posterior part of vertex somewhat infuscate.

Semiglobose, highly convex and very shining above. Head glabrous, slightly convex and gently narrowed posteriorly behind eyes, labrum very small, transverse, with front margin arcuate, frontal suture fine, slightly impressed and arcuate backwards. Antennae rather short, 1st joint ovate, 2nd small, 3rd slender, nearly twice as long as 4th, 5th subequal to 4th, but very slightly broader apically, 6th small, 7th and 8th distinctly transverse and short, 9th to 11th strongly dilated, forming an elongate, laxly articulated club, 9th and 10th transverse, and 11th nearly as long as wide, subquadrate, with outer apical edge rounded. Pronotum strongly transverse, almost impunctate, a few shallow punctures on disc excepted, basal margin arched and very feebly trisinuous, lateral margin very finely bordered, and hind angles rounded and not strictly defined. Elytra glabrous, nearly impunctate, except sutural stria, which is replaced by a row of shallow punctures anteriorly. Tibiae sharply ridged externally, but without spines. Tarsi 4-jointed. Length: 2.5 mm.

Types: 1 ex. Mt. Sara, Iyo, Shikoku, 11. V. 1951, M. Miyatake leg.; 1 ex. Mt. Sara, 7. V. 1950, M. Miyatake leg.; 1 ex. Mt. Amagi, Izu, Honshu, 15. VI. 1949, S. Hisamatsu leg. (in coll. Nakane).

The present new species is very peculiar and at once distinguishable from other congeners of Japan in having conspicuous black patches on the upper surface.

5. *Trox nohirai* Nakane n. sp. (Fig. 4; Fig. 5, a-c) (Trogidae)

Black or blackish brown and rather shining above, with antennae and palpi reddish testaceous, and underside and legs generally blackish brown but more or less reddish.

Oval and more amplicated posteriorly, strongly convex above. Head gently

convex, closely and somewhat rugosely punctured, the punctures rather coarse but not deep, with a feeble median impression between eyes and an obsolete transverse furrow just behind the impression, and often with a shallow

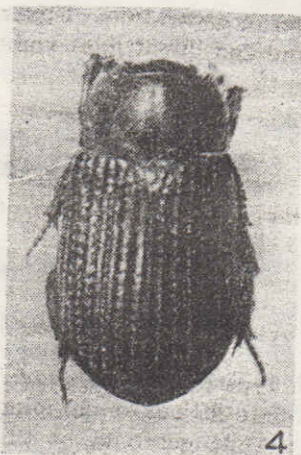


Fig. 4. *Trox nohirai* n. sp.

impression on each side of the median one. Clypeus depressed, with front margin evenly arcuate slightly reflexed. Inner margin of eyes sharply elevated and bearing a row of tawny bristles. Antennae of normal shape, 1st joint very thickened terminally on inner surface, which bears tawny long bristles not densely, 2nd about a half as long as 1st, abruptly dilated near base and slightly narrowed towards apex, trapezoidal and bearing a few bristles. 3rd small, nearly as long as broad, 4th to 7th very short and transverse, 8th to 10th forming a club, bearing minute fulvous pubescence. Pronotum about twice as broad as long, convex, sides parallel on the basal half, rounded at middle and converging anteriorly, front margin slightly rounded, with front angles triangularly protruded and acute at tip, lateral and basal margins fringed with a row of stout setae, basal margin bisinuous, broadly and plainly produced

in middle, with hind angles obtuse. Disc rather coarsely but not so closely punctured throughout, front corner transversely and broadly hollowed and hind corner also broadly impressed longitudinally up to middle of side, median

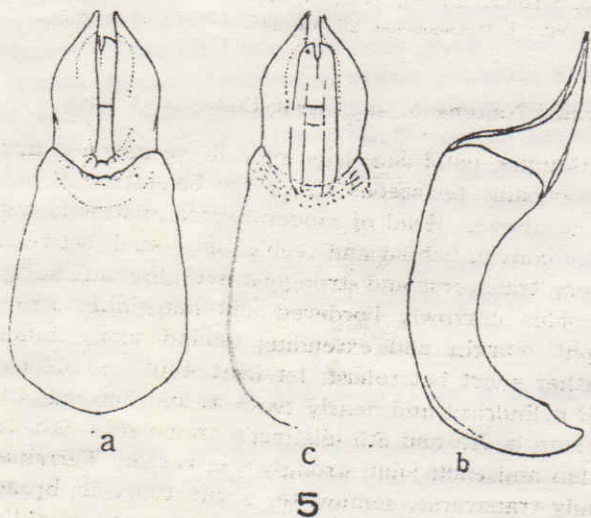


Fig. 5. *Trox nohirai* n. sp. male genitalia, a.—dorsal, b.—lateral, c.—ventral.

line rather shallowly furrowed and the furrow broadened and deepened in front of scutellum, and there are two obliquely arranged roundish impressions behind middle on each side of disc. Scutellum tongue-shaped, with a few obsolete punctures, and narrowly depressed along side and posterior margins. Elytra very slightly broader than prothorax at base, but gently dilated posteriorly and conjointly rounded apically. Each stria bearing a close row of deep large foveae, which are oblong-

quadrate and bearing a minute tubercle along each side margin; intervals moderately convex, bearing a row of groups of punctures (1 to 6 in number) and irregular transverse fine striae here and there. Two apical outer teeth of front tibiae separated, tibiae of four hinder legs bear externally a pair of serrate costae, which are diminishing abruptly on posterior excavation. Upper terminal spur of hind tibia nearly as long as 1st and 2nd tarsal joint combined, and the lower one scarcely as long as 1st. Length: 5.7-6 mm.

Holotype: 1 ♂ Takanawa, Iyo, Shikoku, 15. VII. 1952, H. Kusunoki leg.; **allotype:** 1 ♀ Echigo, Honshu, 10-20: VII. 1930, A. Nohira leg.

The present species is somewhat allied to *T. eversmanni* Kryn. from Europe and Siberia, but the intervals of elytra bear a row of groups of punctures, instead of a row of tubercles, and the body is somewhat smaller.

6. *Sericania quadrifoliata shikokuana* Nakane n. subsp. (Scarabaeidae)

In general features it is very closely allied to the typical form of *quadrifoliata* Lewis, but differs from the latter in having foliate fifth antennal joint, which is 1/2 to 2/3 as long as the following leaflet. Male genitalia of this subspecies resembles closely that of the typical one.

In this group of beetles the shape of front angles of pronotum and of the fifth joint of antennae appears to be unstable, and it is probable that two species described by Mr. G. Lewis—*angulata* and *quadrifoliata*—represent merely individual or geographical variations of one species. Length: 9-10.7 mm; width: 4.8-6 mm.

Types: 1 ♂ Mt. Ishizuchi, Iyo, Shikoku, 27. VI. 1951, M. Miyatake leg.; 1 ♂ Omogokei, Iyo, Shikoku, 12. V. 1952, T. Edashige leg.; 1 ♀ Omogokei, 26. VI. 1951, M. Miyatake leg.

7. *Tritoma arakii* Nakane n. sp. (Erotylidae)

Black and shining, with antennae, palpi and legs reddish testaceous, and prothorax fuscous except sides broadly testaceous above and beneath.

Oval and moderately convex above. Head of moderate size, distinctly but not so closely punctured, gently convex behind and feebly impressed between antennal insertions, clypeus very transverse and strongly converging anteriorly, with front margin truncate, sides narrowly bordered and marginal furrow interrupted at middle of front margin and extending behind along inner margin of eyes. Antennae rather short but robust, 1st joint stout and oblong, 2nd short and subglobular, 3rd cylindrical and nearly twice as long as 2nd, 4th to 8th short and subequal in length, 7th and 8th distinctly transverse, 9th to 11th forming a shortly oval club and each joint strongly transverse. Terminal joint of maxillary palpi strongly transverse, semiovate, about twice as broad as long, with apical margin broadly truncate. Mentum subpentagonal, slightly longer than broad, surface broadly hollowed and sides subparallel. Prothorax

about twice as broad as long, punctured as in head but more sparsely, front margin very finely bordered, with angles obtusely produced and rounded at tip, sides narrowly but distinctly bordered, gently arcuate and narrowed from base to apex, base very indistinctly margined, feebly bisinuous and median part broadly produced posteriorly, hind angles distinctly angulate but obtuse. Elytra oval, widened from base to the anterior fourth, then slightly narrowing posteriorly and broadly rounded together apically. Propleura chagreened and uneven, prosternum chagreened and roughly punctured at sides and median trigonal plane between coxal lines, which are converging anteriorly and meeting just below front margin of prosternum, somewhat rugose and sparingly and finely punctured. Mesosternum short and transverse, immarginate in front and behind, with a sulcus on each side. Metasternum bearing a pair of oblique coxal lines, which are jointed each other by a crenulated stria along front margin between coxae, finely, rather sparsely but distinctly punctured, and coarsely punctured and finely chagreened at sides as in metapleura. First abdominal sternite also bears a pair of coxal lines, each abdominal sternite transversely chagreened and distinctly punctured, except basal and apical area. Each puncture on under surface bearing a short fine hair. Legs rather stout, of normal shape. Length: 3.3 mm.

Holotype: 1 ex. Omogokei, Iyo, Shikoku, 6. VI. 1952, T. Yano leg.; **Paratype:** 1 ex. Shimashima, near Kamikochi, 17. VIII. 1952, T. Horio leg. (in coll. A. Nobuchi).

The present new species is closely allied to *T. laetabilis* Lewis from Japan, but readily separated from the latter by the coloration of prothorax.

The new name is dedicated to the late Mr. Harutsugu Araki, who found and studied this species for the first time.

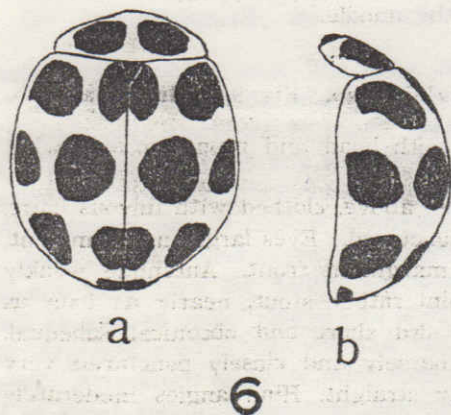


Fig. 6. *Calvia duodecimmaculata yuasai* n. subsp. upper side showing colour pattern, a.—dorsal, b.—lateral.

8. *Calvia* (*Anisocalvia*) *duodecimmaculata yuasai* Nakane n. subsp.

(Fig. 6, a-b) (Coccinellidae)

Coccinella yuasai, Nakane, in Insect Fauna of Mt. Ishizuchi, 1953, p. 32. (in lit.).

This subspecies differs from the typical one in having the femora entirely testaceous or only partly infusate (on the median part of anterior or posterior edge).

Holotype: 1♂ Mt. Sara, Iyo, Shikoku, 23. V. 1950, M. Miyatake leg.; **allotype:** 1♀ the same as the holotype; **paratypes:** 1♀ Mt. Ishizuchi, Iyo, Shikoku, 21. VII. 1952, K. Sasaki leg., 1♂ Mt. Takachiho, Kyushu, 21. VII. 1951, F. Takahashi leg., 1♀ Fukuoka, Kyushu, 29. IV. 1949, Nagatomi leg. (in coll. Nakane).

9. *Hypnoidus brunneofuscus* Nakane n. sp. (Fig. 7) (Elateridae)

Pitchy brown, with sides of prothorax, mouth parts, gular plate, anteunae (especially basal joint), part of propleura and of abdomen and legs (including trochanters and femora) more or less reddish.

Depressed above and shining on head and pronotum, clothed with tawny hairs. Head flattened and somewhat uneven, strongly and closely punctured, labrum semicircular, frontal crest transverse, slightly arched and continuous, eyes lateral and rather small. Antennae just reaching pronotal hind angle, 1st joint stout, oblong and not compressed, 2nd short, 3rd longer than 2nd, 4th to 10th triangularly dilated and subequal, 11th hardly longer than the preceding. Pronotum nearly as long as wide, slightly convex, rather finely and not closely punctured on middle and the punctation coarser and closer at sides, front margin broadly but not deeply emarginate, sides gently arched, sinuous before base, very finely margined, with hind angles narrowly protruded posteriorly and turned slightly outwards, median longitudinal carina feeble, abbreviated in front and behind. Scutellum ovate, nearly flat or feebly carinate in middle, and finely punctulate. Elytra widest behind middle, sharply striate and the striae finely punctured, intervals minutely rugose and somewhat opaque, feebly convex, feebly concave, finely and not closely punctured. Under surface shallowly, rather finely and not closely punctured, and the interval minutely punctulate and somewhat opaque. Length: 10.5-12.5 mm; width: 3.7-4.0 mm.

Types: 2♂♂ Omogo, Iyo, Saikoku, 1♂ 5. VI. 1952, T. Yano leg., 1♂ 14. VI. 1953, T. Edashige leg.; 1♀ Kiso-Fukushima, Honshu, 6. VII. 1947, T. Nakane leg., 1♀ Mt. Koya, Honshu, 7. VI. 1952, A. Nohara leg. (in coll. Nakane); 4♂♂ Kibune, Kyoto, Honshu, 9 & 25. IV. 1947, A. Kusanagi leg. (in coll. T. Kishii).

This species resembles *H. saxatilis* Lewis in structure, but the body is much larger, the basal joint of antennae is not strongly dilated and the disc of pronotum is not closely punctured on the middle.

10. *Agriotes ishiharai* Nakane et Kishii n. sp. (Fig. 9) (Elateridae)

Wholly reddish brown or ferruginous, with head and pronotum somewhat deep colored.

Rather elongate and moderately convex above, clothed with fulvous hairs. Head gently convex, coarsely and closely punctured. Eyes large and prominent, frontal carina oblique and touching front margin in front. Antennae weakly serrate from 4th joint, not so long, 1st joint rather stout, nearly as long as two following joints combined, 2nd and 3rd short and obconical, subequal. Pronotum somewhat longer than wide, coarsely and closely punctured, very slightly widened behind, with sides nearly straight. Hind angles moderately long and acute, slightly diverging posteriorly, with a carina above, median longitudinal furrow present on basal half and very feeble anteriorly. Scutellum ovate, with anterior margin incised in middle. Elytra subparallel-sided and

gently acuminate posteriorly, striae distinct, with a close row of deep punctures, intervals rather closely punctulate and transversely rugose. Prosternum longitudinally convex, coarsely punctured as in propleura. Prosternal process horizontal. Metasternum distinctly and closely punctured, and the punctures become smaller behind. Abdominal punctation still finer than in metasternum. Length: 9.2 mm, width: 2.7 mm.

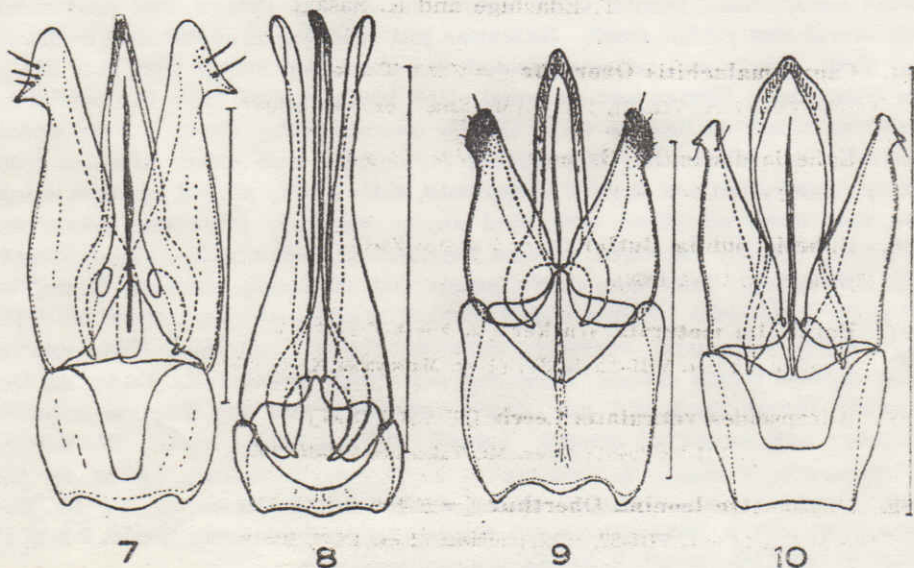


Fig. 7-10. Male genitalia of
 7, *Hypnoidus brunneofuscus*, n. sp.; 8, *Hypnoidus saxatilis* Lewis;
 9, *Agriotes ishiharai* n. sp.; 10, *Agriotes fuscicollis* Miwa
 (the length given each figure denotes 1 mm.)

Holotype: 1♂ Matsuyama, Iyo, Shikoku, 10. VIII. 1951, M. Miyatake leg.

Somewhat resembles *A. fuscicollis* Miwa from Hokkaido, but the body is shining above, not opaque, the coloration is much clearer, and the punctures on head and pronotum are distinctly ocellate.