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日米科学協力研究：太平洋地域の昆虫類の地理的分布と生態
Japan-U. S. Co-operative Science Program: Zoogeography and Ecology of Pacific Area Insects

NOTES ON CARABID BEETLES FROM THE AMAMI GROUP OF THE RYU-KYU ISLANDS

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The present paper is designed primarily to contain the result of my examination on a collection of carabid beetles, made on the Amami Islands by a number of entomologists participating in the Japan-U. S. Co-operative Science Program. However, the 1963 collection covers only a small part of the carabid fauna of these islands, and is inadequate even to show a bare outline of it. On the other hand, it seems to be too difficult a task to undertake in this limited space to summarize the whole knowledge of the fauna hitherto accumulated. I have therefore confined this report to such an extent as to deal with, besides the 1963 collection, certain important material that has been gained from the other sources and is in need of prompt introduction to science.

In the descriptions given in this work, proportions of body parts of new forms are given mainly on the basis of a pair of selected specimens in a series (usually the holotype and the allotype). To simplify the descriptions, the following abbreviations are adopted throughout the paper: HW- greatest width of head (including eyes if they protrude); PW- greatest width of pronotum; PL- length of pronotum, measured along the mid-line; PA- width of pronotal apex; PB- width of pronotal base; EW- greatest width of elytra; EL- greatest length of elytra; NSM- Department of Zoology, National Science Museum; KU- Entomological Laboratory, Kyushu University; TS- Mr. Taichi Shibata's collection.

I wish herewith to express my hearty thanks to Dr. Syoziro Asahina for his continuous encouragement, to the members of the Amami Expedition conducted by the Japan-U. S. Co-operative Science Program for the opportunity to work over their collections, and to Mr. Taichi Shibata for kindly allowing me to examine his large collection of carabids from the Island of Amami-Oshima. I am further indebted to Professor P. J. Darlington, Jr. and Dr. Akinobu Hadu for their kind aid extended to me during the course of this study.

Acknowledgment is made of the partial financial support of this investigation through a grant from the Japan Society for the Promotion of Science as a part of the Japan-U. S. Co-operative Science Program.

1. **Eustra crucifera** sp. nov.

Length: 3.1–3.3 mm (from front margin of clypeus to apices of elytra).

Closely related to *E. plagiata* Schmidt-Goebel, 1846, with which it agrees in all the key characters given by H. E. Andrewes (1919, Ann. Mag. nat. Hist., (9), **4**, p. 299), but differing from that species in the following respects: Ground colour as in *E. plagiata* except that the head is darker and the elytra have two, ill-defined, blackish spots on each side, leaving a cruciform pattern in ground colour. Head with distinct, isodiametric microsculpture; eyes smaller and less prominent than in *E. plagiata*, more or less shorter than genae, which are obviously tumid. Pronotum more transverse, with wider base, than in *E. plagiata*; PW/HW 1.25–1.28 (mean 1.26), PW/PL 1.51–1.63 (mean 1.56), PW/PA 1.16–1.20 (mean 1.18), PW/PB 1.28–1.32 (mean 1.30), PA/PB 1.07–1.12 (mean 1.09); lateral sides less contracted posteriorly, though feebly sinuate before hind angles; apex nearly straight or slightly emarginate; base less oblique at the sides. Elytra relatively wide, moderately depressed on the disc and rather sparsely pubescent, with rounded apices, pubescence on ths disc being arranged in longitudinal rows; EW/PW 1.63–1.72 (mean 1.68), EL/EW 1.24–1.26 (mean 1.25); lateral sides widely explanate and reflexed; striae superficial and irregular, though obvious near suture. Ventral surface and legs similar to those in *E. plagiata*.

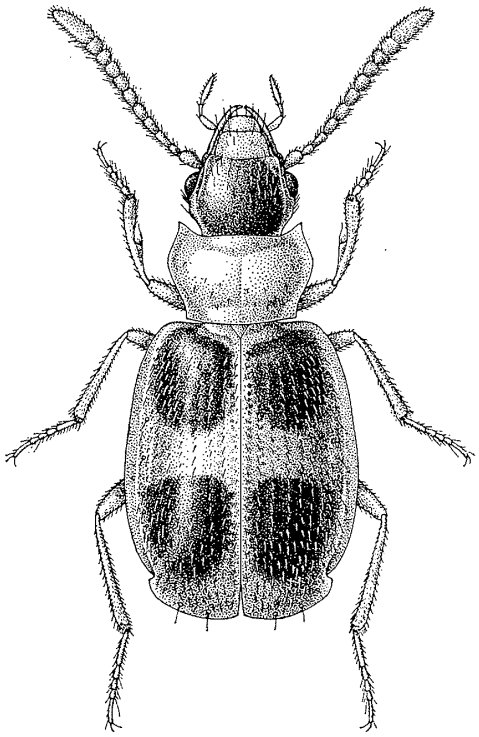


Fig. 1. *Eustra crucifera* sp. nov., ♀, of Hatsuno on the Island of Amami-Oshima.

Male genital organ fairly large and moderately sclerotized. Aedeagus short and robust, nearly semicircular in lateral view, and rather abruptly tapering towards apex, which ends in a blunt tip; ventral side slightly but widely concave at middle, more strongly so before apex; basal part bilobed and widely open on the dorsal side; apical orifice large. Inner sac armed with very large, articulated copulatory pieces, variable to some extent according to individuals (cf. Fig. 2 a-b); basal piece large and long, with the basal portion protruding from between basal lobes of aedeagus; apical pieces consisting of five spines of various size and of a hyaline lamella, the latter of which embraces a sheet of ill-sclerotized scales. Left style large, subtriangular and hyaline; apex somewhat truncated and without setae. Right style slender and arcuate, longer than left style, somewhat expanding at middle and dilated again at the apical part, with rounded extremity; apical part provided with asperate setae; ventral side with a row of minute hairs behind middle.

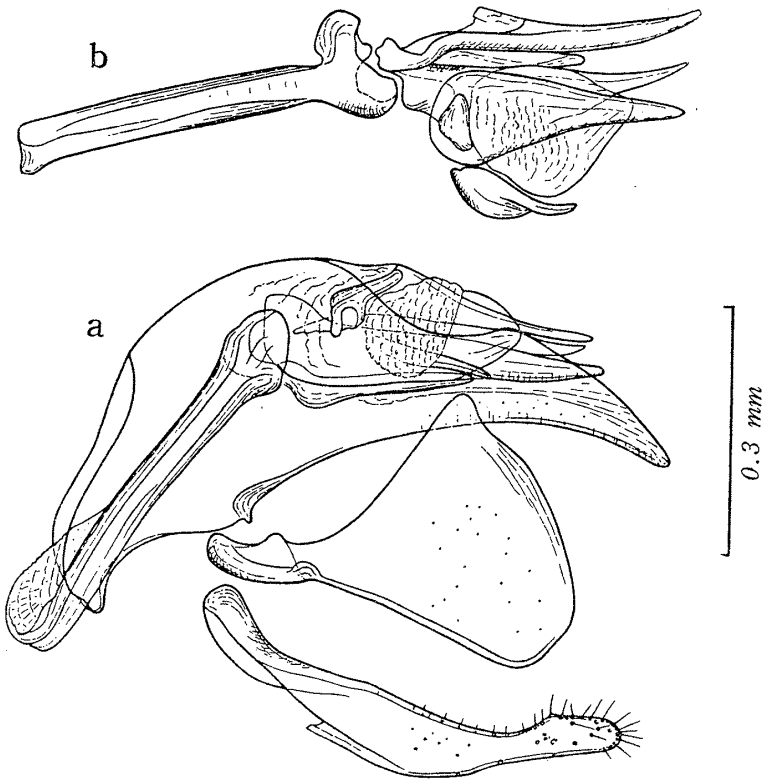


Fig. 2. *Eustra crucifera* sp. nov., of Ikari on the Island of Amami-Oshima; male genital organ in the holotype, left lateral view, with right stylc removed and showing the external face (a), and separated copulatory pieces in the paratype, left dorsal view (b).

Type-series: Holotype: ♂, Ikari, 6-v-1960, collected by T. Shibata (NSM). Allotype: ♀, Hatsuno, 7-viii-1961, by K. Yamada (NSM). Paratype: 1 ♂, Ikari, 19-vi-1961, by T. Shibata (TS).

Localities of the type-series: Ikari (type-locality) and Hatsuno, both on the Island of Amami-Oshima, the Ryu-Kyus.

Remarks: According to Mr. Shibata, all the specimens of the type-series were found in rotten logs or under barks of dead trees lying in subtropical forests.

2. **Therates alboobliquatus** W. Horn, 1909

Is. Amami-Oshima (Mt. Yuwan-daké).

3. **Cicindela** (**Sophiodela**) **ferriei** Fleutiaux, 1894

Abundant everywhere on the Islands of Amami-Oshima and Tokunoshima. The Tokunoshima population is usually segregated as an independent subspecies (*C. f. indigonacea* Miwa, 1935), but intermediate individuals occur frequently.

4. **Cicindela (Myriochile) specularis** Chaudoir, 1865

Is. Amami-Oshima (Yuwan and Mt. Yuwan-daké); Is. Tokunoshima (Kametsu, Hetono and Mikyô); Is. Okinoérabu (Mt. Ôyama); Is. Yoron-jima (en route from Furusato to Asato).

5. **Cicindela (Callytron) nivicincta nivicincta** Chevrolat, 1845

Is. Okinoérabu (China and Mt. Ôyama).

6. **Clivina lobata** Bonelli, 1813

Common in the Ryu-Kyus and reaching as far north as the Island of Tané-ga-shima, but the present collection contains only two specimens, both taken at China on the Island of Okinoérabu (6-viii-1963, by K. Yasumatsu and K. Yano).

7. **Tachyta umbrosa** (Motschulsky, 1851)

Specimens examined: 1 ♂, Ikari, Is. Amami-Oshima, 21-v-1960, collected by T. Shibata (NSM); 5 ♂♂, 5 ♀♀, Hatsuno, Is. Amami-Oshima, 25-v-1960, by T. Shibata (NSM & TS); 1 ♂, Mikyô, Is. Tokunoshima, 25-vii-1963, by Y. Kurosawa (NSM).

This is a tachyine species widely distributed in Southeast Asia, New Guinea and the Solomons, but is hitherto unknown from the Ryu-Kyus. I have seen a New Guinean specimen through the courtesy of Dr. Darlington. The material cited above agrees well with the New Guinean one. In the Ryu-Kyus, *Tachyta umbrosa* occurs also on the Islands of Okinawa, Ishigaki-jima and Iriomoté-jima.

8. **Hikosanoagonum latior** sp. nov.

Length: 8.7-10.1 mm (from front margin of clypeus to apices of elytra).

Similar in many details, including chaetotaxial characters, to *H. shirozui* (Habu, 1954) (Bull. nat. Inst. agr. Sci. Japan, (C), (4), p. 328, figs. 13, 15a, pl. 3, figs. 3, 7), the type of the genus, but broader, notably in pronotum which is also differently shaped, with much shallower and distinctly punctate elytral striae, and without internal sulci on the proximal segments in meso- and metatarsi. Fully winged. Colour somewhat lighter than in *H. shirozui*; elytra with faint greenish metallic lustre. Head a little more transverse than in *H. shirozui*, with slightly larger eyes. Pronotum large, transverse and moderately convex, widest at about middle or a little before that level, and more strongly contracted in front than behind; PW/HW 1.64 in the holotype, 1.63 in the allotype, PW/PL 1.42 in the holotype, 1.45 in the allotype, PW/PA 1.64 in the holotype, 1.63 in the allotype, PW/PB 1.23 in the holotype, 1.29 in the allotype; lateral sides widely explanate and reflexed as in *H. shirozui*, but more widely and regularly rounded throughout; front angles large and porrect, though rounded at the tips; hind angles either obtuse or marked on each side with a minute blunt tooth; apex nearly straight or slightly emarginate, evidently narrower than base, which is slightly oblique at the sides; PB/PA 1.33 in the holotype, 1.27 in the allotype; disc

nearly smooth, microsculpture very faint; basal foveae with a few coarse punctures. Elytra ovate, usually a little more convex than in *H. shirozui*, with striae evidently shallower than in the latter species; EW /PW 1.56 in the holotype, 1.57 in the allotype, EL/EW 1.57 in the holotype, 1.56 in the allotype; punctate-striate, striae 7 and 8 more or less deepening near apices; intervals flat; microsculpture composed of transverse meshes as in *H. shirozui*. Ventral surface as in *H. shirozui* except sternites which are more sparsely and less extensively pubescent. Legs generally similar to those in *H. shirozui*, but differing in the broader metatarsal segments, proximal ones of which are not sulcated at the internal side.

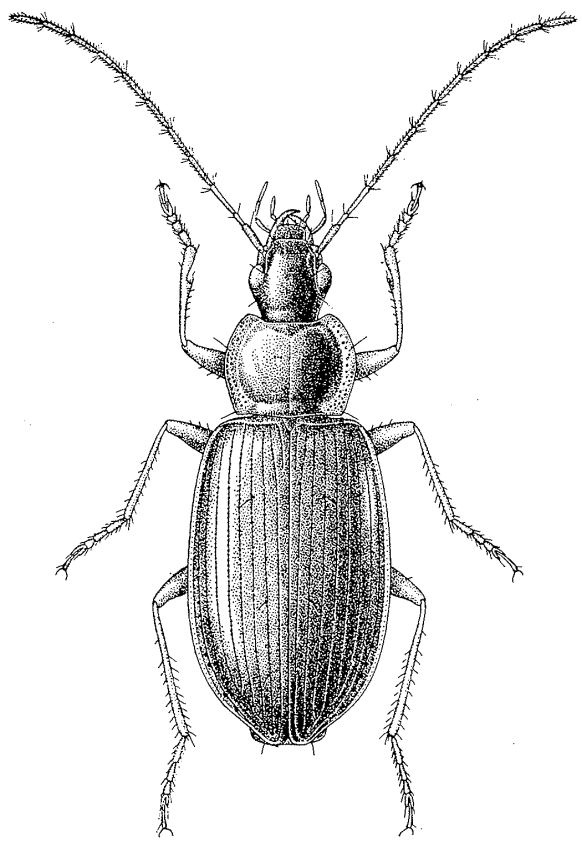


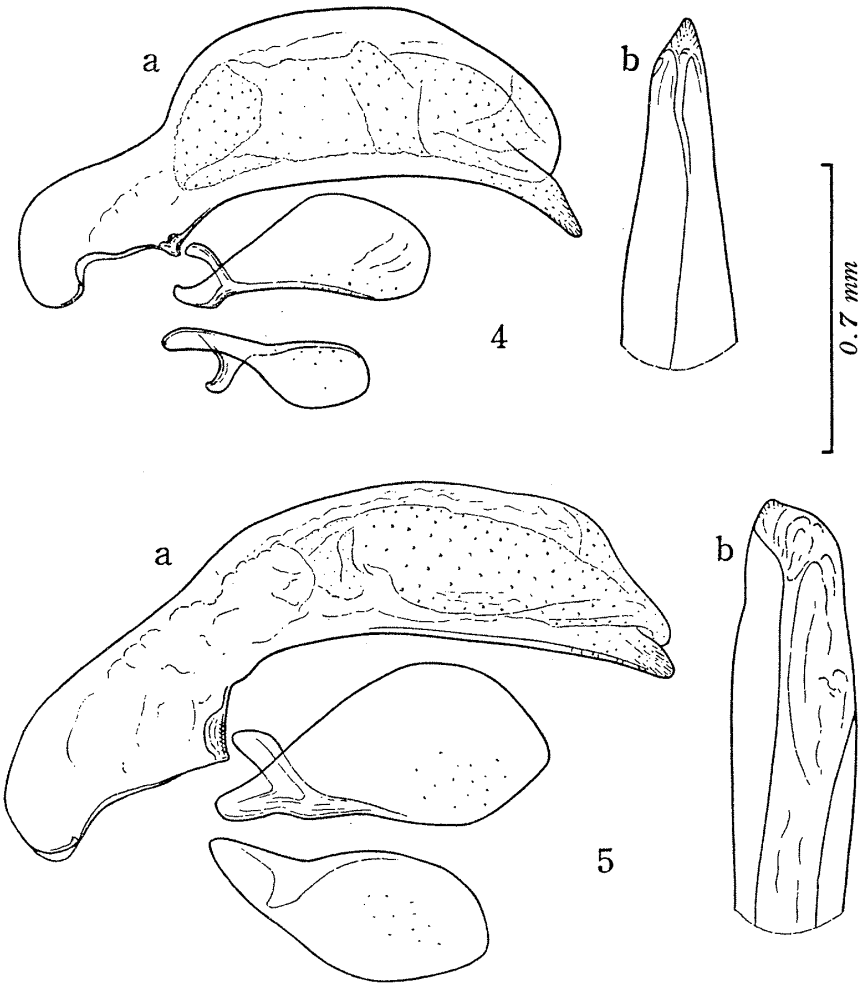
Fig. 3. *Hikosanoagonum latior* sp. nov., ♂, of Ikari on the Island of Amami-Oshima.

Unfortunately, all the male specimens examined are not so fully mature as to allow satisfactory examination of their aedeagi. The male genital organ is, however, fairly small and of rather a peculiar shape. Aedeagus compressed and only slightly arcuate, with the basal part well protruded; no sagittal aileron; basal orifice with lateral sides deeply emarginate; apical part subtriangular and blunt at the tip in dorsal view, forming a short beak which bends towards the ventral side in lateral view; inner sac scaly but otherwise inerm. Styles relatively elongate, left style much larger than the right, both rounded at apices; basal part narrow, particularly in right style; ante-basal process on the internal side markedly developed, long and narrow.

Type-series: Holotype: ♂, Ikari, 3-viii-1961, collected by K. Yamada (NSM). Allotype: ♀, Hatsuno, 23-vi-1961, by T. Shibata (NSM). Paratypes: 1 ♂, Higashinakama, 24-v-1960, by M. Ohno (NSM); 2 ♂♂, 2 ♀♀, Ikari, 11~29-v-1960, by T. Shibata (NSM & TS); 2 ♂♂, Hatsuno, 26~27-v-1960, by T. Shibata (NSM & TS).

Localities of the type-series: Ikari (type-locality), Higashinakama and Hatsuno, all on the Island of Amami-Oshima in the Ryu-Kyus.

Remarks: The present new species does not accord well with the diagnoses of *Hikosanoagonum* given by Habu (1954, Bull. nat. Inst. agr. Sci. Japan, (C), (4), p.



Figs. 4–5. Male genital organ; left lateral view, with removed right style (a), and dorsal view of the apical part of aedeagus (b).—4. *Hikosanoagonum latior* sp. nov., of Ikari on the Island of Amami-Oshima.— 5. *Habragonum amamioshimense* (Habu), of Santarô-tôgé on the Island of Amami-Oshima.

327; 1958, ibid., (C), (10), p. 45), and may be regarded as representing an intermediate status between *Hikosanoagonum* Habu and *Eucolpodes* Jeannel, 1948 (Fn. Emp. Franç., Paris, 10, pp. 516, 517; type-species: *Eucolpodes lampros* Jeannel, 1948, *nec* H. W. Bates, 1873 = *Tanystola japonica* Motschulsky, 1860) (= *Hemiliagonum* Habu, 1954, Bull. nat. Inst. agr. Sci. Japan, (C), (4), pp. 296, 314; type-species: *Tanystola japonica* Motschulsky, 1860). It is, however, no doubt close to *H. shirozui*, and seems to have no direct relationship with *Eucolpodes japonicus* and its allies. Habu's classification of Japanese agonines is too much stressed by the presence or absence of the internal sulci on proximal tarsal segments. In my own opinion, there are no single characters of primary importance to show the real phylogeny of Japanese agonines,

and the tarsal character should not be accepted at its face value.

9. **Dicranoncus femoralis** Chaudoir, 1850

Is. Amami-Oshima (Mt. Yuwan-daké).

10. **Loxocrepis rubriola** (H. W. Bates, 1883)

Is. Amami-Oshima (Mt. Yuwan-daké); Is. Tokunoshima (Mikyô).

11. **Metacolpodes buchanani** (Hope, 1831)

Is. Amami-Oshima (Mt. Yuwan-daké and Nishinakama).

12. **Habragonum amamioshimense** (Habu, 1955)

Agonum amami-oshimense Habu, 1955, Kontyû, Tokyo, **23**, p. 111, fig.; type-locality: Santarô-tôge, en route from Gusuku to Nishinakama on the Island of Amami-Oshima.

Specimens examined: 1 ♂ (holotype), Santarô-tôgé en route from Gusuku to Nishinakama, 15-vii-1933, collected by T. Esaki and K. Yasumatsu (KU); 1 ♂, Ikari, 30-vi-1961, by T. Shibata (NSM); 1 ♀, Ikari, 4-vii-1961, by T. Shibata (NSM); 3 ♂♂, Mt. Yuwan-daké, 16~18-vii-1963, by Y. Kurosawa and C. M. Yoshimoto (NSM & KU).

Range: Known so far only from the Island of Amami-Oshima.

Remarks: As was already noticed by the original author, this species possesses certain characteristics in common with the members of the genus *Andrewesius* Jedlička, 1932 (Ent. Nachr.-bl., **6**, p. 74). Although the type-species of the latter genus (*A. vimmeri* Jedlička, 1932) is not known to me, I have examined a female cotype of *A. szetschuanus* Jedlička, 1932 (= *A. pratti* (H. W. Bates, 1891)), which was considered by Jedlička to be close to *A. vimmeri*, and carefully compared it with the Amami species. They are similar to each other in the absence of verticillate hairs at the apex of the second antennal segment, loss of the postangular seta on pronotum, weakly bisulcated tarsal segments, presence of accessory setae beneath the claw segments, and so on. *Andrewesius pratti*, however, is markedly different from '*Agonum*' *amamioshimense* in its robust body form, short and stout appendages, simply emarginate apices of the fourth tarsal segments and, particularly, in the form and structure of its pronotum. In *Andrewesius*, the pronotum is large and wide, with the margin narrowly bordered throughout, while in the Amami species the pronotal lateral sides are widely reflexed, as usual with a colpodoid.

According to the key to the agonine genera of New Guinea given by Darlington (1952, Bull. Mus. Comp. Zool., **107**, pp. 114-116), '*Agonum*' *amamioshimense* falls in a position close by his *Lithagonum*. This should not be regarded as an indication of direct relationship, however. I have seen a pair of the paratypes of *Lithagonum annulicorne dilutior*, the type of the genus, and found that the New Guinean species is otherwise quite different from the Amami one.

At any rate, '*Agonum*' *amamioshimense* may not properly be placed in one of the

agonine genera hitherto established, and I propose herewith a new genus **Habragonum** for it. This genus will be recognized by the following diagnosis:

Similar in many ways to *Eucolpodes* Jeannel but much more slender, with long and slender appendages; pronotal postangular seta absent; claw segments with a row of accessory setae on each side below. Fully winged; elytra with metallic tinge. Both pairs of supraocular setae present, the posterior pair being behind the level of eyes; mentum tooth simple but well projecting. Pronotum not remarkably transverse, equally contracted both in front and behind, with lateral sides widely explanate and reflexed and with hind angles rounded; a pair of lateral setae present. Elytra oblong, with entire basal margin and rounded apices; scutellar striole long; interval 3 with three pores. Ventral surface nearly smooth; prosternal process simple; sternites not pubescent. Meso- and metatarsi with proximal segments weakly bisulcated; segment 4 bilobed in pro- and mesotarsi but emarginate in metatarsus; claws simple.

In the type-species, male genital organ is small but moderately sclerotized. Aedeagus fairly elongate and arcuate, nearly parallel-sided in dorsal view, with elongate basal part; dorsal side widely membraneous; apical beak very short, narrowly rounded in lateral view, abruptly ending and inclined towards the right side in dorsal view; sagittal aileron very small though perceptible; inner sac scaly but without differentiated copulatory piece. Styles fairly large and wide, with apices subangulate though rounded at the tips; right style smaller than the left but not remarkably; ante-basal process on the internal side well devdeloped in left style.

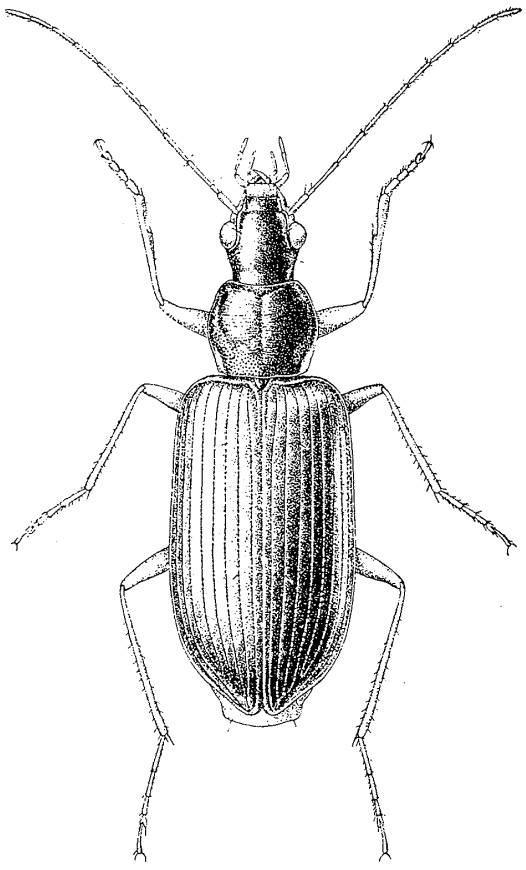


Fig. 6. *Altagonum shibatai* sp. nov., ♂, of Ikari on the Island of Amami-Oshima.

13. **Altagonum shibatai** sp. nov.

Length: 9.5–11.0 mm (from front margin of clypeus to apices of elytra).

Form slender, with narrow forebody; dorsal surface impunctate and shining, except pronotal basal foveae which are rather coarsely punctate; microsculpture composed of isodiametric meshes, though faint, on head, of transverse meshes and lines on pronotum, and of distinct transverse meshes on elytra; fully winged. Colour black, with lateral sides of pronotum and elytra as well as

elytral interval 1 narrowly dark brown; elytra with distinct, bronzy or greenish lustre; ventral surface of hind body brown to dark brown; appendages yellowish brown.

Head elongate, longer than width exclusive of eyes, which are small but abruptly prominent; genae nearly as long as or slightly shorter than eyes, gradually converging posteriorly and hardly convex; neck constriction shallow; posterior pair of supraocular setae situated at a position behind the level of the posterior edges of eyes; antennae and palpi slender, the former reaching or extending beyond basal two-fifths of elytra.

Pronotum relatively small, convex, widest at about middle or a little behind that level and more strongly contracted in front than behind; PW/HW 1.27 in the holotype, 1.31 in the allotype, PW/PL 1.19 in the holotype, 1.20 in the allotype, PW/PA 1.81 in both the holotype and allotype, PW/PB 1.15 in the holotype, 1.18 in the allotype; lateral sides narrowly bordered in front, moderately reflexed behind the widest part, widely and rather feebly rounded in front, and nearly straight or only slightly sinuate before hind angles; both lateral and postangular setae absent; front angles narrowly rounded and hardly porrect; hind angles either obtuse or nearly rectangular; apex obviously narrower than base, nearly straight or slightly emarginate; base slightly bisinuate and more or less oblique just inside hind angles; PB/PA 1.56 in the holotype, 1.54 in the allotype; disc with vague transverse striations; both apical and basal transverse impressions shallow though obvious, the latter merging on each side into basal fovea which is fairly large.

Elytra oblong-ovate and convex, widest a little behind middle though nearly parallel-sided; EW/PW 1.78 in the holotype, 1.75 in the allotype; EL/EW 1.69 in the holotype, 1.71 in the allotype; lateral sides narrowly bordered throughout, slightly emarginate before apices, each one of which is rounded, not denticulate at sutural angle; shoulders distinct; basal border emarginate, forming a very obtuse angle at the base of interval 6; striae entire, moderately impressed, evidently punctate at least on basal half; intervals flat, 8 and 9 not modified towards apex; interval 3 with three setiferous pores, of which the proximal one is situated at about one-sixth from base and adjoins stria 3, the median at about middle and adjoins stria 2, and the apical at about one-fourth from apex and adjoins stria 2.

Ventral surface impunctate, with the exception of the basal portion of pro-episterna, mesosternum and mesepisterna, which are coarsely punctate; prosternal process simple; sternites not pubescent; anal sternite with one seta on each side in ♂, two in ♀. Legs slender; metatibiae not sulcated on the external face; meso- and metatarsi with segments 1-3 sulcated on both sides above and keeled on the median line; segment 4 bilobed in pro- and mesotarsi, deeply emarginate, with the outer lobe longer than the inner, in metatarsus; claw segments glabrous below; claws simple.

Male genital organ large, robust and well sclerotized. Aedeagus arcuate, widely membraneous on the dorsal side and somewhat constricted before apex; basal part fairly large, with a small sagittal aileron; apical beak bending ventrally and narrowly rounded at the extremity in dorsal view. Inner sac scaly, armed with a large spine, which bears a discoidal plate at its base. Styles conchoidal, rounded or somewhat truncated at apices; right style fairly large though evidently smaller than the left.

Type-series: Holotype: ♂, Ikari, 29-v-1960, collected by T. Shibata (NSM).

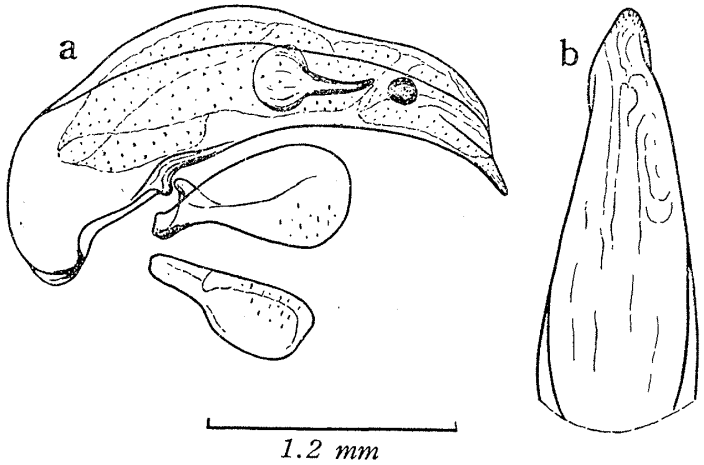


Fig. 7. *Altagonum shibatai* sp. nov., of Ikari on the Island of Amami-Oshima; male genital organ, left lateral view, with removed right style (a), and apical part of aedeagus, dorsal view (b).

Allotype: ♀, Ikari, 22-v-1960, by T. Shibata (NSM). Paratypes: 4 ♂♂, 3 ♀♀, Ikari, 11-v~4-vi-1960, by T. Shibata (NSM & TS); 5 ♂♂, 2 ♀♀, Ikari, 17-vi~4-vii-1961, by T. Shibata (NSM & TS); 1 ♂, 2 ♀♀, Hatsuno, 27-v-1960, by T. Shibata (NSM & TS); 1 ♂, Mt. Yuwan-daké, 10-vii-1961, by T. Shibata (TS); 1 ♀, Santarô-tôgé, 30-v-1960, by T. Shibata (NSM); 2 ♂♂, Sato, 16-vii-1961, by K. Yamada & Y. Susumu (NSM & TS).

Localities of the type-series: Ikari (type-locality), Hatsuno, Mt. Yuwan-daké, Santarô-tôgé and Sato, all on the Island of Amami-Oshima in the Ryu-Kyus.

Remarks: In view of the loss of all the pronotal setae and narrowly bordered pronotal lateral sides, this new species is isolated among the *Agonum-Colpodes* complex occurring in Japan and its adjacent territories. I can find no close relative of it even within the genus *Altagonum*, although the present species seems to belong to a group common with *A. caducum* Darlington, 1952, the type of the genus, of which I have seen a pair of the paratypes. The habitats are also different between this and New Guinean species. According to Darlington (1952, Bull. Mus. Comp. Zool., **107**, p. 187), most of the New Guinean members of the genus occur on the ground in heavy forest, while the Amami species is arboreal in habit, being found on foliage or on dead leaves of trees.

14. **Trichotichnus** (**Trichotichnus**) **sataensis** Habu et Nakane, 1955

Is. Amami-Oshima (Mt. Yuwan-daké).

15. **Anoplogenius cyanescens** (Hope, 1845)

Is. Amami-Oshima (Nishinakama); Is. Tokunoshima (Hetono and Mikyô).

16. **Stenolophus (Egadroma) difficilis** (Hope, 1845)

Is. Tokunoshima (Mikyô).

17. **Stenolophus (Egadroma) quinquepustulatus** (Wiedemann, 1823)

Is. Tokunoshima (Kametsu and Mikyô).

18. **Acupalpus (Anthracus) inornatus** H. W. Bates, 1873

Is. Amami-Oshima (Sumiyô); Is. Tokunoshima (Mikyô).

19. **Amblystomus quadriguttatus** (Motschulsky, 1858)

Is. Yoron-jima (Chabana and a paddy-field en route from Furusato to Asato).

20. **Perigona (Perigona) plagiata** Putzeys, 1875

Is. Amami-Oshima (Nishinakama).

21. **Haplochlaenius insularis** sp. nov.

Length: 24.0-25.5 mm (from front margin of clypeus to apices of elytra).

In many ways similar to *H. costiger* (Chaudoir, 1856), but larger, brachypterous, with broader fore-body and darker appendages. Decidedly different from both *H. costiger* and *H. femoratus* in the peculiar structure of its aedeagus. Not greatly different in colour from *H. femoratus*, f. *nigrofemoratus* (Jedlička, 1935) (Neue Carabiden aus Ostasien 10, Praha, p. 6), but the dorsal surface of fore-body either coppery green or greenish cupreous, not deep green as in the latter, and the ventral surface pitchy black, instead of brownish black.

Pitchy black, with the dorsal surface of head and pronotum either coppery green or greenish cupreous (green in teneral individuals); ely-

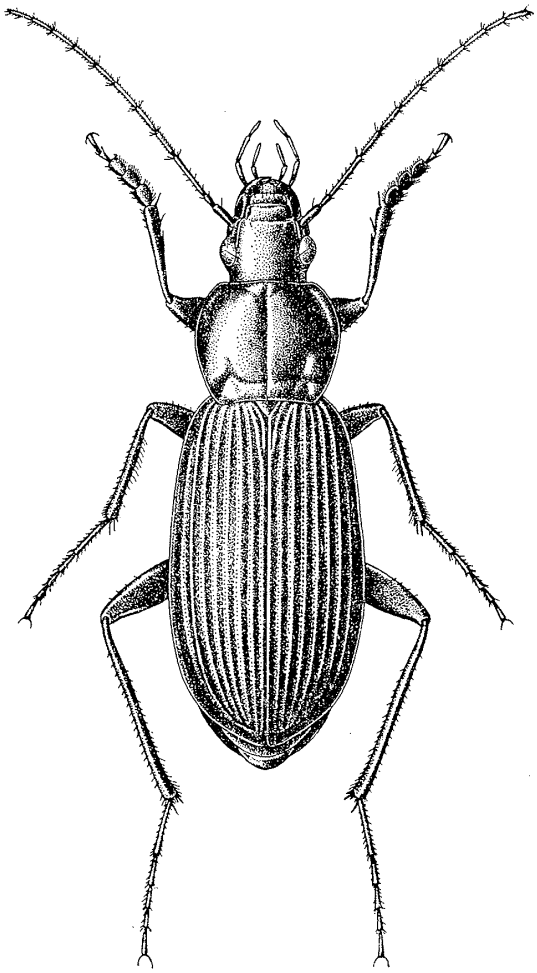
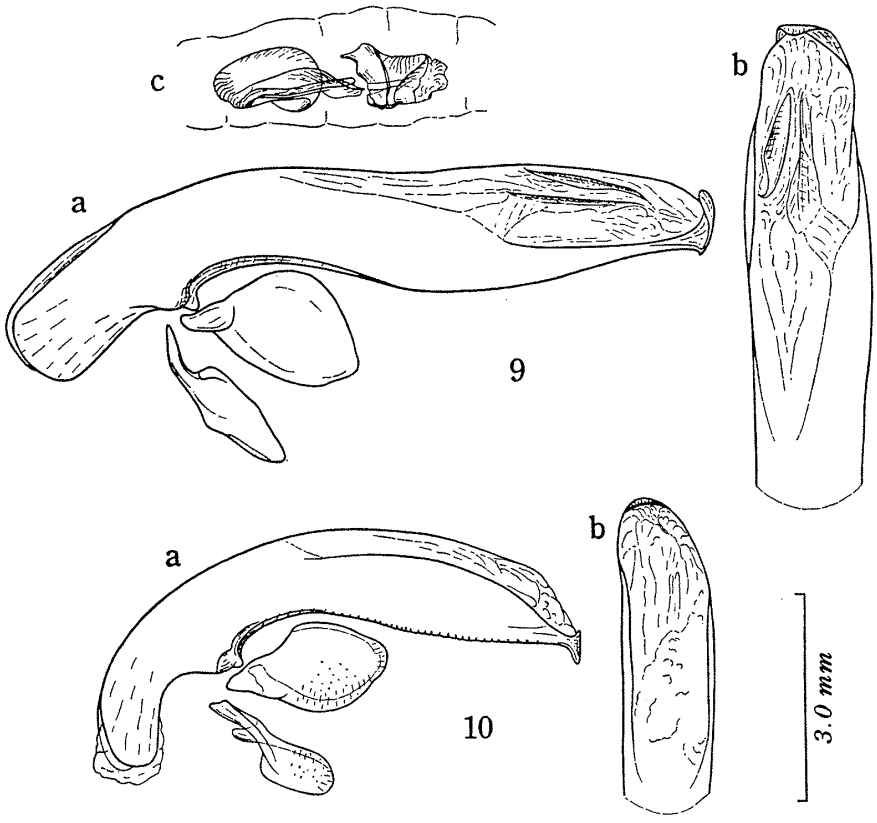


Fig. 8. *Haplochlaenius insularis* sp. nov., ♂, of Mt. Yuwan-daké on the Island of Amami-Oshima.

tra neither purplish nor brownish; antennal segments 4–11 dark brown; palpi and tarsi brownish black; (in teneral individuals, all the appendages dark brown except darker femora). Head broader than in *H. costiger*, with somewhat smaller eyes and shorter antennae, but otherwise similar to that in the latter species. Pronotum ample, transverse, with lateral sides much more regularly and strongly rounded from apex to base than in *H. costiger*, widest usually at a level slightly before middle; PW/HW 1.54 in the holotype, 1.52 in the allotype, PW/PL 1.28 in the holotype, 1.33 in the allotype, PW/PA 1.71 in the holotype, 1.70 in the allotype, PW/PB 1.42 in the holotype, 1.47 in the allotype, PB/PA 1.20 in the holotype, 1.16 in the allotype; hind angles narrowly rounded; median line distinct to the base; basal foveae deep and uneven; surface minutely punctate and with vague, irregularly transverse striations, punctures being much finer than in *H. costiger*; sparse pubescence at the basal portion nearly obliterated. Elytra more depressed and widest more in front than in *H. costiger* or *H. femoratus*, with the basal portion of interval 7 more or less raised and forming an obtuse ridge; EW/PW 1.37 in the holotype, 1.40 in the allotype, EL /EW 1.71 in the holotype, 1.62 in the allotype; shoulders nearly effaced; lateral



Figs. 9–10. Male genital organ; left lateral view, with removed right style (a), dorsal view of the apical part of aedeagus (b), and separated copulatory pieces (c). —— 9. *Haplochlaenius insularis* sp. nov., of Mt. Yuwan-daké on the Island of Amami-Oshima. —— 10. *H. femoratus* (Dejean), of Nongkodjadjar in eastern Java.

sides rather sharply, though narrowly, reflexed; intervals sharply costate, with finer and sparser pubescence than in *H. costiger*; microsculpture much less sharp than in the latter species. Ventral surface much more finely punctate and much less extensively pubescent than in *H. costiger*, hence resembling that in *H. femoratus*. Legs similar to those in *H. costiger* or *H. femoratus*, but with slenderer tarsi.

Male genital organ very large, strikingly different in shape from that in *H. costiger* or *H. femoratus*. Aedeagus elongate, somewhat sigmoidal, moderately arcuate in basal half and turned up behind middle; basal orifice large, considerably extending towards the dorsal side and forming well developed basal lobes; apical part fairly wide in dorsal view, ending in a vertical elliptic plate, which forms a small hook on the ventral side and much larger one on the dorsal side; apical orifice narrow, opening between two, elongate, well sclerotized plates. Inner sac armed with two intricate copulatory pieces, articulated one after the other; basal piece somewhat campanulate, with the concave face below, bearing on the left side a long foliate style, which is twisted near apex; apical piece of peculiar formation and difficult to interpret appropriately; a narrow sclerotized plate exists on the right ventral side of the apical copulatory piece. Styles normal, seemingly small because of the extraordinary elongation of aedeagus.

Type-series: Holotype: ♂, allotype: ♀, 17-vii-1963, collected by Y. Kurosawa (NSM). Paratypes: 1 ♂, 1 ♀, 16~17-vii-1963, by Y. Kurosawa, 1 ♂, 7-viii-1963, by T. Okada (NSM & KU).

Type-locality: Mt. Yuwan-daké, at about 550 m in altitude, on the Island of Amami-Oshima in the Ryu-Kyus.

Remarks: This is a remarkable new species doubtless endemic to the Island of Amami-Oshima. Inhabiting the floor of subtropical forest, it is of nocturnal behaviour and is found at night running across mountain trails. Of total five specimens examined, two are more or less teneral. A full grown larva was also taken in July coexisting with adult. These collecting data may suggest that the emergence of this beetle takes place through the summer. The larva will be described by Dr. Kazuyoshi Kurosa in a separate paper.

22. **Chlaenius (Pachydinodes) hamifer** Chaudoir, 1856

Chlaenius hamifer Chaudoir, 1856, Bull. Soc. Nat. Mosc., **29** (3), p. 209; type-area: Java; 1876, Ann. Mus. civ. Stor. nat. Genova, **8**, pp. 13, 62. —— Andrewes, 1919, Trans. ent. Soc. London, **1919**, pp. 140, 141; 1941, Ann. Mag. nat. Hist., (11), **7**, p. 308.

Chlaenius (Chlaenius) pictus Habu, 1961, Nature and Life in SE Asia, Kyoto, 1, p. 290, figs. 14, 16. [*Nec* Chaudoir, 1856.]

Specimen examined: 1 ♀, Mt. Yuwan-daké on the Island of Amami-Oshima, 16-vii-1963, collected by Y. Kurosawa (NSM).

Range in the Japanese territory: Widely distributed in the Ryu-Kyus; extending through Kyushu and Shikoku, and reaching as far north as eastern Honshu.

Remarks: This is the species currently called '*C. pictus*' by Japanese specialists. It is, however, quite distinct from that species. I have seen, through the courtesy of Professor P. J. Darlington, Jr., a pair of authentic specimens of *C. hamifer* as

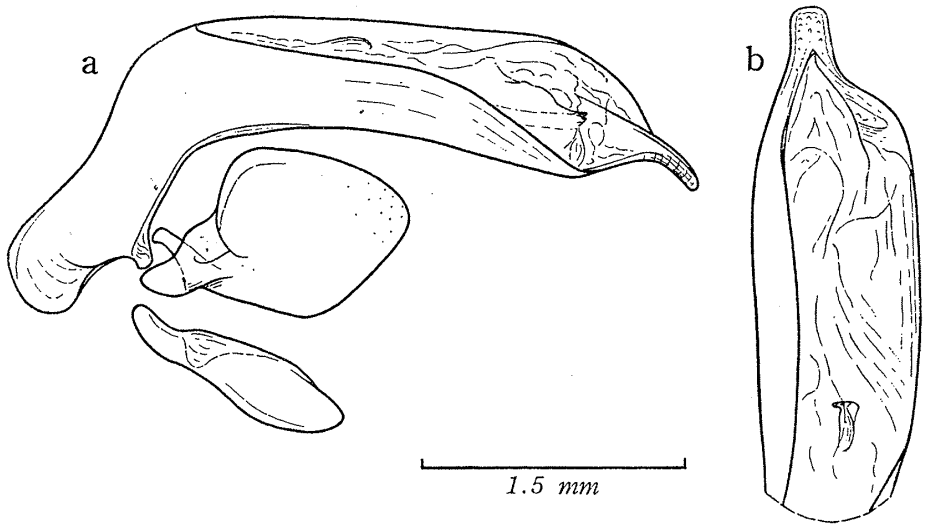


Fig. 11. *Chlaenius* (*Pachydinodes*) *pictus* Chaudoir, of Buitenzorg in Java; male genital organ, left lateral view, with removed right style (a), and apical part of aedeagus, dorsal view (b).

well as of *C. pictus*, both agreeing well with the diagnoses given by Chaudoir and Andrewes (*loc. cit.*). Besides the external discrepancy noticed by the latter author (1941), true *C. pictus* is readily discriminated from this species by the structure of its aedeagus, which is not widely open on the left side and has a narrow, projecting apical beak (cf. Fig. 11).

It may still be noted that Japanese specimens of *C. hamifer* do not perfectly accord with the southern ones. The difference, however, does not appear to be large enough for erecting a new taxon.

23. **Chlaenius** (**Chlaenius**) **sericimicans** Chaudoir, 1876

Is. Tokunoshima (Mikyô).

24. **Oodes** (**Nanodes**) **piceus** Nietner, 1856

Specimens examined: 12 ♂♂, 8 ♀♀, Nama on the Island of Yoron-jima, 11-viii-1958, collected by S. Uéno (NSM & KU).

Range in the Japanese territory: Rather sporadically found in the Ryu-Kyus, Kyushu and western Honshu.

Remarks: Although the subgenus *Nanodes* was transferred from *Oodes* to *Anatrichis* by Habu (1958, Kontyû, Tokyo, **26**, p. 192), I cannot agree with his opinion, mainly because of the marked diversity in aedeagal characters.

25. **Pentagonica daimiella** H. W. Bates, 1892

Is. Amami-Oshima (Mt. Yuwan-daké).

26. **Eucolliuris fuscipennis fuscipennis** (Chaudoir, 1850)

Is. Tokunoshima (Mikyô); Is. Okinoérabu (China).

27. **Ophionea (Ophionea) indica** (Thunberg, 1764)

Is. Amami-Oshima (Nishinakama); Is. Tokunoshima (Mikyô).

28. **Coptoderina esakii esakii** Nakane, 1956

Is. Tokunoshima (Mikyô).

29. **Coptoderina subapicalis** (Putzeys, 1877)

Is. Amami-Oshima (Mt. Yuwan-daké).

30. **Dolichoctis striata** Schmidt-Goebel, 1846

Is. Amami-Oshima (Mt. Yuwan-daké).

31. **Parena (Crossoglossa) laesipennis** (H. W. Bates, 1873)

Is. Amami-Oshima (Mt. Yuwan-daké).

32. **Pheropsophus (Pheropsophus) jessoensis** A. Morawitz, 1862

Is. Amami-Oshima (Nazé and Nishinakama).

33. **Pheropsophus (Pheropsophus) javanus** (Dejean, 1825)

Is. Amami-Oshima (Nishinakama); Is. Tokunoshima (Kametsu and Mikyô).

摘　　要

この報文に収録した奄美群島産の歩行虫類は，日米合同科学委員会の事業の一つとして行なわれた琉球列島の昆虫相の調査結果を主体にしている．調査の主旨からいえば，この群島の歩行虫相の特殊性や他の地域との関連などを示し得ることが望ましいが，採集品自体もとくに大きくはなく，その内容もある程度かたよっているので，本文には同定の結果を列挙するに止めた．なお，これ以外の資料のうちから，とくに注目すべき3新種を選んで合わせ記載したので，ここに掲げた歩行虫類は，ヒゲブトオサムシ科1種，ハンミョウ科4種，ゴミムシ科26種およびホソクビゴミムシ科2種の計4科33種になる．これらのうち，新種および琉球列島から新たに記録される種は次の通りである．

Eustra crucifera S. Uéno　ジュウジエグリゴミムシ（新称）
Tachyta umbrosa (Motschulsky)　ミナミチビカワゴミムシ（新称）
Hikosanoagonum latior S. Uéno　マエビロモリヒラタゴミムシ（新称）
Altagonum shibatai S. Uéno　シバタモリヒラタゴミムシ（新称）
Haplochlaenius insularis S. Uéno　アマミスジアオゴミムシ（新称）
Chlaenius (Pachydinodes) hamifer Chaudoir　コアトワアオゴミムシ（新称）