Elytra, Tokyo, **18** (1): 19–29, May 15, 1990

The *Trechiama* (Coleoptera, Trechinae) of the Island of Taiwan[1)]

Shun-Ichi UÉNO

Department of Zoology, National Science Museum (Nat. Hist.),
Shinjuku, Tokyo, 169 Japan

Abstract The Taiwanese species of the trechine genus *Trechiama* are dealt with. Of the three species hitherto known, *T. alatus* S. UÉNO is either alate or brachypterous and is widely distributed over the high mountains above 1,200 m in altitude. The other two are anophthalmic, subalpine, strictly localized, and distinguished from the other congeners as a particular group. The new names given are *T. hamatus* and *T. chui*, and the new species-group is called the *hamatus* group.

It has been known for more than ten years that a peculiar species of the trechine genus *Trechiama* occurs on a high mountain of Taiwan (UÉNO, 1979, 1982, pp. 75–76, 1988, pp. 39–40). It is peculiar because it is the only known species of the genus that still retains almost fully developed hindwings, and can be regarded as a positive proof that the main eastward dispersal of the genus was made by winged ancestors.

This interesting species was previously recorded only from the Kuan-shan Mountains at the southern part of the Chung-yang Mountain Range. However, our investigations of the high altitude fauna made in the summer and autumn of 1989 have revealed that the species is widely distributed over the Taiwanese mountains, not only in the subalpine zone but also at lower elevations, and that the ordinary habitats of the trechine beetle are almost always associated with running waters. One of the purposes of the present paper is to record these newly obtained data.

The other and more important purpose is to introduce two new anophthalmic species into science. They were discovered by Professor Yoshiaki NISHIKAWA who participated in the second expedition made in the autumn. An anophthalmic trechine beetle, *Masuzonoblemus tristis* S. UÉNO, was already brought to light by the summer expedition (UÉNO, 1989), but this small species is typically endogean and not directly related to the cave fauna. On the other hand, the two new *Trechiama* are long-legged and light-coloured; one of them was dug out from the upper hypogean zone and the other was found in an abandoned mine adit. Their occurrence in the subalpine zone of central Taiwan is an unquestionable proof that the island has a true terrestrial cave fauna, even if small, at least at its high altitude.

The abbreviations used in this article are the same as those explained in previous papers of mine.

1) This study is supported by the Grant-in-aid No. 01041099 for Field Research of the Monbusho International Scientific Research Program, Japan.

Before going into further details, I wish to express my hearty thanks to the following members of the 1989 expeditions, whose expert investigations enabled me to complete the present paper: Professors Yoshiaki NISHIKAWA, Masataka SATÔ, Tsukané YAMASAKI and Yau-I CHU, Drs. Mamoru OWADA and Hirotsugu ONO, and Mr. Chiun-chen KER.

Trechiama (s. str.) ***alatus*** S. UÉNO, 1979

Trechiama (s. str.) *alatus* S. UÉNO, 1979, Bull. natn. Sci. Mus., Tokyo, (A), **5**, p. 202, figs. 1–4; type locality: T'ien-ch'ih [on the Kuan-shan Mts.]. —— CASALE & LANEYRIE, 1982, Mém. Biospéol., **9**, p. 87.

Additional specimens examined. 1 ♀, Kuan-shan-ya-k'ou (W side), 2,750 m alt., Kuan-shan Mts., Kao-hsiung Hsien, 3–VI–1987, S. KASAHARA leg.; 1 ♂, same locality, 13–VI–1989, S. UÉNO leg.; 5 ♂♂, 3 ♀♀ (incl. 2 teneral ♀♀), Hsiang-yang, 2,250 m alt., Kuan-shan Mts., T'ai-tung Hsien, 12–VI–1989, S. UÉNO & M. SATÔ leg.; 7 ♂♂, 5 ♀♀ (incl. 2 teneral ♂♂), same locality, 2,140–2,200 m alt., 4～5–XI–1989, Y. NISHIKAWA & T. YAMASAKI leg.; 1 ♀, Mt. Ch'i-lai-nan-feng, 2,450 m alt. on WSW slope, Nan-t'ou Hsien, 25–X–1989, Y. NISHIKAWA leg.; 1 ♂, 1 ♀, same mountain, 2,640 m alt. on SW slope, 27–X–1989, Y. NISHIKAWA leg.; 7 ♂♂, 3 ♀♀, Ch'ueh Shan, Yang-ming Ch'iao, 1,750 m alt., Hsin-lin Hsiang, Hua-lien Hsien, 6–XI–1989, Y. NISHIKAWA leg.; 3 ♂♂, Pi-lu Ch'i, 2,250 m alt., Jen-ai Hsiang, Nan-t'ou Hsien, 22–X–1989, Y. NISHIKAWA leg.; 5 ♂♂, 7 ♀♀, Mt. T'ai-p'ing Shan, ca. 1,200 m alt., I-lan Hsien, 8–XI–1989, Y. NISHIKAWA leg.; 1 ♀, Mt. Hsiao-hsüeh Shan, 2,630 m alt., Ta-hsüeh Mts., T'ai-chung Hsien, 15–VI–1989, M. SATÔ leg.; 3 ♂♂, same locality, 18–X–1989, Y. NISHIKAWA & T. YAMASAKI leg. All deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Notes. This is a variable species widely distributed over the mountains of Taiwan. The size alone ranges from 4.65 mm to 6.10 mm, when measured from the apical margin of clypeus to the apices of elytra. It also varies in the size of head, size and convexity of eyes, curvature of the lateral sides of prothorax, intensity of the striation and punctuation of elytra, and the number of setiferous dorsal pores on the third and fifth striae. The specimens from six of the eight known populations are almost fully winged, but the hindwings become abbreviated and are obviously shorter than the elytra in an extended state in the specimens from Mt. T'ai-p'ing Shan and Mt. Hsiao-hsüeh Shan. However, the variation is clinal, and no appreciable genitalic differentiation can be observed, so that I cannot recognize useful subspecies among the known populations. Incidentally, the standard ratios of the body parts in the specimens from Mt. Hsiao-hsüeh Shan, which is the locality most isolated from the others lying on the Chung-yang Mountain Range, are as follows: PW/HW 1.32–1.38 (M 1.34), PW/PL 1.13–1.18 (M 1.16), PW/PA 1.47–1.55 (M 1.51), PW/PB 1.41–1.47 (M 1.44), PB/PA 1.02–1.07 (M 1.05), EW/PW 1.57–1.65 (M 1.60), EL/EW 1.58–1.62 (M 1.59).

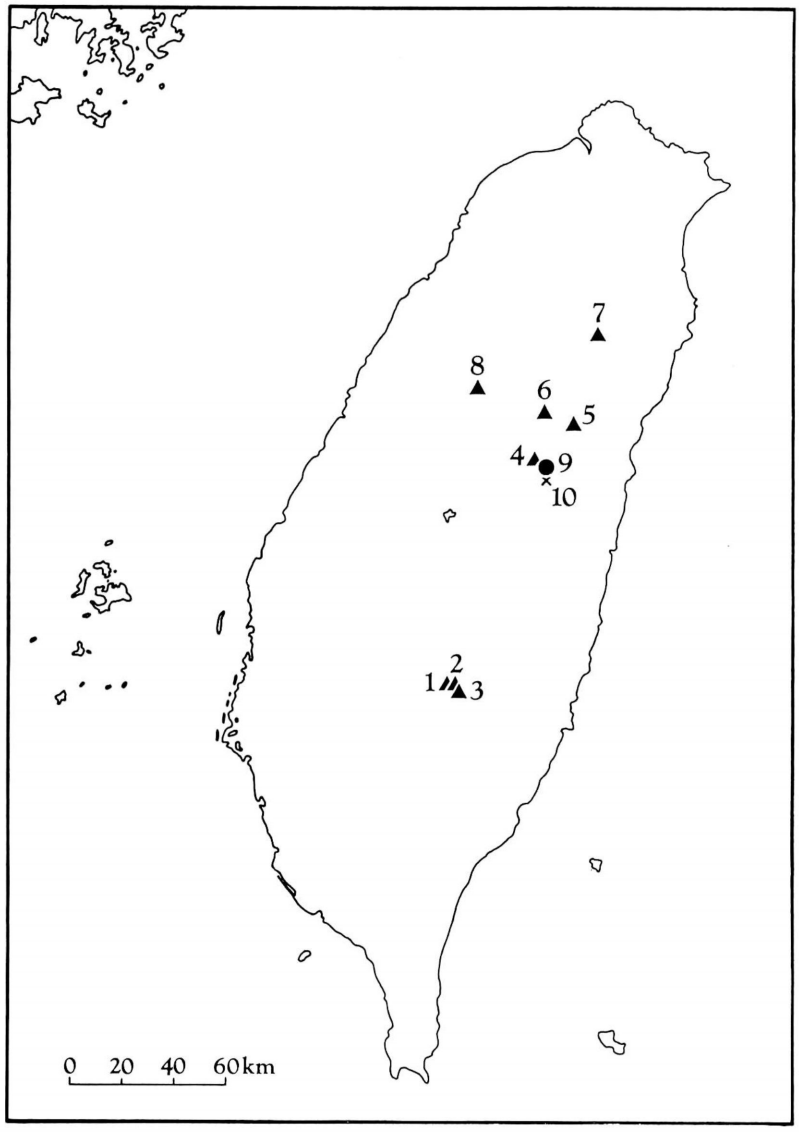


Fig. 1. Map showing the known localities of *Trechiama* in Taiwan. Black triangles: *T. alatus* S. UÉNO. Black circle: *T. hamatus* S. UÉNO, sp. nov. Cross mark: *T. chui* S. UÉNO, sp. nov. —— 1, T'ien-ch'ih; 2, Kuan-shan-ya-k'ou; 3, Hsiang-yang; 4, Mt. Ch'i-lai-nan-feng; 5, Ch'ueh Shan; 6, Pi-lu Ch'i; 7, Mt. T'ai-p'ing Shan; 8, Mt. Hsiao-hsüeh Shan; 9, Mt. Neng-kao-pei-feng; 10, prospecting adit on Mt. Neng-kao-pei-feng.

Trechiama alatus is a hygrophilous species almost always found in shaded places along narrow streams. It sometimes occurs in very wet habitats under cascades or beneath stones half immersed in the water, but is more commonly found under stones or rotten logs lying on the banks of streams, or in the upper layers of colluvia fed by

seepages. It seems easier to collect the beetle in the drier season than in the rainy one, since many of the specimens collected by the autumn expedition were met at the sides of the streams that had been flooded when I had visited them early in the summer.

Trechiama (s. str.) ***hamatus*** S. UÉNO, sp. nov.

(Figs. 2–4)

Length: 4.70–4.80 mm (from apical margin of clypeus to apices of elytra).

An anophthalmic species recognized at first sight on its peculiarly slender facies; also remarkable in the unique conformation of male genitalia, especially in the peculiar shape of aedeagal apical lobe and the formation of a protruded sclerite by amalgamation of the sclerotized teeth of the dorso-apical group.

Concolorously yellowish brown, shiny, with the exception of mandibles and narrow edges of lateral margins of prothorax and elytra, which are dark brown; palpi, apical halves of antennae, and legs somewhat paler than body.

Head small, subquadrate, about as long as wide, and depressed above, with entire frontal furrows which are deeply impressed in front, not angulate at middle, and rather gently curved; frons feebly convex, supraorbital areas moderately so, the latter bearing two pair of supraorbital setae on lines slightly convergent posteriad; microsculpture distinct though fine, mostly consisting of transverse meshes; trace of eyes present behind the insertion of antennae; genae glabrous, gently and evenly convex; neck wide, with the anterior constriction distinct at the sides though not deep; labrum transverse, with the apical margin either slightly bisinuate or almost straight; mandibles long and fairly slender, sharply arcuate at the apical parts; mentum imperfectly fused with submentum though the suture between them is complete, with the tooth in apical emargination broad and porrect, either slightly emarginate at the tip or nearly simple; submentum with a transverse row of six setae; palpi slender, with the penultimate segments gently dilated towards apices, apical segments elongated fusiform in proximal two-thirds and thinly cylindrical in terminal portions; antennae slender, reaching apical third of elytra in ♂, apical two-fifths of elytra in ♀; antennal segment 2 about two-thirds as long as segment 3, which is about five-sixths as long as segment 4 or 5, segments 6–10 gradually decreasing in length and becoming three-fourths length of segment 5 at the penultimate one, all subcylindrical, and segments 8–9 each nearly four times as long as wide, terminal segment about as long as segment 7, obviously longer but much narrower than scape.

Pronotum small and narrow, subcordate, wider than head, slightly wider than long, widest at two-thirds from base, and more gradually narrowed towards base than towards apex; PW/HW 1.32–1.36 (M 1.34), PW/PL 1.02–1.08 (M 1.05), PW/PA 1.46–1.54 (M 1.51), PW/PB 1.36–1.42 (M 1.40); sides narrowly bordered and reflexed throughout, moderately arcuate in front, feebly so behind, distinctly sinuate at about basal seventh, and then either subparallel or slightly divergent towards hind angles, which are more or less sharp though hardly produced; both lateral and postangular setae

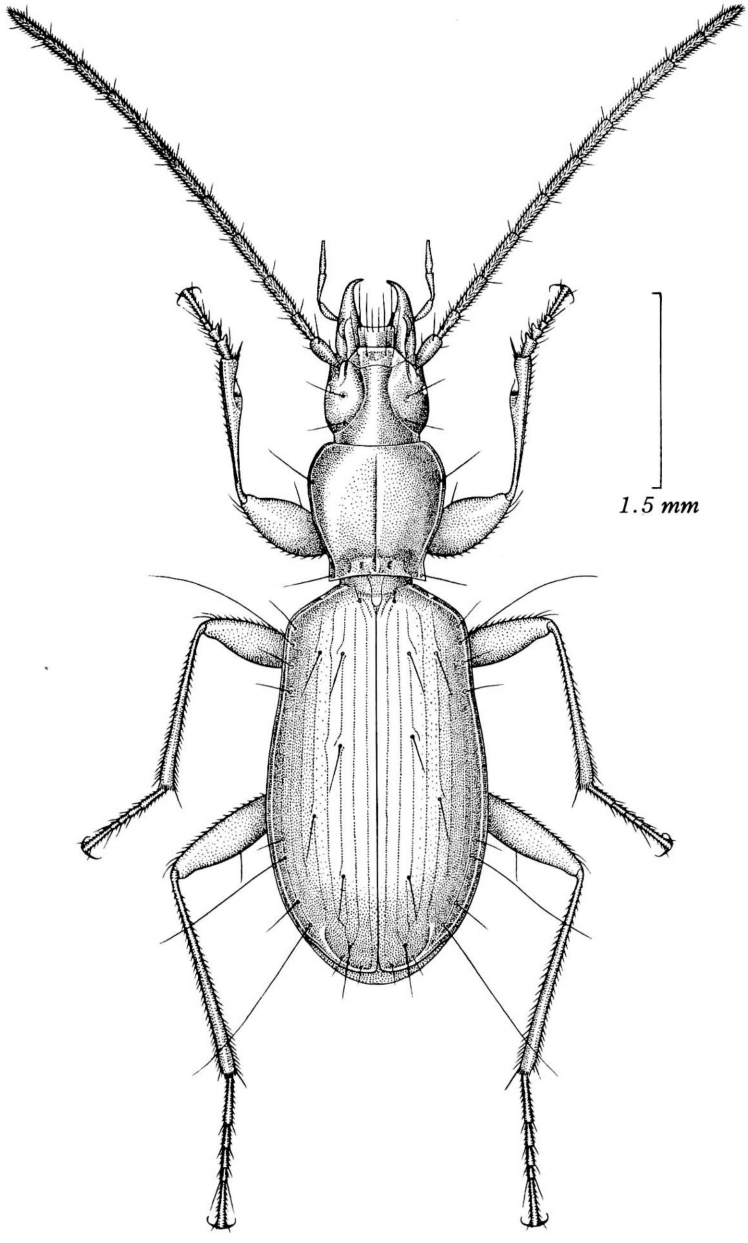


Fig. 2. *Trechiama* (s. str.) *hamatus* S. UÉNO, sp. nov., ♂, from Mt. Neng-kao-pei-feng in central Taiwan.

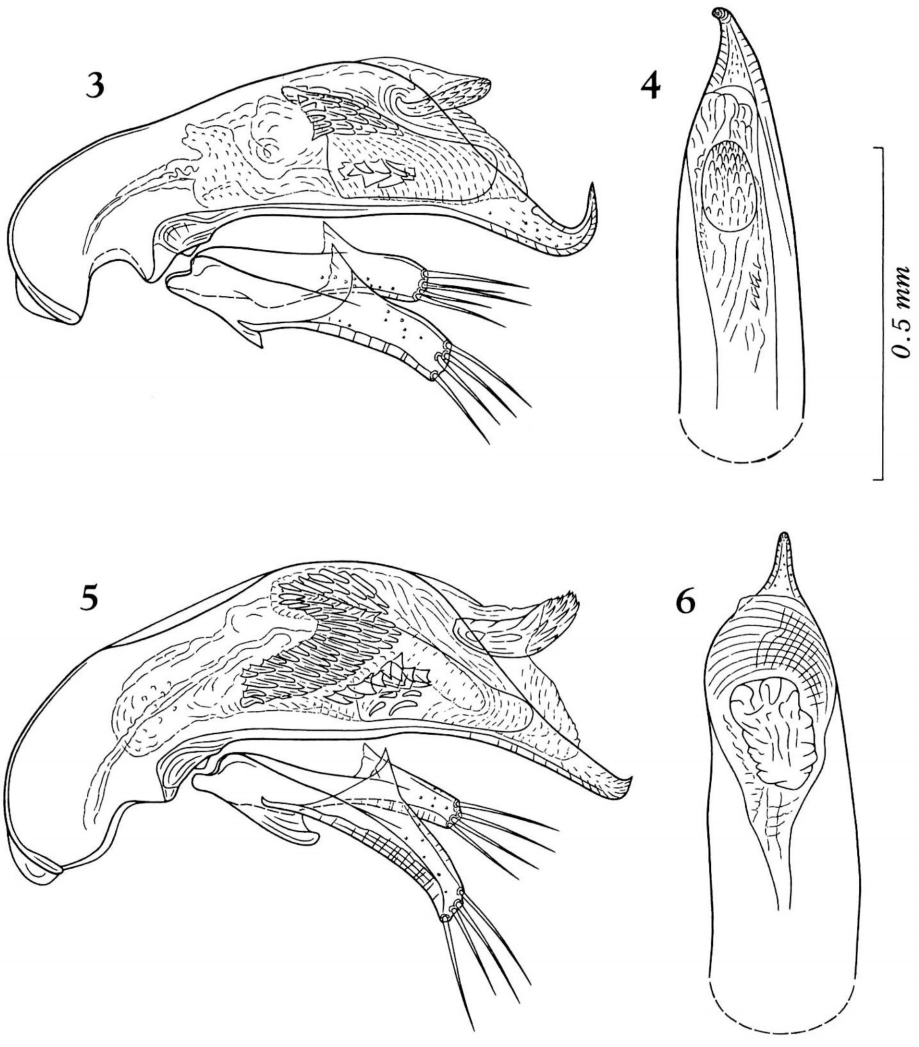
present, the latter being a little removed forwards from the angle; apex a little narrower than base, PB/PA 1.07–1.10 (M 1.09), almost straight or slightly emarginate, with front angles narrowly rounded and hardly produced; base slightly but widely emarginate;

surface convex and completely glabrous, with shallow median line, which becomes deeper and wider in basal area; apical transverse impression vanished; basal transverse impression deep and continuous, shallowly foveolate on each side of median line, and laterally merging into basal foveae, which are not particularly large but deep; postangular carinae either absent or obtuse; basal area narrow, longitudinally strigose along the basal margin; microsculpture formed by fine transverse lines and mostly distinct.

Elytra narrow though much wider than prothorax, oblong-subovate, widest at about three-fifths from bases, and more gradually narrowed towards bases than towards apices; EW/PW 1.62–1.67 (M 1.65), EL/EW 1.66–1.70 (M 1.68); shoulders distinct though rounded, with prehumeral borders complete, nearly straight and oblique; sides moderately reflexed throughout, slightly emarginate behind shoulders, very feebly arcuate at middle, and rounded in apical fourth, with shallow preapical emargination; apices separately rounded, forming a small re-entrant angle at suture; surface widely depressed on the disc, steeply declivous at lateral and apical parts, and slightly compressed behind shoulders; microsculpture formed by fine transverse lines and mostly distinct; striae entire, equally impressed throughout and shallowly crenulate, stria 8 not particularly deep in apical portion; scutellar striole distinct; apical striole short but deep, strongly curved, usually joining or almost joining stria 5 but rarely (in one of the paratypes) joining stria 7; intervals flat even near suture, apical carina obtuse; stria 3 with three setiferous dorsal pores at 1/8–1/7, 1/3–2/5 and about 3/4 from base respectively, stria 5 with two setiferous dorsal pores at 1/8–1/7 from base and about middle; preapical pore situated at the apical anastomosis of striae 2 and 3 on apical declivity, and usually nearer to apex than to suture; humeral set of marginal umbilicate pores somewhat irregular, the fourth pore being slightly isolated from the proximal three.

Ventral surface glabrous and smooth; each sternite usually provided with a pair of setae, but rarely with two setae inserted one after the other on one side; anal sternite with a pair of sexual setae in ♂, with two pair of them in ♀. Legs long and slender; protibiae straight, gradually dilated towards apices, deeply grooved on the external face, and perfectly glabrous on the anterior face; tarsi thin, segment 1 longer than segments 2–3 together but shorter than segments 2–4 together in both meso- and metatarsi, segment 4 with a long ventral apophysis in pro- and mesotarsi; in ♂, protarsal segments 1 and 2 widely dilated, stoutly produced inwards at apices, and furnished beneath with sexual adhesive appendages.

Male genital organ small and lightly sclerotized. Aedeagus about three-tenths as long as elytra, hardly arcuate, and dorsally dilated towards apical orifice, with large, remarkably hooked apical lobe; basal part fairly elongate, hardly curved ventrad, with small basal orifice, whose sides are very deeply emarginate; sagittal aileron very small and hyaline; viewed laterally, apical lobe strongly curved dorsad, forming a large hook with acute tip; viewed dorsally, apical lobe elongated subtriangular, with the terminal portion inclined to the right; ventral margin slightly bisinuate in profile.



Figs. 3–6. Male genitalia of *Trechiama* spp. from central Taiwan; left lateral view (3, 5), and apical part of aedeagus, dorso-apical view (4, 6). —— 3–4. *T.* (s. str.) *hamatus* S. UÉNO, sp. nov., from Mt. Neng-kao-pei-feng. —— 5–6. *T.* (s. str.) *chui* S. UÉNO, sp. nov., from a prospecting adit on Mt. Neng-kao-pei-feng.

Inner sac scaly though the scales are mostly membraneous; copulatory piece large though thin, about one-third as long as aedeagus, high at the basal part, and widely rounded at the apex, with a subtriangular patch of heavily sclerotized teeth at the left side of the dorsal part in proximal half and also with a small patch of large teeth on the left face before the middle; dorso-apical teeth-patch very compact, forming an ovate piece composed of amalgamated teeth, and dorso-apically protruding from apical orifice. Styles large and broad, left style being obviously longer than the right;

in the holotype, left style provided with four apical setae, while the right bears five apical setae.

Type series. Holotype: ♂, allotype: ♀, paratypes: 2 ♀♀, 26–X–1989, Y. NISHIKAWA leg. Deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Mt. Neng-kao-pei-feng, 2,870 m in altitude on NW slope, in Nan-t'ou Hsien, central Taiwan.

Notes. This remarkable new species is upper hypogean, having been found by NISHIKAWA near the heads of two small gullies without running water in a mixed subalpine forest on the northwestern slope of Mt. Neng-kao-pei-feng. The gullies are about 200 m apart from each other, and the northern gully is the one in which the single known specimen of the microphthalmic staphylinid, *Quedius masuzoi* Y. WATANABE (1989, p. 170, figs. 1–4), was dug out by myself early in the summer. All the type specimens of the trechine beetle were dug out from loose screes of mudstone partly covered with small plants, a habitat typical for upper hypogean species.

This and the following new species form a twelfth species-group of the subgenus *Trechiama* (s. str.), mainly characterized by the following combination of morphological features: anophthalmic, depigmented and apterous; body elongate, with small head and prothorax; pronotum more or less subcordate, with two pair of marginal setae but devoid of discal ones; elytra elongate, somewhat compressed behind shoulders, and entirely striate; setiferous dorsal pores three on stria 3 and two on stria 5; preapical pore present on apical declivity; humeral set of marginal umbilicate pores somewhat irregular; aedeagus with dorsally hooked apical lobe; copulatory piece and sclerotized teeth-patches present, dorso-apical teeth-patch forming a sclerite by fusion of component teeth and protruding from apical orifice.

It is difficult to determine the true affinity of this new species-group, but it may have some remote relationship to the group of *T. alatus*. It is not directly related to any of the species-groups occurring in the Japanese Islands.

Trechiama (s. str.) ***chui*** S. UÉNO, sp. nov.

(Figs. 5–6)

Length: 5.00 mm (from apical margin of clypeus to apices of elytra).

Externally very close to *T. hamatus*, only distinguishable from the latter by the narrower prothorax, but strikingly different in the configuration of male genitalia.

Slightly larger in size and somewhat darker in colour than *T. hamatus*. Head perfectly identical with that of *T. hamatus*, with the exception of mentum tooth which is bifid at the tip. Pronotum evidently narrower than in *T. hamatus*, widest at about five-eighths from base, with the sides much more feebly arcuate in front and parallel to each other before hind angles so as to make the ante-basal sinuation deeper and the hind angles rectangular; apical transverse impression vague though bearing longitudinal striations. Elytra as in *T. hamatus*, but the disc bears a round depression in

basal third laterally delimited by raised basal portion of interval 5 and the striae are only indistinctly crenulate; apical striole joining stria 5; stria 3 with three setiferous dorsal pores at 1/6, 2/5 and 3/4 from base respectively, stria 5 with two setiferous dorsal pores at 1/8 and 4/7 from base respectively; slight irregularity of the humeral set of marginal umbilicate pores as in *T. hamatus*. Ventral surface and legs as in *T. hamatus*, though the legs are slightly longer. Standard ratios of body parts: PW/HW 1.30, PW/PL 0.98, PW/PA 1.49, PW/PB 1.37, PB/PA 1.09, EW/PW 1.76, EL/EW 1.67.

Male genital organ similar in basic conformation to that of *T. hamatus*, but more robust and more heavily sclerotized, strikingly differing from the latter in the configuration of apical lobe and the development of inner armature, especially of proximal teeth-patch. Aedeagus slightly more than three-tenths as long as elytra, moderately compressed, and high behind middle, with the dorsal margin semicircularly rounded in profile; basal part elongate and moderately curved ventrad, with large basal orifice, whose sides are deeply emarginate only at the posterior parts; sagittal aileron small and hyaline; viewed laterally, apical lobe straightly produced ventro-distad, with the tip only minutely hooked dorsad; viewed dorsally, apical lobe very narrow, straight and almost pointed at the tip, being produced from the distal end of abruptly narrowed apical part; ventral margin bisinuate in profile. Inner armature much more developed than in *T. hamatus*; copulatory piece as in the latter species, though narrower at the apical part; proximal teeth-patch very large and elongate, consisting of numerous, heavily sclerotized teeth, and sigmoidally curved from inside the left wall to above the dorsal margin of copulatory piece; left lateral teeth-patch larger and consisting of larger number of teeth than in *T. hamatus*; dorso-apical teeth-patch also larger than in *T. hamatus* and more solidly amalgamated into an oblong piece, component teeth being observable only near the apex. Styles narrower than in *T. hamatus*, left style much longer than the right, each bearing four slender setae at the apex.

Female unknown.

Type specimen. Holotype: ♂, 26–X–1989, Y. NISHIKAWA leg. Deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

Type locality. Prospecting adit on Mt. Neng-kao-pei-feng, 2,830 m in altitude on NW slope, in Nan-t'ou Hsien, central Taiwan.

Notes. It was most unexpected that two closely related species of anophthalmic *Trechiama* did occur in a small area on the same slope of a mountain. The prospecting adit of an abandoned gold mine, in which the type specimen of *T. chui* was found, is only about 300 m distant to the south from the southern one of the two gullies that harbour *T. hamatus*. All these habitats lie in the same subalpine forest, though the gullies are a little more shaded than the entrance to the adit. Their inhabitants are, however, specifically distinctive beyond all reasonable doubt in view of the strikingly pronounced genitalic differentiation, even though they are very closely similar to each other in external morphology.

As has been repeatedly pointed out, artificial cavities can be regarded as a con-

tinuation of the upper hypogean zone so far as concerned with terrestrial cave animals. Why, then, speciation of anophthalmic *Trechiama* did take place between the gullies and the mine adit is a problem unclarified at the present moment. It is possible that the habitat segregation of the two species now known could be accidental, caused by their rarity, and that *T. chui* could be found someday in coexistence with *T. hamatus* in the same scree. Though further investigations are needed for verifying this surmise, we can at least record now that *T. chui* is the first trechine beetle actually found in a subterranean cavity of Taiwan.

The prospecting adit is excavated at the side of the narrow path traversing the western slope of Mt. Neng-kao-pei-feng. It is not long, and besides, a cave-in has taken place about a half way from the entrance, forming a precarious heap of rock debris (mudstone and sandstone) mingled with rotten mine posts. The single known specimen of *T. chui* was found at this spot, from beneath a fist-sized stone lying on the heap. I myself examined the mine adit early in the summer of the same year, but failed in finding out any hypogean animals of biospeological interest.

It is my pleasure to dedicate the present species to Professor Yau-I CHU of the Department of Plant Pathology and Entomology, National Taiwan University, without whose support our investigations of the high altitude fauna of Taiwan could never have achieved such a successful result.

要　　約

上野俊一：台湾にすむナガチビゴミムシ属の甲虫類. —— ナガチビゴミムシ属の甲虫は，これまでに1種だけ台湾から知られていた．それは *Trechiama alatus* S. UÉNO, 1979 で，中央山脈南部の關山付近から報告され，100 種を超える同属種のうちで唯一の後翅がある種として注目されてきた．1989 年に実施された 2 回の調査で，この種の産地が新たに 7 ヵ所発見され，ある程度以上の高さに広く分布していることが明らかになった．しかも，北部の太平山や小雪山では，全個体の後翅がかなり退化していることもわかった．

いっぽう，台湾中央部の能高北峯では，複眼が退化し体色の淡くなった同属のメクラチビゴミムシが，亜高山帯の地下浅層と廃坑から発見された．精査の結果，これらは明らかな 2 新種に分類されることがわかったので，それぞれに *T. hamatus* S. UÉNO および *T. chui* S. UÉNO という新名を与えて記載し，この 2 種に対して新しい種群を認定した．種群の類縁関係は今のところよくわからないが，体形でも雄交尾器の構造でも，日本の盲目種とはかなり異なっている．なお，真の洞窟性メクラチビゴミムシが台湾で発見されたのはこれが最初で，調査しにくいほかの高山にも，別の種が生息しているものと推定される．

References

CASALE, A., & R. LANEYRIE, 1982. Trechodinae et Trechinae du monde. Tableau des sous-familles, tribus, séries phylétiques, genres, et catalogue général des espèces. *Mém. Biospéol.*, **9**: i+1–226.

UÉNO, S.-I., 1979. Occurrence of a new alate species of *Trechiama* (Coleoptera, Trechinae) in Taiwan. *Bull. natn. Sci. Mus., Tokyo*, (A), **5**: 201–206.

UÉNO, S.-I., 1982. Origin and dispersal of the Trechina in East Asia (Coleoptera: Carabidae). *Ent. gen., Stuttgart*, **8**: 71–77.

——— 1988. The distribution and differentiation of trechine beetles in Japan. *In* SATÔ, M. (ed.), *The Beetles of Japan, with Special Reference to their Origin and Differentiation*, 33–51+*3–5*. Tokai University Press, Tokyo. (In Japanese.)

——— 1989. Discovery of an eyeless trechine beetle (Coleoptera, Trechinae) in Taiwan. *Elytra, Tokyo*, **17**: 135–142.

WATANABE, Y., 1989. Two Taiwanese staphylinid beetles related to *Quedius abnormalis* (Coleoptera, Staphylinidae). *Elytra, Tokyo*, **17**: 169–174.

Elytra, Tokyo, **18** (1): 29–30, May 15, 1990

A New Subspecies of *Trechiama exilis* (Coleoptera, Trechinae)[1)]

Shun-Ichi UÉNO

Department of Zoology, National Science Museum (Nat. Hist.),
Shinjuku, Tokyo, 169 Japan

Trechiama exilis S. UÉNO (1983, p. 70, figs. 1–3; 1985, p. 73, pl. 14, fig. 3) is an isolated species tentatively placed in the group of *T. ohshimai*. It is upper hypogean, so far known only from a small hill in Takamatsu City at the northeastern corner of the Island of Shikoku. To the west of this hill beyond the Gôtô-gawa River, there is a larger hill whose northern part is called Goshiki-dai. It is at the western side of this hill that a new discovery was made by Mr. Masaaki SATOU.

The trechine beetle from this new locality seems also to belong to *T. exilis*, but is evidently different from the Takamatsu specimens in the shape of the prothorax. In this short article, I am going to describe it as a new grographical race of the species. I am much indebted to Mr. Masaaki SATOU for his kindness in submitting his collection to me for taxonomic study.

Trechiama (s. str.) ***exilis cordatus*** S. UÉNO, subsp. nov.

[Japanese name: Goshiki-mekura-chibigomimushi]

(Fig. 2)

Length: 4.70–5.00 mm (from apical margin of clypeus to apices of elytra).

Distinguished from the nominotypical subspecies mainly by differently shaped prothorax

1) This study is supported by the Grant-in-aid for Scientific Research No. 63540603 from the Ministry of Education, Science and Culture, Japan.