

Studies on the Buprestidae (Coleoptera) of Asia
7) A New Species of the Genus *Akiyamaia* from Myanmar

Takaharu HATTORI

1–35–23 Nakazawa, Asahi-ku, Yokohama, 241–0814 Japan

and

Masahiro TANAKA

3–10–7 Mikatadai, Nishi-ku, Kobe, 651–2277 Japan

Abstract *Akiyamaia* described by Y. KUROSAWA (1988) as a subgenus of *Cypriacis* is redefined and upgraded to a full genus. A new buprestid species, *Akiyamaia samanthae* sp. nov. is described from North Myanmar. This new species is characterized by the presence of a median carina on the pronotum.

CASEY (1909) defined the subgenus *Cypriacis* in the genus *Buprestis* by the presence of regular costae and the absence of striae on the elytra. Then, RICHTER (1952) upgraded *Cypriacis* to a genus in view of the anterior margin of pronotum hemmed with a groove in addition to the above mentioned characteristics. Later, Y. KUROSAWA (1988) redefined the genus *Cypriacis* by adding the presence of a distinct longitudinal median groove on the pronotum as another peculiarity of the genus. He also established the subgenera *Akiyamaia* and *Himalobuprestis* in the genus *Cypriacis* based upon the presence of a distinct large depression on each side of the median groove on the pronotum.

The authors had an opportunity to examine *Cypriacis* specimens from North Myanmar. These specimens generally accord with the feature of the subgenus *Akiyamaia*, but bearing a remarkable median carina instead of median groove on the pronotum. The authors therefore consider that the genus *Cypriacis* should be redefined. After a careful examination, it becomes apparent that the subgenera *Akiyamaia* and *Himalobuprestis* and the newly found species from North Myanmar bear an obvious emargination on the basal margin of paramere in the male genitalia, differing from the typical species of *Cypriacis* in the Palearctic Region. For this reason, the authors are going to upgrade *Akiyamaia* to an independent genus, and to regard *Himalobuprestis* as a subgenus of *Akiyamaia*. A new name, *Akiyamaia samanthae* sp. nov. is given for the new species from North Myanmar.

Before going further, the authors wish to express their sincere thanks to Dr. Shûhei NOMURA of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo and to Dr. Shun-Ichi UÉNO of the same museum for their kindness in critically reading the original manuscript and offering invaluable suggestions. I am also grateful to Mr. Takeshi MAEDA of Chiba Prefecture and the native collector, Mr. Prasobsuk SUKKIT of Thailand for their kind offer of the specimens used in this study.

Genus *Akiyamaia* Y. KUROSAWA, 1988

Akiyamaia Y. KUROSAWA, 1988, *Kontyû*, Tokyo, **56**: 265. (Subgenus of *Cypriacis*)

Body long, ovate. Head semiglobular with planate frons. Antennae reaching the middle of pronotum; 1st segment fusiform; 2nd globular; 3rd to 10th segments serrate ventro-apically; 11th parallelogrammatic; each segment from 4th to 10th in male acutely angulate at ventral apex, in female bluntly angulate at ventral apex; surface of each segment of 4th to 11th on inner side with a concavity ("socket" in HATTORI's previous papers) at ventro-apical part, and with densely scattered sensory grains just behind the concavity; surface of each segment of 4th to 11th on ventral ridge and outer side in male with densely scattered sensory grains in large ventral part, in female, densely scattered sensory grains in smaller part than in the male. Apical segment of maxillary palpus semicylindrical though weakly depressed, and longer than the preceding segment.

Pronotum rectangular, with convex lateral sides near the middle, lateral margins carinate from base to apex or just behind apex; anterior rim with groove just behind apical margin; median longitudinal groove or carina entire; and a longitudinal depression obvious on each side along lateral borders.

Elytra elongate, 4.1–5.0 times as long as pronotum, with five abruptly elevated costae, basal margin elevated and costate, suture and lateral margins carinate; intercostal area granulate or punctate.

Prosternal process convex, flattened or flattened with a feeble longitudinal depression in the middle, subparallel-sided or tapered posteriad, sparsely and uniformly punctate with a hair in each puncture. Mesosternum divided by prosternal process.

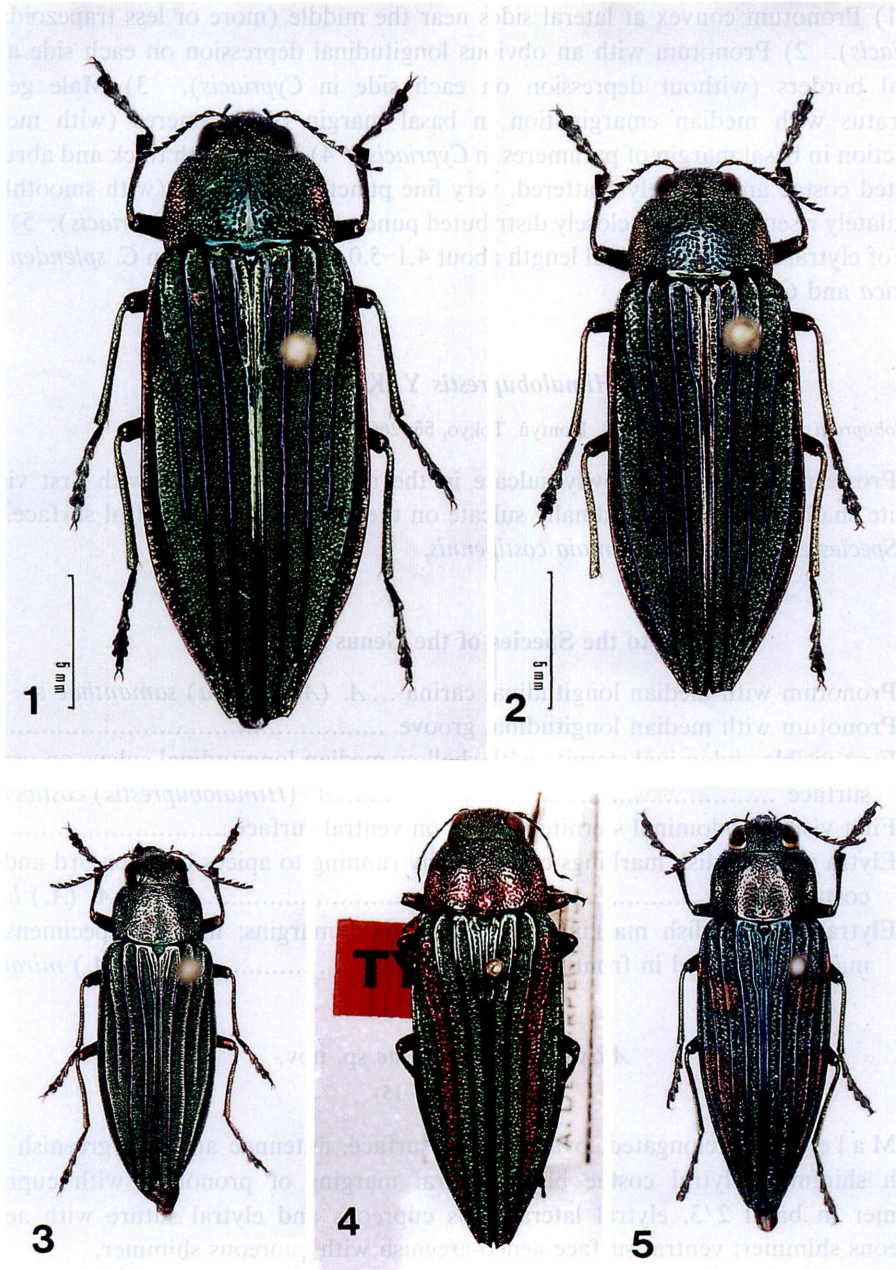
Anterior tibiae in male normally elongate without hook or emargination on inner side of each apex.

Male genital apparatus elongate, consisting of short basal part, large fused parameres and elongate aedeagus; parameres paired, broadly fused with each other around aedeagus, obviously emarginate at median part of basal margin.

Hind wing with vein 2A bearing anal cell; vein Rs not joining M; cross vein (R1–M) ("(R–M)" in HATTORI's previous paper) visible.

Species examined. *Akiyamaia mirabilis*, *A. lebisi*, *A. costipennis*, *A. samanthae* sp. nov.

Remarks. This genus has the following diagnostic features in comparison with the genus *Cypriacis*.



Figs. 1-5. Dorsal view. — 1-2, *Akiyamaia samantha* sp. nov.; 1, ♀, allotype; 2, ♂, holotype. — 3, ♂, *A. costipennis*. — 4, ♀, *A. lebisi*, holotype. — 5, ♂, *A. mirabilis*.

1) Pronotum convex at lateral sides near the middle (more or less trapezoidal in *Cypriacis*). 2) Pronotum with an obvious longitudinal depression on each side along lateral borders (without depression on each side in *Cypriacis*). 3) Male genital apparatus with median emargination in basal margin of parameres (with median projection in basal margin of parameres in *Cypriacis*). 4) Elytra with thick and abruptly elevated costae and sparsely scattered, very fine punctures on them (with smoothly or reticulately risen costae and closely distributed punctures on them in *Cypriacis*). 5) The ratio of elytral length / pronotal length about 4.1–5.0 (about 3.8–4.1 in *C. splendens*, *C. niponica* and *C. aurulenta*).

Subgenus *Himalobuprestis* Y. KUROSAWA, 1988

Himalobuprestis Y. KUROSAWA, 1988, *Kontyû*, Tokyo, 56: 266. (Subgenus of *Cypriacis*)

Prosternal process shallowly sulcate in the middle. Abdomen with first visible sternite shallowly and longitudinally sulcate on the median line of ventral surface.

Species examined. *Akiyamaia costipennis*.

Key to the Species of the Genus *Akiyamaia*

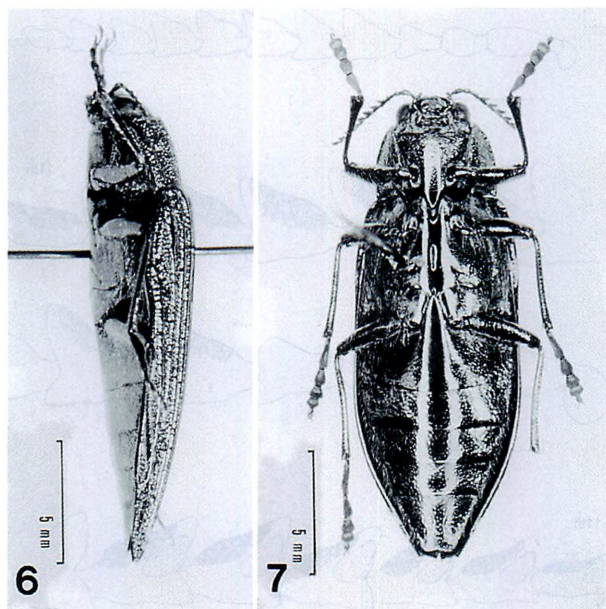
1. Pronotum with median longitudinal carina ... *A. (Akiyamaia) samanthae* sp. nov.
— Pronotum with median longitudinal groove2.
2. First visible abdominal sternite with shallow median longitudinal sulcus on ventral surface *A. (Himalobuprestis) costipennis*.
— First visible abdominal sternite smooth on ventral surface3.
3. Elytra with reddish markings continuously running to apices between 3rd and 4th costae *A. (A.) lebisi*.
— Elytra with reddish markings reaching lateral margins; in most specimens the markings divided in front and behind *A. (A.) mirabilis*.

Akiyamaia samanthae sp. nov.

(Figs. 1, 2, 6–15)

Male. Body elongated, ovate; dorsal surface, antennae and legs greenish with bluish shimmer, elytral costae black, lateral margins of pronotum with cupreous shimmer in basal 2/3, elytral lateral rims cupreous and elytral suture with aeneo-cupreous shimmer; ventral surface aeneo-greenish with cupreous shimmer.

Head transverse, declivous anteriorly; vertex broad, with a median groove from vertex to upper 1/3 of frons, then vanished, narrowly raised median carina reaching the middle of frons; frons relatively planate in the middle, reticulately punctate; clypeal suture absent; clypeus transverse, arcuately emarginate on anterior margin; each antennal cavity surrounded by flattened triangular rim; epistoma arcuately exposed anteriorly;



Figs. 6–7. *Akiyamaia samantha* sp. nov., ♂, holotype; 6, lateral view; 7, ventral view.

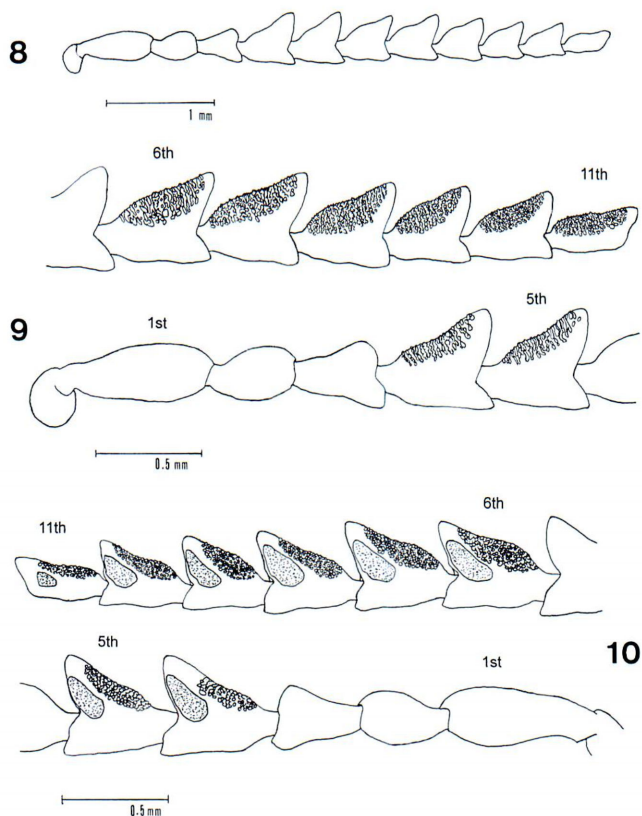
dorsal surface coarsely punctate and reticulate; each puncture with a whitish semi-recumbent hair. Eyes medium-sized and convergent dorsally. Labrum rectangular, wider than long; labium flat on anterior margin.

Pronotum about 1.7 times as wide as long, widest at basal 1/3, convex; anterior margin 2/3 as wide as the posterior one, carinate and feebly bisinuate, with produced median part; posterior margin feebly bisinuate with arcuately produced median part, broadly and arcuately emarginate on each lateral part; each postero-lateral angle acute; lateral sides convex from base to basal 2/3 through the widest part, then linearly convergent toward each anterior angle; anterior angles each rounded in lateral view; median longitudinal carina entire; longitudinal depression along lateral margin located just behind the middle; dorsal surface coarsely, irregularly punctate except on median carina and posterior margin, and reticulate in lateral parts; ante-scutellar part with a small distinct fovea.

Scutellum small, longitudinally elliptical, depressed at the middle.

Elytra 5.0 times as long as pronotum, 1.4 times as wide as pronotum, 2.0 times as long as wide, widest just behind the middle; each basal margin feebly arcuate; humeri rounded; lateral sides subparallel; each elytron ornamented with five elevated costae and granulate on intercostal area; lateral sides feebly and arcuately convergent from humeral prominences to basal 1/4 of elytral length¹⁾, then linearly divergent, with shallow emargination to the widest parts which are convex, then linearly convergent toward

¹⁾ The elytral length is measured from the base of scutellum to apices.

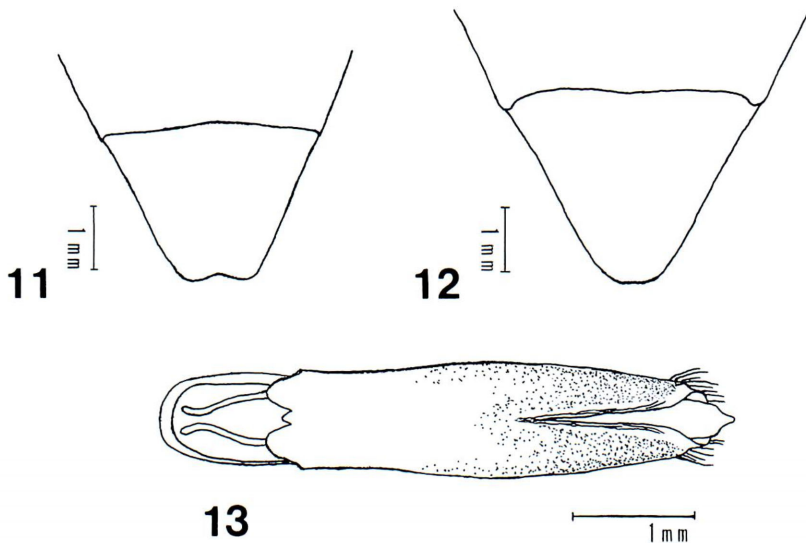


Figs. 8–10. *Akiyamaia samanthae* sp. nov., ♂, holotype; 8, right antenna; 9, outer side of right antenna; 10, inner side of right antenna.

apices; each apex obliquely truncate toward sutural angle, spinulate at inner and outer angles; sutural margin and lateral rims entirely carinate; five elevated costae on each elytron as follows: 1st short, joining sutural margin at basal 1/4; 2nd and 3rd nearly entire; 4th running from humeral prominence to apical 2/5; 5th running from inside lateral rim at basal 1/5 to near apices; surface granulate among costae, suture and lateral rims, sparsely punctate with fine punctures on costae, suture and rims.

Prosternum convex, declivous from the middle to lateral sides; anterior margin shallowly and obtusely emarginate in the middle, feebly arcuately produced on each side; prosternal process vaulted and parallel-sided, then linearly attenuate to apex; surface finely punctate on the middle, coarsely punctate on lateral sides; each puncture with a long whitish semi-recumbent hair. Metasternum with a deep longitudinal sulcus 1/3 as long as the metasternum on the median line just before transverse line.

Abdomen with first visible sternite smooth in the middle; the last visible sternite shallowly emarginate in the middle at apex; surface sparsely punctate on ventral side, the punctures denser at lateral sides; each puncture with a whitish recumbent hair.



Figs. 11–13. *Akiyamaia samantha* sp. nov. — 11–12, Last visible abdominal sternite; 11, ♂, holotype; 12, ♀, allotype; 13, male genital apparatus in dorsal view, holotype.

Legs long and slender; each femur cylindrical; each protibia nearly straight, dilated externally near apex, with yellowish brushes on inner side; meso- and metatibiae feebly and interiorly arcuate in posterior halves; each metatarsal segment long and slender, with the length order 1st > 2nd > 3rd > 4th; 1st segment 1.3 times as long as 2nd; each metatarsal claw 1.4 times as long as the last metatarsal segment.

Male genital apparatus elongate; basal margin of parameres obviously emarginate at the middle; parameres slightly dilated at the apical 1/3, then linearly narrowed to near apices with about ten long setae on each side, then abruptly tapered to apices; aedeagus sinuously narrowed to apex on each side.

Hind wing brownish in apical half; cross vein (Rs–R1) visible; cross vein 2A₂–3A visible; cross vein 1A₃–2A₁ visible but narrow at the root of 1A₃; 1A relatively long, 0.18 times as long as vein 1A₃.

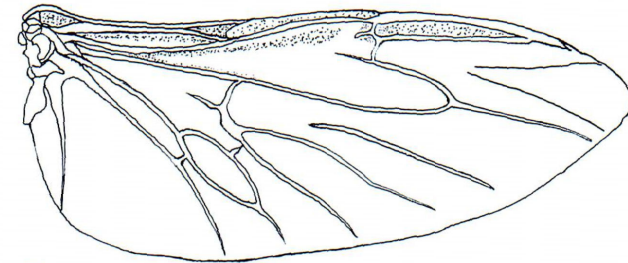
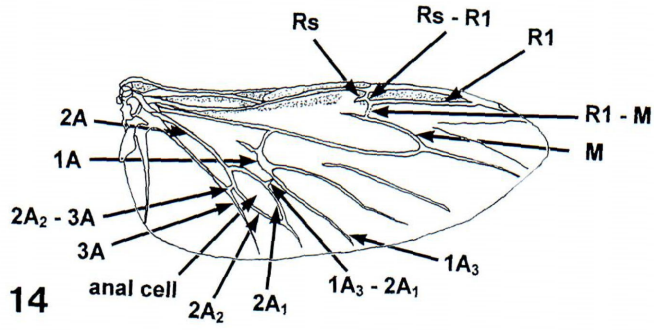
F e m a l e. Elytral suture greenish with aeneous shimmer.

Head normal; vertex with a linear groove in narrow median carina which reaches the middle of frons; frons feebly convex in the middle.

Pronotum with a longitudinal depression on each side along lateral margin, which is connected at basal 2/5 with oblique depression coming from ante-scutellar part.

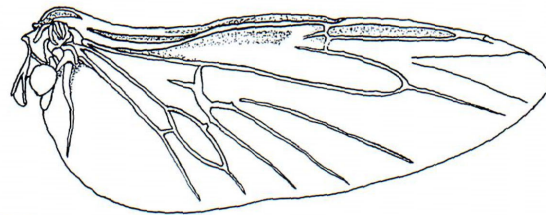
Elytra 4.5 times as long as pronotum, 1.2 times as wide as pronotum, 2.1 times as long as wide; humeri rounded; each elytron with five elevated costae as follows:— 1st short, joining sutural margin at basal 1/5 of elytral length; 2nd and 3rd nearly entire; 4th running from humeral prominence to just behind the middle; 5th running from inside lateral rim at basal 1/5 to apical 1/10.

Metasternum with a deep longitudinal sulcus on the median line, which is about



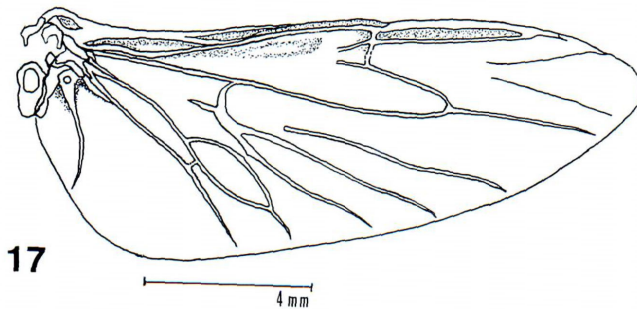
15

4 mm



16

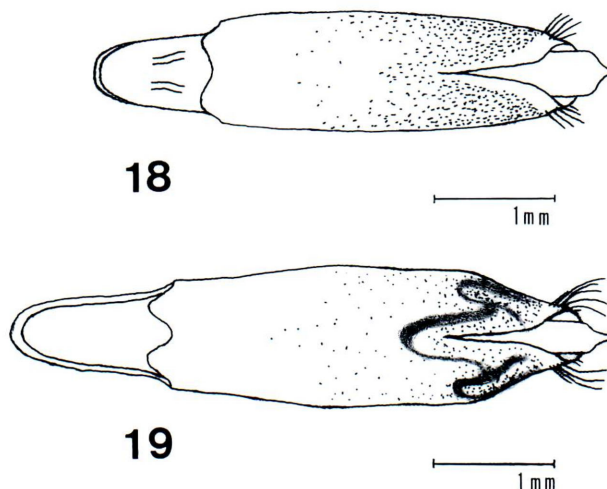
4 mm



17

4 mm

Figs. 14-17. Venation of right hind wings. — 14-15, ♂, *Akiyamaia samanthae* sp. nov., holotype.
— 16, ♂, *A. costipennis*. — 17, ♂, *A. mirabilis*.



Figs. 18–19. Male genital apparatuses in dorsal view. — 18, *A. costipennis*; 19, *A. mirabilis*.

1/5 as long as metasternum, and lies just before transverse line. Last visible sternite rounded at apex. Meso- and metatibiae straight; each metatarsal claw 1.7 times as long as the last metatarsal segment.

Body length: 19.3 mm (♂), 22.8–26.5 mm (mean 24.9 mm) (♀), width: 7.3 mm (♂), 8.7–10.5 mm (mean 9.5 mm) (♀).

Type specimens. Holotype: ♂, Chudu Razi Massif (2,800 m alt.), NE. Kachin State, North Myanmar, VIII–2004, P. SUKKIT leg. Allotype: ♀, same data as holotype. Paratypes: 3♀, same data as holotype; 5♀, same data as holotype, but VIII–2005; 4♀, same data as holotype, but VIII–2006.

The holotype is deposited in the National Science Museum (Nat. Hist.), Tokyo. The allotype and some of the paratypes are preserved in the collection of HATTORI.

Host plant. Unknown.

Etymology. The specific name is given after Miss Samantha BRADDICK in Thailand, a close friend of Mr. Prasobuk SUKKIT, the collector of the type material.

Remarks. This new species is similar to *A. costipennis*, but can be distinguished from it by the following diagnostic features.

1) Pronotum with median longitudinal carina (with median longitudinal groove in *A. costipennis*). 2) Elytral surface with granulate between costae (finely punctate and reticulate in *A. costipennis*). 3) First abdominal segment smooth (with a shallow median longitudinal sulcus in *A. costipennis*).

Material Examined for Comparative Study

The following allied species were examined for discussion in this study: *Akiyamaia costipennis* (FAIRMAIRE, 1891) (Figs. 3, 16, 18) from Kashmir in North Pakistan; *A.*

lelisi (DESCARPENTRIES, 1965) (Fig. 4) from North Yunnan in China; *A. mirabilis* (Y. KUROSAWA, 1969) (Figs. 5, 17, 19) from Central Taiwan; *Cypriacis aurulenta* (LINNAEUS, 1767) from the western part of North America; *C. niponica* (HOSCHECK, 1931) from Central and Southwest Japan; *C. splendens* (FABRICIUS, 1774) from Europe.

要 約

服部宇春・田中正浩：アジアのタマムシの研究. 7) *Akiyamaia* 属の1新種. — *Cypriacis* 属の亜属 *Akiyamaia* を, 前胸背板の側縁が膨出すること, 前胸背板の両側に縦方向の溝があること, 鞘翅に顕著な隆線だけをもつこと, 雄交尾器の側片基部中央にえぐれがあることにより独立属とした. また, *Cypriacis* 属に属していた, 単模式的亜属 *Himalobuprestis* を *Akiyamaia* 属の亜属に移した. さらに, 今回, ミャンマー北部から記載した新種に, *Akiyamaia samantha* sp. nov. の新名を与えた. この新種は, 前胸背板の中央にある縦溝の代わりに縦隆線をもつことにより, 既知の種である *A. mirabilis*, *A. lelisi* および *A. costipennis* とは容易に区別できる.

References

- CASEY, T. L., 1909. Studies in the American Buprestidae. *Proc. Wash. Acad. Sci.*, **11**: 47-178.
- DESCARPENTRIES, A., 1956. Note sur des Buprestides peu connus ou nouveaux [Col.]. *Bull. Soc. ent. France*, **61**: 228-231.
- FABRICIUS, J. Ch., 1775. *Systema Entomologiae, sistens insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus.* 832 pp. Havniae.
- FAIRMAIRE, M. L., 1891. Descriptions de Coléoptères des montagnes de Kashmir (*suite*). *Bull. C.-R. Soc. ent. Belg.*, **35**: CXXI-CXXXIV.
- HOSCHECK, A., 1931. Beiträge zur Kenntnis der Buprestiden (Col.) IV. *Mitt. zool. Mus. Berlin*, **17**: 724-743.
- KUROSAWA, Y., 1969. A splendid new buprestid-beetle from Formosa. *Bull. natn. Sci. Mus., Tokyo*, **12**: 191-194, pl. 1.
- 1988. Reorganization of *Buprestis* and its allies (Coleoptera, Buprestidae). *Kontyû, Tokyo*, **56**: 261-279.
- LINNAEUS, C., 1767. *Systema Naturae*, ed. XII, 1(2): 533-1327.
- RICHTER, A. A., 1952. Zlatki (Buprestidae). *Fauna SSSR, Nasekomye Zhestkokrylye*, **13**(4): 1-234. (In Russian.)