A REVISING STUDY OF THE SPECIES OF THE GENUS ULOMA FROM JAPAN, KOREA AND TAIWAN (TENEBRIONIDAE, COLEOPTERA)

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A REVISIONAL STUDY OF THE SPECIES OF THE GENUS
ULOMA FROM JAPAN, KOREA AND TAIWAN
(TENEBRIONIDAE, COLEOPTERA)

By KIMIO MASUMOTO and NAOMI NISHIKAWA

Abstract

MASUMOTO, K. and NISHIKAWA, N. 1986. A revisional study of the species of the
genus Uloma from Japan, Korea and Taiwan (Tenebrionidae, Coleoptera). Ins. matsum.
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The genus Uloma from Japan, Korea and Taiwan is revised. Twenty-two species
in total, of which 2 species are divided into 2 subspecies each, are found in the region
and all are dealt with here. Of them 4 species from Taiwan, U. miyakei, U. nakaneti, U.
takagii and U. nanshanchica, and 1 subspecies from Nansei Iss., U. excisa nanseiensis, are
described as new to science. U. bonzica bonzica sensu Nakane, 1956, is referred to U.
latimanus Kolbe. U. bonzica robustior Nakane is suppressed as a synonym of U. bonzica
Marseul. U. bonzica hikosana Nakane and U. excisa lewisi Nakane are raised to the
specific rank, and U. fujitai Masumoto is regarded as a subspecies of U. marseuli
Nakane. U. fukiensis Kaszab is recorded from Taiwan for the first time. A key to the
species of Uloma from the region and illustrations of some diagnostic characteristics for
them are also given.

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INTRODUCTION

The genus *Uloma* includes more than 150 known species, and is well represented in East Asia, where some species are among the common tenebrionid beetles.

Although the species of the genus are very similar to each other in general, they are distinguished by the shape of the male mouthparts, antennae, protibiae, and aedeagus. In addition, the body form, size, and colouration are also useful characteristics for discriminating the species.

We have examined the species of the genus from Japan, Korea and Taiwan, especially with regard to the mentioned characteristics. The results may be summarized as follows:

1) *Uloma latimanus* Kolbe is not a synonym of *U. bonzica* Marseul but a good species, and *U. bonzica robustior* Nakane is a synonym of the latter.

2) *Uloma bonzica hikosana* Nakane and *U. excisa lewisi* Nakane should be raised to the specific rank.

3) *Uloma fujitai* Masumoto should be regarded as a subspecies of *U. marseuli* Nakane.

4) A new subspecies, *Uloma excisa nanseiensis*, occurs in the Nansei Iss.


6) *Uloma fukiensis* Kaszab is to be recorded from Taiwan for the first time.

On this occasion, we have prepared a key to all the known species of the genus from the region and illustrations of their diagnostic characteristics. Holotypes of the new taxa are preserved in the collection of the National Science Museum (Nat. Hist.), Tôkyô.

Before going further, we wish to express our cordial thanks to Dr. T. Nakane, Kagoshima University, and Dr. K. Morimoto and Mr. M.T. Chûjô, Kyushu University, for permitting us to examine type specimens. Special thanks are due to the late Dr. Z. Kaszab, Természettudományi Múzeum, Budapest, for loaning many specimens, to Dr. C. Girard, Muséum National d’Histoire Naturelle, Paris, for permitting us to examine the type specimens of *Uloma bonzica*, and to Mr. S. Imasaka, Shimabara City, for giving many important suggestions concerning the genus. We are grateful to Messers. M. Kiuchi, Ibaraki Pref., S. Kondo, Sapporo City, Y. Kusui, Otaru City, S. Miyake, Tama City, M. Ōhara, Hokkaidô University, and K. Sawada, Tôkyô, who kindly offered many specimens for this study, and finally to Prof. S. Takagi, Hokkaidô, University, and Miss C. von Hayek and Mr. L. Jessop, British Museum (Nat. Hist.), for their kindness in reading the manuscript and offering invaluable suggestions.

KEY TO THE SPECIES OF THE GENUS *ULOMA* FROM JAPAN, KOREA AND TAIWAN MAINLY BASED ON MALES*

1. Ligula with dense hairs. Pronotal excavation in males provided with two pairs of protuberances. A pair of smaller protuberances present just behind the excavation, and

* Female *Uloma* sometimes cannot be identified with certainty in the absence of associated males.

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12. Body about 9 mm or more. Parameres of male genitalia widely truncate at apex.

10. Male protibiae strongly and rather abruptly emarginate in basal portion of inner margin. One of the end-thorns of male protibiae remarkably short.

3. Eyes extremely transverse, lateral narrowest portion including only two facets. Large and robust species.


7. Male protibiae not emarginate in basal portion of inner margin. Male protibiae narrow and emarginate in basal portion of inner margin. 7.5-8 mm. Japan (Amami-Ōshima Is.).


8. Male protibiae more or less emarginate in basal portion of inner margin.


Elytra rather strongly arcuate laterally. Male protibiae narrow and emarginate in basal portion of inner margin.

8.5-9.5 mm. Japan, Korea.

U. sakuraii Masumoto

Elytra rather strongly arcuate laterally.

7.5-8 mm. Japan (Amami-Ōshima Is.).

Masumoto

10. Male protibiae strongly and rather abruptly emarginate in basal portion of inner margin.

Female anal sternite margined.

— Male protibiae weakly emarginate in basal portion of inner margin. Female anal sternite not margined; if margined, only obscurely. 7.5-10.5 mm. Japan (Nansei Is.).

U. excisa nanseiensis subsp. nov.

11. Lateral margins of pronotum fine. Upper surface of male protibiae coarsely and confluently punctate.

8.3-10.6 mm. Taiwan.

U. excisa excisa Gebien

Lateral margins of pronotum wide. Upper surface of male protibiae not confluently punctate.

9.2-10.2 mm. Japan.

U. lewisi Nakane, status nov.

12. Body about 9 mm or more. Parameres of male genitalia widely truncate at apex.

— Body less than 9 mm. Parameres of male genitalia not truncate but protruding apically.


U. kondoi Nakane

Body not strongly convex above. Metasternum medium-sized. Male mentum with hairs arranged in a pair of half circles. Apex of parameres of male genitalia with a semicircular depression present.

14. Body black. Male pronotum lacking depression. Male antennae lacking projection at apex of each segment. Clypeus not ridged at apex in both sexes. 11-12 mm. Japan (Yaeyama Is.), Taiwan, Southeast Asia, etc.

U. polita (Wiedemann)
Body brownish. Pronotum at least in males depressed anteriorly. Male antennae with 5th and 7th, or 5th, 7th and 9th segments projecting at apex of inner side. Clypeus at least in males ridged apically. ......................................................... 15

15. Pronotum depressed anteriorly not only in males but also in females. Fifth and 7th antennal segments each with a projection in males. Clypeus ridged at apex in both sexes. 11–13.1 mm. Taiwan. ......................................................... U. takagii sp. nov.

Pronotum of females without depression. Fifth, 7th, and 9th antennal segments each with a projection in males. Clypeus in females without apical ridge. 9–10.5 mm. Taiwan. ......................................................... U. nanushanchica sp. nov.

16. Eyes small and very coarsely facetted, with only a single facet at narrowest point. Pronotum with lateral marginations fairly wide. 9 mm. Taiwan (new record), China. ......................................................... U. fukienensis Kaszab

Eyes rather large, with at least 2 facets at narrowest point. Pronotum with lateral marginations narrow. ......................................................... 17

17. Antennae short and strongly dilated apically. Mentum in males distinctly transverse. Apex of inner margin of male protibiae without projection. 9 mm. Taiwan. ......................................................... U. meifengensis Masumoto

Antennae not strongly dilated apically. Mentum in males narrower and subhexagonal in outline. Apex of inner margin of male protibiae pointed. ......................................................... 18

18. Male protibiae with a row of granules along groove. Male mentum with a pair of tufts. ......................................................... 19

— Male protibiae lacking a row of granules along groove. Male mentum hairless. ......................................................... 20

19. Hairs of male mentum short and arranged in two small ovoid patches. 6.2–8.2 mm. Japan (Amami-Ōshima Is.). ......................................................... U. ichoi Nakane

Hairs of male mentum rather long and arranged in two crescent-shaped patches. 6.5 mm. Taiwan. ......................................................... U. sauteri Kaszab

20. Body dark brownish to brown. ......................................................... 21

— Body reddish brown. ......................................................... 22


— Inner margin of male protibiae emarginate at base. Male mentum flattened. Male genitalia with parameres not constricted near apex. 6.6–7.2 mm. Taiwan. ......................................................... U. formosana Kaszab

22. Supra-antennal lobes wider than eyes in males. Male pronotum with a pair of small but distinct protuberances just behind depression. 7.3–7.7 mm. Japan (Hirumotejima Is.). ......................................................... U. takarai M.T. Chøjô

— Supra-antennal lobes slightly narrower than eyes. Pronotal protuberances obsolete. ......................................................... 23

23. Body comparatively large (7.5–9 mm), less subparallel-sided, more convex above. Pronotum less clearly punctate on disc, elytra less deeply punctate-striate with intervals less distinctly convex. Mentum and male genitalia shown as figs. 82–84. Japan, Korea. ......................................................... U. marseuli marseuli Nakane

— Body comparatively small (6.8–8.5 mm), more subparallel-sided and less distinctly convex above. Pronotum more clearly punctate on disc; elytra more deeply punctate-striate with intervals more convex. Mentum and male genitalia shown as figs. 85–87. Japan (Daitōjima Is.). ......................................................... U. marseuli fujitai Masumoto, status nov.
DESCRIPTIONS

Uloma tsugeae Masumoto, 1982
Figs. 1-4

Uloma tsugeae Masumoto, 1982, Elytra, 10 : 23, figs. 3-2, 4-1a, 1b.

Specimens examined: 12♂ 28♀, collected from the following localities: Taiwan—Fenchihu; Fengkangshan; Tenghsi; Taiyuanshan; Liukuei.
Distribution: Taiwan.
Notes: This species can be easily distinguished from the other congeners occurring in Taiwan by the ligula narrowly haired in both sexes.
It is noteworthy that the range of the species with a hair-bearing ligula is confined to Japan, Korea, Taiwan, China and Vietnam so far as the known species are concerned. Ten species of the 22 covered by this paper belong to this apparently monophyletic group.

Uloma latimanus Kolbe, 1886
Figs. 5-9


Specimens examined: 50♂ 73♀, collected from the following localities: Japan—Hokkaido: Maruyama, Sapporo; Moiwayama, Sapporo; Shikotsu-ko; Akanuma, Oshima; Hekirichi-rindō, Oshima; Gabino, Hakodate. Honshū: Towada, Aomori; Koyasu Spa, Akita; Chūkai-mura, Yamagata; Yasugamori, Fukushima; Yunohana Spa, Fukushima; Hakase Pass, Fukushima; Tateiwa-dani, Fukushima; Nippara, Okutama, Tōkyō; Mt. Mitoo, Tōkyō; Takaozan, Tōkyō; Mt. Hoodatsu, Ishikawa; Daibosatsu, Yamanashi; Mimume, Mie; Ōdaigahara, Mie; Obakodake, Nara; Kasugayama, Nara; Matsune, Kozagawa, Wakayama; Mt. Gagyū, Okayama. Kyushu: Mt. Kunimi, Kumamoto; Minamata, Kumamoto; Kurino, Kagoshima. Izu Iss: Niijima Iss; Kōzujima Iss. Tsushima Is.: Mt. Arikake; Hitakatsu; Sasu Pass; Mt. Furisode; Izuhara; Ōboshiyama. Yakushima Is.: Ōkawa; Miyanoura. Korea—Guriong chon, Kum-gang san, Prov. Kanwon; Mts. Mjohjang-san, vall. Munsu-ton, dist. Hjangsan; Mts. Jirisan, Hwaeom-sa, near Nogodan.
Distribution: Japan (Hokkaido, Honshū, Kyūshū, Izu, Iss., Tsushima Is., Yakushima Is.); Korea.
Notes: As is often the case with the species of this genus, the species occurring in Japan are quite similar to each other in appearance and have been confused by previous authors.
In his original description, Kolbe compared U. latimanus with the European U. culinaris Linne, and stated as follows: “Ungefähr von der Grösse des culinaris, hat sie einen mehr gestreckten und fast parallelen Körper”.
Lewis (1894) recorded U. latimanus Kolbe from Japan for the first time and noted as follows: “this species is relatively longer than U. bonzica, Mars., and measures 7 to 13 mill. The small examples are often pale in colour like those
recorded by Marseul for *U. bonzica*.

Later Nakane (1956), who examined the Japanese species, suggested that *U. latimanus* Kolbe might be a synonym of *U. bonzica* and described two new subspecies of *U. bonzica* (*U. bonzica hikosana* and *U. bonzica robustior*). It is probable that the smaller and pale coloured form of *U. latimanus* noted by Lewis is identical to *U. hikosana* Nakane or *U. marseuli* Nakane. On the other hand, the form treated by Nakane under the name *U. bonzica bonzica* does not belong to *U. bonzica* Marseul (= *U. bonzica robustior* Nakane: see the note under *U. bonzica*), but is identical to *U. latimanus*, which is quite distinct from *U. bonzica* in its elongate body shape. *U. bonzica* is rather similar to *U. culinaris* in body shape.

Judging from the structure of oral appendages and male protibiae, *U. latimanus* Kolbe appears to be related to *U. sakuraii* Masumoto from Amami-Ôshima Is. and *U. tsugeae* Masumoto from Taiwan.

*Uloma sakuraii* Masumoto, 1983

Figs. 10-13


Specimens examined: 7♂ 12♀, collected from the following localities: Amami-Ôshima Is.—Hatsuno; Ikari.

Distribution: Japan (Amami-Ôshima Is.).

Notes: This species is known only from Amami-Ôshima Is., an island lying south of Kyûshû.

*Uloma hikosana* Nakane, 1956, status nov.

Figs. 14-17


Specimens examined: 15♂ 14♀, collected from the following localities: Japan—Honshû: Takaozan, Tôkyô; Okutama, Tôkyô; Ôyama, Kanagawa; Ogasayama, Shizuoka; Asakumadake, Mie; Mimune, Mie; Kasugayama, Nara. Shikoku: Irazuyama, Kôchi (after Mr. S. Imasaka, personal communication). Kyûshû: Wakasugiyama, Fukuoka; Mt. Shiraga, Kumamoto; Miyake, Miyazaki.

Distribution: Japan (Honshû, Shikoku, Kyûshû).

Notes: *U. hikosana* can be easily recognized by the body fairly flattened and its colour stably dark reddish brown. Immature specimens of *U. bonzica* resemble *U. hikosana*, but the intervals of elytra are more distinctly punctate in the latter.

*Uloma miyakei* sp. nov.

Figs. 18 & 19

This new species is closely related to *U. hikosana* Nakane from Japan, but can be distinguished from the latter by the following characteristics:

Male: Body more slender and more subparallel-sided. Head more transverse, with a wider Y-shaped groove; eyes more transverse and more strongly expanded
laterally. Antennae shorter and more slender, with 11th segment longer, relative length of segments (from basal to apical segment) as follows: 1.2, 0.3, 0.6, 0.4, 0.4, 0.5, 0.6, 0.6, 0.6, 0.6, 1.0.

Pronotum narrower, about 1.3 times as broad as long, broadest at basal 2/5, weakly arcuate laterally; disc a little more closely and distinctly punctate, more deeply depressed in anterior portion.

Elytra a little less than 1.8 times as long as broad, 2.5 times as long as pronotum and slightly broader than the latter; intervals less convex, rather closely scattered with microscopic but distinct punctures.

Mentum resembles that of *U. hikosana*. Prosternum shorter, less distinctly raised medially.

Relative length of segments of pro-, meso- and metatarsi (from basal to apical segment) as follows: 1.0, 0.4, 0.4, 0.4, 1.4; 1.5, 0.6, 0.5, 0.4, 1.6; 2.1, 0.6, 0.5, 1.8.

Male genitalia as shown in figs. 18 and 19.

Female: As in male, distinguishable from *U. hikosana* by the more slender body and also by the eyes more strongly expanded laterally.

Body length: 9.5–10.5 mm.

Holotype: ♂, Lishan, Taichung Hsien, Taiwan, 28. IV. 1974, Y. Miyake leg.

Paratypes: 1♂, same data as the holotype; 1♀, ditto, 28. VII. 1973, Y. Miyake leg.

Distribution: Taiwan.

Notes: *Uloma miyakei* can be distinguished from the other congeners occurring in Taiwan by the combination of the following characteristics: 1) body rather strongly flattened and consistently reddish brown in colour; 2) ligula widely covered with hairs, and male mentum flattened and not distinctly punctate; 3) male protibiae not emarginate at basal portion of inner margin; 4) anal sternite in females lacking an impressed line near apex.

*Uloma nomurai* Masumoto, 1982

Figs. 20–23

*Uloma nomurai* Masumoto, 1982, Elytra, 10: 25, figs. 3-4, 4-3a, 3b, 3c, & 3d.

Specimens examined: 8♂ 10♀, collected from the following localities: Taiwan—Meifeng, Sunkang.

Distribution: Taiwan.

Notes: *Uloma nomurai* is characterized by having a hairy ligula like some other species. It is rather isolated from them in having the male mentum entirely flat and closely punctate.

*Uloma bonzica* Marseul, 1876

Figs. 24–27


Specimens examined: 72♂ 71♀, collected from the following localities: Japan
—Hokkaido: Yasukuni, Abashiri; Mt. Apoi, Hidaka; Nopporo, Ebetsu; Nishioka, Sapporo. Honshu: Chūkai-mura, Yamagata; Yunoohana, Fukushima; Kamitobukī, Tōkyō; Takaozan, Tōkyō; Mt. Mutsuishi, Tōkyō; Hōkizawa, Kanagawa; Yokoshi, Tochigi; Kanuma, Tochigi; Kurokawa, Niigata; Narusawa-mura, Yamanashi; Anayama, Yamanashi; Gotemba, Shizuoka; Kuroda Dam, Aichi; Kawaguchi, Mie; Toba, Mie; Fujitani, Ueno, Mie; Kasugayama, Nara; Sanzen'in, Kyoto; Yusu, Arita, Wakayama; Mt. Ōishi, Wakayama; Reiganji, Wakayama; Mt. Gagyū, Okayama; Hirose, Okayama; Mihara-shi, Hiroshima; Tokuyama-shi, Yamaguchi. Shikoku: Koyadaira, Tokushima; Sanoyama, Ehime. Kyūshū: Nagasaki; Mt. Kunimi, Kumamoto; Mt. Shiraga, Kumamoto; Kuwanotsuru, Kumamoto; Ōura-chō, Kagoshima; Sata, Kagoshima. Sado Is.: Mt. Myōkensan; Kimpoku-tōge. Oki Is. Tsushima Is.: Ariakeyama; Sato Pass; Mt. Ondake; Mt. Tatera. Amami-Oshima Is.: Mt. Yuwan. Korea — Sarivon; Myochyang; Mt. Mudeungsan, near Kwangju.

Distribution: Japan (Hokkaidō; Honshū; Shikoku; Kyūshū; Sado Is.; Oki Is.; Tsushima Is.; Amami-Oshima Is.); Korea.

Notes: Specimens from the type-series (one male and one female, lectotype not selected) of *U. bonzica* Marseul were examined. A para type of *U. bonzica robustior* Nakane was also examined and this supposed subspecies is identical to Marseul’s species.

Previous records made under the name *U. bonzica* from various parts of Japan probably include *U. latimanus*, because these species are quite similar to each other. Females of *U. lewisi* are very similar to those of *U. bonzica*, but in the latter the anal sternite has no impressed line near the apex.

*Uloma nakanei* sp. nov.

Figs. 28 & 29

This new species is closely allied to *Uloma bonzica* Marseul, which is widely distributed in Japan and its adjacent areas, but can be distinguished from the latter by the following characteristics:

Male: Body larger, light brown in colour. Head more distinctly grooved in a Y-shape, the groove with apices more widely apart; eyes a little larger and more strongly expanded laterally. Antennae with relative length of segments (from basal to apical segment): 1.6, 0.4, 0.6, 0.5, 0.6, 0.6, 0.7, 0.7, 0.7, 0.7, 1.1; apical segment (11th) 1.3 times as broad as long.

Pronotum about 1.5 times as broad as long, more distinctly convex above, a little more closely punctate throughout; front angles less acute; disc semicircularly depressed anteriorly, with 2 hind protuberances more apart from each other. Scutellum wide subpentagonal, scattered with minute punctures in basal portion.

Elytra 1.7 times as long as broad, a little less than 3 times as long as pronotum and slightly broader than the latter; disc more finely striate, the strial punctures set more closely; intervals wider, less distinctly convex, rather smooth and microscopically punctate.

Mentum similar to that of *U. bonzica*; gula triangular, with fine impressions on both sides. Prosternum a little longer, less coarsely punctate. Protibiae similar to those of *U. bonzica*, but the upper surface more sparsely punctate, the punctures
being not confluent. Relative length of tarsal segments of pro-, meso- and metatarsi (from basal to apical segment): 0.7, 0.4, 0.4, 0.5, 1.7; 1.6, 0.4, 0.4, 0.6, 1.8; 2.4, 0.7, 0.6, 2.2.

Male genitalia as shown in figs. 28 and 29.

Female: As in male, distinguishable by the more slender body, by the less rugose propleura, and by the eyes more strongly expanded laterally.

Body length: 10.5–11 mm.


Distribution: Taiwan.

Notes: Only the three specimens are available for study. *Ulama nakanei* closely resembles *U. bonzica*, but appears to be distinct as stated above.

*Ulama lewisi* Nakane, 1956, status nov.

Figs. 30–33


Specimens examined: 41♂ 39♀, collected from the following localities: Japan —Hokkaidō: Tomuraushi; Toyohiragawa, Sapporo; UtonaiKO, Iburi; Yunosato, Oshima. Honshū: Tsuta Spa, Aomori; Asamai, Akita; Yunohana, Fukushima; Ōgoe, Fukushima; Nogi-cho, Tochigi; Kinugawa, Tochigi; Shiobara, Tochigi; Marunuma, Gumma; Yatabe, Ibaraki; Takaozan, Tōkyō; Kamihoshikawa, Yoko­hama; Kamigō, Yokohama; Naotsu, Niigata; Matsunami, Kashiwazaki, Niigata; Kurokawa, Niigata; Bessho Spa, Nagano; Hinoharu, Yamanashi; Daisosatsu, Yamanashi; Honkawane-cho, Shizuoka; Okazaki, Aichi; Asakumadake, Mie; Kōraibiro, Mie; Ōsaka; Yusa, Arita, Wakayama; Mt. Gagyu, Okayama; Yoshinaga-cho, Okayama; Hagi, Yamaguchi. Shikoku: Soshikidai, Kagawa; Koyadaira, Tokushima; Kuroson, Köchi. Kyūshū: Kanoudake, Fukushima; Kurino, Kagoshima; Ōura-cho, Kagoshima.

Distribution: Japan (Hokkaidō; Honshū; Shikoku; Kyūshū).

Notes: This species is widely distributed in Japan, but there has been no record of its occurrence from any of the smaller islands (e.g. Yakushima Is., Tsushima Is., etc.) of Japan.*

Females of this species are distinguishable from those of the other species by the presence of an impressed line on the anal sternite.

*Ulama excisa excisa* Gebien, 1913

Figs. 34–37


Specimens examined: 31♂ 45♀, collected from the following localities: Tai­wan—Lishan; Nanshanchi; Lushanwenchuan 1300 m; Wushe; Jihyuetan; Shih-
tzutou 600 m; Liukuei.

Distribution: Taiwan; China; Vietnam.

Notes: This is one of the commonest species of the genus in Taiwan.

*Uloma excisa nanseiensis* subsp. nov.

Fig. 38

This new subspecies is widely distributed in Nansei Iss. and differs from the nominotypical subspecies from Taiwan as follows:

Male: Body transversely, more clearly convex above and pronotum more finely punctate. Protibiae only weakly emarginate in basal portion of inner margin, i.e., basal portion of protibiae thicker as shown in fig. 38.

Female: Apical impressed line on anal sternite absent or obsolete.

Body length: 7.5–10.5 mm.


Distribution: Japan (Nansei Iss.).

Notes: Many authors have recorded *U. excisa* Gebien from the Nansei Iss., but the specimens from those islands can be distinguished from the Taiwanese nominotypical form by some characteristics mentioned above. The impressed line of the female anal sternite frequently appears in specimens from southern islands but disappears in most specimens from northern islands.

*Uloma kondoi* Nakane, 1968

Figs. 39-43


Specimens examined: 3♂6♀, collected from the following localities: Japan —Yakushima Is.; Hananoego; Kosugidani; Okawa.

Distribution: Japan (Yakushima Is.).

Notes: *Uloma kondoi* is known only from Yakushima Is., an island lying south of Kyūshū, and there are no closely allied species treated in this paper. The hind wings are very short (about 1/2 of the elytra) and the metasternum is also shortened.

*Uloma polita* (Wiedemann, 1821)

Figs. 44-47.

*Phaleria polita* Wiedemann, 1821, in Germar's Mag. Ent., 4: 149.


Specimens examined: 16♂14♀, collected from the following localities: Japan —Ishigakijima Is.: Tonoshiro; Yonehara; Hirakubo; Ishigaki-shi. Iriomotejima Is.: Ohara; Shirahama; Sonai; Ōtomi-rindō; Yonehara; Uehara. Yonagunijima Is.: Higawa; Irizaki.

Distribution: Japan (Yaeyama Iss.); Taiwan; China; Burma; India; Sri Lanka; Madagascar; Mauritius, etc.

Notes: This species is usually collected at light or under rotten wood. It is an unusual form in having an undepressed pronotum in males, but probably related to *U. rubripes* (Hope) and allied species so far as male genitalia are concerned.

*Uloma takagii* sp. nov.

Figs. 48-52

Reddish brown, with head, margins of pronotum, margins of procoxae, apices of femora, basal portions and outer margins of tibiae, etc., blackish brown; head, pronotum and undersurface moderately shining, elytra rather strongly shining. Elongate, subparallel-sided, moderately and longitudinally convex.

Male: Head rather subhexagonal, gently convex posterio Irly and broadly
flattened in middle, closely punctate, the punctures a little coarser posteriorly, raised in a wide U-shape in anterior half, the elevation interrupted by a short longitudinal impression at median of posterior portion; clypeus slightly emarginate anteriorly, with a transverse ridge, the base of which is about 3/5 times, and the apex about half, as wide as the clypeus, both sides of the ridge are pointed; genae rather large with outer margins obliquely straight in anterior 2/3, then obtusely curved backwards, gena-clypeal borders finely grooved, areas before eyes rather widely depressed; eyes rather large and transverse, convex above and laterad, distance between them 2.5 times their diameter; vertex transversely grooved anteriorly.

Antennae rather short, reaching apical 1/3 of pronotum, 7 apical segments thickened and slightly clavate, 5th less distinctly and 7th noticeably pointed laterad at apex of inner side, 10th remarkably transverse, 11th rather reniform, relative length of segments (from basal to apical segment): 2.0, 0.4, 0.7, 0.5, 0.7, 0.6, 0.7, 0.6, 0.7, 0.7, 1.2.

Pronotum a little more than 1.4 times as broad as long; front border gently arcuate and slightly bisinuate; base feebly produced in medial 2/5 and slightly sinuous on both sides; sides arcuate and rather finely bordered; front angles sub-rectangular with corner rounded; hind angles a little obtuse; disc moderately convex above, rather closely punctate, sparsely intermixed with minute punctures, with a transverse-ovoid depression in antero-medial portion, posterior edge of the depression rather impunctate and shortly impressed medially. Scutellum wide subpentagonal, scattered with minute punctures.

Elytra a little less than 1.8 times as long as broad, 2.6 times as long as pronotum and slightly broader than the latter, subparallel-sided in basal 3/5, gradually narrowing towards apices, which are narrowly rounded and produced; disc punctate-striate, the punctures in striae notching intervals, distance between them about 0.8-1.5 times their diameter; intervals gently convex, rather distinctly so laterally, faintly, rather transversely microreticulate, fairly closely scattered with microscopic punctures; sides steeply declined to lateral margins, which are hardly visible from above.

Mentum short and subcordate, slightly concave, nearly entirely rimmed with hairs; gula triangular, impressed on both sides; terminal segment of each maxillary palpus medium-sized, with arcuate outer side about 1.8 times as long as the inner and 1.3 times as long as arcuate apical side.

Prosternum medium-sized, asperate, bordered at apex, strongly raised medially, with 2 rows of short yellowish hairs; prosternal process blunt.

Legs rather short; protibiae not strongly dilated to apices, upper surface of apical portion shortly grooved, basal portion of inner margin narrowly emarginate, undersurface with a row of 4-6 teeth, of which a few posteriors are a little prominent; mesotibiae slightly bent at basal 1/3. Relative length of tarsal segments (from basal to apical segment): 1.1, 0.5, 0.5, 0.6, 2.4 (protarsi); 2.5, 0.5, 0.4, 0.4, 2.7 (mesotarsi); 3.5, 0.6, 0.5, 2.7 (metatarsi).

Female: Antennae not pointed at inner apices of 5th and 7th segments. Pronotum with a shallower and smaller anterior depression. Mentum transverse-subhexagonal, asperate.

Body length: 11-13.1 mm.

Holotype: ♂, Nanshanchi, Nantou Hsien, Taiwan, 10. IV. 1972, Tu Chinlong leg. Paratypes; 1♂, same data as the holotype; 1♂, Nanshanchi, 17. VI. 1972, Tu
distribution: taiwan.

notes: the new species somewhat resembles u. rubripes (hope, 1831) from southeast asia, but can be distinguished from the latter by the much shorter tarsal carinae of male protibiae and by the pronotum which is a little more distinctly convex above and with a differently shaped depression in males. uloma pre-himalayana kaszab from bhutan and india (assam) also have a pronotal depression in females, but it is much larger in size (13-16.5 mm).

uloma nanshanchica sp. nov.

figs. 53-57

reddish brown, with apex of head, eyes, front and basal margins of pronotum, mouth parts, front margin of prosternum, etc., more or less darkened; strongly shining above, moderately so on undersurface. rather elongate, subparallel-sided, moderately and longitudinally convex.

male: head transverse-elliptic, gently convex above, rather closely punctate, the punctures coarser towards posterior and lateral portions: clypeus emarginate anteriorly, noticeably ridged in medial 2/3 of front margin, the ridge is prominent on both sides; genae rather large, with outer margins obliquely arcuate; eyes transverse, slightly oblique, distance between them about 3 times their diameter; interocular space with a transverse elevation, of which both ends grow obliquely forwards across the genae and reach the outer margin, the elevation is interrupted in the middle of the posterior portion. antennae rather short, reaching apical 1/3 of pronotum, 5th segment slightly, and 7th and 9th conspicuously, pointed at the apex of inner side, relative length of segments (from basal to apical segment): 1.6, 0.4, 0.6, 0.5, 0.6, 0.7, 0.6, 0.8, 0.7, 0.9.

pronotum 1.5 times as broad as long; front border slightly arcuate, rather noticeably so in medial quarter; basal border slightly bisinuate, produced in medial 1/3; sides arcuate and clearly bordered; front angles subrectangular with corner rounded; hind angles obtuse; disc rather distinctly convex above, fairly closely and rather coarsely punctate, sparsely intermixed with small punctures, anteromedially with a transverse-ovoid depression, of which the upper edge is interrupted medially.

elytra about 1.7 times as long as broad, more than 2.4 times as long as and 1.1 times as broad as pronotum, broadest at apical 2/5, very slightly narrowed forwards and roundly narrowed towards rear, apices narrowly rounded and produced; disc punctate-striate, the punctures in striae notching intervals, distance between them about 1-2.5 times their diameter; intervals slightly convex in middle, rather distinctly so laterally, faintly and transversely microreticulate, microscopically punctate; sides steeply declined to lateral margins, which are invisible from above.

mentum transverse-subcordate, slightly concave, nearly entirely rimmed with hairs; gula triangular, terminal segment of each maxillary palpus rather small, with arcuate outer side about 1.8 times as long as rounded inner side and twice as long as truncate apical side.

prosternum medium-sized, asperate, without hairs in middle, bordered at apex,
distinctly raised medially, with prosternal process depressed and obtuse.

Protibiae shortly grooved on upper surface of apical portion, narrowly emarginate in basal portion of inner margin, with 4 to 5 teeth in a row on undersurface, the few posterior ones being prominent. Relative length of tarsal segments (from basal to apical segment): 0.8, 0.4, 0.4, 0.4, 1.8 (protarsi); 1.5, 0.5, 0.4, 0.4, 1.9 (mesotarsi); 2.2, 0.6, 0.5, 2.0 (metatarsi).

Female: Clypeus not ridged at apex. Antennae with 5th, 7th and 9th segments not pointed at apex of inner side. Pronotum without depression. Mentum rugose.

Body length: 9–10.5 mm.


Distribution: Taiwan.

Notes: This new species resembles *U. takagii* sp. nov., but can be easily distinguished from the latter by the smaller body, by the pronotum depressed only in males, and by the different shape of the male genitalia.

*Uloma fukiensis* Kaszab, 1954

Figs. 58–63


Specimen examined: 1♂, from the following locality: Taiwan—Liukuei, Kaohsiung Hsien, 18. VI. 1985, Chen Wenlong leg.

Distribution: Taiwan; China.

Notes: *Uloma fukiensis* was originally described from Fukien, China. This is the first record of the species from Taiwan, and the figures are based on the single male specimen available. Females are unknown.

*Uloma meifengensis* Masumoto, 1982

Figs. 64–68

*Uloma meifengensis* Masumoto, 1982. Elytra, 10: 25, figs. 3–3, 4–2a, 2b, 2c, & 2d.

Specimens examined: 2♂3♀, collected from the following localities: Taiwan—Tapan; Jihyuetan; Sungkang.

Distribution: Taiwan.

Notes: *Uloma meifengensis* is characterized by the short and strongly dilated antennae and the very broad mentum in males.

*Uloma icho* Nakane, 1956

Figs. 69–72

Specimens examined: 17♂ 26♀, collected from the following localities: Japan—Amami-Ōshima Is.: Santarō-tōge; Higashinakama; Hatsuno; Sumiyō-mura.
Distribution: Japan (Amami-Ōshima Is.).
Notes: Uloma ichai and the following species U. sauteri agree in having a row of small tubercles along male protibial groove. However, in U. sauteri, each tubercle is provided with a seta, whereas in U. ichai not. These species also differ in the shape of the male mentum.

*Uloma sauteri* Kaszab, 1941
Figs. 73-76

Specimens examined: 5♂ 8♀, collected from the following localities: Taiwan—Nanshanchi; Hutieku; Liukuei; Shanpinlu.
Distribution: Taiwan.
Notes: As stated above, this species is very closely related to *U. ichai* from Amami-Ōshima Is.

*Uloma ishigakiensis* M.T. Chōjō, 1983
Figs. 77-79

Specimens examined: 2♂ 2♀, collected from the following localities: Japan—Ishigakijima Is.: Mt. Omoto; Mt. Banna.
Distribution: Japan (Ishigakijima Is.).
Notes: *Uloma ishigakiensis* can be distinguished from the other species occurring in the Japan-Taiwan region by the shape of male genitalia as shown in fig. 79.

*Uloma formosana* Kaszab, 1941

Specimen examined: None.
Distribution: Taiwan.
Notes: We have examined no specimens of this species.

*Uloma takarai* M.T. Chōjō, 1983
Figs. 80

Specimen examined: 1♂ (holotype).
Distribution: Japan (Iriomotejima Is.).
Notes: Figure of male mentum (fig. 80) is drawn from the holotype specimen.
Uloma marseuli marseuli Nakane, 1956
Figs. 81-84


Specimens examined: 94♂8♀, collected from the following localities: Japan —Hokkaido: Shumarinai, Sorachi; Butokama-rindo, Moshi, Sorachi; Ikutahara, Abashiri; Yasukuni, Abashiri; Akan, Kushiro; Maruyama, Sapporo; Tomakomai, Iburi; Matsukage-chō, Hakodate. Honshū: Towada, Aomori; Chûkai-mura, Yamagata; Yuno-hana Spa, Fukushima; Yasugamori, Fukushima; Ōjiri-numa, Okunikkô, Gunma; Takao, Tōkyō; Itabashi-ku, Tōkyō; Toshima-ku, Tōkyō; Kamitobuki, Tōkyō; Kompirayama, Chiba; Yatabe, Ibaraki; Hiyoshi, Kanagawa; Kamigō, Yokohama, Kanagawa; Nakayama, Yokohama; Taura, Yokosuka, Kanagawa; Hōkizawa, Tansawa, Kanagawa; Naoetsu, Niigata; Kamisekida, Nakakubiki-gun, Niigata; Okada, Matsumoto, Nagano; Kinkazan, Gifu; Daibosatsu, Yamanashi; Mt. Shiraha, Shizuoka; Gotemb, Shizuoka; Narukada, Shizuoka; Toba, Mie; Obakode, Nara; Kasugayama, Nara; Yusa, Arita, Wakayama; Mt. Ōishi, Wakayama; Matsumoto, Kozagawa, Wakayama; Mt. Gomanodan, Wakayama; Hirose, Okayama; Sugiga-tōge, Tokuyama-shi, Yamaguchi. Shikoku: Miyama, Ehime. Kyūshū: Hikosan, Fukuoka; Mt. Shiraga, Kumamoto; Mt. Kunimi, Kumamoto; Hagityayama, Kumamoto-shi; Sōbosan, Ōita; Kurino, Kagoshima; Shiroyama, Kagoshima; Ōura-chō, Kagoshima. Izu Is.: Nijima Is. Tsushima Is; Sasu Pass; Hitakatsu; Sasuna; Ariakeyama. Yakushima Is.: Ōkawa. Amami-Ōshima Is.: Hatsuno; Sumiyō-mura; Shimamura; Mt. Yuwan. Okinawa Honōtō Is.: Gogayama. Ishigakijima Is.: Ishigaki-shi; Mt. Banna. Korea—Hwaeom-sa, near Nogodan; Mt. Jirisan; Soktan, Gensan.

Distribution: Japan (Hokkaido; Honshū; Shikoku, Kyūshū; Izu Is. (Nijima—Is.); Tsushima Is.; Yakushima Is.; Amami-Ōshima Is.; Okinawa Honōtō Is.; Ishigakijima Is.); Korea.

Notes: In the Nansei Islands, there are some species likely to be confused with U. marseuli. This species can be distinguished from U. ichoai and U. ishigakienis by the paler colour of the body, by the eyes slightly expanded laterally, and by the differently shaped male protibiae and genitalia. U. marseuli also can be distinguished from U. takarai, which is probably the most closely related to the former, by the supra-antennal lobes not expanded before eyes, the posterior pair of protuberances on the male pronotum obsolete, and the antennae shorter.

Uloma marseuli fujitai Masumoto, 1985, status nov.
Figs. 85-87


Specimens examined: 18♂8♀, collected from the following localities: Japan —Minamidaito-jima Is.: Daitō-jinsha. Kitadaito-jima Is.: Tōdai.

Distribution: Japan (Daitō Is.).

Notes: This form was originally described as a distinct species, having been
compared with *U. takarai* from Iriomote Is.

In the present study, we have compared it not only with *U. takarai* but also with *U. marseuli*, which occurs widely in Japan and its adjacent islands and also Korea. After our careful examination, we have concluded that *U. fujitai* is allied more to *U. marseuli* and that it may be better regarded as a geographical form of the latter.

**REFERENCES**


Figs. 5-9: *Uloma latimanus* Kolbe, ♂; 5: protibia, 6: protibia (apical portion of underside), 7: mentum and ligula, 8: genitalia (lateral view), 9: genitalia (apical portion in dorsal view).

Figs. 14-17: *Uloma hikosana* Nakane, ♂; 14: protibia, 15: mentum and ligula, 16: genitalia (lateral view), 17: genitalia (apical portion in dorsal view).
Figs. 18-19: *Uloma miyakei* sp. nov., ♂; 18: genitalia (lateral view), 19: genitalia (apical portion in dorsal view).


Figs. 28-29: Uloma nakanei sp. nov., ♂; 28: genitalia (lateral view), 29: genitalia (apical portion in dorsal view).
Figs. 30-33: Uloma lewisi Nakane, ♂ (30, 32-33) and ♀ (31); 30: protibia, 31: anal sternite, 32: genitalia (lateral view), 33: genitalia (apical portion in dorsal view).
Figs. 34-37: *Ulama excisa excisa* Gebien, ♂ (34, 36-37) and ♀ (35); 34: protibia, 35: anal sternite, 36: genitalia (lateral view), 37: genitalia (apical portion in dorsal view).

Fig. 38: *Ulama excisa nanseiensis* ssp. nov., ♂; 38: protibia.


Figs. 73-76: *Uloma sauteri* Kaszab, ♂; 73: protibia, 74: mentum, 75: genitalia (lateral view), 76: genitalia (apical portion in dorsal view).

Fig. 80: *Uloma takarai* M.T. Chōjō, ♂; 80: mentum.


Figs. 85–87: *Uloma marseuli fujitai* Masumoto, ♂; 85: mentum, 86: genitalia (lateral view), 87: genitalia (dorsal view).