

DRYOPOIDEA OF THE RYUKYU ARCHIPELAGO, I

(COLEOPTERA)

by

Masataka SATÔ

*Zaitzevia yaeyamana* M. Satô

*Zaitzevia (Urumaelmis) yaeyamana* M. Satô, 1963. New Entom., 12 (7): 40 (Is. Ishigaki-jima: Takeda).

Body elongate-oval, moderately convex, shining. Dorsal surface black and tinged with brownish colour; apical portion of elytra brownish black; mouth parts, antennae, under surface and legs reddish or dark reddish-brown.

Head slightly convex, distinctly microreticulate, sparsely punctulate and pubescent; clypeus and labrum smooth and scarcely punctulate, the anterior margin of labrum pubescent; eyes somewhat large and slightly prominent, the breadth of each eye about 1.5 times as broad as the distance between eyes; antennae short.

Pronotum about 1.2 times as broad as long, broadest at the basal third across, thence moderately narrowed anteriorly, very slightly narrowed posteriorly, front angles slightly produced along the outside of each eye with the apex rounded, hind angles acute; surface smooth, shining, coarsely and distinctly punctulate, the punctures more or less distinct than those in *Z. aritai*, central part narrowly, indistinctly and marginal portions indistinctly microreticulate; median longitudinal groove somewhat deep which begins at the basal fourth and reaches the apical third, sublateral keels more or less distinct, curved outwardly and extending from the base to basal third. Scutellum suboval, rather smooth.

Elytra about 1.3 times as broad as pronotum, about 1.8 times as long as breadth, broadest at just behind the middle, thence slightly narrowed anteriorly, distinctly narrowed posteriorly; the surface somewhat smooth, the apical half feebly microreticulate; each elytron bearing seven punctate striae, the punctures in low becoming finer posteriorly and more distinct than those in *Z. aritai*, interspace of punctures in striae nearly as long as or about half a diameter of themselves, the fourth interstice distinctly catenate from humerous to near apex, the fifth catenate at basal half, interspace between the fourth to the lateral sides finely tomentose.

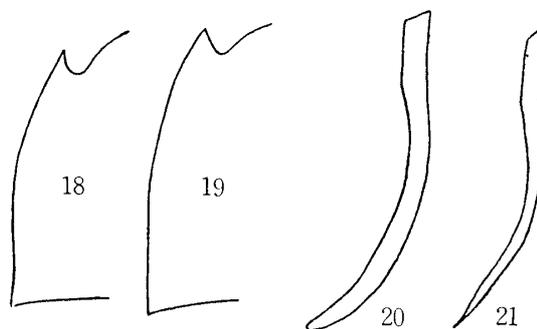
Ventral surface shining; prosternal process narrowed apically, with the

apex rounded; epipleura narrowed posteriorly; first abdominal carinae distinct and extending full length of the sternite. Legs slender, sparsely granulate and pubescent, femora and tibia slightly tomentose; claws slender.

Male genitalia: basal piece somewhat stout, about 2.3 times as long as the length of median lobe which is distinctly citinized and is slenderer than that of *Z. aritai*; parameres membraneous; a projection of each paramera does not cross each other beyond the apical margin of the paramera; copulatory piece situated at the middle of median lobe and its apical portion subdivided into two parts.

I described originally this species and the preceding one as the members of the subgenus *Urmaelmis* M. Satô (treated as an independent genus in the present paper), because of having the fourth interstice of each elytron catenated almost full elytral length and the fifth catenated at basal half. However, judging from the characters of the male genitalia and the two carinae of first abdominal sternite, the two species belong to the genus *Zaitzevia* Champion.

Distribution: Is. Ishigaki-jima of the Sakishima Islands.



Figs. 18-19. Pronotum of: 18. *Urmaelmis uenoi* Nomura (Is. Amami-Ôshima), 19. *Urmaelmis uenoi tokarana* M. Satô (Is. Kuchi-no-shima), Figs. 20-21. Epipleuron of: 20. *Zaitzevia aritai* M. Satô (Is. Iriomote-jima), 21. *Zaitzevia yae-yamana* M. Satô (Is. Ishigaki-jima).

Genus *Urmaelmis* M. Satô, status nov.

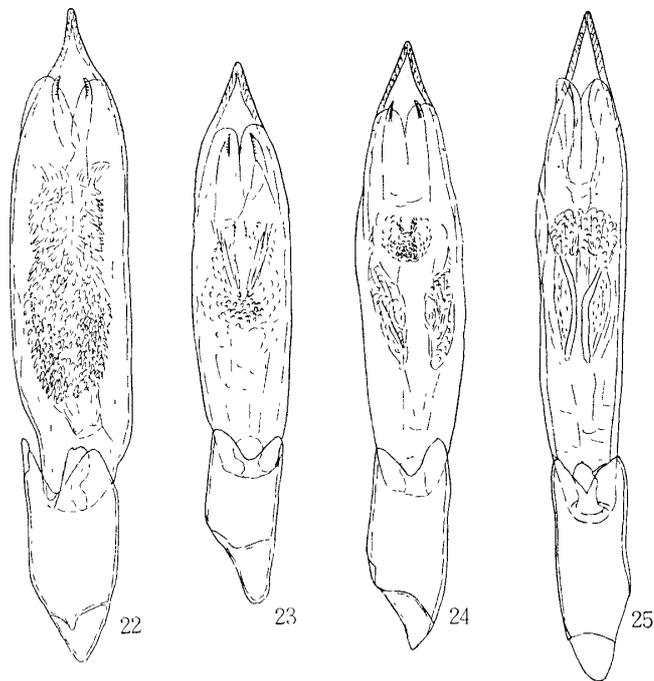
*Zaitzevia (Urmaelmis)* M. Satô, 1963. New Entom. 12 (7) : 39.

Type-species: *Zaitzevia uenoi* Nomura, 1961.

The genus was described first as a subgenus of *Zaitzevia* Champion. Only one species inhabits the Ryukyus.

Key to the subspecies of the genus *Urmaelmis* in the Ryukyus

- 1 (2) Elytra shining, the puncture in striae not so much feeble; each side of pronotum slightly sinuate near base; length 1.80-1.88 mm.....  
.....*U. uenoi uenoi* Nomura
- 2 (1) Elytra subopaque, the punctures in striae very feeble; each side of pronotum not sinuate near base; length 1.70-2.15 mm.....  
.....*U. uenoi tokarana* M. Satô



Figs. 22-25. Male genitalia of: 22. *Zaitzevia elongata* Nomura (Is. Okinawa-hontô), 23. *Zaitzevia yaeyamana* M. Satô (Is. Ishigaki-jima), 24. *Zaitzevia aritai* M. Satô (Is. Iriomote-jima), 25. *Urumaelmis uenoi tokarana* M. Satô (Is. Kuchi-no-shima).

*Urumaelmis uenoi* Nomura

*Zaitzevia uenoi* Nomura. 1961. Akitu, 10 (1/2) : 2, fig. 1 (Is. Okino-erabu-shima: Ta-yô Cave). -- Nomura, 1963. Tôhô-Gakuho, 13: 42 (Is. Okino-erabu-shima). -- Nomura, 1963. in Icon. Ins. Jap. Color. natur. ed., vol. 2 (Col.): 146, pl. 73, fig. 22. (Is. Okino-erabu-shima).

*Zaitzevia (Urumaelmis) uenoi*: M. Satô, 1963. New Entom. 12 (7): 40 (Is. Okino-erabu-shima).

*Zaitzevia (Urumaelmis) uenoi amamiana* M. Satô, 1963. New Entom., 12 (7): 4 (Is. Amami-Ôshima: Ohtana) syn. nov.

Some differences characterized between the nominate subspecies and subsp. *amamiana* M. Satô in my previous paper are supposed to be intraspecific variations.

Distribution: Is. Amami-Ôshima and Is. Okino-erabu-shima of the Amami Islands.

*Urumaelmis uenoi tokarana* M. Satô

*Zaitzevia (Urumaelmis) uenoi tokarana* M. Satô, 1963. New Entom., 12 (7) : 40 (Is. Kuchi-no-shima).

Male genitalia: basal piece about 2.2 times as long as the length of median lobe which is slender and distinctly citinized; parameres membranous and without any projection; copulatory piece situated at the middle of median lobe, divided into three parts, the apical one transverse-oval, the hinder two elongate and its inner side strongly sclerotized.

Distribution: Is. Kuchi-no-shina of the Tokara Islands.

#### References concerning the family Elminthidae of the Ryukyu Archipelago

- Nakane, T. et al. 1963. Iconographia Insectorum Japonicorum Colore naturali edita, 2 (Col.): 1-443, 192 pls. (in Japanese)
- Nomura, S. 1957a. Drei neue Dryopiden-Arten aus Japan, Akitu (Trans. Kyoto Ent. Soc.), 6 (1): 1-5, 1 fig.
- . 1957 b. Mordellid- and Elmid-Beetles of Yakushima (Coleoptera), Ent. Rev. Japan, 8 (2): 40-44, 3 fig.
- . 1958. Notes on the Japanese Dryopoidea (Coleoptera), with two species from Saghalien, Tôhō-Gakuhō, 8: 45-59, 2 pls.
- . 1959. Notes on the Japanese Dryopoidea (Coleoptera) II, Tôhō-Gakuhō, 9: 33-38, 1 pl.
- . 1960. Notes on the Japanese Dryopoidea (Coleoptera) III, Akitu, 9 (2): 34-36.
- . 1961. Elmidae Found in Subterranean Waters of Japan, Akitu, 10(1/2): 1-3, 1 fig.
- . 1962. Some new and remarkable species of the Coleoptera from Japan and its adjacent regions, Tôhō-Gakuhō, 12: 35-51, 2 pls.
- . 1963. Notes on the Dryopoidea (Coleoptera) IV, Tôhō-Gakuhō, 13: 41-56, 1 pl. 3 t. 3 figs.
- Satō, M. 1960. Aquatic Coleoptera from Amami-Ôshima of the Ryukyu Islands (1), Kontyû, 28 (4): 251-254, 2 figs.
- . 1963. New forms in the genus Zaitzevia Champion from the Ryukyus, New Entom., 12 (7): 39-41.
- . 1964a. Description of a new Elmid-beetle from the Ryukyus, Bull. Jap. ent. Acad., 1 (2): 11-12, 1 pl.
- . 1964b. Descriptions of the Dryopoid-beetles from the Ryukyus, Bull. Jap. ent. Acad., 1 (7): 31-37, 2 figs.
- . 1964c. Insects found in Tokuwase-do Cave, Is. Toku-no-shima, New Entom. 13 (8): 69-73, 7 figs. (in Japanese)
- . and Y. Miyatake. 1964. Aquatic beetles of Iriomote-jima collected by the member of the Second Expedition of Kyushu University to the Yaeyama Group, the Ryukyus, Rep. Comm. For. Sci. Res. Kyushu Univ., 2: 135-143, 4 figs.

#### Family Dryopidae

##### Genus *Elmomorphus* Sharp

*Elmomorphus* Sharp, 1888. Ann. Mag. Nat. Hist. (6) 2: 242.

Type-species: *Elmomorphus brevicornis* Sharp, 1888.

Key to the subgenera of the genus *Elmomorphus*

- 1 (2) Dorsal surface densely punctate; mesofemora bearing a range of setigerous punctures on the inner side in dorsal view; elytra distinctly punctate-striate.....*Elmomorphus* s. str.
- 2 (1) Dorsal surface granulate; mesofemora lacking a range of setigerous punctures; elytra feebly punctate-striate.....*Elmomorphellus* M. Satô

*Elmomorphus* (s. str.) *brevicornis amamiensis* Nomura

*Elmomorphus brevicornis amamiensis* Nomura, 1959. Tôhō-Gakuhō, 9: 33 (Is. Amami-Ôshima). - M. Satô, 1960. Kontyû, 28 (4) : 252 (Is. Amami-Ôshima: Shin-mura). - Nomura, 1963. in Icon. Ins. Jap. Color. natur. ed., vol. 2 (Col.) : 144 (Is. Amami-Ôshima).

This subspecies is the first record to the fauna of Is. Toku-no-shima and Is. Okinawa-hontô.

Specimens examined: 10 exs., Shin-mura, Is. Amami-Ôshima, June 12-13, 1962, M. Satô leg; 1 ex., the Kamiko-gawa River, Is. Amami-Ôshima, June 11, 1962, M. Satô leg; 3 exs., Hatsuno, Is. Amami-Ôshima, July 28, 1963, M. Satô and N. Ohbayashi leg; 3 exs., Nishi-agina, Is. Toku-no-shima, July 25, 1963, M. Satô and N. Ohbayashi leg; 1 ex., Yona, Is. Okinawa-hontô, July 26, 1964, N. Ohbayashi leg.

Distribution: Is. Amami-Ôshima and Is. Toku-no-shima of the Amami Islands; Is. Okinawa-hontô of the Okinawa Islands.

References concerning the family Dryopidae of the Ryukyu Archipelago

- Nakane, T. et al. 1963. Iconographia Insectorum Japonicorum Colore naturali edita, vol. 2 (Col.): 1-433, 192 pls. (in Japanese)
- Nomura, S. 1959. Notes on the Japanese Dryopoidea (Coleoptera) II, Tôhō-Gakuhō, 9: 33-38, 1 pl.
- Satô, M. 1960. Aquatic Coleoptera from Amami-Ôshima of the Ryukyu Islands (1), Kontyû, 28 (4) 251-254, 2 figs,

Family Psephenidae

Genus *Eubrianax* Kiesenewetter

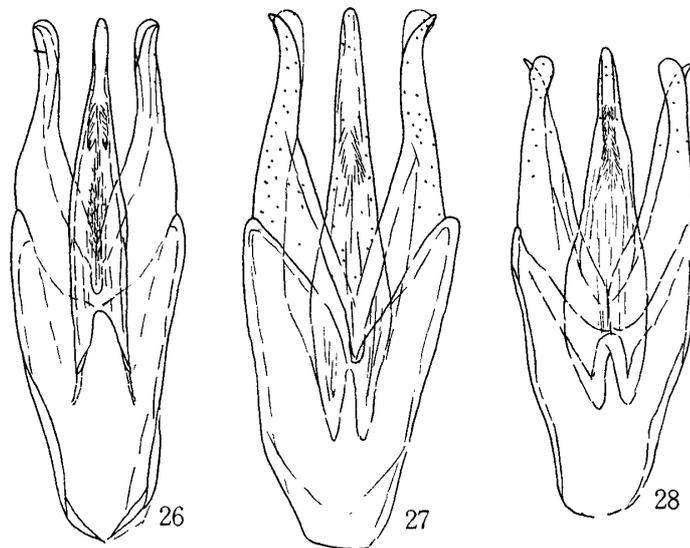
*Eubrianax* Kiesenewetter, 1874. Berl. Ent. Zeits., 18: 247.

Type-species: *Eubrianax ramicornis* Kiesenewetter, 1874.

Key to the species of the genus *Eubrianax* in the Ryukus  
based upon the male

- 1 (6) Antennal appendages of third to seventh joints stretched from the base of each joint.
- 2 (3) Elytra dark reddish-brown; antennal appendages comparatively short; length 4.50 mm.....*E. insularis* Nakane
- 3 (2) Elytra dark-brown or brownish-black; antennal appendages comparatively long.
- 4 (5) Elytra dark-brown; femora and trochanters brown; length 3.30 mm...

- .....*E. manakikikuse* M. Satô
- 5 (4) Elytra brownish-black; femora and trochanter yellowish-testaceous; length 3.95 mm.....*E. manakikikuse amamiensis* M. Satô
- 6 (1) Antennal appendages of third to seventh joints stretched from the apex of each joint.
- 7 (8) Basal half of elytra, ventral surface and legs yellowish-brown, length 4.50-4.85 mm.....*E. loochoensis* Nakane
- 8 (7) Elytra, ventral surface and legs brownish-black, length 3.65-4.60 mm  
.....*E. nobuoi* M. Satô



Figs. 26-28. Male genitalia of: 26. *Eubrianax manakikikuse* M. Satô (Is. Ishigaki-jima), 27. *Eubrianax loochoensis* Nakane (Is. Okihawa-hontô), 28. *Eubrianax nobuoi* M. Satô (Is. Amami-Ôshima).

*Eubrianax insularis* Nakane

*Eubrianax insularis* Nakane (in litt.), 1950. Kontyû, 18 (1) : 6 (Is. Amami-Ôshima\*).

*Eubrianax insularis* Nakane, 1952. Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.), 1 (1) : 41, fig. 7 (Is. Yaku-shima). - Nakane, 1963. in Icon. Ins. Jap. Color. natur. ed., vol. 2 (Col.) : 143, pl. 72, fig. 11 (Is. Yaku-shima).

This species was originally described basing upon a pair specimen collected on Is. Yaku-shima by J. E. A. Lewis in 1912, and additional record of the species has hitherto been unpublished.

Distribution: Is. Yaku-shima of the Ôsumi Islands.

*Eubrianax manakikikuse* M. Satô

*Eubrianax manakikikuse* M. Satô, 1964. Bull. Jap. ent. Acad., 1 (7) : 35,

\* This locality might probably be the misindication.

fig. 2 (Is. Ishigaki-jima: Mt. Banna-dake).

Male genitalia: basal piece somewhat broad, not strongly sclerotized; median lobe slender, tapering anteriorly; parameres distinctly shorter than basal piece, the apex attaining to the same level as the apex of median lobe.

Distribution: Is. Ishigaki-jima of the Sakishima Islands.

*Eubrianax manakikikuse amamiensis* M. Satô, subsp. nov.

This subspecies can be distinguished from the nominate subspecies by the denser hairs of elytra, the finer and sparser punctures of pronotum in addition to the coloration as mentioned in the key.

Holotype: 1 ♂, Hatsuno, Is. Amami-Ôshima, June 15, 1962, M. Satô leg.

Paratype: 1 ♀, Nada-kawa, Is. Amami-Ôshima, July 16, 1962, N. Ohbayashi leg.

Distribution: Is. Amami-Ôshima of the Amami Islands.

*Eubrianax loochooensis* Nakane

*Eubrianax loochooensis* Nakane, 1952. Sci. Rep Saikyo Univ. (Nat. & Liv. Sci.) 1 (1) : 40 (Is. Okinawa-hontô). -- Nakane, 1963. in Icon. Ins. Jap. Color. natur. ed., vol. 2 (Col.) : 143, pl. 72, fig. 12 (Is. Okinawa-hontô).

The female of the species has not yet been described. In the recent time, I was able to examine two female specimens in addition to many male specimens captured on Is. Okinawa-hontô through the courtesy of Mr. T. Shibata. The female differs from the male: the elytra are entirely blackish-brown, the under surface and the legs are dark yellowish-brown, the antennae are serrate and the body is larger in size (5.70 mm).

Male genitalia: basal piece broad, not distinctly sclerotized; median lobe somewhat stout, broadest at about basal fourth, thence slightly narrowed posteriorly and distinctly narrowed anteriorly; parameres clearly shorter than basal piece, the apex attaining to the same level as the apex of median lobe.

Specimens examined: 12 ♂♂, 2 ♀♀, Izumo, Is. Okinawa-hontô, April 7, 1963, H. Nomura leg.

Distribution: Is. Okinawa-hontô of the Okinawa Islands.

*Eubrianax nobuoi* M. Satô, sp. nov.

Broadly oval, flattened, shining, densely clothed with suberect and tawny hairs. Brownish-black, head, pronotum and scutellum black, legs dark testaceous, pronotum with the narrow anterior and broad antero-lateral portions transparent.

Head small, hidden under pronotum, more or less flattened; surface closely more or less distinctly punctate, interstices aciculate; bearing a small tubercle just behind antennal sockets, inside of each tubercle slightly impressed longitudinally; clypeus convex at middle, microreticulate and sparsely punctate; labrum transverse; eyes large and prominent, the breadth of each

eye about twice as broad as the distance between eyes; male antennae long, flabellate from the third to the tenth joints, the appendage of the third joint stretched from base, the fourth to the tenth from apex of each joint, relative length of each joint as follows: 3: 1.5: 5.5+7: 3.5+9: 4+10.5: 4+12: 4+12.5: 4.5+12: 5.5+ 11: 5+9: 12 (+number mean the length of appendages), female antennae serrate; terminal joint of maxillary palpi bifurcate at the apex.

Pronotum slightly convex, about 2.2 times as broad as long, broadest at basal third, thence slightly narrowed posteriorly, distinctly narrowed anteriorly, front angles rounded, hind angles obtuse, lateral and anterior margins clearly reflexed, lateral margins sinuate downwards near the front angles; surface sparsely and minutely punctate, interstices obsoletely aciculate, the hairs sparser and finer than those of the elytra. Scutellum large, triangular, rugoso-punctate, interstices distinctly microreticulate.

Elytra flattened, about 1.5 times as broad as pronotum, about 1.3 times as long as broad, the sides moderately rounded, margins more or less reflexed; distinctly, coarsely and irregularly punctate, the punctures arranged in nine rows, but the rows disordered laterally or vanished near apex, the sutural one distinctly striate in apical half of the elytra; intervals slightly convex, sparsely and finely punctate, interstices indistinctly aciculate.

Ventral surface coarsely and somewhat finely punctate, indistinctly microreticulate, closely clothed with tawny hairs.

Legs moderate, clothed with testaceous hairs; claws dilated at base with distinct pulvillus.

Male genitalia as figured and almost similar to the preceding species.

Length: 3.65-4.60 mm; breadth: 2.40-2.85 mm.

Holotype: 1♂, Hatsuno, Is. Amami-Ōshima, April 13, 1963, N. Ohbayashi leg.

Paratypes: 4♂♂, 1♀, same particular as the holotype, 1♂, same locality as the holotype, April 2, 1963, Y. Arita leg.; 2♂♂, Higashi-Nakama, Is. Amami-Ōshima, March 29, 1963, N. Ohbayashi leg.

Distribution: Is. Amami-Ōshima of the Amami Islands.

Different from the Ryukyuan species of the genus *Eubrianax* in the key as mentioned previously. Though the species closely allied to *Eubrianax ramicornis* Kiesenewetter, from which it differs by the punctures of pronotum are fine, the intervals of each elytron are slightly convex and by the legs are dark testaceous.

References concerning the family Psephenidae of the Ryukyu Archipelago

Nakane, T. 1950. Notes on the Dascillidae of Japan and Loo-choo Is. (Preliminary notes),

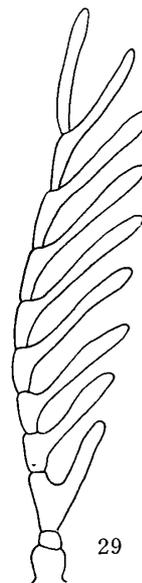


Fig. 29. Male antenna of *Eubrianax nobuoi* M. Satô.

- Kontyû, 18 ㊦: 5-7. (in Japanese)
- , 1952. New or Little Known Coleoptera from Japan and its Adjacent Regions, VII. Dascillidae, Sci. Rep. Saikyo Univ. (Nat. & Liv. Sci.), 1 (1): 35-41, 4 figs.
- , et al. 1963. Iconographia Insectorum Japonicorum Colore naturali edita, 2 (Col.): 1-443, 192 pls. (in Japanese)
- Satô M. 1964. Descriptions of the Dryopoid-beetles from the Ryukyus, Bull. Jap. ent. Acad., 1 (7): 31-37, 2 figs.

## 摘 要

### 琉球列島のドロムシ上科, I

(鞘翅目)

佐 藤 正 孝

九州の沖合から台湾の間に点在する琉球列島に産するドロムシ上科の甲虫については、これまで中根, 野村および筆者によって断片的な報告がなされてきた。幸い, 筆者は機会を得て1960年以降数度にわたり, 同列島を訪れ各島で水棲昆虫を採集した。また, 筆者の友人などによってもらされた多くの標本をも合せて検することができた。それらの内, ヒメドロムシ科の6属13種2亜種, ドロムシ科の1属1種, ヒラタドロムシ科の1属4種1亜種をここに報告した。なお, 新種の一部は既に他誌で記載したが, この報告においてヒラタドロムシ科の1新種1新亜種を記載した。この上科をまとめるにあたり, 従来の外部形態に基づいた分類に加え, 雄交尾器についても検討した。