

Emmidolium excavatum (Coleoptera, Hydrophilidae) Found
on Ishigaki-jima of the Ryukyu Islands, Southwest Japan

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Abstract A minute hydrophilid beetle, *Emmidolium excavatum* D'ORCHYMONT is redescribed from the Ryukyus. This is the first record of the genus *Emmidolium* for the Japanese fauna.

In 1994, the first author, HORI was able to collect a minute and remarkable hydrophilid beetle from cow dung on Ishigaki-jima. It is clear that the specimen is identical with *Emmidolium excavatum* D'ORCHYMONT in having the characteristic sculpture of the dorsal surface. This species was originally described on two specimens collected from Tonkin and Taiwan. Since then, no detailed record has been made from anywhere, except for a brief memo by HANSEN (1991) in his generic revision of the Hydrophiloidea, in which he stated that it was collected from dung in Africa and Indonesia.

In this paper, we are going to redescribe and record it as a new addition to the Ryukyuan fauna in the following lines. Since the genus *Emmidolium* D'ORCHYMONT is represented by only one species, *excavatum* described by D'ORCHYMONT in 1937, not only this genus but also the species is the first record to the Japanese fauna by the present paper.

The specimens used in this paper are deposited in the collections of Ehime University, National Science Museum (Nat. Hist.), Tokyo and the authors.

We wish to express our sincere gratitude to Mr. Fumiki BANDO for preparing the excellent drawing inserted in this paper.

Emmidolium excavatum D'ORCHYMONT, 1937

[Japanese name: Kobusuji-gamushi]

(Figs. 1-5)

Emmidolium excavatum D'ORCHYMONT, 1937, Bull. Anns. Soc. ent. Belg., **77**: 4. — HANSEN, 1991, Biol. Skr., København, **40**: 267.

Body small in size, elliptical, moderately convex. Head black; pronotum and elytra testaceous; antennae and palpi somewhat yellowish, except for fuscous club of the former and terminal segment of the latter. Ventral surface blackish, except for dark brown abdominal sternites.

Head slightly convex, strongly and distinctly punctate; clypeus slightly sinuate at the centre, fronto-clypeal suture deeply emarginate; maxillary palpi a little shorter than antennae, 2nd segment suboval, strongly dilated in apical half and narrow at basal portion, 4th elongate, spindle-shaped; antennae 8-segmented, 1st segment stout, elongate,

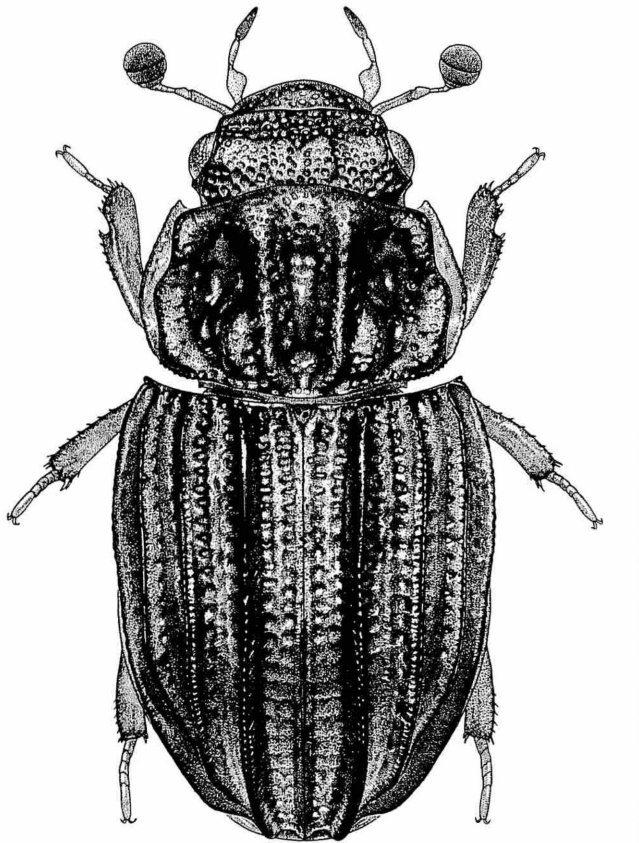
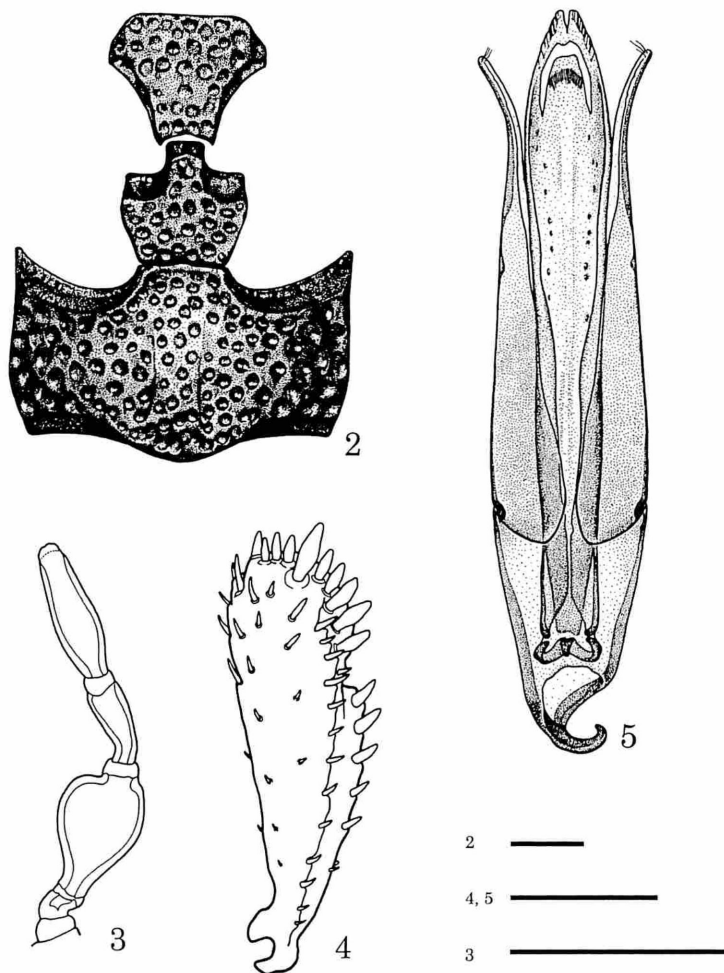


Fig. 1. Dorsal aspect of *Emmidolium excavatum* D'ORCHYMONT, male. Scale: 1.0 mm.

longer than the funicular segments taken together, club elliptic and densely pubescent; eyes moderate in size, the breadth of an eye about 6 times as broad as the distance between them.

Pronotum convex, transverse, about 1.6 times as broad as long, broadest at the basal third, thence distinctly narrowed anteriorly and gently posteriorly; sides distinctly serrate, with lateral furrows; front angles acute, hind angles rounded; surface very uneven, coarsely punctate and provided with four odd and strongly raised longitudinal costae, deeply foveolate between costae, bottom of foveae glabrous and shining. Scutellum small, oblong, a little longer than broad and furnished with a few coarse



Figs. 2-5. *Emmidolium excavatum* D'ORCHYMONT. — 2, Pro-, meso- and metasterna; 3, maxillary palpus; 4, protibia; 5, male genitalia. Scales: 0.1 mm.

punctures.

Elytra convex, longer than wide, about 1.2 times as long as broad, widest at basal fourth; shoulders usually denticulate; each elytron provided with 10 punctate-striae, interstices of 3, 5, 7, 9 and 11 strongly carinate, the other interstices flat. Wings well developed.

Ventral surface distinctly shagreened and scrobiculate. Prosternum distinctly elevated at the middle; prosternal plate widely hetero-ditrigonal, large, flat and coarsely scrobiculate; front margin wide and truncate; hind margin narrow and emarginate. Mesosternum distinctly elevated at the middle; mesosternal plate widely trapeziform and narrowed posteriad, coarsely scrobiculate, produced between procoxae; hind margin truncate. Metasternum transverse, coarsely scrobiculate and with two short, longitudinal impressions at the middle. First visible abdominal sternite rugulose, with an angustate longitudinal carina at the middle. Legs very short; protibia flat, dilated from base to apex and notched at apical third.

Male genitalia as shown in Fig. 5, symmetrical, elongated spindle-shaped; median lobe incised at the apex; parameres elongate, reaching about 3/4 of median lobe and curved outwards at apical portion, with three prominent setae at the lateral angles of apices; basal lobe short and about 1/3 length of median lobe.

Length of body: 1.4–1.5 mm; breadth of body: 0.7–0.8 mm.

Specimens examined. 1♂, 1♀, Sakieda, Ishigaki-jima, Ryukyus, 28-X-1994, S. HORI leg.; 9♂♂, 7♀♀, ditto, 19-V-2002, S. HORI leg.; 2♂♂, 2♀♀, Hirakubo-misaki, Ishigaki-jima, Ryukyus, 19-VII-1998, M. SATO leg.

Distribution. Africa, Indonesia, Vietnam, Taiwan, Japan (Ryukyus: Ishigaki-jima, new record).

Ecological note. All the specimens examined were collected from dung of cows at a pasture near the seaside. The species seems to select and prefers particular dung, because most individuals inhabited the dung which had been excreted a few days before. The condition of the dung was dry on the surface and soft and wet inside, so that its surface could be taken off as a cover. They are sometimes found in a trail dug through by *Sphaeridium dimidiatum* GORY (6–7 mm in length) and *S. quinque maculatum* FABRICIUS (4–5 mm). Some individuals of this species were actively flying out of the dung during the daytime with high temperature. As mentioned above, they are small in size, actively fly and live in dung, all may be helpful for their movement. Therefore they should have moved floating with wind or with cattle brought by humans. In effect the species might have widely spread over the sea from Africa to Southeast Asia.

要 約

堀 繁久・佐藤正孝：コブスジガムシの琉球列島石垣島での発見。——コブスジガムシ（新称）は、D'ORCHY-MONTが1937年にトンキンと台湾の2個体にもとづいて記載して以降、HANSEN (1991) が属の検討の中でアフリカとインドネシアで動物の糞に来ていることを簡単に触れたが

けで具体的な報告は一切なかった。ところが、琉球列島石垣島で牛糞に來ている個体を採集することができたので、ここに再記載し、図示した。この種の分布が広いことを考えると、風による南方からの飛來か、牛糞による人為的な移入が考えられる。

References

- D'ORCHYMONT, A., 1937. Contribution à l'étude des Palpicornia, X. *Bull. Annl. Soc. ent. Belg.*, **77**: 457–475.
- HANSEN, M., 1991. The hydrophiloid beetles. Phylogeny, classification and a revision of the genera (Coleoptera, Hydrophiloidea). *Biol. Skr., København*, **40**: 1–367.

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New Record of *Xylothrips cathaicus* (Coleoptera, Bostrychidae) from the Tsushima Islands, Japan

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Xylothrips cathaicus was described by REICHARDT (1966) on 5 ♀♀ from Hebei and Henan Provinces, China, and later CHEN (1990) reported capture of 4 ♂♂, 6 ♀♀ from Beijing and gave a short description of the male.

More than a decade ago, on the Tsushima Islands, Japan, the junior author (Y.K.) took a bostrychid beetle apparently theretofore unknown from Japan. This was obtained by splitting dead branches of *Zelkova serrata* (keyaki), which later yielded 20 beetles of the same species. Meanwhile, the senior author (R.I.) recognized them *X. cathaicus*, a species new to the Japanese fauna.

Xylothrips cathaicus REICHARDT

[New Japanese name: Chûgoku-tsuya-nagashinkui]

Specimens examined. 1 ♂, Mt. Ôboshi, Kami-agata-chô, Tsushima Is., Nagasaki Pref., Japan (taken out from dead branches of *Zelkova serrata*), 2–IV–1990, leg. Yoshiyasu KUSAKABE; 7 ♂♂, 13 ♀♀, the same locality, 2–IV–1990 (dead branches of *Z. serrata*), emerged as adults at