

## A New *Trox* Species (Coleoptera, Trogidae) from Amami-oshima of the Nansei Islands, Southwest Japan

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**Abstract** A new species of the genus *Trox* (Coleoptera, Trogidae) is described from Amami-oshima Island, Nansei Islands, Southwest Japan, under the name of *Trox sugayai* sp. nov.

The genus *Trox* consists of necrophagous scarab beetles with oblong and convex bodies, whose surfaces are coarsely tuberculate and usually covered with hard incrustations, and whose antennae are composed of ten segments, three terminal ones of which form a club. More than 200 species are distributed in the temperate and subtropical regions, mainly in drier areas, though a small number of species extend their ranges rather far to the north, e.g. to Canada and Siberia. Ten species have hitherto been known from Japan.

On the occasion of the meeting of the Kanagawa Entomologists Association, Yokohama, Mr. Hiroshi SUGAYA, Nihon University, showed one of the authors (K. M.) two species of *Trox* from Amami-oshima Island collected by himself. One of these was identified at first sight with *Trox uenoi* NOMURA, distributed in Amami-oshima and Tokunoshima Islands, but the other was unknown to him. Mr. H. SUGAYA kindly allowed the authors to study it.

After a careful examination, the unknown species was proved new to science, and the authors are going to describe it herein as a new species.

The authors wish to express their sincere thanks to Dr. Ryûtarô IWATA and Mr. Hiroshi SUGAYA, Forest Zoology Laboratory, Department of Forestry, College of Agriculture & Veterinary Medicine, Nihon University, and also to Mr. Yoshikazu MIYAKE, Tama City, for their kind assistance in the course of this study. Thanks are also due to Dr. Shun-Ichi UENO, ex-director, Department of Zoology, National Science Museum (Nat. Hist.), Tokyo, for his constant advice.

The holotype to be described will be deposited in the collection of the National Science Museum (Nat. Hist.), Tokyo.

*Trox sugayai* sp. nov.

(Fig. 1)

Brownish black, with antennae and mouth parts reddish brown, hairs on surfaces brownish yellow, major portion of them being opaque and covered with dried secretions, though the fore tarsi, terminal segments of middle and hind tarsi, apical portions and terminal spur of fore tibiae, etc. are shining. Body ovate and strongly convex above.

*Male.* Head widely subhexagonal, rather closely punctate though the punctures are often invisible due to secretions, gently raised posteriad; clypeus with widely triangular apex; frons feebly, transversely convex; fronto-genal border weakly ridged; gena bisinuous and sparsely haired above eye; vertex with a rather distinct transverse ridge, which is clearly interrupted medially and connected with the fronto-genal ridge on each side; eyes large and convex laterad.

Pronotum 1.5 times as wide as long and widest a little behind the middle, rather closely punctate; apex widely arcuate forwards, strongly bent obliquely forwards in lateral portions; base widely triangular, shallowly bordered and fringed with fine squamae, the fringe being noticeable in medial and lateral portions; lateral margin

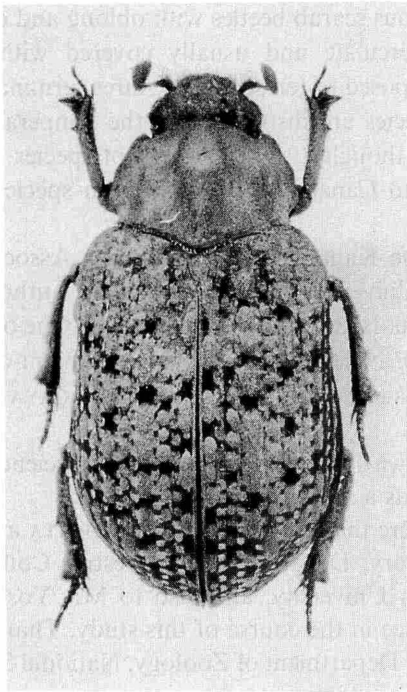


Fig. 1. Habitus of *Trox sugayai* sp. nov., holotype, male.

produced laterad, sparsely fringed, and somewhat trisinuous, the basal sinuation most distinct; front angles rather acutely projected forwards; hind angles subrectangular; disc gently convex, with 6 concavities: an elongate baso-medial one, two subsquare baso-laterals, a trapezoidal antero-medial one and two transverse antero-laterals. Scutellum linguiform, about 1.7 times as long as wide.

Elytra 1.4 times as long as wide, 2.8 times the length and 1.6 times the width of pronotum, widest at apical 3/7 and thickest at basal 3/7; disc with rows of rounded punctures, distance between them about their own diameters; odd intervals convex, each with a row of flat oblong tubercles, which are micro-shagreened and sparsely furnished with very short setae, the tubercles sometimes fused with each other; even intervals flat, each with a row of small rounded tubercles, whose surfaces are almost the same as those on odd intervals; humeri indentate; apices slightly emarginate though sutural intervals are feebly convex.

Fore tibia bifurcate at apex, male terminal spur rather bold, gently curved downwards and weakly twisted in apical portion.

Body length: 8.5–8.7 mm.

Holotype: ♂, Yuwandake, Amami-oshima Island, Nansei Isls., Southwest Japan, 25–VIII–1994, H. SUGAYA leg. Paratypes: 1 ex., 24–VIII–1994, 31 exs., 15–X–1995, same locality and collector as for the holotype.

*Notes.* This new species somewhat resembles *Trox mutsuensis* NOMURA, distributed in Northeast Japan (Honshu and Hokkaido), but can be distinguished from the latter by the larger and widened body, the pronotum more strongly produced laterad and distinctly sinuate with the base more distinctly triangular, and the tubercles on odd intervals of elytra oblong. It can be separable from *T. yamayai* NAKANE, originally described from Iriomote Island, by the frons without four nodules and the male protibial spurs modified.

It is very interesting that two species of the genus *Trox* occur at the same locality of Amami-oshima Island in the same season: *Trox uenoi* NOMURA and *T. sugayai* sp. nov.

## 要 約

益本仁雄・木内 信：奄美大島産コブスジコガネの1新種。——奄美大島からコブスジコガネ科コブスジコガネ属の1種を新たに記載し、*Trox sugayai* sp. nov.と命名した。本種は、北海道および本州北部に分布するムツコブスジコガネに近似するが、大きくて幅が広く、前胸背板は強く広がって波曲し基部は三角形で、上翅の奇数間室の刺毛塊は卵形であることなどで区別がつく。

## References

- BALTHASAR, V., 1931. Sechs neue *Trox*-Arten aus dem Ussurigebiet und Transbaikalien. *Ent. Bl.*, **27**: 128–134.
- 1936. Monographie der Subfamilie Troginae der palaearktischen Region. *Festsch. E. Strand*, **1**: 407–459.
- LEWIS, G., 1895. On the lamellicorn Coleoptera of Japan, and notices of others. *Ann. Mag. nat. Hist.*, (6), **16**: 374–408.
- MIYAKE, Y., 1986. In the present taxonomyies [sic] of the Japanese Trogidae, and their points at issue (Col., Scarabaeoidea). *Kita-kyûshû no Konchû*, **33**: 139–144, 1 pl. (In Japanese.)
- MOTSCHULSKY, V., 1869. Insectes du Japon. *Étud. ent.*, **1**: 1–42.
- MASUMOTO, K., 1985. Trogidae. In UÉNO, S.-I., et al. (eds.), *Coleopt. Japan Col.*, **2**: 346–348. Hoiku-sha, Osaka. (In Japanese.)
- NAKANE, T., 1951. On the Scarabaeidae of Japan (1). *Ent. Rev. Japan*, **5**: 97–100. (In Japanese.)
- 1954. New or little known Coleoptera from Japan and its adjacent regions. X. *Trans. Shikoku ent. Soc.*, **4**: 7–15.
- 1963. Trogidae. In NAKANE, T., et al. (eds.), *Icon. Ins. Japon. Col. nat. ed.*, **2**: 113–114, pl. 57.
- 1983. New or little-known Coleoptera from Japan and its adjacent regions, XXXVI. *Fragm. coleopt., Kagoshima*, (35–37): 139–152.
- & K. TSUKAMOTO, 1955. On the family Trogidae in Japan. *Akitu, Kyoto*, **4**: 85–92. (In Japanese with English résumé.)
- NOMURA, S., 1937. On the genus *Trox* of Japan (Scarabaeidae) with description of a new species. *Nippon no Kôchû*, **1**: 77–86. (In Japanese.)
- 1961. Some new species of the Coleoptera from Japan. *Tôhô-Gakuhô, Kunitachi*, (11): 70–89.
- PAULIAN, R., 1945. Coléoptères Scarabéides de l'Indochine. *Fn. Emp. fr.*, **3**: 1–225+4. Larose, Paris.
- PITTINO, R., 1985. Four new Oriental species of the genus *Trox* (s. str.) F., Coleoptera, Trogidae. *G. ital. Ent.*, **2**: 327–340.
- WATERHOUSE, C. O., 1875. On the lamellicorn Coleoptera of Japan. *Trans. ent. Soc. London*, **1875**: 71–116.