

## Occurrence of a *Trechoblemus* (Coleoptera, Trechinae) in Sakhalin<sup>1</sup>

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Abstract A trechine beetle belonging to the genus *Trechoblemus* is recorded for the first time from southern Sakhalin. It is tentatively identified with *T. postilenatus* (H. W. BATES), though differing from specimens of Central and West Japan in the completely flat eyes.

Recently, a trechine specimen belonging to the genus *Trechoblemus* was found out in the collection of the Institute of Biology and Pedology, Vladivostok. It was kept in a lot of old Japanese material received from Sakhalin, and bears a label inscribed "Saghalien Central Expt. Sta. / 1932 25/XI / collected in hibernation." It is therefore apparent that the specimen was taken at Konuma (now Novoaleksandrovsk) in southern Sakhalin, where the Saghalien Central Experiment Station [for agriculture and forestry] was located in the prewar time.

After a careful examination, it has become clear that the specimen is almost identical with those of *Trechoblemus postilenatus* (H. W. BATES) from Central and West Japan but differs from them in the completely flat eyes. It is true that the size and convexity of eyes are rather variable in Japanese specimens of *T. postilenatus*. They are rather flat especially in the specimens from Hokkaido adjacent to Sakhalin, but not so completely flat as in the Sakhalin specimen under consideration. On the other hand, specific differences are usually subtle in the trechine beetles belonging to the genus *Trechoblemus*. Although the six species of the genus hitherto described are classified into two species-groups, that of *T. micros* and that of *T. postilenatus*, on the basis of difference in genitalic conformation, five of the six belong to the latter and only one of the five, *T. microphthalmus* S. UENO (1955, p. 404, fig. 1), can be definitely

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recognized as an independent species. The remaining four, *T. postilenatus* (H. W. BATES), *T. lindrothi* SUENSON (1957, p. 93, pi. 2, upper left), *T. valentinei* SUENSON (1957, p. 94, pi. 2, upper right), and *T. westcotti* BARR (1971, p. 142, figs. 1-2), are very closely related and sometimes difficult to distinguish one from another. For instance, the two Chinese species (the second and third) can be readily distinguished from each other, but the difference is bridged to some extent by the Japanese species, *T. postilenatus*. The senior author has re-examined their type material and made a detailed comparative study of their male genitalia, which are closely similar to one another. Under these circumstances, the present authors prefer to regard the Sakhalin specimen as an extreme local form of *T. postilenatus*, leaving the final determination of its systematic status until a longer series of specimens are obtained from the vicinities of Novo-aleksandrovsk.

However, as a member of the genus *Trechoblemus* is found for the first time from the Russian Far East, a full description of the Sakhalin specimen will be given in the present paper for facilitating future studies. The abbreviations used herein are the same as those explained in the previous paper of the authors' (UENO & LAFER, 1994, pp. 112-113).

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### *Trechoblemus postilenatus* (H. W. BATES, 1873)

(Figs. 1-3)

*Trechuspostilenatus* H. W. BATES, 1873, Trans. ent. Soc. London, **1873**, p. 295; type locality: Osaka.

*Trechoblemus postilenatus*: JEANNEL, 1922, Anns. Soc. ent. Fr., 90 [for 1921], pp. 297, 298; 1928,

Abeille, Paris, 35, pp. 101, 105. ----- UENO, 1970, Bull. natn. Sci. Mus., Tokyo, 13, p. 604, fig. 1;

1985, Coleopt. Japan Col., Osaka, 2, p. 85, pi. 16, fig. 6.

Other references are omitted.

Length: 4.05 mm (from apical margin of clypeus to apices of elytra).

Colour concolorously yellowish brown, not infuscated even on head; elytra semi-transparent, showing hind wings by transparency. Head mat, pronotum and elytra moderately shiny, with feeble silky lustre.

Body elongate, parallel-sided and depressed, densely covered with suberect pubescence except for head and prosternum, of which the former sparsely bears short pubescence and the latter bears a few hairs in the middle; legs wholly pubescent. Microsculpture isodiametric and coarse on head, transversely reticulated for the most part of pronotum, and of obscure transverse lines on elytra; elytral intervals finely punctate, each puncture bearing a hair. Measurements (in mm) as follows: HW 0.83, HL 0.58, PW 1.10, PL 0.90, PL<sub>t</sub> 0.93, PA 0.83, PB 0.83, EW 1.45, EL 2.55.

Head short and broad, with completely flat eyes, whose outline forms a continuous curve with that of genae, the latter about seven-eighths as long as eyes and covered with suberect hairs; viewed laterally, eyes vertical, with rounded anterior and straight

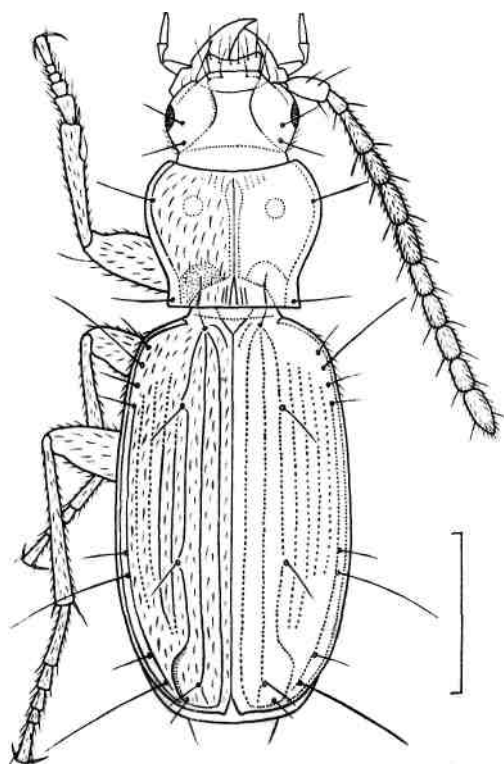
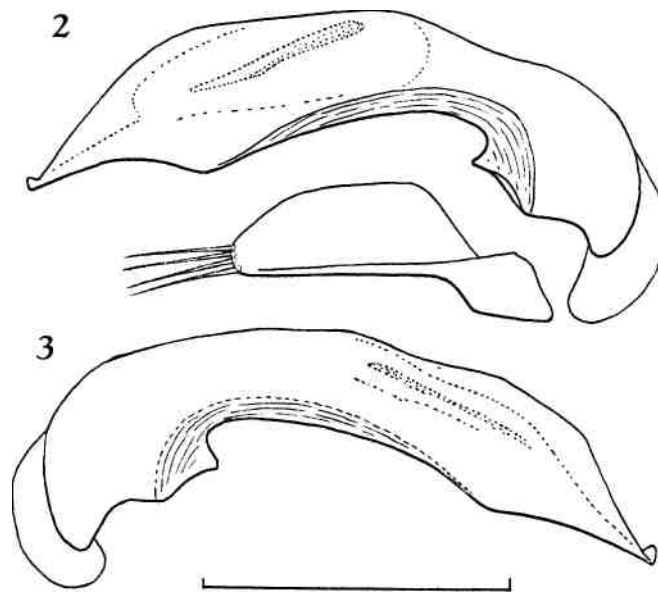


Fig. 1. Habitus of *Trechoblemus postilenatus* (H. W. BATES), from Novoaleksandrovsk in southern Sakhalin. (Scale: 1.0 mm.)

posterior margins; frontal furrows distinct throughout, subangulate at middle and widely divergent in front and behind; frons feebly convex, separated from vertex by a mal-defined transverse impression, supraorbital areas gently convex; labrum transverse, deeply emarginate at apex; mandibles short and stout; antennae stout, filiform, reaching basal three-sevenths of elytra, with the lengths (in mm) of segments 1-11 as follows: 0.28, 0.18, 0.30, 0.23, 0.28, 0.25, 0.23, 0.23, 0.23, 0.23, 0.33; antennal segments 7-10 each cylindrical and more than twice as long as wide.

Pronotum transverse subcordate, widest at about three-fourths from base, and much more gradually narrowed towards ante-basal constriction than towards apex; PW/HW 1.33, PW/PL 1.22, PW/PL<sub>t</sub> 1.18, PW/PA 1.33, PW/PB 1.33; sides moderately arcuate in front, feebly so behind the widest part, shallowly but distinctly sinuate at about basal two-ninths, and then subparallel towards rectangular hind angles, with marginal gutters fairly wide throughout; two pair of marginal setae present, the anterior one at the widest part and the posterior on hind angles; apex as wide as base, PB/PA 1.00, lightly bisinuate, with front angles prominent and narrowly rounded; base almost straight; disc gently convex, covered with fine hair-bearing punctures;



Figs. 2-3. Male genitalia of *Trechoblemus postilenatus* (H. W. BATES), from Novoaleksandrovsk.  
 ---- 2. Right lateral view of aedeagus, with separated left style. ----- 3. Left lateral view of aedeagus. (Scale: 0.5 mm.)

median line distinct, widening in basal area; apical transverse impression obsolete, basal one distinct, continuous, longitudinally foveolate on each side of median line and laterally merging into round basal foveae, which are large and deep; no post-angular carinae.

Elytra elongated ovate, widest at about five-ninths from base though almost parallel-sided, with square shoulders and almost transverse prehumeral borders; EW/PW 1.32, EL/PL<sub>t</sub> 2.74, EL/EW 1.76; sides narrowly bordered throughout, nearly straight from behind shoulders to near the middle, then feebly arcuate, and almost conjointly rounded at apices; dorsum moderately convex at the lateral parts, gently so on the disc, with gentle apical declivity; striae superficial though almost entire, deeply impressed in apical area, stria 8 deepened behind the middle set of marginal umbilicate pores; scutellar stride short; apical stride short but deep, strongly curved and joining stria 3; intervals flat, apical carina prominent; stria 3 with two setiferous dorsal pores at about 2/9 and 4/7 from base, respectively; preapical pore situated well behind the level of the terminus of apical striole, and almost equally distant from apex and from suture.

Ventral surface smooth; venter of prothorax strongly convex. Legs fairly long. Male genitalia as in the Japanese specimens of the species.

*Specimen examined.* 1 ♂, Konuma (=Novoaleksandrovsk), southern Sakhalin, 25-XI-1932, Japanese collector (IBPV).

*Notes.* It is worth noting that in the subfamily Trechinae, and in most beetles, reduction of hind wings usually precedes that of eyes. The situation is reverse in the Sakhalin specimen, in which the hind wings are normally developed in spite of the complete flattening of the eyes.

In many Japanese specimens of *T. postilenatus*, the head is transversely infuscated across the eyes and the elytra have a pair of mal-defined dark blotches. This is, however, not definite; certain specimens are concolorously yellowish brown as is the case of the Sakhalin specimen. Incidentally, UÉNO has seen the holotype of *Trechus postilenatus* preserved in the Natural History Museum, London. It is a female (4.60 mm in the length of body) taken by George LEWIS at Osaka in 1871, with the following standard ratios of body parts: PW/HW 1.19, PW/PL 1.26, PW/PA 1.35, PW/PB 1.32, PB/PA 1.02, EW/PW 1.36, EL/EW 1.78. These data clearly show that the head is narrower, that is, the eyes are less convex, in the Sakhalin specimen than in the West Japanese one.

### 要 約

上野俊一・G. Sh. LAFER: サハリンのアトスジチビゴミムシ。——ウラデイヴォストクのロシア科学院生物学土壌学研究所に保管されていた古い標本のなかに、サハリン産のアトスジチビゴミムシが1点みつかった。この標本は、戦争までの小沼にあった樺太庁中央試験所に所蔵されていたもので、越冬中を採集されたと付記されている。日本のアトスジチビゴミムシとほぼ完全に一致するが、複眼のまったく膨隆していない点が異なっているので、仮に同一種の *Trechoblemus postilenatus* (H. W. BATES) と認定し、念のために記載をつけておいた。いずれにしても、この属のチビゴミムシは、サハリンから初めての記録になる。

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