

## A Supplementary Account of *Trechiana janoanus* (Coleoptera, Trechinae)

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### Abstract

*Trechiana (Leptepaphiama) janoanus* (JEANNEL) from northeastern Korea is re-described on the basis of a pair of the specimens of the original series. Its aedeagal characters are first introduced into science.

In the summer of 1937, an interesting microphthalmic trechine beetle was discovered by Yoshio YANO on Mt. Baji in northeastern Korea. It was described by JEANNEL in 1939 under the name of *Trechus (Trechiana) janoanus*. Later, the same author (1962, pp. 175, 191) transferred it from the *Trechiana* group to his "série phylétique d'*Epaphius*", and erected for it a new genus, *Leptepaphiama*. However, I was unable to approve of his arrangement, since he attached too much weight to the position of the preapical pore on elytra, or so it seemed to me. In certain groups like *Epaphius* and *Thalassoduvalius*, this pore is widely distant from the terminus of the third elytral stria, but the feature is not so apparent in such groups as *Parepaphius* and *Leptepaphiama*, and not stable in *Epaphiopsis (Epaphiama) semenovi* (JEANNEL) (cf. UÉNO, 1978, pp. 125, 126, 130–131). Further, slight instability of the pore in question is also found in *Trechiana borealis* S. UÉNO, which is an indubitable member of the genus *Trechiana* in a strict sense (cf. UÉNO, 1961, pp. 334, 335). In all respects other than the position of the preapical pore, *Leptepaphiama* is closer to *Trechiana* than to any genera placed by JEANNEL in his "série phylétique d'*Epaphius*". Taking my opinion into account, CASALE and LANEYRIE (1982, p. 83) regarded it as a subgenus of *Trechiana* in their catalogue of Trechinae.

Recent investigations made by PAWŁOWSKI, LAFER and LJOVUSCHKIN in northern Korea and the southern part of the Soviet Far East brought forth several new species of *Leptepaphiama* (personal communication). They were, however, confronted with difficulty in clarifying the true affinity of their species, since JEANNEL's description of *T. janoanus* was based solely upon a female. More detailed account of the type species, including a description of the male genitalia, was required by these specialists. I am, therefore, going to give a full redescription of the species in question in the present paper, based upon a pair of the specimens of the original series. The abbreviations used herein are the same as those explained in other papers of mine.

Before going into further details, I wish to express my indebtedness to Dr. A.

DESCARPENTRIES of the Muséum National d'Histoire Naturelle, Paris, for kindly permitting me to re-examine JEANNEL's type specimen, and to the late Dr. Kôhei SAKAGUTI for kindly giving me a male specimen of *T. (L.) janoanus*, which belongs to YANO's original series.

*Trechiana (Leptepaphiama) janoanus* (JEANNEL, 1939)

(Figs. 1–3)

*Trechus (Trechiana) janoanus* JEANNEL, 1939, Rev. fr. Ent., **6**, p. 87, fig. 2; type locality: mont Baji dans le nord de la Corée.

*Anophthalmus* sp.: YANO, 1941, Nippon no Kôchû, Tokyo, **4**, p. 23.

*Trechiana janoanus*: JEANNEL, 1953, Notes biospéol., **8**, p. 128.

*Leptepaphiama janoanus*: JEANNEL, 1962, Rev. fr. Ent., **29**, p. 191.

*Trechiana (Leptepaphiama) janoanus*: CASALE & LANEYRIE, 1982, Mém. Biospéol., **9**, p. 83.

Length: 6.10–6.55 mm (from apical margin of clypeus to apices of elytra).

Large species of rather peculiar facies, with very small and narrow fore body and large ample elytra; surface glabrous; depigmented; inner wings absent. Colour reddish brown, very shiny, and more or less translucent; palpi, apical segments of antennae, epipleura, apical sternites and legs more or less lighter than body.

Head small and narrow though about as long as wide, widely depressed above; frons and supraorbital areas weakly convex, the former transversely depressed behind, vertex convex towards neck; frontal furrows entire, rather deeply impressed in anterior two-thirds, hardly arcuate at middle, gently divergent in front, and rather weakly arcuate even at the posterior parts; supraorbital pores located on lines distinctly convergent posteriad; microsculpture distinct though fine, mostly formed by wide meshes; eyes small though perfectly faceted, only slightly convex or rather flat; genae only very slightly convex and glabrous, about as long as or somewhat longer than eyes, and gradually convergent towards shallow neck constriction; neck wide; labrum transverse, deeply emarginate at apex; mandibles long and stout, moderately arcuate at apices; mentum free, with the tooth stout and deeply cleft at apex; palpi thin, with subacuminate apical segments; antennae long and slender, reaching the middle of elytra, segment 2 about three-fifths as long as segment 3 or 4, which is the longest, segments 6–7 subcylindrical, each about four times as long as wide, 8–10 diminishing in length towards terminal segment, which is about as long as segment 6, longer but obviously narrower than scape.

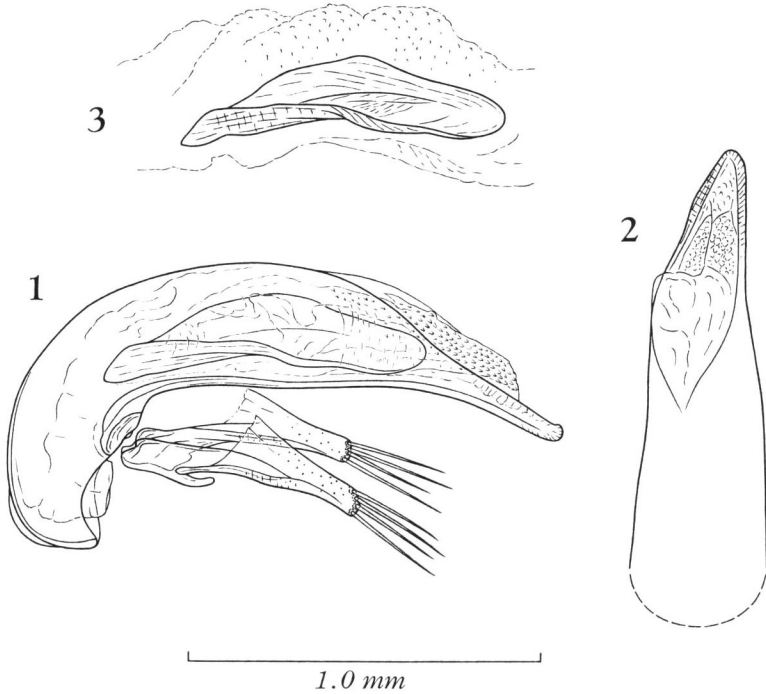
Pronotum cordate, distinctly wider than head, slightly wider than long, widest at about two-thirds from base, and much more strongly contracted towards base than towards apex; PW/HW 1.38 in ♂, 1.29 in ♀, PW/PL 1.06 in ♂, 1.08 in ♀, PW/PA 1.46 in ♂, 1.49 in ♀, PW/PB 1.66 in ♂, 1.65 in ♀; sides narrowly bordered throughout, strongly arcuate in front, almost straight behind middle, deeply sinuate at about basal seventh, and then divergent again towards sharp hind angles, which are produced more outwards than backwards; lateral setae normal, the anterior one at the widest part

and the posterior one distant from hind angle; apex slightly but widely emarginate, narrowly bordered except for the median part, with front angles obtuse and not produced; base slightly emarginate though almost straight at the median part, much narrower than apex, PA/PB 1.14 in ♂, 1.11 in ♀; surface moderately convex and devoid of discal hairs; microsculpture formed by fine transverse lines though rather indistinct; median line distinct, widening in basal area; apical transverse impression vague; basal transverse impression fairly wide, provided with a deep foveole on each side of median line and laterally merging into deep basal foveae, which are not large but extend anteriorly along side borders; postangular carinae distinct, being close to side borders; basal area small and narrow, longitudinally rugulose. Expansion of propleura visible from above behind middle.

Elytra very large, oval, widest at the middle, and equally narrowed towards the two ends; EW/PW 1.93 in ♂, 1.94 in ♀, EL/EW 1.51 in ♂, 1.46 in ♀; shoulders effaced, with prehumeral borders very oblique, almost straight and complete throughout; sides narrowly reflexed, gently arcuate, and slightly emarginate before apices, which are almost conjointly rounded; surface widely depressed on the disc, not much convex even at the peripheries; microsculpture mostly indistinct though consisting of fine transverse lines; striae shallow though punctate, 1 entire and moderately impressed throughout, 2 and 3 distinct on the disc but obsolete near base, 4 and 5 very shallow and obsolete in basal fourth, 6 and 7 vestigial, 8 deeply impressed behind the fifth umbilicate pore; scutellar striole distinct though short; apical striole also short but deeply impressed, feebly curved and free at the anterior end; intervals flat and smooth; apical carina obtuse; internal series of setiferous dorsal pores three in number, the basalmost lying on interval 3 at about 1/8 from base and the other two on stria 3 at about 1/3 and 3/5 from base respectively; external series composed of a single setiferous pore lying on the site of stria 5 at a position slightly behind the level of the basalmost pore of the internal series; preapical pore adjoining stria 2 at about apical sixth.

Ventral surface smooth; anal sternite with a pair of marginal setae in ♂, with two pair of them in ♀. Legs long and slender; protibiae straight, gradually dilated towards apices, deeply grooved on the external face, and glabrous on the anterior face even at the apical part; tarsi long and thin; in ♂, two proximal segments of each pro-tarsus widely dilated and stoutly produced inwards at apices.

Male genital organ large and heavily sclerotized. Aedeagus about two-fifths as long as elytra, hardly arcuate at middle, and rather rapidly flattened towards apical lobe; basal part rather elongate, strongly bent ventrad, and widely emarginate at the sides of basal orifice, with vestigial sagittal aileron; viewed laterally, apical lobe narrow, straightly produced ventro-apicad, and slightly turned up at the blunt extremity; viewed dorsally, apical lobe inclined to the left, gradually narrowed apicad, and ending in a blunt extremity; ventral margin slightly bisinuate in profile. Inner sac scaly, especially near apical orifice, but devoid of sclerotized teeth, being armed with a very large copulatory piece about three-fifths the length of aedeagus; copulatory piece spatulate and widely rounded at apex, lying inside the sac with the convex face towards



Figs. 1–3. *Trechiana (Leptepaphiama) janoanus* (JEANNEL), allotype, from Mt. Baji in north-eastern Korea; male genitalia, left lateral view (1), apical part of aedeagus, dorsal view (2), and separated copulatory piece, left lateral view (3).

the right wall; left lamella of the piece thickened in basal half. Styles short and narrow, right style shorter than the left, each bearing four setae at apex.

*Specimens examined.* 1 ♀ (holotype), 1 ♂ (herewith designated as allotype), 17~19-VII-1937, Y. YANO leg.

The holotype is deposited in the collection of the Laboratoire d'Entomologie, Muséum National d'Histoire Naturelle, Paris.<sup>1)</sup> The allotype is in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo.

*Locality.* Mt. Baji (=Mt. Mai-san), 1,270 m in altitude, in Hamgjong-puk-to, on the Japan Sea side of northeastern Korea.

*Notes.* Nothing is known about the habitat of this interesting trechine. Judging from the relatively high altitude of the type spot, it may be a subalpine species like the members of the group of *T. borealis*. Many years ago, I asked Mr. Yoshio YANO in what kind of place he had taken his specimens, only to receive the answer that he had forgotten all about it.

1) Not in the British Museum (Natural History), though so indicated in the original description.

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