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ON THE TRIBE LOBOTRACHELINI FROM JAPAN¹

(Col., Curculionidae, Zygopinae)

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In the present paper, the author wishes to describe three new species belonging to two genera of the tribe Lobotrachelini, which has been unrecorded from Japan.

Most of the specimens treated in this paper are preserved in the collection of the Entomological Laboratory of Kyushu University and several of them are in the author's cabinet.

Before going further, the author wishes to express his cordial thanks to the late Prof. T. ESAKI and Prof. K. YASUMATSU for their kind guidance in the course of the present study. He is also indebted to the following gentlemen for the materials: Messrs. I. HIURA, S. KIMOTO, Y. MURAKAMI, S. SHIBANAI, S. UENO and Y. WADA.

Key to the genera and species of the tribe Lobotrachelini
occurring in Japan.

- 1 (2): Pectoral canal prolonged to mesosternum, sharply limited behind. Prothorax comparatively larger and legs shorter. Genus *Metetra* PASCOE, 1873.
Unique castaneous brown species. *Metetra esakii*, sp. nov.
- 2 (1): Pectoral canal confined to prosternum, open behind, mesosternum slightly depressed or flat, not grooved. Genus *Lobotrachelus* SCHÖNHERR, 1838.
Japanese species of the genus are characterized by the scaly markings; i. e. pronotum with the posterior angles and scutellar lobe closely covered with white scales, elytra with a submedian white patch extending from the suture to the 5th interval.
- 3 (4): Pronotum closely punctured, interval of the punctures half as long as the diameter, apical three-fourths of the suture and apex of elytra covered with white scales, each femur with a small tooth. *Lobotrachelus montanus*, sp. nov.
- 4 (3): Pronotum sparsely punctured, interval of the punctures as long as or a little longer than the diameter, basal three-fourths of the suture

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covered with white scales, apex of elytra not covered with white scales, posterior 4 femora not denticulate. . . *Lobotrachelus tosanus*, sp. nov.

VOSS (1957)¹⁾ considered that *Metetra* might be a synonym of *Lobotrachelus*, but the generic characters of the genus *Metetra* described by VOSS (1940)²⁾ are not agreed with the original description of the genus in the following important point, namely, the pectoral canal on the mesosternum was described by VOSS as "Das Mesosternum wird nicht beeindruckt, wenigstens nicht deutlich", and this character was originally described by PASCOE as "Rima pectoralis lata, profunda, postice in mesosterno bene limitata".

The following new species is considered to belong to the genus *Metetra* for the reasons mentioned below. The pectoral canal of the species is deep and prolonged to the mesosternum, each side of the canal is bordered by a distinct keel on the prosternum, thus making the sides sharply limited from the canal, while the canal on the mesosternum is only the excavation of the sternum without bordered by a keel. The posterior end of the canal on the mesosternum is limited with a strong arched keel. The surface of the canal is thinly clothed with scales.

There are some other characters which are important in separating these genera among the Japanese species, and they may be tabulated in the following key.

- 1 (2): Lateral two striae of elytra jointed above the 4th abdominal segment, apex of elytra conjointly rounded, inside of femora not ditched between the tooth and the base. Genus *Metetra* PASCOE
 2 (1): Lateral two striae of elytra separated, apex of elytra separately rounded, inside of femora ditched for the reception of tibiae.
 Genus *Lobotrachelus* SCHÖNHERR

Metetra esakii MORIMOTO, sp. nov.

♂ ♀. Rhomboidal, convex, glossy, whole derm castaneous brown, antennae brown, eyes black; head sparsely covered with minute ochreous hairs, the base and each side of the basal half of rostrum covered with white scales, which are closer at the base; pronotum sparsely covered with narrow ochreous scales, scutellar lobe closely covered with white oval scales and just anterior to the lobe there is a transverse oval area which is covered thinly with narrow black scales; scutellum closely covered with white oval scales; elytra behind scutellum with a white patch formed of broad scales, apical two-thirds of the suture, bases of 2nd~7th intervals, two transverse bands before and behind the middle and apices of 3rd~6th intervals covered with slender white scales, lateral ends of the anterior band on the 5th interval and posterior band on the 6th interval prolonged forward; posterior to the post scutellar white patch, 2nd~4th intervals between the basal and anterior transverse white bands and 2nd~5th intervals between the anterior and posterior white bands sparsely clothed with black narrow scales,

1) *Treubia*, 24 (1): 30 (1957).

2) *Tijdschr. Ent.* 1940: 34 (1940).

lateral portion of the elytra scarcely with scales; lateral and ventral sides of the body closely covered with oval white scales, mesoepisterna less closely covered with ochreous scales, middle of metasternum and apical segment of abdomen covered with short hairs; legs sparsely covered with white narrow scales, apex of tibia fringed with long golden hairs.

Head globular, with shallow punctures, interval of which is as long as the diameter, slightly leathery, frons between the eyes fusiform at the basal half and linear at the apical half; eyes large, closely approximated, lower margin of eyes lying far above the upper edge of scrobes; rostrum a little longer than pronotum, moderately curved, slightly dilated towards the base, the base of rostrum and frons in the same level in lateral view, each side and base closely

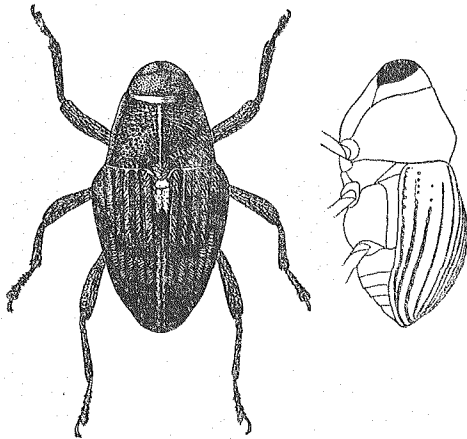


Fig. 1. *Metetra esakii*, sp. nov.

punctured, with a median weak keel, which is gradually becoming broader and vanishing toward the unpunctured apical area; antennae inserted before the middle of rostrum in both sexes; scape clavate, straight, not reaching the basal margin of the rostrum, funicle 7-segmented, 1st segment robust, twice as long as wide, 2nd segment conical, twice as long as wide, 3/4 times as long as the 1st, 3rd segment square, as long as wide, 4th~7th segments transverse, gradually widened apically and continuous to the club, 1st segment of club subtrapezoidal, as long as wide.

Pronotum subtrapezoidal, the sides almost straight, as long as wide, anterior margin 3/5 times as long as the base, anterior margin glossy, unpunctured, a transverse area just posterior to the anterior margin slightly constricted, with smaller and shallower punctures, median keel strongly ridged and elevated, scutellar lobe triangular, covering the anterior part of scutellum.

Scutellum small, transverse oval, but always concealed under a subtrape-

zoidal white patch of close scales.

Elytra subtriangular, a little longer than wide, shoulders weakly prominent, apex conjointly rounded and not so developed as in *Lobotrachelus*, punctured striae deep, a little shallowed behind, 7th and 8th striae not reaching the base, last two striae jointed above the 4th abdominal segment, intervals flat, as broad as the striae, 1st (sutural) interval a little narrower than the others, each interval with a row of scaled fine punctures along the interval margin.

Pectoral canal prolonged to the mesosternum. Metasternum with a median longitudinal ditch. Abdominal process as broad as the posterior coxa, broad-triangular, 1st abdominal segment as long as the following three segments taken together, 2nd segment a little longer than the 3rd, the latter as long as 4th, last

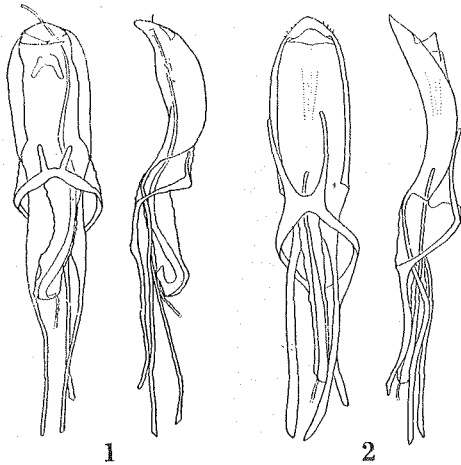


Fig. 2. Aedeagus, dorsal and lateral aspects.

1. *Metetra esakii*, sp. nov.
2. *Lobotrachelus montanus*, sp. nov.

segment with a round shallow depression near the middle of the apical margin (♂) or flat (♀).

Legs comparatively shorter, femora slightly clavate, curved internally at the apex, adorned with small teeth, inside of each femur there is a short and shallow ditch only from the tooth to the apex and an un-haired line between the base and the tooth; tibiae much shorter than femora, nearly straight, slightly widened outward the apex; posterior tarsi $4/5$ times as long as tibiae, 1st segment as long as the next two segments taken together, 3rd segment narrowly but deeply bilobed.

Length: 2.5~2.8 mm.

Habitat: Japan (Kyushu: Satanomisaki and Amakusa).

Holotype: Satanomisaki, Kagoshima Pref. ♂, 29. V. 1953, I. HIURA leg. Allotopotype: ♀, 30. V. 1953, S. KIMOTO leg. Paratypes: Tomioka-Shiki, Amakusa, 1 ♂, 19. VI. 1931, ESAKI & HORI leg. Satanomisaki, Kagoshima Pref. 1 ♂, 29. V. 1952, ESAKI & HIRASHIMA leg.; id. 2 ♂, 26 & 30, HIURA & KIMOTO leg.

The present species is easily recognized by the deeply canaliculate pro- and mesosternum, castaneous coloration and scaly making.

Lobotrachelus montanus MORIMOTO, sp. nov.

♂. Subrhomboidal, convex, black, antennae, apex of rostrum, tarsi and apical margin of elytra reddish brown; head sparsely covered with minute hairs, inner orbits each with a row of white hairy scales, lateral side and the base of rostrum closely covered with clubbed scales; pronotum with the basal angles and scutellar lobe closely covered with clubbed white scales, remaining portion sparsely clothed with narrow yellowish brown scales; elytra with the apical three-fourths of the suture, submedian transverse patch extending on each side as far as the 5th interval, the bases of 2nd and 3rd intervals and the apex clothed with white scales, lateral ends of the submedian patch on the 5th interval closely covered with white scales, remaining portion clothed with yellowish brown scales; each side of the pectoral canal with close white clubbed scales; underside covered with white branched scales; lateral pieces of meso- and metathorax with a little closer scales of the same nature; legs sparsely covered with white narrow scales, apical one-third of tibiae clothed with yellowish grey hairs.

Head globular, with shallow punctures, which are closer on each side and the basal margin, the interval leathered; frons between the eyes linear, keeled; rostrum slightly shorter than pronotum, slightly curved at the antennal insertions, parallel-sided, dilated a little at the base, median keel distinct, strongly ridged each side of the keel and above the antennal scrobe there are shallow punctured striae, cross-section of the base of rostrum triangular; antennae inserted into the apical one-fourth of rostrum; scape slightly clavate at the apex, 1st segment of funicle robust, conical, twice as long as wide, 2nd segment as long as 3rd, slender, 4th and 5th segments slightly longer than wide, 6th and 7th segments as long as wide, globular; club oval, closed and compact, twice as long as wide, 1st segment transverse.

Pronotum subtrapezoidal, transverse, $\frac{2}{3}$ times as long as wide, apical margin glossy, not punctured, half as wide as the base, the sides slightly rounded,

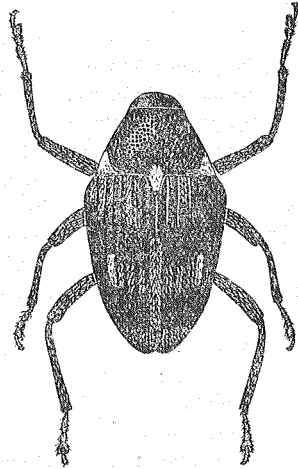


Fig. 3.

Lobotrachelus montanus,
sp. nov.

a transverse area just posterior to the apical margin weakly constricted, disk closely punctured, interval of the punctures glossy and half as long as the diameter, median keel hardly discernible, scutellar lobe sharp-angled triangular, covering the anterior part of scutellum.

Scutellum small, rounded, naked, punctured.

Elytra oblong cordiform, $5/3$ times longer than wide, shoulders weakly prominent, the sides nearly straight and gradually narrowed toward the apical one-third, each apex separately rounded, punctured striae deep, slightly shallowed behind, 7th and 8th striae not reaching the base, last two striae separated throughout, intervals flat, a little broader than the striae, each interval with two irregular rows of scaled shallow punctures except the more closely punctured 1st interval.

Pectoral canal not extending beyond the anterior coxae; mesosternum flat. Abdominal process a little broader than the posterior coxa, apical margin nearly straight, 1st segment of abdomen shorter than the following two segments taken together, 2nd segment a little longer than the 3rd, the latter as long as the 4th, last segment slightly depressed at the middle near the apex.

Legs relatively long; femora scarcely clavate, widened internally at the apex, adorned with small teeth, inside of each femur with a ditch for the reception of tibia; tibiae shorter than femora, straight, parallel-sided; posterior tarsi half as long as the tibia, 1st segment as long as the following two segments taken together, 3rd segment narrowly but deeply bilobed.

♀. Rostrum slender, as long as pronotum, naked, with a very weak median keel, sparsely punctured, above the antennal scrobe there is a punctured stria. Last abdominal segment flat, not depressed.

Length: 2.5~2.8 mm.

Habitat: Japan (mountainous regions of Honshu, Shikoku and Kyushu).

Holotype ♂, Allotype ♀, Mt. Hakusan, Ishikawa Pref. 31. VII. 1956, Y. MURAKAMI leg.

Paratypes: Mt. Tateyama, Toyama Pref. 3♂ 1♀, 22. VII. 1953, Y. MURAKAMI leg. Mt. Hakusan, Ishikawa Pref. 2♂, 6. VIII. 1953, Y. MURAKAMI leg. Shirahone, Nagano Pref. 1♀, 19. VII. 1956, S. KIMOTO leg. Shimashimadani, Nagano Pref. 3♂, 28. VII. 1953, S. UENO leg. Mt. Ishizuchi, Ehime Pref. 2♀. 4-6. VI. 1952, SHIBANAI & WADA leg. Hikosan, Fukuoka Pref. 1♀, 15. V. 1955, K. MORIMOTO leg.

The present species is similar to *L. suturalis* HUSTACHE, 1925, from Luzon, but may be separable from the latter by the scaly markings on the base of the elytra and the suture.

Lobotrachelus tosannus MORIMOTO, sp. nov.

♀. Subrhomboidal, convex, glossy, black, antennae, apex of rostrum, tarsi and apical margin of elytra reddish brown; head naked, base of rostrum sparsely covered with small hairs; the dorso-lateral portions of pronotum covered throughout with a pair of large triangular white patches, which are reaching

almost the entire posterior margin of pronotum except for the latero-ventral portions, and extending anteriorly to the middle of the sides of the pronotum, scutellar lobe closely covered with white clubbed scales, remaining portion of the pronotum thinly clothed with dark brown small hairs; elytra with the basal half of suture, base of 3rd interval and a submedian transverse band extending from the suture to the 5th interval covered with white hairy scales, remaining portion clothed with dark brown hairs; underside covered with white branched scales, apical margin of prothorax and lateral pieces of meso- and metathorax clothed with closer scales of the same nature; legs moderately clothed with narrow white scales, apical half of tibiae clothed with white hairs.

Head globular, with shallow punctures, interval of which is as long as the diameter, a little closer on each side, with a small median depression; frons between the eyes linear, keeled; rostrum shorter than pronotum, scarcely curved, parallel-sided, a little divergent posteriorly only at the base, median keel weak, but strongly ridged at the base, the base triangular in cross-section, sparsely punctured; antennae inserted just before the middle of rostrum; scape clavate at the apex, 1st segment of funicle conical, twice as long as wide, 2nd segment slender, a little shorter than the 1st, 3rd segment as broad as and a little shorter than the 2nd, 6th and 7th segments globular; club fusiform, twice as long as wide, 1st segment transverse.

Shape of pronotum similar to *L. montanus*, sp. nov., punctuation on the disk sparse, small and shallow, interval of the punctures is as long as or a little longer than the diameter, scutellar lobe with a weak median keel.

Scutellum small, round, naked, punctured.

Shape and structures of elytra similar to *L. montanus*, sp. nov., but the interval a little broader.

Underside and legs similar to *L. montanus*, but the last abdominal segment slightly convex, posterior 4 femora not denticulate, 1st segment of posterior tarsus longer than the next two segments taken together.

♂. Unknown.

Length: 3.8 mm.

Habitat: Japan (Shikoku: Kochi Pref.).

Holotype: Okinoshima Isl. Kochi Pref. ♀, 31. VII. 1953, K. MORIMOTO leg.

Paratype: Jinzenji, Kochi City, 1 ♀, 21. VIII. 1950, K. MORIMOTO leg.

The present species is closely related to *L. montanus*, but may be separable by the characters noted in the key.