

Description of *Tachinus (Tachinoderus) aokii* sp. nov. (Coleoptera, Staphylinidae) from Japan

Yasuhiko HAYASHI¹⁾ and Masataka YOSHIDA²⁾

¹⁾Suimeidai 3–1–73, Kawanishi-shi, Hyogo 666–0116 Japan

²⁾Myoto-chô 1–295–1, Tokushima-shi, Tokushima 770–0047 Japan

Abstract *Tachinus (Tachinoderus) aokii* sp. nov. is described from Tōhoku district and Sado Is.

Tachinoderus MOTSCHULSKY, 1858, one of the subgenera of the genus *Tachinus* GRAVENHORST, 1802, was established on the characteristics of construction of antennae (MOTSCHULSKY, 1858). This subgenus consists 34 described species from East and Southeast Asia (SMETANA & SHÜLKE, 2015), of which six species are from Japan (LI, 1994; SHIBATA *et al.*, 2013). Considering the distribution, the occurrence of additional members of the subgenus in Japan has been expected. Recently an unknown species belongs to this subgenus was collected by one of us (M. Y.) and Dr. J. AOKI from northern Japan. The unknown species is very similar to *Tachinus (Tachinoderus) diminutus* SHARP, 1888 in general appearance and external sexual dimorphism. After close examination we concluded that it is new to science. We are going to describe the new species in the following lines.

The holotype is preserved in the collection of the Osaka Museum of Natural History, Japan.

Before going into further detail we are very grateful to Dr. Jun'ichi AOKI (Professor emeritus of Yokohama National University) for his kindly offering many materials, and to Dr. Kiyoshi ANDO for his critically reading the manuscript of this paper.

Tachinus (Tachinoderus) aokii sp. nov.

(Figs. 1–11)

Body fusiform, strongly convex, strongly shiny, fore body without microsculpture on dorsum. Color dark brown; head black, pronotum dark brown in middle and widely yellowish brown in marginal area; elytral humeri, lateral and posterior margins obscurely yellowish brown; abdominal segments narrowly yellowish brown at each posterior margin; maxillary palpi pale yellowish brown at basal two palpomeres and dark brownish yellow in apical two; antennae with basal two antennomeres pale yellowish brown, polished, 3rd pale brownish, weakly polished, and the succeeding antennomeres dark brown; legs pale brownish yellow. Length: 3.6–4.4 mm.

Head wider than long (85 : 52), much narrower and a little shorter than pronotum (20 : 11 and 39 : 64), convex above, minutely and sparsely punctured; clypeo-frontal region not limited. Eyes moderately large in size and strongly prominent laterad. Antennae long, reaching near pronotal base; 1st to 8th and 11th antennomeres longer than wide; 9th as long as wide; 10th slightly wider than long; antennomeres with the following relative length from base to apex: 38 : 24 : 35 : 28 : 28 : 24 : 24 : 21 : 20 : 20 : 42.

Pronotum subtrapezoidal, gently retracted anteriorly, strongly convex, and rounded at sides, widest at basal third, about 1.67 times as wide as long, slightly wider than and about two-thirds as long as elytra; anterior angles rounded and produced; anterior margin nearly straight; basal angles gently



Fig. 1. *Tachinus (Tachinoderus) aokii* sp. nov., habitus.

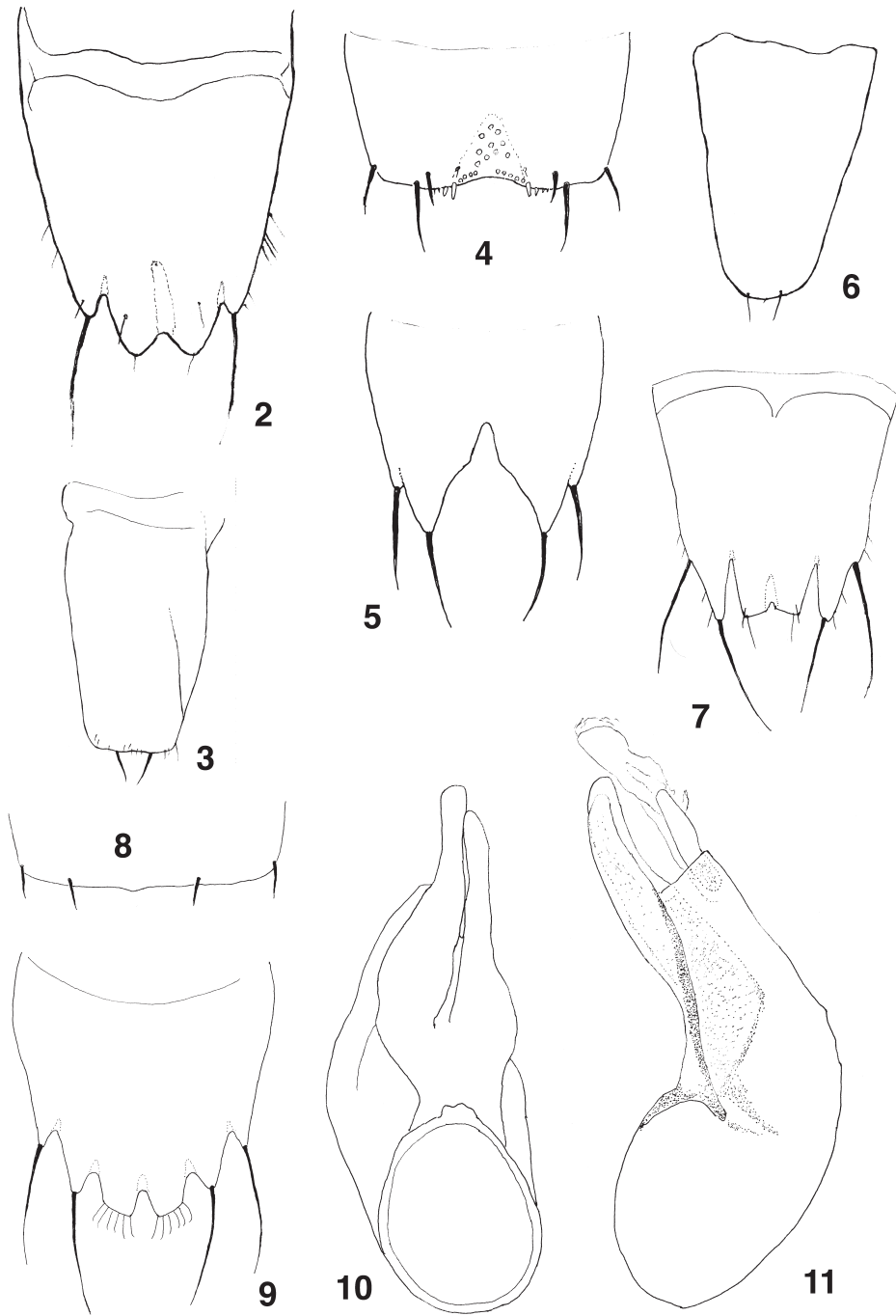
rounded, and basal margin feebly arcuate; disc minutely and very sparsely punctured, without microsculpture, the punctures a little larger than those on head, with pubescence imperceptible.

Elytra subquadrate, slightly retracted posteriad, a little wider than long (9 : 8), slightly arcuate at sides, and weakly so at posterior margins, with fine small spines at humeri; disc devoid of microsculpture, Punctures coarse and rather close, much larger than those on pronotum, without visible pubescence.

Mesoventrite tuberculate at base of its process, with a pair of small carinae at middle of basal line.

Abdomen evenly convergent posteriad; tergites with punctures subelliptical, sparse and rather coarse; punctures on ventrites much larger and more elongate than on tergites, and microsculpture absent except 7th segment; 3rd tergite not microsculptured, bearing a pair of small obscure tomentous flecks.

Male. Eighth tergite (Fig. 2) quadri-lobed, the inner two lobes wide, rather long, with a fine short seta at each apex; outer ones small and slender, each top reaching level of base of inner lobes and bearing a long bristle; tenth tergite (Fig. 3) oblong-elongate, truncate at apex; 7th ventrite (Fig. 4) feebly emarginate in the median third of hind margin, the emargination armed marginally with about eight tubercles, and a long and a short horn-like tubercles at each lateral side, and surface triangularly, shallowly depressed before the emargination, with three pairs of remarkable black setae along hind margin as in Fig. 4, and the depression scattered irregularly about ten tubercles; 8th ventrite (Fig. 5) quadri-lobed, deeply excised medially in V-shape, flattened before the excision, and minutely, very sparsely punctured there; inner two lobes rather long and wide, subtriangular, with a long bristle at the



Figs. 2–11. *Tachinus (Tachinoderus) aokii* sp. nov. — 2, Male 8th tergite; 3, male 10th tergite; 4, male 7th ventrite; 5, male 8th ventrite; 6, male 9th ventrite; 7, female 8th tergite; 8, female 7th ventrite; 9, female 8th ventrite; 10, male genitalia, ventral view (a little oblique); 11, ditto, right lateral view (slightly oblique).

tip, and outer two lobes short, lying at about the apical fourth of lateral margins, each with a long bristle at each tip; ninth ventrite slightly asymmetrical, elongate-obtrapezoidal, and weakly arcuate at apical margin.

F e m a l e. Eighth tergite (Fig. 7) quadri-lobed, narrowly, deeply excised between inner two lobes and outer lobes, and narrowly, shallowly incised between inner ones, each lobe short and wide, gradually narrowed posteriad, obliquely truncate at apex, with a short seta at each latero-apical angle; outer lobes elongate triangular, extending to apices of inner lobes, bearing a long bristle at the base, the middle of lateral margins, and at the tip; seventh ventrite (Fig. 8) feebly arcuate at posterior margin, with a long bristle at each inner third and lateral angle near posterior margin; eighth (Fig. 9) ventrite with three pairs of lobes at posterior margin, inner lobes widest and longest in the three, feebly arcuate at apex, with 6 short fine setae at each tip; intermediate lobes slender, reaching at about level of base of inner ones, each with a long bristle at the tip; outer lobes short, not reaching level of base of intermediate ones, each with a long bristle at the tip.

Legs moderately long; fore tibiae with a few short spines in apical half; fore tarsi rather dilated in male than in female; middle tibiae with sparse and remarkably long spines; hind tibiae with several long stout spines; 1st metatarsomere as long as the succeeding two tarsomeres combined with each other.

Male genitalia (Figs. 10 & 11) fusiform, slender, a little asymmetrical, gently and evenly arched in lateral view; penis elongate-subfusiform in ventral view, weakly sclerotized and semitransparent in the dorsum, with a pair of stick-like inner appendages, which are extended near apex of parameres when inner sac being everted; parameres bi-lobed, markedly sinuate in lateral view, deeply bi-lobed, extending beyond penis, rounded at each apex, and left lobe a little longer and less steep than right one.

Holotype: ♂, Mt. Tadara-mine, Sado Is., Niigata Pref., 12.VIII.2012, M. YOSHIDA leg. Paratypes: 1 ♀, the same locality of the holotype, 21.VIII.2012; 2 ♂♂, 6 ♀♀, Sotoyama, Tamayama-mura, Iwate Pref., 6.IX.2008, J. AOKI leg.

Similarity and differential diagnosis. The new species is very similar in general appearance to *Tachinus (Tachinoderus) diminutus* SHARP, 1888 by absence of microsculpture on the fore body and presence of a tubercle on the mesoventrite. The new species and *T. diminutus* species are separable from each other by the following points: a little larger in body length and paler in coloration than *T. diminutus*; punctures on the abdomen elongate, subelliptical; 3rd tergite not microsculptured; male genitalia more slender in ventral view, evenly arcuate in lateral view, parameres more sinuate and more extending distally beyond penis than in *T. diminutus*; inner lobe of 8th tergite in female obliquely truncate at apex as in Fig. 7.

Etymology. Specific name is dedicated to Dr. Jun'ichi AOKI, who is very excellent Acarologist and Coleopterologist, and he collected some specimens of the type series.

要 約

林 靖彦・吉田正隆：日本産マルクビハネカクシの1新種(鞘翅目ハネカクシ科シリホソハネカクシ亜科)——東北地方および佐渡島から *Tachinus (Tachinoderus) diminutus* SHARP コクロマルクビハネカクシに近似する新種を見出したので、*T. (T.) aokii* sp. nov. キタコクロマルクビハネカクシ(新称)と命名、記載した。本種は、コクロマルクビハネカクシより全体に大きく(前者は2.4–3.0 mm に対し、新種は3.6–4.5 mm)、やや淡色、また雄交尾器、二次性徴などに差がみられる。

References

- LI, L.-Z., 1995. A revision of the genus *Tachinus* GRAVENHORST (Coleoptera, Staphylinidae) of Japan, 2. *Japanese Journal of Systematic Entomology*, **1**: 201–216.
- MOTSCHULSKY, V. de, 1858. Énumération des nouvelles espèces de coléoptères rapportés de ses voyages. *Bulletin de la Société Impériale des Naturalistes de Moscou*, **31** (3): 204–264.
- SHIBATA, Y., M. MARUYAMA, H. HOSHINA, T. KISHIMOTO, S.-I. NAOMI, S. NOMURA, V. PUTHZ, T. SHIMADA, Y. WATANABE & S. YAMAMOTO, 2013. Catalogue of Japanese Staphylinidae (Insecta: Coleoptera). *Bulletin of the Kyushu University Museum*, **11**: 69–218
- SMETANA, A., & M. SHÜLKE, 2015. Staphylinidae. pp. 304–1134. In LÖBL, I., & D. LÖBL (eds.), *Catalogue of Palaearctic Coleoptera, 2 (Revised and Updated Edition)*. Brill.

Manuscript received 13 February 2016;
revised and accepted 18 February 2016.