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Descriptions of Two New Myrmecophilous Species of the Family Pselaphidae (Coleoptera) from Japan*

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Abstract Two new myrmecophilous pselaphid species, *Tribasodites picticornis* from Okinawa Is. and *Batraxis splendida* from Iriomote Is. are described. The new species are captured in the colonies of *Paratrechina flavipes* and *Brachyponera chinensis*, respectively. The genera *Tribasodites* and *Batraxis* are new to Japan.

Two new species of myrmecophilous pselaphids, *Tribasodites picticornis* and *Batraxis splendida* are described in this paper, together with illustrations and notes on their hosts. These genera are recorded from Japan for the first time.

Tribasodites picticornis sp. nov.

Male. Length 2.1-2.3 mm. Width 0.7-0.8 mm. Reddish brown, maxillary palpi and legs light brown.

Head wider than long (4: 3), with a pair of lateral longitudinal carinae extending from frontal foveae to tempora, frons broad, slightly concave, with lateral parts higher in level than its median part, vertex weakly convex, with a median longitudinal carina, which is half as long as head; dorsal tentorial pits each located in the middle between median and lateral carinae; dorsal surface sparsely pubescent, tempora densely pubescent, with erect long hairs. Eyes ovoidal, convex, each composed of about 45 facets. Antennae reaching the middle of elytra, 1st segment subcylindrical, with apical margin emarginate, 9th to 11th each asymmetrical, with long hairs, 9th with flat inner side, 10th deeply depressed internally, with two acute processes, 11th largest, with a laminate lobe at inner base, its dorsal side deeply depressed, relative lengths (widths) of segments from base to apex as being 2.3 (1.5): 1.4 (1.1): 1.3 (1.1): 1.2 (1.0): 1.3 (1.0): 1.5 (1.0): 1.3 (1.0): 1.0 (1.0): 1.3 (1.3): 1.5 (2.0): 4.1 (2.6). Maxillary palpi 4-segmented, 1st segment short, 2nd elongate, thickened distally, 3rd short, subcylindrical, 4th largest, fusiform.

Pronotum slightly wider than head, wider than long (12: 11), moderately convex, lateral margins broadly convex and edged on anterior 1/5 to 3/5, deeply excavated on posterior 2/5, leaving an acute denticle at posterior 2/5 on each side; dorsum with a median, two pairs of lateral and a short basimedial carinae, median carina

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half as long as pronotum, terminated in front of the basimedial depression, inner lateral carinae $3/4$ times as long as pronotum, divergent on posterior third and terminated in basilateral denticles, outer lateral carinae half as long as pronotum, and parallel to each other, basimedial carina Y-shaped; dorsum with two pairs of foveae along basal margin, and a pair of lateral foveae exterior to the basilateral denticles.

Elytra slightly convex, each elytron with three foveae at base and a humeral denticle, with sparse, coarse punctures. Legs moderately pubescent, fore coxa with 3 setae, mid trochanter with a ventral spine, hind trochanter with an elongate spine on posterolateral side. Metasternum flattened medially, densely pubescent.

Abdomen subparallel-sided, weakly marginate, without paratergite, 4th ab-

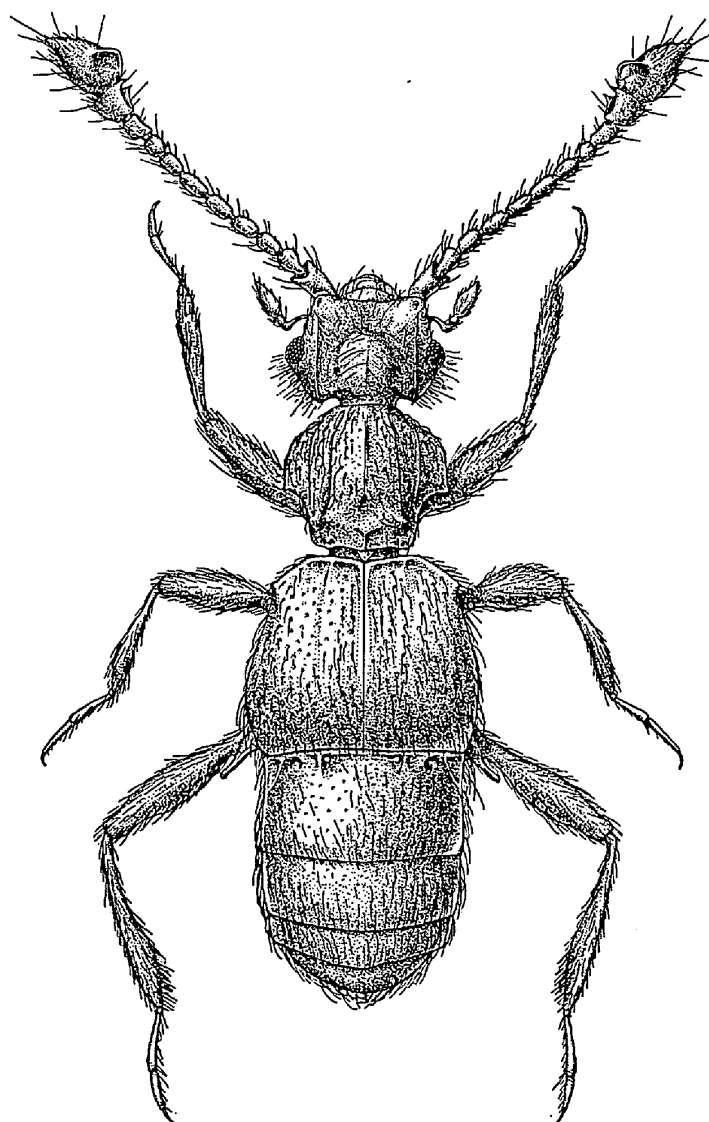


Fig. 1. *Tribasodites picticornis* sp. nov., ♂.

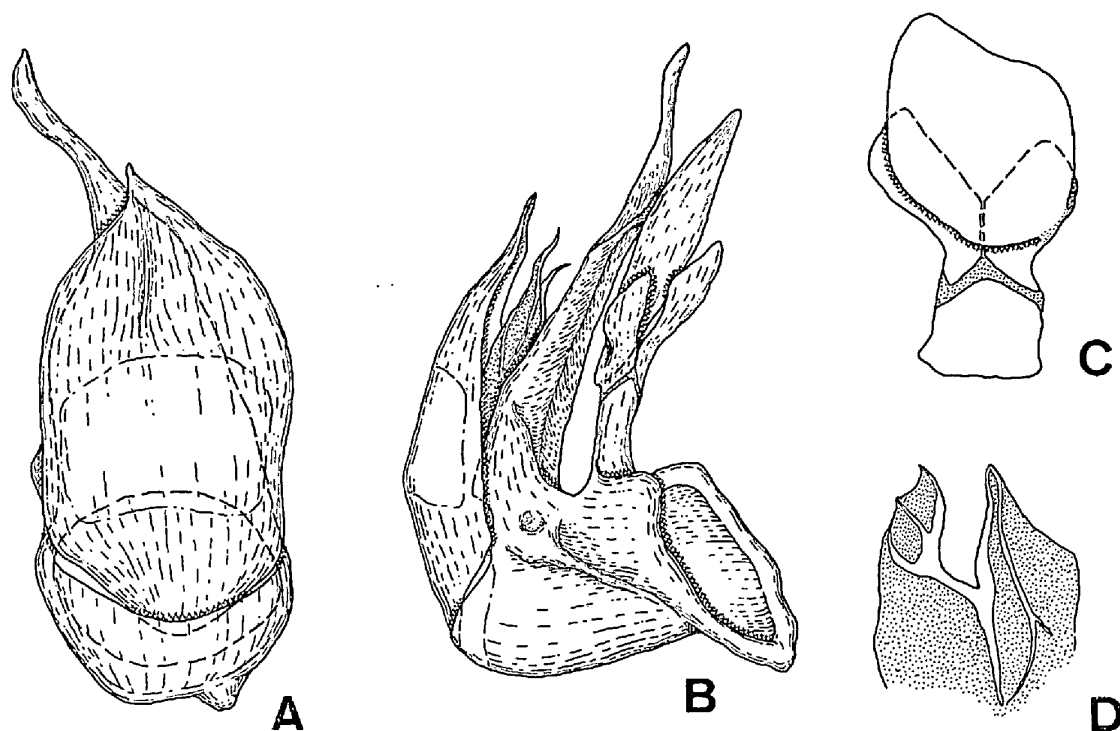


Fig. 2. *Tribasodites picticornis* sp. nov., male genitalia. — A, Dorsal view; B, lateral view; C, parameres dorsal view; D, endophallus dorsal view.

dominal tergite (1st visible abdominal tergite) convex, with two pairs of basal carinae, inner basal carinae short, narrowed posteriorly, outer basal carinae oblique, connected with lateral margins at anterior 2/5 of 4th segment, with two pairs of basal foveae, the inner pair situated just inside the inner basal carinae; relative lengths of 5th to 8th tergites from base to apex as being 4: 3: 6: 2, 4th abdominal sternite with 4 foveae along basal margin, moderately pubescent and setose around foveae.

Aedeagus with median lobe composed of basal capsule and dorsal apophysis, basal capsule subcylindrical, with a long, robust spine produced from dorsoapical region, this spine acute at apex and slightly winding distally, dorsal apophysis articulated with basal capsule, scutiform in dorsal view, acute at apex, endophallus twig-shaped, complicated, weakly sclerotized; parameres weakly sclerotized, partially connate at base, right paramere longer than left, left one with a large suboval appendage which is folded on the dorsal side.

Female. Similar to male except for the following characters: antennae moniliform, 2nd to 7th segments subequal to one another, suboval, 8th to 10th subglobose, 11th largest, fusiform, without modification, and mid and hind trochanters without spines.

Distribution. Japan (Okinawa Is., Ryukyu Isls.).

Holotype, ♂ (Type No. 2562, Kyushu Univ.), Mt. Nagodake, Okinawa Pref., 11. iii. 1985, S. NOMURA leg. Paratypes, 1 ♂ 1 ♀, same data as holotype.

Remarks. *Tribasodites picticornis* is closely allied to *T. antennalis* JEANNEL, 1960, but is separated from the latter by having a pair of acute humeral denticles on the elytra in both sexes, and the 10th antennal segment with two acute processes and the 11th with large laminate lobe in the male.

Biological notes. All specimens were captured in a colony of *Paratrechina flavipes* (F. SMITH) (Formicidae, Hymenoptera) under the bark.

Batraxis splendida sp. nov.

Male. Length 1.7–1.9 mm. Width 0.8 mm. Reddish brown and shiny.

Head wider than long (6:5), frons flattened, with a transverse and slightly bisinuate sulcus, vertex moderately convex, with a shallow median depression, and

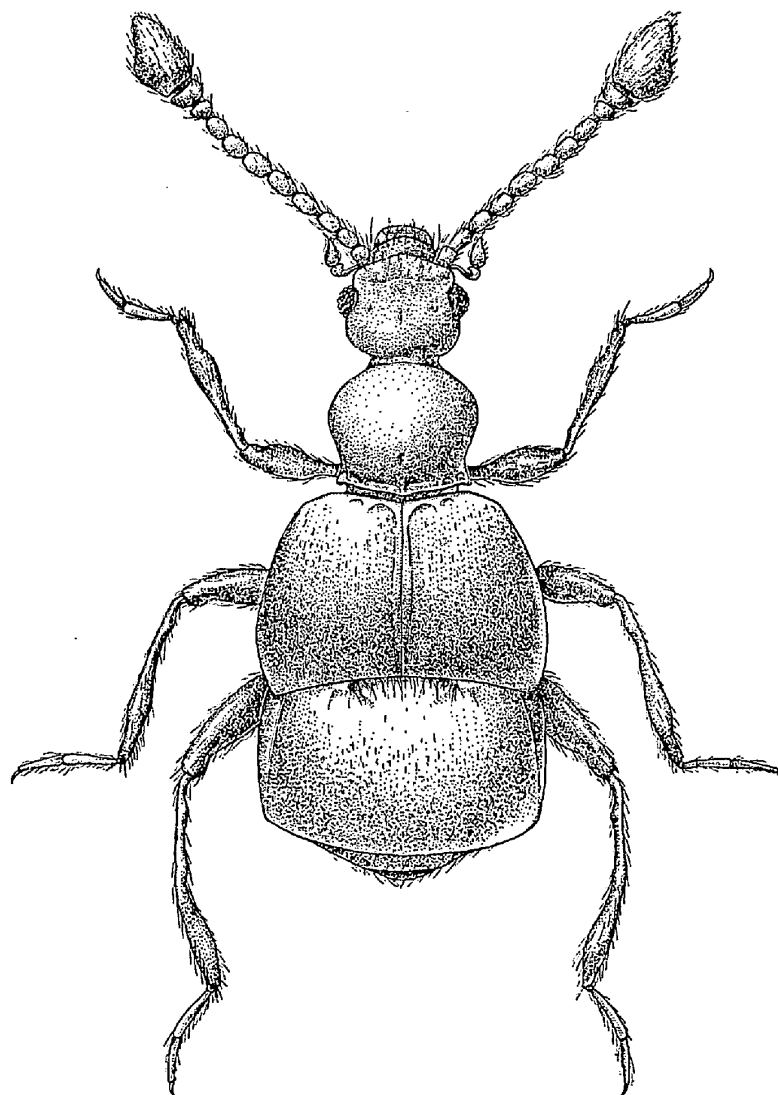


Fig. 3. *Batraxis splendida* sp. nov., ♂.

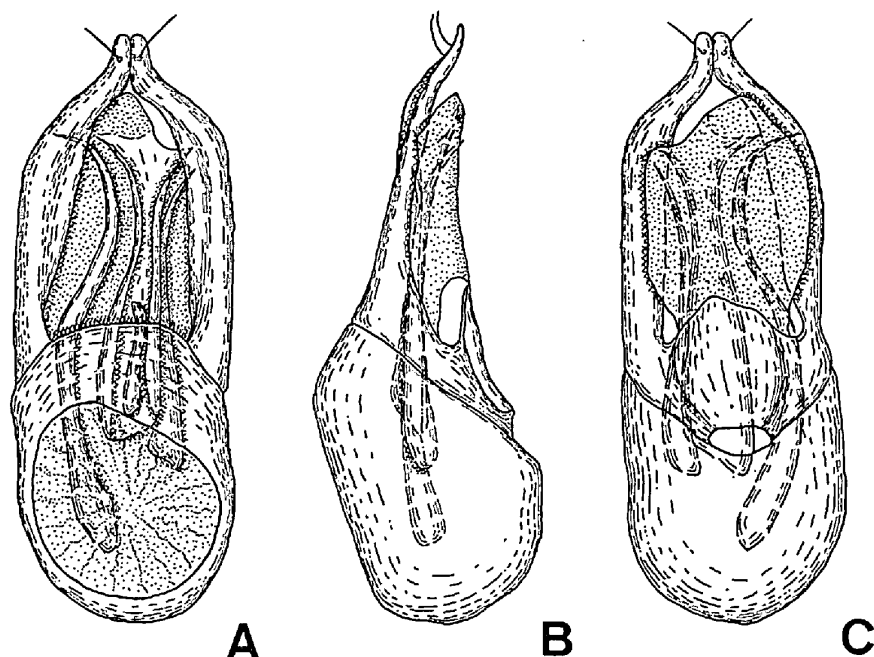


Fig. 4. *Batraxis splendida* sp. nov., male genitalia. — A, Dorsal view; B, lateral view; C, ventral view.

a pair of clear dorsal tentorial pits; dorsal surface glabrous, excepting clypeus and apical margin of frons which are sparsely pubescent. Eyes ovoidal, each composed of about 40 facets. Antennae moniliform, moderately pubescent, 11th largest, subconical, with its outer basal part roundly expanded laterally; relative lengths (widths) of segments from base to apex as being 1.0 (1.2): 1.0 (1.0): 1.2 (1.1): 1.2 (1.1): 1.2 (1.1): 1.2 (1.1): 1.1 (1.0): 1.1 (1.1): 1.0 (1.4): 1.1 (2.0): 3.1 (2.2). Maxillary palpi 4-segmented, 4th segment largest, about as long as 1st+2nd, elongate oviform, palpal spine about 1/4 as long as 4th.

Pronotum slightly wider than head, wider than long (9: 8), glabrous, with a basimedial fovea, and a transverse sulcus along basal margin, divided into six parts by five short carinae along basal margin.

Elytra conspicuously convex, wider than long (7: 5), widest at posterior 1/5, with two pairs of foveae at base; dorsal surface with sparse, minute pubescence. Legs moderately pubescent, fore trochanter with a slightly curved long spine on anteroventral side, fore and mid tibiae each with two swellings, hind tibia incurved in the middle, with three swellings.

Abdomen as wide as elytra, slightly wider than long, marginate, without paratergite, 4th abdominal tergite predominantly large, slightly convex, sparsely and minutely pubescent as in elytra, depressed and ciliated between short basal carinae, lateral marginal ridges slightly divergent posteriorly, 4th abdominal sternite moderately pubescent and setose in its basal margin, 5th to 8th segments deflected, short, hardly visible from above, sparsely pubescent.

Aedeagus with bulbous median lobe with asymmetrical, suboval membranous area in dorsal region, endophallus with four spines, right spine longest, S-shaped, acute at apex, median spine widest, loading with the smallest spine, left spine as long as median spine, very slender, acute at apex; parameres subsymmetrical, incurved at apical third, contiguous and with a seta at each apex.

Female. Very similar to male, but spine of fore trochanter absent.

Distribution. Japan (Iriomote Is., Ryukyu Is.).

Holotype, ♂ (Type No. 2563, Kyushu Univ.), Kanpiree, Iriomote Is., Okinawa Pref., 27. iii. 1984, S. NOMURA leg. Paratypes, 4 ♂ 3 ♀, same data as holotype; 1 ♂ Mt. Komi, Iriomote Is., Okinawa Pref., 23. iv. 1981, K. BABA leg.

Remarks. This new species belongs to the group III of *Batraxis* proposed by RAFFRAY, 1904 and is related to *B. singhalensis* RAFFRAY, 1893 in having the tibia with two or three swellings, and the pronotum with a basimedial depression and a basal sulcus. But this species is separable from the latter in having a transverse frontal sulcus on the head, and lacking sulcus on the vertex.

Biological notes. Some specimens of this species were captured in a colony of *Brachyponera chinensis* (EMERY) (Formicidae, Hymenoptera) under the bark.

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