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Dasytes (Metadasytes) of Taiwan (Col., Dasytidae)

by **G. Liberti**

Abstract: Four new species of *Dasytes (Metadasytes)* (Col., Dasytidae) from Taiwan are herewith described: *D. shimomurai* n. sp.; *D. taiwanensis* n. sp.; *D. macrophtalmus* n. sp.; *D. opacicornis* n. sp. One of them *(taiwanensis)* gives some doubts about belonging to *Mesodasytes* instead of *Metadasytes*, due to the ill definition of the two subgenera. Examination of the aedeagus offers good characters for species identification, nevertheless also external characters and differences are discussed.

Subject of this paper is a small series of *Metadasytes*, about 30 specimens, collected in Taiwan by Mr. Toru Shimomura, Tokio, during spring of 1981.

Microscopic mounting and examination of the aedeagus allowed the identification of 4 fairly homogeneous new species. This surprising result shows both entomological richness and poor knowledge of the Taiwan fauna.

The 4 species here described have the following common characters:

- sharp sexual dimorphism: the males are immediately recognizable by bigger eyes, longer antennae and more slender body shape;
- the antennae of males are at least as long as half of the body, or more;
- the elytral suture is completely free from bordering wrinkle; the pronotum is without any longitudinal side track;
- the 4th joint of the hind tarsi is not longer than half of the 3rd one;
- the colour is completely black with blue metallic reflexes, antennae and legs included.

Therefore, they are nor *Dasytes* s.str., neither *Hypodasytes* (Mulsant & Rey, 1868; Schilsky, 1897; Fagniez, 1946). Furthermore, they do not pertain to the subgenus *Anthoxenus (Hapalogluta)* because of the tarsal joints shape. Nevertheless two species have the 4th hind tarsal joint long enough, with respect to the 3rd one, and are probably transitional taxa between *Metadasytes* and *Anthoxenus*. The assignment of the here described species to *Metadasytes* or to *Mesodasytes* is somewhat difficult, mainly because the differences between the two subgenera are not really clear cut. This same difficulty has also been felt by Lohse (1979) in what concerns the European species of the same group: indeed he regards valid only the subgenus *Metadasytes*.

Meta- and *Mesodasytes* up to now described from East Asia (Pic, 1937) are: *japonicus* Kiesw.; *vulgaris* Nakane; *basicornis* Nakane; all of them of Japan. Doubtfully, also *atrimembris* Pic of Siberia could be assigned to Metadasytes. No species from China, Indonesia or Philippines seem to be reported up to now.

D. japonicus Kiesw., following the examination of a small series in the Wittmer and Nakane collections, is different from the 4 here described species. *D. vulgaris* Nakane was described only on females: for this reason doubts are not avoidable. *D. basicornis* Nakane is different for the pale colour of the first antennal joints and the smaller eyes. *D. atrimembris* Pic was described in a very short way and only on females, so that a correct identification is really very difficult.

The entomological fauna of Taiwan seems to be mainly related to the southern China fauna, and not so much to the Japanese one. Furthermore, Cantharidae and Malachidae (families close to Dasytidae) of Taiwan are mostly endemic of the island (Wittmer, 1954, 1956). Also taking into account that the european species of *Meta-* and *Mesodasytes* often show very broad diffusion areas, I consider the taxa here described as new species.

Dasytes shimomurai n. sp. Figs 1–3.

♂. Completely black, glossy, with metallic reflexes, legs and antennae included; mouth and surrounding parts brown. Pubescence double all over the body with black upright bristles and greyish laid down hairs.

Antennae longer than half of the body, with joints 6 to 10 very long and narrow: the antennal structure is of the *Metadasytes* kind (Mulsant & Rey, 1868); joint 2 about the same dimension as joint 1, approximately globe-shaped; joint 3 about triangular, longer than 2nd; 4th a little longer than the previous one, also triangular but narrower; 5th thinned at both extremities: the point of maximum broadness is about in the middle; joints 6 to 10 very long and narrow, nearly cylindrical. Forehead, between the eyes, slightly hollowed; the distance between the eyes (measured at the inner edges) is at least equal to half of the eye diameter.

Prothorax: about square-shaped, wrinkled nearby the edges and glossy in the centre, without longitudinal side traks; a little narrower than the head (eyes included).

Elytra: slightly bellied; at the apex separately rounded; at the base wider than the pronotum; sutural edge without bordering wrinkle.

Abdomen: 4th apparent sternite with a round-shaped depression in the middle; 5th simple, with a small and hardly visible emargination on the hind edge. Tarsi: 4th joint of the hind tarsi thin, about as long as half of the previous one.

Length: 4–5 mm.

♀. Colour completely black, glossy, with blue reflexes. Pubescence double all over the body, with upright black bristles and laid down grey-jellowish hairs.

Antennae not exceeding the pronotum base, joints 6 to 10 nearly triangular, longer than wide (1.5 to 2 times); joint 2 globe-shaped, a little smaller than the first; 3rd nearly triangular, elongated; 4th a little narrower and longer than the previous one; 5th triangular, as long as wide. Eyes small, far apart each other (more than two times the eye diameter, looking at the insect from above). Head, eyes included, clearly narrower than the pronotum.

Prothorax: wider than long, a little narrower in the fore half; hind corners broadly rounded; wrinkled near the side edges, glossy in the middle.

Elytra bellied, covered with a pale pubescence (so that they have an overall greyish colour); at the base as wide as the pronotum.

Length: 5 mm.

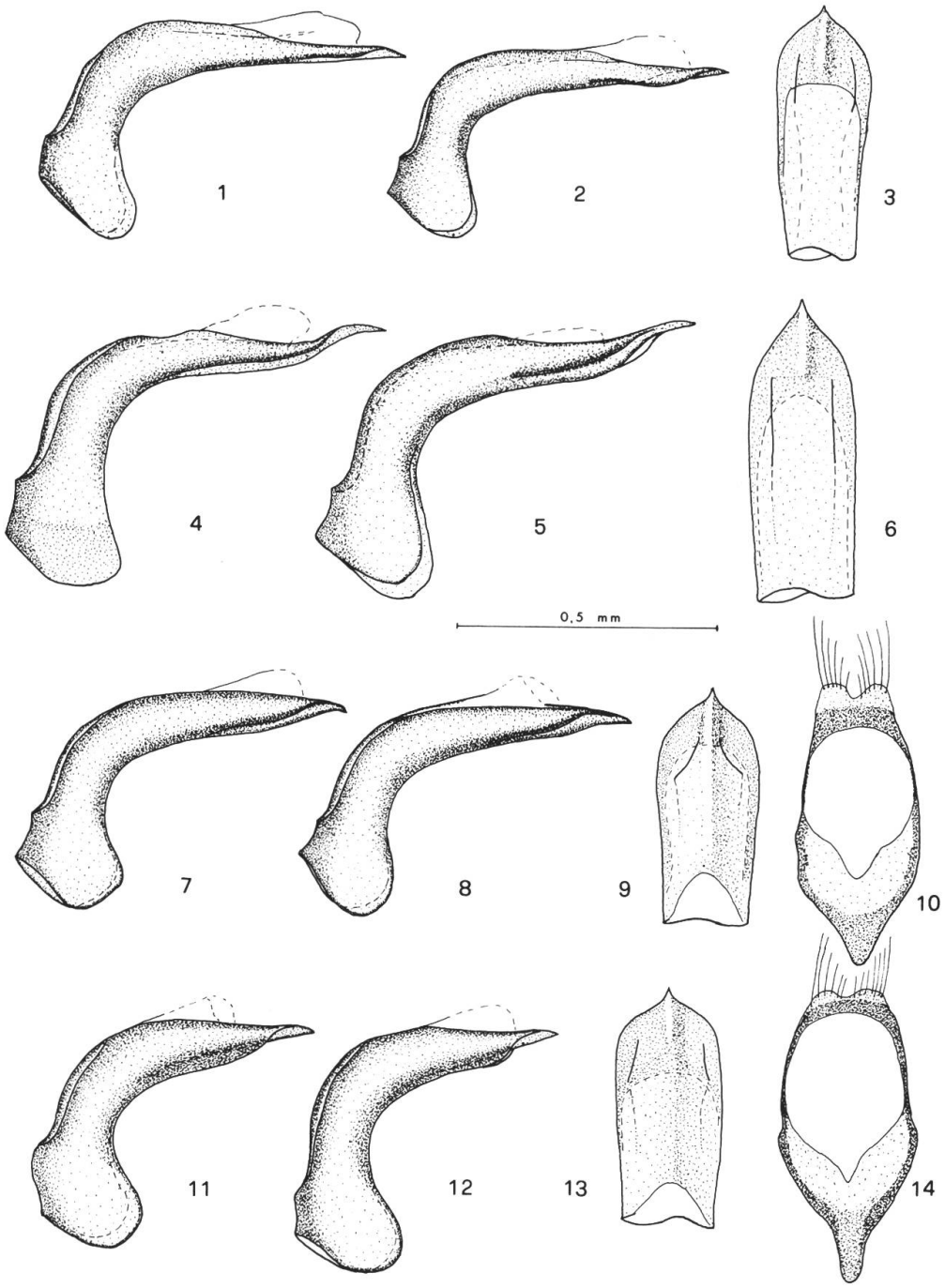
Types: holotype ♂, allotype ♀, 5 paratypes (3 ♂ and 2 ♀), all coll. Wittmer. Locality: Taiwan, Taipei Pref., N.E. Slope, Mt. Lala, 1900 m, 7.IV.1981. T.Shimomura.

Etymology: the species is dedicated to the collector.

Dasytes taiwanensis n. sp. Figs 4–6.

♂. Colour completely black, glossy, legs and antennae included. Pubescence double all over the body with black upright bristles and laid down yellowish hairs.

Antennae as long as half of the body; joints 6 to 10 long and narrow, not as frail as in the previous species. The antennal shape is intermediate between *Meta-* and *Mesodasytes*. Joint 2 globe-shaped, about as large as the first one; 3rd nearly triangular, longer than wide; 4th longer and narrower than 3rd, elongate triangular; 5th longer than the previous one, with the maximum width at about two thirds; 6th shorter and narrower than 5th, with the same shape; 7th, 8th, 9th and 10th long and narrow; 7th triangular, very stretched; subsequent joints nearly cylindrical. Head: forehead, between eyes and antennal inser-



Figs 1–14: 1–3. *Dasytes shimomurai* n.sp., aedeagus: 1, holotype. 2–3, paratypes of Mount Lala, Taipei pref. 4–6. *Dasytes taiwanensis* n.sp., aedeagus: 4, holotype. 5, 6, paratypes of near Ssuling, Taoyuan pref. 7–10. *Dasytes macrophtalmus* n.sp., aedeagus: 7, holotype, 8, 9, paratypes of Mount Lala, Taipei pref. 10, paratype of the same locality. 11–14. *Dasytes opacicornis* n.sp., aedeagus: 11, 13, paratypes of Nanshanchi, Nantou pref. 12, paratype of near Ssuling, Taoyuan pref. 14, paratype of Nanshanchi.

tion with a slight round depression. Eyes big and bulging; the distance between them, at the inner edge, is about half the eye diameter (looking at the insect from above). Head, with the eyes, a little narrower than the pronotum.

Prothorax nearly square-shaped, a little wider than long, clearly wrinkled near the side edges, glossy in the middle; without longitudinal track but with a depression nearby the hind corners (so that the hind edge near the corners seem to be bent upwards).

Elitra at their base slightly wider than the prothorax; a little bellied; separately rounded at the apex; without a bordering wrinkle along the suture.

Abdomen: 4th apparent sternite with a round depression in the middle; 5th simple, with a hardly visible emargination on the hind edge. Tarsi: 4th joint much smaller than the 3rd.

Length: 5 mm.

Types: Holotype ♂ and 6 paratypes ♂ (coll. Wittmer). Locality: Taiwan, Taoyuan pref., near Ssuling, 900 m, 16.III.1981, T.Shimomura.

Etymology: named after the typical locality.

Dasytes macrophtalmus n. sp. Figs 7–10.

♂. Completely black, including antennae, legs and mouth; the eyes appear grey and faceted. Pubescence double all over the body, black upright bristles and laid down yellowish hairs.

Antennae longer than half of the body, joints 7 to 10 very long and narrow (*Metadasytes* kind); joint 2 a little shorter than the first, globe-shaped; 3rd and 4th practically equal, nearly triangular, about 2.5 times longer than wide, wrinkled but bright; 5th long, narrower at the extremities and wider in the middle; 6th triangular, very elongated; subsequent joints nearly cylindrical, long and narrow. Eyes very big, globe-shaped, that fill nearly all the head volume; very close to each other, the inner edges are nearly touching. Antennal insertion is a little protruding; the forehead (among clypeus, antennal insertion and eyes fore edge) has a circular dimple.

Prothorax approximately square; heavily punctuated and a little wrinkled, mainly near the side edges, brighter in the middle; pronotum fore edge clearly narrower than the head (eyes included).

Elytra narrow, nearly parallel. Sutural edge without bordering wrinkle, at the base larger than the pronotum; at the apex separately rounded.

Abdomen: 4th apparent sternite flattened in the middle. Tarsi: 4th joint of hind tarsi narrow and as long as half of the 3rd; the latter clearly shorter than the 2nd.

Length: 4.5–5 mm.

Types: Holotype ♂ and 5 paratypes ♂. Locality: Taiwan, Taoyuan pref., near Ssuling, 900 m, 16.III.1981, T. Shimomura. 1 paratype ♂. Locality: Taiwan, Nantou pref., Nanshanchi, 800 m, 25.III.1981, T. Shimomura. All coll. Wittmer.

Etymology: This name recalls the unusually big eyes.

Dasytes opacicornis n. sp. Figs 11–14.

♂. Completely black, legs and antennae included, mouth and surrounding parts brown. Pubescence double all over the body, with upright brown bristles and laid down yellowish hairs.

Antennae longer than half of the body, joints 7 to 10 very long and narrow, nearly cylindrical, similar to *Metadasytes*; joint 2 shorter than the first, globeshaped; 3rd triangular, about two times longer than wide; 4th similar to the 3rd but more rounded on the lower edge: both joints 3 and 4 have a rough, matt surface; 5th long, narrowed at both extremities and with the maximum width at about two thirds; 6th a little shorter than the previous one, nearly triangular, stretched; subsequent joints very long, nearly cylindrical. Eyes very big, globe shaped, that fill nearly all the head volume; their distance, at the inner edge, is very small. Antennal insertion a little protruding; the forehead (among clypeus, antennal insertion and eyes fore edge) has no true dimple but only a slight depression.

Prothorax wider than long, heavily punctuated, wrinkled near the side edges, glossy in the middle, a little narrower than the head (eyes included).

Elytra narrow, nearly parallel; at the base wider than the pronotum; at the apex separately rounded. Elytral suture without a bordering wrinkle.

Abdomen: 4th apparent sternite simple; 5th with a clear triangular emargination on the hind edge. Tarsi: 4th joint of the hind tarsi small, shorter than half of the 3rd.

Length: 5 mm.

♀. Completely black, legs and antennae included, mouth and related parts brown.

Antennae not exceeding the pronotum base; joint 2 globe-shaped, a little smaller than the first; 3th and 4th nearly triangular, of the same

length; 5th larger, about 1.5 times longer than wide; joints 6 to 10 triangular, about two times longer than wide. Eyes small, not particularly bulging: the distance between the eyes, at the inner edge, is about two times the eye diameter (looking at the insect from above).

Prothorax wider than long, glossy in the middle, wrinkled on the side edges.

Elytra bellied, with a grey appearance due to the thick pale pubescence.

Length: 5 mm.

Types: Holotype ♂, allotype ♀ and 1 paratype ♀ (coll. Wittmer). Locality: Taiwan, Taoyuan pref., Chinhtuan, 1200 m, 2.IV.1981, T.Shimomura. 1 paratype ♂ (coll. Wittmer). Locality: Taiwan, Taoyuan pref., near Ssuling, 900 m, 16.III.1981, T.Shimomura. 1 paratype ♂ (coll. Wittmer). Locality: Taiwan, Nantou pref., Nanshanchi, 800 m, 25.III.1981, T.Shimomura.

Etymology: This name recalls the matt appearance of the first antennal joints, particularly of the 3rd and 4th.

Key for the males

1. Eyes not very close each other at the inner edge. Distance between them about equal to half the eye diameter (looking at the insect from above) 2
– Eyes very close to each other. Their distance, at the inner edge, is by far lower than half the eye diameter. The eyes are unusually big and bulky 3
2. Antennae not exceeding half of the body; joints 6 to 10 long and narrow: 6 and 7 triangular elongated, the others nearly cylindrical. Joint 4 of the hind tarsi much smaller than the 3rd. Clypeus black **D. taiwanensis** n. sp.
– Antennae exceeding half of the body, frailer than in the previous species: joints 6 to 10 very long and narrow, all of them of about cylindrical shape. Joint 4 of the hind tarsi as long as about half of the 3rd. Clypeus brown **D. shimomurai** n. sp.
3. Forehead (bordered by clypeus, antennal insertion and eyes fore edge) small, triangular shaped, with a round dimple in the middle that fills nearly all its surface. Antennal joints 3 and 4 glossy, about 2.5 times longer than wide and clearly

longer than the 2nd. Prothorax about square shaped. Joint 4 of the hind tarsi about as long as half of 3. Clypeus black. Tegmen at its base not abruptly narrowed (Fig. 10)
D. macrophtalmus n. sp.

– Forehead larger than in the previous species, without a clear dimple. Antennal joints 3 and 4 with a rough and matt surface, slightly longer than the 2nd, about two times longer than wide. Prothorax wider than long. Joint 4 of hind tarsi small, shorter than half of the 3rd. Clypeus brown. Tegmen at its base abruptly narrowed (Fig. 14) **D. opacicornis** n. sp.

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