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A Peculiar Sexual Dimorphism Common between Two Species of the Genus *Attalus* (Coleoptera, Malachiidae) from Japan

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Abstract Sexual dimorphism common between two Japanese species of the genus *Attalus* is found for the first time on the abdominal tergite, and the structure is described.

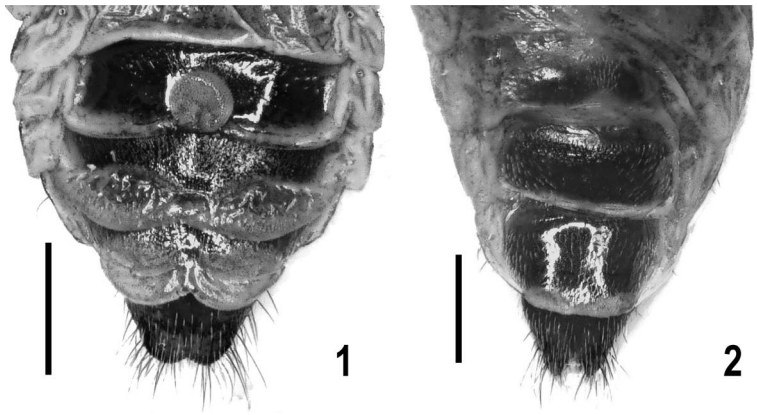
Introduction

Some malachiid beetles are known to present the obvious sexual dimorphism of cuticular modifications in the male head cranium, antennae, maxillary palps, pronotum, elytral apices, meso-tibiae and abdominal sternite: the so-called "excitator" which is most probably associated with the pheromone glands (Evers, 1987, 1994; Majer, 1987, 2002). These structures have been used for the taxonomic characters of higher classification (Marshall, 1954; Evers, 1987, 1989, etc.).

Such a structure has not been known so far in the genus *Attalus* Erichson (Evers, 1989). However, we found a peculiar sexual dimorphic structure common between the two Japanese *Attalus* species: *A. kaimon* Nakane and *A. niponensis* Pic for the first time on the abdominal tergite.

Material and Methods

Two *Attalus* species, *A. kaimon* and *A. niponensis*, were collected at the Nakatane and Minamitane Towns, Tanegashima, Kagoshima Pref., southern Japan in March 2010. They were captured on the flowers of *Elaeagnus* sp. (Elaeagnaceae) and *Pittosporum tobira* (Pittosporaceae) at the same time. In total, five and 19 specimens of *A. kaimon* and *A. niponensis* were examined, respectively. *Nepachys japonicus*



Figs. 1–2. Abdominal tergites (5th to 7th) of *Attalus niponensis*, dorsal view. —— 1, Male; 2, female. Scale = 0.5 mm.

(KIESENWETTER), formerly classified in the genus *Attalus* as a subgenus, was also observed for comparison. Observation was made under stereoscopic and compound microscopes.

Result and Discussion

Males of *A. kaimon* and *A. niponensis* possess same distinctive structures on the posterior margins of 5th to 7th abdominal tergites (Fig. 1). Posterior margin of the 5 th abdominal tergite possesses a round process, which is about 0.2 mm, membranous, bowl-shaped, and finely asperate on surface. Posterior margins of 6th and 7th abdominal tergites, each flabby and overlapping anterior margin of the succeeding segment. These structures are not observed in female at all (Fig. 2). This is the first discovery of the sexual dimorphism on the abdominal tergite in the Malachiidae and is possibly a kind of excitators known in other parts of the body, although the function is uncertain.

These two species belong to the subgenus *Attalus* s. str. At least, the above-mentioned structures were not observed in *Nepachys japonicus* (KIESENWETTER) of the tribe Attalini. It is necessary to confirm if these structures are common trait among closely related species belonging to the same genus, subgenus or not.

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要　　約

浅野　真・小島弘昭：日本産 *Attalus* 属 2 種に共通する特異な性的二型（コウチュウ目ジョウカイモドキ科）．—— ジョウカイモドキ科の雄成虫には，前頭，触角第 3 節，前胸背板，上翅後端，腹部腹板，中脚脛節に excitator とよばれる特異な構造が見られることがあり，これらの形質は属などの高次分類にも用いられてきた．これまで *Attalus* 属において excitator の存在は知られていなかったが，今回，カイモンヒメジョウカイモドキならびにムナキヒメジョウカイモドキの雄に共通して備わる特異な構造を腹部背板に発見したので記載した．

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A Host Record of *Anadastus atriceps* (Coleoptera, Erotylidae, Languriinae, Languriini)

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The tribe Languriini has been known as a phytophagous group, and the larvae feed on culm, stem, leaf stalk or leaf costa such as grass, legume, oxeye, canola, fiddlehead fern, cycad, and so on (Fukuda, 1957; Hayashi, 1974; Piper, 1978; Ward *et al.*, 2007). The larvae of some