

A Note on *Chlaenius noguchii formosanus* HABU  
(Coleoptera, Carabidae)

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**Abstract** The Taiwanese callistine carabid beetle, *Chlaenius noguchii formosanus* HABU, is regarded as an independent species, because of peculiarity of its male genitalia.

In 1965, HABU described *Chlaenius noguchii formosanus* based on two female specimens from Urai, Taiwan. Since then, its true taxonomic status has not been recognized for a long time. Very recently, I was given an opportunity to examine a single male of this Taiwanese form through the courtesy of Dr. NAKAMURA. Examining its male genital organ, I was thoroughly convinced of its specific independency. I am, therefore, going to redescribe the Taiwanese form in this paper.

*Chlaenius (Lithochlaenius) formosanus* HABU, stat. nov.

(Figs. 1–2)

*Chlaenius* (subg. ?) *noguchii formosanus* HABU, 1965, Spec. Bull. Lep. Soc. Japan, (1): 86; type locality: Urai, Taiwan.

*Hemichlaenius noguchii*: KASAHARA, 1985, Coleopt. Japan Col., Osaka, 2: 159, pl. 29, fig. 21 [*partim*].

*Specimen examined.* 1 ♂, Urai, 12–VI–1971, K. KOJIMA leg.

*Range.* Known so far only from the type locality.

*Description of male genital organ.* Male genital organ very large and heavily sclerotized. Aedeagus stout and rather elongate, strongly bent at basal third, high at about middle, and then gradually tapered towards the apex, though abruptly curved ventrad at the terminus; viewed dorsally, left wall produced at about middle, apical lobe rather wide, parallel-sided, and widely rounded at the extremity; ventral surface with longitudinal sulci at the apical part and with transverse sulci at basal third; left paramere wide, more or less straight at apex; right paramere shorter and narrower than the left one.

*Notes.* HABU's original account of this form goes as follows: "head almost flat, with a few punctures on both sides of vertex near posterior margin of eyes; pronotum almost impunctate and less rugose, so smoother than in nominate subspecies." Besides, I found the following features peculiar to the Taiwanese form:— 1) colour darker, 2) basal foveae shallower and narrower, 3) ratio of lengths of antennal segments  $3/4 \doteq 1.42$ , 4) all tarsal segments almost smooth on the dorsal surface,<sup>1)</sup> and

1) Unfortunately, only a single specimen available for this study is in bad condition: the hairs and spines on the surface and the appendages are partially lacking or worn out. I believe, however, that the tarsal structure furnishes a reliable difference between Japanese and Taiwanese forms.

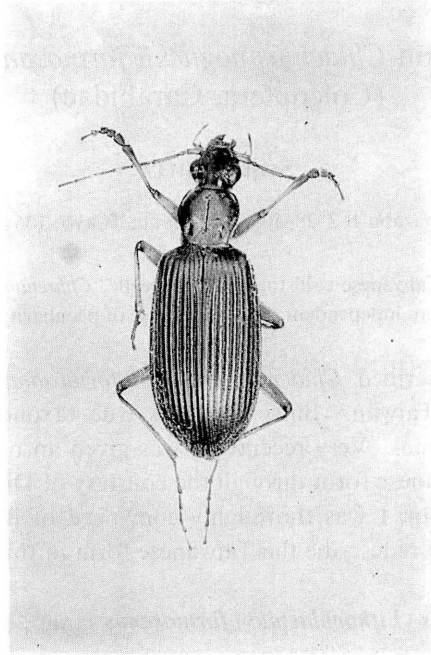
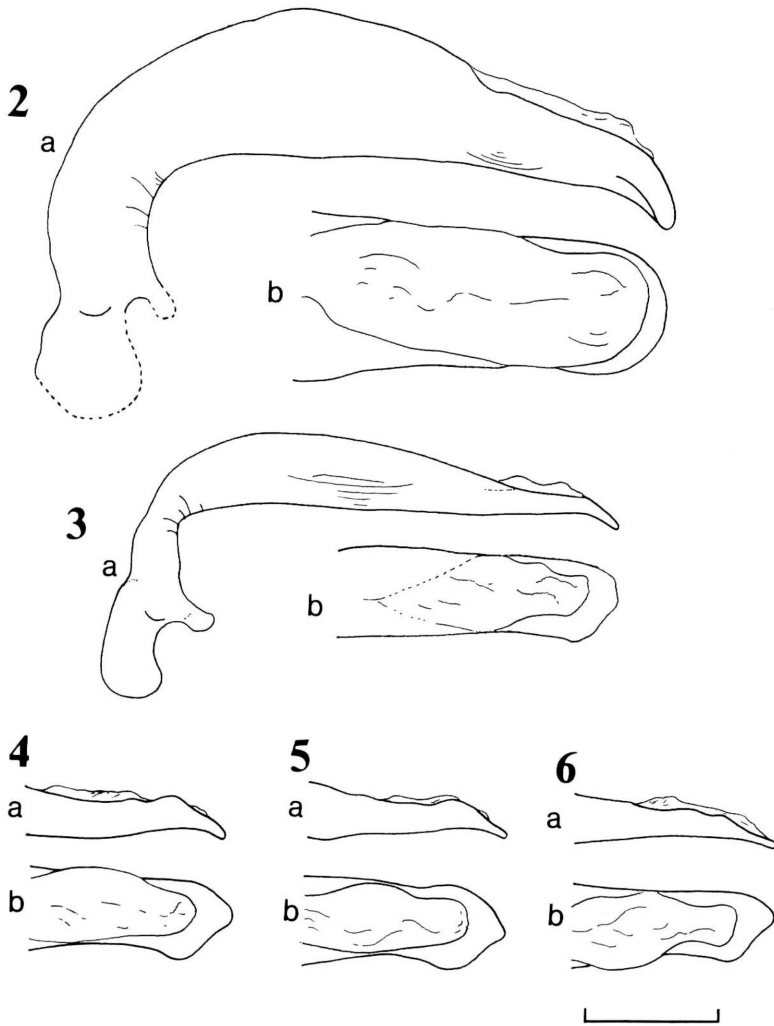


Fig. 1. *Chlaenius (Lithochlaenius) formosanus* HABU, from Urai, Taiwan.

5) aedeagus as mentioned above and as shown in fig. 2.

According to HABU, the type series of this species was deposited in SHIRÔZU's collection. I asked Dr. SHIRÔZU for a loan of the type series, but he was unable to find it in his collection. Although the specimens were searched also in the collection of the National Institute of Environmental Sciences, Tsukuba, and of the Entomological Laboratory, Kyushu University, by myself and by Mr. YAHIRO, respectively, we were unfortunately unable to find them. Further tracing of the type series is needed.

In his revision of the callistine carabids of the Far East, KRYZHANOVSKIJ (1976) regarded "*Lithochlaenius*" as a subgenus of *Chlaenius* based upon external features. After that, it was treated by KASAHARA (1985, p. 12) as an independent genus without comment. On the other hand, an attempt to classify the Japanese species of *Chlaenius* into species-groups was made by HABU in 1987, who divided the genus into 19 groups, including "*noguchii* group" (= *Lithochlaenius*) which was equivalent to a subgenus. He placed in this group two species, *C. noguchii* from Japan, *C. noguchii formosanus* from Taiwan, and *C. agilis* CHAUDOIR from India and Nepal. It is most probable that the female genital organ can provide key characters for the classification of higher categories of Japanese callistine species. A more balanced attempt to split *Chlaenius* into smaller genera seems necessary if *Lithochlaenius* is regarded as an independent genus. Though the known members of *Lithochlaenius* look unique in their peculiar facies, I prefer to follow the treatment given by the Russian and Japanese specialists



Figs. 2-6. Aedeagi of *Chlaenius (Lithochlaenius)* spp. — 2, *C. (L.) formosanus* HABU from Urai, Taiwan; 3, *C. (L.) noguchii* BATES from Hirase, Itsuki-mura, Kumamoto Pref.; 4, same species from Kamiakui, Tokushima Pref.; 5, same species from Kamikôchi in Nagano Pref.; 6, same species from Sôunkyô, Hokkaido; a, left lateral view; b, dorsal view. (Scale: 1.00 mm.)

of carabid beetles, KRYZHANOVSKIJ and HABU, at least for the time being.

Like *C. noguchii* BATES, *C. formosanus* HABU is found at lower places under stones on river banks (personal communication from Mr. ITO).

I wish to thank Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kindness in reading the manuscript of this paper. My thanks

are also due to Dr. Shingo NAKAMURA (Shôbara-shi) and Mr. Isao OHTSUKA (Kumamoto-shi) for offering invaluable material for this study, and to Prof. Takashi SHIRÔZU (Fukuoka-shi), Dr. Takeshi MATSUMURA and Dr. Shin-ichi YOSHIMATSU (National Institute of Agro-environmental Sciences, Tsukuba), Mr. Katsuro YAHIRO (Kyushu University), and Mr. Noboru ITO (Kawanishi-shi) for their kind help.

### 要 約

森田誠司: *Chlaenius noguchii formosanus* HABU について. — 台湾から記載されたノグチアオゴミムシの亜種 *Chlaenius noguchii formosanus* HABU の雄の交尾器が, 日本産ノグチアオゴミムシ *C. noguchii* BATES のものといちじるしく異なることから, 独立種と認めた. 両種の所属する *Lithochlaenius* を亜属とみなしたが, もしひとつの属とみなすならば, 日本産のほとんどの種が所属する *Chlaenius* を分割する試みが必要かもしれない. 土生 (1987) のおこなった雌交尾器の研究がそのことを暗示している.

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