# Taxonomic Status of *Phyllobius* (*Nipponophyllobius*) galloisi Hustache (Coleoptera, Curculionidae)

### Takeshi Yoro

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**Abstract** *Phyllobius galloisi* HUSTACHE (1920) is shown to be a valid species, not a synonym of *P. picipes* MOTSCHULSKY (1860), mainly on the basis of the shape of the adeagus of male genitalia.

Phyllobius galloisi Hustache (1920) has been regarded as a synonym of Phyllobius picipes Motschulsky (1860) in recent reviews (Koratyev & Egorov, 1975; Pesarini, 1981; Morimoto et al., 2006). Examination of the type specimens in the Paris Museum of Natural History and Moscow Museum of Zoology shows that they are distinctly independent species. Though the external features are quite similar to each other and show individual variations, morphology of the male genitalia, especially that of aedeagus (Fig. 1), completely differs in these two species.

Recently, MORIMOTO and MIYAKAWA (2006) described two related species, *P. shigematsui* and *P. occidentalis*, so that four species of the subgenus *Nipponophyllobius* are now known from Japan. They can be classified into two species-groups, according to the structure of aedeagus. In *P. galloisi* and *shigematsui*, the aedeagus is symmetrical and flat, while in *P. picipes* and *occidentalis*, more or less asymmetrical and thin.

External features of *P. galloisi* almost coincide with those of *P. shigematsui*. Depression of the 5th ventrite in the male is deep and narrow as in *P. shigematsui*, but ridges on both sides of the depression are not exactly parallel, diverging a little backwards. Rostrum is sometimes very short even in males, almost as long as broad. However, due to the presence of individual variation, identification by external features is often difficult especially in females.

The regional distribution of these species in Japan is noticeable. *Phyllobius galloisi* has only been collected from Tokyo, Kanagawa and Yamanashi Prefectures and *P. shigematsui* from the Kii Penninsula, thus the distributional areas of these two species are widely separated. *Phyllobius picipes* is found in eastern Japan, while *P. occidentalis* in the western part of Honshu, Shikoku and Kyushu, also showing no overlapping of distributional areas. On the other hand, on Mt. Tanzawa in Kanagawa Prefecture, we can find both *P. picipes* and *P. galloisi*. However, *P. galloisi* are mostly collected at places of lower altitude (under 800 m) and in earlier season (April to June) than *P. picipes* (above 1,000 m, June to July), suggesting the presence of some ecological segregation between these two species.



Fig. 1. Adeagus of *Phyllobius galloisi* Hustache (lectotype). Apical protrusion tapers smoothly to the apex. In *P. shigematsui*, the protrusion is demarcated by shallow notch on both sides at the base.

Lectotype: 1♂ labelled "Mont Takao pr. Hachioji Japon 10-5-08 Edme Gallois" (in Paris Museum of Natural History).

Specimens examined.  $1^{\circ}$  mounted on the same card as the lectotype;  $1^{\circ}$ ,  $1^{\circ}$ , Mt. Takao, Tokyo Metropolitan Area, 12-V-2004 (Shun-ei Nakazato leg.);  $1^{\circ}$ , Mt Hakone, Kanagawa Pref., Kojiri, 29-IV-1954,  $2^{\circ}$ , 13-V-1964,  $1^{\circ}$ , 2-VI-1967,  $1^{\circ}$ , 16-V-1978 (Ryo Kiryu leg.),  $1^{\circ}$ , Oowakidani, 24-VI-1972,  $1^{\circ}$ , 11-V-1980,  $1^{\circ}$ , Kamiyama 19-V-1973,  $1^{\circ}$ , 21-V-1974,  $1^{\circ}$ , Kozukayama 8-VI-1996 (Yukihiko Hirano leg.);  $1^{\circ}$ , Mt Oyama, Kanagawa Pref., 29-IV-1964,  $1^{\circ}$ , 25-V-1970 (Ryo Kiryu leg.),  $1^{\circ}$ , 3-V-1969 (Yukihiko Hirano leg.);  $1^{\circ}$ ,  $3^{\circ}$ , Matsutakeyama, Tsukui-Machi, Kanagawa Pref., 7-V-2004 (Kazuo Arii leg.);  $2^{\circ}$ , Mt. Tanzawa, Kanagawa Pref., Kumazasanomine, 7-VI-2005,  $1^{\circ}$ ,  $2^{\circ}$ , Oomuroyama (Kazuo Arii leg.),  $1^{\circ}$ , 23-VII-1995,  $1^{\circ}$ , Mikuniyama, 23-V-1994 (Yukihiko Hirano leg.);  $1^{\circ}$ , Mt. Daibosatsu, Yamanashi Pref., 13-VI-2005 (Tetsuto Wakejima leg.).

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## 要 約

養老孟司:独立種としてのガロアコブヒゲボソゾウムシ. — 1920年に高尾山から記載されたガロアコブヒゲボソゾウムシ (Phyllobius galloisi Hustache) は、従来コブヒゲボソゾウムシ (Phyllobius picipes Motschulsky) のシノニムとして扱われたきた。しかし両者のタイプ標本および高尾山近辺 (丹沢山塊、箱根、大菩薩) の標本を検討した結果、交尾器の形態、第 5 腹節の形態ともに明らかに異なり、通説に反して両者は別種であることが判明した。ガロアコブヒゲボソゾウムシは 2006年に記載されたゴマダンコブヒゲボソゾウムシに近縁であるが、交尾器先端の形態が異なり、この両者もまた別種であると判断した。

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