

Two New Subspecies of *Carabina* (Coleoptera, Carabidae) from Mt. Togyu-san, South Korea

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Abstract Two new subspecies of *Carabina* belonging to the genera *Tomocarabus* and *Damaster* are described under the names of *T. fraterculus togyusanus* and *D. (Acoptolabrus) mirabilissimus kana*, from Mt. Togyu-san, South Korea.

The Togyu Mountains lie between the Sobaek Mountain Range and the Chirisan Mountains in South Korea, and its highest point is marked by Mt. Togyu-san at the northern end, which attains to a height of 1,614 m. The carabid fauna of this mountains is only fragmentarily known as yet, though some, rather widely distributed species have been recorded by KWON and LEE (1984).

Recently, I was able to examine a series of specimens of carabid beetles obtained from Mt. Togyu-san including the high altitudinal area, and recognised the following species belonging to the subtribe *Carabina*: *Eucarabus sternbergi* ROESCHKE, *Leptocarabus (Weolseocarabus) koreanus* REITTER, *L. (Adelocarabus) semiopacus* REITTER, *L. (A.) seishinensis* LAPOUGE, *Tomocarabus fraterculus* REITTER, *Damaster (Acoptolabrus) mirabilissimus* ISHIKAWA et DEUVE, *D. (Coptolabrus) jankowskii* OBERTHÜR and *D. (C.) smaragdinus* FISCHER.

Of these eight species examined, *T. fraterculus* and *D. mirabilissimus* are morphologically distinguishable from the other subspecies hitherto known. I am going to describe them as new subspecies in this paper.

Before going further, I wish to express my cordial thanks to Dr. Shun-Ichi UÉNO of the National Science Museum (Nat. Hist.), Tokyo, for his kind advice in the preparation of the manuscript of this paper. Thanks are also due to Mr. Tetsuo MIZUNUMA, Toyonaka, for giving me useful information, to Mr. Mitsuro ARAI, Tokyo, for permitting me to examine valuable specimens in his collection, and to Professor Won-Pyo HONG of the Chungnam National University, Taejon, for his kind consideration. Special thanks are due to Messrs. Seung-Mo LEE of the Division of Entomology, National Science Museum, Seoul, and Hiroshi SAWADA, Aomori, for their kindness in providing with the necessary literature, and to Messrs. Ho-Kyoon KIM and Yong-T'ae CHO, Pusan, for their kind help in various ways.

Tomocarabus fraterculus togyusanus subsp. nov.

Closely allied to both ssp. *assimilis* KWON et LEE distributed on the Taebaek and the Sobaek Mountain Ranges and ssp. *jirisanensis* ISHIKAWA et KIM distributed on the

Chiri-san Mountains, but distinguishable from them by the following points: upper surface of pronotum constantly with dark bluish lustre, though not so distinctly as in *jirisanensis*; frons more coarsely punctato-rugulose than in *assimilis*; pronotum with 4 to 8, usually 6 lateral setae, though usually with 5 in *assimilis* and usually with 4 in *jirisanensis*; pronotum a little more strongly convex above than in *assimilis*; sides of pronotum, especially in the posterior parts, not so remarkably reflexed as in *jirisanensis*; central part of pronotal disc not clearly foveolate as in *assimilis*, but constantly asperous or rather scabrous; hind angles of pronotum a little less protrudent posteriad than in the above two subspecies; primary foveae not so deeply concave as in *jirisanensis*.

Length (from apical margin of labrum to apices of elytra): 16.0–18.8 mm. Width: 6.9–8.1 mm.

Type series. Holotype: ♂, Mt. Togyu-san, 1,300–1,600 m alt. on NNE slope, Chollabuk-to, Korea, 9–VI–1989. Paratypes (including allotype): 81 ♂♂, 94 ♀♀, the same data as for the holotype; 25 ♂♂, 45 ♀♀, Muju-guch'ondong Valley, 700–900 m alt. on NNE slope of Mt. Togyu-san, 9–VI–1989.

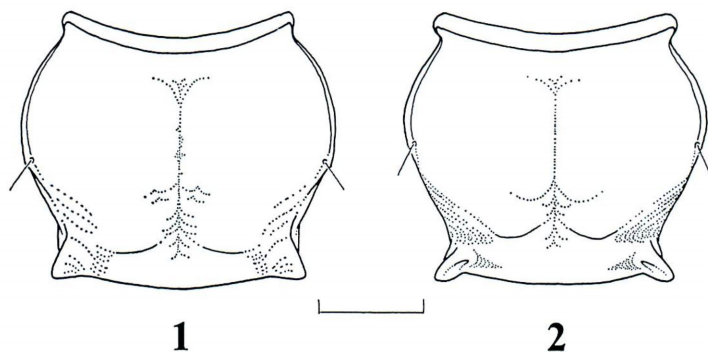
The holo- and allotypes and a part of the paratypes are deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo. The rest of the paratypes are deposited in the collection of mine.

Damaster (Acoptolabrus) mirabilissimus kana subsp. nov.

(Fig. 2)

Damaster (Acoptolabrus) mirabilissimus: KEZUKA & IMURA, 1989, Gekkan-Mushi, Tokyo, (218), p. 3, figs. 36–37.

Allied to the nominotypical subspecies distributed on the Taebaek Mountain Range, but differs from it in the following respects: size a little smaller on an average; elytral colour variable according to individuals, metallic green to coppery red with



Figs. 1–2. Pronotum of *Damaster (Acoptolabrus) mirabilissimus* (♀); 1, ssp. *mirabilissimus* from Mt. Taebaek-san, Korea; 2, ssp. *kana* nov. from Mt. Togyu-san, Korea. Scale: 2 mm.

faint greenish lustre, but usually more yellow-reddish especially in the basal part, and never with bluish lustre; median tooth of mentum stouter and shorter; sides of pronotum more strongly constricted just before hind angles; hind angles of pronotum narrower and more sharply pointed, each usually with a slight notch at the posterior margin.

Length (from apical margin of labrum to apices of elytra): 21.0–25.5 mm. Width: 7.2–9.9 mm.

Type series. Holotype: ♂, Mt. Togyu-san, Chollabuk-to, Korea, 9–VI–1989. Paratypes (including allotype): 8 ♂♂, 6 ♀♀, the same data as for the holotype.

The holotype is deposited in the collection of the Department of Zoology, National Science Museum (Nat. Hist.), Tokyo. The paratypes are separately deposited in the collections of Mr. T. MIZUNUMA and of mine.

Notes. The type locality, Mt. Togyu-san, may become the southern limit of the distributional range of the species. This new subspecies is named after my daughter, Kana, which means a song of rape blossom in Japanese.

要 約

井村有希：韓国南部，徳裕山産オサムシの2新亜種。——韓国南部，全羅北道にある徳裕山よりオサムシ8種を記録し，*Tomocarabus fraterculus togyusanus* IMURA と *Damaster (Acoptolabrus) mirabilissimus kana* IMURA の2新亜種を記載した。

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