

## Some New Carabid Beetles (Insecta, Coleoptera, Carabidae) from Korea

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### ABSTRACT

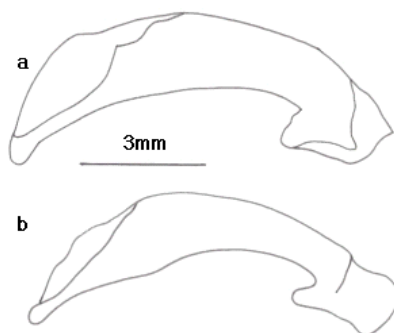
Four new subspecies of carabid beetles collected in central to southern Korea are described: *Carabus (Parhomopterus) sternbergi gwangjuensis*, *Damaster (Coptolabrus) jankowskii irwolsanensis*, *Damaster (Coptolabrus) jankowskii unmunsanensis*, *Damaster (Coptolabrus) jankowskii ganghwadoensis*.

Key words : new subspecies, carabid beetles, *Carabus*, *Damaster*

### Introduction

The carabid beetles have a worldwide distribution and been described about 33,000 species (about 10% of Coleoptera which occupying about 25% of living species) to date (Deuve, 2004). Because of the severe degeneration of hind wings that prohibits the flight and then restricts the dispersion, noticeable geographical variations are reported in the subtribe Carabina in Korea (ex., Ishikawa and Kim, 1983; Kwon and Lee, 1984; Deuve, 1998; 2001). In this paper, descriptions of 4 new subspecies from central to southern Korea are given.

### Descriptions



**Figs. 1. and Fig. 2.** *Carabus (Parhomopterus) sternbergi gwangjuensis* Kim, subsp. nov.

## 1. *Carabus (Parhomopterus) sternbergi gwangjuensis* Kim, subsp. nov. 광주 우리딱정벌레

### 1) Diagnosis

This subspecies is externally very similar to *Carabus (Parhomopterus) sternbergi sternbergi* Roeschke, 1898 which is widely distributed in Korea, but can be distinguished from its shape of aedeagus. The subspecies of *sternbergi* are discriminate usually from the shape of aedeagus. The ventral side is somewhat smooth without carina which is found often other *sternbergi* subspecies. The end piece is shorter and spatulate.

### 2) Descriptions

Body length: ♂ 25~28mm; ♀ 26~29mm. Dorsal surface with metallic luster, usually brownish with greenish; head smooth and almost impunctate with the neck; pronotum slightly wider than long with 2 or 3 setae; lateral margin subcordate, widest before postero-lateral angle; basal forvea narrow and shallow; elytra oblong, weakly convex; intervals regularly costate and primaries short and wider than other intervals with small forvea; pleura and abdominal sternites impunctate with smoothly polished.; aedeagus somewhat rigid, slightly arcuate without noticeable ventral carina; end piece short, spatulate.

### 3) Type Material

Holotype: 1 ♂, Mt. Mudeung, Gwangju city, Korea, 16, viii, 2007. Paratypes: 2 ♂♂ and 2 ♀♀, same data as a holotype.

## 2. *Damaster (Coptolabrus) jankowskii irwolsanensis* Kim, subsp. nov. 일월 멋쟁이딱정벌레

### 1) Diagnosis

This subspecies is externally similar to *Damaster (Coptolabrus) jankowskii jankowskii* (Oberthür, 1885) but can be distinguished from its colorations. The subspecies of *jankowskii* are discriminate usually from the coloration and the shape of mucrones. Head and pronotum are reddish coppery or purplish on a greenish or black ground. Elytron is more greenish and its lateral margin is yellowish green or greenish with luster.

### 2) Descriptions

Body length: ♂ 28~37mm; ♀ 38mm. Body large; general coloration black; head and pronotum reddish coppery or purplish on a greenish or black ground; pronotum cordate with convex mesally; postero-lateral angle somewhat produced roundly; elytra convex, elongate ovoid with weakly dark greenish; lateral margin yellowish green or greenish with metallic luster; intervals somewhat noticeably costate and primaries remarkably larger than secondaries; mucrones short and sharply pointed.



**Fig. 3.** *Damaster (Coptolabrus) jankowskii irwolsanensis* Kim, subsp. nov.

일월멧쟁이딱정벌레



**Fig. 4.** *Damaster (Coptolabrus) jankowskii unmunsanensis* Kim, subsp. nov.

운문멧쟁이딱정벌레

### 3) Type Material

Holotype: 1 ♂, Mt. Irwol, Yeongyang-gun, Gyeongsangbuk-do, 26, vii, 2007. Paratypes: 2 ♂♂ and 1 ♀, same data as a holotype.

### 3. *Damaster (Coptolabrus) jankowskii unmunsanensis* Kim, subsp. nov. 운문멧쟁이딱정벌레

#### 1) Diagnosis

This subspecies is also externally similar to *D. (C.) jankowskii jankowskii* (Oberthür, 1885) but can be distinguished from its colorations. Head is black but vertex is usually reddish coppery. Pronotum is reddish coppery or violet on greenish or black ground. Elytron is more greenish and its lateral margin is yellowish green or greenish with luster.

#### 2) Descriptions

Body length: ♂ 28~36mm; ♀ 32~38mm. Body large; general coloration black; head black, but vertex reddish coppery; pronotum cordate, slightly convex mesally, reddish coppery or violet on a greenish or black ground; postero-lateral angle somewhat produced roundly; elytra convex, elongate ovoid with somewhat greenish dark; lateral margin yellowish green or greenish with metallic luster; intervals somewhat noticeably elevated and primaries remarkably longer than secondaries; mucrones rudimentary, apices not pointed.

### 3) Type Material

Holotype: 1 ♂, Mt. Unmun, Cheongdo-gun, Gyeongsangbuk-do, 12, viii, 2004. Paratypes: 4 ♂♂ and 3 ♀♀, same data as a holotype.



Fig. 5. *Damaster* (*Coptolabrus*)

*jankowskii ganghwadoensis* Kim, subsp. nov.

강화멧쟁이딱정벌레

## 4. *Damaster* (*Coptolabrus*) *jankowskii ganghwadoensis* Kim, subsp. nov. 강화멧쟁이딱정벌레

### 1) Diagnosis

This subspecies is also externally similar to *D. (C.) jankowskii jankowskii* (Oberthür, 1885) but can be distinguished from its colorations and shape of intervals on elytra. Head is generally black but vertex is usually reddish coppery. Pronotum is reddish coppery or violet on black ground. Elytron is black and its lateral margin is luster and yellowish green with violet. Intervals are prominent.

### 2) Descriptions

Body length: ♂ 29~37mm; ♀ 30~39mm; Body large; general coloration black; head black with reddish coppery vertex; pronotum cordate, convex mesally with reddish coppery or violet on black ground; postero-lateral angle barely produced roundly; elytra convex, elongate ovoid, generally black; lateral margin yellowish green inside with violet outside with metallic luster; intervals somewhat strongly costate, primaries remarkably stout and longer than secondaries; mucrones relatively long, apices sharply pointed.

### 3) Type Material

Holotype: 1 ♂, Mt. Goryeo, Ganghwa-gun, Gyeonggi-do, 16, viii, 2007. Paratypes: 32 ♂♂ and 26 ♀♀, same data as a holotype.

## Acknowledgement

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## 요 약

한국의 중부 및 남부 지역에서 채집된 딱정벌레류(곤충강, 딱정벌레목, 딱정벌레과)에 대한 조사 결과, 다음과 같이 4 종류의 신아종을 보고한다: *Carabus (Parhomopterus) sternbergi gwangjuensis* 광주우리딱정벌레, *Damaster (Coptolabrus) jankowskii irwolsanensis* 일월멧쟁이딱정벌레, *Damaster (Coptolabrus) jankowskii unmunsanensis* 운문멧쟁이딱정벌레, *Damaster (Coptolabrus) jankowskii ganghwadoensis* 강화멧쟁이딱정벌레.

Key words : new subspecies, carabid beetles, *Carabus*, *Damaster*