

## 한국산 멋조롱박딱정벌레(*Acoptolabrus mirabilissimus*)의 1 신아종 기재

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### Description of a New Subspecies *Acoptolabrus mirabilissimus* (Coleoptera, Carabidae) from Korean Peninsula

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**ABSTRACT :** *Acoptolabrus mirabilissimus sangjuensis* ssp. nov. from Mt. Ilweolsan, Korea is described new to science. Classificational key, photo of types and distributional map are provided herein.

**KEY WORDS :** Coleoptera, Carabidae, *Acoptolabrus*, Korea

**초 록 :** 한국의 일월산에서 채집된 멋조롱박딱정벌레중에서 신아종이 발견되어 *Acoptolabrus mirabilissimus sangjuensis* ssp. nov.로 명명하고 기재한다. 현재까지 한국산 멋조롱박딱정벌레의 하위분류군은 6아종이 기록되어 있다. 본 연구에서는 기지종들에 대한 검색표, 신아종의 특징, 형태 사진 그리고 분포 등을 제시하였다.

**검색어 :** 딱정벌레목, 딱정벌레과, *Acoptolabrus*, 한국

Carabid beetles usually showed high infraspecific diversities by regions and altitudes on colour, size and shape etc (Imura, 1989, Imura et Kezuka, 1992, Park et Paik, 2001), therefore a large number of carabid species have several subspecies in the world. In a species of genus *Acoptolabrus*, almost two or more subspecies were reported from the Korean peninsula. For example, among them, there were ten subspecies in a *A. leechi* and six one of *A. mirabilissimus*, etc. (Park, 2004).

Since *A. mirabilissimus* described in Mt. Taebaeksan by Ishikawa et Deuve, 1982, *A. m. kana* Imura, 1989 in Mt. Togyusan and *A. m. furumiensis* Deuve, 2001 of Mt. Odaesan were reported as new subspecies from south

Korea, Otherwise, from north Korea, totally three subspecies, *A. m. igniferescens* Deuve, 1992 in Mt. Kumgangsan (Mammulsan), *A. m. pseudokana* Deuve et Li, 2002 in Mt. Chonzesan and *A. m. rigoutianus* Deuve et Li, 1998 of Mt. Ryongmosan were also reported newly. According to distributional difference, the body of dorsal part showed different colours and lusters as one of the important sub-specific key (Deuve, 1992, 2001; Deuve et Mourzine, 1998; Ishikawa et Deuve, 1982; Kezuka et Imura, 1989).

This species was known very beautiful beetles its bright colour and big size as more than 21 mm, and also it's very rarely collected in the world.

From Mt. Ilweolsan (alt. 1,219 m), located between

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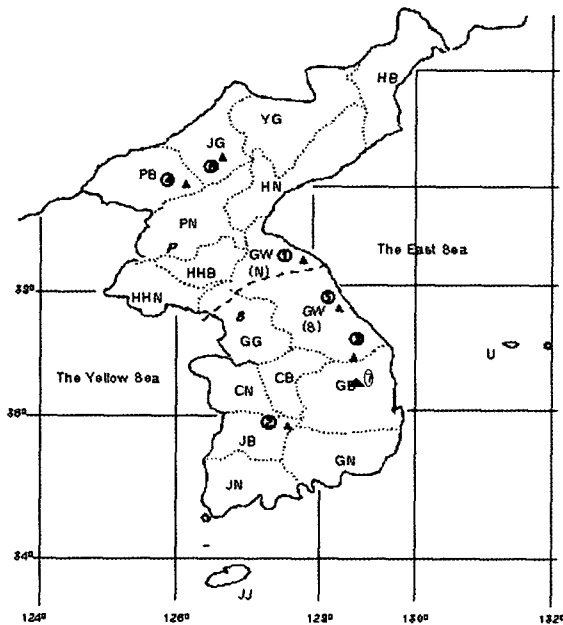
the Mt. Taebaeksan (GW, *A. m. mirabilissimus*) and Mt. Togyusan (JB, *A. m. kana*) as a southern limit of distributional range of the species (Imura, 1989, Fig. 1), I discovered a *A. mirabilissimus* specimens, which is morphologically distinguishable from other subspecies hitherto known collected. I am going to describe it as new subspecies in this paper. The type series are deposited in the Insect laboratory of Sangju National University.

### Systematics

#### Key to the subspecies of the *A. mirabilissimus* from Korean peninsula

1. Elytra with lustre or colour of reddish or yellow-reddish ..... 2
- Elytra without lustre or colour of reddish or yellow-reddish ..... 4
2. Elytra with metallic lustre of yellowish or reddish

- ..... *igniferescens* (Mt. Kumgangsan)
- Elytra with metallic lustre or colour of yellowish or reddish brown, not whole ..... 3
- 3. Head and pronotum with scarlet, never with greenish lustre. Elytra with golden color
- ..... *rigoutianus* (Mt. Ryongmosan)
- Head and pronotum with reddish or coppery red, sometimes with greenish luster. Elytra with metallic green to coppery red with faint greenish lustre, more yellow-reddish in basal part
- ..... *kana* (Mt. Togyusan)
- 4. Elytra with bluish lustre
- ..... *furumiensis* (Mt. Odaesan)
- Elytra without bluish lustre ..... 5
- 5. Head and pronotum with scarlet to metallic lustre
- ..... *pseudokana* (Mt. Chonzesan)
- Head and pronotum with reddish or golden luster
- ..... 6
- 6. Head and pronotum with more reddish or coppery lustre, Elytra with a little bright green
- ..... *mirabilissimus* (Mt. Taebaeksan)
- Head and pronotum with reddish or coppery lustre with more greenish. Elytra with a little dark green
- ..... *sangjuensis* ssp. nov. (Mt. Ilweolsan)



**Fig. 1.** Distribution map of subspecies of *Acoptolabus mirabilissimus* from Korean Peninsula. ① Mt. Kumgang-san: *Acoptolabus mirabilissimus igniferescens* Deuve, 1992; ② Mt. Togyu-san: *mirabilissimus kana* Imura, 1989; ③ Mt. Taebaek-san: *mirabilissimus mirabilissimus* Ishikawa & Deuve, 1982; ④ Mt. Ryongmosan: *mirabilissimus rigoutianus* Deuve & Li, 1998; ⑤ Mt. Odaesan: *mirabilissimus furumiensis* Deuve, 2001; ⑥ Mt. Chonze-san: *mirabilissimus pseudokana* Deuve & Li, 2002; ⑦ Mt. Ilweolsan: *mirabilissimus sangjuensis* ssp. nov.

**Notes.** This subspecific key usually made by dorsal colour patterns of representative specimens in each subspecies, but there are variable infrasubspecific variation in colour of head, pronotum and elytra. Sometimes greenish colour of elytra occurred in *m. furumiensis* (Mt. Odaesan). So, key of this paper occasionally can not be suit for all specimens because of some limited specimens and its individual variation. Continuous confirmation of more specimens is need to complete this key.

#### *Acoptolabus mirabilissimus sangjuensis* subsp. nov. (Fig. 2)

Length 24 mm, width 8 mm. Head and pronotum yellowish to a little coppery red with faint greenish lustre, but with a little strong greenish lustre (almost greenish lustre with a little coppery lustre under the microscope). Elytra with green and greenish color, never without

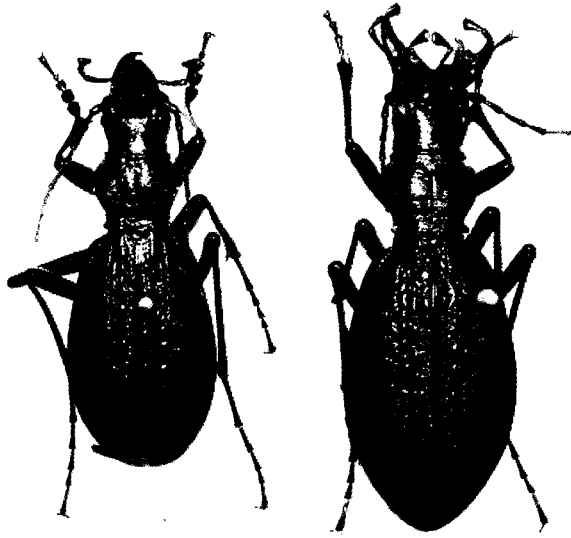


Fig. 2. *Acoptolabrus mirabilissimus sangjuensis* subsp. nov. (left: male, holotype; right: female).

reddish colour. Sides of pronotum strongly constricted just before hind angle; hind angle of pronotum moderately long and rounded pointed (width and length are middle size of *kana* and *mirabilissimus*). Mentum tooth stout and long.

**Materials examined.** Holotype, ♂, Mt. Ilweolsan, GB, Korea, 30, VI, 2004, J.E. Lee; paratype, ♀, the same data as for the holotype.

**Distribution.** Korea (south)

### Remarks

This new subspecies is distinguished from nominotypical subspecies based on the more greenish luster of haed and pronotum, darker elytral colour and smaller size.

### Etymology

To memorize the name of Sangju Natioanl University, which is going to unite with Kyungpook National University and change name to Kyungpook on March 1, 2008, author named this subspecies *sangjuensis*. ssp. nov.

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