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Letter

First local record of *Schwarzerium provosti* (Fairmaire, 1887) (Coleoptera: Cerambycidae) from the Donggang River basin, Korea

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초록

큰초록하늘소(*Schwarzerium provosti*)는 중국 중부와 한반도에 분포하는 하늘소로, 한국 전역에서 산발적으로 기록되어 왔으나 관찰 및 채집 기록의 빈도가 매우 낮은 종이다. 2025년 8월 강원도 정선군 동강 유역에서 수행한 조사 중 *S. provosti* 성충 1개체가 확인되었으며, 이는 동강 유역에서의 첫 지역 기록에 해당한다. 본 기록은 한국 내에서 이 종의 분포 범위와 출현 양상을 이해하는 데 기초 자료를 제공하며, 아직 충분히 밝혀지지 않은 본 종의 생태 및 분포 특성에 대한 이해를 증진시키는 데 기여할 것으로 기대된다.

핵심어: *Schwarzerium*, 하늘소, 시민과학, 동강, 정선군

Abstract

Schwarzerium provosti (Fairmaire, 1887) is an aesthetically notable longhorn beetle distributed throughout the central China and the Korean Peninsula. Although this species is distributed nationwide in Korea, its record is locally restricted, and it is rarely observed. During a faunal survey conducted in August 2025, a single specimen of *S. provosti* was found from the Donggang River basin in Jeongseon, Gangwon Province, Republic of Korea, which represents a new local distributional record. This record contributes to a better understanding of the distributional range and occurrence pattern of this poorly known species in Korea.

Keywords: *Schwarzerium*, longhorn beetle, Citizen science, Donggang River, Jeongseon

Introduction

The Donggang River extends approximately 50.5 km through eastern Gangwon Province, from Yeongwol to Jeongseon, Republic of Korea. The river is characterized by rugged mountainous terrain, including Mt. Baegunsan (882 m), Mt. Manjisan (716 m), and Mt. Gombong (1,015 m). Except for narrow riparian plains and limited low-elevation agricultural areas, most of the river basin remains in a well-preserved forested condition (WREO, 2007). These environmental conditions contribute to high insect diversity in the Donggang River basin, which has also provided opportunities for significant taxonomic findings. A representative example is the discovery of Mawenzhena koreana Kim & Jung, 2019, originally described from this area.

Schwarzerium provosti (Fairmaire, 1887) is an aesthetically distinctive longhorn beetle, with a strong green metallic sheen, a feature shared with other members of the genus *Schwarzerium* Matsushita. *Schwarzerium provosti* was first described from China (Pékin). In Korea, the first distribution of this species was confirmed by Lee (1981) from Daegu region. Subsequently, additional records from multiple localities in central and southeastern Korea have been reported by later researchers and citizen scientists, primarily from Gyeonggi, Chungcheong, and North Gyeongsang Province (Table 1, Figure 1). However, despite its charismatic appearance, existing records in Korea remain scattered, and the distribution range and population density of this species remain poorly understood.

On 9 August 2025, during a faunal survey of the Donggang River basin in Jeongseon area, a single specimen of *S. provosti* (Figure 1) was collected (N 37.3554, E 128.6298), representing a new local record of this species in the Donggang River basin. An adult specimen was found dead along a roadside at approximately 300 m elevation, directly below a steep cliff approximately 100 m in height. However, the known host plant in Korea, Zelkova serrata (Thunb.) Makino, as reported by Oh (2018), was not observed near the collection site. Whether the specimen reached the site incidentally during dispersal or originated from host plants located above the cliff remains uncertain, indicating the need for further detailed ecological surveys in the area.

The most intriguing aspect of *S. provosti* is that, although its host plant, *Zelkova serrata*, is one of the most common and widespread tree species in Korea, records of the species remain scarce. This may be partially explained by their life-history traits, as adults are presumed to remain primarily within the upper canopy following emergence. In addition, many previous records have been reported from areas adjacent to large urban centers, such as Namyangju, Yangpyeong, Chungju, and Jecheon (Table 1; Jang et al., 2015). Given this background and the wide distribution of the host plant, further occurrences of the species may be expected in other regions in Korea, highlighting the importance of additional surveys and reporting efforts by citizen scientists.

Table 1. Previous records of *Schwarzerium provosti* in Korea.

Locality	Source
South Korea, Yangsu-ri, Yangseo-myeon, Yangpyeong-gun, Gyeonggi-do	Jang et al., 2015; Citizen obs. (https://m.blog.naver.com/beremeli/223080692529)
South Korea, Haso-dong, Jecheon-si, Chungcheongbuk-do	Oh, 2018; Lee & Lee, 2021; Citizen obs. (https://m.blog.naver.com/peoplecw/221432238956)
South Korea, Jecheon-si, Chungcheongbuk-do	Citizen obs. (https://m.blog.naver.com/beremeli/223080692529)
South Korea, Chungju-si, Chungcheongbuk-do	Citizen obs. (https://cafe.naver.com/lovessym/155951?tc)
South Korea, Namyangju-si, Gyeonggi-do	Citizen obs. (https://cafe.naver.com/lovessym/155951?tc)
South Korea, Jeungpyeong-gun, Chungcheongbuk-do	Citizen obs. (https://cafe.naver.com/lovessym/95450?tc)
South Korea, Seoul Metropolitan City.	Jang et al., 2015
South Korea, Cheongju-si, Chungcheongbuk-do	Jang et al., 2015
South Korea, Siheung-si, Gyeonggi-do	Jang et al., 2015
South Korea, Daegu Metropolitan City	Lee, 1981; Jang et al., 2015
South Korea, Pohang-si, Gyeongsangbuk-do	Jang et al., 2015
South Korea, Jeongseon-gun, Gangwon-do	Present study

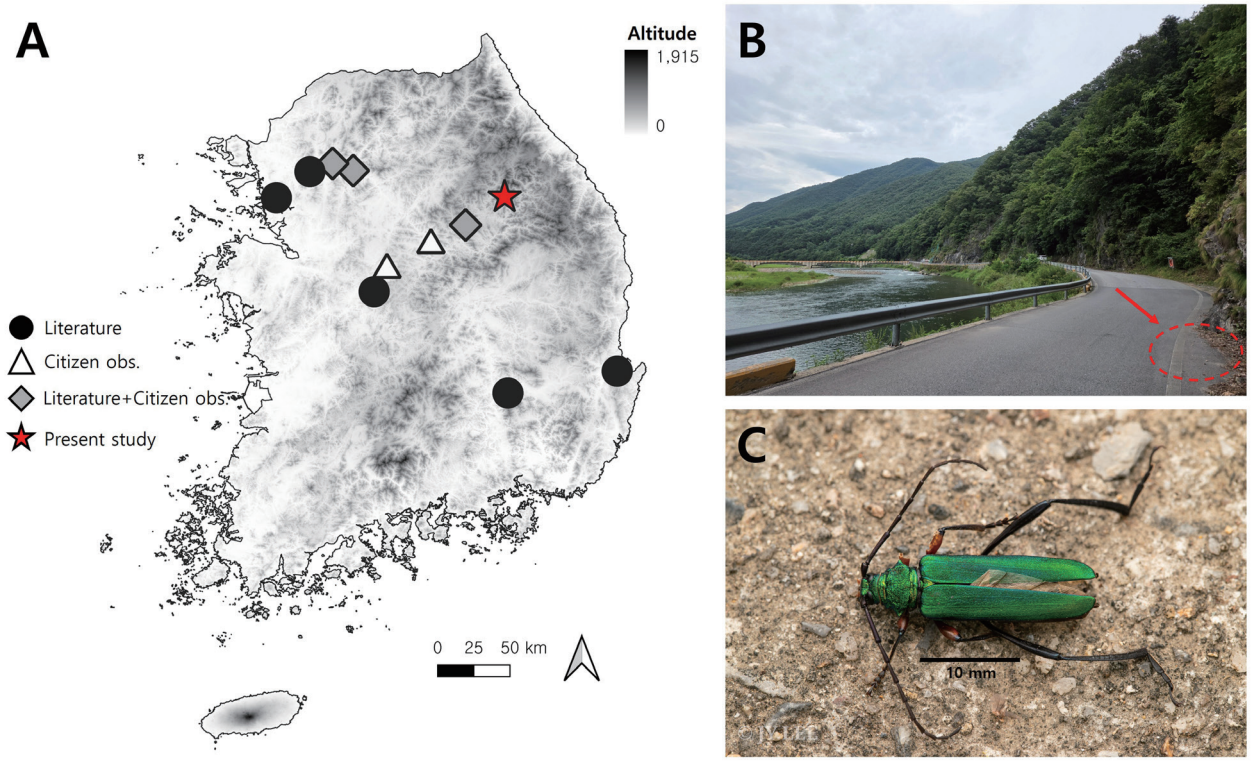

Figure 1. A. Geographic distribution of *Schwarzerium provosti* in South Korea. **B.** Habitat of the species at the collected site. The dashed circle and arrow indicate the locality where the specimen was found along a riverside road. **C.** Adult individual of *S. provosti* observed in the present study.

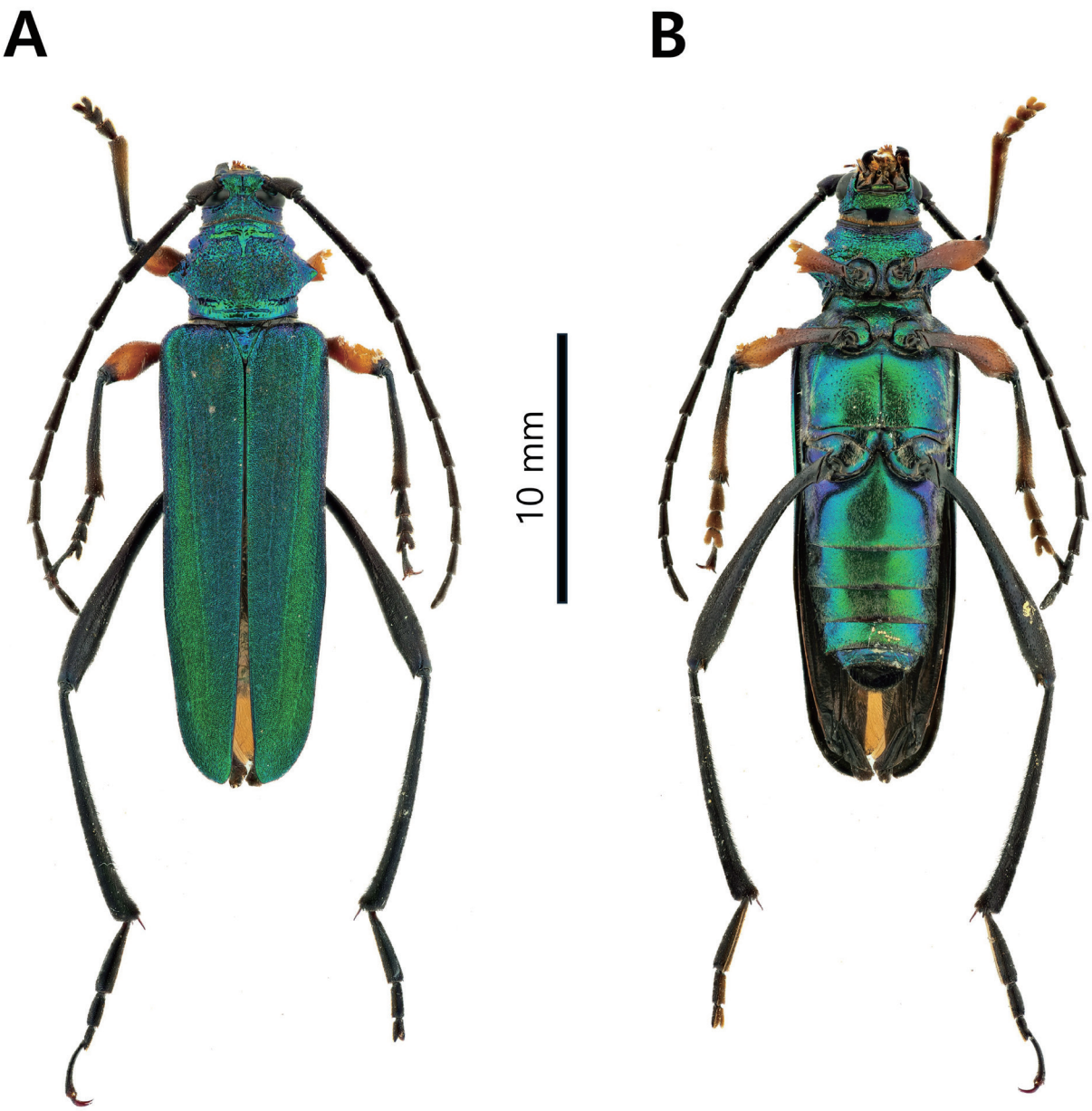

Figure 2. General habitus of *Schwarzerium provosti*. **A.** dorsal view. **B.** ventral view.

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