

# Confirmation of the Occurrence of the Genus *Sominella* Jacobson, 1908 (Coleoptera: Chrysomelidae: Donaciinae) from Korea

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## 한반도 분포가 불확실했던 *Sominella*속(딱정벌레목: 잎벌레과: 뿌리잎벌레아과)의 확인

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**ABSTRACT:** This paper presents the confirmed occurrence of the reed beetle genus *Sominella* Jacobson, 1908 in North Korea, based on a specimen of *S. macrocnemia* (Fischer von Waldheim, 1824). Photographs of the habitus, main diagnostic characters, and a distribution map in Korea are provided.

**Key words:** Donaciinae, reed beetles, *Sominella macrocnemia*, Korea

**초록:** 한반도 분포 여부가 불확실했던 뿌리잎벌레류 *Sominella* Jacobson, 1908 속이 북한산 *S. macrocnemia* (Fischer von Waldheim, 1824) 표본의 발견으로 분포가 확인되었다. 이 종의 표본사진, 진단형질 및 한반도 분포지도를 제공하였다.

**검색어:** 뿌리잎벌레아과, 뿌리잎벌레, 긴다리뿌리잎벌레, 한국

The subfamily Donaciinae, commonly called reed beetles, is an ecologically well-defined group of the family Chrysomelidae with its aquatic habitats. The adults live on leaves of aquatic host plants and the larvae feed on submerged roots. Approximately 170 species in seven genera are mainly distributed in temperate regions of the Holarctic, Africa and Australia (Leschen and Konstantinov, 2014). In the Korean Peninsula, eight species of *Donacia* and three species of *Plateumaris* have been previously recorded (Cho and An, 2020). *Sominella macrocnemia* (Fischer von Waldheim, 1824) was described from Dauria, and since then it has been reported from Russia,

Mongolia, and China (Hayashi, 2012). Warchałowski (2010) added this species to the Korean fauna without specimen data, so it was considered doubtful.

During the examination of material deposited in the Museum of Natural History, University of Wrocław, Poland, the first author found a single specimen of *S. macrocnemia* collected in North Korea. It was obtained during the 1974 expedition to North Korea by the Institute of Systematics and Evolution of Animals, Polish Academy of Sciences, Kraków, Poland (Pawłowski and Tomek, 1997). Probably based on this material, Warchałowski (2010) listed *S. macrocnemia* from Korea. In the present study, we confirm the occurrence of *S. macrocnemia* from North Korea for the first time by the examination of the specimen. Habitus photographs and

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diagnostic characters are also provided.

## Materials and Methods

The specimen was examined with a Leica S8 APO microscope. The photographs were taken using a Nikon D850 digital camera attached to a Leica M165C microscope, and then combined using Helicon Focus image stacking software. A double slash (//) in the collecting data separates the data on different labels. The material examined is deposited in the collection of the Museum of Natural History, University of Wrocław, Wrocław, Poland.

## Taxonomic Accounts

Family Chrysomelidae Latreille, 1802 앞벌레과

Subfamily Donaciinae Kirby, 1837 뿌리잎벌레아과

### Genus *Sominella* Jacobson 긴다리뿌리잎벌레속

*Sominella* Jacobson, 1908: 622 (type species: *Donacia macrocnemia* Fischer von Waldheim, 1824).

**Diagnosis.** Members of *Sominella* generally share the following features: antennomere III as long as or longer than IV; elytra sparsely and coarsely rugose, with interspaces finely punctulate. Other characters such as density and coarseness of pronotal punctation, hypomeral pubescence, shape of elytral apex, and metatibial tooth are various (Askevold, 1990).

*Sominella macrocnemia* (Fischer von Waldheim, 1824) 긴다리뿌리잎벌레 (Fig. 1A~D)

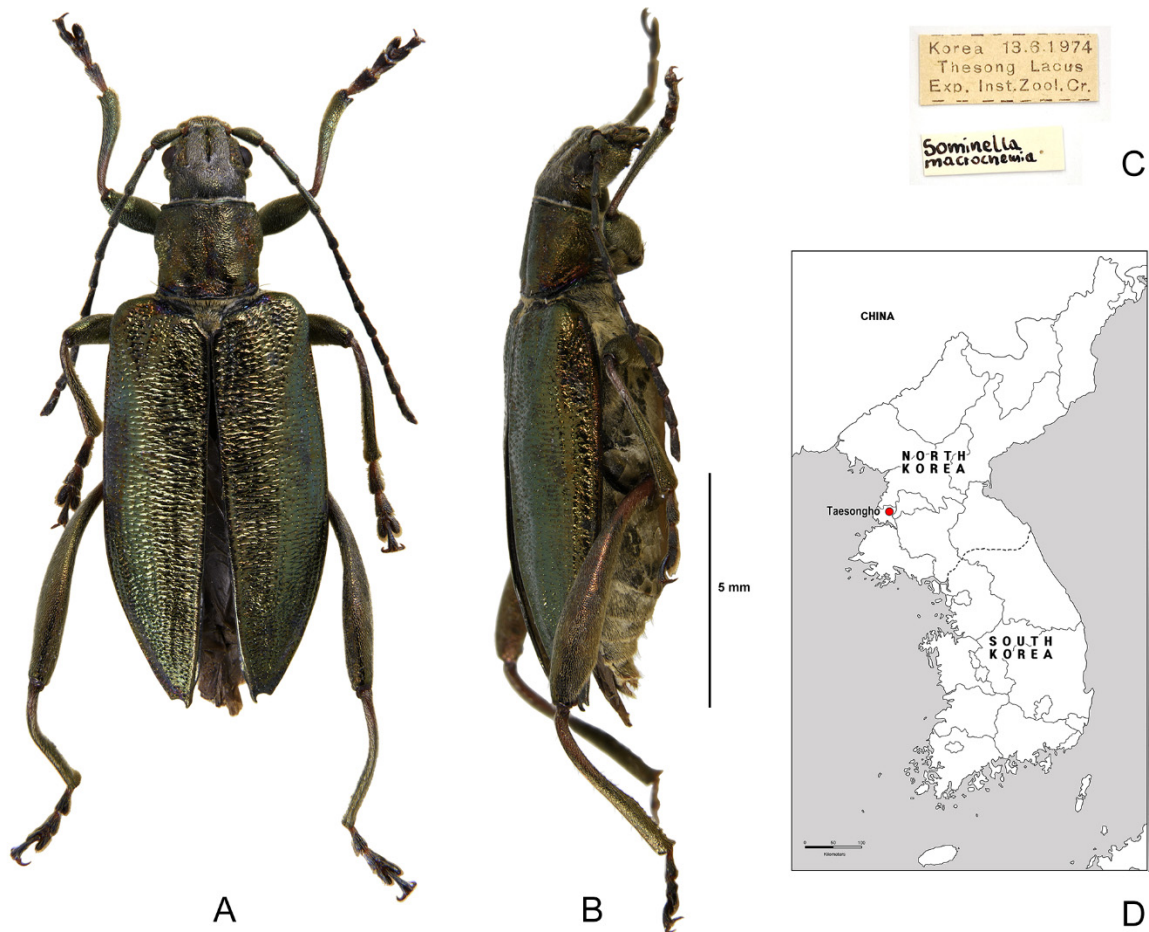


Fig. 1. *Sominella macrocnemia*: A, dorsal habitus; B, lateral habitus; C, labels; D, collection site in Korea.

*Donacia macrocnemia* Fischer von Waldheim, 1824: 235.  
*Plateumaris excisipennis* Jacobson, 1894: 243.  
*Sominella macrocnemia*: Jacobson, 1908: 623.

**Diagnosis** (Fig. 1A-B). This species is similar to *S. longicornis* Jacoby, 1890 in having elongate hind legs and femur and tibia with a prominent tooth on apical-ventral side in male. However, *S. macrocnemia* can be distinguished by the following characters: pronotum irregularly rugose-punctate on disc (large part transversely vermiculate-corrugate in *S. longicornis*); elytral interspaces with transverse microcorrugations (without corrugations in *S. longicornis*); elytral apex emarginate, inner apical angle prominent (truncate in *S. longicornis*).

**Material examined.** 1 ♀, “Korea 13.6.1974, Thesong Lacus [= Taesongho Lake, Ryonggang, South Pyongan Province, North Korea], Exp. Inst. Zool. Cr. // *Sominella macrocnemia*” (Fig. 1C).

**Distribution.** Russia (East Siberia, Far East), Mongolia, China (Heilongjiang, Hubei, Jilin, Liaoning, Shandong), North Korea (first confirmation, Fig. 1D).

**Remarks.** The occurrence of *Sominella macrocnemia* from the Korean Peninsula is confirmed based on the examination of the specimen. In recent years, records of the genus in the eastern Palearctic Region have been confirmed for *S. longicornis* in south China and Laos (Hayashi, 2012), but there is no additional collecting data for *S. macrocnemia* from Russian Far East, northeast China and the adjacent regions in the last half-century. The natural history, morphology of immature stages, and host plants of *S. macrocnemia* remain unknown.

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## Statements for Authorship Position & Contribution

Cho, H.-W.: Nakdonggang National Institute of Biological Resources, Researcher; Designed the research, examined the specimen and wrote the manuscript.

Hayashi, M.: Hoshizaki Green Foundation, Researcher: Confirmed the identification and wrote the manuscript.

All authors have read and approved the manuscript.

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