Distribution of the longhorned beetle *Callipogon relictus* (Coleoptera: Cerambycidae) in Northeast Asia

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Abstract

The distribution of the longhorned beetle *Callipogon (Eoxenus) relictus* Semenov, 1899 (Coleoptera: Cerambycidae) in Northeast Asia was summarized for the first time, based on the examination of comprehensive material. *Callipogon relictus* is the only representative of the genus *Callipogon* in the Palearctic region. Its distribution ranges from Shanxi province (China) in the south, northward through the Korean Peninsula to Amur Oblast (Russia), and from Inner Mongolia (China) in the west to the coastal area of the Russian Far East.

Key words: *Callipogon relictus*, Cerambycidae, Coleoptera, longhorned beetle, distribution, Northeast Asia

Introduction

Presently, the longhorned beetle genus *Callipogon* Audinet-Serville, 1832, is divided into five subgenera that include nine species, eight of which are distributed from Mexico in Central America to Peru in South America (Monné 2017). Representatives of this genus are large beetles ranging from 6−11 cm in length. They have an elongated and slightly convex body. The lateral margins of the pronotum have many spines, with the spines on the anterior and posterior corners being larger and retrorse. Metepisterna are narrowed posteriorly. The first segment of the antennae is slightly elongated. This genus exhibits strong sexual dimorphism; the males have extremely well-developed mandibles (Du Pont 1832; Nonfried 1892; Semenov 1899; Lameere 1904).

*Callipogon relictus* is the only representative of the genus that inhabits Northeast Asia. The species abundance throughout the major part of its distributional range is rapidly declining. In some regions, this species is either endangered or extinct (Kuprin & Bezborodov 2012). The large-scale cutting of over-mature broad-leaved forests is the main reason underlying the reduction in *C. relictus* populations. This beetle species has been added to the IUCN Red List of threatened species, and it is legally protected in the Russian Federation (Russian Federation 2001). In South Korea, it is listed in the Red Data Book (Ministry of Environment of Korea 2013) as a Class I Endangered Species. Currently, this species is known to inhabit only the Gwangneung forest, Pocheon-si, Gyeonggi-do in South Korea. Only a few individuals of this species have been observed in this area recently.

The purpose of the present work was to study the distribution of *C. relictus* in Northeast Asia with the ultimate aim of developing measures for an integrated protection system, and to re-establish its local population in parts of the distributional area from which it has become extinct.