

## Bark beetles and their natural enemies on oriental spruce from the black sea region of Turkey

**Cihan Cilbircioglu**  
Kastamonu University, Turkey

Oriental spruce, *Picea orientalis* (L.) Link. (Pinaceae), is one of the main tree species that naturally grows in the Caucasus Mountains and the northeastern part of Turkey, known as the Black Sea Region. This tree species reaches optimal growth in the mountainous areas of heavy precipitation in Ordu, Giresun, Rize, Trabzon, and Artvin Provinces of the Eastern Black Sea Region of Turkey, but it can tolerate a wide range of climatic zones. The bark beetle species (Coleoptera: Curculionidae: Scolytinae) that attack oriental spruce, and their predators and parasitoids, were studied in Turkey in 2005-2006. Twenty-three species of bark beetles belonging to six subtribes and two tribes of Scolytinae were identified. In addition, 84 predatory species from 21 families and 23 parasitoid species from five families were detected. Identification of these predatory and parasitic species is an important starting point for the biological control of bark beetles attacking oriental spruce in Turkey.

ccilbircioglu@kastamonu.edu.tr