

# SPECIES COMPOSITION, DISTRIBUTION AND BIOECOLOGICAL FEATURES OF LONGHORN BEETLES (COLEOPTERA, CERAMBYCIDAE) ON VITOSHA MOUNTAIN

## (Summary)

In the period 2014-2024, a complex study was carried out on the longhorn beetles (Coleoptera: Cerambycidae) of Vitosha Mountain. The study led to the identification of 131 taxa of beetles (Coleoptera: Cerambycidae), belonging to 7 subfamilies, as follows: Prioninae (two species); Lepturinae (38 species and subspecies), Necydalinae (two species), Spondylidinae (6 species and subspecies), Cerambycinae (39 species and subspecies), Lamiinae (40 species and subspecies) and Agapanthiinae (four species and subspecies).

The cerambycid fauna of Vitosha Mt. has been enriched with 15 new species and subspecies (*Aegosoma scabricorne*, *Pedostrangalia revestita revestita*, *Stictoleptura pallens*, *Stictoleptura scutellata scutellata*, *Cortodera humeralis humeralis*, *Chlorophorus figuratus*, *Isotomus speciosus speciosus*, *Xylotrechus antilope antilope*, *Xylotrechus rusticus*, *Trichoferus pallidus*, *Hylotrupes bajulus*, *Leiopus taeniatus*, *Dorcadion pedestre pedestre*, *Mesosa nebulosa nebulosa*, *Mesosa curculionides*), four genera (*Aegosoma*, *Pedostrangalia*, *Trichoferus*, *Hylotrupes*) and three tribes (*Aegosomalini*, *Hesperophanini*, *Hylotrupini*). For another 60 species and subspecies, new information was received, including new localities for seven taxa rare for the country.

The greatest diversity was found in the belt of xeromesophilic and mesophilic oak-hornbeam forests (up to 1100-1400 m above sea level) - 115 taxa. In the belt of beech forests (up to 1400-1840 m above sea level) 50 cerambycid taxa were found, in the belt of coniferous forests (up to 1700-2050 m above sea level) - 23 taxa, and in the belt of subalpine vegetation (above 1900 m above sea level) - only three taxa.

The cerambycid complex of Vitosha Mt. is associated with deciduous trees and shrubs (58 taxa, occupying 44.3%), herbaceous plants (25 taxa, 19.1%), coniferous trees and shrubs (23 taxa, 17.6%), deciduous and coniferous trees and shrubs (23 taxa, 17.6%) and deciduous and herbaceous plants (2 taxa, 1.5%). Trophic relationships have been established in 24 taxa of longhorn beetles with 37 tree and shrub species.

Six species of parasitoids from two hymenopteran (Braconidae, Ichneumonidae) and one dipteran family (Tachinidae) with four species of cerambycid hosts have been established on Vitosha Mt. The cerambycid taxa of Vitosha Mt. belong to 17 categories and 8 arealographic complexes. The most numerous is the European complex (53 taxa, 40.5%), followed by the Palaearctic complex (26 taxa, 19.8%), the Euro-Siberian complex (19 taxa, 14.5%), the European-Irano-Turanian complex (13 taxa, 9.9%), the Mediterranean complex (9 taxa, 6.9%), the Balkan endemic complex (5 taxa, 3.8%), the Holarctic complex (4 taxa, 3.1%) and the Cosmopolitan complex (2 taxa, 1.6%).

Eighty-five species of cerambycids of conservation significance have been identified on Vitosha Mt., which constitutes 64.9% of the total complex. Two of them (*Rosalia alpina*, *Morimus asper funereus*) are protected species as objects of legal acts (Council Directive, 92/43/EEC; Biodiversity Act of the Republic of Bulgaria, 2002-2024) or international conventions (Council of Europe, 1979). Another 83 species and subspecies, as well as *Rosalia alpina*, are in the IUCN database, among the first – two taxa (*Pedostrangalia revestita*, *Necydalis ulmi*) with a high risk of extinction (vulnerable category) and three from the near threatened category (*Stenurella septempunctata*, *Xylosteus bartoni*, *Cerambyx miles*).