

SPATIAL AND VERTICAL DISTRIBUTION OF LONGICORN BEETLES (COLEOPTERA, CERAMBYCIDAE) IN THE FORESTS OF THE SOUTHERN PART OF THE PRIMORSKY TERRITORY

A. V. Kuprin

*Federal Scientific Center of the East Asia Terrestrial Biodiversity, Russian Academy of Sciences,
159 100th anniversary of Vladivostok avenue, Vladivostok, 690022, Russia
E-mail: kyprins@mail.ru*

D. A. Yi

*Center for the Study of Insect Ecology, Yeongwol Insect Museum, Donggang-ro 716, Yeongwol-gun, Gangwon-do, Republic of Korea
E-mail: 2bigstone@hanmail.net*

Abstract. The study of spatial distribution of coleopterous insects in the forest ecosystems of various displacement degrees plays a pivotal role for communities ecology. The present article examines the spatial stratification of the longicorn beetles (Coleoptera, Cerambycidae) in the valley-growing elm and ash forests with Korean pine and in the mountain rhododendron oak-forest. Material is collected by standard entomologic methods using soil and window traps at 6 model sites (five sites are presented by valley-growing forests with dominating of elms, ash tree or Korean pine, and the sixth is by mountain rhododendron oak-forest) with various displacement degree. The information on species composition, habitat conditions and vertical distribution of the longicorn beetles in the forests of the South of the Primorsky Territory has been obtained. It has been established that the biggest number of species is concentrated in the primary forest, community structure of longicorn beetles in these forests has high similarity, which is conditioned by similar space structure of plant association and equal composition of main wood generating species, being both food items and at the same time micro sites for development of larvae of longicorn beetles. Distribution of longicorn beetles has been found by the bio-geological horizons in the old-growth elm forests, the biggest number of species and maximum total abundance are marked on the middle and upper layers of forest canopies. The longicorn beetles, which larvae are sapro-xylo-mycetophage, are indicated to belong to the lower layer, and xylophages longicorn dominate at the upper layer of forest canopy.

Keywords: Coleoptera, Cerambycidae, diversity, abundance, spatial and vertical distribution, forest canopy, Russian Far East.