

The important pest insect species on forest trees of Akdağ Nature Park

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Abstract: Protected areas, as a result of long years of knowledge and experience at international and national levels, are now present as an indispensable element of nature conservation. Pest insects are among the various factors that affect the health of forests in Turkey. Some of the insect species that are harmful to Protected Areas are periodically harmful, as is throughout the Turkish forests. As the research area Akdağ Nature Park (Denizli) which was declared as Nature Park in 2000 in terms of its resource values, is a valuable area in terms of its flora and fauna. By the way, there is no detailed study on pest insect species of this protected area. This study was carried out in 2015 in order to determine important insect species which are harmful on forest trees in Akdağ Nature Park. Samples were taken from the trees throughout the field and also red winged sticky traps (by an attractive mixture of 96% ethyl alcohol and 1% toluene) and funnel type pheromone traps were settled for determining pest species and adult flight periods of important species. Traps were established on two different experiment sites in the research area. These areas are located on Koca Yayla (1500 m) and Kızlar Alanı (1120 m) provinces. While *Pinus nigra* and *P. sylvestris* communities are exist in Koca Yayla province, as deciduous trees *Quercus cerris* is spread in Kızlar Alanı province. The traps were hunged on the branches of the trees at a height of 2-2.5 m at a distance of at least 80-100 m from each other. Controls were performed weekly in visual traps, once every two weeks in pheromone traps, and trap controls were continued until the end of adult catching. As result, *Anisandrus dispar* (Fabricius, 1792), *Carphoborus henscheli* (Reitter, 1887), *Xyleborinus saxesenii* (Ratzeburg, 1837), *Ips sexdentatus* (Boern), *Lymantria dispar*, *Pityogenes bistridentatus* (Eichhoff, 1878), *Rhyacionia buoliana*, *Thaumetopoea wilkinsoni* and *Tomicus minor* (Hartig, 1834) were determined as pest insect species in Akdağ Nature Park.

Keywords: Akdağ Nature Park, Forest, Pest insect, Flight period