

## Turkey's oak forests are important for biodiversity

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**Abstract:** The Mediterranean basin exhibits a multitude of forest habitats affected by former and current exploitation and management. Recent afforestation programs have resulted in an increase in the proportion of coniferous trees, while Oak stands (*Quercus* spp), formerly utilized for pollarding, coppicing and grazing, are abandoned or converted into coniferous plantations. The loss of Oak stands might negatively affect birds dependent upon broadleaved forests. Studies confirming or rejecting that statement are scarce, particularly in the eastern part of the region. Old Oaks and its insect fauna are very rare and threatened all over Europe and Turkey. Using six areas in southwestern Turkey we have studied the species richness of wood living beetles on old hollow Oaks and we also investigated how 15 pine and 15 oak stands with various age differ in their capacity to support forest bird assemblages. Our result show that Oak (*Quercus* spp.) forests support a higher species richness of birds than Pine (*Pinus* spp.) forests. The number of bird species clearly increases with the age of the Oak and pine forest habitat. Primary cavity-nesters like woodpeckers prefer old stands of Oak trees while ground-nesters are more indifferent to the factor forest age. Among the 340 identified wood living beetles species, 10 of them are very rare and are on the European "Red-list". Some of the beetles found are protected in EU as they are on the Annexes of the Habitat directive in the Natura 2000 system. Many of the beetle species were found for the first time in Turkey and 32 species are also identified as new to science. The result shows the unique species richness of Turkish Oaks and the high endemism among the beetle fauna in Turkey. The conservation value of the Turkish Oak habitats are higher than most of similar areas in Europe.

**Keywords:** Birds, Woodpeckers, Beetles, Pine, Oak, Forest