Habitat requirements of the Black Woodpecker, *Dryocopus martius*, in Hyrcanian forests, Iran

(Aves: Picidae)

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Abstract. The relationships between the Black Woodpecker (*Dryocopus martius* (Linnaeus, 1758)) abundance and forest characteristics and the role of coarse woody debris for habitat selection were assessed. One hundred point counts were conducted 250 m apart in Hyrcanian forest in northern Iran from 21 April to 21 May 2009. There was a noticeable difference in forest structure between areas where the Black Woodpecker was present and absent, with the species preferring the later stages of forest succession. Tall and large diameter trees, high volumes of coarse woody debris, especially large snags, and dense canopy cover, all of which characterise mature forests, are significantly higher in areas where the Black Woodpecker occurs. Altogether, the conservation of the Black Woodpecker depends to a large extent on how the forests they inhabit are managed.

Key words. Black Woodpecker, Hyrcanian forest, structure, snag, habitat requirements.

Introduction

Woodpeckers (family Picidae) are good indicators of forest biodiversity because their patterns of distribution and abundance reflect those of other taxa (BOCCA et al. 2007). The Black Woodpecker, *Dryocopus martius* (Linnaeus, 1758), inhabits mature forests where there are usually dense and tall stands of trees, and tends to disappear when the forest is degraded (FERNANDEZ & AZKONA 1996). The Black Woodpecker is the only woodpecker that creates breeding holes which other large cavity-nesters may also use (JOHNSON 2007). In northern Europe and Siberia, the Black Woodpecker inhabits coniferous forests, while in the Iberian Peninsula, it it is found in the beech forests of the Pyrenees and the Cantabrian Mountains. The Black Woodpecker is also distributed throughout the northern and temperate forests of Asia. In Iran, the Black Woodpecker is a scarce resident in the Hyrcanian forest that covers a narrow strip along the south margin of the Caspian Sea in Iran. The Hyrcanian forest is characterized by a highly endemic fauna and flora, due to its geographic isolation (SALEHI SHANJANI et al. 2002).

Our study was designed to examine the relationships between Black Woodpecker abundance and forest characteristics, and to identify factors of preferred habitat such as snags and the density of downed woody debris (DWD), which consists of fallen dead trees and large diameter trees.

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