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HABITAT OF THE LONG-TAILED WOOD-PARTRIDGE IN CENTRAL MEXICO

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ABSTRACT

The long-tailed wood-partridge (Dendrortyx macroura; hereafter, wood-partridge) is a forest quail endemic to the temperate forests of the Trans-Mexican Volcanic Belt of central Mexico and is considered threatened according to the Secretariat of the Environment of Mexico. We studied 34 sites within the Natural Resources Protection Area River Basins of the Valle de Bravo, Malacatepec, Tilostoc and Temascaltepec in central Mexico to evaluate wood-partridge habitat during September-December 2019. We evaluated attributes of tree, shrub, and herbaceous vegetation, canopy cover, humidity, slope, and altitude. We also identified vegetation used for nesting, food, and shelter. The scant information published for other geographical areas indicates habitat consists of pine (Pinus spp.), pine-oak (Quercus spp.), and cloud forest. We found that the preferred habitat in the Trans-Mexican Volcanic Belt was forest dominated by Alnus firmifolia, Pinus patula, Pinus pseudostrobus, Pinus teocote, and Quercus castanea. Wood-partridge preferred sites with an average of 90% canopy coverage, 100% shrub cover, high percent humidity, slopes >30%, and altitudes that ranged 2,700-3,000 meters above sea level. Additionally, we located an inactive nest in an area with 100% shrub cover and 80% tree cover in forest dominated by *Pinus patula*, relative humidity of 55%, and a temperature of 19° C. This is the first investigation of this bird within this important biogeographic transition zone between the Nearctic region and the Neotropics. We report the basic characteristics of the habitat used by this species along with the first description of a nest in an area with high rates of deforestation, overgrazing, and forest fires. The "gallinita de monte" represents an important element of the biocultural heritage for the Mazahua and Otomí peoples, who are Indigenous inhabitants of this area. We recommend additional research on wood-partridge to determine the extent of poaching and collection of eggs for food; determine effects of forest management; determine its basic ecology including survival, reproduction, and population density; verify habitat relationship; and corroborate information that describes the traditional knowledge of the species by the native Mazahua and Otomí peoples. We suggest it is most important to learn more about and disseminate traditional knowledge of the species and to preserve its biocultural value and heritage, particularly for Indigenous communities.

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Key words: central Mexico, *Dendrortyx macroura*, gallinita de monte, habitat, long-tailed wood-quail, nesting, Odontophoridae, Trans-Mexican Volcanic Belt

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