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FEATURE ARTICLES

WINTER BIRD COMMUNITIES IN FOUR HABITATS ALONG AN ELEVATIONAL GRADIENT ON HISPANIOLA

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Abstract. We used five years of mist-net-capture and point-count data to quantify avian diversity in four habitats along a 1750-m elevational gradient in the Dominican Republic. These habitats include desert thorn scrub, dry forest, pine forest, and montane broadleaf forest, which together comprise more than two-thirds of existing forest on Hispaniola. In midwinter samples we recorded 74 species of landbirds, including 22 species of latitudinal migrants and 19 endemics. The highest diversity and species richness were found in pine forest and dry forest, but the highest capture rate of individuals was in desert thorn scrub. Abundance of migrant individuals was highest in pine forest, whereas pine and montane broadleaf forest contained the highest proportion of endemic species and individuals, and more habitat specialists. Among mist-net captures, insectivorous species and individuals predominated in all habitats except in dry forest, where more omnivorous individuals were captured. A more complex pattern was found in point-count detections: insectivorous species and individuals predominated in most habitats; omnivorous species and individuals were most frequently counted in montane broadleaf and dry forest, respectively; and nectarivorous individuals were most common in desert thorn scrub. Data presented here represent the most complete quantitative record of avian abundance and distribution on Hispaniola. This study not only details the value of these four habitats to various suites of species, but also emphasizes the importance of montane broadleaf and pine forests to large numbers of Neotropical migrants and Hispaniolan endemics, some of which are narrowly restricted to these habitats.

Key words: avian abundance, avian diversity, Dominican Republic, elevational gradients, Hispaniola, Neotropical migratory birds, species richness.