

Effects of deforestation and forest modification on understorey birds in Central Sulawesi, Indonesia

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Abstract

To estimate the potential of forest birds to persist in the increasingly deforested island of Sulawesi, we undertook a mist-net survey in the understorey of natural as well as modified forest (forest garden and heavily logged forest) at submontane elevations in Central Sulawesi. A total of forty 102 m mist-net lines were distributed over five 16 ha study sites. Two of the sites were situated in an extensively forested valley, and three in a valley with severely fragmented forest. Of 23 species captured, only seven were typical understorey dwellers of submontane forest, five of which are Sulawesi region endemics. Most were found in similar numbers in natural and modified forest, but one species was significantly more common in modified forest. Of the five endemics, two species were confined to, and one species was significantly more abundant in, the extensively forested valley compared with the severely deforested valley. Our results suggest that the conservation of the remaining submontane forest is crucial to the conservation of Central Sulawesi's understorey bird diversity, but that many Sulawesi endemics might be able to survive in modified habitats.

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