ABSTRACT

Tree cavity-nesting birds are known to be limited by the availability of suitable holes for breeding. This issue is further compounded when birds share similar preferences resulting in competition. In the Philippines, cavity nesting birds are poorly known, and so are the underlying nest web interactions. To guide species conservation, habitat management, and priority setting, I reviewed the status, distribution, and knowledge gaps in the breeding biology and ecology of tree cavity-nesting birds in the Philippines. Approximately 19% (n=85) of all breeding birds in the Philippines are cavity-nesting of which 31% (n=26) are threatened, 81% (n=68) had decreasing population trends, and 71% have unknown to poorly known breeding information. In the field, I described the tree and cavity preferences and examined the nest niche overlap among several large tree cavity nesting birds (≥139 g, ≥ 27 cm) at the Subic Watershed Forest Reserve. Nest sites were measured for tree and cavity characteristics and were monitored for cavity-use succession for one breeding season. Cavities were found in both live and dead large-girthed trees belonging mostly to two species: *Parkia timoriana* and *Shorea contorta*. Cluster analysis based on tree status, girth at breast height, cavity depth, height (from the ground), and volume revealed overlapping nest niches among 1) all woodpeckers, Blue-naped Parrot, and Coleto; and 2) Luzon Hornbill, Blue-naped Parrot, Coleto, and White-bellied Woodpecker. I also described the breeding biology and behavior of the Luzon Hornbill, Blue-naped Parrot, Northern Sooty Woodpecker, and Coleto; post-breeding biology and behavior of the Luzon Flameback; and, provided insights on the nesting ecology of the Chocolate Boobook and Green Racquet-tail through direct on the ground daylight observations. Moreover, I also conducted a preliminary investigation of the initial microclimate in natural cavities in live trees and woodpecker-excavated cavities in snags. This research provides much needed breeding information for several understudied tree cavity nesting birds in the Philippines. The findings of this study can be used to inform species conservation, forest management policies, habitat enrichment/restoration programs and future research endeavors, not just in my study site but across the range of my study species.