Avian Gut Passage Time

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The Brown Tree Snake (Boiga irregularis) was accidentally brought to Guam post-World War II, where it managed to extirpate numerous native species and substantially decrease the numbers of others. However, avian seed dispersers are important components of a thriving forest. In their decline, many forests have suffered a loss of interspecies relationships and species diversity; degradation that hinders ecological function. The unstable ecosystem presses for the introduction of a resilient disperser. Gut passage time is an important factor in determining an effective disperser, as a longer gut retention typically suggests a greater range of dispersal. In this study, captive birds were fed fruits native and non-native to the CNMI (Commonwealth of the Northern Mariana Islands) and gut retention times were recorded. Of the birds studied thus far, the Mariana Fruit Dove (Ptilinopus roseicapilla), Micronesian Starling (Aplonis opaca), and White-throated Ground Dove (Gallicolumba xanthonura), the Mariana Fruit Dove has shown the greatest aptitude for effective seed dispersal in terms of distance. Key words: gut passage time, avian seed dispersers, Brown Tree Snake, Guam, CNMI, Mariana Fruit Dove, Micronesian Starling, White-throated Ground Dove

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