

The value of rehabilitating logged rainforest for birds

Abstract

The recent advent of carbon crediting has led to a rapid rise in biosequestration projects that seek to remove carbon from the atmosphere through afforestation and forest rehabilitation. Such projects also present an important potential opportunity to reverse biodiversity losses resulting from deforestation and forest degradation, but the biodiversity benefits of different forms of biosequestration have not been considered adequately. We captured birds in mist nets to examine the effects of rehabilitation of logged forest on birds in Sabah, Borneo, and to test the hypothesis that rehabilitation restores avian assemblages within regenerating forest to a condition closer to that seen in unlogged forest. Species richness and diversity were similar in unlogged and rehabilitated forest, but significantly lower in naturally regenerating forest. Rehabilitation resulted in a relatively rapid recovery of populations of insectivores within logged forest, especially those species that forage by sallying, but had a marked adverse effect on frugivores and possibly reduced the overall abundance of birds within regenerating forest. In view of these results, we advocate increased management for heterogeneity within rehabilitated forests, but we strongly urge an increased role for forest rehabilitation in the design and implementation of a biodiversity-friendly carbon-offsetting market. © 2009 Society for Conservation Biology.