Diversity and relative abundance of hornbills in selectively-logged Production Forests in Central Sarawak, Malaysian Borneo

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Summary. Rapid point surveys and opportunistic records were used to assess the relative abundance of hornbills in three selectively logged production forests (Forest Management Units: FMUs) in the interior of Sarawak. Each FMU contained coupes of different logging histories: recently logged (1-2 years ago), future logging (logged 5-30 years ago), and currently logged (logged 20-30 years ago). Point surveys were conducted while driving along a 30 km-transect, sampling one or two coupes representing each logging category, over two days in three months (August, April, and July) in each of the three FMU areas. Opportunistic records were obtained during boundary patrols, regular wildlife monitoring surveys, and forest operations. Of eight hornbill species occurring in Borneo, only one species (Wrinkled Hornbill) was not detected. The most frequently recorded species was the Rhinoceros Hornbill (36%), followed by the critically endangered Helmeted Hornbill (18%) and White-crowned Hornbill (16%). There were no significant differences between the three logging categories in the frequency of detection of hornbills during point surveys, but hornbills were detected at more points (67%) in future logging coupes than in currently logged (42%) or recently logged forest (44%) coupes. The occurrence of seven hornbill species in a production forest complex suggests that selectively logged forest provides suitable habitat for these species if managed sustainably, especially if nest and fruiting trees are actively protected.

Ringkasan. Survei singkat dan pencatatan oportunistik digunakan untuk menilai kelimpahan relatif rangkong di tiga hutan produksi tebang pilih (Forest Management Units: FMU) di pedalaman Sarawak. Setiap FMU mempunyai penebangan dengan sejarah yang berbeda: belum lama ditebang (1-2 tahun yang lalu), penebangan yang akan datang (pernah ditebang 5-30 tahun yang lalu), dan yang saat ini ditebang (pernah ditebang 20-30 tahun yang lalu). Survei singkat dilakukan saat berkendara di sepanjang transek 30 km, dengan pengambilan sampel di satu atau dua blok yang mewakili setiap kategori penebangan, selama dua hari dalam tiga bulan (Agustus, April dan Juli) di masing-masing dari tiga hutan produksi tersebut. Catatan oportunistik diperoleh selama patroli perbatasan, survei pemantauan satwa liar dan operasi hutan. Dari delapan jenis rangkong yang terdapat di Kalimantan, hanya satu jenis (Julang jambul-hitam) yang tidak terdeteksi. Jenis yang paling sering tercatat adalah Rangkong badak (36%), diikuti oleh Rangkong gading (18%) dan Enggang jambul (16%). Tidak ada perbedaan yang signifikan antara ketiga kategori penebangan dalam frekuensi deteksi rangkong dengan survei singkat, tetapi rangkong terdeteksi di lebih banyak titik survei di blok kelompok penebangan di masa depan (67%) daripada di hutan yang saat ini ditebang (42%) atau hutan yang belum lama ditebang (44%). Keberadaan tujuh jenis rangkong di kompleks hutan produksi menunjukkan bahwa hutan tebang pilih menyediakan habitat yang cocok bagi spesies ini jika dikelola secara lestari, terutama jika pohon sarang dan pohon buah dilindungi secara aktif.