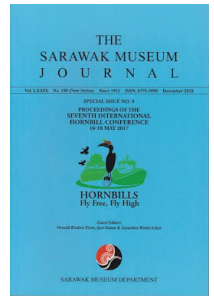




The Sarawak Museum Journal
Vol. LXXIX No. 100
December 2018



ISSN: 0375-3050

Citation: *Sarawak Museum Journal*, LXXIX (100) (2018): 147-158

COMMUNITY STRUCTURE OF HORNBILLS IN AN OIL PALM LANDSCAPE IN EAST KALIMANTAN, INDONESIA

Gilang Fajar Ramadhan*, Bandung Sahari and Joko Supriyono
Indonesian Palm Oil Association, Rukan Sudirman Park, Blok B18,
Jl KH Mas Mansyur Kav 35, Jakarta 10220, Jakarta-Indonesia.

*Corresponding author. Email: gf.ramadhan@gmail.com

ABSTRACT

Conserved land in human dominated landscapes such as oil palm plantations provide habitat for many animal taxa including hornbills. The aim of the study is to quantify species richness, distribution, population size and sex ratio of hornbill community in oil palm landscapes with retained native forest patches. Ecological sampling was conducted in an oil palm plantation in East Kalimantan, Indonesia. Birds were observed using fixed radius point count method. We found that there were six hornbill species belonging to four genera of Bucerotidae including Helmeted Hornbill, Rhinoceros Hornbill, Wreathed Hornbill, Wrinkled Hornbill, Black Hornbill and Oriental Pied Hornbill that occurred in the study site. Population density varied among species ranging from 0.17 to 4.72 individual per km² in 2012 and 0.34 to 3.35 individual per km² in 2013. Rhinoceros Hornbill was the most abundant species observed in one location with highest number of individual per group of about 21 individuals during flocking. Sex ratio (M:F) was ranged from 0.31 to 0.95. The dispersion of hornbill species was generally random. Our results show that retention of forest patches on oil palm plantations can help to maintain the diversity and abundance of hornbills in the region.

Keywords: Hornbill, population, conservation

COMMUNITY STRUCTURE OF HORNBILLS IN AN OIL PALM LANDSCAPE IN EAST KALIMANTAN, INDONESIA

Gilang Fajar Ramadhan*, Bandung Sahari and Joko Supriyono
*Indonesian Palm Oil Association, Rukan Sudirman Park, Blok B18,
Jl KH Mas Mansyur Kav 35, Jakarta 10220, Jakarta-Indonesia.*
**Corresponding author: Email: gf.ramadhan@gmail.com*

Abstract

Conserved land in human dominated landscapes such as oil palm plantations provide habitat for many animal taxa including hornbills. The aim of the study is to quantify species richness, distribution, population size and sex ratio of hornbill community in oil palm landscapes with retained native forest patches. Ecological sampling was conducted in an oil palm plantation in East Kalimantan, Indonesia. Birds were observed using fixed radius point count method. We found that there were six hornbill species belonging to four genera of Bucerotidae including Helmeted Hornbill, Rhinoceros Hornbill, Wreathed Hornbill, Wrinkled Hornbill, Black Hornbill and Oriental Pied Hornbill that occurred in the study site. Population density varied among species ranging from 0.17 to 4.72 individual per km² in 2012 and 0.34 to 3.35 individual per km² in 2013. Rhinoceros Hornbill was the most abundant species observed in one location with highest number of individual per group of about 21 individuals during flocking. Sex ratio (M:F) was ranged from 0.31 to 0.95. The dispersion of hornbill species was generally random. Our results show that retention of forest patches on oil palm plantations can help to maintain the diversity and abundance of hornbills in the region.

Keywords: Hornbill, population, conservation

INTRODUCTION

In Indonesia, hornbill species are scattered from the outer islands at the southern tip of Aceh to the smallest islands in the area of West Papua. Poonswad *et al.* (2013) recorded nine hornbill species present in Sumatra including Bushy-crested Hornbill (*Anorrhinus galeritus*), White-crowned Hornbill (*Berenicornis comatus*), Wrinkled Hornbill (*Aceros corrugatus*), Wreathed Hornbill (*Rhyticeros undulatus*), Black Hornbill (*Anthraceroceros malayanus*), Oriental Pied Hornbill (*Anthraceroceros albirostris*), Rhinoceros