



The Sarawak Museum Journal

Vol. LXXIX No. 100

December 2018



ISSN: 0375-3050  
E-ISSN: 3036-0188

**Citation:** Fernando Dharma et. all (2018). Sumatran Hornbills in Fragmented Forest Areas in Oil Palm Plantation in South Solok, West Sumatra. The Sarawak Museum Journal, LXXIX (100) : 159-166

## SUMATRAN HORNBILLS IN FRAGMENTED FOREST AREAS IN OIL PALM PLANTATION IN SOUTH SOLOK, WEST SUMATRA

**Fernando Dharma<sup>1\*</sup>, Wilson Novarino<sup>2</sup> and Jabang Nurdin<sup>1</sup>**

<sup>1</sup>Animal Ecology Research Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang, 25163

<sup>2</sup>Animal Taxonomy Research Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang, 25163

\*Corresponding author: [nandorangkongindonesia@gmail.com](mailto:nandorangkongindonesia@gmail.com)

### ABSTRACT

A study on hornbill populations in fragmented forest areas within oil palm plantations in Tidar Kerinci Agung (TKA) Company, West Sumatra was carried out from July to August 2015 in 60 Hectare fragmented forest areas. The objective of this study was to document hornbill species richness using the transect method on three main lines along two km and using call recognition for population census of hornbill. During the study, we recorded 82 individuals of eight species after 60 km walk. We encountered using two methods (Sighting and Calls Methods); *Anorrhinus galeritus* twenty-one encounters, *Berenicornis comatus* single encounter, *Rhabdotorrhinus corrugatus* two encounters, *Rhyticeros undulatus* two encounters, *Anthracoceros malayanus* sixteen encounters, *Anthracoceros albirostris* seven encounters, *Buceros rhinoceros* thirty-one encounters and two encounters of *Rhinoplax vigil*.

**Keywords:** Fragmentation, transect, hornbill



# SUMATRAN HORNBILLS IN FRAGMENTED FOREST AREAS IN OIL PALM PLANTATION IN SOUTH SOLOK, WEST SUMATRA

Fernando Dharma<sup>1\*</sup>, Wilson Novarino<sup>2</sup> and Jabang Nurdin<sup>1</sup>

<sup>1</sup>*Animal Ecology Research Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang, 25163*

<sup>2</sup>*Animal Taxonomy Research Laboratory, Department of Biology, Faculty of Mathematics and Natural Sciences, Andalas University, Padang, 25163*

*\*Corresponding author: nandorangkongindonesia@gmail.com*

## Abstract

A study on hornbill populations in fragmented forest areas within oil palm plantations in Tidar Kerinci Agung (TKA) Company, West Sumatra was carried out from July to August 2015 in 60 Hectare fragmented forest areas. The objective of this study was to document hornbill species richness using the transect method on three main lines along two km and using call recognition for population census of hornbill. During the study, we recorded 82 individuals of eight species after 60 km walk. We encountered using two methods (Sighting and Calls Methods); *Anorrhinus galeritus* twenty-one encounters, *Berenicornis comatus* single encounter, *Rhabdotorrhinus corrugatus* two encounters, *Rhyticeros undulatus* two encounters, *Anthracoceros malayanus* sixteen encounters, *Anthracoceros albirostris* seven encounters, *Buceros rhinoceros* thirty-one encounters and two encounters of *Rhinoplax vigil*.

**Keywords:** Fragmentation, transect, hornbill

## INTRODUCTION

Deforestation in the year 2013–2014 in Indonesia was estimated to be of 0.4 million ha/yr. (inside and outside the forest area). Estimation of Indonesia's deforestation that has been conducted periodically since 1990 shows the fluctuation in deforestation rates periodically. One of the impacts of deforestation is the formation of fragments (KLHK 2015). Fragmentation can have adverse effects to the flora and fauna of the natural habitats and is one of the main causes of biodiversity loss in some locations (Gunawan & Prasetyo 2013). On the other side, fragmentation can increase habitat diversity, creating a habitat for beneficial alignment, and increase the edge that is preferred by more generalist species (Barnes 2000).

