

Avifauna in Logged-Over Forest of Upper Baleh, Sarawak

ANDREW ALEK TUEN*¹, ATTIQAH FADZILIAH SAPIAN¹, KHATIJAH ISMAIL¹,
CINDY PETER¹, MOHD HASRI AL-HAFIZ HABA¹ & CH' IEN C LEE²

¹Institute of Biodiversity and Environmental Conservation, Universiti Malaysia Sarawak, 94300 Kota Samarahan, Sarawak, Malaysia; ²Peti Surat P. 60, Pejabat Pos Pending, 93457, Sarawak, Malaysia

*Corresponding author: aatuen@unimas.my

Received: 31 July 2018

Accepted: 28 September 2018

Published: 30 December 2018

ABSTRACT

Commercial logging is a major economic activity in the Upper Baleh catchment, Sarawak, so logged-over forest is the dominant forest type there. Avifauna survey was conducted in the logged-over forest of Upper Baleh in November 2015 as part of the Upper Baleh Heart of Borneo Expedition. The objective of the survey was to collect baseline data on the avifauna species that inhabit the study area, their conservation status and feeding guilds. Both mist-net and observation method were used. A total of 95 species of birds was recorded: 36 species via mist-nets and 69 species via observation. Little spiderhunter was the dominant species, accounting for 33% of mist-netted bird. Seven species are Totally Protected including six species of hornbills and a Great Argus Pheasant, while 18 other species are Protected under the Sarawak Wild Life Ordinance 1998. The majority of the birds are insectivorous (55.8%), foraging either at ground level (babblers), along the tree trunks or branches (woodpeckers) or at the canopy (flycatchers). Omnivorous birds, which feed on two or more types of diet, accounted for 48.4% of the avifauna species recorded and these include bulbuls and hornbills. The diverse community of bird, including the protected species, makes the area an attractive birding destination for visitors since now part of the catchment has been gazetted as a national park. Avifauna's role as pollinating and dispersing agent will help the logged-over forest to recover.

Keywords: conservation status, feeding guilds, Heart of Borneo, logging roads

Copyright: This is an open access article distributed under the terms of the CC-BY-NC-SA (Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License) which permits unrestricted use, distribution, and reproduction in any medium, for non-commercial purposes, provided the original work of the author(s) is properly cited.

INTRODUCTION

The Baleh River is a tributary of Rajang and has its origin in the Nieuwenhuis highlands that forms the border between Sarawak and Central Kalimantan. It has a large catchment area of 12,433 km² and contributes significantly to the Rajang River basin. For the Kenyah community of Long Singut who settled at Upper Baleh in the late 1960s, the river is the only way to go down to the main towns of Kapit and Sibul. Currently, the main economic activity affecting the forest and thus the habitats of wildlife in the Upper Baleh region is commercial logging. Shifting cultivation is generally confined to accessible areas next to the river and human settlement.

Commercial logging in Sarawak started soon after the Second World War (Aiken & Leigh, 1992) focusing mainly on peat swamp species. Strong demand for tropical timber and favourable government policies had accelerated the growth of the timber industry to become the mainstay of the economy with log production peaking at 19 Mm³ in 1990 (Hon & Shibata, 2013). According to Bryan *et al.* (2013) about 364,489 km of logging roads were constructed

in Sarawak, Sabah and Brunei between 1999 and 2009 alone, with Sarawak having the highest density of logging roads in Borneo (0.89 km/km²). A major consequence of this logging activity in Sarawak is the reduction in intact forest, from 92,152 km² in 1973 to 18,161 km² in 2010 (Gaveau *et al.*, 2014). These intact forests are likely to be logged or converted into other forms of designated land use since they are not legally protected.

In Sarawak, legal protection is given to 37 Totally Protected Areas (TPAs) equivalent to 483,682 hectares of land, which have been gazetted for biodiversity conservation and appreciation of nature (Sarawak Forest Department, 2017). These TPAs are the only land that can be considered safe from logging and cultivation. However, many TPAs do not have management presence and their boundaries are not clearly marked, so encroachment into these areas is a major concern (Gumal, 2007; Mohd Azlan & Lawes, 2011). In addition, the majority of TPAs in Sarawak are less than 10,000 km² in size and scattered throughout the State, with little regards for connectivity. This compromises their