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Inventory of wild animals along the Bengkunat-Sanggi Road in Bukit Barisan Selatan National Park, Lampung Province, Indonesia

GUNARDI DJOKO WINARNO[1,♥], YOB CHARLES[2], CHARLES ANTONIO[2]

[1]Department of Forestry, Faculty of Agriculture, Universitas Lampung. Jl. Sumantri Brojonegoro, Rajabasa, Bandar Lampung 35141, Lampung, Indonesia. Tel./fax.: +62-721-770347, ♥email: gundowino@gmail.com

[2]WWF Indonesia, BBS Program. Jl. TB Simatupang No.11, South Jakarta 12540, Jakarta, Indonesia

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Abstract. *Winarno GD, Charles Y, Antonio C. 2024. Inventory of wild animals along the Bengkunat-Sanggi Road in Bukit Barisan Selatan National Park, Lampung Province, Indonesia. Biodiversitas 25: 2917-2924.* The quality of the West Sumatra route Bengkunat-Sanggi in Indonesia has significantly improved since 2005, what was originally a dirt road became an asphalt road, leading to an increase in its utilization by various types of vehicles such as motorbikes, sedans, jeeps, buses, and trucks. This condition has an impact on wildlife activities along the road. The sound of vehicles and lights turning on at night can attract animals to move towards the road, which can endanger these animals. On the other hand, lots of vehicles crossing the road can cause animals to run far away because they are disturbed, so it is thought that the animal's movement area will also change. This study aims to explore the effects of road construction on wildlife presence, with a specific emphasis on endangered species like tigers, elephants, and rhinoceroses near the Bukit Barisan Selatan National Park (BBSNP), Indonesia. Camera traps are currently being employed to record animals living in the vicinity of roads, including those that have fallen victim to vehicle collisions. The division of wildlife habitats by roads poses a substantial threat to their survival and functionality. The presence of traffic roads has been linked to an increase in accidents involving animals attempting to cross the road. Some animals appear to avoid disturbance caused by noise generated by vehicles, leading to a reduction in their home range. Initial monitoring results at the one-year road construction indicated a higher presence of threats wild animals, specifically tiger (*Panthera tigris* subsp. *sumatrae* Pocock, 1929), Sumatran elephant (*Elephas maximus* subsp. *sumatranus* Temminck, 1847) and Sumatran rhino (*Dicerorhinus sumatrensis* G.Fischer, 1814). To safeguard the wildlife along the Sanggi Bengkunat Road, a comprehensive approach involving stakeholders and ensuring orderly behavior of drivers while navigating the road is imperative.

Keywords: BBSNP, camera trap, inventory, wildlife

INTRODUCTION

Apart from having high biodiversity, it is also a habitat for many endangered flora and fauna. The International Union for Conservation of Nature (IUCN) has classified the Sumatran rhino (*Dicerorhinus sumatrensis* G.Fischer, 1814), tiger (*Panthera tigris* subsp. *sumatrae* Pocock, 1929), and elephant (*Elephas maximus* subsp. *sumatranus* Temminck, 1847) as critically endangered species due to their dwindling populations. Nardelli (2014) that, specifically, the Sumatran rhino in Indonesia is facing the threat of extinction, with the global population has declined from over 800 to less than 100 in the last thirty years. Habitat loss and severe poaching has led to the devastation of rhino populations. Current worldwide population estimates in 2012 are 35 to 44 Javan, 152 to 199 Sumatran, 3,270 Indian, 4,837 black, and 20,143 white rhinos (Miller and Fowler 2015). Despite the efforts of various organizations and stakeholders, the situation remains dire. This decline can be attributed to a combination of factors, including construction of main roads and branch roads, habitat loss, exploitation, and other specific causes (Nardelli 2014).

The Bukit Barisan Selatan National Park (BBSNP) region in Indonesia and its biodiversity are currently facing significant threats as a result of road development, hunting, unauthorized logging, and encroachment through the unlawful conversion of BBSNP forest lands into coffee farms and residential areas. The establishment of roads that fragment national reserves facilitates various illicit practices. According to Prakash and Verma (2022) that anthropogenic activities threaten many habitats and animals, causing the population to decline further. All medium to large western boreal mammals are impacted by changes in the landscape (Fisher and Burton 2018; Wittische et al. 2021). It is crucial to make well-informed decisions about conservation in order to prevent the decline in biodiversity and species extinction resulting from human resource exploitation in various time periods and locations (Dirzo et al. 2014; Johnson et al. 2017; Maxwell et al. 2020).

Illegal poaching in national parks is strongly suspected because there are many roads scattered within the national park and many people around the national park are still relatively poor. The illicit activities taking place within BBSNP, particularly hunting and encroachment, are a result of socioeconomic factors (Purwanto 2016). In