

Monitoring of the habitat usage of Tembadau (*Bos javanicus lowi*) around salt lick in a forest plantation of Sabah, Malaysia

ABSTRACT

Enn HS, Musta B, Sarjadi MS, Maid M, Muning M, Kodoh J, Goh C, Jonalius M, Sompud J. 2022. Monitoring of the habitat usage of Tembadau (*Bos javanicus lowi*) around salt lick in a forest plantation of Sabah, Malaysia. *Biodiversitas* 23: 6062-6069. Tembadau (*Bos javanicus lowi*) is a wild cattle endemic to Borneo Island, especially in Sabah, Malaysia. Their population is declining due to habitat loss and illegal hunting. Previous researchers have reported that hunting pressure and forest fragmentation due to the conversion of natural forests into oil palm plantations are driving the species into the looming extinction of this species. Tembadau is well known for using the salt lick in its habitat. Salt licks are rich in minerals, or feeding sites are important as critical temporal use for wildlife, including Tembadau. The lack of data on the ecological behavior of Tembadau in salt lick areas caused difficulties in monitoring their population in the forest. It may undermine their conservation, especially in the forest plantations. The habitat usage of the Tembadau in this study was expressed in the detection rate and activity pattern. This study aimed to compare Tembadau's detection rate at salt and non-salt lick areas in a forest plantation situated at the Segaliud Lokan Forest Reserve, Sandakan, Sabah. The activity pattern of Tembadau between a salt lick and non-salt lick areas was also determined. A camera trap survey was carried out from 2 November 2019 to 6 September 2020 to collect the presence, absence and activity pattern of Tembadau. The results show that the detection rate of Tembadau was higher in salt licks, especially salt lick C59SL (n: 171, U: 3187.5, p: 0.003). Tembadau at the salt licks expressed all diurnal, nocturnal and crepuscular behavior but was primarily active at night (n: 12, 43% of nocturnal behavior). Salt licks are beneficial for wildlife to provide the essential elements of intake, health and reproductive success. These findings are helpful information for the monitoring and further conservation work for the species, especially in forest plantation areas. It also provides essential baseline data for lawmakers to make policies for the total protection of salt licks in forest plantations.