Journal of Animal & Plant Sciences (J.Anim.Plant Sci. ISSN 2071-7024)
Vol.46 (1): 8149-8163 https://doi.org/10.35759/JAnmPlSci.v46-1.8

Camera trap is low-cost for mammal surveys in long-term: comparison with diurnal and nocturnal surveys

Daniel Djekda[1, 2*], Kadiri Serge Bobo[1], Bobo Rene Hamadjida[1, 2], Keumbeng Blondel Vasco Azobou[1], Amadou Ngouh[1]

[1]Department of Forestry, Faculty of Agronomy and Agricultural Sciences, University of Dschang, P.O. Box 222, Dschang Cameroon.

[2]Ministry of Forestry and Wildlife, P.O. Box: 3430 Yaounde, Cameroon.

**Corresponding author, E-mail: ddjekda@gmail.com ; Tel: +237 674301901*

Key words: Camera traps, Conservation, diurnal surveys, monitoring, nocturnal surveys

Publication date 31/10/2020, http://m.elewa.org/Journals/about-japs/

1 ABSTRACT

Sustainable wildlife management requires dedicated efforts and heavy financial resources. To count wild mammals, various follow-up techniques in wildlife are often used without a clear understanding of the long-term costs. Cost is a monetary expenditure made to satisfy a given service. Understanding long-term costs associated with different mammal surveys methods is the key needed by ecologists to making good management decisions. This paper aims to suggest a suitable method for estimating the abundance of large and medium-sized mammals, based on the cost analysis in the long-term. We compare three methods: camera traps, nocturnal survey, and diurnal survey. The comparison focuses on the relative abundance of animals recorded, sampling effort, and cumulative cost in the long-term. Our review indicates that camera traps are suitable for inventorying species that are difficult to detect by nocturnal and diurnal surveys. Nocturnal survey, therefore, was more efficient for collecting the abundance data with high sighting frequency of animals. Here the efficiency is defined as the ability of each method to detect more animals during a given period of time. Considering the cost analysis, camera traps were low-cost in the long-term than nocturnal and diurnal survey methods. Despite the high initial costs, it is suggested that camera traps may be an efficient survey method in the long-term regarding cost. A camera is an ideal tool for mammals monitoring.