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CAMERA TRAPPING: A TOOL TO STUDY HORNBILLS?

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ABSTRACT

Of the 57 species of hornbills in the world, 25 species are recorded in Africa, 32 species are recorded in Asia but only eight occur in Borneo. However, due to logging, hunting and forest fragmentation, the Bornean lowland forest often does not host all the species at once. The study of using remotely triggered infrared cameras in avifauna research is commonly used for medium to large terrestrial mammals, and birds, such as pheasants. Documentation of rare and new species presence records, behavioural studies, and activity patterns could also be included in the application of camera trapping in the study of birds. From the 304 camera trapping sites distributed throughout Sarawak, two species of hornbills were photographed during the study period: the White-Crowned Hornbill *Berenicornis comatus* and Asian Black Hornbill *Antracoceros malayanus*. These images represent approximately 0.01% (34 out of 29,618 images) of the overall independent photos from a total effort of 29,470 camera trapping nights. Although data are insufficient to support the activity overlap between these two species, some baseline information on the behaviour of hornbills has been observed.

Keywords: activity overlap, Borneo, camera trapping, hornbills



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INTRODUCTION

Hornbills in Borneo are canopy-dwelling, monogamous pairs and hole-nesters (Kinnaird & O'Brien 2007; Phillipps & Phillipps 2014). They are well known for their important role in regenerating and maintaining tropical rainforest by dispersing seeds (Estrada & Fleming 1986; How 1986; Fleming & Estrada 1993; Hamilton 1999; Hubbell *et al.* 1999; Kinnaird & O'Brien 2007). Apart from regenerating tropical rainforests, hornbills are also useful indicators of forest condition and human disturbance as their habitat preference is for non-fragmented forest and forest with large fruiting trees for their feeding and nesting habit (Gale & Thongaree 2006). They are also known

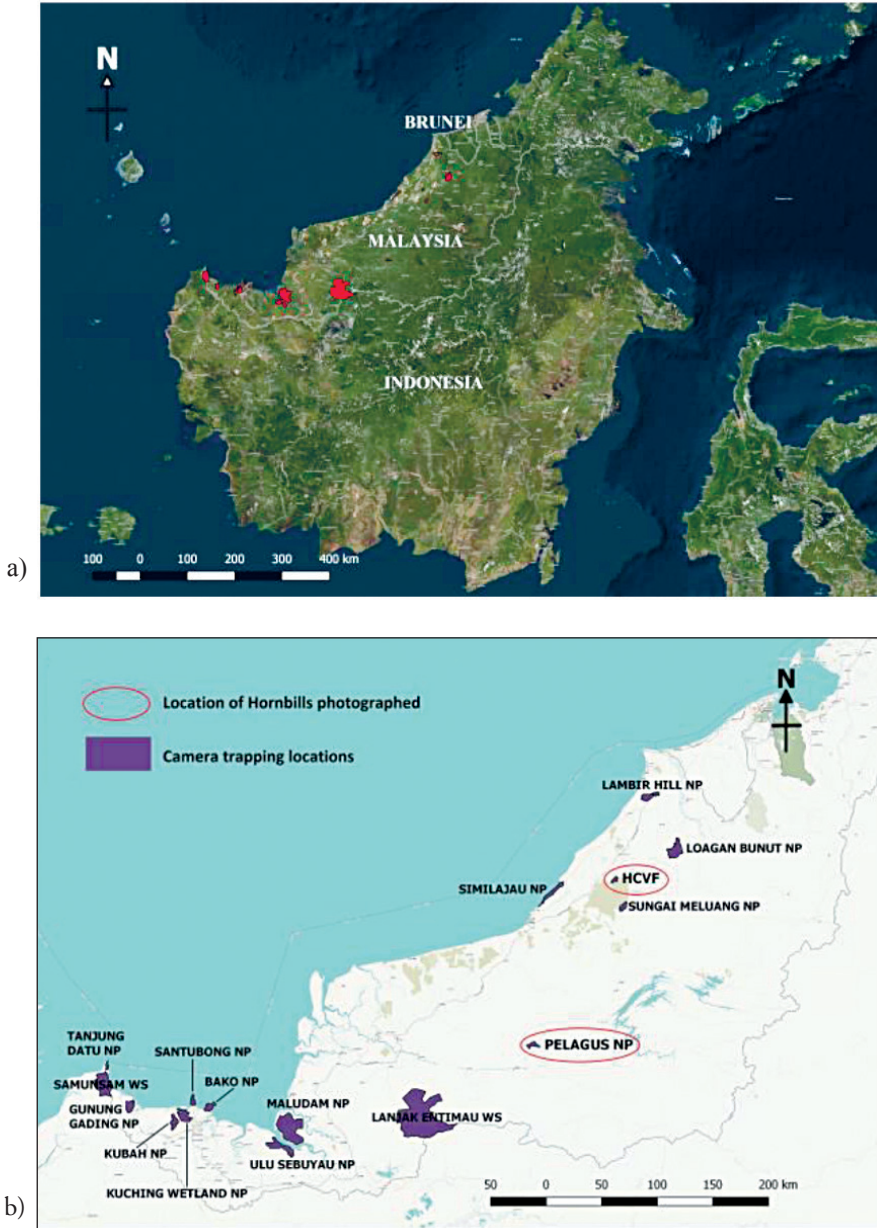


Fig. 1: a) Study sites in Sarawak, Malaysian Borneo. b) Camera trap sites distributed throughout Sarawak. Both sites with hornbill photographed (indicated by red circles) are within protected forests.