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A RARE OBSERVATION OF FREE-RANGING BARKING DEER *(Muntiacus muntjak)* WITH A FAWN IN KRAU WILDLIFE RESERVE

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Muntiacus muntjak which is also known as barking deer or *kijang* in Malay, is a medium size mammal that is commonly observed in the deep forest of Malaysia. This species is grouped under the Order Artiodactyla and Family Cervidae in which members within this family group have an even number of toes on each foot and feeds mostly on plant materials (Francis, 2008). This species make a distinctive dog-like barking calls that are sharp, harsh notes made singly or combined into long sequences, hence the name barking deer. Barking may be initiated by visual stimuli that represent potential danger, such as presence of a predator or man and this may discourage predator by indicating that they have been detected (Wiles & Weeks, 1981).

M. muntjak prefers to browse on leaves and twigs more often than grazing on grass and sometimes feeds on fallen fruits. This species can be found in a wide variety of forest habitats including forest fringes, regenerated logged-over forests or even in orchards. Its distribution covers from the lowland dipterocarp to the high montane forest. Footprints are commonly seen on logging roads, areas adjacent to forest fringes, dams and road construction areas. In Malaysia, *M. muntjak* are relatively common and frequently observed as evident from several wildlife surveys (Lim *et al*., 1999; Norsham *et al*., 1999; Traeholt & Sanusi, 2009;

Jayaraj *et al.*, 2013) and inventory programmes conducted by the Department of Wildlife and National Parks (DWNP) (DWNP, 2008a; 2008b; 2008c; 2008d; 2008e; 2009a; 2009b). *M. muntjak* is normally a solitary animal and it is active mainly during the day (Laidlaw & Shahruddin, 1998). Adult females may show tolerance toward their own daughters and share a home range with them (Lent, 1974).

In 2015, a recent study on the use of artificial salt licks by wildlife species was carried out by the DWNP in Krau Wildlife Reserve (KWR) (Figure 1). During a routine inspection of camera traps in February 2015, a *M. muntjak* fawn was captured in an 11 seconds camera trap video with its mother, while visiting one

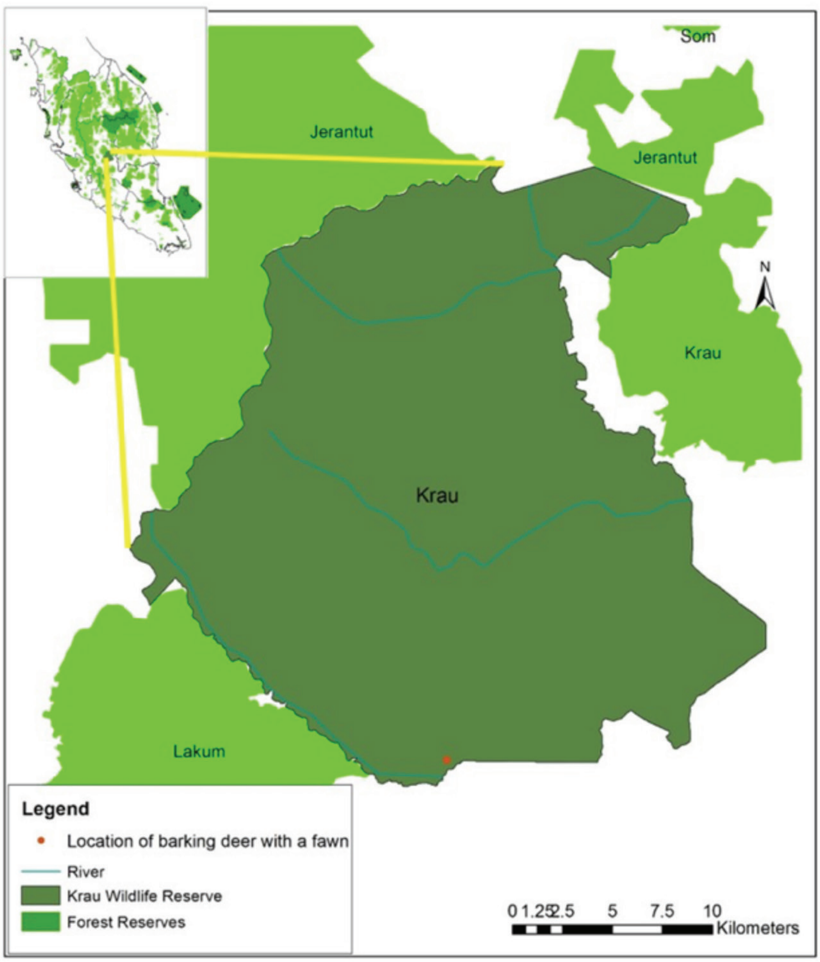

Figure 1 Map showing the location of Krau Wildlife Reserve and the location of the barking deer with a fawn captured on camera trap.

of the artificial salt licks (Figure 2). The age of fawn was uncertain, but white spots on the fawn were visible suggesting an age between 0-2 months as estimated from a closely related species of Reeves's muntjac (*M. reevesi*) (Chapman *et al*., 2005). This is a significant observation since no previous documentation of wild barking deer with a fawn has been documented in this area.

Figure 2 Two images of the barking deer with a fawn (in yellow dashed circle).

According to PERHILITAN (2013), the population of *M. muntjak* in the wild is estimated to be between 2,600 and 3,000 individuals. In KWR however, the population count is not known. Several studies targeting other species were carried out in the reserve and reported the occurrences of this species (Hassan *et al*., 1999; Laidlaw *et al.,* 2000; Traeholt & Sanusi, 2009). Laidlaw *et al*. (2000) and DWNP/DANCED (2001) further noted that *M. muntjac* is the most widespread and abundant species encountered in KWR and were mainly observed in the vicinity of salt licks and clearings. During a study of large mammals in the KWR, it was reported that the relative abundance of barking deer was the second highest after the bear using camera traps and the third highest from 100 m transects surveys (DWNP/DANCED, 2001). In comparison, two recent wildlife surveys using camera-trapping reported the high abundancy of *M. muntjak* in Temenggor Forest Reserve (Rufino *et al.*, 2008; Magintan *et al.*, 2010).

Though *M. muntjak* is listed as near threatened (NT) under the Malaysian IUCN Redlist (DWNP, 2010), this rare observation showed that there is evidence of breeding in the local *M. muntjak* population in KWR. However, very little is known about the behaviour, ecology, and population of this species in the wild of Peninsular Malaysia. As *M. muntjak* is one of the prey species for tigers, a thorough study to assess the population status is needed (DWNP, 2008f). Thus, it is essential to undertake ecological studies on this species to strengthen the management of this species in the wild.

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