

Appendix 12-6 **Methodology and Results of Mammal Surveys**

Methodology

Mammal surveys were conducted as part of other surveys, during both daytime and night-time. Individuals (live or dead), footprints, dung and other signs (e.g. burrows) were recorded. Cage-trapping and camera-trapping were considered unsuitable as there are a number of fish pond workers and villagers active in the area. Surveys for Eurasian Otter are described in **Appendix 12-7**.

Bat surveys were conducted in October 2009 and April 2010. During the surveys, a transect was followed passing through suitable habitats in LMC Loop and nearby wetland habitats, including wetland habitats along the alignment of the western and eastern approach roads. Ma Tso Lung was not surveyed because the field work carried out recently for LUP CAFS reported low abundance of bats in this area. During the surveys, all bat echolocation calls were recorded using a frequency-division bat detector (Batbox Duet). Most bat species differ in echolocation call structure, and all recordings were analysed using suitable software to permit identification of calls to species level as far as practicable (although a comprehensive library of bat echolocation calls does not exist for Hong Kong, and the calls of some species are not known).

Results

LMC Loop

Table A12-15 summarises the results of surveys and the conservation status of recorded mammals.

Four non-flying wild mammals were recorded in this area, including Eurasian Otter *Lutra lutra*, Small Asian Mongoose *Herpestes javanicus*, Leopard Cat *Prionailurus bengalensis* and Eurasian Wild Pig *Sus scrofa*. Data on Eurasian Otter are presented separately in **Figure 12-3**.

Footprints of Small Asian Mongoose, Eurasian Wild Pig and Leopard Cat were observed, while the last of these was seen once in May 2010. In addition, individuals of Small Asian Mongoose were occasionally sighted during avifauna surveys. All these observations were made in the grassland area of the Loop (see **Figure 12-1**).

Three bat species were recorded in LMC Loop. These included Japanese Pipistrelle *Pipistrellus abramus*, Brown Noctule *Nyctalus noctula* and a third species which could not be certainly identified based on echolocation call structure. All species were recorded over wetland habitats (especially ponds) and grassland, but abundance was relatively low.

Alignment of western connection road

The only mammal record from this area was that of a Musk Shrew *Suncus murinus* observed in shrubland at Ha Wan Tsuen in March 2010. This species is not of conservation concern or protected under local legislation. It is not surprising that larger wild mammals avoid this area as it is highly disturbed.

Bats were recorded abundantly over fishponds. All individuals recorded were Japanese Pipistrelle.

Alignment of eastern connection road, Boundary Fence Road and Hoo Hok Wai

Small Asian Mongoose and Eurasian Wild Pig (both individuals and footprints) were frequently observed in the fish pond area of Hoo Hok Wai during the present study. In the past, Leopard Cat and Small Indian Civet *Viverricula indica* have also been observed at Hoo Hok Wai and in the shrubland along the Boundary Fence Road, respectively.

Japanese Pipistrelle was recorded commonly over fishponds at Hoo Hok Wai. No other bat species were recorded on surveys in this area.

Tse Koo Hang and Ma Tso Lung

Droppings of Red Muntjac *Muntiacus muntjak* were observed on the grassy hillside at Ma Tso Lung in April 2010. This species is considered to be of Potential Regional Concern by Fellowes *et al.* (2002). A local villager also reported that Eurasian Wild Pig, Small Asian Mongoose and Leopard Cat are present in the Ma Tso Lung area.

Table A12-15 Wild mammals recorded in the ecological study area (excluding Eurasian Otter)

Species	Conservation Status	LMC Loop	Area of WCR	Area part of ECR and Hoo Hok Wai	Tse Koo Hang and Ma Tso Lung
Musk Shrew <i>Suncus murinus</i> 臭鼩	-		+		
Brown Noctule <i>Nyctalus noctula</i> 褐山蝠	Potential Regional Concern (Fellowes <i>et al.</i> 2002)	+			
Japanese Pipistrelle <i>Pipistrellus abramus</i> 東亞家蝠	-	+	+	+	+ ²
Bat sp. 蝠	-	+			
Small Indian Civet <i>Viverricula indica</i> 小靈貓	Vulnerable (CSIS 2010) and Class II Protected Species in China (http://www.sepa.gov.cn)			+ ²	
Small Asian Mongoose <i>Herpestes javanicus</i> 紅頰獾	Vulnerable (CSIS 2010)	+		+	+ ³
Leopard Cat <i>Prionailurus bengalensis</i> 豹貓	Vulnerable (CSIS 2010); Appendix II of CITES (UNEP-WCMC 2009)	+ ¹		+ ²	+ ³
Eurasian Wild Pig <i>Sus scrofa</i> 野豬	-	+ ¹		+	+ ³
Red Muntjac <i>Muntiacus muntjak</i> 赤麂	Potential Regional Concern (Fellowes <i>et al.</i> 2002); Vulnerable (CSIS 2010)				+ ¹

Notes:

1. footprint/dropping observed; 2. not recorded in current study; 3. reported by local villager.