

# Observations of civets, linsangs, mongooses and non-lutrine mustelids from Peninsular Malaysia

Celine H. S. LOW

## Abstract

Eighty-two observations of thirteen small carnivore species made in Peninsular Malaysia from 1987 to the present are extracted from the Singapore Vertebrate Study Group records database and *The Pangolin*.

**Keywords:** Herpestidae, Mustelidae, Prionodontidae, *The Pangolin*, Viverridae, VSG records database

## Pemerhatian musang, linsang dan bumbum dari Semenanjung Malaysia

### Abstrak

Tigabelas spesis haiwan kanivor kecil telah diperhatikan sebanyak 82 kali sejak tahun 1987 sehingga kini. Rekod telah diperolehi dari pengkalan data Kumpulan Kajian Vertebrata Singapura serta penerbitan "*The Pangolin*".

**Kata-kata kunci:** Herpestidae, Mustelidae, penerbitan "*The Pangolin*", pengkalan data VSG, Prionodontidae, Viverridae

Peninsular Malaysia is located in the tropical belt just above the equator. This political region covers the southern half of the Thai–Malay Peninsula and includes adjacent islands such as Penang, Langkawi and Tioman. The Thai–Malay Peninsula is the strip of land at the southeastern corner of the Asian continent that stretches from the Isthmus of Kra in the north, in southern Thailand, to Singapore Island in the south. The fauna of the area is a mixture of elements from the Asian mainland, the Greater Sunda Islands and some endemic taxa. In total 224 mammal species are known in Peninsular Malaysia, excluding marine mammals, 101 of which are bats (Chiroptera; Francis 2008). Currently, seven are listed as endemic, four of which are bats, the other three being rodents (Francis 2008). Ten species of civet (family Viverridae), one of linsang (family Prionodontidae), four of mongoose (family Herpestidae) and three of mustelid (family Mustelidae; excluding otters) have been recorded from Peninsular Malaysia (Medway 1983, Francis 2008, Wilson & Mittermeier 2009).

The Viverridae is represented by the Large Indian Civet *Viverra zibetha*, Large-spotted Civet *V. megaspila*, Malay Civet *V. tangalunga*, Small Indian Civet *Viverricula indica*, Common Palm Civet *Paradoxurus hermaphroditus*, Masked Palm Civet *Paguma larvata*, Binturong *Arctictis binturong*, Small-toothed Palm Civet *Arctogalidia trivirgata*, Banded Civet *Hemigalus derbyanus* and Otter Civet *Cynogale bennettii*; the Prionodontidae by the Banded Linsang *Prionodon linsang*; and the Herpestidae by the Short-tailed Mongoose *Herpestes brachyurus*, Small Asian Mongoose *H. javanicus* and Crab-eating Mongoose *H. urva*. The introduced Indian Grey Mongoose *H. edwardsii* may have been extirpated from Malaysia (Francis 2008). The non-lutrine Mustelidae is represented by the Yellow-throated Marten *Martes flavigula* and Malay Weasel *Mustela nudipes*; the Hog Badger *Arctonyx collaris* has been reported to occur in Upper Perak along the Thai border, but remains unconfirmed from the country (Chasen 1940, Medway 1983).

In contrast to the few formally published recent sightings or other detailed distribution records of small carnivores

in peninsular Malaysia, many are buried in grey literature. The following is not an exhaustive literature review for the country, but contains all observations of civets, linsangs, mongooses and mustelids (excluding otters) from Peninsular Malaysia contributed to the Vertebrate Study Group (VSG) of the Nature Society (Singapore); (formerly, The Malayan Nature Society, Singapore Branch) by various individuals up to September 2011. They were extracted from VSG's records database (which began in 1993) and include citations from their local publication, *The Pangolin*, which ran from 1988 to 2000. The single record from the *Malayan Naturalist* in the VSG database is included. These records are chance sightings (including road-kills) obtained on recreational outings, not the result of any consistent survey effort.

A total of 13 species comprising 97 individuals were observed across eight states since 1987 (Appendix). Although the records reflect the general perceptions of abundance of small carnivore species, with the Common Palm Civet, Masked Palm Civet, Small-toothed Palm Civet and Malay Civet being most often observed by the contributors, this compilation alone should not be used to make assumptions about the status of small carnivores throughout Peninsular Malaysia. The high incidence of records from Fraser's Hill is the result of frequent visits by the contributors to this popular hill station, some of whom often deliberately seek out nocturnal mammals (e.g. Low 2010). It does not imply that small carnivores are more common there than in other parts of Peninsular Malaysia. The sites, habitats and behaviour recorded are mostly consistent with past records for most of the species. Although Medway (1983) stated that the Short-tailed Mongoose is primarily nocturnal, more current records show it to be mainly diurnal (Francis 2008, Wilson & Mittermeier 2009), consistent with these records.

The Banded Civet is largely restricted to lowland forest in Peninsular Malaysia (Lim 1973, Francis 2008) where its elevation range so far recorded is between 150 and 800 m. However, in Borneo it has been found up to 1,200 m (Payne *et al.*

1985). The recent sighting at Fraser's Hill was at an elevation of between 1,078 and 1,133 m (the range is the level of imprecision, as the readings were taken on a slope; it is not the range the civet moved over), evidently the highest known elevation recorded in Peninsular Malaysia to date.

The larger ground-dwelling civets of the genus *Viverra*—Large Indian Civet, Large-spotted Civet and Malay Civet—have similar colour markings (Francis 2008), and can be difficult to identify with certainty, especially in dim light conditions and from a distance. The identity of the animals in sightings not supported by photographs should be regarded as unconfirmed unless the observer had a good enough look at the subject to note diagnostic characters.

The status of most small carnivores in Peninsular Malaysia is not well known. While researchers and students of biology play the major role of studying this group of fauna and their ecology, recreational visitors to nature areas can contribute substantially by submitting records of their sightings, to enable a better understanding of the ecology and status of a poorly studied group of animals. It is also of considerable value for compilations of such data to be made readily available so that reviews of such compilations can provide more conclusive answers for conservation strategies.

### Acknowledgements

I thank: Kelvin Lim for providing records from the VSG database and for access to some publications; Kelvin Lim, Marcus Chua, Will Duckworth, Chris Shepherd and Reuben Clements for their suggestions to improve the manuscript; Gary Lim for help with translation; Marcus Chua, Nick Baker, Norman Lim, Chan Kwok Wai and Alan Yeo for contributing their photographs; R. Subaraj for additional information on his sightings; and Yeo Suay Hwee, Yong Ding Li, Timothy Pwee, Andrew Tay and Gan Cheong Weei for their additional records.

### References

- Anonymous 1988a. Across the causeway. *Pangolin* 1(2): 31–35.  
 Anonymous 1988b. Across the causeway. *Pangolin* 1(4): 80–84.  
 Anonymous 1989. Recent reports. *Pangolin* 2(2): 17–26.

- Anonymous 1990. Peninsular Malaysian records for the year (1990). *Pangolin* 3(1–4): 16–20.  
 Anonymous 1993. Current records. *Pangolin* 6(1–2): 1–4.  
 Chasen, F. N. 1940. A handlist of Malaysian mammals: a systematic list of the mammals of the Malay Peninsula, Sumatra, Borneo and Java, including adjacent small islands. *Bulletin of the Raffles Museum* 15: i–xx, 1–209.  
 Francis, C. M. 2008. *A field guide to the mammals of South-east Asia*. New Holland, London, U.K.  
 Lim B. L. 1973. The Banded Linsang and the Banded Musang of West Malaysia. *Malayan Nature Journal* 26: 105–111.  
 Lim, K. K. P. 1991. The Crab-eating Mongoose, *Herpestes urva* at Fraser's Hill, Pahang, Peninsular Malaysia. *Malayan Naturalist* 44 (2&3): 20–21.  
 Lim, K. K. P., Subaraj, R. & Sivasothi, N. 1996. Recent records. *Pangolin* 7(1–4): 1–15.  
 Lim, K., Subaraj, R. & Teo, R. 2000. Records for 1995. *Pangolin* 8(1–4): 10–30.  
 Low, C. H. S. 2010. Observations of civets on Fraser's Hill, Peninsular Malaysia. *Small Carnivore Conservation* 43: 8–11.  
 Medway, Lord 1983. *The wild mammals of Malaya (Peninsular Malaysia) and Singapore*, 2nd edn. Oxford University Press, Kuala Lumpur, Malaysia.  
 Payne, J., Francis, C. M. & Phillipps, K. 1985. *A field guide to the mammals of Borneo*. The Sabah Society, Kota Kinabalu, Malaysia.  
 Subharaj R. 1991. Some noteworthy mammals in Malaysia recorded by Jim Chance. *Pangolin* 4(1): 8–9.  
 Wilson, D. E. & Mittermeier, R. A. (eds) 2009. *Handbook of the mammals of the world, vol. 1. Carnivores*. Lynx Edicions, Barcelona, Spain.  
 Yeo, S. H. 1991a. Records for the second quarter, 1991. Mammals. *Pangolin* 4(2): 1–4.  
 Yeo, S. H. 1991b. Records for the third quarter, 1991. Mammals. *Pangolin* 4(3): 1–3.  
 Yeo, S. H. & Lim, K. K. P. 1992. Current records: mammals. *Pangolin* 5(1–4): 1–5.

**Vertebrate Study Group, Nature Society (Singapore), 510  
 Geylang Road, #02-05 The Sunflower, Singapore 398466.  
 Email: leopardcat@pacific.net.sg**

**Appendix.** Small carnivore records from peninsula Malaysia held in the Vertebrate Study Group's records database and/or published in *The Pangolin* (Photographs 1–5 on back cover).

Location	Date	Time	Notes	Observer
<b>Yellow-throated Marten <i>Martes flavigula</i></b>				
Selangor: Fraser's Hill (3°43' N, 101°44' E), rubbish tip along road to Jeriau Waterfall	4 Dec 1988	N.A.	Two seen	C. Briffett <i>et al.</i> in Anon. 1988b: 80
Johor: highway between Kota Tinggi and Kuantan, about 20 km from Kota Tinggi (1°44' N, 103°53' E)	29 Jun 1990	N.A.	Two along road; 'tails lifted high off ground'	M. Strange in Anon. 1990: 19
Selangor: Fraser's Hill, road to Jeriau Waterfall	12 Jul 2008	18h50 (dusk)	Two at 'rubbish dump'	G. C. Tan
Pahang–Selangor: Fraser's Hill	2008	16h30	Behind a bungalow; stood on its hind legs when it saw the observer, then went back into vegetation	C. W. Gan
Pahang–Selangor: Fraser's Hill	28 Dec 2008	16h00	Two around bungalows, one of which on the rubbish bin grabbed a white plastic bag and ran off	T. Pwee
Pahang–Selangor: Fraser's Hill	17 Jul 2009	Day	At roadside	Y. Zhang, photo
Pahang–Selangor: Fraser's Hill	28 Apr 2011	Day	On ground	N. Baker, photo (Photo 1)
Kelantan: Taman Negara, Merapoh (4°41' N, 102°04' E)	16 May 2011	15h00	Two seen	A. Tay
<b>Malay Weasel <i>Mustela nudipes</i></b>				
Pahang: Fraser's Hill	Feb 1990	N.A.	Provisional identification <sup>1</sup>	J. Chance in Subharaj 1991: 9
<b>Banded Linsang <i>Prionodon linsang</i></b>				
Negeri Sembilan: Pasoh Forest Reserve	Jan 1991	N.A.	Provisional identification <sup>1</sup>	J. Chance in Subharaj 1991: 9
<b>Large Indian Civet <i>Viverra zibetha</i></b>				
Johor: road between Kota Tinggi and Kluang (1°44'N, 103°53'E)	18 May 1989	N.A.	Road-kill	H. C. Ho in Anon. 1989: 23
Selangor: Kuala Selangor Nature Park (3°20'N, 101°15'E), south bund of main pond	17 Jun 1991	N.A.	Provisional identification <sup>2</sup> , size of a small dog	N. Sivasothi in Yeo 1991a: 3, as <i>Viverra</i> spp.
Kedah: Kedah trunk road	27 Jan 1993	N.A.	Road-kill	R. Subaraj in Anon. 1993: 2
<b>Malay Civet <i>Viverra tangalunga</i></b>				
Pahang: Taman Negara (4°56'N, 102°00'E), Yong Hide near Kuala Tahan	18 Feb 1988	Night	Eating chicken bones	S. Sutari <i>et al.</i> in Anon. 1988a: 32
Pahang: Taman Negara, Yong Hide near Kuala Tahan	13 Jul 1990	Night	Seen from observation hide	R. Subaraj in Anon. 1990: 18
Pahang: Taman Negara, Cegar Anjing Hide near Kuala Tahan	8 Jun 1991	Night	Two seen from observation hide	R. Subaraj in Yeo 1991a: 3
Johor: Kota Tinggi (1°44'N, 103°53'E), Muntahak Trail	9 Aug 1991	N.A.	Seen	K. S. Lim <i>et al.</i> in Yeo 1991b: 2
Johor: near Ayer Hitam on road from Johor Bahru	21 Jun 1992	N.A.	Road-kill	S. Sutari in Yeo & Lim 1992: 4
Selangor: Kuala Selangor Nature Park	15 Jan 1993	19h10	Seen from coastal bund at about 10 m away on mangrove boardwalk	N. Sivasothi in Lim <i>et al.</i> 1996: 4
Johor: Kota Tinggi, Panti Bunker Trail	4 Jan 2003	Night	Seen	A. Tay
Johor: Kota Tinggi, Panti foothills	23 Sep 2006	Night	Making off with bait (of <i>char siew pau</i> or pork bun) for scavengers	A. Yeo, photo (Photo 2)

(continued)

## Appendix. (continued)

Location	Date	Time	Notes	Observer
Pahang: Taman Negara, Kuala Tahan	1 May 2007	Night	Scavenging on bait (of burger bun)	N. Lim & K. W. Chan photo
Kelantan: Taman Negara, Merapoh	14 May 2011	Night	On ground at oil palm plantation outside park	A. Tay <i>et al.</i>
<b>Common Palm Civet <i>Paradoxurus hermaphroditus</i></b>				
Johor: road between Kota Tinggi and Kluang	18 & 20 May 1989	N.A.	One road-kill on each date	H. C. Ho in Anon. 1989: 23
Kedah: Pulau Langkawi (6°25'N, 99°45'E)	27 Jan 1993	N.A.	A road-kill seen in eastern part, and one observed crossing a road at the outskirts of Kuah	R. Subaraj <i>et al.</i> in Anon. 1993: 2
Johor: Sungai Renggit	10 Jan 1997	N.A.	Killed by hunter	S. H. Yeo
Johor: Endau-Rompin Park, Kuala Jasin	22 Feb 2006	Night	Seen	N. Lim, photo
Pahang: Pulau Tioman, Kampung Paya, coastal track	27 Sep 2007	Night	Seen	H. H. Tan, photo
Pahang: Fraser's Hill, Bishop's Trail	11 Sep 2009	Night	Seen	K. W. Chan, photo
Pahang: Pulau Tioman, Kampung Paya	18 Apr 2010	Night	Seen	M. Chua, photo
Pahang–Selangor: Fraser's Hill	9 May 2010	22h17	In <i>Piper aduncum</i>	C. Low & B. C. Ng in Low 2010, photo
Pahang–Selangor: Fraser's Hill	28 Dec 2010	21h53	In <i>P. aduncum</i>	C. Low <i>et al.</i> , photo
Johor: Kluang, Gunung Belumut Forest Reserve	4 Feb 2011	23h09	In oil palm, at oil palm plantation outside reserve	C. Low <i>et al.</i> , photo
Pahang: Pulau Tioman, Kampung Paya	24 Apr 2011	Night	Seen	M. Chua, photo
Kelantan: Taman Negara, Merapoh	14 May 2011	22h13	Adult with two juveniles in oil palm at oil palm plantation outside park	C. Low <i>et al.</i> , photo (Photo 3)
Pahang: Fraser's Hill, at town centre	7 Aug 2011	Night	Walking on overhead electrical wires	K. Lim <i>et al.</i>
Pahang: Fraser's Hill, at gate of Johor Bungalow	8 Aug 2011	23h41	In tree	C. Low <i>et al.</i> , photo
<b>Masked Palm Civet <i>Paguma larvata</i></b>				
Pahang–Selangor: Fraser's Hill	Jul 1990	N.A.	Seen	J. Chance in Subharaj 1991: 9
Johor: Ulu Endau, Gunung Arong forest	22 Jun 1991	N.A.	Two possible individuals <sup>3</sup> on logging trail in deep forest	S. Sutari <i>et al.</i> in Yeo 1991a: 3 as <i>Arctogalidia trivirgata</i>
Pahang: Fraser's Hill, outside Aubyn House	3 Sep 1995	07h00	Dark-brown individual seen	A. Wong in Lim <i>et al.</i> 2000: 25
Johor: Labi, Bekok (at south-west corner of Endau-Rompin Park), above Sungai Bantang (2°20'N, 103°07'E)	28 Nov 2002	Day	Glimpsed <sup>4</sup> falling from the forest canopy	T. M. Leong & K. Lim
Negeri Sembilan: Gunung Telapak Buruk	31 Jan 2004	22h00	Provisional identification; along side of road near base of hill	N. Baker <i>et al.</i>
Pahang–Selangor: Fraser's Hill	24 Apr 2009	23h06, 23h36, 00h24	Same individual in <i>Ficus vasculosa</i> tree	C. Low <i>et al.</i> in Low 2010, photo
Pahang–Selangor: Fraser's Hill	30 Jun 2009	23h27	In fig tree with ripe orange figs	C. Low <i>et al.</i> in Low 2010, photo
Pahang–Selangor: Fraser's Hill	1 Jul 2009	02h15	On ground eating boiled rice	C. Low <i>et al.</i> in Low 2010
Selangor: Fraser's Hill, road to Jeriau Waterfall	12 Sep 2009	Night	In tree	K. W. Chan, photo
Perak: Pulau Banding, Belum-Temengor Rainforest, outside Belum Rainforest Resort (4°00'N, 100°50'E)	14 Feb 2010	23h29	In tree	C. Low <i>et al.</i> , photo

Location	Date	Time	Notes	Observer
Pahang–Selangor: Fraser's Hill	9 May 2010	Night	Walking on a concrete-covered slope	C. Low & B. C. Ng in Low 2010, photo
Pahang–Selangor: Fraser's Hill	30 Dec 2010	23h27	In tree	C. Low <i>et al.</i> , photo
<b>Binturong <i>Arctictis binturong</i></b>				
Selangor: Gombak Field Studies Centre	14 May 1993	16h00	Crossed a grass lawn and entered a bamboo clump	A. Wong in Anon. 1993: 2
Pahang: Fraser's Hill, new road	30 Dec 2009	22h34	In tree with figs	C. Low in Low 2010, photo
Pahang–Selangor: Fraser's Hill	20 Dec 2010	Day	In fruiting tree	G. Francis, photo
<b>Small-toothed Palm Civet <i>Arctogalidia trivirgata</i></b>				
Selangor: Old Genting Road about 3½ km from Gombak Field Studies Centre	11 Jun 1992	N.A.	Two along the road	K. Yong in Yeo & Lim 1992: 4
Perak: Kuala Gula	26 Jan 1993	Night	In oil palm, within oil palm estate, not far from coastal mangrove belt many miles long	R. Subaraj in Anon. 1993: 2
Perlis: Perlis trunk road	27 Jan 1993	N.A.	Along road	K. S. Lim & R. Subaraj in Anon. 1993: 2
Negeri Sembilan: Pasoh Forest Reserve headquarters compound	30 Jan 1995	Night	Feeding on fruits of <i>Eugenia tumida</i>	R. Teo & B. C. Ng in Lim <i>et al.</i> 2000: 25
Johor: Kota Tinggi, Panti Bunker Trail	29 Nov 2004	Dusk	At red-stem fig by first stream	R. Subaraj
Pahang–Selangor: Fraser's Hill	1 Jul 2009	01h52	In tree near <i>P. aduncum</i>	C. Low <i>et al.</i> in Low 2010, photo (Photo 4)
Pahang–Selangor: Fraser's Hill	9 May 2010	20h47, 23h20	First eating inflorescence of <i>P. aduncum</i> ; second in tree.	C. Low & B. C. Ng in Low 2010, photo
Pahang–Selangor: Fraser's Hill	10 May 2010	20h40	In <i>P. aduncum</i>	C. Low & B. C. Ng in Low 2010, photo
Pahang–Selangor: Fraser's Hill	11 May 2010	22h51	In <i>P. aduncum</i>	C. Low & B. C. Ng in Low 2010, photo
Pahang–Selangor: Fraser's Hill	28 Dec 2010	23h16	In <i>P. aduncum</i>	C. Low <i>et al.</i> , photo
Pahang–Selangor: Fraser's Hill	29 Dec 2010	21h46	In <i>P. aduncum</i>	C. Low <i>et al.</i> , photo
Selangor: Fraser's Hill, road to Jeriau Waterfall	30 Dec 2010	22h02	In tree	C. Low <i>et al.</i> , photo
Pahang–Selangor: Fraser's Hill	31 Dec 2010	23h54	In fruiting tree	C. Low <i>et al.</i> , photo
Pahang: Fraser's Hill, new road	7 Aug 2011	22h10	Two on tree ferns next to a concrete-covered slope	C. Low <i>et al.</i> , photo
<b>Banded Civet <i>Hemigalus derbyanus</i></b>				
Johor: Kota Tinggi, Panti Bunker Trail	1991 or 1992	Night (22h00)	On trunk of tree 2 m above ground	S. H. Yeo, R. Subaraj & R. Teo
Selangor: Fraser's Hill, about 1 km on road uphill from Jeriau Waterfall	8 Aug 2011	Night (21h45)	Female on a steep slope above a seepage area	M. Chua <i>et al.</i> , photo (Photo 5)
<b>Short-tailed Mongoose <i>Herpestes brachyurus</i></b>				
Selangor: Kuala Selangor	28 Jun & 23 Aug 1987	Day	On coastal bund <sup>5</sup> north of what is now Kuala Selangor Nature Park	R. Subaraj <i>et al.</i> in Anon. 1988b: 84
Selangor: Kuala Selangor Nature Park	16 Jan 1993	07h00, 16h30	First: brown mongoose seen on trail to observation huts; second: along coastal trail at the south	N. Sivasothi in Lim <i>et al.</i> 1996: 4 as ? <i>H. brachyurus</i>
Perak: between Sungai Labu and Sungai Betul Bawah near Tanjung Piandang	Jan 1993	N.A.	brown mongoose observed on dirt track	N. Sivasothi & K. S. Tan in Lim <i>et al.</i> 1996: 4 as ? <i>H. brachyurus</i>
Johor: Kota Tinggi, Panti Bunker Trail	29 Nov 2004	Morning	Two seen within first 500 m of highway	R. Subaraj

(continued)

## Appendix. (continued)

Location	Date	Time	Notes	Observer
Johor: Kota Tinggi, Panti Bunker Trail	Aug 2006	Day	Provisional identification, crossing dirt track	K. S. Lioe, photo
Johor: Kota Tinggi, Panti Temple Trail	May 2011	Day	Seen	D. L. Yong
Johor: Kota Tinggi, Panti Trail 270	17 Jul 2011	09h00	Two foraging beside trail for a while	D. L. Yong
Johor: Kota Tinggi, Panti Trail 270	25 Sep 2011	09h00	Two <sup>6</sup> crossing track near the old logging camp	S. H. Yeo & R. Subaraj
<b>Small Asian Mongoose <i>Herpestes javanicus</i></b>				
Perak: Belum, East-West Highway, between Pulau Banding and town of Gerik (5°50'N, 101°15'E)	15 Feb 2010	Day	Ran across road, towards scrubby vegetation	C. Low <i>et al.</i>
<b>Crab-eating Mongoose <i>Herpestes urva</i></b>				
Pahang: Fraser's Hill, Telecoms Loop	2 Jun 1990	Day	Seen	K. Lim <i>et al.</i> , in Anon. 1990: 19; Lim 1991: 20

Sightings were of single animals except where stated.

Malay words are used in locality names with Malay–English translations: Gunung – Mount; Kampung – Village; Pulau – Island; Sungai – River.

<sup>1</sup>Unconfirmed: neither photographic evidence nor detailed description given.

<sup>2</sup>Diagnostic pattern on tail not noted.

<sup>3</sup>Described as 'rufous creamy around front part of body'.

<sup>4</sup>A civet with a russet-brown body and long black tail (possibly this species).

<sup>5</sup>The habitat on the coastal side was good mangrove, on the inland side was scrubland.

<sup>6</sup>One slightly larger than the other.