



Range extension of the *Melogale personata* I. Geoffroy Saint-Hilaire, 1831 (Mustelidae) in Nepal

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Abstract

Melogale personata I. Geoffroy Saint-Hilaire, 1831, Large-toothed Ferret Badger (Mustelidae), is distributed from Nepal to Vietnam with very few records. It historically is known by only one recent sighting record from an unspecified area of Nepal. The IUCN species distribution map shows this species in the Okhaldhunga District. We confirm the presence of *M. personata* in Nepal based on a sighting of a juvenile individual. This is the first record of this species from Syangja District, Nepal. The geographical range of this species is extended farther west in Nepal.

Keywords

Distribution, first record, mammalian carnivore

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Introduction

Melogale personata I. Geoffroy Saint-Hilaire, 1831 (Large-toothed Ferret-Badger or Burmese Ferret Badger) is a carnivore from the family Mustelidae. It has been recorded in India, Nepal, Myanmar, Thailand, Laos, Vietnam, Bangladesh, China, and Malaysia (O'Donel 1917; Hinton and Fry 1923; Osgood 1932; Pocock 1941; Hussain 1999; Wozencraft 2005; Islam et al. 2008). According to the IUCN Red List, *M. personata* is

classified as Least Concern in 1996, Data Deficient in 2008, and again Least Concern in 2015. The population size and trend is unknown (Duckworth et al. 2016). Recent records from Bangladesh, Cambodia, and India (Islam et al. 2008; Schank et al. 2009; Kakati et al. 2014) are from elevations below 550 m (Peenen et al. 1971) to 1520 m a.m.s.l. (Pocock 1941).

Hinton and Fry (1923) reported *M. nepalensis* (Hodgson, 1836) from Nepal, but this taxon is now considered a valid subspecies of *M. personata* in South Asia (Srinivasulu and Srinivasulu 2012; Srinivasulu 2018). Thapa (2014) opined that *M. personata* may be extirpated from Nepal. However, Duckworth et al. (2016) confirmed the presence of this species based on photographic evidence, which lacks a details of location, elevation, and habitat. Here, we report the first confirmed observation of *M. personata* in Syangja District of Nepal.

Methods

A young *Melogale personata* was recorded on 9 June 2020 in Waling Municipality-11, Tallo Pekhu Orale, Syangja District, Nepal (Fig. 1). A photograph of this individual was taken, along with a morphological examination including body weight, and tail and body length. The individual was observed for six hours. We verified this record through iNaturalist (2021) and online searches using Google Scholar, ResearchGate, and the

IUCN database. Identification of the species was verified through consultation with an expert, Prof. Karan Bahadur Shah. We used ArcGIS v. 10.4.1, and the IUCN database to map our new record.

Results

Melogale personata I. Geoffroy Saint-Hilaire, 1831

Figure 2

New record. NEPAL – Gandaki Province • Syangja District, Waling Municipality-11, near Sanu Pekhu Community Forest and Tallo Pekhu Orale village; 83°45' 42.33"E, 027°59'48.76"N; 975 m a.m.s.l.; 9.VI.2020; Badri Khawas; collected near a *Ficus semicordata* Buch.-Ham. ex Sm. tree with grasses and shrubs, adjacent to a corn field and forested area dominated by *Schima wallichii* (DC.) Korth. and *Castanopsis indica* (J. Roxb. ex Lindl.) A. DC.

Identification. The estimated weight of this juvenile was 1 kg and the total length was 45 cm (body length = 30 cm; tail length = 15 cm). Sex was not determined. The pelage was dominated by black, with a white dorsal stripe on body and white spots on the face, ear, and foot. We confirmed this species through the pattern of dorsal pelage and facial markings (Islam et al. 2008; Kakati et al. 2014; Duckworth et al. 2016).

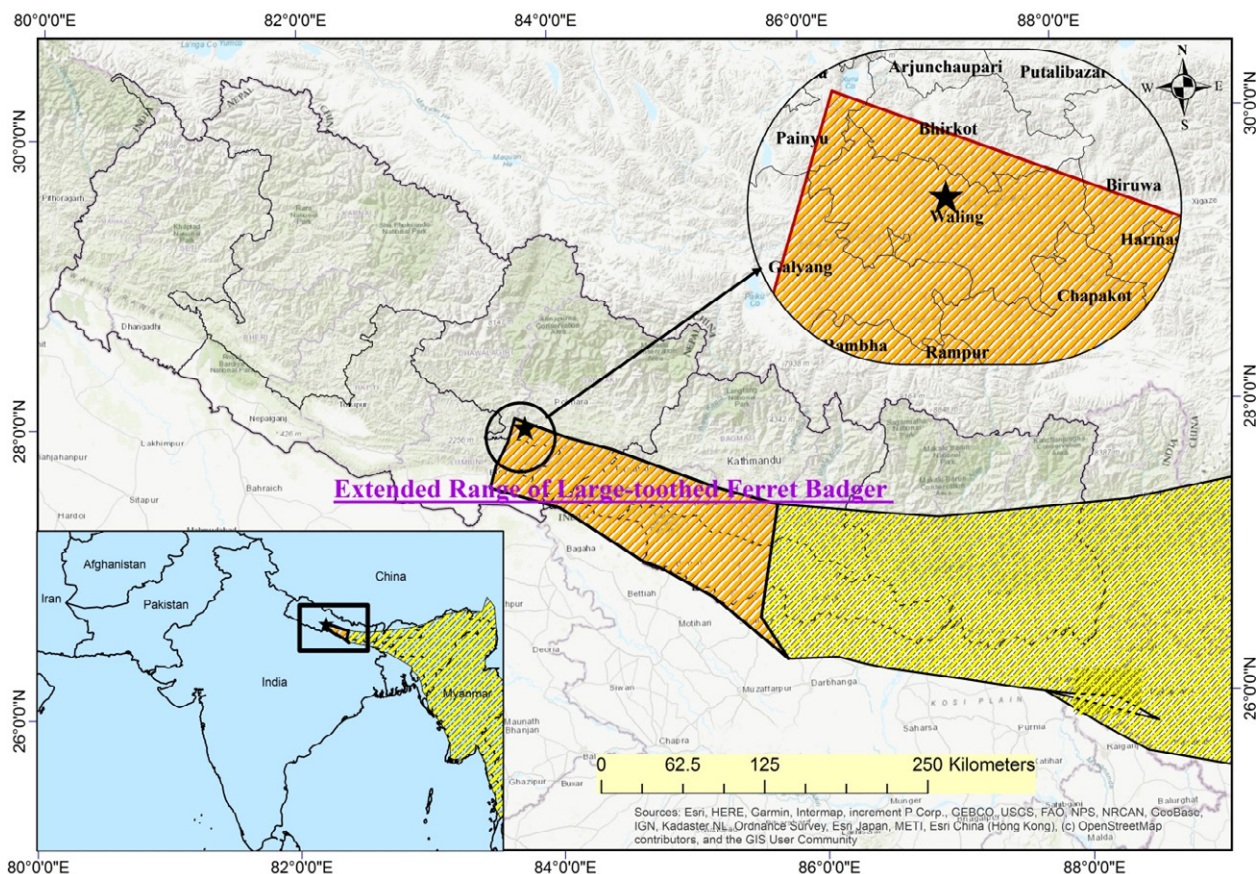


Figure 1. Location of *Melogale personata* in Waling, Syangja District, Nepal (black star), and current global distribution of the species: yellow = previous range; orange = new range (modified from Duckworth et al. 2016).



Figure 2. *Melogale personata* in Waling, Syangja District, Nepal (photograph: Komal Raj Kafle).

Discussion

This is the first known record of *Melogale personata* in Syangja District, and it represents a range extension of 296 km west of the species' current known distribution as given by Duckworth et al. (2016). The recorded habitat of grass and bushes was similar to the habitat described by Peenen et al. (1971).

The weight and length of our recorded individual were less than an animal from Bangladesh, where the weight was about 2 kg and the total length was 51 cm (body length = 33 cm; tail length = 18 cm) (Islam et al. 2008), and animals from India, which were reported to be 1.7 kg and 55–63 cm in total length (Pocock 1941).

There is currently no action plan for *M. personata* in Nepal, where it is considered Data Deficient (Amin et al. 2018). Globally it is Least Concern (Duckworth et al. 2016). India has maintained *M. personata* on Schedule II (I) of the Wildlife (Protection) Act, 1972 (Kakati et al. 2014); however, due to a lack of information on the ecology and distribution of this species, it has been classified as Data Deficient in India (Sharma et al. 2014). Our new data represents a geographic range extension of *M. personata* to Nepal, furthers our understanding of this species' distribution, and adds to the mammalian diversity of Nepal.

As there are no previous records of *M. personata* from the Syangja District, our new record supports a substantial range extension of this species in Nepal. We recommend additional field surveys to better understand the distribution of this species and further refine its conservation status in Nepal.

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Authors' Contributions

Conceptualization: SB, DK, GP, MKD, KRK, RPS, JLB. Data curation: SB, DK, GP, MKD, JLB. Formal analysis: SB, DK, JLB. Visualization: BBK, KRK. Writing original draft: SB, DK. Writing review and editing: JLB, DK, SB, RPS.

References

- Amin R, Baral HS, Lamichhane BR, Poudyal LP, Lee S, Jnawali SR, Joshi D (2018) The status of Nepal's mammals. *Journal of Threatened Taxa* 10: 11361–11378. <https://doi.org/10.11609/jott.3712.10.3.11361-11378>
- Duckworth JW, Long B, Willcox DHA, Coudrat CNZ, Timmins RJ, Abramov AV, Chan B, Chutipong W (2016) *Melogale personata*. The IUCN Red List of Threatened Species 2016: e.T41627A45209826. <http://doi.org/10.2305/iucn.uk.2016-1.rlts.t41627a45209826.en>
- Hinton MAC, Fry TB (1923) Bombay Natural History Society's mammal survey of India, Burma and Ceylon. Report no. 37. *Nepal. Journal of the Bombay Natural History Society* 29: 399–428.
- Hussain SA (1999) Mustelids, viverrids and herpestids of India: species profile and conservation status. *ENVIS Bulletin* 2: 1–38.
- Islam MA, Chowdhury GW, Belant JL (2008) First record of the large-toothed Ferret Badger *Melogale personata* in Bangladesh. *Small*

- Carnivore Conservation 39: 41–42.
- iNaturalist (2021) iNaturalist. <https://www.inaturalist.org/>. Accessed on: 2021-01-07
- Kakati K, Srikant S, Momin HG, Magne F, Sangma P, Sondhi S, Smith D (2014) Records of ferret badgers *Melogale* from the states of Meghalaya and Arunachal Pradesh, India. *Small Carnivore Conservation* 51: 4–10.
- O'Donel HV (1917) Notes on the Burmese Ferret-Badger (*Helictis personata*). *Journal of the Bombay Natural History Society* 24: 819.
- Osgood WH (1932) Mammals of the Kelley-Roosevelts and Delacour Asiatic expeditions. Publications (Field Museum, Natural History), Zoological Series 18: 193–339. <https://doi.org/10.5962/bhl.title.2798>
- Pocock RI (1941) The fauna of British India, including Ceylon and Burma. 2, Taylor & Francis, London, UK, 265–317
- Sharma G, Kamalakannan M, Venkataraman K (2014) A checklist of mammals of India with their distribution and conservation status. Zoological Survey of India, Kolkata, India, 107 pp.
- Srinivasulu C, Srinivasulu B (2012) South Asian mammals: their diversity, distribution, and status. Springer Science & Business Media, New York, USA, 467 pp.
- Srinivasulu C (2018) South Asian mammals: an updated checklist and their scientific names. CRC Press, Boca Raton, USA, 374 pp. <https://doi.org/10.1201/9780429466199>
- Thapa S (2014) A checklist of mammals of Nepal. *Journal of Threatened Taxa* 6: 6061–6072. <https://doi.org/10.11609/JoTT.o3511.6061-72>
- Van Peenen PFD, Light RH, Duncan JF (1971) Observations on mammals on Mt. Son Tra, South Vietnam. *Mammalia* 35: 126–143. <https://doi.org/10.1515/mamm.1971.35.1.126>
- Wozencraft WC (2005) Order Carnivora. In: Wilson DE, Reeder DM (Eds.) *Mammal species of the world: a taxonomic and geographic reference*. Johns Hopkins University Press, Baltimore, USA, 126–143.