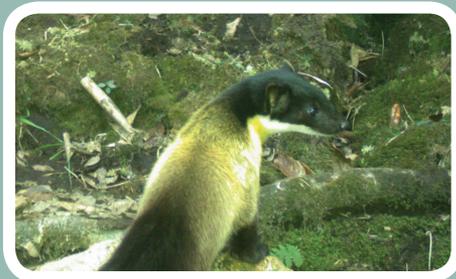


SMALL CARNIVORES

IN TINJURE-MILKE-JALJALE, EASTERN NEPAL



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For further information:

Friends of Nature
Kathmandu, Nepal

P.O. Box: 23491

Email: info@fonnepal.org, **Website:** www.fonnepal.org

Facebook: www.facebook.com/fonnepal2005

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Design: Roshan Bhandari

Financial support: Rufford Small Grants, UK

Authors: Jeevan Rai, Kaushal Yadav, Yadav Ghimirey, Som GC, Raju Acharya, Kamal Thapa, Laxman Prasad Poudyal and Nitesh Singh

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Why Protect Small Carnivores!



Small carnivores are an integral part of our ecosystem. Except for a few charismatic species such as Red Panda, a general lack of research and conservation has created an information gap about them. I am optimistic that this booklet will, in a small way, be the starting journey of filling these gaps in our knowledge bank of small carnivore in Nepal.

Though this booklet is titled “Small Carnivores in Tinjure-Milke -Jaljale, Eastern Nepal”, it will be useful for small carnivore conservation throughout Nepal. Best of luck team!

A handwritten signature in black ink, appearing to read 'S. Thapa', written over a horizontal line.

Sunil Thapa

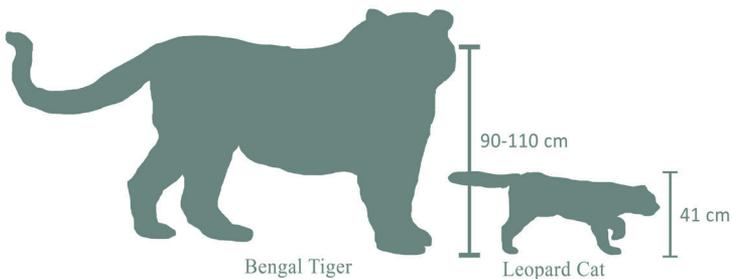
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Friends of Nature

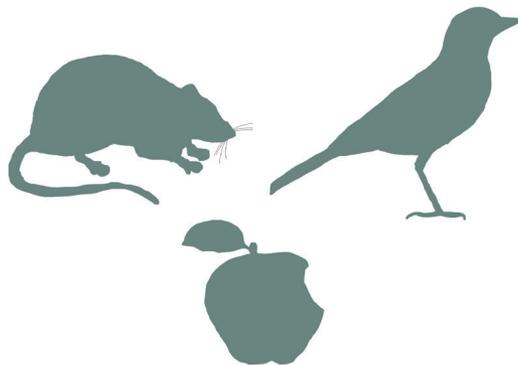
Kathmandu, Nepal

What are Small Carnivores?

Carnivores are mammals whose major diet consists of other animals. Whenever we think about carnivore, a Tiger or a Leopard comes to mind. These are big carnivores. There are other carnivores that are smaller in size. These small carnivores usually weigh between 1-15 kg and prey upon birds, snakes, and small mammals such as rats, mice, squirrels, and pika. Some small carnivores also feed upon insects and fruits.



Comparison between Bengal Tiger (big carnivore) and Leopard Cat (small carnivore).



Small carnivores prey upon small mammals such as rodents, and birds. Some small carnivores also eat fruits.

Importance of Small Carnivores

Small carnivores are important part of our ecosystem. They prey mostly on other small mammals and snakes, thereby keeping the population in check. Small mammals such as rats can spread plague and other diseases, and are considered pests by farmers.

Small carnivores are also important for seed dispersal. Small carnivores which are also frugivores such as civets and martens transport the seeds of many plants.



Small carnivores play an important role in controlling rodents and snake population, help in dispersal of seeds, and are indicator of healthy ecosystem.

Small carnivores are also an indicator of healthy ecosystem. Some small carnivores require very specific habitats. For example, Red Pandas need dwarf ringed bamboo forest to thrive. If these forests are cut down, Red Pandas will go extinct. So, if you find a Red Panda in your locality, it means that there is a healthy bamboo forest. Crab-eating Mongoose are generally found near water sources. Otters need healthy fish populations in rivers to survive.

Threats to Small Carnivores

In Nepal, the major threats to small carnivores are illegal hunting and trade. Red Pandas are a prime example of this. This cute panda is sought out widely for its beautiful fur which makes a very fashionable hat. Otters are also killed for its fur. Some of them like Jungle Cat, Yellow-throated Marten, Large Indian Civet, and Leopard Cat come into conflict with humans due to livestock depredation, mostly poultry raids.

Habitat loss is another major threat to small carnivores. Their habitats are being destroyed for settlements and other development activities.

Climate change is also another significant threat to small carnivores. Most small carnivores are ecologically adapted to specific conditions and hence are highly vulnerable to climate change.



Poaching is the main threat to small carnivores. They are poached for meat, fur, and retaliatory killings.

Habitat loss and degradation is another threat to small carnivores. Their habitat is getting rapidly destroyed for settlements, clearing for agriculture and livestock, and other resources.



Legal Protection in Nepal

Three small carnivores -- Spotted Linsang, Leopard Cat, and Red Panda -- are listed as protected mammal species by the government of Nepal. Killing or injuring them can result in a fine ranging from 100,000 to 500,000 NPR or prison from 1 year to 10 years, or both¹. Illegal keeping, transporting, or selling/trading live animals or their body parts can result in a fine ranging from 500,000 NPR to 1,000,000 NPR or prison from 5 years to 15 years, or both.

Illegal hunting or poaching of other small carnivores can result in a fine upto 20,000 to 50,000 NPR or six months imprisonment, or both¹.

Keeping these small carnivores as pets or imprisoned for any other purpose will result in fine upto 50,000 NPR or imprisonment for six months, or both¹.



Illegal hunting, poaching, and trade of small carnivores can result in imprisonment or huge fines or both depending on the species and nature of crime.

¹National Parks and Wildlife Conservation Act 2029 (fifth amendment)

What Can you do to Protect Them?

Protecting small carnivores require joint effort of everyone including local communities. In fact, local communities are the most effective conservationists. Without their support, no conservation is long-lasting. Here are some of the activities that communities can do to protect them.

- 1. Stop illegal hunting and poaching.** Committing to stop these activities by community will greatly reduce the pressure on small carnivores.
- 2. Protect the forest.** Nepal is doing well with community forest which in turn is protecting habitat of small carnivores.
- 3. Reduce/avoid unnecessary use of pesticides and insecticides.** Using these harmful chemicals has multiple adverse effects including harming small carnivores which feed upon poisoned small mammals and insects.
- 4. Spread the message.** Telling family and friends about the importance of small carnivores is a great way to generate support for these predators.
- 5. Share information.** Several small carnivores lack information on their presence. If communities share their local knowledge with conservationists, it will benefit conservationists greatly to manage small carnivores.

Small Carnivores of Tinjure-Milke-Jaljale

At the end of 2017, Friends of Nature conducted a short camera-trap survey to study small carnivores of Tinjure-Milke-Jaljale with the financial support of Rufford Small Grants Foundation, Rural Reconstruction Nepal, and Bernd Thies Stiftung. During the survey, five small carnivores were recorded: Asiatic Golden Cat, Leopard Cat, Red Panda, Yellow-throated Marten, and Crab-eating Mongoose.

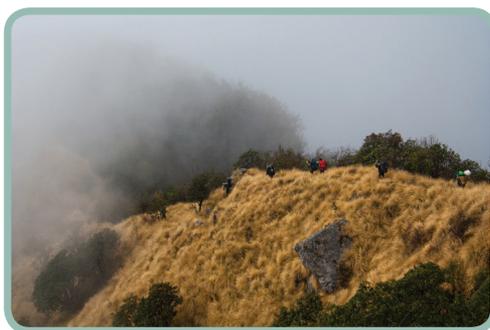
Previous studies have recorded five other small carnivores: Spotted Linsang, mongoose¹, Large Indian Civet, otter¹, and Masked Palm Civet.



Camera traps being set to study small carnivores.



Signs of small carnivores were measured and their locations recorded.



Research team moving to Chitre Pokhari from Gauthale.

¹ Species level identification missing

ASIATIC GOLDEN CAT



Scientific Name: *Catopuma temminckii*

Nepali Name: Sunaulo Biralo

Size¹: HBL: 60-120 cm, Wt: 6-15 kg

Distribution:

Upper limit 4,282 m. Primarily found in forest. Open areas like shrubland or grassland, and in degraded forest too.

IUCN category:

Global: Near Threatened

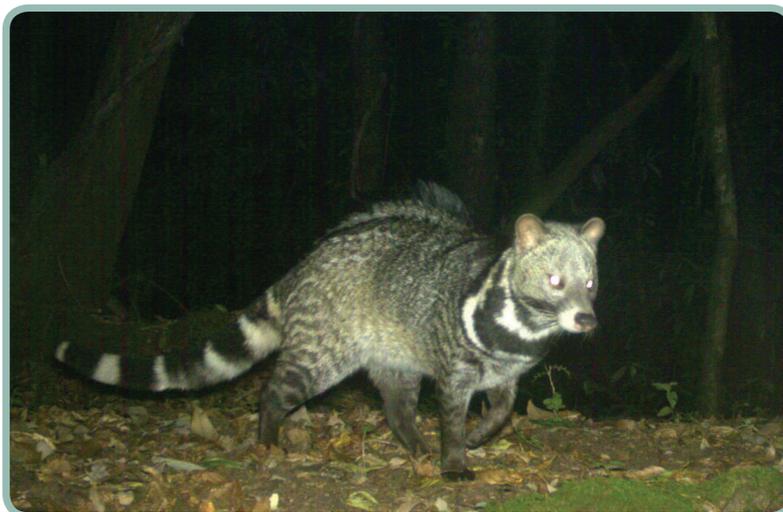
National: Data Deficient

Threats:

Habitat loss and degradation; Hunting and trapping for fur; Human-wildlife conflict and persecution; Disease transmission.

¹ HBL: Head and Body Length, Wt: Weight

LARGE INDIAN CIVET



Scientific Name: *Viverra zibetha*

Nepali Name: Zik, Thulo Nir Biral, Sili, Kaala

Size: HBL: 58-95 cm, Wt: 5-11 kg

Distribution: Upper limit 3,080 m. Use wide variety of habitat. Riverine and Sal forest, moist deciduous and evergreen forest, grassland, near human settlements.

IUCN category:

Global: Least Concern

National: Near Threatened

Threats:

Habitat loss due to human disturbances and settlement; Conversion of land for agriculture, clearing for livestock grazing; Poaching for trade of body parts; Persecution as a pest species.

CRAB-EATING MONGOOSE



Scientific Name: *Herpestes urva*

Nepali Name: Gangate Nyaurimusa

Size: HBL: 45-80 cm, Wt: 1.8-2.3 kg

Distribution:

Wide range of habitats. Mostly near water sources, in evergreen and deciduous forest, scrubby areas, agricultural fields, and near human settlements.

IUCN category:

Global: Least Concern

National: Vulnerable

Threats:

Poaching for fur; Habitat loss and degradation due to draining of wetlands; Unmanaged pollution of waterways.

MASKED PALM CIVET



Scientific Name: *Paguma larvata*

Nepali Name: Dhana-od, Gajale Nir Biraloo, Kasturi Biraloo, Danda Ot, Kaala

Size: HBL: 41-76 cm, Wt: 3-5 kg

Distribution:

Upper limit 2,700 m. Wide range of habitats. Mostly evergreen and semi-evergreen forest, including heavily degraded areas.

IUCN category:

Global: Least Concern

National: Least Concern

Threats:

Disturbance; Persecution; Trapping and hunting

RED PANDA



Scientific Name: *Ailurus fulgens*

Nepali Name: Habre, Hobraakpa, Punde Kundo, Bhalu Biralo

Size: HBL: 50-73 cm, Wt: 3-6 kg

Distribution:

Lower limit 2,500 m, upper limit 4,800 m. Montane forest with dense bamboo-thicket understory. Conifer/fir forest seem to be preferred.

IUCN category:

Global: Endangered

National: Endangered

Threats:

Habitat loss and degradation due to human; Man-made forest fires; Poaching for fur; Injury/death caused by local dogs; Inbreeding.

SPOTTED LINSANG



Scientific Name: *Prionodon pardicolor*

Nepali Name: Silu Biralo, Silu

Size: HBL: 35-45 cm, Wt: 0.5-1.2 kg

Distribution:

Lower limit 150 m, upper limit 3,308 m. Lowland, hill and mountain forest, bamboo forest, secondary growth, dense grassland and along rivers.

IUCN category:

Global: Least Concern

National: Endangered

Threats:

Poaching for fur; Habitat loss and degradation due to humans.

LEOPARD CAT



Scientific Name: *Prionailurus bengalensis*

Nepali Name: Chari Bagh

Size: HBL: 45-75 cm, Wt: 3-7 kg

Distribution:

Upper limit 4,500 m. Wide variety of habitats from tropical forest to temperate broadleaf forest and marginally, coniferous forest, as well as shrub forest and successional grasslands.

IUCN category:

Global: Least Concern

National: Vulnerable

Threats:

Poaching for fur; Persecution as a pest species/retaliatory killing in response to livestock depredation; Habitat loss.

YELLOW-THROATED MARTEN



Scientific Name: *Martes flavigula*

Nepali Name: Kukhauri, Malsapra

Size: HBL: 40-60 cm, Wt: 1.3-4 kg

Distribution:

Upper limit 4,510 m. Wide range of habitats. Coniferous and broad-leaved forest, montane forest up to the tree line.

IUCN category:

Global: Least Concern

National: Least Concern

Threats:

Poaching for fur; Habitat loss

Potential Small Carnivores in Tinjure- Milke-Jaljale

Binturong

Scientific Name: *Arctictis*

binturong

Nepali Name: Bhalu Biralo

Size: HBL: 61-96 cm, Wt: 9-20

kg



Photo Credit: www.pixabay.com/werner22brigitte

Description: Haven't been recorded in Nepal after Brian Hodgson's collection in 19th century.

Marbled Cat

Scientific Name: *Pardofelis*

marmorata

Nepali Name: Chirbire Biralo

Size: HBL: 40-60 cm, Wt: 2-4.5

kg



© Zaharil Dzulkafly

Description: Only record from Nepal is from 1980s.



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Small Carnivores of Nepal

SN	Common Name	Nepali Name	Scientific Name	IUCN Global Status*	IUCN National Status*
1	Fishing Cat	मलाहा बिरालो	<i>Prionailurus viverrinus</i>	VU	EN
2	Smooth-coated Otter	खैरो ओत	<i>Lutrogale perspicillata</i>	VU	EN
3	Honey Badger	रतेल	<i>Mellivora capensis</i>	LC	EN
4	Spotted Linsang	सिलु बिरालो	<i>Prionodon pardicolor</i>	LC	EN
5	Red Panda	हाब्रे	<i>Ailurus fulgens</i>	EN	EN
6	Bengal Fox	फुस्रो फ्याउरो	<i>Vulpes bengalensis</i>	LC	VU
7	Leopard Cat	चुरी बाघ	<i>Prionailurus bengalensis</i>	LC	VU
8	Crab-eating Mongoose	गंगटे न्याउरीमूसो	<i>Herpestes urva</i>	LC	VU
9	Eurasian Otter	कालो ओत	<i>Lutra lutra</i>	NT	NT
10	Large Indian Civet	ठूलो नीरबिरालो	<i>Viverra zibetha</i>	LC	NT
11	Jungle Cat	वन बिरालो	<i>Felis chaus</i>	LC	LC
12	Indian Grey Mongoose	ठूलो न्याउरीमूसो	<i>Herpestes edwardsii</i>	LC	LC
13	Small Indian Mongoose	सानो न्याउरीमूसो	<i>Herpestes auropunctatus</i>	LC	LC
14	Yellow-throated Marten	मलसाँप्रो	<i>Martes flavigula</i>	LC	LC
15	Stone Marten/Beech Marten	हिमाली मलसाँप्रो	<i>Martes foina</i>	LC	LC
16	Siberian Weasel	साइबेरियाली मलसाँप्रो	<i>Mustela sibirica</i>	LC	LC
17	Masked Palm Civet	गाजले नीरबिरालो, घनश्रोद	<i>Paguma larvata</i>	LC	LC
18	Common Palm Civet	ताडी नीरबिरालो	<i>Paradoxurus hermaphroditus</i>	LC	LC
19	Small Indian Civet	सानो नीरबिरालो	<i>Viverricula indica</i>	LC	LC
20	Tibetan Fox	भोटे फ्याउरो	<i>Vulpes ferrilata</i>	LC	DD
21	Red Fox	रातो फ्याउरो	<i>Vulpes vulpes</i>	LC	DD
22	Asiatic Golden Cat	सुनौलो बिरालो	<i>Catopuma temminckii</i>	NT	DD
23	Marbled Cat	छिर्बिरे बिरालो	<i>Pardofelis marmorata</i>	NT	DD
24	Asian Small-clawed Otter	सानो ओत	<i>Aonyx cinereus</i>	VU	DD
25	Hog Badger/Greater Hog Badger	सुंगुरेभालु	<i>Arctonyx collaris</i>	VU	DD
26	Large-toothed Ferret Badger	सानो सुंगुरेभालु	<i>Melogale personata</i>	LC	DD
27	Stripe-backed Weasel/Black-striped Weasel	धकै मलसाँप्रो	<i>Mustela strigidorsa</i>	LC	DD
28	Altai Weasel/Mountain Weasel	पहाडी मलसाँप्रो	<i>Mustela altaica</i>	NT	DD
29	Ermine/Stoat	बहुरूपी मलसाँप्रो	<i>Mustela erminea</i>	LC	DD
30	Yellow-bellied Weasel	पीतोदर मलसाँप्रो	<i>Mustela kathiah</i>	LC	DD
31	Binturong	भालुबिरालो	<i>Arctictis binturong</i>	VU	DD
32	Pallas's Cat	टामी बिरालो	<i>Otocolobus manul</i>	NT	N/A
33	Golden Jackal	स्याल	<i>Canis aureus</i>	LC	LC
34	Rusty-spotted Cat	खियाले बिरालो	<i>Prionailurus rubiginosus</i>	NT	N/A
35	Ruddy Mongoose		<i>Herpestes smithii</i>	LC	N/A
36	Steppe Polecat		<i>Mustela eversmannii</i>	LC	N/A

*DD= Data Deficient; LC= Least Concern; NT= Near Threatened; VU=Vulnerable; EN= Endangered; N/A= Not Available

Diversity in the Diets of Small Carnivores

The diet of carnivores varies widely depending upon the species. Some are generalists who will feed upon almost anything while others are specialists who feed upon specific diet only. Otters and Fishing Cats are specialists feeding majorly upon fishes (also known as piscivores). Yellow-throated Martens are generalists with diet consisting of fruits, insects, and small mammals. They are also said to bring down larger prey, such as deer fawn, when two of them combine hunting prowess. They are equally arboreal and terrestrial in their hunting strategy. More than half of Jungle Cat's diet consists of rodents (rats, mice, squirrels). The diet of foxes is mostly insects supplemented by small animals and fruits.

Red Pandas, though classified as carnivores, feed majorly upon bamboo leaves supplemented by fruits and mushrooms, and very rarely on insects. It is classified as carnivore since it shares the same ancestry with other carnivores, and has traits of a carnivore, such as teeth evolved for tearing meat.

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If you have any information about small carnivores including their presence, trade, and interesting stories, please mail us at ljeevan9211@gmail.com or info@fonnepal.org.