



Small wild cats of Dudhwa Landscape



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Spellings of the local names of the species are subject to change and are indicative of how they were pronounced during the workshop interviews with local communities in Uttar Pradesh

Maps prepared by Tech for Conservation, WWF-India

Small Cat in Cover Page: Rusty-spotted cat

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SMALL WILD CATS OF DUDHWA LANDSCAPE



Small wild cats of Dudhwa Landscape

Small wild cats constitute an ecologically important but under-researched group of carnivores in India. They inhabit a variety of ecosystems including arid deserts, high-elevation montane habitats, cold deserts, temperate grasslands, wetlands, mangroves, and tropical rainforests (Hunter, 2015). In their functional role as mesopredators in ecosystems, they prey on small to medium-sized mammals, birds, reptiles, and insects, thereby regulating the populations of their prey species, influencing community dynamics, and indirectly affecting forest regeneration (by hunting seed predators) and nutrient recycling. Small cats also control rodents and other small mammals considered pests in agro-ecosystems reducing crop damage and disease outbreaks (Mukherjee et al., 2004; Sunquist & Sunquist, 2002; Salom Pérez, 2019; Bandyopadhyay et al., 2024). Thus, small cats are important indicators of ecosystem health and habitat integrity.

India supports 11 species of small wild cats, including the jungle cat (*Felis chaus*), rusty-spotted cat (*Prionailurus rubiginosus*), leopard cat (*Prionailurus bengalensis*), fishing cat (*Prionailurus viverrinus*), Asiatic golden cat (*Catopuma temminckii*), marbled cat (*Pardofelis marmorata*), clouded leopard (*Neofelis nebulosa*), caracal (*Caracal caracal*), Pallas's cat (*Otocolobus manul*), Eurasian lynx (*Lynx lynx*), and desert cat (*Felis lybica*). These species range in diverse habitats, from wetlands and grasslands to dense forests, cold deserts and even agricultural mosaics (Kitchener et al., 2017).



Fishing cat and leopard cat in the marshes of Dudhwa, moving silently along grasslands against a backdrop of dense Terai forest and tranquil wetland.

The Dudhwa Tiger Reserve (TR), comprising Dudhwa National Park (NP) and the adjacent Kishanpur and Katarniaghat Wildlife Sanctuaries (WLS) in the Terai region of eastern Uttar Pradesh, is a mosaic of tall grasslands, seasonally inundated wetlands, riverine forests and agricultural matrix (dominated by sugarcane). Besides supporting sizable populations of tigers and leopards, mixed habitat supports several small cats (members of the subfamily Felinae). The small cat species recorded from the Dudhwa landscape are leopard cat (*Prionailurus bengalensis*), fishing cat (*Prionailurus viverrinus*), rusty spotted cat (*Prionailurus rubiginosus*) and jungle cat (*Felis chaus*) (Chanchani et al., 2014; Habib et al., 2025; Bora et al., 2020). These small cats are mesopredators, and the fishing cat is strongly associated with wetlands in the Terai ecosystem. Each species occupies distinct ecological niches shaped by prey availability, vegetation structure, and hydrological regimes. The fishing cat, a globally threatened wetland specialist, is closely associated with riverine and swamp habitats, especially along the Girwa and Kaudiyala river systems in Katarniaghat and the buffer wetlands of Dudhwa (Mukherjee et al., 2012), where they prey on fish, amphibians and crustaceans; their presence is thus a direct indicator of wetland health. The leopard cat, in contrast, is a habitat generalist that thrives in the mosaic of grasslands, sal forests, and agricultural fringes, serving as a potential surrogate for habitat connectivity between Protected Areas (PAs) and adjoining community lands (Kawanishi & Sunquist, 2008; Shukla et al., 2025). The jungle cat, more tolerant of human presence, is often encountered in degraded forest patches and along canal networks, indicating its adaptability to modified landscapes (Mukherjee et al., 2010). Leopard cats and jungle cats feed on small mammals, birds and herpetofauna in the agricultural and edge habitats, which makes them important controllers of rodent populations and participants in cross-habitat trophic linkages. The rare and elusive rusty-spotted cat, found in this landscape is the world's smallest wild cat, endemic to India, Nepal, and Sri Lanka (Mukherjee et al., 2016). The distribution of all four small cat species is also reported from the trans-boundary areas of Nepal, specifically the Shuklaphanta Wildlife Reserve and Bardiya National Park, which are connected via the Lagga Bagga corridor to Pilibhit and Dudhwa, and via the Khata corridor to Katarniaghat, respectively.



Small wild cats range over relatively small areas and select much smaller prey (primarily fish, rodents and birds), and are thus sensitive to landscape changes such as wetland drainage, channelisation, and small-scale agricultural intensification. Their status, distribution, and abundance are thus indicative of landscape integrity. The principal threats to small felids in the Dudhwa landscape mirror those across the Terai Arc Landscape (TAL). These include the loss and fragmentation of wetlands and grasslands, hydrological alteration of riverine systems, infrastructure development, and local persecution when small cats prey on aquaculture or poultry. Wetland shrinkage and conversion reduce the core habitat of fishing cats; land-use change and intensification diminish small-mammal prey bases for leopard cats, jungle cats and rusty spotted cats. Additionally, protection gaps, staff shortages, and resource limitations in the Dudhwa complex constrain systematic monitoring and the extension of conservation beyond PA boundaries into areas that are important habitats for these small cats.

Management plans for Dudhwa landscape should explicitly incorporate wetlands and grassland conservation, both within and in the corridors beyond the PA boundary, as priorities for fishing cat persistence. Camera-trap surveys focused on wetlands and riverine corridors, combined with systematic scat collection and genetic confirmation, will clarify species distributions and population trends in the Dudhwa complex. Participatory wetland management, sustainable fisheries practices, and compensation/mitigation for livestock or poultry predation are pragmatic strategies to reduce retaliatory threats. National and donor projects that currently support tiger landscapes provide an operational platform to include training, monitoring protocols, and awareness campaigns for small wild cat conservation within Dudhwa landscape. Strengthening staff capacity and filling key protection posts will also reduce enforcement gaps.



A jungle cat springs through the undergrowth of Dudhwa's misty Sal forest.

The Four Small Cats of Dudhwa Landscape

Identification

Small wild cats lack the ability to roar due to their ossified hyoid bone and can purr for extended periods, making them difficult to distinguish by vocalisation. Identifying small wild cats in the field poses challenges due to their cryptic morphology, overlapping ranges, and the often fleeting nature of encounters in dense forests. Unlike the big cats such as tigers and leopards, which can be easily identified by their distinctive large pugmarks, small-sized cats are quite difficult to recognise by their smaller, similar-looking pugmarks. However, these cats do have distinguishable coat patterns, differ in size and inhabit different habitats. Following are a few key features which can aid in distinguishing them:

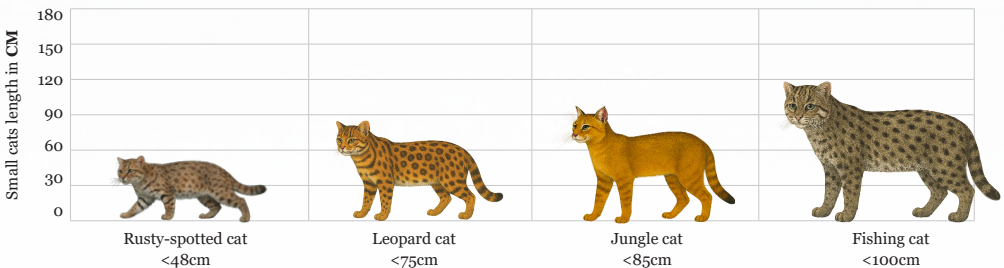
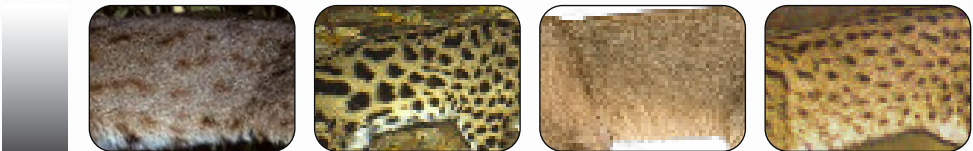


Jungle cat pugmark

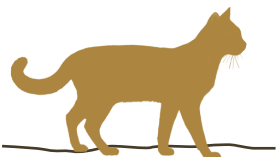
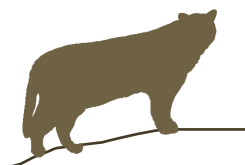
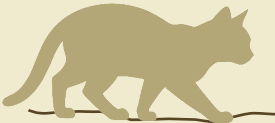


Fishing cat pugmark

Coat Patterns



Comparative morphometry of small wild cats in Dudhwa Landscape

Species	Body length (cm)	Shoulder height (cm)	Weight (kg)
 Leopard cat	38–66	~40	2–7
 Jungle cat	55–94	35–40	4–16
 Fishing cat	57–78	38–40	6–16
 Rusty-spotted cat	35–38	~20	0.9–1.6

Key adaptations	Key identifying features	Key habitats
Agile, arboreal, dense undergrowth use	• Distinct rosette spots • Two prominent black stripes running from the eyes to the ears • Relatively long tail with a blunt tip (Sunquist & Sunquist, 2002)	Broad distribution in forests, edges, secondary growth
Robust, grassland–wetland predator	• Sandy to greyish coat • Longer limbs • Relatively short tail with dark rings • Black ear tufts (Mukherjee, 1998)	Foothills, riverine belts, tall grasslands
Semi-aquatic, webbed feet	• Stocky build • Short legs • Olive-grey coat with elongated spots and stripes • Partially webbed feet adapted for aquatic life • Short tail with distinct black rings • Distinctly rounded head (Sunquist & Sunquist, 2002, Mukherjee et al., 2016)	Wetlands, marshes, riverine zones (localised)
Tiny size for manoeuvrability; agile climber; cryptic spotted coat	• Very small size • Rust-coloured spots • Forehead has two longitudinal black edged white stripes • Large eyes • White underside (Menon, 2023)	Dry, moist deciduous and thorn forest, scrub, grassland, rocky terrain, near cultivation (Roy et al. 2012)

Leopard cat

LC

Prionailurus bengalensis

Cheeta bill



***WLPA – Schedule I, IUCN - Least Concern, CITES – Appendix I**

Habitat type

- Moist, thick canopied forests
- Monoculture plantation habitats
- Tropical evergreen forests, secondary forests, scrubland

Leopard cats inhabit scrublands, lowland and montane deciduous forest, and tropical evergreen forests, favouring moist, dense canopies with minimal disturbance. They have also adapted to agricultural areas, human settlements, and monoculture plantations, such as coffee and tea (Srivathsa et al., 2015).

Elevation

up to **3000m**

Food habits:

They opportunistically hunt small mammals (such as rodents and squirrels), birds, amphibians, reptiles, and insects. They commonly hunt in paddy fields and village edges. They are also good swimmers, sometimes take aquatic prey (Mukherjee et al., 2004; Shehzad et al., 2012; Xiong et al., 2017).

Identification:

- Coat ranges from brownish buff to ochre
- Slender body, relatively long legs
- Spotted coat with black rosettes,
- White underside with “M”-shaped forehead

Behaviour:

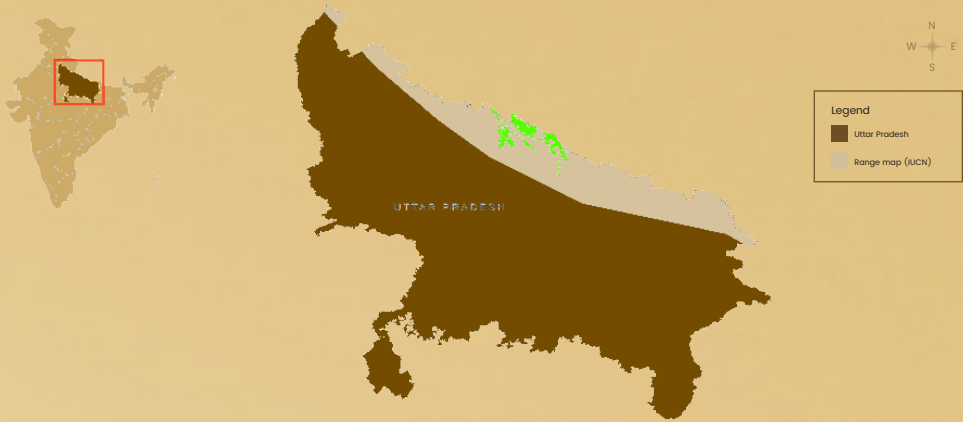
Leopard cats are solitary and territorial, communicating through meows, hisses, growls, and scent marking. Skilled swimmers and climbers, their spotted coat aids camouflage. Ecologically adaptable, they are widespread, with males ranging over 4.1 km² and females 2.5 km² (Grassman, 2000). Mostly nocturnal and crepuscular.

Reproduction:

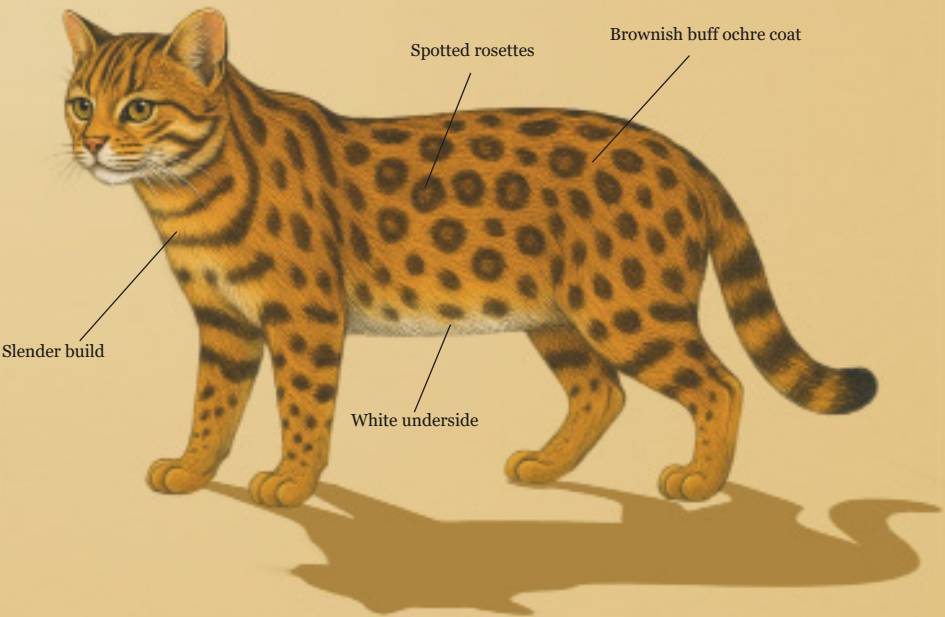
Breeds year-round with a 60–70-day gestation; litters of 2–3 kittens, occasionally up to 5. Dens in tree hollows, burrows, grass, or rock crevices, typically breeding in spring.

Threats:

Illegal hunting, pet and pelt trade threaten leopard cats (Selvan et al., 2013; Ghimirey et al., 2023). Road kills, deforestation, and climate change further shrink their range (Silva et al., 2020; Habib et al., 2025). Their current status remains poorly known due to limited research.

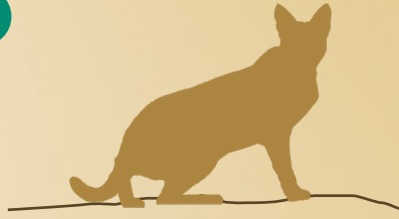


Distribution of the leopard cat in Dudhwa landscape according to IUCN 2022. *Prionailurus bengalensis*.
The IUCN Red List of Threatened Species. Version 2025-1



Jungle cat

LC

*Felis chaus**Ban-bilao*

WLPA – Schedule II, IUCN - Least Concern, CITES – Appendix II

Habitat type

- Grassland, scrub
- Dry-deciduous and evergreen forests
- Close to semi-urban areas

Jungle cats exhibit remarkable ecological plasticity, adapting well to human-modified landscapes, including agricultural fields and fragmented forests. They are India's most widespread small wild cat, inhabiting diverse habitats ranging from dry deciduous and scrub forests to wetlands and grasslands. However, they generally avoid dense rainforests and extreme arid regions, preferring habitats that strike a balance between cover and openness (Chatterjee et al., 2020; Jhala et al., 2021).

Elevation

< 4000m

Food habits

Their diet predominantly consists of small mammals, rodents, birds, reptiles, amphibians and insects; they also raid poultry. They frequently use a covert stalk-and-pounce technique to hunt in tall grasses. According to studies, over 70% of their diet consists of rodents (Mukherjee et al., 2004).

Identification

- Short ear tufts, smaller than the caracal's
- Pelt is pale sandy grey to yellowish grey
- Tail bears a black tip
- Two black stripes on its forelegs and tail

Behaviour

Jungle cats are primarily crepuscular and solitary hunters, relying on stealth and agility to capture their prey. Extremely versatile, jungle cats can climb well and swim well enough to dive into shallow water to capture fish. Diurnal activity is typical. Growls, loud "meow-like" cries, and a bird-like "ow-ow-ow" call during mating are examples of vocalisations.

Reproduction

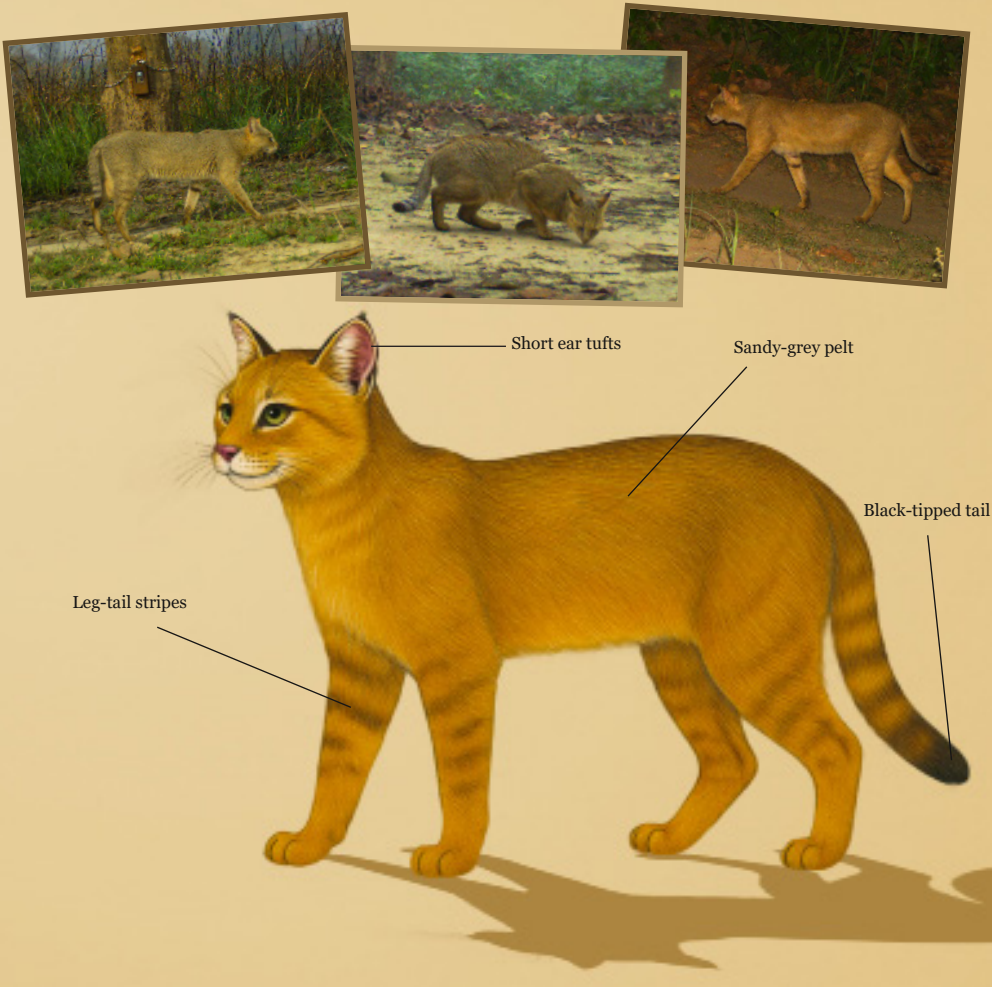
Breeds year-round; peak litters during spring. Gestation ~63–66 days; 2–4 kittens. Dens in grass tussocks, hollow logs, or reed beds.

Threats

Habitat loss, poaching, and retaliatory killings threaten the species' survival (Grey et al., 2021). Its persistence depends on focused conservation efforts.

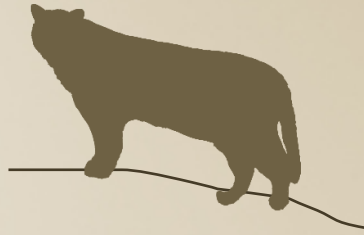


Distribution of the jungle cat in Dudhwa landscape according to IUCN 2020. *Felis chaus*.
The IUCN Red List of Threatened Species. Version 2025-1



Fishing cat

VU

*Prionailurus viverrinus**Bagh-dasha*

WLPA – Schedule I, IUCN - Vulnerable, CITES – Appendix II

Habitat type

- Brackish wetlands or mangrove forests
- Swamps, marshlands, oxbow lakes, tidal creeks

Fishing cats are closely linked to wetlands and swamp habitats because they are habitat specialists (Mishra et al., 2022). They usually hunt in shallow waters, using their webbed hind feet to propel themselves while allowing their front limbs to remain free to catch prey. The ecological importance of riverine and mangrove environments is highlighted by the presence of wetland-specialist fishing cat. As they depend on aquatic areas for feeding, the availability of both seasonal and perennial water sources can affect their distribution (Habib et al. 2025).

Elevation

< 2000m

Food habits

Generalist diet, consume a variety of prey including murid rodents, birds, and fish (Mukherjee et al., 2016). Its primary diet consists of fish, amphibians, and crustaceans; however, it also feeds on insects, birds, rodents, and reptiles.

Identification

- Olive-grey coat with distinct stripes and spots
- A stocky, muscular body
- Short tail with five to six black rings and a black tip
- Short, webbed legs
- Short round ears with black backs and white spots

Reproduction

Breeding season varies; 2–3 kittens per litter; gestation ~63 days. Dens in reed beds, river banks, or hollow logs near wetlands.

Behaviour

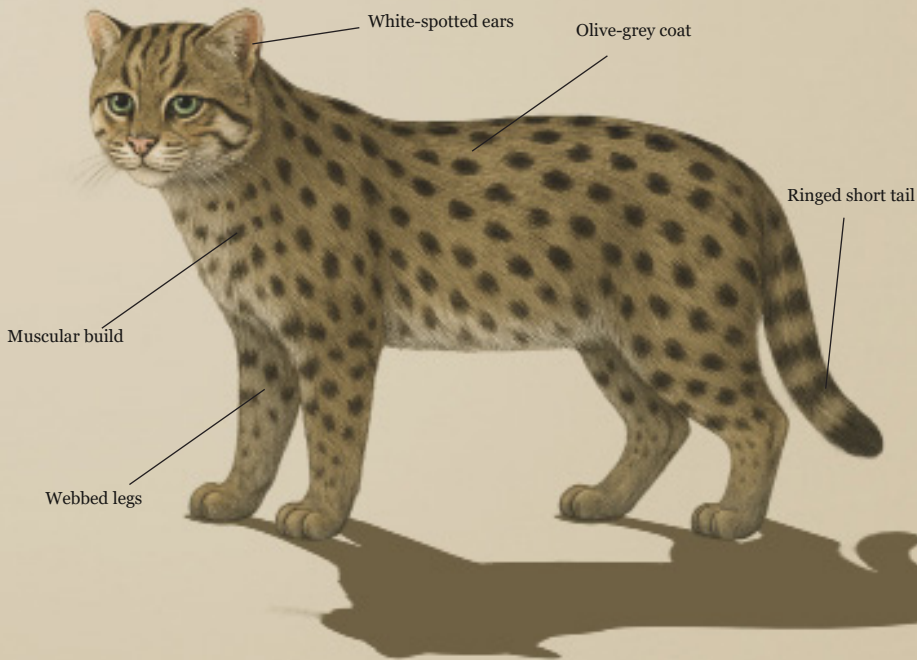
Fishing cats are solitary animals and are predominantly active during the night – primarily nocturnal and crepuscular (Mukherjee, 1998; Sunquist & Sunquist, 2002; Lynam et al., 2013). Bold and aggressive for its size. Produces loud “rasping” calls, growls, and guttural laughter.

Threats

Habitat loss, degradation, and fragmentation from urbanisation, agriculture, and aquaculture threaten the species. Wetland destruction, pollution, hunting, road kills, and accidental captures further drive population decline (Mishra et al., 2021).



Distribution of the fishing cat in Dudhwa landscape according to IUCN
Mukherjee, S. et al. 2024. *Prionailurus viverrinus*. The IUCN Red List of Threatened Species. Version 2025-1

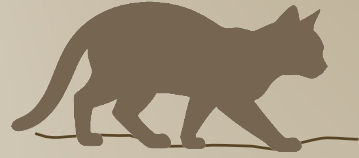


Rusty-spotted cat

VU

Prionailurus rubiginosus

Rohit-dweepi billi



WLPA – Schedule I, IUCN - Vulnerable, CITES – Appendix I

Habitat type

- Dry deciduous forests,
- Scrubland, grasslands
- Rocky terrain

Found in dry deciduous forests, scrubland, grasslands, and rocky terrain; also recorded near human settlements and agricultural fields. Endemic to India and Sri Lanka. It inhabits a variety of habitats, including tropical dry, moist deciduous and thorn forests, as well as forested environments. It thrives in deciduous forests, favouring less rugged, drier landscapes. Deciduous, bamboo, scrub and sal forests.

Elevation

up to **3000m**

Food habits

It is a solitary carnivore and primarily preys on small mammals, birds, reptiles, and insects, playing a crucial role in regulating prey populations and maintaining ecological balance (Mukherjee et al., 2016). Primarily feeds on rodents, small birds, lizards, frogs, and insects. Agile hunter; stalks with stealth and rapid pounce.

Identification

- Very small size (smaller than a domestic cat)
- Fawn coat with rusty spots in rows
- Faintly ringed tail with rusty bands
- Two striped forehead (black-edged white)
- White underside with large nocturnal eyes

Behaviour

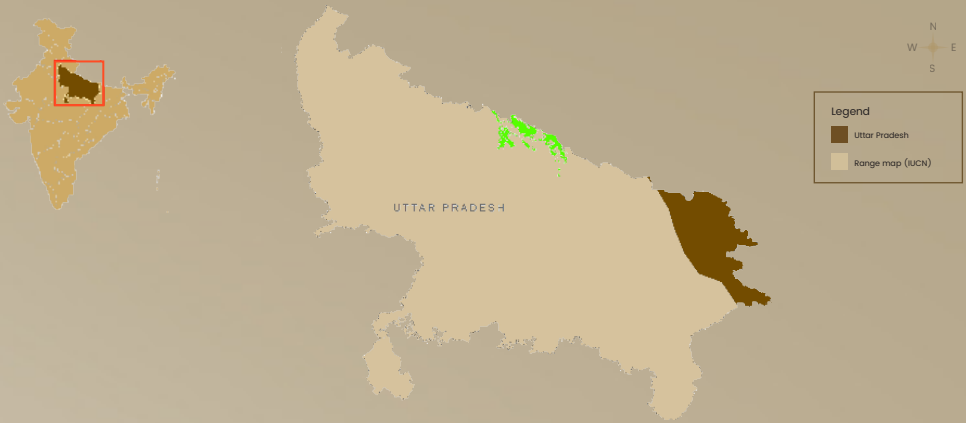
Solitary, secretive, highly elusive. Calls include high-pitched meows and growls. Extremely agile climber; small size allows manoeuvring in dense vegetation; cryptic coat enhances camouflage. Mostly nocturnal, occasionally crepuscular.

Reproduction

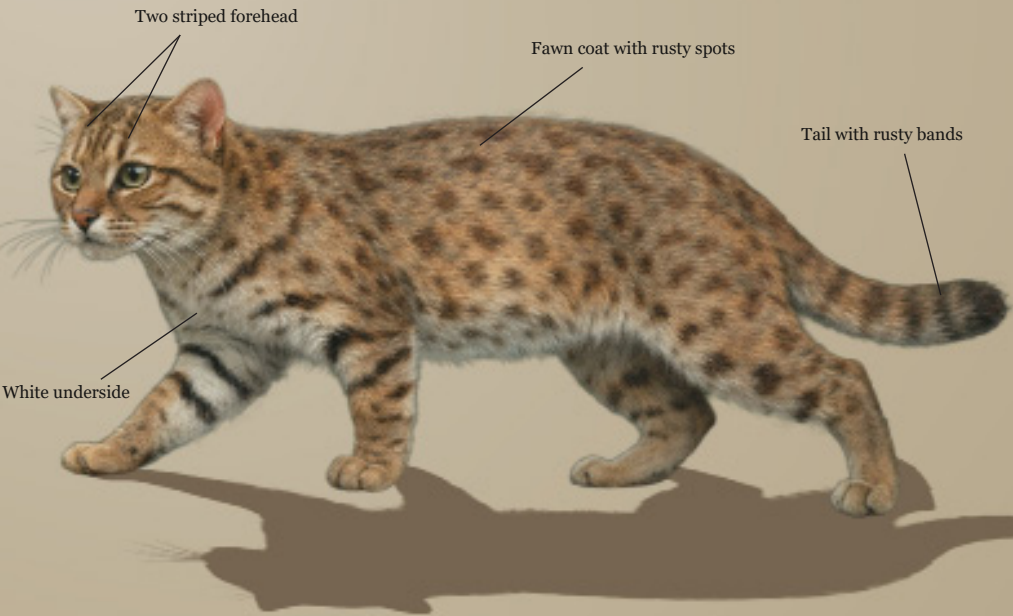
Breeds year-round in captivity, seasonally in wild; gestation ~65–70 days; usually 1–2 kittens per litter. They den in tree hollows, rock crevices, or abandoned burrows.

Threats

Its current distribution is likely fragmented and increasingly threatened by human-driven land-use change, habitat loss, and linear infrastructure such as roads (Mukherjee et al., 2016). Despite this, substantial gaps remain in knowledge of its ecology and population status across its range.



Distribution of the rusty-spotted cat in Dudhwa landscape according to IUCN 2022. *Prionailurus rubiginosus*.
The IUCN Red List of Threatened Species. Version 2025-1



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