STUDY NOTES · BASIC CONCEPT

What Are the Bengal Fox and Golden Jackal, and Why Is Their Conservation Important?

Environment & Ecology

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1. Introduction

Wildlife conservation is frequently associated with tigers, elephants and other large mammals. However, smaller carnivores also play important roles in maintaining ecological balance.

Tamil Nadu has initiated conservation efforts for the **Bengal fox (*Vulpes bengalensis*)** and the **golden jackal (*Canis aureus*)**. The reported programme focuses on population assessment, habitat identification, threat reduction and public awareness.

These initiatives are important because conservation must extend beyond major protected areas to include scrublands, grasslands and agricultural landscapes.

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2. Understanding the Two Species

Kennen Sie diese 12 Fuchsarten? - PETBOOK

Bengal fox (Indian fox)

- Scientific name: *Vulpes bengalensis*
- Family: Canidae
- Typical habitats: Grasslands, scrublands and semi-arid open landscapes
- Diet: Insects, rodents, small vertebrates and fruits
- Ecological role: Predation on small animals and participation in food-web processes

A golden jackal walks on a sandy path. photo – Free Animal Image on Unsplash

Golden jackal

- Scientific name: *Canis aureus*
- Family: Canidae
- Typical habitats: Scrublands, grasslands, woodland edges and agricultural landscapes
- Diet: Small animals, insects, fruits and carrion
- Ecological role: Predator, scavenger and adaptable omnivore

Although both belong to the dog family, they differ in body size, behaviour, habitat use and ecological requirements.

3. Why Are These Species Ecologically Important?

A. Regulation of small-animal populations

Bengal foxes and golden jackals consume rodents and other small animals. Predation can influence prey populations and contribute to food-web regulation.

B. Scavenging and nutrient cycling

Golden jackals, in particular, consume carrion and help remove animal remains from the environment. This contributes to nutrient cycling and the functioning of ecosystems.

C. Conservation of open habitats

Protecting these species also requires protecting scrublands and grasslands, which are sometimes mistakenly treated as wastelands despite supporting specialised biodiversity.

D. Indicators of landscape change

Changes in the distribution and abundance of these animals can provide useful information about habitat degradation, human pressures and changes in wildlife communities. However, their presence alone is not sufficient to establish that an ecosystem is healthy.

4. Major Threats

Threat	Potential impact
Habitat loss	Reduces available feeding, resting and breeding areas
Habitat fragmentation	Separates populations and restricts movement
Illegal hunting	Causes direct mortality
Road infrastructure	Increases the risk of wildlife–vehicle collisions
Feral and free-ranging dogs	May cause competition, attacks and disease transmission
Human–wildlife conflict	Can result in persecution when animals are considered a threat
Limited scientific data	Makes it difficult to estimate populations and prioritise conservation

The effects of these threats can vary across landscapes and between species, making local research essential.

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5. How Does Scientific Monitoring Support Conservation?

Tamil Nadu's reported initiatives include habitat mapping, population surveys and telemetry studies.

Habitat mapping

Identifies suitable habitats, degraded areas, movement routes and locations requiring protection.

Population surveys

Estimate distribution and abundance, record sightings and help establish a baseline for future comparisons.

Telemetry studies

Use tracking devices to study animal movement, habitat use and home ranges, where suitable and ethically justified.

Community participation

Encourages local residents to report sightings, prevent hunting and participate in habitat protection.

Combining these methods can help authorities design conservation measures based on evidence rather than assumptions.

6. Legal Protection in India

The Wildlife (Protection) Act, 1972, provides the principal statutory framework for wildlife protection in India.

The Bengal fox and golden jackal are listed in **Schedule I under the amended framework**, as reported in the current article. Schedule I species receive the Act's highest level of statutory protection.

Legal protection is important, but effective conservation also depends on enforcement, habitat management, scientific research and public cooperation.

7. Why Must Conservation Extend Beyond Protected Areas?

Many smaller carnivores use habitats that extend beyond national parks and wildlife sanctuaries. Their movement may involve agricultural fields, scrublands, village margins and other human-modified areas.

A conservation strategy restricted to protected areas may therefore leave important habitats and movement routes unprotected.

A landscape-level approach should include:

1. Identifying critical habitats both inside and outside protected areas.
2. Maintaining ecological connectivity between habitat patches.
3. Preventing unnecessary conversion of valuable scrublands and grasslands.
4. Reducing road mortality and threats from free-ranging dogs.
5. Involving farmers, local communities and forest officials in monitoring and protection.

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8. Way Forward

Tamil Nadu's initiative can be strengthened through long-term population monitoring, transparent reporting of survey results and targeted habitat restoration. Conservation priorities should be based on field evidence and the specific ecological needs of each species.

Community awareness must accompany enforcement against illegal hunting. Interdepartmental coordination is also important because these animals frequently inhabit landscapes shared by wildlife, agriculture and human settlements.

Conclusion

The Bengal fox and golden jackal demonstrate why biodiversity conservation must extend beyond charismatic megafauna. Protecting these carnivores can help conserve open habitats, maintain ecological processes and improve understanding of wildlife outside protected areas. **Scientific monitoring, habitat protection and**

community participation together provide the foundation for effective, long-term conservation.

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