Musik in Bayern
ISSN: 0937-583x Volume 90, Issue 11 (Nov -2025)
https://musikinbayern.com DOI https://doi.org/10.15463/gfbm-mib-2025-524

Natural Heritage of Jhalana Leopard Safari: A Flora and Fauna Survey

Jyoti Chaturvedi[1], Chetna Sharma[2], Arun Kumar Singh[3], Anita Dhaka[4], Gyanendra Singh[5], Reena Kumari[6], Shakuntala Kumari[7]and Soniya Kumawat[8]

Department of Zoology, Jaipur National University, Jaipur, Rajasthan- 302017, India [1,3]

Department of Zoology, Kanoria P. G.Mahavidyalaya, Jaipur, Rajasthan- 302004, India [2]

Department of Botany, Jaipur National University, Jaipur, Rajasthan- 302017, India [4]

Department of Animal Husbandry & Dairy, Motherhood University, Roorkee, Uttarakhand- 247661, India[5]

Department of Botany, Career Mahavidyalaya, Durana, Jhunjhunu, Rajasthan- 333041, India [6]

Department of Botany, Sri Balaji P. G. Mahavidyalaya, Jaipur, Rajasthan- 302012, India [7]

Department of Zoology, University of Technology, Jaipur, Rajasthan- 303903, India [8]

(**Corresponding Author:** Dr. Arun Kumar Singh)

(Email: aksingh03091980@gmail.com)

To Cite this Article
Jyoti Chaturvedi, Chetna Sharma, Arun Kumar Singh, Anita Dhaka, Gyanendra Singh, Reena Kumari, Shakuntala Kumari, Soniya Kumawat. **Natural Heritage of Jhalana Leopard Safari: A Flora and Fauna Survey.** *Musik In Bayern, Vol. 90, Issue 11, Nov 2025, pp 434-458*

Article Info
Received: 08-08-2025 Revised: 14-09-2025 Accepted: 17-10-2025 Published: 28-11-2025

Abstract

Biodiversity, encompassing all forms of life including plants, animals, and microorganisms across terrestrial, aquatic, and marine ecosystems, is a fundamental indicator of ecological health. Measured primarily in terms of species diversity, it reflects the richness and complexity of different habitats, from dense forests to urban landscapes. Each species-whether domesticated or wild-plays a unique role in sustaining ecological processes such as nutrient cycling, hydrological regulation, and food chain stability. For rural communities, biodiversity also serves as a direct source of food, medicine, shelter, and livelihood, while offering immense cultural, aesthetic, and recreational value that transcends monetary evaluation. However, increasing threats such as habitat loss, environmental degradation, and bio piracy highlight the urgent need to recognize, document, and conserve local biological resources. This paper emphasizes the importance of understanding biodiversity at the local level, both to appreciate its ecological and socio-economic significance and to ensure its protection for future generations.

Keywords: Natural Heritage, Jhalana Leopard Safari Park, Flora and Fauna Survey.

Introduction

Jhalana Leopard Safari Park, located in Jaipur, Rajasthan, is a renowned urban wildlife habitat that showcases a rich blend of biodiversity within a relatively small protected area. Spread over approximately 23 square kilometers, the park is home to a thriving population of leopards and supports a wide variety of other fauna, including striped hyenas, desert foxes, jackals, jungle cats, and numerous species of reptiles. Equally significant is its diverse flora, ranging from dry deciduous trees like Dhonk (Anogeissuspendula) and Khejri (Prosopis cineraria) to a variety of shrubs, grasses, and medicinal plants that form the foundation of the park's ecosystem.

The park serves not only as an important refuge for wildlife but also as a living laboratory for ecological study and conservation awareness. Its location within the Aravalli hills provides a unique mix of rocky outcrops, scrub forests, and grasslands, offering varied habitats that sustain a rich spectrum of life. A flora and fauna survey of Jhalana Leopard Safari Park is vital to understanding its ecological significance, documenting species diversity, and promoting strategies for sustainable management and preservation of this natural heritage. This study aims to systematically record and analyze the plant and animal species present in the park, thereby contributing to the broader understanding of urban biodiversity conservation.

Biodiversity encompasses the entire variety of living organisms, including plants, animals, and microorganisms, found across terrestrial, aquatic, and marine ecosystems. It is most often measured in terms of biological species, which serve as the fundamental unit—or "currency"- of biodiversity. Species occur in all types of landscapes, though their abundance and variety differ significantly. Forest ecosystems typically support a greater number of species compared to farmlands, semi-urban, or urban areas, and the composition of species also varies across ecosystems and ecological zones.

In any given landscape, species may exist as domesticated crop plants or farm animals, or in their wild forms, forming a complex ecological mosaic. These biological organisms are valuable natural resources for both the present and the future, providing food, medicine, shelter, and opportunities for recreation or aesthetic appreciation. For many rural communities, biodiversity forms the backbone of their livelihoods. Beyond its material benefits, biodiversity has immense cultural, aesthetic, and recreational significance, which cannot be quantified in monetary terms. Understanding biodiversity is therefore essential for ensuring the survival and well-being of future generations.

Countless plants and animals around us play critical roles in maintaining nutrient cycles, regulating the hydrological balance, and sustaining food chains through the ecosystem services they provide—often without our awareness. Recognizing the equal importance of all species is crucial, especially in the face of rising global biopiracy. Greater awareness and documentation of the biological resources in our surroundings is an important step towards protecting them and ensuring the continued health of our ecosystems.

Materials and Methods

Study Area

The study was conducted from November 2023 to November 2024 at Jhalana Leopard Safari Park, located between 26º50′13″ N, 75º50′13″ E at the southern tip and 26º54′05″ N, 75º51′03″ E in the north; and 516 m above sea level (ASL), in the southeast corner of Jaipur city, India (Figure **1**). The Jhalana Leopard Safari Park was declared a reserve forest in 1961 under the Rajasthan Forest Act of 1953, encompassing a total area of 29 km^2. In 2017, it was designated as a leopard reserve. During the 1980s, Acacia tortilisand A. senegalwere planted in the central valley. Most ephemeral streams flow south-westerly, while higher elevations in the north form low, flat hills. Elevation in the plains ranges from 280 m in the south to 530 m in the northeast. The Jhalana Leopard Safari Parklacks defined buffer or core areas, and a 2-m-high wall with a 3-m-high fence separates the forest area from surrounding neighborhoods and villages. A semi-arid tropical dry deciduous forest characterizes the Jhalana Leopard Safari Park. Tourist access is permitted through Jeep safaris on three designated routes. Due to the continuous interface between the forest and human habitats and its recent designation as a forest reserve, human encroachments into the reserve are common, as are wildlife incursions into adjacent villages and urban areas.

Instruments Used:

The instrument used was the Olympus 8×40 DPS Binoculars. Binoculars are a pair of telescopes that are positionednext to each other and adjusted to face the same direction. The most crucial factor is comportment. The device mustpossess ergonomic design for ease of handling. All binoculars possess a pair of two digits that indicate theirspecifications, sometimes preceded by a letter code such as B or GA. The initial figures denote the magnification,typically ranging from 7X to 10X. For general bird watching, smaller magnification binoculars with a power of 7X or8X are typically employed. As the magnification decreases, the image becomes brighter and the field of view becomeswider.

Musik in Bayern
ISSN: 0937-583x Volume 90, Issue 11 (Nov -2025)
https://musikinbayern.com DOI https://doi.org/10.15463/gfbm-mib-2025-524

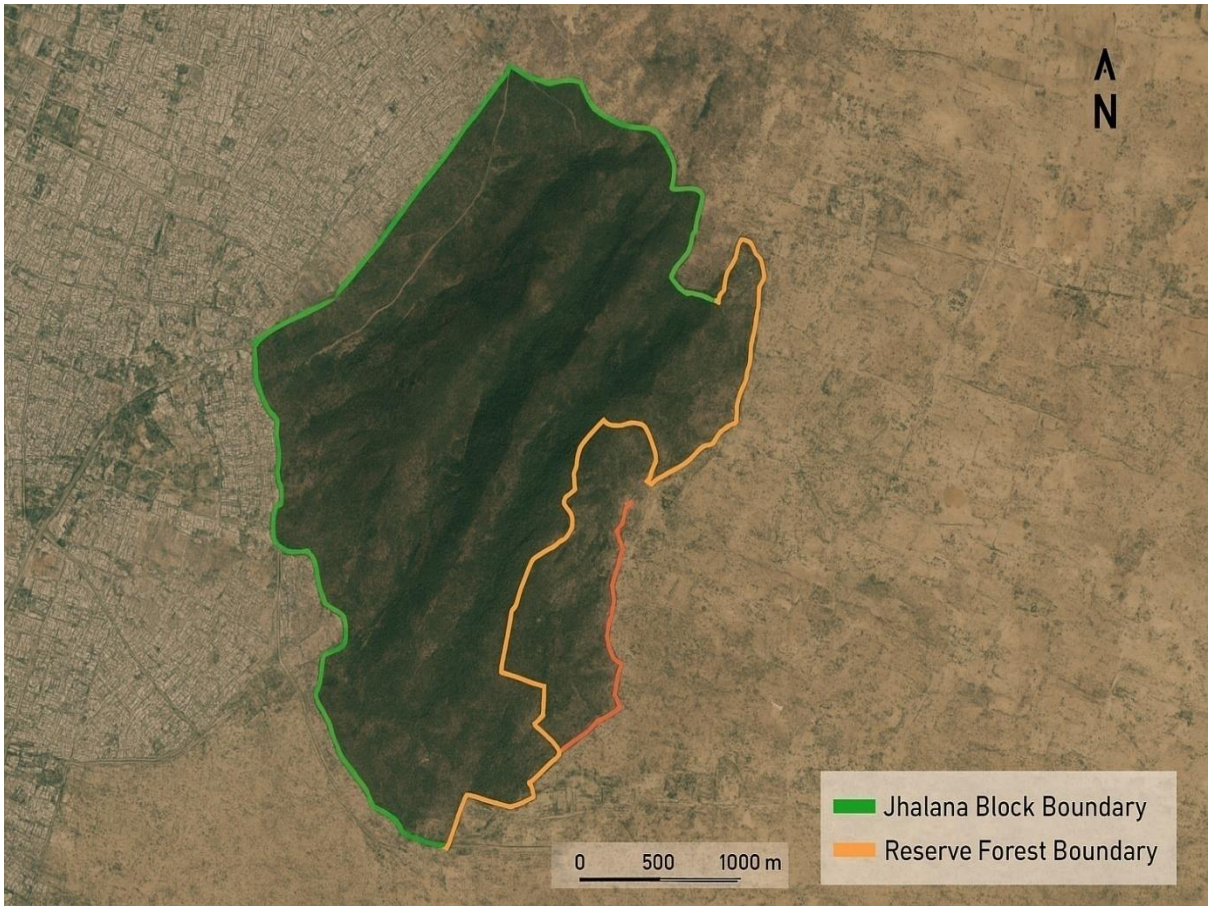

Figure 1: The location of the Jhalana Leopard Safari Park in Rajasthan, India. The red line marks the official boundaries of the Jhalana Leopard Safari Park, and the yellow line marks the fence around the forest areas.

Table 1: Information of Study Area

Name of the Place	Jhalana Leopard Safari
Tehsil	Sanganer
District	Jaipur
State	Rajasthan
Area of the Premise	Approximately 20 square kilometers
Geographical Location	26°53'52.2" N latitude, 75°50'58.6" E longitude
Altitude	~430 meters above sea level
Habitat & Topography	Urban forest; Aravalli hills, rocky and scrub terrain

Methodology

Documenting all forms of life is beyond the scope of the project. Here documentation of only broad groups of floral and faunal diversity has been attempted. To document plants and

animals of the campus format of Peoples Biodiversity Register (PBR) provided by National Biodiversity Authority (NBA) with modification has been followed.

The documentation of species in the present study is based solely on visual observations. The effort has been limited to recording the names of plant and animal species, without any quantitative assessment. For plant documentation, four major categories have been identified based on their utility: ornamental plants, timber-yielding plants, fruit-bearing plants, and medicinal plants. For animals, broad taxonomic groups have been recognized, including mammals, birds, reptiles, and insects.

Regular field surveys were made in the study area during the year 2023 and 2024 in different seasons i.e., rainy, winter andsummer to collect the wild plants. Field visits were madewith the informants for collection of specimens. Identificationof the collected specimens was made with the help of flora of Upper Gangetic plains Duthie (1903-1929), Flora of Indian Desert Bhandari (1990), Flora of Rajasthan-vol. 1-3 Sheety and Singh (1987-93). Ethnobotanical information on wild plants wascollected by interviewing local inhabitants based on astructured questionnaire to collect on local plant names,uses, part used and mode of utilization. In case of medicinalplantsspecies, the respondents were also asked about theplant parts used and the local uses of medicinal plant speciesselected by them as the priority species. All the documentation of species is based on the visual observation. Attempt has been made only to document the names of the plant and animals and not quantify. For documentation of plants, four major categories have been recognised on the utility of plants as ornamentals, timber plants, fruit plants and medicinal plants. For animals broad groups such as mammals, birds, reptiles and insects have been recognized.

Results

1. Floral Diversity:

The Jhalana Leopard Safari Park in Jaipur boasts rich floral diversity, featuring a mix of native and ornamental plants that thrive across its dry deciduous forests, scrublands, and grasslands. The park is home to flowering trees like **Cassia fistula (Golden Shower Tree)** and **Plumeriarubra (Frangipani)**, shrubs such as **Hibiscus rosa-sinensis** and **Ixoracoccinea**, climbers like **Bougainvillea glabra**, and herbs including **Amaranthus tricolor**. These plants not only enhance the visual appeal of the landscape with their vibrant colors and fragrances but also provide vital ecological services by attracting pollinators, offering fruits and seeds for birds and small mammals, and supporting insects. This diverse flora forms the foundation of the park's ecosystem, sustaining its rich faunal diversity and maintaining ecological balance.

The study came to document nearly 40 species of wild plants of economic uses (table 2). Analysis of taxonomic group of plants revealed that a total of 40 wild plants species belonging to 33 genera and 21 families are documented (figure 2). Analysis of habits (figure 3) of plants documented shows that trees share the largest proportion with 23 species (57%), Many wild plants are used by the local inhabitants for their day to day requirements of fodder, fuel, timber, agricultural tools and miscellaneous items. Among the 40 species, 26 are

followed by shrub with 6 species (15%), along with herb with 7 species (18%) and climber with 4 species (10%) used as medicinal, 15 species are edible, 6 species used as fodder, 5 species used as fuel and 1 species is used a timber (figure 4).

Table 2: List of Wild Plants of the Study Area

S. No.	Botanical Name	Local Name	Family	Habit	Uses
1	Acacia catechu Willd.	Khair	Mimosaceae	Tree	Wood – edible; bark – astringent, bactericide, skin infections; leaves and young shoots as fodder
2	Acacia leucophloea Roxb.	Ronjh	Mimosaceae	Tree	Leaves as fodder
3	Acacia nilotica Linn.	Babool	Mimosaceae	Tree	Bark and leaf paste for healing wounds and cuts; fuelwood
4	Acacia senegal Willd.	Khairi	Mimosaceae	Tree	Seeds – edible
5	Acacia tortilis (Forsk.) Hayne	IsrailiBabool	Mimosaceae	Tree	Used as fuelwood
6	Anogeissus latifolia Wall.	Dhavada	Combretaceae	Tree	Bark – antifungal, antibacterial, anti-inflammatory; wood as timber and fuel; leaves and young shoots as fodder
7	Anogeissus pendula Endgew	Dhok	Combretaceae	Tree	Used as fuelwood; leaves and young shoots as fodder
8	Azadirachta indica L.	Neem	Meliaceae	Tree	Fruits – edible; leaf, flower, bark, stem – antioxidant, antifungal, antidiabetic, antibacterial,

					blood purification
9	Bauhinia racemosa Lamk.	Jhinjha	Caesalpiniaceae	Tree	Young flower buds as vegetable; good fodder
10	Bombax ceiba Linn.	Samel	Malvaceae	Tree	Young fruits – edible
11	Boswellia serrata Roxb.	Salar	Bursaraceae	Tree	Bark, stem, leaves, flowers – anti-arthritic, used in cold and fever, anti-inflammatory, antifungal
12	Diospyros melanoxylon Roxb.	Tendu	Ebenaceae	Tree	Leaves and young shoot as fodder
13	Emblica officinalis Gaerth	Awla	Euphorbiaceae	Tree	Fruits – edible, medicinal – used in diabetes, cardiac complications, antioxidant, dental treatment
14	Holoptelia integrifolia Roxb.	Churel, Papdi	Ulmaceae	Tree	Fruits – edible; leaves – antioxidant, antidiabetic
15	Mitragyna parviflora Roxb.	Korth Kadam	Rubiaceae	Tree	Leaves – anti-inflammatory, used in liver disorders
16	Moringa oleifera Lamk.	Shaijana	Moringaceae	Tree	Fruits – edible; roots and stem used in swellings, tumours, and rheumatic pain
17	Prosopis cineraria Linn.	Khajedi	Mimosaceae	Tree	Leaves, seeds, fruits – used as

					vegetable; flowers, bark, leaves – antidiabetic, antibacterial, used in bronchitis, asthma, dysentery; fuelwood
18	Prosopis juliflora Sw. DC.	Vilayati Babool	Mimosaceae	Tree	Used as fuelwood; good fodder
19	Salvadora persica Linn.	Jal	Salvadoraceae	Tree	Bark and seeds – gastric troubles, skin infections
20	Sapindus emarginatus Vahl	Aritha	Sapindaceae	Tree	Fruits used in treatment of asthma, dysentery, and during childbirth
21	Tamarindus indica Linn.	Imli	Leguminosae	Tree	Fruits – edible
22	Tecomella undulata G. Don	Rohida	Bignoniaceae	Tree	Roots used in treatment of leucorrhoea in females; bark cures eczema and eruptions
23	Wrightia tinctoria Roxb. R.Br.	Khirani	Apocynaceae	Tree	Flower – antibacterial, antioxidant
24	Argemone mexicana Linn.	Satyanashi	Papaveraceae	Herb	Whole plant – antimicrobial, antidiabetic, antioxidant
25	Cannabis sativa Linn.	Bhang	Papilionaceae	Herb	Aerial part – used for ringworm, analgesic, sedative
26	Evolvulus alsinoides Linn.	Shankh Pushpi	Convolvulaceae	Herb	Whole plant for treatment of

					fever, neurological disorders
27	Achyranthes aspera Linn.	Onga	Amaranthaceae	Herb	Whole plant – antiparasitic, anticancer, anti-inflammatory, anti-depressant
28	Ocimum americanum L.	Van Tulsi	Lamiaceae	Herb	Leaves for fever, cough, and cold
29	Solanum nigrum Linn.	Makoi	Solanaceae	Herb	Fruits – edible
30	Xanthium strumarium Linn.	Aadhashishi	Compositae	Herb	Leaves and roots – anodyne, antirheumatic, appetizer, diuretic
31	Cactus opuntia Linn.	Thapla, Thor	Cactaceae	Shrub	Fruits – edible
32	Adhatoda vasica Nees	Adusa	Acanthaceae	Shrub	Leaves, flowers – used for bronchitis and asthma
33	Calotropis procera Ait. R.Br.	Ankda	Asclepiadaceae	Shrub	Leaves – used for scorpion bite
34	Rhus mysorensis Don.	Darsan, Dhansale	Anacardiaceae	Shrub	Fruits – edible
35	Tridax procumbens Linn.	Molya, Mahendi	Compositae	Shrub	Leaves – antifungal, anticoagulant, insect repellent
36	Zizyphus nummularia Wt. & Arn	Jhadbair	Rhamnaceae	Shrub	Fruits – edible; Leaves – used in treatment of various skin diseases
37	Cocculus hirsutus Linn.	Peelwani	Menispermaceae	Climber	Leaves to treat skin infections
38	Cuscuta reflexa Roxb.	Amarbail	Convolvulaceae	Climber	Whole plant for urinary disorders, cough,

					muscle pain, and as blood purifier
39	Abrus precatorius Linn.	Rati, Chirmi	Papilionaceae	Climber	Seed powder is given to cattle to treat constipation
40	Tinospora cordifolia Thunb. Miers	Neem Giloy	Menispermaceae	Climber	Stem used for diabetes, rhinitis, and to boost immune system

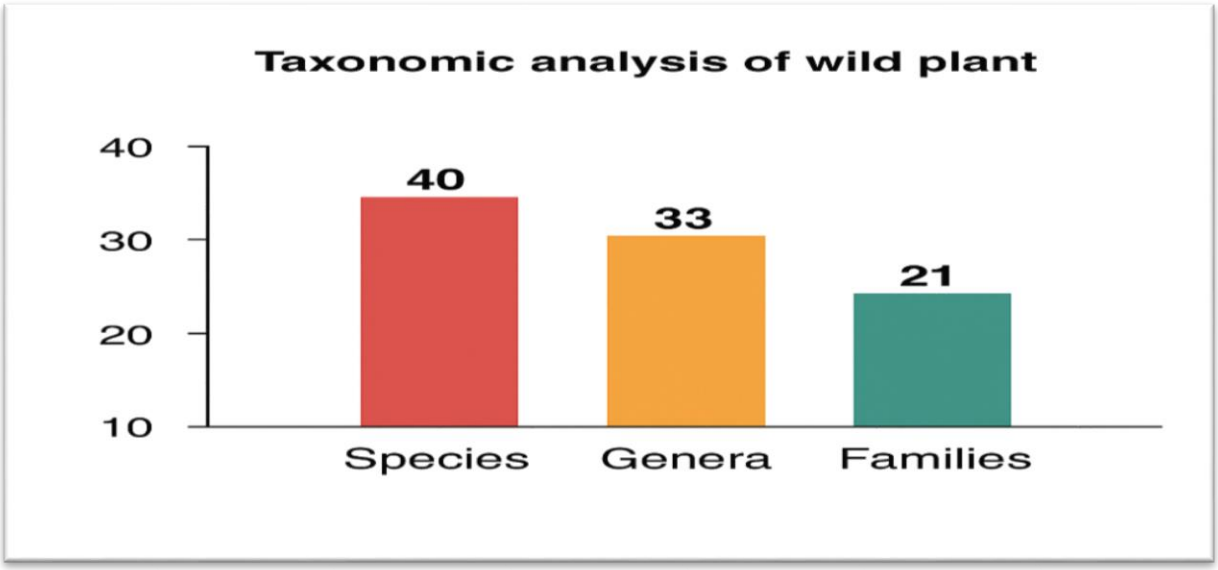

Figure 2: Taxonomic Analysis of Wild Plants

Habit wise Distribution of Wild Plants of Study Area

Musik in Bayern
ISSN: 0937-583x Volume 90, Issue 11 (Nov -2025)
https://musikinbayern.com DOI https://doi.org/10.15463/gfbm-mib-2025-524

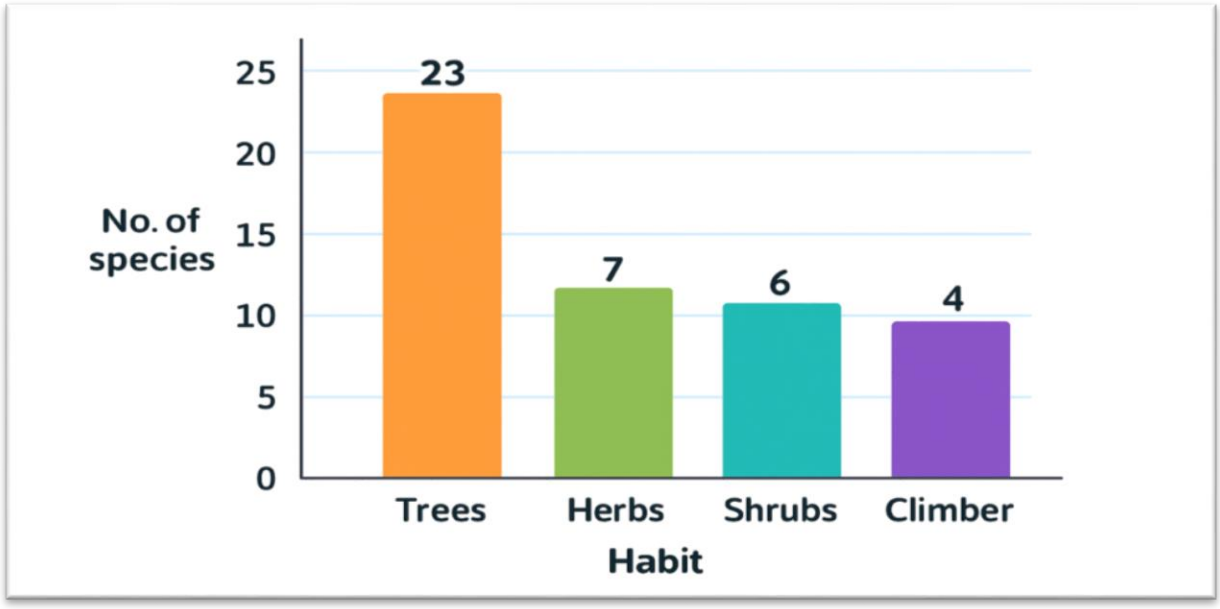

Figure 3: Habit wise Distribution of Wild Plants of Study Area

Multipurpose Utility of Wild Plants in Study Area

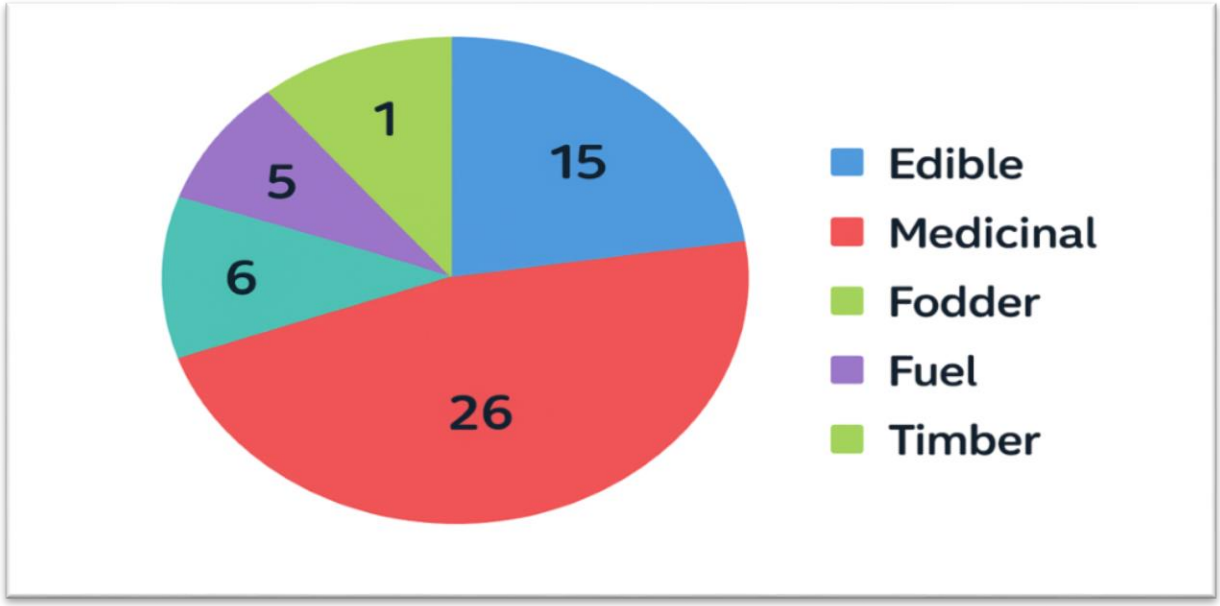

Figure 4: Multipurpose Utility of Wild Plants in Study Area

2. Faunal Diversity:

The Jhalana Leopard Safari Park, Jaipur hosts diverse fauna across mammals, birds, reptiles, and insects. Apex predators like leopards, smaller carnivores, and herbivores such as sambar and nilgai coexist with over 200 bird species, snakes, lizards, turtles, and various insects. These

species maintain ecological balance through predator-prey interactions, pollination, seed dispersal, and nutrient cycling, making Jhalana a key biodiversity hotspot.

Mammals: The Jhalana Leopard Safari Park, Jaipur hosts over 30 mammal species, including apex predators like leopards, smaller carnivores such as jungle cats and jackals, and herbivores like sambar, chital, nilgai, and wild boar. Other mammals like hares, porcupines, and rodents add to ecosystem complexity, playing key roles in predator-prey balance, seed dispersal, and habitat maintenance.

Table 3: **Mammals of the Jhalana Leopard Safari Park, Jaipur**

S. No.	Local / Common Name	Scientific Name	Order	IUCN Status	Feeding Habits
1	Leopard	*Panthera pardus fusca*	Carnivora	Vulnerable	Carnivore — large prey (ungulates, deer, etc.)
2	Striped Hyena	*Hyaena hyaena*	Carnivora	Near Threatened	Scavenger / carnivore (carcasses, small animals)
3	Golden Jackal	*Canis aureus*	Carnivora	Least Concern	Omnivore — small mammals, birds, insects, fruit
4	Desert Fox	*Vulpes vulpes pusilla*	Carnivora	Least Concern	Carnivore & insectivore — small prey, insects
5	Jungle Cat	*Felis chaus*	Carnivora	Least Concern	Carnivore — rodents, birds, lizards
6	Desert Cat	*Felis lybica / Felis lybica ornata*	Carnivora	Least Concern	Carnivore — small mammals, birds, reptiles
7	Indian Civet	*Paradoxurus hermaphroditus*	Carnivora	Least Concern	Omnivore — fruits, small vertebrates, insects
8	Small Indian	*Herpestes auropunctatus*	Carnivora	Least Concern	Carnivore / insectivore —

	Mongoose				snakes, insects, small rodents
9	Nilgai (Blue Bull)	*Boselaphus tragocamelus*	Artiodactyla	Least Concern	Herbivore — grasses, leaves, pods
10	Spotted Deer (Chital)	*Axis axis*	Artiodactyla	Least Concern	Herbivore — grass, foliage, fruits
11	Sambar Deer	*Rusa unicolor*	Artiodactyla	Vulnerable	Herbivore — grasses, leaves, sometimes aquatic plants
12	Wild Boar	*Sus scrofa*	Artiodactyla	Least Concern	Omnivore — roots, tubers, small animals, plant material
13	Indian Hare	*Lepus nigricollis*	Lagomorpha	Least Concern	Herbivore — grasses, herbs
14	Hanuman Langur	*Semnopithecus entellus*	Primates	Least Concern	Herbivore / Frugivore — leaves, fruit, flowers
15	Porcupine	*Hystrix indica*	Rodentia	Least Concern	Herbivore — roots, tubers, bark, fruit
16	Indian Palm Civet	*Paradoxurus hermaphroditus*	Carnivora	Least Concern	Omnivore — small animals, fruits, insects
17	Blue Bull (same as Nilgai)	*Boselaphus tragocamelus*	Artiodactyla	Least Concern	Herbivore — grasses, leaves, pods
18	Golden Jackal	*Canis aureus*	Carnivora	Least Concern	Omnivore — small mammals

Birds: The Jhalana Leopard Safari Park in Jaipur is home to more than 200 species of birds, making it a vibrant destination for birdwatchers and nature lovers. Its dry deciduous forests, grasslands, and water bodies attract both resident and migratory birds. Commonly sighted species include peafowl, partridges, doves, woodpeckers, bee-eaters, and rollers, while raptors such as shikras, crested serpent eagles, and owlets add to the park's diversity. Colorful passerines like sunbirds, bulbuls, flycatchers, and drongos are frequently observed, and in winter the park also hosts migratory visitors including wagtails and warblers. This avian

diversity not only enriches the park's ecosystem but also supports ecological functions like pollination, seed dispersal, and insect control.

Table 4: **Birds of the Jhalana Leopard Safari Park, Jaipur**

S. No.	Local / Common Name	Scientific Name	Order	IUCN Status	Feeding Habits / Manners
1	Indian Peafowl	Pavo cristatus	Galliformes	Least Concern	Omnivore — grains, seeds, insects, small reptiles
2	Grey Francolin	Francolinus pondicerianus	Galliformes	Least Concern	Omnivore — seeds, insects, small invertebrates
3	Jungle Bush Quail	Perdicula asiatica	Galliformes	Least Concern	Granivore/Insectivore — seeds and insects
4	Rock Pigeon	Columba livia	Columbiformes	Least Concern	Granivore — seeds, grains, human scraps
5	Eurasian Collared-Dove	Streptopelia decaocto	Columbiformes	Least Concern	Granivore — seeds, grains, fruits
6	Laughing Dove	Spilopelia senegalensis	Columbiformes	Least Concern	Granivore — seeds, grains
7	Little Grebe	Tachybaptus ruficollis	Podicipediformes	Least Concern	Piscivore/Insectivore — small fish, aquatic insects
8	Black Kite	Milvus migrans	Accipitriformes	Least Concern	Scavenger/Carnivore — carrion, small vertebrates, food scraps
9	White-eyed Buzzard	Butastur teesa	Accipitriformes	Least Concern	Carnivore — small mammals, reptiles, large insects
10	Shikra	Accipiter badius	Accipitriformes	Least Concern	Carnivore — small birds, rodents, lizards
11	Eurasian Sparrowhawk	Accipiter nisus	Accipitriformes	Least Concern	Carnivore — small birds
12	Common Kestrel	Falco tinnunculus	Falconiformes	Least Concern	Carnivore — insects, small mammals, reptiles
13	Peregrine Falcon	Falco peregrinus	Falconiformes	Least Concern	Carnivore — medium-sized birds, sometimes bats
14	Oriental Honey Buzzard	Pernis ptilorhynchus	Accipitriformes	Least Concern	Omnivore — mainly wasp/bee larvae, also small vertebrates
15	Egyptian Vulture	Neophron percnopterus	Accipitriformes	Endangered	Scavenger — carrion, bone fragments, eggs

16	Long-billed Vulture / Indian Vulture	Gyps indicus	Accipitriformes	Critically Endangered	Scavenger — carrion
17	White-rumped Vulture	Gyps bengalensis	Accipitriformes	Critically Endangered	Scavenger — carrion
18	Red-headed Vulture	Sarcogyps calvus	Accipitriformes	Critically Endangered	Scavenger — carrion
19	Crested Serpent Eagle	Spilornis cheela	Accipitriformes	Least Concern	Carnivore — snakes, lizards, small mammals
20	Osprey	Pandion haliaetus	Accipitriformes	Least Concern	Piscivore — fish (seen near water bodies)
21	Indian Roller	Coracias benghalensis	Coraciiformes	Least Concern	Insectivore — large insects, small vertebrates
22	White-throated Kingfisher	Halcyon smyrnensis	Coraciiformes	Least Concern	Carnivore — fish, frogs, insects, small reptiles
23	Pied Kingfisher	Ceryle rudis	Coraciiformes	Least Concern	Piscivore — fish
24	Common Kingfisher	Alcedo atthis	Coraciiformes	Least Concern	Piscivore — small fish
25	Hoopoe	Upupa epops	Bucerotiformes	Least Concern	Insectivore — ground insects, larvae
26	Indian Grey Hornbill	Ocyceros birostris	Bucerotiformes	Least Concern	Frugivore/omnivore — figs, fruits, insects
27	Coppersmith Barbet	Psilopogon haemacephala	Piciformes	Least Concern	Frugivore/insectivore — fruits (figs), insects
28	Brown-headed Barbet	Psilopogon zeylanicus	Piciformes	Least Concern	Frugivore — fruits, figs, insects
29	Common Sandpiper	Actitis hypoleucos	Charadriiformes	Least Concern	Insectivore/piscivore — aquatic insects, small fish
30	Little Stint	Calidris minuta	Charadriiformes	Least Concern	Invertebrate feeder — small aquatic invertebrates
31	Little Ringed Plover	Charadrius dubius	Charadriiformes	Least Concern	Insectivore — aquatic and shoreline invertebrates
32	Black-headed Gull	Chroicocephalus ridibundus	Charadriiformes	Least Concern	Omnivore — fish, invertebrates, human food scraps
33	River Tern	Sterna aurantia	Charadriiformes	Near Threatened	Piscivore — small fish

34	Little Cormorant	Microcarbo niger	Suliformes	Least Concern	Piscivore — fish
35	Indian Cormorant	Phalacrocorax fuscicollis	Suliformes	Least Concern	Piscivore — fish
36	Spot-billed Pelican	Pelecanus philippensis	Pelecaniformes	Near Threatened	Piscivore — fish (in flocks in wetlands)
37	Painted Stork	Mycteria leucocephala	Ciconiiformes	Near Threatened	Piscivore — fish, amphibians
38	Asian Open bill	Anastomus oscitans	Ciconiiformes	Least Concern	Molluscivore — snails, aquatic prey
39	Common Teal	Anas crecca	Anseriformes	Least Concern	Herbivore/omnivore — aquatic plants, invertebrates
40	Northern Shoveler	Spatula clypeata	Anseriformes	Least Concern	Filter-feeder — aquatic invertebrates and seeds
41	Garganey	Spatula querquedula	Anseriformes	Least Concern	Omnivore — aquatic invertebrates, seeds
42	Ruddy Shelduck	Tadorna ferruginea	Anseriformes	Least Concern	Herbivore/omnivore — plants, small aquatic animals
43	Spot-billed Duck	Anas poecilorhyncha	Anseriformes	Least Concern	Omnivore — aquatic plants, invertebrates
44	Little Egret	Egretta garzetta	Pelecaniformes	Least Concern	Piscivore/Insectivore — fish, amphibians, insects
45	Cattle Egret	Bubulcus ibis	Pelecaniformes	Least Concern	Insectivore — insects stirred up by cattle
46	Great Egret	Ardea alba	Pelecaniformes	Least Concern	Piscivore — fish, amphibians
47	Grey Heron	Ardea cinerea	Pelecaniformes	Least Concern	Piscivore — fish, amphibians, crustaceans
48	Indian Pond Heron	Ardeola grayii	Pelecaniformes	Least Concern	Piscivore/Insectivore — fish, insects
49	Night Heron (Black-crowned)	Nycticorax nycticorax	Pelecaniformes	Least Concern	Carnivore — fish, crustaceans, insects
50	Purple Heron	Ardea purpurea	Pelecaniformes	Least Concern	Piscivore — fish, amphibians
51	Grey-headed Lapwing	Vanellus cinereus	Charadriiformes	Least Concern	Omnivore — invertebrates on ground
52	Red-wattled Lapwing	Vanellus indicus	Charadriiformes	Least Concern	Insectivore — insects, invertebrates
53	Yellow-	Vanellus	Charadriiformes	Near	Insectivore — ground

	wattled Lapwing	malabaricus		Threatened	insects, termites
54	Kentish Plover	Charadrius alexandrinus	Charadriiformes	Least Concern	Invertebrate feeder — small crustaceans, insects
55	Common Sandgrouse	Pterocles exustus	Pterocliformes	Least Concern	Granivore — seeds, dry grasses
56	Painted Sandgrouse	Pterocles indicus	Pterocliformes	Least Concern	Granivore — seeds
57	Indian Peafowl (female/peahen)	Pavo cristatus	Galliformes	Least Concern	Omnivore — seeds, insects, small animals
58	Rose-ringed Parakeet	Psittacula krameri	Psittaciformes	Least Concern	Frugivore/Herbivore — fruits, seeds, buds
59	Alexandrine Parakeet	Psittacula eupatria	Psittaciformes	Near Threatened	Frugivore/Herbivore — seeds, fruits
60	Plum-headed Parakeet	Psittacula cyanocephala	Psittaciformes	Least Concern	Herbivore — fruits, seeds, nuts
61	Indian Scops Owl	Otus bakkamoena	Strigiformes	Least Concern	Carnivore — insects, small mammals, birds
62	Spotted Owlet	Athene brama	Strigiformes	Least Concern	Carnivore — insects, small mammals, reptiles
63	Jungle Owlet	Glaucidium radiatum	Strigiformes	Least Concern	Carnivore — insects, small vertebrates
64	Barn Owl	Tyto alba	Strigiformes	Least Concern	Carnivore — small mammals (rodents)
65	Common Swift	Apus apus	Apodiformes	Least Concern	Insectivore — aerial insects
66	Little Swift	Apus affinis	Apodiformes	Least Concern	Insectivore — aerial insects
67	Indian Palm Swift	Cypsiurus balasiensis	Apodiformes	Least Concern	Insectivore — aerial insects
68	House Swift	Apus nipalensis	Apodiformes	Least Concern	Insectivore — aerial insects
69	Barn Swallow	Hirundo rustica	Passeriformes	Least Concern	Insectivore — aerial insects
70	Wire-tailed Swallow	Hirundo smithii	Passeriformes	Least Concern	Insectivore — aerial insects, over water
71	Red-rumped Swallow	Cecropis daurica	Passeriformes	Least Concern	Insectivore — aerial insects
72	Rock Martin	Ptyonoprogne fuligula	Passeriformes	Least Concern	Insectivore — aerial insects

73	Sand Martin / Bank Swallow	Riparia riparia	Passeriformes	Least Concern	Insectivore — aerial insects over water
74	Pied Bush Chat	Saxicola caprata	Passeriformes	Least Concern	Insectivore — ground and aerial insects
75	Indian Robin	Copsychus fulicatus	Passeriformes	Least Concern	Insectivore — insects, small invertebrates
76	Oriental Magpie-Robin	Copsychus saularis	Passeriformes	Least Concern	Insectivore/omnivore — insects, fruits
77	White-browed Wagtail / Large Pied Wagtail	Motacilla maderaspatensis	Passeriformes	Least Concern	Insectivore — insects picked from ground/near water
78	Grey Wagtail	Motacilla cinerea	Passeriformes	Least Concern	Insectivore — aquatic insects, larvae
79	Yellow Wagtail	Motacilla flava	Passeriformes	Least Concern	Insectivore — ground and aerial insects
80	Blyth's Pipit	Anthus godlewskii	Passeriformes	Least Concern	Insectivore — ground insects, seeds occasionally
81	Olive-backed Pipit	Anthus hodgsoni	Passeriformes	Least Concern	Insectivore — insects, small invertebrates
82	Paddyfield Pipit	Anthus rufulus	Passeriformes	Least Concern	Insectivore/omnivore — insects, seeds
83	Long-billed Pipit	Anthus similis	Passeriformes	Least Concern	Insectivore — ground insects
84	Common Myna	Acridotheres tristis	Passeriformes	Least Concern	Omnivore — fruits, grains, insects, human scraps
85	Bank Myna	Acridotheres ginginianu	Passeriformes	Least Concern	Omnivore — fruits, grains, insects, human scraps

Reptile: The Jhalana Leopard Safari Park in Jaipur hosts about 20–30 reptile species in its forests and rocky habitats. Key species include the Bengal Monitor, Indian Rock Python, and venomous snakes like the Cobra, Krait, Russell ’s viper, and Saw-scaled Viper. Non-venomous snakes such as Rat Snakes, Keelbacks, and smaller Kukri, Wolf, and Blind Snakes are also present. Lizards like the Garden Lizard, Fan-throated Lizard, geckos, skinks, and turtles such as the Indian Flap-shell add to this diversity. These reptiles play crucial roles in controlling insects, rodents, and other prey, helping maintain ecological balance in the park.

Musik in Bayern
ISSN: 0937-583x Volume 90, Issue 11 (Nov -2025)
https://musikinbayern.com DOI https://doi.org/10.15463/gfbm-mib-2025-524

Table 5: Reptiles of the Jhalana Leopard Safari Park, Jaipur

S. No.	Local / Common Name	Scientific Name	Order	IUCN Status (global)	Feeding Habits / Manners
1	Bengal Monitor Lizard	*Varanus bengalensis*	Squamata (Lacertilia)	Near Threatened (NT)	Carnivorous, opportunistic — insects, eggs, small mammals, birds, carrion. Diurnal, basks on rocks.
2	Indian Rock Python	*Python molurus*	Squamata (Serpentes)	Near Threatened (NT)	Large constrictor — takes mammals and birds; nocturnal/crepuscular; near water/rocky refuges.
3	Spectacled Cobra / Indian Cobra	*Naja naja*	Squamata (Serpentes)	Least Concern (LC)	Venomous; diurnal/nocturnal flexible; preys on rodents, frogs, other snakes.
4	Common Krait	*Bungarus caeruleus*	Squamata (Serpentes)	Least Concern (LC)	Highly venomous; nocturnal; feeds on other snakes, small mammals.
5	Russell's Viper	*Daboia russelii*	Squamata (Serpentes)	Least Concern (LC)	Venomous ambush predator; feeds on rodents, frogs, lizards.
6	Saw-scaled Viper	*Echis carinatus*	Squamata (Serpentes)	Least Concern (LC)	Small, highly defensive; feeds on rodents, lizards, insects; crepuscular/nocturnal.
7	Red Sand Boa	*Eryx johnii*	Squamata (Serpentes)	Least Concern	Burrowing constrictor; eats

				(LC)	rodents; fossorial and nocturnal/crepuscular.
8	Oriental Rat Snake / Indian Rat Snake	*Ptyas mucosa*	Squamata (Serpentes)	Least Concern (LC)	Large, active diurnal snake; feeds on rodents, birds, eggs, frogs.
9	Common Wolf Snake	*Lycodon aulicus*	Squamata (Serpentes)	Least Concern (LC)	Small nocturnal predator; eats other small reptiles and geckos.
10	Bronzed/Striped Bronzeback	*Dendrelaphis pictus* (or *Dendrelaphis* spp.)	Squamata (Serpentes)	LC (varies by species)	Diurnal, arboreal; feeds on frogs, lizards, small vertebrates.
11	Checkered Keelback (Pond Snake)	*Xenochrophis piscator* (now *Fowlea piscator*)	Squamata (Serpentes)	Least Concern (LC)	Semi-aquatic; feeds mainly on fish and amphibians near waterholes.
12	Striped Keelback	*Amphiesma/Herpetoreas stolatum*	Squamata (Serpentes)	Least Concern (LC)	Non-venomous; feeds on frogs, toads, small fishes.
13	Kukri Snake (Common)	*Oligodon arnensis* (or related *Oligodon*)	Squamata (Serpentes)	LC / Data varies	Diurnal; feeds on eggs, small reptiles; secretive.
14	Brahminy Blind Snake	*Indotyphlops braminus*	Squamata (Serpentes)	Least Concern (LC)	Small fossorial wormlike snake; eats ants/termite larvae. Often found in urban/anthropogenic soils.
15	Indian Flap-shell Turtle / Ferruginous Softshell (pond)	*Lissemys punctata*	Testudines	Least Concern (LC)	Omnivorous — aquatic plants, small fish, carrion; slow-moving water bodies.
16	Ganges Softshell Turtle (possible)	*Nilssonia gangetica* (or related softshell)	Testudines	Vulnerable (VU)	Highly aquatic carnivore — fish, molluscs; needs larger waterbodies.
17	Indian Star Tortoise	*Geochelone/Chersina elegans*	Testudines	Vulnerable (VU)	Herbivorous — grasses, succulents,

					fruits. Terrestrial; prefers scrub/grassland.
18	House Gecko	*Hemidactylus frenatus* (and *Hemidactylus* spp.)	Squamata (Lacertilia)	Least Concern (LC)	Nocturnal insectivores; commonly associated with human habitations and rocks.
19	Brook's / Wall Gecko	*Hemidactylus brookii* (or similar)	Squamata (Lacertilia)	Least Concern (LC)	Small nocturnal gecko; insectivorous.
20	Oriental Garden Lizard / Changeable Lizard	*Calotes versicolor*	Squamata (Lacertilia)	Least Concern (LC)	Diurnal insectivore; ambushes insects; displays territorial head-bobbing.
21	Fan-throated Lizard	*Sitana ponticeriana* (and allied species)	Squamata (Lacertilia)	Least Concern (LC)	Diurnal insectivore; males display with fan-throat during breeding.
22	Snake-eyed Lizard	*Ophisops elegans*	Squamata (Lacertilia)	Least Concern (LC)	Fast diurnal insectivore on open ground / rocks.
23	Bronze / Spotted Grass Skink	*Eutropis (Mabuya) macularia* (or *E. dissimilis*)	Squamata (Lacertilia)	LC	Diurnal insectivore; lives in grassland/rocky ground.
24	Indian Kangaroo Lizard / Sitana spp. (other species)	*Sitana* spp.	Squamata (Lacertilia)	LC (species vary)	Small insectivorous lizard, ground-dwelling; males show throat fan.
25	Painted Bronzeback / Collared Bronzeback	*Hemorrhois/Platyceps* spp.	Squamata (Serpentes)	LC (varies)	Diurnal, slender racer; feeds on lizards and small vertebrates.
26	Indian File Snake / File Snake (rare)	*Acrochordus/other* spp.	Squamata (Serpentes)	varies	Aquatic snake feeding on fish — *only if* larger water present.
27	Common Skink / Sand Skink	*Scincella* / regional skink spp.	Squamata (Lacertilia)	LC / varies	Small ground/insectivorous skinks found

					under stones/leaf litter.
28	Rat / Small ground snake species (aggregate)	*Trachischium* / small colubrid spp.	Squamata (Serpentes)	varies	Small carnivorous snakes feeding on invertebrates, small vertebrates; secretive.

Insects: The Jhalana Leopard Safari Park in Jaipur hosts a wide variety of insects supported by its dry deciduous forests and scrublands. Prominent among them are butterflies like the Common Mormon, Lime Butterfly, Plain Tiger, and Jezebel, which serve as pollinators. Dragonflies and damselflies help control mosquitoes, while beetles, mantids, and lacewings act as natural pest regulators. Termites and ants aid in decomposition and soil aeration, and honeybees enhance pollination. Together, these insects play vital roles in pollination, pest control, nutrient cycling, and maintaining ecological balance in the park.

Table 6:Insects of the Jhalana Leopard Safari Park, Jaipur

S. No.	Local / Common Name	Scientific Name	Order	IUCN Status	Feeding Habits / Manners
1	Common Mormon	*Papilio polytes*	Lepidoptera	Least Concern	Nectar-feeding butterfly; caterpillars feed on citrus plants.
2	Lime Butterfly	*Papilio demoleus*	Lepidoptera	Least Concern	Adults feed on flower nectar; larvae are pests on citrus trees.
3	Common Tiger (Danaid)	*Danaus genutia*	Lepidoptera	Least Concern	Adults feed on nectar; toxic to predators due to host plant alkaloids.
4	Plain Tiger	*Danaus chrysippus*	Lepidoptera	Least Concern	Migratory butterfly; adults nectar on flowers; larvae feed on milkweed.
5	Common Jezebel	*Delias eucharis*	Lepidoptera	Least Concern	Nectar-feeding butterfly; caterpillars feed on mistletoe.
6	Crimson Rose	*Pachliopta hector*	Lepidoptera	Least Concern	Adults feed on nectar; larvae feed on Aristolochia; unpalatable to predators.
7	Common	*Melanitis leda*	Lepidoptera	Least	Nocturnal butterfly;

	Evening Brown			Concern	feeds on nectar; larvae feed on grasses.
8	Common Dragonfly	*Orthetrum sabina*	Odonata	Not Evaluated	Predatory; feeds on mosquitoes, flies, and other small insects.
9	Ground Beetle	*Carabus* spp.	Coleoptera	Not Evaluated	Nocturnal predators feeding on small invertebrates.
10	Ladybird Beetle	*Coccinella septempunctata*	Coleoptera	Not Evaluated	Beneficial predator feeding on aphids and scale insects.
11	Praying Mantis	*Mantis religiosa*	Mantodea	Not Evaluated	Ambush predator; feeds on grasshoppers, crickets, and other insects.
12	Green Lacewing	*Chrysoperla carnea*	Neuroptera	Not Evaluated	Adults feed on nectar and pollen; larvae are voracious predators of aphids and mites.
13	Termite (White Ant)	*Odontotermes obesus*	Blattodea	Not Evaluated	Social insect; feeds on cellulose in wood and leaf litter; important decomposer.
14	Honeybee (Indian)	*Apis cerana indica*	Hymenoptera	Not Evaluated	Pollinator species; feeds on nectar and pollen; forms colonies in tree cavities.
15	Ant (Black Ant)	*Camponotus compressus*	Hymenoptera	Not Evaluated	Omnivorous; feeds on honeydew, plant matter, and small insects; important scavenger.

Conclusion:

This study documented the floral and faunal diversity of Jhalana Leopard Safari Park, Jaipur, through year-long seasonal surveys (2023–2024). Using visual observations and a modified People's Biodiversity Register (PBR), the survey recorded 23 medicinal plants, numerous ornamental, timber, and fruit species, over 30 mammals, more than 200 birds, 20–30 reptiles, and diverse insects. These findings highlight the park's significance as a biodiversity hotspot within an urban setting.

The methodology, combining field observations with ethnobotanical interviews, integrated scientific and traditional knowledge, especially on medicinal plant uses. Although quantitative measures were not attempted, the inventory offers a valuable baseline for

ecological research and conservation planning. Results reveal a balanced ecosystem with apex predators, vulnerable herbivores, endangered raptors, and essential pollinators. Despite its small area and urban pressures, Jhalana remains a vital refuge. Future research should adopt quantitative approaches to enhance monitoring and guide effective conservation strategies for long-term biodiversity preservation.

References:

1. Ali, Salim (1941).The Book of Indian Birds, 13th Edn 2002. Bombay Natural History Society (BNHS) Bombay.
2. Ali, S. and Ripley, S.D. (1995). A Pictorial Guide to the Birds of the Indian Subcontinent, (Bombay Natural history society, Mumbai, 1995).
3. Amirthalingam, M. (2016). Sacred groves of India—An overview. *International Journal of Current Research in Biosciences and Plant Biology*, *3*(4), 64–74.
4. Bird identifier: Birds and Wildlife Online at http://www.rspb.org.uk/wildlife/birdidentifier/
5. Champion, H. G., & Seth, S. K. (1968). *A revised survey of forest types of India*. Government of India Press.
6. Grewal, B. and Pfister, O. (2002). A photographic guide to Birds of the Himalayas. New Holland Publishers (UK) Ltd.
7. Grimmett, R., Inskipp, C. and Inskipp, T. (2007). Pocket Guide to the Birds of the Indian Subcontinent. Oxford University Press.
8. Kumar, A. and Kanaujia, A. (2015). Lakh bahosi bird sanctuary: a waterbird abode, *International Journal of Current Research, 7 (07): 18151-18159.*
9. Kumar, A. and Srivastava, M. (2013). The biodiversity at Sandi bird sanctuary, Hardoi with special reference to migratory birds, *Oct. Jour. Ens. Res*., 1(3): 187-196.
10. Malhotra, K. C., Gokhale, Y., Chatterjee, S., &Srivastava, S. (2001). *Cultural and ecological dimensions of sacred groves in India*. Indian National Science Academy & Indira Gandhi RashtriyaManavSangrahalaya.
11. Pandey, D. N. (2003). *Sacred forestry: The case of Rajasthan, India.* Forest Service, India.
12. Shukla, U.N. and Lone, A.A. (2010). Water Birds of Sur Sarovar Bird Sanctuary Agra, Uttar Pradesh, *Research Journal of Agricultural Sciences*, 1(2):135-139.
13. Singh, A. (2014). Sacred groves of Rajasthan. In N. Krishna & M. Amirthalingam (Eds.), *Sacred groves of India: A compendium* (pp. 359–365). C.P.R. Environmental Education Centre.
14. www.mapsofindia.com.

Musik in Bayern
ISSN: 0937-583x Volume 90, Issue 11 (Nov -2025)
https://musikinbayern.com DOI https://doi.org/10.15463/gfbm-mib-2025-524