

Biodiversity Inventory and Audit Report: JSS AHER Campus

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Introduction

JSS Academy of Higher Education & Research (JSS AHER) is a **green campus** that hosts a rich diversity of flora and fauna, with **over 2,400 trees** serving as a habitat for a variety of species. The campus has become a crucial space for biodiversity conservation, hosting numerous bird species, some of which are threatened or near-threatened. This **Biodiversity Inventory and Audit Report** aims to document and provide an overview of the species found on the campus, the ongoing conservation efforts, and the ecological significance of the campus.

Biodiversity Inventory Overview

The biodiversity audit at JSS AHER has revealed an impressive diversity of bird species and tree populations, with significant biological importance in the context of both local and regional ecosystems. The data collected provides insights into the flora and fauna that thrive on the campus, as well as measures being taken to ensure their protection and sustainable management.

Bird Species Inventory

The JSS AHER campus hosts a variety of bird species, including **vulnerable** and **near-threatened** species. Below is a summary of notable bird sightings:

1.1 Key Bird Species:

- **Indian Spotted Eagle** (*Aquila hastata*)
 - **Status:** Vulnerable (IUCN Red List)
 - **Size:** 60 cm in length, with a 150 cm wingspan.
 - **Sightings:** Observed regularly on the rooftops of the Medical College building.

Indian spotted eagle:



- **Spotted Owlet** (*Athene brama*)
 - **Status:** Least Concern (IUCN Red List)
 - **Sightings:** Found near tree hollows, often spotted at the FLS parking lot.





- **Indian Gray Hornbill** (*Ocyrocus birostris*)
 - **Status:** Common
 - **Sightings:** Frequently seen in pairs near the FLS parking lot.





- **Brahminy Kite** (*Haliastur indus*)
 - **Status:** Least Concern (IUCN Red List)
 - **Sightings:** Commonly observed around the Medical College, preying on fish and small animals.





- **Black-necked Ibis** (*Threskiornis melanocephalus*)
 - **Status:** Near Threatened (IUCN Red List)
 - **Sightings:** Typically observed near the water holes in front of JSS Dental College, especially during the monsoon.

1.2 Other Notable Bird Species Observed:

- Red-vented Bulbul
 - Purple Sunbird
 - Common Myna
 - Rose-ringed Parakeet
 - Laughing Dove
 - Common Kingfisher
 - Greater Coucal
 - Oriental Megpin Robin
 - Indian Golden Oriole
 - White-throated Kingfisher
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Tree Species Inventory at JSS AHER Campus

In addition to its bird species, the campus is home to a wide range of tree species, contributing to the ecological health of the environment. The trees not only provide habitat for birds but also support various other wildlife and promote environmental sustainability.

2.1 Tree Species Overview:

- **Morinda coreia** (*Indian Mulberry*): 10 trees
 - Uses: The bark is used for its tonic and antiseptic properties.
- **Roystonea regia** (*Royal Palm*): 67 trees
 - Uses: Primarily for landscape purposes.
- **Pithecellobium dulce** (*Monkey Pod*): 25 trees
 - Uses: The leaf decoction is used for leprosy and jaundice treatment.
- **Terminalia arjuna** (*White Murdah*): 5 trees
 - Uses: Bark decoction is a cardiac tonic and used for reducing high blood pressure.
- **Pongamia pinnata** (*Hongay Oil Tree*): 64 trees
 - Uses: Bark cooked with rice is used for uterine diseases and rheumatism.
- **Azadirachta indica** (*Neem*): 52 trees
 - Uses: The bark powder is used for treating septic wounds, and the oil is applied for healing wounds and ulcers.
- **Swietenia mahagoni** (*West Indian Mahogany*): 14 trees
 - Uses: Timber for construction.
- **Ficus benghalensis** (*Banyan Tree*): 2 trees
 - Uses: The root and bark are used as a tonic and healer for cracked feet.

2.2 Other Notable Tree Species:

- **Ficus racemosa** (*Cluster Fig*): 2 trees
- **Cocos nucifera** (*Coconut*): 70 trees
- **Cinnamomum camphora** (*Camphor*): 5 trees
- **Santalum album** (*Sandalwood*): 8 trees

- **Tectona grandis** (*Teak*): 1450 trees
- **Acacia catechu** (*Red Cutch*): 1 tree

Total Tree Count at JSS AHER: 2397 trees

- **Distribution:** 328 trees under 10 years, 475 trees between 10-20 years, 1575 trees between 20-50 years, and 14 trees over 50 years old.
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Tree Species Inventory at JSS College of Pharmacy Campus, Ooty

The JSS College of Pharmacy campus in Ooty also hosts a variety of tree species, contributing to the region's biodiversity and ecological stability.

3.1 Tree Species Overview:

- **Acacia:** 39 trees
- **Cypress:** 10 trees
- **Eucalyptus:** 21 trees
- **Jacaranda:** 6 trees
- **Silver Oak:** 17 trees
- **Plums:** 31 trees
- **Bottle Brush:** 19 trees
- **Jungle Wood:** 75 trees

Total Tree Count at JSS College of Pharmacy, Ooty: 249 trees

4. Conservation Efforts and Habitat Protection

To protect and enhance the biodiversity of the JSS AHER and JSS College of Pharmacy campuses, several conservation efforts have been implemented:

- **Native Tree Planting:** Annual tree planting initiatives are carried out to introduce and sustain native species, thereby maintaining healthy habitats for birds and other wildlife.
- **Habitat Restoration:** Eco-restoration projects ensure the continuous rejuvenation of degraded areas, creating supportive environments for wildlife.

- **Protection of Water Sources:** Maintaining water bodies on campus, which support species like the **Black-necked Ibis**, contributes to the overall health of the ecosystem.
 - **Sustainable Landscape Practices:** The university employs sustainable landscaping practices to create natural habitats and reduce human impact on local ecosystems.
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Conclusion

The biodiversity inventory audit of JSS AHER and JSS College of Pharmacy campuses highlights the rich and diverse ecosystems supported by our green initiatives. With a variety of bird species, both common and rare, and a wide array of tree species, the campuses serve as important hubs for biodiversity conservation. Through ongoing conservation programs and habitat protection efforts, JSS AHER continues to play a significant role in preserving local ecosystems.
