









# Institution's Innovation Council Saurashtra University Rajkot

## The Study Tour To "Satpura National Park and Sanctuary: Pachmarhi Cantt"

18<sup>th</sup> to 25<sup>th</sup> February

At Satpura National Park and Sanctuary: Pachmarhi Cantt Madhya Pradesh

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### Saurashtra University – IIC

The university is dedicated to instruction, research, and extending knowledge to the public (public service). Ministry of Education (MoE), Govt. of India has established 'MoE's Innovation Cell (MIC)' to systematically foster the culture of Innovation among all Higher Education Institutions (HEIs). The primary mandate of MIC is to encourage, inspire and nurture young students by supporting them to work with new ideas and transform them into prototypes while they are informative years. Saurashtra University is one the Organization that have constituted the IIC to foster the vision of MoE and be a part for the promotion and development of innovation ecosystem.

#### **Event Schedule**

Day 1: February 18, 2024	<ul> <li>Departure from Rajkot.</li> <li>Board Veraval-Jabalpur Express.</li> <li>Travel to Pipariya</li> </ul>
Day 2: February 19, 2024	<ul> <li>Arrival at Pipariya.</li> <li>Initiate journey to Pachmarhi.</li> <li>Witness dense deciduous ecosystem at Denwa Point.</li> <li>Explore Jatashanker Cave.</li> <li>Visit Medicinal Plants Garden and herbal medicine industries.</li> </ul>
Day 3: February 20, 2024	<ul> <li>Ecological Nature Trek.</li> <li>Photography for biodiversity studies around Banshree Vihar and Patharchata.</li> <li>Explore dry deciduous forest ecosystem and wetland ecosystem.</li> <li>Conduct water and soil sampling.</li> </ul>
Day 4: February 21, 2024	<ul> <li>Visit dry deciduous forest ecosystem around Chauragarh.</li> <li>Learn about plant-animal-microbe interactions.</li> <li>Participate in lectures by forest guides and faculties.</li> </ul>
Day 5: February 22, 2024	<ul> <li>Visit horticulture firm and garden of Satpura Biological Reserve.</li> <li>Attend lectures by garden authorities.</li> <li>Visit Bee Falls and Silk Research Institute.</li> <li>Comprehensive lecture by senior scientist from the institute.</li> </ul>
Day 6: February 23, 2024	<ul> <li>Explore dense forest near Silver Falls and Apsara Vihar.</li> <li>Study deciduous dense forest, wetland, and dry grassland ecosystems.</li> <li>Conclude field studies.</li> </ul>
Day 7: February 24, 2024	Return journey from Pachmarhi to Pipariya.
Day 8: February 25, 2024	Return from Pipariya to Rajkot.

#### **Brief about Event**

The Department of Bioscience, in collaboration with IIC Saurashtra University and SUSEC, was organized A Study tour to Satpura National Park and Sanctuary: Pachmarhi Cantt, Madhya Pradesh on 18<sup>th</sup> to 25<sup>th</sup> February, 2024.

The M.Sc. Semester Four study tour took place from February 18 to 25, 2024. It encompassed three main components: studies on biodiversity, ecological fieldwork, and a nature eco-trek in and around Pachmarhi Cantt, Madhya Pradesh. Twenty-five students from M.Sc. programs in Zoology and Biotechnology, along with two faculty members and three staff members, participated in this tour.

The tour commenced from Rajkot on the 18<sup>th</sup> of February when the entire team boarded the Veraval-Jabalpur Express and reached Pipariya, the nearest railhead for Pachmarhi, on the mid-morning of the 19th of February. The team boarded three vehicles and initiated the journey through the Ghat section, reaching Pachmarhi by mid-noon, covering a distance of 52 km through the dense Sal tree forest in the undulating hills of the Ghat section. In the middle, the students witnessed the dense deciduous ecosystem of the Satpura Hills at Denwa Point, where the Denwa River flows 370 ft down a gorge. What a scene it was! What a way to start an educational tour. After reaching Pachmarhi, the team engaged in the first local fieldwork: nature walked around Jatashanker Cave, ravine exploration, and visited to the Medicinal Plants Garden and local forest-based herbal medicine industries. Water and soil sampling were conducted here.

On the 20th of February, the team undertook an Ecological Nature Trek, conducting photography for biodiversity studies around Banshree Vihar and Patharchata, exploring the dry deciduous forest ecosystem and wetland ecosystem guided by two forest guides. Animals such as beetles, insects, fishes, giant squirrels, monkeys, various kinds of lizards, Indian Gaur, deer, leopards, and tigers are frequently observed in this area. Fresh pugmarks of various animals, including leopards and tigers, were observed. A leopard was seen eating its kill (a monkey) near the flowing ravine. Water and soil sampling were conducted here. The visited ecosystems were thoroughly studied, and in-situ lectures were presented by both the faculties and the accompanying forest guides.

On the 21st of February, the team visited the dry deciduous forest ecosystem around Chauragarh, where plant-animal-microbe interactions were explained by the forest guides and accompanying faculties. On the 22nd of February, the team visited the famous horticulture firm and garden of Satpura Biological Reserve, near Pandav Gufa. Appropriate lectures were conducted by the garden authorities. The teams also visited the Bee Falls and the Silk Research Institute of the Indian Silk Board, where a comprehensive lecture was delivered by a senior scientist from the institute.

On the last day, 23rd February, the team visited the dense forest near Silver Falls and Apsara Vihar, studying the deciduous dense forest ecosystem, wetland ecosystem, and dry grassland ecosystem spanning over three mountains. Throughout the entire tour, students became familiar with different ecosystems, their flora and fauna, and the interactions between different habitats and their animal populations. It was a tremendous boon for the participating students' knowledge about how different ecosystems function. On the 24th of February, the team returned from Pachmarhi to Pipariya, and on the 25th, they returned to Rajkot.

### **Key Points**

During the session, below mentioned points were discussed:

- Visited Denwa point, Jatashanker cave, medicinal plants garden.
- Activities: ecological nature trek, photography, water and soil sampling.
- ➤ Learned plant-animal-microbe interactions, horticulture, biodiversity.
- Visits: Satpura biological reserve, bee falls, silk research institute.
- ➤ Dense forest near silver falls & apsara Vihar on February 23 went to see
- > Enhanced understanding of ecosystem functions.
- > Observations of diverse wildlife, fresh pugmarks, leopard sighting.
- In-situ lectures by faculties and forest guides.
- > Immersive educational experience, familiarization with various ecosystems.

#### **Outcome**

The M.Sc. 4th Semester study tour held from February 18 to 25, 2024, was a comprehensive exploration involving 25 students from Zoology and Biotechnology programs, accompanied by two faculty members and three staff members. Beginning in Rajkot, the team journeyed to Pachmarhi via the Veraval-Jabalpur Express, covering 52 km through the dense Sal tree forest. The tour featured diverse activities, including nature walks, ravine exploration, and visits to medicinal plant gardens and herbal medicine industries, with water and soil sampling. Notable experiences included witnessing the Satpura Hills' deciduous ecosystem at Denwa Point and studying ecosystems around Banshree Vihar, Chauragarh, and other locations. The tour provided valuable insights into plant-animal-microbe interactions, horticulture, and biodiversity studies, concluding with a thorough exploration of ecosystems near Silver Falls and Apsara Vihar. The students returned to Rajkot enriched with practical knowledge and a deeper understanding of different habitats.















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