

International Wildlife Conservation Day 2024: Workshop on conservation of wildlife with special reference to Indian Horseshoe Crabs, Chandbali Collage, Odisha

On the occasion of International Wildlife Conservation Day, observed on 4 December 2024, the Earth Crusaders Organisation (ECO), a regional conservation body based in Odisha, organized an event emphasizing the conservation of the ancient and ecologically significant Indian Horseshoe Crab *Tachypleus gigas* (Müller, 1785). The program was conducted in collaboration with Chandbali College, Bhadrak, and supported by the Centre for Research and Conservation of Indian Horseshoe Crabs (CRCIHSC), Fakir Mohan University (FMU), Bhubaneswar, and Anglia Ruskin University, Cambridge. The event included a two-day workshop titled "Conservation of wildlife with special reference to Indian Horseshoe Crabs."

Horseshoe Crabs, often referred to as "living fossils," have persisted for approximately 450 million years. These marine invertebrates are listed as Data Deficient under IUCN Red List, reflecting limited information on their population status and trends. The coastal regions of Bhadrak and Baleswar districts in Odisha serve as critical habitats for this species, making targeted conservation efforts in these areas imperative.

Workshop highlights and key discussions

The event brought together conservationists, researchers, policymakers, and students to address challenges in wildlife conservation with a focus on the Indian Horseshoe Crab. Distinguished experts delivered lectures and facilitated discussions on ecological, scientific, and conservation strategies.

Keynote address: Soubhagya Kumar Sahu, Divisional Forest Officer (DFO), Bhadrak, highlighted the region's rich wildlife resources and outlined the conservation strategies implemented in Odisha's wildlife sanctuaries, national parks, and zoos. He underscored the

ecological significance of the Indian Horseshoe Crab and the need for sustainable conservation measures.

In-situ and ex-situ conservation: Prof. Bisnu Prasad Dash, Adjunct Professor, PG Department of Zoology, FMU, elaborated on both in-situ and ex-situ conservation strategies for the Indian Horseshoe Crab. He emphasized habitat protection and controlled breeding programs as essential measures for sustaining the species.

Biotechnological and bioinformatic approaches: Dr. Bharat Bhusan Patnaik, Deputy Director, CRCIHSC, FMU, discussed the application of biotechnology and bioinformatics in wildlife conservation. He elaborated on their potential in identifying fitness traits and addressing knowledge gaps in the species' biology and ecology.

Research contributions: Researchers and academicians presented studies focusing on the conservation of wildlife resources. Key areas of research included:

- Monitoring avian migration patterns and their ecological significance.
- Utilizing advanced tracking tools to study habitat use, migration corridors, and behavioral ecology of wildlife species.
- Involving local communities and students from diverse disciplines in conservation initiatives.





Community engagement and traditional knowledge: The workshop emphasized the integration of local communities in conservation activities, recognizing their traditional ecological knowledge as a valuable resource. Collaborative efforts between scientists and communities were highlighted as critical for achieving conservation goals.

Panel discussions: The event featured panel discussions with experts who addressed topics such as habitat restoration, sustainable management practices, and community-driven conservation models. These discussions provided actionable recommendations for improving conservation practices for the Indian horseshoe crab.

Outcomes and recommendations: The workshop concluded with a consensus on the following key strategies: Strengthening both in-situ and ex-situ conservation programs for the Indian horseshoe crab. Enhancing research through the use of advanced biotechnological tools and bioinformatics to fill critical knowledge gaps. Employing tracking technologies to monitor species behaviour, habitat use, and migration

Field visit to Bhadrak to watch Horseshoe Crab.
Images © Shreya Pandey.



corridors and promoting youth engagement and multidisciplinary participation in conservation activities.

Conclusion: Aurobindo Samal, Founder and Chairman of ECO, emphasized the importance of youth sensitization toward conserving species of critical ecological and scientific importance. Workshops like these serve as platforms to raise awareness and inspire collective action for conservation, he remarked.

The event reinforced the urgent need for collaborative and innovative strategies to conserve the Indian Horseshoe Crab, a keystone species with profound ecological and scientific value. By integrating research, community participation, and advanced conservation technologies, the long-term survival of this ancient marine invertebrate can be ensured.



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