

Technical Report of National Seminar on Environment and Biodiversity: Issues & Challenges Organized by Department of Biosciences, Himachal Pradesh University During March 20-21, 2025, in collaboration with HPU Biological Society & partly sponsored by RUSA 2.0.

The first day of the National Seminar was commenced on 20th March, 2025 that seminar brought together esteemed academicians, researchers, and students to discuss critical issues concerning biodiversity conservation and environmental sustainability.

The seminar began with the registration of participants. The inaugural session was commenced at Committee Room, Vice Chancellor Secretariat by worshipping Maa Saraswati with ceremonial lamp-lighting and Saraswati Vandana. The session was presided over by **Prof. Sat Prakash Bansal**, Hon'ble Vice Chancellor of Himachal Pradesh University, who joined the event virtually. Other notable personalities present during the inaugural session were **Prof. Rajinder Verma**, Hon'ble Pro Vice Chancellor of Himachal Pradesh University, the **Guest of Honor**, **Prof R C Sobti** (Padma Shri & Former Vice Chancellor of Panjab University and BBAU, Lucknow), the **Key Note Speaker**, **Prof D R Thakur** (Dean Faculty of Life Sciences & Director MMTTC as well as Seminar Director and **Dr. Harinder Singh Banyal**, the Chairperson Department of Biosciences & Convener of Seminar.

Prof R L Jinta (Chief Warden of H P University), Prof Shyam Lal Kaushal (Controller of Examination) and Shri P C Jaswal (Finance Officer), Prof S S Kanwar, Prof R K Negi from University of Delhi also graced the occasion.

The felicitation of guests was followed by a welcome address from **Dr. Harinder Singh Banyal**, the Convener of the seminar.

Prof D R Thakur introduced the theme of seminar to the audiences and highlighted many significant points pertaining to environment, biodiversity, climate change by citing day to day examples.

Prof. Rajinder Verma, the Pro Vice Chancellor of Himachal Pradesh University, appreciated the meticulous organization of the seminar and encouraged for doing further efforts in biodiversity research and conservation.

Prof. Sat Prakash Bansal, Hon'ble Vice Chancellor, delivered the Chief Guest Address virtually, emphasizing the need for urgent changes in the curriculum as per the National Education Policy (NEP). He highlighted the importance of integrating Indian Traditional Knowledge and Environmental Studies at every level of education and instructed to make preparations to introduce GIS Program at Himachal Pradesh University from the next academic session. He said that the event shall be of more value if at least 10 nearby villages shall be adopted by the Department for research & extension purpose.

The Conference Souvenir having more than 100 abstracts was also released. The session concluded with a vote of thanks by Dr Dhiraj Singh Rawat the Organizing Secretary and the rendition of the National Anthem.

After tea break,

The first technical session was commenced in which a keynote address was delivered by **Prof. R C Sobti**, on *Synthetic Biology and Biodiversity Conservation*. His address provided insightful perspectives on the intersection of science, environment, and technology starting right from the formation of proto cell to CRISPR technology. He urged that youth must get sensitized about the hot & burning issues related to nature for its sustainable development.

This was followed by an invited talk on *Conserving of Butterflies in Urban Landscapes* by **Dr. Avtar Kaur Sidhu**, Officer In-charge and scientist F at ZSI Solan, highlighting the ecological importance of butterflies in urban ecosystems and gardening practices.

Post-lunch, two parallel technical sessions were carried out, one in committee room and another in Department of Biosciences.

In Committee Room, the session was chaired by **Prof. Tarana Negi**, and co-chaired by **Dr Savitri**. The rapporteur of session was **Dr Amit Sehgal**

Three expert talks were delivered. First talk was on *Microplastics and Human Health* delivered by **Prof. S S Kanwar** (Sr. Professor, Dept. of Biotechnology, H P University). He sensitized the audience about the ill effects of microplastics by citing lots many examples.

Second talk was delivered by **Prof. R K Negi** (Dept. of Zoology, University of Delhi) on *Mitochondrial DNA Reveals Shallow Population Genetic Structure in Economically Important Cyprinid Fish Labeo Rohita from South and Southeast Asia*. He emphasized on the conservation of fish diversity DNA barcoding and other molecular techniques.

Prof. Sunil Thakur (Dept. of Animal Science, Central University, Dharamsala) delivered third talk on *Pesticides: Impact on Biodiversity and Management Strategies*. He addressed the different types of pesticides in his lecture along with the harmful repercussions of using them in unplanned manner.

Oral presentations were made by the participants at the end.

A parallel session was conducted in seminar hall, Department of Biosciences and chaired by Prof Wamik Azmi and co-chaired by Dr Sushila Negi, where two expert talks were delivered. The rapporteur of session was Dr Nitesh Kumar

The first talk was delivered by **Dr. Pawan Kumar** (Head, Forest Division, HFRI, Shimla) on *Insect Biodiversity of North-Western Indian Himalaya: Economics, Threats, and Conservation Strategies* followed by **Dr. Vaneet Jishtu** (Scientist E, HFRI, Shimla) on *Biodiversity: Issues and Challenges in the Northwest and Western Himalaya*.

Oral presentations were made by the participants at the end.

On second day i.e. today, two parallel technical sessions were organized, one in offline mode in Department of Biosciences and another one on online mode.

In offline mode, three expert talks were delivered. First one was by **Dr Mohar Singh** (Officer In-charge, NBPGR, ICAR, Shimla) on *Mitigating Climate Change Effects on Food and Nutritional Security: Role of Genetic Resources*, followed by **Dr P C Pathania** (Scientist E from ZSI Solan who spoke upon *Environmental Issues and Challenges Threatening Lepidoptera Diversity*. Third talk on *Environment & Biodiversity* was delivered by **Prof S P Bhardwaj** (Y S Parmar University of Horticulture & Forestry, Solan).

Oral presentations were made by the participants at the end. The session was chaired by Prof S S Kanwar and co-chaired by Dr Mohar Singh. The rapporteur was Dr Neelam Thakur

In virtual mode, two expert talks were delivered, first one by **Prof Alka** from University of Lucknow and second one by **Dr Onkar Singh** from Punjabi University, Patiala. The presentations were made by the participants that were evaluated by the chairperson of session Dr Suresh Kumar from Department of Biosciences. Oral presentations were made by the participants at the end. The virtual session was chaired by Dr Suresh Kumar and moderated by me.

One poster session was there in which 16 posters were presented by the participants. The chairperson of poster session was Prof Reena Gupta, and session was co-chaired by Dr Joginder Rilta & Dr Vikul Kumar.

In nutshell, during two days, one key note address, 11 invited talks, and 35 oral/poster presentations were made in 7 different technical sessions. That is end of technical report of the seminar.

Jai Bharat

Jai Himachal

Jai HPU


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