VISIT TO H.P. POLLUTION CONTROL BOARD OFFICE NEW SHIMLA

Date: August 6, 2025

As part of experiential learning, a group of students from St. Bede's College visited the Himachal Pradesh Pollution Control Board, New Shimla on August 6, 2025.The visit was organized to provide students with practical exposure to pollution monitoring methods and to assess the quality of water samples collected from different locations of Shimla in order to determine their suitability for human consumption.

Objectives

- To understand the working of the Himachal Pradesh Pollution Control Board in monitoring water quality.
- To gain practical exposure to laboratory techniques for testing water samples.
- To learn about key parameters of water quality assessment such as pH, turbidity, Chemical Oxygen Demand (COD), and Biological Oxygen Demand (BOD).
- To connect theoretical knowledge of environmental science with hands-on laboratory practices.
- To analyse water samples from different locations in Shimla and interpret their quality status.

Description

The students reached the Pollution Control Board office at 10:30 AM, where they received a warm welcome and participated in an interactive session. The resource person introduced them to essential concepts related to water quality, including Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), turbidity, and various other important parameters that determine the health and safety of water. The discussion highlighted how these parameters are crucial for monitoring pollution levels, ensuring environmental sustainability, and safeguarding public health.

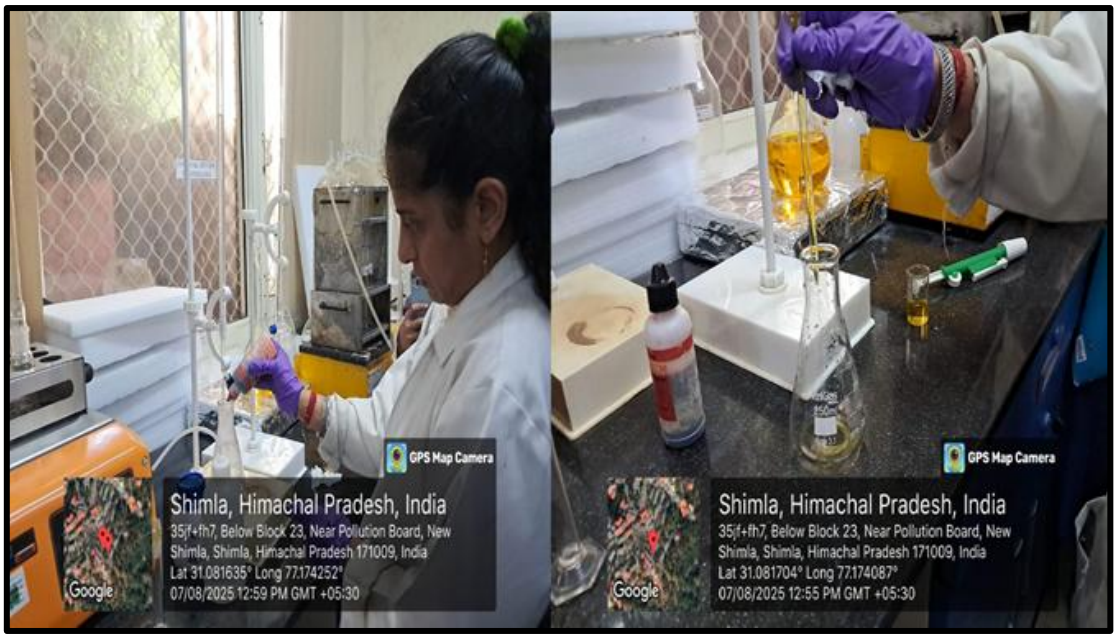
Following the session, the group was taken to the laboratory for a practical exposure to water testing techniques. Here, they not only observed but also actively engaged in performing a series of analyses under the guidance of experts:

pH Analysis: Students tested their own water samples using a digital pH meter. They learned how pH is a vital indicator of the acidity, alkalinity, or neutrality of water, influencing both the chemical stability of water bodies and the survival of aquatic organisms. The hands-on experience enabled them to understand how pH affects biological processes, corrosion potential in pipelines, and the usability of water for domestic and industrial purposes.

Turbidity Analysis: Using a turbidity meter, the students measured the concentration of suspended particles in different water samples. They were explained how high turbidity can reduce light penetration, disrupt aquatic ecosystems, and act as a carrier for harmful pathogens. The activity emphasized the importance of turbidity as a parameter in assessing water safety and potability.

pH Meter and Turbidity Meter

COD Analysis: Under expert supervision, the students carried out Chemical Oxygen Demand (COD) testing, a crucial parameter for assessing the level of organic pollutants in water. They learned the principle behind the method—how strong oxidizing agents are used to chemically break down organic matter present in the sample. The process involved digestion of the sample with potassium dichromate in acidic conditions, followed by a titration step to determine the amount of oxygen required for oxidation. Through this exercise, students understood that higher COD values indicate greater pollution load, often linked to industrial effluents and untreated sewage.



COD Analysis

BOD Analysis: The students were introduced to the procedure of Biochemical Oxygen Demand (BOD) testing, where water samples are incubated for three days under controlled conditions to monitor oxygen depletion by microorganisms. This method helped them understand how BOD reflects the amount of biodegradable organic matter present in water, directly linking it to the extent of pollution caused by sewage or organic waste. The concept was emphasized as a key indicator of the health of aquatic ecosystems, since higher BOD values imply greater oxygen consumption, which can endanger aquatic life.

Seven different water samples were tested from various locations, including Tara Devi, Jeori, Dhalli, Hotel Marina, Ashwani, Swintha, and Majhar. The comparative results highlighted noticeable variations in pH and turbidity levels, giving students a practical insight into how water quality differs across geographical areas due to factors like urbanization, industrial activity, and natural conditions.

BOD Analysis

Outcomes

- Students gained first-hand experience of laboratory-based water testing procedures.
- They developed a deeper understanding of how pollution monitoring contributes to public health and environmental safety.
- The visit helped bridge the gap between classroom learning and real-world application of environmental monitoring techniques.
- Analysis of samples highlighted that while some water sources met safe standards, others showed high turbidity and slightly acidic properties, emphasizing the importance of continuous monitoring.

- The visit instilled a sense of responsibility among students towards environmental protection and awareness about water quality issues.

MEDITATION IN INDIA: ANCIENT WISDOM FOR MODERN MINDS

Date: August 19, 2025

The Department of Zoology, St. Bede's College, Shimla, organized a special session on "Meditation in India: Ancient Wisdom for Modern Minds". The session was designed to acquaint students with the roots and contemporary relevance of meditation while offering them a practical experience of this timeless practice under the Indian Knowledge System.

Objectives: The primary objectives of the session were to help students understand meditation as an integral part of India's rich spiritual heritage, to recognize its value in fostering mental clarity, emotional balance, and overall well-being, and to provide them with a hands-on experience of meditation. The session also aimed at encouraging students to cultivate mindfulness and self-awareness, enabling them to apply these practices meaningfully in their day-to-day lives.

Description: The session was led by Mr. Varun Azad, who began by introducing the theme, 'Meditation in India: Ancient Wisdom for Modern Minds', and setting the context for the event. He explained that meditation, though rooted in India's ancient spiritual traditions, holds profound relevance in addressing the challenges of today's fast-paced and stressful lifestyle. His approach focuses on cultivating practical awareness—observing one's thoughts, emotions, and inner states without judgment—and learning to apply that clarity in everyday situations. By practicing this form of awareness, he emphasized, individuals can experience greater calm, focus, and resilience. Mr. Azad further highlighted that meditation is not confined to moments of silence alone, but is a way of life—"an ancient gift of India that can guide modern minds towards balance, mindfulness, and holistic well-being."

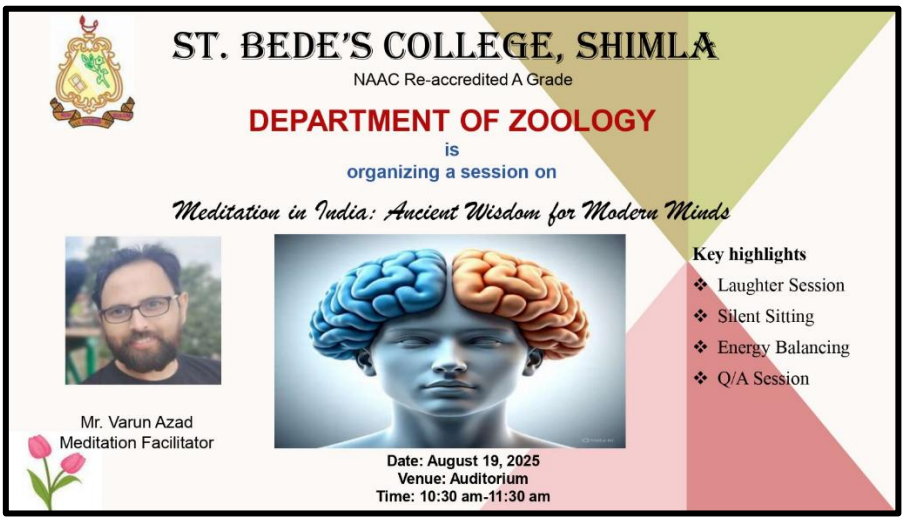
He guided the participants through a step-by-step meditation process aimed at helping them reconnect with a sense of calm and presence:

Stage 1 (Laughter Meditation): Beginning with gentle laughter that gradually intensified, helping release stress and tension.

Stage 2 (Deep Listening): Sitting still in silence, participants listened to surrounding sounds with total acceptance, cultivating inner stillness.

Stage 3 (Unity of Mind): Visualization exercise blending the left and right brain, symbolizing wholeness and freedom from duality.

After the meditation practice, an interactive Q&A session took place where Mr. Azad responded to students' questions, enabling them to resolve doubts and explore meditation more deeply.



Brochure

19-08-2025: Introducing the Theme, 'Meditation in India: Ancient Wisdom for Modern Minds'

Laughter Meditation

Unity of Mind

सेंट बीड्स में प्राचीन ज्ञान पर सत्र का आयोजन

Amar Ujala 20.8.25

शिमला। सेंट बीड्स कॉलेज के जूलॉजी विभाग ने मंगलवार को कॉलेज में भारत में ध्यान : आधुनिक मन के लिए प्राचीन ज्ञान विषय पर जागरुकता सत्र का आयोजन किया।

इसमें मुख्य वक्ता के रूप में वरुण आजाद ने ध्यान को भारत की प्राचीन संस्कृति की देन बताया। उन्होंने कहा कि आज भी आधुनिक समय में इसकी प्रासंगिकता है। उन्होंने छात्र-छात्राओं को शांति और स्पष्टता के साथ ही हास्य ध्यान और सुनने तथा मन की एकाग्रता के लिए अभ्यास करवाया। ध्यान लगाने की कला को सीखने से मन की एकाग्रता और हर कार्य सफलता के साथ पूरा करने का मिलता है। ब्यूरो

संघर्ष से उपजी सांस्कृतिक विरासत : हरनोट

शिमला। राजकीय महाविद्यालय धामी में हिमाचल की सांस्कृतिक विरासत पर आयोजित व्याख्यान शृंखला के दूसरे दिन कथाकार एसआर हरनोट ने बतौर मुख्य वक्ता शिरकत की। प्राचार्य डॉ. जनेश कपूर ने उनका स्वागत किया। कथाकार एसआर हरनोट ने संघर्ष से हिमाचल की सांस्कृतिक विरासत उपजी है। उन्होंने विद्यार्थियों से संवाद भी किया और संस्कृति का पाठ पढ़ाया। व्याख्यान सत्र का संचालन सहायक आचार्य दिनेश शर्मा ने किया। ब्यूरो

Outcomes: The session proved to be highly enriching as students gained practical exposure to different meditation techniques and experienced a sense of calm, clarity, and inner balance. It encouraged participants to observe their thoughts and emotions without judgment, thereby fostering greater self-awareness. The session also highlighted the relevance of India's ancient practices in promoting modern well-being and stress management. Furthermore, the interactive question and answer round provided an excellent platform for students to clarify their doubts and deepen their understanding of meditation as a way of life.

Department of Zoology
St. Bede's College, Shimla

WORLD ANIMAL WELFARE DAY

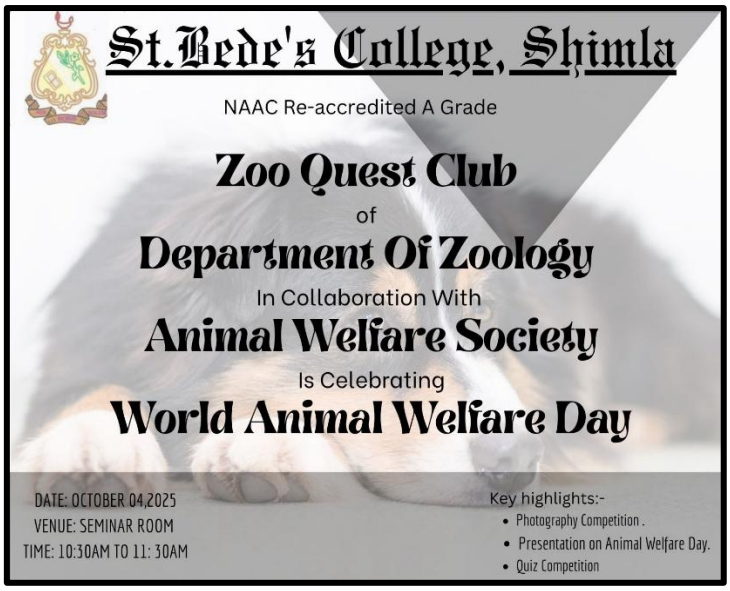
Date: October 4, 2025

Department of Zoology in collaboration with the Animal Welfare Society, St. Bede's College celebrated World Animal Welfare Day on October 4, with great zeal and compassion. The celebration featured three engaging segments, a power point presentation, an interdepartmental quiz competition, and an animal photography contest each designed to blend learning with creativity.

Objectives

- To raise awareness about the importance of animal welfare and promote coexistence between humans and animals.
- To sensitize students to issues such as habitat destruction, poaching, and the need for responsible pet care.
- To promote interdepartmental collaboration and teamwork through interactive activities.
- To nurture creativity and observation skills through animal photography.
- To inspire students to become proactive advocates for environmental and animal protection.

Description: The event commenced with a warm welcome, followed by an informative and thought-provoking PowerPoint presentation by Sneha, President of the Animal Welfare Society. In her presentation, Sneha highlighted the urgent need for coexistence between humans and animals, emphasizing the alarming rise in habitat loss, poaching, and cruelty towards animals. She further discussed sustainable solutions, such as community awareness, habitat restoration, and responsible pet ownership. Her presentation captivated the audience with impactful visuals and inspired everyone to reflect on their role in protecting the animal kingdom.



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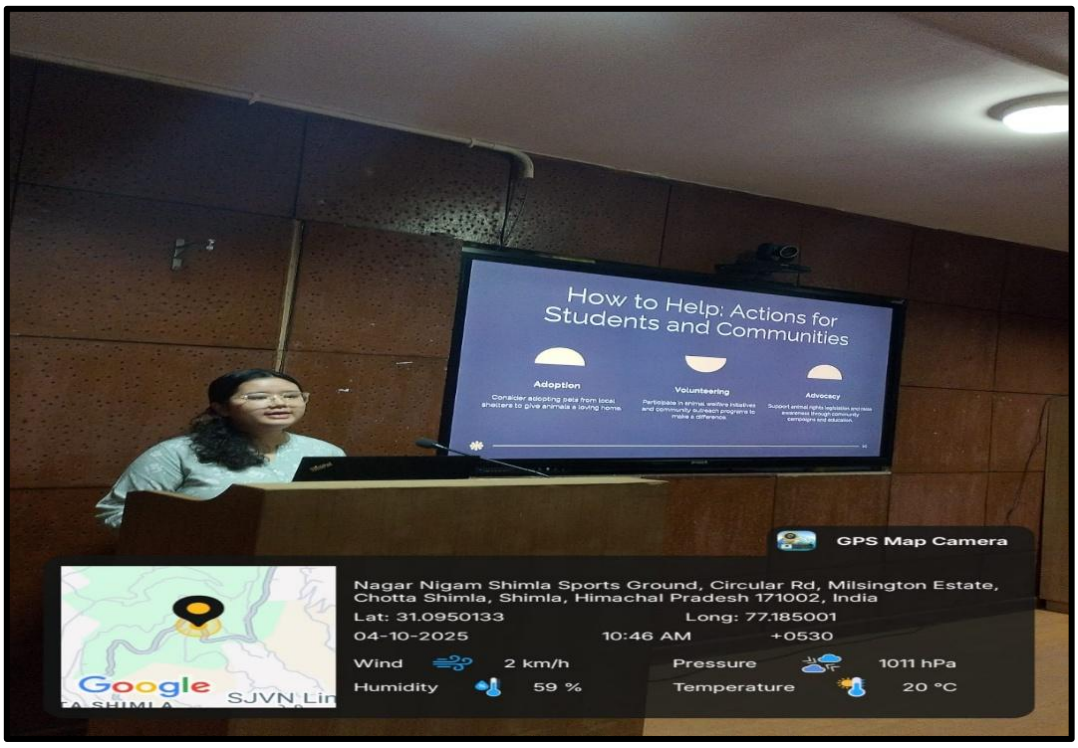


Power Point Presentation by Sneha, President of the Animal Welfare Society

The session was followed by an exciting Interdepartmental Quiz Competition, which brought together enthusiastic students from various disciplines. A total of five teams, each consisting of two participants, took part in the competition. The teams were creatively named after

endangered animal species, symbolizing the event's theme of conservation and biodiversity preservation.

Participating Teams:

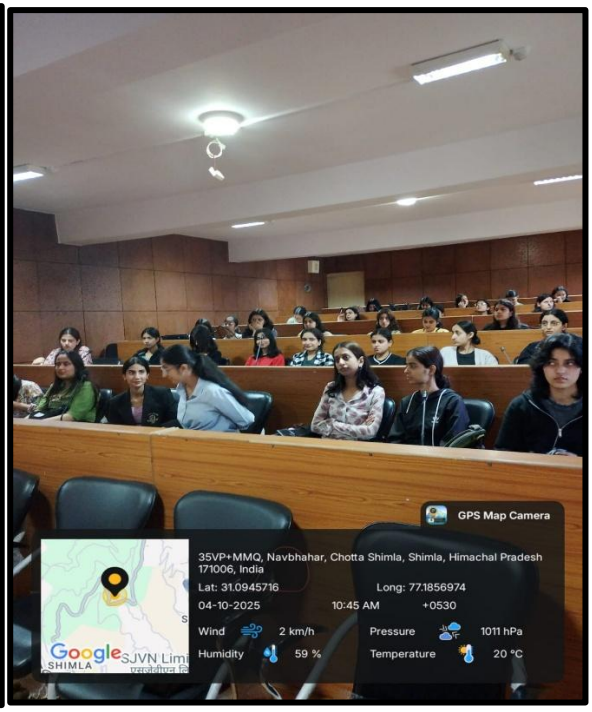
Bengal Tigers – Trisha and Sakshi (B.Sc. 1st Year)

Asiatic Lion – Ananya and Muskan (Biotech 1st Year)

Snow Leopard – Aayushi and Aastha (Biotech 2nd Year)

Asiatic Elephant – Aastha Sharma and Deeya Baali (B.Sc. 3rd Year)

Nilgiri Tahr – Shreya and Niharika (B.Sc. 2nd Year)



Inter-departmental Quiz Competition

The quiz consisted of multiple rounds covering topics such as wildlife conservation, biodiversity, endangered species, environmental laws, and animal behaviour. The participants displayed commendable teamwork, quick thinking, and a genuine interest in wildlife knowledge. The competition was both intellectually stimulating and entertaining for the audience. Team Asiatic Elephant secured the first position, while team Bengal Tigers emerged as the runners-up.

Adding a creative dimension to the celebration, an Animal Photography Contest was organized to capture the beauty, diversity, and emotions of the animal world through students' lenses. The

entries reflected an impressive blend of technical skill and sensitivity towards nature. The photographs ranged from vivid portraits of animals to poignant depictions of human–animal coexistence.

The photography entries were evaluated by Dr. Kusum Sharma (Department of Botany) and Dr. Madhu Bala (Department of Chemistry) on the parameters of creativity, composition, originality, and relevance to the theme.

Winners of the Photography Competition:

1st Position: Shivanshi (Biotech 1st Year)

2nd Position: Ananya (Biotech 1st Year)

3rd Position: Bhumi (B.A. Pass Course 1st Year)

Animal Photography Gallery

Animal Photography Contest

Outcomes

- The World Animal Welfare Day celebration successfully achieved its objectives by spreading awareness, nurturing creativity, and fostering empathy among students.
- Students gained a deeper understanding of animal welfare issues, endangered species, and conservation measures.

- The interdepartmental nature of the events promoted collaboration, communication, and healthy competition among participants.
- The photography contest provided an expressive platform for students to showcase their artistic abilities and environmental sensitivity.
- The activities collectively inspired participants to adopt ethical, sustainable, and compassionate lifestyles that respect the interconnectedness of all living beings.

HEALTH AWARENESS SESSION THROUGH YOGA

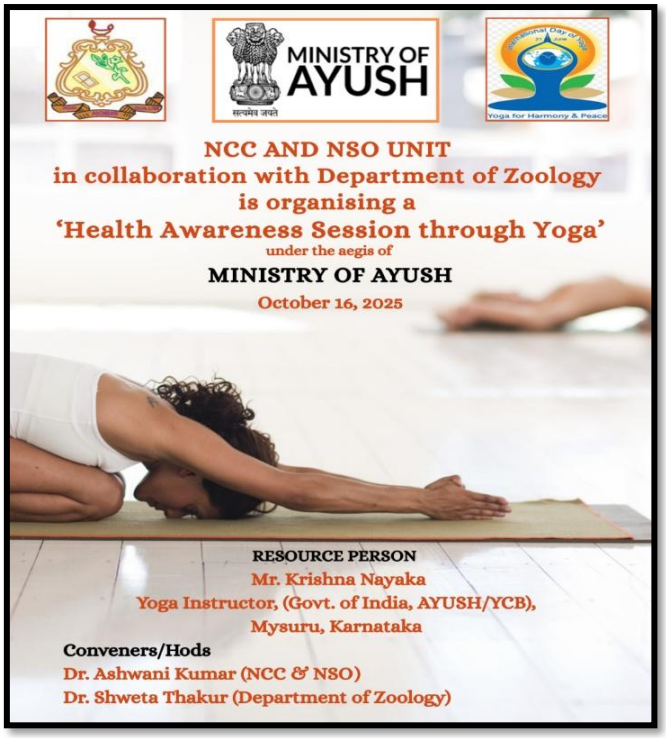
Date: October 16, 2025

On October 16, 2025, the NCC & NSO Unit, in collaboration with the Department of Zoology, organized a Health Awareness Session through Yoga under the aegis of Ministry of Ayush, aimed at promoting physical fitness and mental well-being among students.

Objectives: The objectives were to raise awareness about physical and mental well-being among students, encourage regular yoga practice for a healthy lifestyle, promote stress management and emotional balance, highlight yoga's role in holistic and preventive healthcare, and support the wellness initiatives of the Ministry of AYUSH.

Description: The session was conducted by Mr. Krishna Nayaka, Yoga Instructor (Govt. of India, AYUSH/YCB), Mysuru, Karnataka, who brought with him rich practical experience and deep insight into yogic sciences. During the session, he systematically demonstrated a range of yoga postures (asanas), breathing techniques (pranayama), and relaxation practices, explaining their relevance in improving flexibility, posture, respiratory efficiency, and overall physical health. He also highlighted how regular yoga practice helps in enhancing mental clarity, emotional stability, concentration, and stress management, thereby promoting a balanced and disciplined lifestyle.

The session witnessed active participation of more than 120 students, who followed the demonstrations with keen interest and enthusiasm. Students were encouraged to perform the asanas under guidance, ensuring correct posture and breathing. An interactive discussion was held towards the end of the programme, during which the resource person addressed students' queries related to yoga, stress, lifestyle disorders, and the integration of yoga into daily routines. The programme concluded with guided relaxation exercises, leaving the participants feeling calm, refreshed, and motivated to incorporate yoga into their everyday lives for sustained physical and mental well-being.


MINISTRY OF AYUSH
सत्यमेव जयते
Yoga for Harmony & Peace
NCC AND NSO UNIT
in collaboration with Department of Zoology
is organising a
'Health Awareness Session through Yoga'
under the aegis of
MINISTRY OF AYUSH
October 16, 2025
RESOURCE PERSON
Mr. Krishna Nayaka
Yoga Instructor, (Govt. of India, AYUSH/YCB),
Mysuru, Karnataka
Conveners/Hods
Dr. Ashwani Kumar (NCC & NSO)
Dr. Shweta Thakur (Department of Zoology)

Brochure


Shimla, Himachal Pradesh, India
GPS Map Camera


Shimla, Himachal Pradesh, India
GPS Map Camera

Department of Zoology
St. Bede's College, Shimla

Health Awareness Session through Yoga, October 16, 2025

Outcomes: The event enhanced students' awareness of health, fitness, and mental well-being, enabled them to learn basic yoga and pranayama practices, improved their understanding of stress management and relaxation techniques, motivated them to adopt yoga in daily life, and supported the Ministry of AYUSH's vision of preventive healthcare through yoga.

AWARENESS SESSION ON "CARBON SEQUESTRATION AND CARBON FOOTPRINT REDUCTION

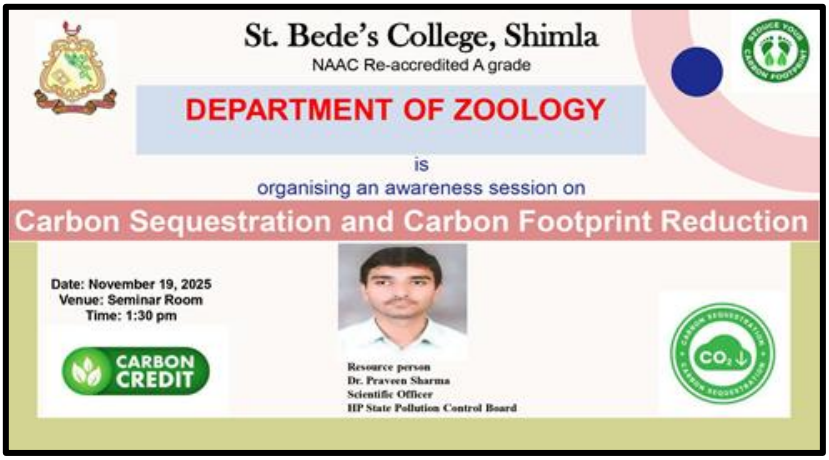
Date: November 19, 2025

The Department of Zoology organized an awareness session on Carbon Sequestration and Carbon Footprint Reduction to enhance students' understanding of climate change, greenhouse gas emissions, and sustainable environmental practices**.**

Objectives

The session aimed to explain the concept and significance of **carbon sequestration**, emphasizing how natural and technological processes can capture and store carbon to prevent it from entering the atmosphere. It also highlighted the major sources of **carbon footprints** and their wide-ranging impacts on the environment, climate, and human health. Various methods to reduce emissions at the individual, institutional, and industrial levels such as energy efficiency, waste management, renewable energy adoption, and responsible consumption

Description: The session was conducted by **Dr. Praveen Sharma**, Scientific Officer, HP State Pollution Control Board, who shared expert insights drawn from field experience and current environmental research. Dr. Sharma emphasized that climate change is primarily driven by rising greenhouse gas emissions. He explained the role of CO_2, methane, and nitrous oxide in global warming.



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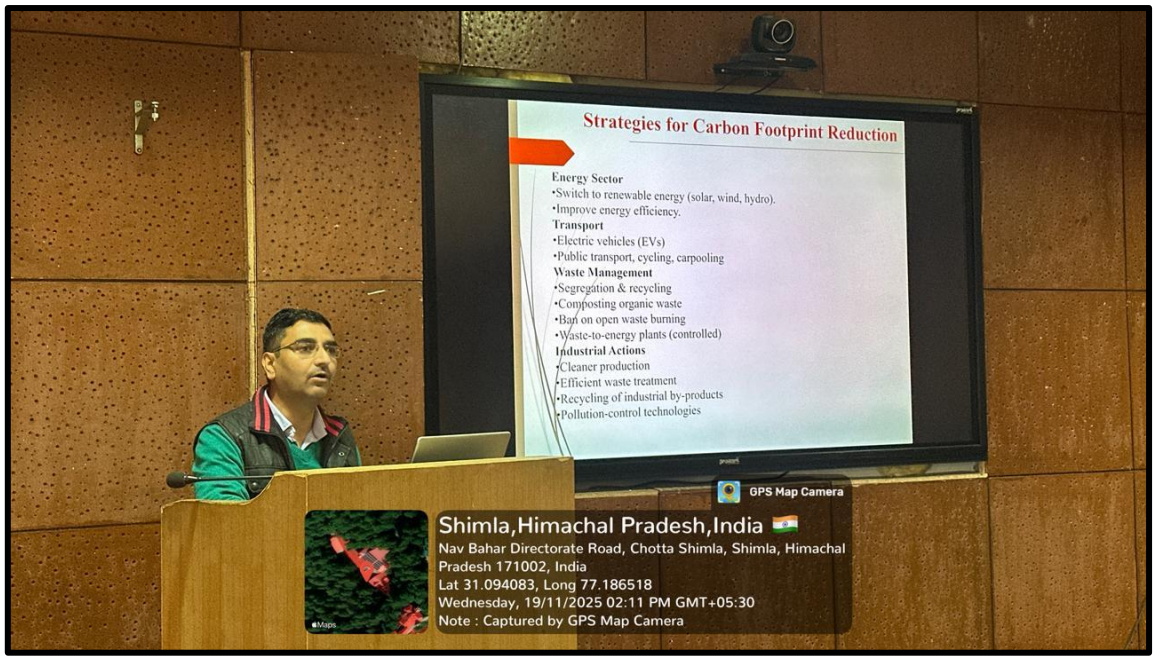
Department of Zoology
St. Bede's College, Shimla



19-11-2025: Awareness Session on Carbon Sequestration and Carbon Footprint Reduction

The speaker explained the various types of carbon sequestration, including terrestrial methods involving forests, plants, and soils; geological storage deep underground; oceanic absorption of CO_2; and technological approaches such as Direct Air Capture. He emphasized how these processes contribute to biodiversity conservation, soil health, and overall ecosystem restoration. Participants were also introduced to the major sources of carbon emissions—fossil fuel usage, deforestation, industrial activities, agriculture, and waste burning—along with clear distinctions between direct and indirect emissions supported by relatable examples. Real-world comparisons, such as emissions from vehicles, electronics, flights, and forest fires, further helped students grasp the scale of carbon output. Dr. Sharma elaborated on the serious consequences of a high carbon footprint, including global warming, climate change, glacial retreat, sea-level rise, ocean acidification, biodiversity loss, and associated health and economic challenges. He then outlined practical strategies to reduce emissions, such as adopting renewable energy, effective waste management through segregation, recycling and composting, minimizing open waste burning, promoting cleaner industrial processes, and encouraging sustainable transport options including electric vehicles, carpooling, and public transit. He also stressed the importance of conscious lifestyle choices, like reducing plastic use and conserving electricity. The session saw enthusiastic student participation, with questions on sustainability, industrial pollution, and ways to reduce household emissions. This interactive engagement fostered critical thinking and motivated students to reflect on and reduce their own ecological footprints.

Outcomes:

- Enhanced awareness about climate issues and the urgent need for carbon reduction.
- Improved understanding of carbon sequestration as a climate mitigation tool.
- Students gained practical knowledge to reduce their own carbon footprint.
- Strengthened commitment among students to support institutional green initiatives.
- Fostered a sense of environmental responsibility and leadership.

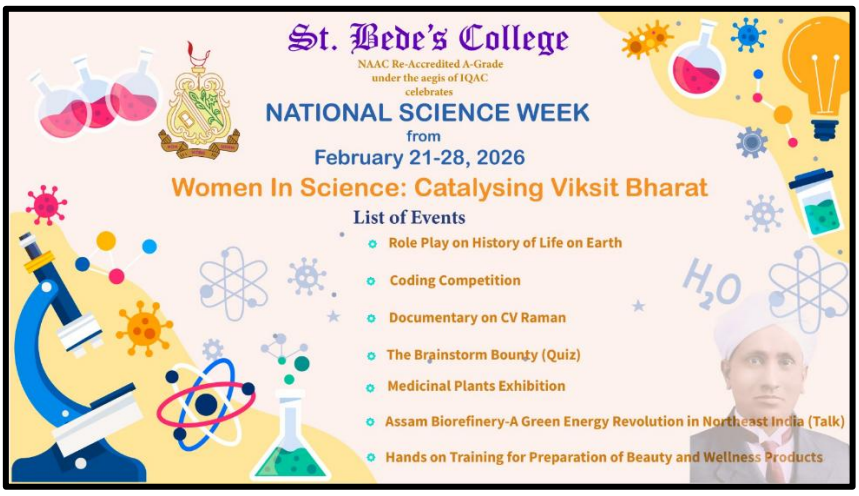
ROLE PLAY ACTIVITY ORGANIZED DURING NATIONAL SCIENCE WEEK

Date: February 21, 2025

On the occasion of National Science Week, a role play activity was organized on 21 February 2025 by the department of Zoology to enhance conceptual understanding and promote experiential learning among students.

Objectives: The role play activity organized during National Science Week aimed to strengthen students' conceptual understanding of evolutionary theories through experiential and performance-based learning. By presenting Lamarckism, Darwinism, and Neo-Darwinism in an interactive format, students critically analyzed their postulates, evidences, and scientific relevance while developing communication and teamwork skills.

Description: The activity focused on the major theories of evolution Lamarckism, Darwinism, and Neo-Darwinism. Students presented the fundamental postulates, supporting arguments, criticisms, and the scientific acceptance of each theory in a structured and engaging manner. Participants assumed the roles of eminent scientists such as Jean-Baptiste Lamarck and Charles Darwin, effectively illustrating their viewpoints through relevant examples and comparative discussions. This interactive format enabled a deeper understanding of evolutionary concepts and their historical development.



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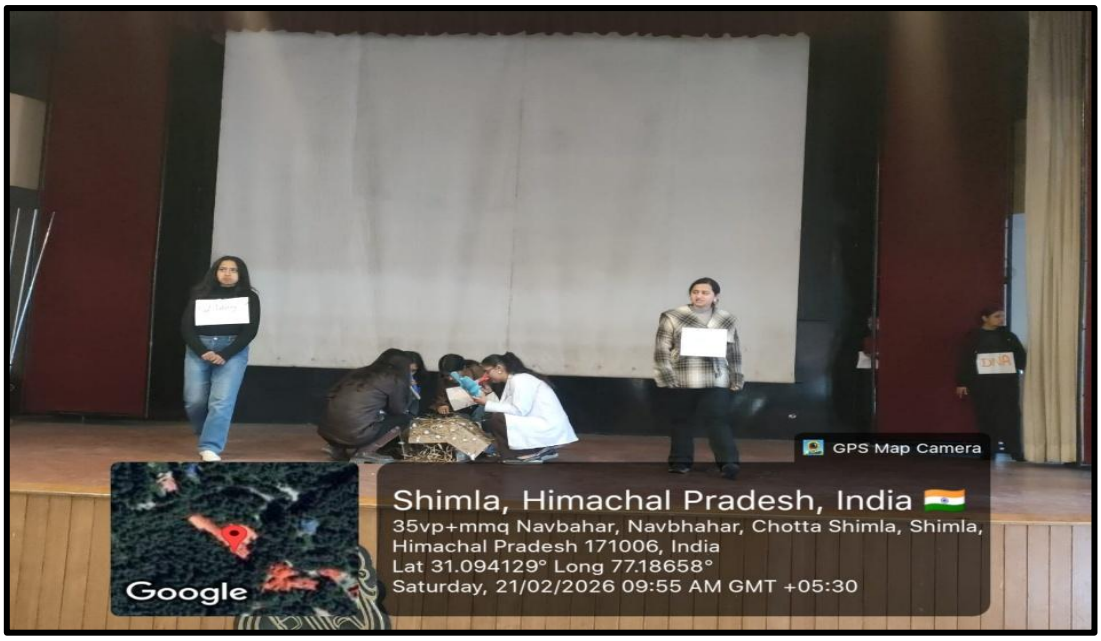
21-02-2026: Students Presenting the Fundamental Postulates of Darwinism

Fundamental Principles of Lamarckism



Variations among Finch Species Observed by Darwin

History of Life

Chronological Depiction of the History of Life on Earth.

In addition, students presented a chronological depiction of the history of life on Earth. Different geological eras were portrayed, highlighting their characteristic climatic conditions, dominant flora and fauna, and significant evolutionary transitions. The presentations demonstrated creativity, subject clarity, and collaborative effort.

Outcomes: The activity successfully integrated scientific knowledge with performance-based learning, fostering critical thinking, communication skills, and a comprehensive understanding of evolutionary biology. The activity enhanced critical thinking, subject clarity, confidence, and collaborative learning, thereby promoting a comprehensive and engaging approach to evolutionary biology.