



UTTARAKHAND BIODIVERSITY BOARD

Quarterly Newsletter

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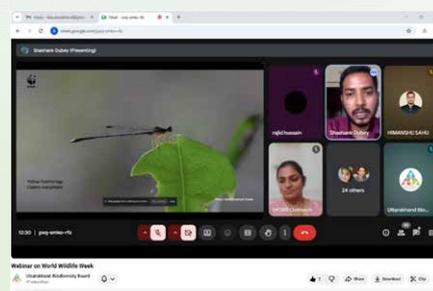
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Celebrating World Wildlife Week: Importance of Odonates and their Habitat

The Uttarakhand Biodiversity Board and WWF India successfully collaborated to host a specialized webinar on October 3, 2025, in commemoration of **World Wildlife Week**. The webinar, titled "*Importance of Odonates and their Habitat*", brought critical focus to the ecological roles of Odonates (Dragonflies and Damselflies).



THEME

The event featured Mr. Shashank Dubey, Associate Co-ordinator at WWF India, as the esteemed speaker. Mr. Dubey delivered a comprehensive presentation emphasizing the vital, multifaceted roles Odonates play within global ecosystems.

- ◆ **Natural Pest Controllers:** Odonates are highly effective predators, consuming large numbers of insects, particularly mosquitoes, thus contributing significantly to natural pest regulation and public health.
- ◆ **Key Bioindicators of Environmental Health:** Their presence, absence, and diversity are directly linked to the quality and cleanliness of aquatic habitats. Changes in their populations serve as crucial bioindicators, signaling shifts in water conditions, habitat degradation, or pollution levels.
- ◆ **Connecting Food Webs:** Odonates occupy a unique position, acting as an essential link between aquatic and terrestrial food webs. In their nymph stage, they are vital components of the aquatic ecosystem, and as adults, they become significant prey for birds and fish, transferring energy across trophic levels.

CONSERVATION IMPERATIVE

Mr. Dubey underscored the critical need for habitat protection, stressing that the loss of Odonate species can severely disrupt ecological balance. Protecting the clean aquatic environments necessary for their survival is paramount for maintaining overall ecosystem integrity, particularly in the context of mountain and forest ecology.

"Biodiversity Conservation.... An art of living with nature."

PARTICIPATION AND OUTREACH

The event successfully engaged the conservation community, drawing 27 attendees from various institutions

and organizations. Participants actively highlighted the crucial importance of Odonates and their habitat for ecological health. They also shared their relevant

experiences and insights gained from past conservation efforts. This collective engagement reinforced the commitment to protecting these vital insect species.



राष्ट्रीय वन्यजीव सप्ताह एवं राष्ट्रीय पोषण माह-2025 का आयोजन

राष्ट्रीय वन्यजीव सप्ताह-2025

भारत में 71वीं राष्ट्रीय वन्यजीव सप्ताह का आयोजन 2 से 8 अक्टूबर 2025 के बीच किया गया, जिसकी मुख्य थीम "सेवा पर्व" थी। यह थीम प्रकृति के प्रति सेवा भाव, जिम्मेदारी और सामुदायिक भागीदारी पर केंद्रित थी, जिसके तहत हर नागरिक को वन्यजीव संरक्षण में सक्रिय योगदान देने का आह्वान किया गया। साथ ही, केंद्रीय कार्यक्रमों में "मानव-वन्यजीव सह-अस्तित्व" पर विशेष जोर दिया गया, जो संघर्ष के बजाय वन्यजीवों के साथ सौहार्दपूर्ण जीवन पर बल देता है। कार्यक्रम के मुख्य बिंदु:

- संघर्ष कम करना
- सामुदायिक शिक्षा

- सांस्कृतिक महत्व
- सतत विकास
- तकनीकी समाधान
- युवा भागीदारी

इस कार्यक्रम में मानव वन्यजीव संघर्ष को कम करने एवं स्थानीय जीवों के साथ शांतिपूर्ण संबंध को बढ़ावा देने के लिए चर्चा, शैक्षिक गतिविधियां और सहभागी सत्र आयोजित किए गए। ग्रामीण समुदायों के लिए इस कार्यक्रम में पर्यावरण-अनुकूल और टिकाऊ प्रथाओं को प्रोत्साहित किया। यह सप्ताह भारत की वैश्विक जलवायु प्रतिबद्धताओं को सशक्त बनाता है। उत्तराखंड जैव विविधता बोर्ड की ओर से इस उपलक्ष

में ग्राम होरावाला, विकासखण्ड सहसपुर में कार्यक्रम का आयोजन किया गया।

राष्ट्रीय पोषण माह 2025

भारत में 8वां राष्ट्रीय पोषण माह 12 सितंबर से 11 अक्टूबर 2025 के बीच मनाया गया। पोषण को अच्छे स्वास्थ्य, विकास और समानता का एक जरूरी हिस्सा माना जाता है। यह राष्ट्रव्यापी अभियान नागरिकों के लिए बेहतर स्वास्थ्य परिणाम प्राप्त करने का लक्ष्य रखता है।

मुख्य उद्देश्य और महत्व

यह पहल मिशन सक्षम आँगनवाड़ी और पोषण 2.0 कार्यक्रमों के लक्ष्यों को और बढ़ाना चाहती है। इसमें जागरूकता कार्यक्रमों, चर्चाओं के माध्यम से स्थानीय समुदाय के सदस्यों को शामिल किया गया, जिसका उद्देश्य निम्नलिखित चुनौतियों का समाधान करना है:

- मोटापा पर ध्यान, चीनी और तेल का कम सेवन- समुदाय को अधिक चीनी, नमक और तेल के सेवन से होने वाले मोटापा, मधुमेह और हृदय रोग जैसे जोखिमों के बारे में जागरूक किया गया, ताकि लोग संतुलित व स्वस्थ आहार अपनाएँ।
- प्रारंभिक बचपन की देखभाल और शिक्षा (ECCE) / पोषण भी पढ़ाई भी (PBPB) – छोटे बच्चों के लिए सीखने और पोषण को एक साथ जोड़ते





हुए, आंगनवाड़ी और प्री-स्कूल स्तर पर खेल-आधारित सीखने के साथ पौष्टिक भोजन पर जोर दिया गया।

- एक पेड़ माँ के नाम – मातृ सम्मान के साथ प्रत्येक परिवार व आँगनवाड़ी

महिलाओं को कम से कम एक पेड़ लगाने के लिए प्रेरित किया गया, जिससे हरियाली बढ़े, स्थानीय प्रजातियाँ व जंगल सुरक्षित रहें और जलवायु संतुलन में योगदान हो।

- शिशु और छोटे बच्चों को खिलाने की प्रथाएँ (IYCF) – जन्म से दो वर्ष तक के बच्चों के लिए स्तनपान, समय पर पूरक आहार और उम्र के अनुसार विविध व पौष्टिक भोजन की

सही जानकारी आँगनवाड़ी महिलाओं के सहयोग दी गई।

- **पोषण और देखभाल में पुरुषों की भागीदारी** – पुरुषों को परिवार के पोषण, बच्चों की देखभाल और रसोई संबंधी निर्णयों में सक्रिय भागीदारी के लिए प्रोत्साहित किया गया, ताकि पोषण जिम्मेदारी संयुक्त रूप से निभाई जा सके।

यह समग्र पहल न केवल समुदाय के स्वास्थ्य और पोषण स्तर को सुधारने के लिए है, बल्कि स्थानीय पेड़-पौधों, फसलों और पारिस्थितिक तंत्र के संरक्षण के माध्यम से पर्यावरण सुरक्षा और जैव विविधता संवर्धन को भी सशक्त बनाने में महत्वपूर्ण भूमिका निभाती है।

उत्तराखंड जैव विविधता बोर्ड के द्वारा इस अवसर पर एक विशेष कार्यक्रम



का आयोजन होरावाला के फॉरेस्ट रेस्ट हाउस में राष्ट्रीय पोषण माह 2025 के उपलक्ष्य में दिनांक 8 अक्टूबर 2025 को किया गया। उत्तराखंड जैव विविधता बोर्ड के सदस्य सचिव श्री टी.आर. बिजुलाल के मार्गदर्शन में, वन विभाग के सहयोग से यह कार्यक्रम आयोजित हुआ।

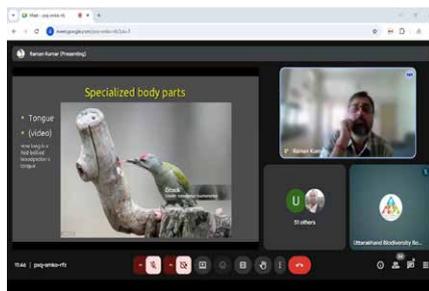
इसमें अब्दुलापुर, होरावाला, कोटड़ा और तिलवाड़ी के जैव विविधता प्रबंधन समिति (बीएमसी) के प्रतिनिधियों के साथ-साथ आँगनवाड़ी कार्यकर्ताओं एवं स्थानीय ग्रामीणों के लगभग 60 लोगों ने सक्रिय भागीदारी की।



Celebrating Wild Bird Day: Highlighting the Vital Role of Woodpeckers

In commemoration of Wild Bird Day on October 13, 2025, the Uttarakhand Biodiversity Board and Nature Science Initiative, Nature Vidya successfully hosted a specialized webinar titled "Colourful Carpenters - an introduction to woodpeckers and their role in the ecosystem."

The core of the event was an in-depth presentation delivered by Dr. Raman Kumar, Director, Nature Science Initiative. His address provided a detailed examination of the crucial and diverse ecological functions that Woodpeckers perform across the world's ecosystems.



ECOLOGICAL SIGNIFICANCE OF WOODPECKERS

Woodpeckers are not just colorful birds; they are essential ecosystem engineers. Their most recognizable activity—drilling into wood—is the foundation of their ecological importance, which extends far beyond their own survival:

- **Pest Control:** Woodpeckers are nature's highly effective biological pest control agents. They consume enormous quantities of insects and larvae, particularly those that bore into wood, such as beetle larvae. This action helps to control populations of forest pests, protecting the health and commercial value of timber.
- **Cavity Providers (Primary Cavity Excavators):** The cavities they excavate for nesting and roosting are critical resources for other wildlife. Once a woodpecker abandons a cavity, it becomes a home for numerous secondary cavity nesters, including:

- ◆ Smaller birds (e.g., nuthatches, titmice, owls)
- ◆ Mammals (e.g., flying squirrels, bats)
- ◆ Insects and reptiles This makes them keystone species for many forest habitats, as they directly increase biodiversity by providing shelter.
- ◆ **Seed Dispersal and Foraging:** Certain species, like the Acorn Woodpecker, play a role in seed dispersal and food storage, significantly impacting

forest regeneration and local food webs.

Dr. Kumar emphasized that understanding and conserving these "Colourful Carpenters" is crucial for maintaining the health and structural integrity of forest ecosystems worldwide. The webinar successfully brought critical focus to these roles, reinforcing the need for their protection.

The event garnered significant engagement from the conservation

community, successfully attracting 54 attendees representing diverse institutions and organizations. Participants contributed by actively emphasizing the crucial ecological significance of woodpeckers (Colourful Carpenters) and their multifaceted role within the ecosystem, further enriching the discussion by sharing pertinent experiences and valuable insights derived from their past conservation initiatives.



Snow Leopard Conservation in India

The Uttarakhand Biodiversity Board marked the International Snow Leopard Day on October 23, 2025, by hosting a significant webinar focused on **Snow Leopard Conservation in India: "The Present and the Future"** by Dr S. Sathyakumar, Formerly Scientist-G, Wildlife Institute of India, Dehradun.

CURRENT STATUS AND SCIENTIFIC CHALLENGES

- ◆ **Habitat & Range:** Snow leopards inhabit the trans-Himalayan bioclimatic zone, typically at elevations of 3,000–4,500 m.. Their fragmented, high-altitude habitat necessitates large home ranges to maintain viable populations across Ladakh, Himachal Pradesh, Uttarakhand, etc.
- ◆ **Monitoring:** Population assessment relies on non-invasive techniques like Camera Trapping and Fecal DNA analysis to provide statistically robust estimates of density and distribution, compensating for the species' elusive nature.

Key Threats:

- ◆ **Habitat Fragmentation:** Infrastructure development limits gene flow, increasing the risk of inbreeding depression.
- ◆ **Human-Wildlife Conflict (HWC):** Predation on livestock leads to retaliatory killings. Mitigation involves improving livestock corrals and implementing community-based compensation/insurance schemes.
- ◆ **Prey Base Depletion:** The low density of primary prey (*Bharal* and *Siberian Ibex*) limits the ecosystem's carrying capacity for the snow leopard.

FUTURE CONSERVATION STRATEGY

Future efforts require a landscape-level, holistic approach integrated with socio-economic realities:

- ◆ **Climate Change Vulnerability:** Warming trends are predicted to cause treeline ascension, shrinking the snow leopard's core habitat and pushing it into greater HWC risk.



Future research must identify climate refugia.

- ◆ **Global Collaboration:** Success hinges on adherence to the Global Snow Leopard and Ecosystem Protection Program (GSLEP) framework for synchronized monitoring and curbing Illegal Wildlife Trade (IWT) across international borders.
- ◆ **Community Integration:** Conservation must shift towards incentive-based programs, such as eco-tourism, to foster local custodianship and offset HWC costs.
- ◆ **Genetic Health:** Future work will involve genetic monitoring to assess population health and disease ecology studies to track pathogen

spillover between domestic animals and wildlife.

The core challenge is ensuring the long-term viability of snow leopard meta-populations by balancing biodiversity protection with the sustainable

development needs of high-altitude communities.

This approach, integrating scientific guidance with citizen empowerment, significantly demonstrated the potential for fostering a more informed

and engaged civil society capable of contributing meaningfully to Snow Leopard conservation. The webinar successfully garnered broad institutional support, drawing a diverse attendance of 32 representatives from various organizations.



Webinar on International Day of Climate Action

The Uttarakhand Biodiversity Board and EIACP-RP on Forestry & Forest Related Livelihoods, Forest Research Institute, Dehradun marked the **International Day of Climate Action** on October 24, 2025, by co-hosting a significant webinar focused on the nexus of community involvement, biodiversity, and climate change.

The event featured two core presentations:

- ◆ **"Citizen science as an effective tool in monitoring Biodiversity and Climate Change"** by Dr. Raman Kumar, Scientist.
- ◆ **"Climate Action in Indian Forests"** by Prof. Rajeev Kumar Chaturvedi.

KEY ELABORATION POINTS

- ◆ **Citizen Science for Data & Engagement:** Dr. Raman Kumar highlighted citizen science as a powerful, large-scale, and effective tool for ecological research. By involving local communities and volunteers in data collection (such as recording species occurrences and environmental changes), citizen science projects overcome the limitations of traditional scientific teams in terms of coverage and frequency. This active engagement not only yields essential data

for monitoring biodiversity and climate change but also cultivates public interest and ownership in conservation and climate action.

- ◆ **Climate Action in Indian Forests (Participatory Management):** The discourse on environmental stewardship was significantly enriched by the insights of Prof. Rajeev Kumar Chaturvedi, who provided an extensive elaboration on the indispensable role of proactive climate action within the vast and varied forest landscapes of India. Central to his presentation was the assertion that forest conservation in the 21st century must transcend traditional protectionist models, moving instead toward a more inclusive framework of participatory forest management. This approach recognizes that the survival of forest ecosystems is intrinsically linked to the socio-economic stability of the communities that inhabit their fringes. By prioritizing community-led restoration initiatives, these programs do more than just plant trees; they build ecosystem resilience by selecting indigenous species that are better equipped to withstand the erratic shifts in precipitation and temperature currently being



witnessed across the Indian subcontinent. Prof. Chaturvedi further emphasized that the mitigation of climate impacts requires a data-driven approach, where citizen science emerges as a transformative tool. By engaging local residents, students, and forest dwellers in the systematic monitoring of forest health and biodiversity, the scientific community can gather granular, real-time data that would otherwise be impossible to collect.

OUTCOME AND PARTICIPATION

The combined approach of scientific guidance and citizen empowerment demonstrated the potential for creating a more informed and engaged society capable of contributing meaningfully to conservation. The webinar successfully drew a diverse attendance, with 50 attendees representing various institutions and organizations.

Community-Based Field Workshop on Orchid-Pollinator Conservation for Sustainable Mountain Development in the Western Himalayan Region



Graphic Era (Deemed to be University), through its Centre for Sustainable Ecology & Biodiversity Research (CSEBR), successfully organized a Two-Day Community-Based Field Workshop on "Orchid-Pollinator Conservation for Sustainable Mountain Development in the Western Himalayan Region".

The workshop was held on October 27-28, 2025, in Ghimtoli, Rudraprayag, demonstrating the university's commitment to active, community-integrated biodiversity conservation and sustainable mountain development practices.

COLLABORATIVE ORGANIZATION & LEADERSHIP

This significant conservation initiative was jointly organized in collaboration with prominent institutions:

- Indian Council of Social Science Research (ICSSR), Govt. of India

- G.B. Pant National Institute of Himalayan Environment and Development
- Uttarakhand Biodiversity Board

The workshop was formally inaugurated by Dr. S.P. Subudhi, IFS, Chairman, Uttarakhand Biodiversity Board.

The event was convened and coordinated by Prof. V.P. Uniyal and Prof. Manu Pant (Head, Department of Biosciences, GEU), ensuring a high level of academic and organizational expertise.

FOCUS AND PARTICIPATION

The initiative placed a strategic focus on the ecological and cultural significance



of orchids and their crucial pollinators within the Indian Himalayan Region (IHR), a globally recognized biodiversity hotspot. A key objective was to address the emerging challenges posed by climate change, habitat degradation, and the need to enhance ecological awareness.

The event fostered a collaborative environment, seeing active participation from a diverse group of stakeholders, including:

- Women farmers
- Community workers
- Students

AIMS AND IMPACT

This workshop united scientists, conservationists, policymakers, and local communities to bridge the gap between scientific research and traditional wisdom. By fostering collaboration, the event focused on creating robust biodiversity strategies tailored for the Western Himalayas. These efforts aim to protect vital ecosystems while ensuring sustainable development and long-term resilience for the region's mountain communities.



Second Statewide Uttarakhand Bird Count 2025: A Celebration of Citizen Science and Avian Diversity

The **Second Statewide Uttarakhand Bird Count (UBC 2025)** was successfully conducted on 15-16 November 2025, marking another milestone in the state's growing citizen science movement. The two-day event spanned all 13 districts of Uttarakhand. This initiative was supported by the Forest Department, local Biodiversity Management Committees (BMCs), and key institutions like DBS Global University. With active participation from local schools and volunteers, the event transformed a rigorous scientific exercise into an impactful learning experience for young nature enthusiasts.

Uttarakhand boasts exceptional bird diversity, with 729 reported species (updated to 731 in some references), representing over half of India's total. This rich avifaunal heritage also creates strong potential for bird tourism, which can support conservation goals while generating livelihood opportunities in remote areas.

To promote birdwatching and strengthen public engagement, the Uttarakhand Birdwatching Programme was launched in 2012. Since then, it has conducted over 70 birdwatching camps and organized eight state-level bird festivals, the most recent held in October 2024 at Benog.

Building on the momentum of 2024, when 399 species were recorded, the second Uttarakhand Bird Count (UBC 2025) was organized alongside the silver jubilee of Uttarakhand's formation (9 November 2000). The count aimed to encourage birdwatching and ecotourism, support local income generation, strengthen conservation data, and deepen community participation. UBC 2025 was also a tribute to noted birder Suniti Bhushan Datta, who sadly passed away while travelling to participate.

In mid-November, the Uttarakhand Bird Count successfully captured

data on altitudinal and long-distance migrants to support climate studies. This community-led initiative featured over 95 events, including 62 public walks across all 13 districts. The effort involved 50+ organizations—spanning schools, universities, and NGOs—covering 30 conserved areas and 7 key wetlands.

The Uttarakhand Bird Count (UBC) 2025 has become a premier statewide movement, bridging scientific data with community celebration to protect fragile mountain and wetland ecosystems. By engaging youth and diverse citizens, the initiative generates vital insights to combat climate change and habitat loss. As a leader in evidence-based conservation, Uttarakhand plans to institutionalize this annual event, using technology and research to safeguard its unique avian biodiversity for future generations.

Guidance

Shri R.K. Sudhanshu, IAS, Principal Secretary,
Forest, Environment Protection & Climate Change

Direction

Dr. S.P. Subudhi, IFS, Chairperson

Shri T.R. Bijulal, IFS, Member Secretary

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