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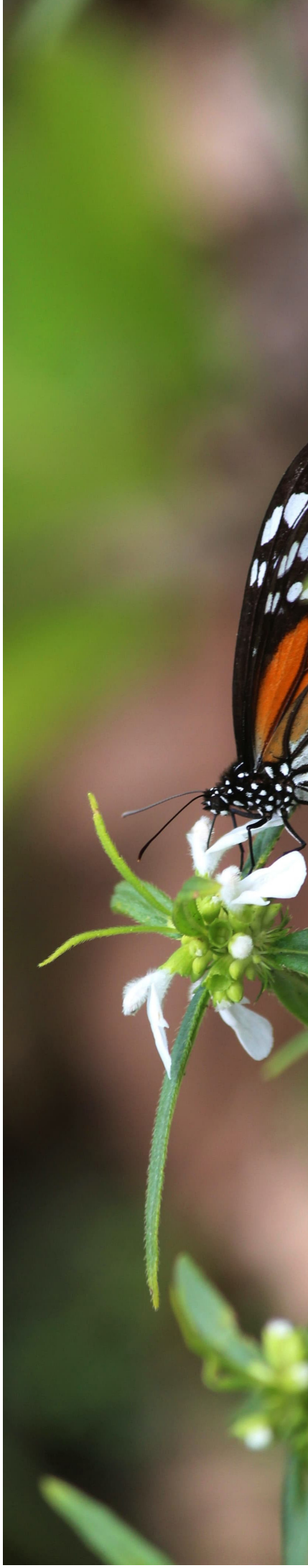

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Photo Credit: Ritesh Kumar Gautam

A Life Forged in the Wild: Remembering Dr. Ajith Kumar (1953 – ∞)

An Educator, Mentor, Institution-Builder and Scientist par excellence

-Rohit R.S. Jha

The passing of Dr. Ajith Kumar on March 1, 2025, has created an irreplaceable void in wildlife biology and conservation, deeply affecting the numerous students he mentored throughout his distinguished career, which continued until his passing at 71. He served as faculty at the Wildlife Institute of India (WII) from 1988-1992 and later at the Salim Ali Centre for Ornithology & Natural History (SACON) until 2003, before joining Wildlife Conservation Society (WCS)-India in Bengaluru. His sudden demise occurred in Pachmarhi, Satpura Tiger Reserve, while on a field trip with students. For what it's worth, his passing was in a manner that he would have preferred —amidst his beloved students and in the forest with field boots on.

Affectionately known as 'Ajith Sir', Dr. Kumar was a towering figure in Indian ecology, renowned for his rigorous science, compassionate leadership, and non-judgemental supportive mentorship. For those who learned from him at the National Centre for Biological Sciences (NCBS), Bengaluru (the author included), where he was the Founding Director of the M.Sc. Program in Wildlife Biology & Conservation (2003-2020), he was a visionary mentor who profoundly shaped careers, institutions, and the collaborative spirit of conservation in India.

Scientific legacy: Primates, small mammals, rainforests, Eastern Himalaya

Dr. Kumar's journey in wildlife biology began with a Master's in Zoology from the University of Kerala and a doctorate from the University of Cambridge. His PhD research on the ecology and population dynamics of the endangered lion-tailed macaque in the Western Ghats highlighted the critical need for large, continuous forest habitats for canopy-dependent species. This early work established his commitment and expertise in primatology and rainforest ecology.

Despite his extensive research across India, particularly in the Western Ghats and Eastern Himalaya, Dr. Ajith Kumar approached conservation with remarkable humility. His tenures at WII, SACON, and NCBS were marked by transformative projects that significantly advanced the field, and improved the knowledge bases in those institutes.

Image courtesy: Dr. T.R. Shankar Raman

At WII, he contributed to ecological studies of species like the Phayre's leaf monkey and civets, actively participated in the Masters and Diploma programmes, and helped develop collaborative projects with the USFWS. His tenure at WII was short but marked by a forward-thinking approach to research and education. Recognising the increasing role of technology in ecological studies, Dr. Kumar was instrumental in introducing computer technology to our Institute and establishing its first computer laboratory. He also contributed to the development of WII's wildlife

Dr. Ajith Kumar was instrumental in setting up the Computer Laboratory at WII in the early 1990s
(Image: Dr. Ravi Chellam)

library, recognising the importance of accessible knowledge resources for aspiring ecologists.

A similar spirit of collaboration was evident during his time at SACON, Coimbatore as well. Although trained as a primatologist, Dr. Kumar's collaborative initiative with Dr. Ravi Chellam and Prof. B.C. Choudhury of WII in the Kalakkad-Mundanthurai Tiger Reserve and Anamalai Hills (1995-2002) provided crucial opportunities for PhD students to study the ecology and conservation of a range of non-charismatic smaller animals. Similarly, his collaborative project with Dr. J.P. Tamang of Sikkim University in 2002 on the Teesta River basin's carrying capacity initiated a wave of research in Sikkim's ecosystems, leading to a follow-up project (at NCBS later) where he continued to guide students from 2018 to 2021.

Beyond his direct research, Dr. Kumar was a central figure connecting various wildlife NGOs such as ATREE, CWS, NCF, WWF, Dakshin Foundation and others through his advisory roles. He even served on WII's Training, Research and Academic Council (TRAC). He was a regular at ecology and wildlife science conferences and seminars, and recently served as an evaluator at WII's 35th Annual Research Seminar held in October 2024. Despite his significant achievements, he remained self-effacing, generously offering detailed feedback on manuscripts and theses. His involvement with Kerala's environmental clearance board and his remarkable memory for his students underscored his deep commitment to the conservation community. He believed that institutions and research itself thrived on collaboration, not competition, and his office door (in most cases, his home's as well) was always open—to students, junior researchers, colleagues or really anyone seeking advice and opinion.

Dr. Ajith Kumar at a Seminar/Conference in SACON
(Image courtesy: Dr. Arun PR)

Dr. Ravi Chellam, Former Faculty, WII; CEO, Metastring Foundation

"Ajith was incredibly generous. He developed the WII-USFWS project proposal but readily gave it to me as PI when he was moving to SACON. He treated everyone with respect, particularly students, never using them as just data collectors. His mentorship involved gently guiding with ideas, debate, and a focus on data-driven ecology, always with humility and without creating distance."

Prof. B.C. Choudhury, Former (Retd.) Faculty, WII & Dr. Ajith's long-time associate and friend

"At WII, Ajith and I often dined with researchers in their hostel. Evenings would turn into lengthy discussions about their fieldwork, fuelled by what Ajith jokingly called 'sips of ambrosia'. These sessions, sometimes lasting hours, led to a humorous attempt to limit wildlife talk to alternate evenings, with fines for violators. The first 'no wildlife' evening hilariously ended with everyone paying fines to continue their research discussions, leading to the formation of the 'Old Monk Association', where project work was always the real agenda, effectively preparing researchers for seminars."

The Mentor: Nurturing Minds, Celebrating Students' Achievements

In 2003, Dr. Kumar was instrumental in establishing the impactful Master's Program in Wildlife Biology and Conservation at NCBS, serving as its Founding Director from 2004 to 2020. His vision, alongside those of his colleagues and associates, was to cultivate a new generation of future conservation leaders and practitioners with strong scientific foundations, critical thinking, and a passion for nature. The program emphasised academic rigour alongside natural history knowledge, responsibility towards wildlife, and collaborative skills. Its success is evident in the thriving careers of its numerous alumni across academia and conservation.

To his students, Dr. Kumar was a unique blend of intellectual rigour and deep empathy. He approached mentorship with joy rather than as duty. Known for his extensive knowledge, approachable demeanour, and characteristic wit, Dr. Kumar provided generous, non-hierarchical guidance, fostering a supportive and empowering environment. His non-judgmental approach built confidence and essential skills. In the corridors of NCBS, he could often be found holding impromptu discussions over coffee, dissecting everything from population genetics to the ethics of human-wildlife conflict. While he may have sometimes stumbled through his classroom lectures, he came into his own while in the field with students — igniting curiosity about all kinds of organisms (including his favourite: trees), whether while walking the forests of Periyar Tiger Reserve or when scuba-diving with them in the Andaman Sea. He never missed any opportunity to travel with his students, and spent extended periods of time with many of them in the field.

His genuine care for his students extended beyond their academic pursuits, offering unwavering support and well wishes even after their formal mentorship concluded. The numerous testimonials from those he guided highlight that his impact transcended academic instruction, deeply influencing their personal and professional growth. He celebrated his students' successes as if they were his own, and never forgot to publicly broadcast about grants and awards that they would receive. He firmly believed in the 'People First' philosophy, and lived all his life practicing this tenet.

Dr. Divya Karnad, Assistant Professor of Environmental Studies, Ashoka University (Alumna of the M.Sc. Wildlife Biology & Conservation Programme at NCBS, 2006-08)

"Ajith taught his students about natural history, responsibility, and relationships, through his own astute observations of plants and animals, recognising primates and the reasons for their behaviour, diligent financial support to his Ph.D. field assistant, Thangavelu, from the 1980s, until his death in the mid-2010s, and using any opportunity to connect with people, however far removed they may have seemed, about wildlife conservation. A teacher, he taught us, was not simply one who engaged in a classroom, but more importantly, one who engaged in real life."

Vanjulavalli Sridhar, Indian Forest Service Officer (AGMUT Cadre), 2012 batch (Alumna of the M.Sc. Wildlife Biology & Conservation Programme at NCBS, 2010-12)

"I have just gotten through with the application process for a PhD with Pondicherry University. Even after many years of NCBS and the many people I've worked under who can vouch for me, I automatically filled Ajith sir's name. Now, I don't remember informing him of it at all. That's how much we all knew he was in our corner. He was, in fact, my reference for the IFS application, too, way back in 2011."

Chagsaldulam Odonjavkhlan, Researcher, Institute of Biology, Mongolian Academy of Sciences (Alumna of the M.Sc. Wildlife Biology & Conservation Programme at NCBS, 2016-18)

"You know, I first met Ajith online when I was enrolling for a master's interview. I can't thank him enough for the chance he gave me—it changed my life! When I first saw him on camera with his glasses and beard, I thought he would be super strict, like those teachers from my school days. But when we finally met in person, he was the complete opposite—so warm, cheerful, and always cracking jokes! During my master's studies, he was such a big support for me. He understood my struggles and really encouraged me, opening doors that I never thought possible."

Dr. Divya Mudappa, Scientist, Nature Conservation Foundation, Mysore (Alumna of WII's Masters in Wildlife Science Program & Dr. Kumar's first PhD student at WII)

Dr. Ajith Kumar at a Seminar/Conference in SACON (Image courtesy: Dr. Arun PR)

"He once suggested that we trek to Munnar, one morning, aiming to get there in time to have a good time with his friends in Eravikulam in Kerala. While we took off, we never made it, got lost and had to overnight in the open — completely exposed to hunger, biting cold and rain. Only his humour saw us through, revealing that this was his fourth attempt! Without food, he asked us to forage for berries and tubers, while also remarking, "Once you start foraging for food, you won't have time to find your way out... We are all going to die here and will be found centuries later by anthropologists who would claim that they discovered a polyandrous society! (I was the only woman with a group of 5 men!)"

Akshay Surendra, PhD Student, Yale University (Alumnus of the Post Graduate Program in Wildlife Biology and Conservation, NCBS, 2016-18)

"When I had a health scare, one of the first people I reached out to was Ajith Sir. "Just eat fish", he said. He proceeded to narrate a story about his relative whose response to a heart condition was to become fitter than he ever had been. "Come home, I will make you fish. Every day!", he said. In 10 short minutes, he'd disarmed my fears, brewed hope and extended help unconditionally. My friend, Avishkar Munje calls Ajith Sir, "Dumbledore". He swears he has heard Ajith say, "help is available at NCBS if someone needs it". I believe him!"

Dr. Jagdish Krishnaswamy, Former Faculty, WII & ATREE; Dean, School of Environment and Sustainability, Indian Institute for Human Settlements

"Dr. Ajith mentioned to me long ago that academics and scientists can be remembered by either their published work — which sooner or later becomes obsolete, or the students one has nurtured and mentored. He clearly preferred the living legacy of students who went on to shine, each in their own distinct ways and who, in turn, hopefully would do similar things with their own students and colleagues. Dr. Ajith found the goodness and positives in each and every one of us, and although he may have struggled with our deficiencies, he never judged us on those. There are so few like him and we have so much to learn from his outstanding example of inclusive leadership."

Ajith Sir watching northern pig-tailed macaques with students in 2017 (Image courtesy: Dr. Divya Vasudev)

The Institution-Builder

Dr. Kumar's genius lay not only in science but in his ability to unite people. At NCBS, he was instrumental in fostering the Wildlife Biology & Conservation Program into a crucible of interdisciplinary learning. He possessed a unique ability to bridge divides and bring conservationists with diverse perspectives together towards common goals. Many stalwarts in our field admitted being unable to talk with each other, but they could freely speak with Dr. Kumar.

Recognising the limited research on marine mammals in India, Dr. Kumar proactively gathered institutional and financial backing to help establish a marine mammal consortium in 2023. He was also instrumental in developing practical at-sea training programs for students, even participating in the ship-based training himself. Basically, he never walked alone and always tried building consensus towards common causes, despite and giving space to strong and diverse opinions from all and sundry.

While he longed to establish an Association of all wildlife biologists and scientists in the country (only he could have pulled it off!), he put all his energy in the last few years to establish a platform where advancements in wildlife ecology as a field of science could be discussed more broadly. His dream was realised in 2024 with the successful inaugural organisation of the Indian Wildlife Ecology Conference (IWEC), to which he served as the Convenor with Dr. Jayashree Ratnam. The overwhelming consensus among participants was that this conference should become a recurring event, highlighting its significance in providing a crucial platform for researchers and practitioners to connect, share findings, and forge collaborations. Dr. Kumar's leadership in establishing this forum underscores his understanding of the importance of a cohesive and communicative wildlife ecology community for effective conservation action.

Tiasa Adhya, Co-founder and Director, Conservation and Ecology Program, Human & Environment Alliance League (Alumna of the Post Graduate Program in Wildlife Biology and Conservation, NCBS, 2012-14)

"We put together a six-month-long Wetland Ecology Biodiversity and Conservation course (in collaboration with IUCN) without much dedicated funding. Ajith sir agreed to be in the advisory committee and selection panel for the course, without any honorarium. Not only did he help select candidates, he also joined our field course for two days, during which he charmed the course participants so much that many of them continued to remain in touch with him."

Prof. (Dr.) K. Vijayraghavan, Former NCBS Director & Former Principal Scientific Advisor to the Government of India

"When Dr. Ullas Karanth and Dr. Anindya Sinha proposed the idea of starting a master's course in wildlife biology and conservation at NCBS in 2003, there was widespread opposition from the then NCBS community — you know, things like 'it won't work', 'we are a laboratory-focused institution', 'what kind of a course runs in alternate years' etc. However, we gave it a try, and the program became immensely successful and has added vibrancy, drive and enthusiasm to the NCBS campus! The ecology space at NCBS grew beautifully and Ajith's role in it was phenomenal. In hindsight, if we run the 'deletion test' as we do in molecular genetics, the program simply wouldn't have worked without Ajith's inclusive leadership."

Prof. (Dr.) Kartik Shanker, Centre for Ecological Sciences, Indian Institute of Science

"There were so many things that Ajith did that were not advertised. He and I ran the Indo-US Knowledge Initiative Project together for many years in collaboration with Dr. Barry Noon. Mostly about workshops, training and exchanges, the project had little for us personally in terms of research or collaboration. But Ajith and Barry both believed that this was worth more than many of the other things we did as scientists. Great role models."

Dr. Kumar remained a curious researcher till the end and trained himself de novo about marine mammals in 2013 before helping shape the vision of 'Marine Mammal Consortium of India' that culminated in 2023, never taking any direct credit for any of this effort

A Legacy Beyond Loss

Dr. Ajith Kumar's departure is felt deeply, but his legacy is indelible. He taught us that conservation is not a battle waged in isolation but requires people and institutions to come together. His students now lead projects across the globe, while his ethos of inclusivity continues to shape institutions. He leaves behind a remarkable legacy as a pioneering researcher, a dedicated and inspiring educator, and an influential figure who shaped the field of wildlife biology and conservation in India towards developing it as a profession — without ever speaking about his own accomplishments.

His memory and his profound contributions will undoubtedly continue to guide and motivate future generations of conservationists. As we grieve, we also celebrate a life that was lived fully and well, and which burned brightly for wildlife and for people. In his memory, let us reaffirm our commitment to the values he championed: curiosity, compassion, and the courage to bridge divides. He will live on through the work of his students until infinity.

Dr. Ajith Kumar at Pushpagiri Wildlife Sanctuary, Karnataka in 2021 (Image courtesy: Dr. Swapna Nelaballi)

Author
Rohit R.S. Jha *is a Senior Researcher at the Wildlife Institute of India's Conservation Advisory & Policy Cell, where he is currently working as Principal Project Associate. He is an Alumnus of the Post-graduate Program in Wildlife Biology and Conservation at NCBS (2012-14), and a beneficiary of the Late Dr. Ajith Kumar's leadership and mentorship. He acknowledges the kind support of Prof. B.C. Choudhury, Mr. Gyanesh Chhibber (WII), Dr. S. Muralidharan, Mr. Manoharan (SACON) and Ms. Shruti Ghosh (Centre for Wildlife Studies, Bengaluru) for sharing information and other details about Dr. Kumar's work and times with these institutions. Note that information pertaining to Dr. Ajith's tenure at WII and SACON may not be precise, due to lack of older records, and the fact that he neither left his CV with anyone nor is it publicly available.*

Photo Credit: V.Kodeeswaran

Honourable Prime Minister of India, Shri Narendra Modi chairs the 7th meeting of National Board for Wildlife

The 7th meeting of the National Board for Wildlife (NBWL) was chaired by Honourable Prime Minister Shri Narendra Modi on 3rd March 2025 at Gir National Park, Gujarat. NBWL reviewed the ongoing initiatives of the Government of India in wildlife conservation, including the creation of new protected areas and progress under species-specific programs such as Project Tiger, Project Elephant, and Project Snow Leopard. The members discussed the conservation efforts for dolphins and Asiatic lions, along with the establishment of the International Big Cats Alliance. The Prime Minister laid the foundation stone for the National Referral Centre for Wildlife in Junagadh to serve as a national hub for coordination and governance of wildlife health and disease management efforts. Also, he urged the Environment Ministry and NBWL to document traditional ecological knowledge and manuscripts from various regions of India for research and development in forest and wildlife conservation.

The Hon'ble PM released the country's first riverine dolphin estimation report, conducted by the Wildlife Institute of India (WII). The report recorded a population of 6,327 dolphins across 28 rivers spanning across eight states.

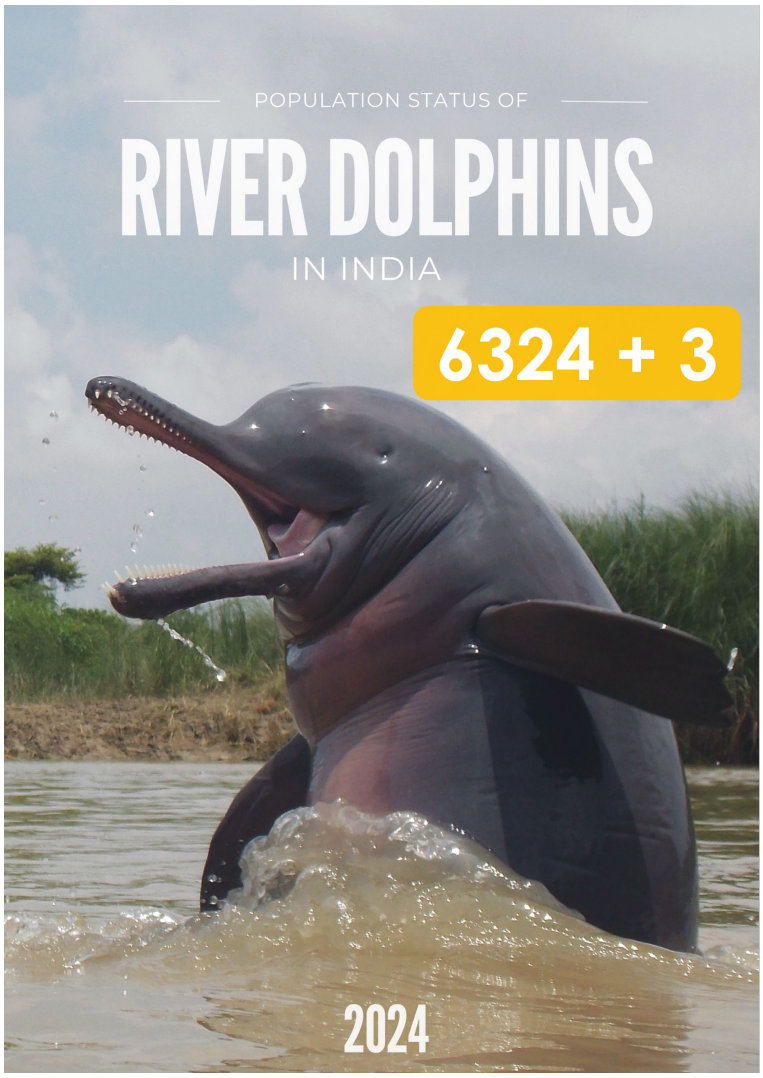
Highlighting the importance of dolphin conservation through awareness and involvement of local populations, the Hon'ble PM suggested organizing exposure visits for school children to dolphin habitats.

The Hon'ble Prime Minister made several key announcements for WII's role in enhanced conservation in the country. He announced establishment of a Centre of Excellence for Human-Wildlife Conflict Management at WII's South-Indian centre, SACON Coimbatore. With an aim to implement conflict mitigation measures, the proposed centre will support States and Union Territories by equipping Rapid Response Teams with advanced technology and tracking tools, developing surveillance and intrusion detection systems for conflict hotspots, and building the capacity of field staff and communities. Human-wildlife conflict being a key focus of WII's ongoing work, this initiative marks a major step toward more structured and technology-driven management efforts.

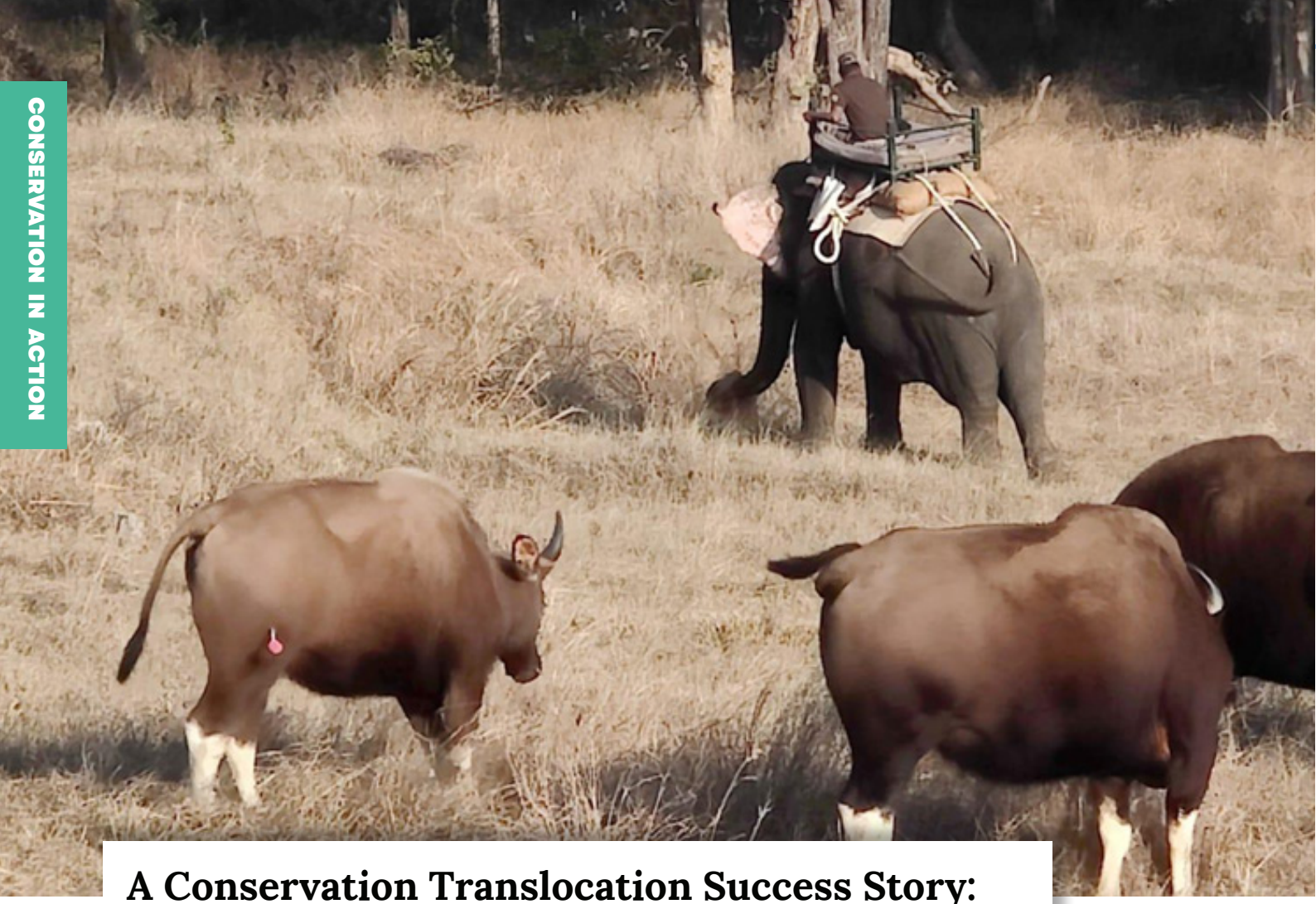
The Hon'ble PM also advocated use of advanced technologies such as remote sensing, geospatial mapping, artificial intelligence, and machine learning to address challenges like forest fires, human-wildlife conflict, and

biodiversity monitoring. He suggested the WII to collaborate with the Bhaskaracharya National Institute for Space Applications and Geo-informatics (BISAG-N) to address human-wildlife conflict through tech-based solutions.

Visualising the long-term conservation of select threatened species, the Hon'ble PM also proposed the formation of task forces for the Indian Sloth Bear, Gharial, and Great Indian Bustard. These announcements reflect a broader strategic direction for India's wildlife conservation, with WII playing a key role in several upcoming initiatives. The Hon'ble PM commended the efforts undertaken towards conservation of Great Indian Bustard. Considering the need to upscale the conservation efforts, he announced a National Great Indian Bustard Conservation Action Plan. The Hon'ble PM also announced that the Cheetah introduction will be expanded to other areas including the Gandhisagar Sanctuary in Madhya Pradesh and Banni Grasslands in Gujarat. Emphasising on the need for conservation of migratory species, the Hon'ble PM also suggested for enhanced cooperation in co-ordination unit under the United Nations Convention on the Conservation of Migratory Species of Wild Animals (CMS).



Hon'ble PM releasing the country's first riverine dolphin estimation report, conducted by WII
(Image Courtesy: DD News)

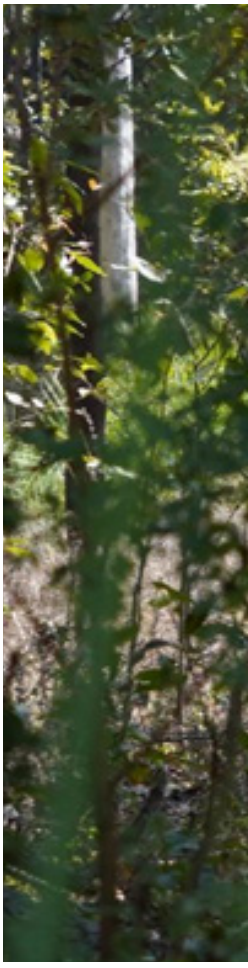


A Conservation Translocation Success Story: Gaur Supplementation in Bandhavgarh Tiger Reserve, Madhya Pradesh

Gorati Arun Kumar*, Ritesh Vishwakarma*, Bhaskar Bhandari*, Gurudatt Sharma**, Rakhi Nanda**, Prakash Kumar Verma**, Anupam Sahay**, L. Krishnamoorthy**, Subharanjan Sen**, Bilal Habib*, Samrat Mondol* and Parag Nigam*

* Wildlife Institute of India
** Madhya Pradesh Forest Department

Part of the MPFD-WII collaborative project titled "Population Management Strategies for Gaur (Bos gaurus gaurus) Conservation: Supplementation of Gaur in Bandhavgarh Tiger Reserve (BTR), Madhya Pradesh".



Conservation translocation such as reintroduction and supplementation has gained significant attention in recent decades. There is a growing interest in re-establishing or supplementing populations that are dwindling or fragmented in their natural habitats aiming to minimize the global biodiversity loss. Conservation translocation became a crucial tool to reduce the species decline worldwide. Moreover, these translocations are important for ecosystem restoration as they provide benefits not only limited to the species level but also at the ecosystem level.

Nestled between the Vindhyan and Eastern flanks of Satpura hill ranges, Bandhavgarh Tiger Reserve in Madhya Pradesh had a small population (< 40 individuals) of Gaur (*Bos gaurus*) until 1995. By 1998, the population was locally extinct. The Bandhavgarh Tiger Reserve provided excellent/ offered an excellent habitat for the gaur, which prompted the Madhya Pradesh Forest Department to collaborate with the Wildlife Institute of India and '& Beyond' (previously CC Africa) to initiate the translocation of 50 individuals from Kanha Tiger Reserve to Bandhavgarh during 2011—2012. The population boosted from 50 individuals to ~170 over a decade, therefore becoming a remarkable example of successful conservation translocation. However, the low genetic diversity within the species raised concerns, necessitating the supplementation of gaur individuals which are genetically distinct from the established population.

The gaur, Asia's largest bovine, is a species vulnerable to habitat loss and genetic bottlenecks. Once widespread across India's deciduous forests, local extirpations have fragmented their populations, necessitating interventions to ensure long-term viability. This case study examines the 2025 translocation of gaurs from the Satpura Tiger Reserve to the Bandhavgarh Tiger Reserve, a landmark initiative aimed at addressing the genetic impoverishment in a reintroduced population. Through interdisciplinary collaboration, advanced veterinary protocols, and adaptive management, the project underscores the complexities and triumphs of large herbivore conservation.

Satpura Tiger Reserve, known for its rich biodiversity, harbours a healthy population of gaur, which has been prioritised for supplementation of gaur to Bandhavgarh Tiger Reserve. Preparations for translocation were initiated on 16th February 2025 with efforts focused on identifying and monitoring herds, as well as approaching and gradually acclimatizing the herds to captive elephants. On 18th February 2025, park managers, wildlife health officers from different parks, teams from the Wildlife Institute of India, School of Wildlife Forensics Science and Health (SWFH, Jabalpur), Wildlife Conservation Trust and other officials from wildlife services gathered at Satpura Tiger Reserve. The team resided at Churna and Dhain rest houses of the Churna and Bori Ranges to oversee the entire translocation process.

On 19th February, a series of important activities were carried out. The day began with a visit to previously identified gaur-distributed areas, followed by a health and fitness examination of captive elephants selected for the field capture operation and a briefing session for *Mahouts*. Afterward, a thorough inspection of vehicles took place which included a small off-road truck, a large transportation truck and stretchers intended for carrying and weighing the animal.

A mock drill was conducted to simulate the process of animal lifting, weighing and offloading onto the vehicles using stretchers. Additionally, a field laboratory was set up and discussions regarding health monitoring essentials and biological sampling relevant to ensuring the fitness of the individuals destined for translocation. The inspection continued with a review of radio collars and marking equipment, darting systems, drugs and medicaments. Duties were assigned to the respective team members, and final arrangements were carefully checked to ensure everything was in place for the successful conservation translocation.

On 20th February 2025, the teams gathered early in the morning at Churna Rest House and had a brief run-through of the capture and translocation process.

The animal monitoring team quickly spotted a herd of 6 individuals at a grass meadow, located just half a mile from the Churna Guest House. As soon as the captive elephants arrived, the darting team proceeded to the location. An adult female, around 4 — 5 years old, was darted using a combination of *Thiafentanil* (a narcotic) and Azaperone. The animal went down on sternal recumbency within three minutes of darting. The team then approached and blindfolded the animal, evaluated its physiological parameters, weighed it, fitted a radio collar, shifted it onto the stretcher with utmost care and carried it to the transport container.

Moving the gentle giant onto a stretcher and subsequently carrying it to the truck positioned on the road head was a challenging task, but was made successful by a dedicated team of frontline staff duly trained through mock drills. Once the animal was safely loaded into the transport container, additional tranquilizers such as intermediate (*Haloperidol*) and long-acting tranquilizers (*Perphenazine enanthate*) were administered to induce sedation during the transportation and for acclimatization at the release site. *Naltrexone hydrochloride* was then administered to the individual to reverse the effects of the initial sedatives. After about two minutes of drug reversal, the animal regained consciousness and stood up in the transportation truck.

Meanwhile, the captive elephants were used to keep the rest of the members of the herd intact and secure while the animal was being transported to the truck. The team quickly returned to the gaur herd and darted a young adult cow following the same protocols. The process resulted in capturing and securely loading 3 individuals in the container. By the end of the day, a total of 5 individuals (3 adult females and 2 adult males) were captured and safely loaded into the transportation truck. This operation continued till 23 February 2025 and culminated in the successful release of 22 individuals in Bandhavgarh Tiger Reserve, marking a major milestone in the restoration of the species.

Once the captured animals were comfortably settled in the transportation truck and after ensuring that there was sufficient fodder and water in the container, the journey to Bandhavgarh Tiger Reserve commenced. A team of field officers, veterinary professionals (Wildlife Health Officers), research scholars and support staff accompanied the animals on the ~ 570 km journey, which took almost 16 - 18 hours. Multiple stops were made along the way to frequently monitor the animal's health and fitness and to provide additional

fodder and water. The team arrived at Bandhavgarh Tiger Reserve the following morning, where the animals were safely released into a specially constructed soft-release enclosure for the initial period.

This enclosure was designed to serve as a transitional space enabling the gaur to adjust behaviourally and acclimatize to the new environment. Furthermore, it allowed the animals to recover from the effects of tranquilizers. The enclosure also supported the development of cohesiveness and herd formation. The animals are currently being intensively monitored to ensure their health and well-being.

The successful establishment of gaur population in Bandhavgarh Tiger Reserve, along with genetic supplementation marks a significant step to ensure the long-term survivability of gaur through improved genetic diversity. This conservation effort is a testament by the conservation enthusiasts to address the biodiversity crisis, by adopting vital measures such as conservation translocation. The success of this translocation is a result of the collective efforts of forest officials, scientists, experienced veterinarians, and wildlife experts, who worked tirelessly to ensure the safety and well-being of the gaurs throughout the process.

National Level Training Workshop for University Professors on Conservation of Macro Aquatic Fauna of Riverine Ecosystem (*Insights*)

-Mohd Dansih Kaleem

Rivers in India hold significant ecological and cultural importance; these rivers support a diverse range of aquatic and semi-aquatic biodiversity and also serve as a lifeline for millions of people. Conserving these riverine ecosystems is crucial for maintaining ecological balance and ensuring sustainable water resources. However, growing human impact, habitat degradation, and increasing pollution pose major threats to these ecosystems.

Recognizing the need to provide educational institutions with the required skills and knowledge for freshwater biodiversity conservation, a four-day National Level Training Workshop for University Professors on 'Conservation of Macro Aquatic Fauna of Riverine Ecosystem' was organized under the WII-NRCD and NMCG projects. The workshop covered a wide range of topics through interactive sessions, presentations, and field demonstrations. Techniques for monitoring river habitats, hydrophytes, water birds, crocodiles, mammals, and freshwater turtles were introduced to the participants.They also gained hands-on experience using field equipment for habitat assessment. Additionally, they learned about monitoring freshwater fish and amphibians, wetland conservation, water quality monitoring, and the application of remote sensing and GIS technology for river conservation. A session on mobilizing stakeholders for conservation highlighted the significance of engaging local communities in river conservation and planning. This was followed by a session on wildlife forensics to help in tackling wildlife crimes.

On the third day, participants visited Rajaji National Park and the Ganga Avlokan Nature Interpretation Centre in Haridwar, where the participants gained firsthand knowledge of conservation strategies in protected areas and had the opportunity to interact with the Ganga Praharis.

Felicitation of Dr.Ruchi Badola

Dr. S.A. Hussain delivering workshop address

The final day of the training workshop featured informative sessions on outreach programs and conservation education.

The training equipped professors with the tools and techniques for integrating river conservation into the syllabus of educational institutions. It successfully strengthened academia in freshwater biodiversity and environmental conservation by equipping professors and educators with scientific know-how, field techniques, and field-based conservation tools. The workshop also emphasized the importance of mobilizing various stakeholders including officers, educators, and local communities. The conservation education session, in particular, empowered participants to serve as catalysts for change within their educational institutions. Participants were also encouraged to incorporate the latest technologies and tools, such as remote sensing and GIS, to enhance transparency and effectiveness in river conservation planning and monitoring. Overall, the workshop was a big success and inspired long-term positive changes in the participants' attitude towards the conservation of macro-aquatic fauna through collaboration between conservation organizations, policymakers, and educational Institutions.

Certificate Distribution

Author:
Mohd Danish Kaleem *is currently working as Project Associate -I under the capacity-building component of the WII-NMCG project.*

Vrindavan's Tales:
A Spiritual Call to River Conservation

-Ashmika Aggarwal & Alankrita Sharma

The WII-NMCG team recently undertook a meaningful field visit to Vrindavan, Uttar Pradesh. The team blended education, community engagement, and spirituality to promote river conservation and inspire young minds.

The journey began with a Wildlife Day celebration at Primary School Naubaramad, where 80 students and 2 teachers participated in interactive lectures and educational games focused on the biodiversity of the Ganga River and its tributaries. Through fun activities, students learned about key species and their vital role in maintaining a healthy ecosystem, sparking a sense of responsibility toward protecting their natural heritage.

Following this, an official meeting was held with the Principal of Ramkali Devi Saraswati Vidhya Mandir Senior Secondary School and teachers from Sarang High Impact School. The discussion centred on the establishment of a Ganga Aqualife Knowledge Centre — an initiative under the WII-NMCG project.

Subsequently, the team conducted a special interactive session at Gauri Gopal Gurukul, engaging 200 students in thought-provoking discussions about the connection between science and ancient Vedic wisdom in environmental conservation. Activities like the "Web of Life" helped students visualise how every organism is interconnected, reinforcing the idea that preserving the Yamuna River's ecosystem means safeguarding life itself.

This field visit to Vrindavan strengthened WII-NMCG's resolve to integrate education and community participation in the quest to conserve India's rivers and ecosystems. By nurturing young minds and drawing from both scientific principles and traditional wisdom, the initiative aims to create a future where nature and culture coexist in harmony.

Authors:
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Alankrita Sharma *is a Project Associate-I under the NMCG-WII project, where she educates and inspires students about the significance of river ecosystems. With a background in Botany, she actively participates in discussions on river conservation and aquatic biodiversity. Her love for both nature and people fuels her enthusiasm for capacity-building efforts. She is also passionate about Bharatnatyam, arts, and crafts.*

Primary School Naubaramad (English Medium), Vrindavan

Mahakumbh 2025: Raising Awareness for the Conservation of Sacred River

-Anshul Bhawsar & Rohit Kumar

"From Devotion to Action: Engaging Mahakumbh Pilgrims and Youth in Ganga Biodiversity Conservation"

Prayagraj Mahakumbh 2025 has served as a transformative platform, fostering environmental consciousness and action among the masses. Through education, entertainment, and direct involvement, the WII-NMCG team successfully instilled a deeper understanding of the importance of protecting the Ganga River. As devotees returned to their communities, they carried a powerful message of conservation, ensuring that the efforts initiated at Mahakumbh continue to inspire and create lasting change together, a future of purity and sustainability for the Ganga River and its magnificent biodiversity.

Prayagraj, where the rivers Ganga, Yamuna, and Saraswati converge, witnessed a confluence of faith and environmental responsibility during Mahakumbh 2025 at Prayagraj, Uttar Pradesh. Recognizing the urgent need to protect the river, which is not only a lifeline for communities but also a symbol of India's profound cultural and ecological heritage, the WII-NMCG team orchestrated a series of impactful awareness campaigns. Through interactive sessions, engaging activities, and dedicated community participation, the event successfully instilled a sense of stewardship, inspiring devotees to become active participants in the conservation initiative.

The campaign commenced with comprehensive introductory sessions, where devotees were introduced to the initiatives of the NMCG project initiatives the critical role of local communities in preserving the Ganga River basin. The visitors eagerly explored the brochures and booklets detailing the comprehensive conservation efforts of the project. An interactive discussion followed, further strengthening their commitment to environmental stewardship and fostering a sense of collective ownership in the mission to protect the Ganga River and its tributaries.

Our Ganga Prahari volunteers played a pivotal role in mobilizing devotees through street plays, cultural performances, and expert-led discussions. These sessions highlighted the threats faced by aquatic species like the Gangetic Dolphin, Gharials, Otters, turtles, etc, emphasizing its population decline due to various factors, viz. pollution, habitat destruction, and climate change etc.

Plastic waste management was a central focus of the campaign. Strategically placed collection bins and workshops on waste segregation and recycling educated devotees on sustainable waste disposal practices. The campaign also coincided

with World Wetlands Day, shedding light on the vital role of wetlands in sustaining the Ganga's ecosystem. Mahakumbh visitors learned how wetlands act as natural filters, provide essential habitats, and contribute to climate resilience, reinforcing the connection between wetland conservation and river health. The team conducted various programs with interesting games related to the biodiversity of the Ganga River for children.

The event concluded with a powerful pledge-taking ceremony, where visitors committed to reducing plastic usage, preventing pollution, and actively participating in conservation initiatives. The overwhelming response underscored the power of collective action in preserving the sacred River.

Sensitization program with Mahakumbh Visitors about the role of community participation in the field of conservation

Awareness about plastic waste and the importance of biodiversity for river ecosystem through various modes by Ganga Prahari

Youth for Ganga Biodiversity Conservation

- S.K. Pal

WII-NMCG team honouring the NSS Programme Officer

A two-day sensitization workshop on 'Ganga Biodiversity Conservation' was organized for National Service Scheme (NSS) volunteers of Hemwati Nandan Bahuguna Garhwal University (SRT Campus) in Sabli Village, Chamba, located in Tehri Garhwal, Uttarakhand. This event, organized by the Wildlife Institute of India (WII) under the project 'Planning and Management for Aquatic Species Conservation and Maintenance of Ecosystem Services in Ganga Basin for a Clean Ganga' aimed to raise awareness and engage young volunteers in preserving Ganga's biodiversity and ecosystem.

The workshop had two primary objectives. First, it aimed to raise awareness about the importance of Ganga's biodiversity, its tributaries, and the environmental challenges it faces. This included educating volunteers on the harmful effects of plastic pollution, particularly ghost fishing gear, on aquatic life. Second, the workshop sought to actively engage volunteers in hands-on conservation activities, including a cleanliness drive and interactive games, while emphasizing the importance of community involvement in protecting the river.

Community-based conservation initiatives are essential for the long-term protection and sustainability of natural ecosystems like the Ganga. By involving local communities, conservation efforts gain greater reach, relevance, and effectiveness. These initiatives empower local people, create awareness, and ensure that conservation actions are not only sustainable but also rooted in the community's needs and cultural values. During the workshop, volunteers learned how local engagement is vital in implementing sustainable practices and conserving the river's biodiversity for future generations.

The workshop concluded with a certificate distribution ceremony recognizing the volunteers for their participation and commitment to conservation. This workshop successfully engaged youth in the crucial task of Ganga biodiversity conservation and empowered them to play a proactive role in protecting our rivers for future generations, emphasizing the importance of community involvement in safeguarding the river's future.

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Volunteers engaged in Outdoor games

Participants during the Presentation

Group Photograph with the Participants

Amrit Dhara – A Festival of Rivers: Uniting Communities for Conservation

Sangeeta Angom, Aakash Maurya & Nidhi Singh

Cleanliness drive with students of Khudeja Girls M.E. School at Rani Ghat, Barjatrapur Village, Cachar

Rivers have been contributing to civilizations and livelihoods while sustaining ecosystems and cultural heritage. Thus, Amrit Dhara — A Festival of Rivers was observed across the country as a national initiative to promote river and biodiversity conservation on 27th February 2025. Spanning 39 districts across 18 states and 2 Union Territories, a total of 4747 people participated in the event. This event was organized by the Wildlife Institute of India (WII) under the auspices of the National River Conservation Directorate (NRCD) and the National Mission for Clean Ganga (NMCG), along with the local community.

The activities of the festival included biodiversity awareness workshops & lectures, river walks, clean-up drives, drawing & painting competitions, yoga sessions and cultural performances engaging students, teachers and local community members of various age groups. The festival covered rivers from Ganga to Yamuna in Uttar Pradesh to Pamba and Periyar in Kerala. School students, teachers, universities, NGOs, and local government bodies actively participated in the event. Amrit Dhara festival was not just an event but a movement to spread the message of conservation and preservation.

Authors:
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Nidhi Singh *is a Senior Project Associate at the NMCG Project. She is working towards developing nature interpretation Centers. She enjoys writing articles and telling stories.*

Cleanliness at Annapurna Ghat, Silchar, in collaboration with Cachar College, Silchar

Yoga session for 200 students of Saraswati Shishu Mandir Higher Secondary School, Chattisgarh

World Wildlife Day 2025: Investing in Nature & Nurturing Young Conservationists

—Aarti Chauhan

On 3rd March 2025, the WII-NMCG Team celebrated World Wildlife Day with the students of Welham Boys' School, Dehradun, endorsing this year's theme—Wildlife Conservation Finance: Investing in People and Planet.The event aimed to enhance students' understanding of biodiversity, highlighting the Ganga River's rich ecological heritage and the significance of sustainable conservation efforts. The session featured an engaging lecture by Dr. Sangeeta Angom, Scientist and Training Coordinator, where participants explored India's biodiversity, gaining insights into the WII-NMCG project and its mission to protect the unique aquatic and terrestrial species of the Ganga River Basin. Additionally, Dr. Soufil Malek provided fascinating insights into identifying animals and birds by their distinctive calls and behaviors. The interactive discussion captivated students, sparking curiosity about the interconnectedness of species and ecosystems.

Lecture by Dr. Sangeeta Angom

Glimpses from WII Nature Trail visit

The celebration continued with a guided walk in a nature trail, allowing students to experience biodiversity more closely. As they walked through lush greenery, a serene lake, and dense vegetation, they participated in identification exercises, identifying various bird species, native plants, and insects found in the region. The team guided them in understanding the ecological roles of various species and their contributions to the Ganga River ecosystem. Activities such as bird-watching, plant identification, and nature-based games offered an immersive learning experience. The event concluded with a wildlife-themed quiz and interactive discussions, reinforcing the significance of conservation finance in sustaining biodiversity. With the participation of 60 students and six teachers, the celebration successfully instilled a sense of responsibility and appreciation for wildlife conservation and the need for long-term investment in protecting natural resources.

Glimpses from WII Nature Trail visit

Group Photograph

Jalmala Samvaad: Transforming Conservation Education by Empowering Young Minds for a Sustainable Future

-Kumari Babli and Piyush Pandey

As Benjamin Franklin wisely said, "Tell me and I forget, teach me and I may remember, involve me and I learn." The sentiment perfectly dictates the reason why conservation education is so crucial, especially for children. It is not just telling young minds about nature and the environment but equipping them with understanding, a sense of nature responsibility, and the drive to act in ways that secure a healthy planet's future. Establishment of Jalmala Samvaad is a vital objective under the WII-NMCG project "Planning and Management of Aquatic Species Conservation and Maintenance of the Ecosystem Services in Ganga River Basin for a Clean Ganga". By turning a small school space into a vibrant interpretation corner, Jalmala Samvaad ensures that conservation is taught, lived, and experienced by students in a meaningful way.

This initiative amplifies the hands-on activities and engagement, including creating learning spaces, painting nature murals on school walls, alongside biodiversity display boards on school corridors, and helping children form a deeper connection to environmental conservation. The initiative focuses beyond what a student can learn and helps cultivate a sense of responsibility within the school community for conservation education.

The presence of "Jalmala Samvaad" in the school's corridors acts as a constant sentry and gentle reminder of how crucial it is to protect our environment. As students pass by these Jalmala corners, they are subtly reminded of their crucial and spearhead role in conservation, which fosters a continuous and natural reinforcement of their environmental awareness.

Children as future citizens have an incredible power to spark the change. Children have a great ability to absorb new ideas, which then transfer to their families, creating a ripple effect. This surely will extend the reach of conservation efforts beyond the school gates and into communities. The integrated approach of blending creativity, active engagement, and consistent reinforcement ensures that conservation education and awareness are not just a fleeting lesson but it deeply ingrained in the way school children think. These students will become the driving force behind a sustainable future, ensuring the ethical values of environmental stewardship are passed down positively for generations to come.

Authors:

Kumari Babli *is a Project Assistant in the Nature Interpretation and Education Component. Her work involves designing educational materials, conducting field visits, and video editing to enhance nature interpretation and awareness. Passionate about creative endeavours, she is dedicated to making conservation education engaging and impactful.*

Piyush Pandey *is also a Project Assistant within the same project, where he plays a crucial role as the Database Manager. His responsibilities include managing and organizing the project's data, ensuring its accuracy and accessibility. His work is vital for the smooth functioning and informed decision-making within the conservation education initiative.*

उत्तराखंड के माननीय राज्यपाल महोदय ने भारतीय वन्यजीव संस्थान, देहरादून में वन्यजीव प्रबंधन में ३९वें प्रमाणपत्र पाठ्यक्रम के अधिकारी प्रशिक्षुओं को सम्मानित किया और विशिष्ट स्मृति चिन्ह स्टोर का उद्घाटन किया

२९ जनवरी, २०२५ को उत्तराखंड के माननीय राज्यपाल, लेफ्टिनेंट जनरल गुरमीत सिंह ने भारतीय वन्यजीव संस्थान (भा.व.सं.) का अपना पहला दौरा किया। इस अवसर पर, उन्होंने भा.व.सं. स्मृति चिन्ह स्टोर का उद्घाटन किया, जिसमें वन्यजीव-थीम वाले उत्पाद और स्मृति चिन्ह उपलब्ध हैं। इस पहल का उद्देश्य संस्थान द्वारा वन्यजीव संरक्षण के प्रति जागरूकता फैलाना है।

माननीय राज्यपाल महोदय ने ३९ वन्यजीव प्रबंधन प्रमाणपत्र पाठ्यक्रम के समापन समारोह में मुख्य अतिथि के रूप में शिरकत की। यह पाठ्यक्रम भारत के विभिन्न राज्यों के रेंज फॉरेस्ट ऑफिसर, डिप्टी रेंज फॉरेस्ट ऑफिसर और समकक्ष अधिकारियों के लिए तीन महीने का प्रशिक्षण कार्यक्रम है, जो भा.व.सं. में आयोजित किया जाता है। माननीय राज्यपाल महोदय ने अधिकारी प्रशिक्षुओं को प्रमाण पत्र और पदक प्रदान किए। 'वन्यजीव संरक्षण गोल्ड मेडल' सर्वश्रेष्ठ प्रशिक्षु श्रीमती बेथसेबी लालरेम्रुआती, रेंज फॉरेस्ट ऑफिसर, मिजोरम को दिया गया। 'सिल्वर मेडल फॉर बेस्ट ऑल राउंड वाइल्डलाइफर' श्री उमेश, रेंज फॉरेस्ट ऑफिसर, राजस्थान को प्रदान किया गया और 'सिल्वर मेडल फॉर बेस्ट परफॉर्मेंस इन वाइल्डलाइफ मैनेजमेंट मॉड्यूल' श्री राहुल उपाध्याय, रेंज फॉरेस्ट ऑफिसर, मध्य प्रदेश को प्राप्त हुआ। माननीय राज्यपाल महोदय ने सभी प्रशिक्षुओं और विशेष रूप से पुरस्कार विजेताओं को बधाई दी। उन्होंने कहा कि प्रशिक्षण के दौरान प्राप्त ज्ञान देशभर में वन्यजीव प्रबंधन में बेहतर योगदान देगा।

साथ ही, माननीय राज्यपाल महोदय ने वरिष्ठ वन्यजीवविदों, स्व. डॉ. ए.जे.टी. जॉनसिंह और डॉ. जी.एस. रावत के प्रयासों की सराहना की, जिन्होंने २०२२ में जिम कॉर्बेट के ऐतिहासिक मार्गों की फिर से खोज की, जिसमें मानव-वन्यजीव संघर्ष स्थलों पर ध्यान केंद्रित किया गया था, जो मांसाहारी बाघों और तेंदुओं से संबंधित थे। इस अन्वेषण को 'कॉर्बेट ट्रेल' नामक ७० मिनट की डॉक्युमेंट्री में प्रदर्शित किया गया, जो क्षेत्र के इकोटूरिज्म और प्राकृतिक धरोहर की सराहना करती है।

माननीय राज्यपाल महोदय ने कहा कि मैं वन्यजीव समुदाय में एक सकारात्मकता महसूस करता हूं और वन्यजीव संरक्षण में नवीनतम तकनीक के उपयोग को देखकर संतुष्ट हूं।

इसके अलावा, माननीय राज्यपाल महोदय ने उन्नत पश्मीना प्रमाणन केंद्र का दौरा किया, जो पश्मीना उत्पादों की प्रामाणिकता प्रमाणित करने और वन्यजीव अपराधों से निपटने में महत्वपूर्ण भूमिका निभाता है। अब तक, इस केंद्र ने १६००० से अधिक पश्मीना शॉल प्रमाणित किए हैं।

उन्होंने भा.व.सं. के वन्यजीव फॉरेन्सिक लैब का भी दौरा किया, जो वन्यजीव उत्पादों के अवैध व्यापार पर काबू पाने और वन्यजीव संबंधित अपराध मामलों को हल करने में सहायता कर रहा है।

कार्यक्रम के दौरान, माननीय राज्यपाल महोदय ने भा.व.सं. द्वारा तैयार की गई दो पुस्तकों का भी विमोचन किया: (१) ब्रेन जिम एक्टिविटी - नदी पर निर्भर जानवर और (२) गंगा और इसकी सहायक नदियों का उत्सव। ब्रेन जिम एक्टिविटी पर आधारित पुस्तकें स्कूल बच्चों के लिए विकसित की गई हैं, ताकि उन्हें नदी पारिस्थितिकी तंत्र और जैव विविधता के प्रति जागरूक किया जा सके। दूसरी पुस्तक 'गंगा और इसकी सहायक नदियों का उत्सव' गंगा नदी बेसिन में मनाए जाने वाले विभिन्न त्योहारों और समारोहों के साथ-साथ नदी पारि. स्थितिकी तंत्र और इसकी जैव विविधता पर प्रकाश डालती है। यह पुस्तक गंगा और उसकी सहायक नदियों के सांस्कृतिक, आजीविका और समुदाय विकास में योगदान को भी दर्शाती है।

माननीय राज्यपाल महोदय ने भा.व.सं. द्वारा स्थापित एक डिजिटल रिपॉजिटरी का भी उद्घाटन किया, जिसमें शोध प्रबंध, पीएचडी डिसर्टेशन, तकनीकी रिपोर्ट और अन्य प्रकाशित सामग्री का संग्रह है। यह रिपॉजिटरी भा.व.सं. के छात्रों, शोधकर्ताओं और अन्य हितधारकों के लिए लाभकारी होगी।

इसके अलावा, माननीय राज्यपाल महोदय ने जल जीवन मिशन के तहत जल खाता अभियान की शुरुआत की, जो स्कूल बच्चों और स्थानीय समुदायों को वर्षा जल संरक्षण प्रयासों में शामिल करने के उद्देश्य से आयोजित किया जाएगा। यह अभियान पहले उत्तराखंड के स्कूलों और समुदायों में शुरू होगा और बाद में गंगा बेसिन के अन्य राज्यों में विस्तारित किया जाएगा।

कार्यक्रम के बाद, माननीय राज्यपाल महोदय ने भा.व.सं. के वैज्ञानिक और रजिस्ट्रार, डॉ. एस. सत्यकुमार को उनकी तीन दशकों से अधिक सेवा के लिए शुभकामनाएँ दीं।
डॉ. सत्यकुमार ने उत्तराखंड और अन्य हिमालयी राज्यों में खासकर मस्क डियर, भालू और हिम तेंदुए के

Felicitation of Dr. S. Sathyakumar, Scientist — G & Registrar

संरक्षण में महत्वपूर्ण योगदान दिया है और २०० से अधिक शोध पत्र और रिपोर्ट प्रकाशित की हैं।

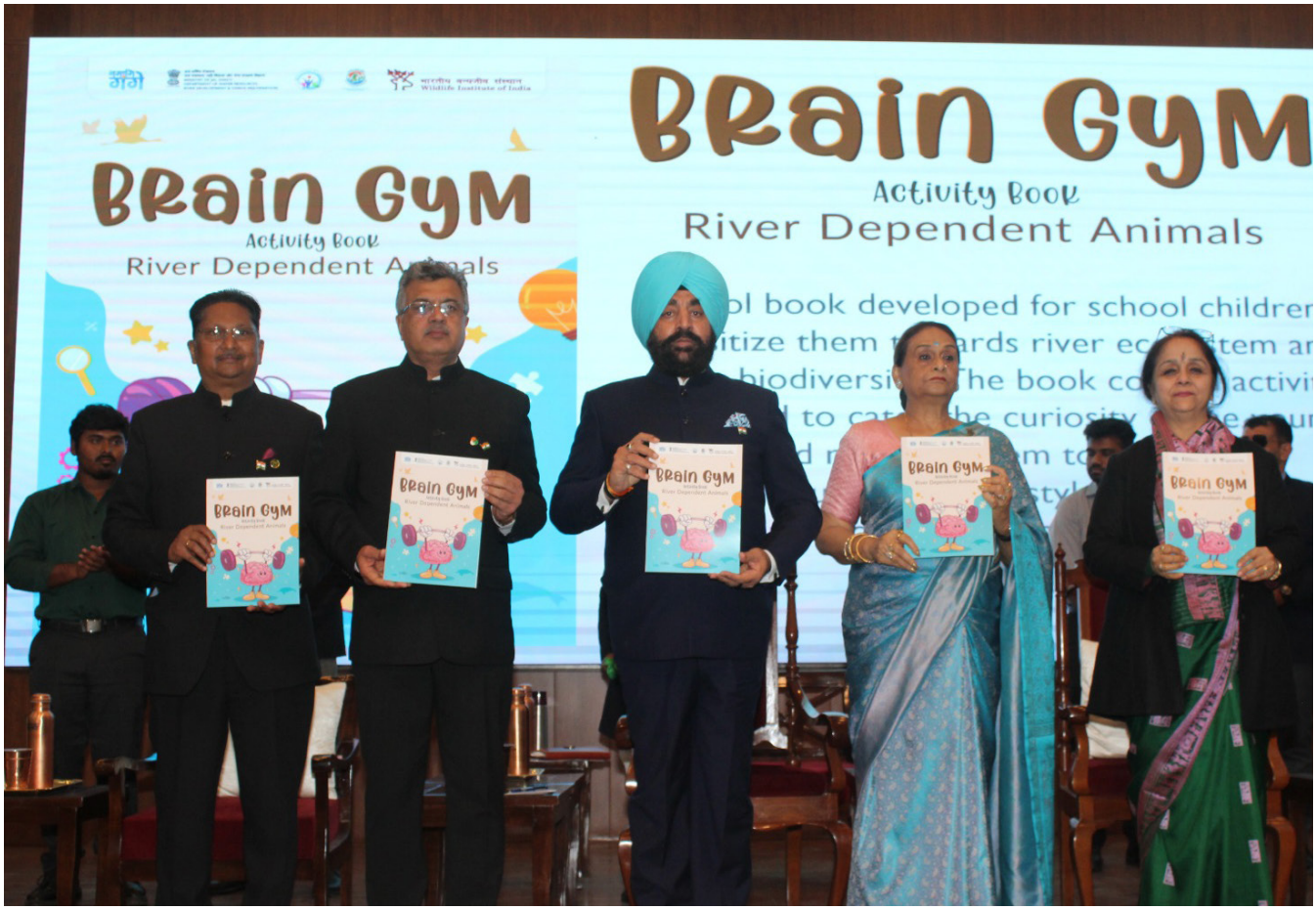
माननीय राज्यपाल महोदय ने भा.व.सं. के सेवानिवृत्त विशिष्ट वैज्ञानिकों, श्री पी.सी. त्यागी, पूर्व प्रधान मुख्य वन संरक्षक एवं वन बल प्रमुख और भा.व.सं. के पूर्व संकाय सदस्य, डॉ. एस.पी. गोयल, रिटायर्ड वैज्ञानिक और डॉ. पी.के. मलिक, रिटायर्ड वैज्ञानिक को भी सम्मानित किया।
मेधावी शोधकर्ता डॉ. आकांक्षा सक्सेना, श्री गौरव पी.जे. और डॉ. स्वप्नाली गोले को भी वन्यजीव विज्ञान और संरक्षण के प्रति उनकी अटूट प्रतिबद्धता के लिए सम्मानित किया गया।

इस अवसर पर, भा.व.सं. के निदेशक, श्री वीरेंद्र आर. तिवारी ने माननीय राज्यपाल महोदय का धन्यवाद किया और कहा कि संस्थान देश में वन्यजीव संरक्षण रणनीतियों में सक्रिय रूप से योगदान देता रहेगा।

संपर्क जानकारी:
डॉ. एस. लिंगदोह , वैज्ञानिक - ई
भारतीय वन्यजीव संस्थान, देहरादून उत्तराखंड
संपर्क नंबर- ०१३५.२६४६२८१

Felicitation of Retired Faculty of WII; Dr. P.K. Malik, Dr. P.C. Tyagi & Dr. S.P. Goyal *(from left to right)*

Felicitation of WII Researchers; Dr. Akanksha Saxena, Mr. Gaurav PJ & Dr. Swapnali Gole *(from left to right)*


Brain Gym
Activity Book
River Dependent Animals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जयपुर में संयुक्त क्षेत्रीय राजभाषा सम्मेलन का आयोजन

-मोहित गुप्ता

१७ फरवरी २०२५ को जयपुर में गृह मंत्रालय के राजभाषा विभाग द्वारा मध्य पश्चिम एवं उत्तरी क्षेत्रों का संयुक्त क्षेत्रीय राजभाषा सम्मेलन आयोजित किया गया। राजस्थान के माननीय मुख्यमंत्री श्री भजनलाल शर्मा इस सम्मेलन के मुख्य अतिथि थे, जबकि केंद्रीय गृह राज्य मंत्री श्री नित्यानंद राय विशिष्ट अतिथि के रूप में उपस्थित रहे। इस सम्मेलन में केंद्रीय सरकारी कार्यालयों, राष्ट्रीयकृत बैंकों, सार्वजनिक उपक्रमों और नगर राजभाषा कार्यान्वयन समितियों के लगभग ३००० प्रतिनिधियों ने भाग लिया।

भारतीय वन्यजीव संस्थान की ओर से सहायक निदेशक (राजभाषा) श्री मोहित कुमार गुप्ता ने सम्मेलन में भाग लिया। हिंदी के प्रयोग को बढ़ावा देने के उद्देश्य से उत्कृष्ट प्रदर्शन करने वाले संस्थानों को सम्मानित किया गया। मुख्यमंत्री जी ने हिंदी को राष्ट्रीय अस्मिता से जोड़ते हुए इसके प्रचार-प्रसार पर बल दिया। यह सम्मेलन हिंदी को प्रशासनिक कार्यों में अधिक प्रभावी बनाने और सरकारी तंत्र में इसकी भूमिका को सुदृढ़ करने की दिशा में एक महत्वपूर्ण पहल साबित हुआ।

Natural Heritage: Bridging Local to Global Connections

-Anuranjan Roy

Natural heritage serves as a foundation for shared connections through identity, history, ecology and geography. In the first quarter of 2025, the WII Category 2 Centre (WII-C2C) for Natural Heritage organized a series of programmes aimed at fostering a deeper appreciation of these values among diverse stakeholders. Local communities living adjacent to Indian Natural World Heritage Sites were introduced to the significance of such prestigious designations. Academics deliberated on the complex issues that heritage needs to navigate, and trainees from 17 countries explored the concepts of heritage through India as a vibrant and dynamic living classroom.

Exposure Visit of GHNP Ambassadors and Ecozone Stakeholders, 6-10 January, 2025 — Bringing World Heritage Knowledge to the Grassroots

WII-C2C, in collaboration with the Himachal Pradesh Forest Department, organized this 5-day programme aimed at extending the understanding of why sites are designated as World Heritage Sites beyond heritage practitioners and senior officials involved in the process. This initiative sought to engage a broader audience, including local communities and stakeholders. The programme brought together 25 participants — a diverse group comprising community representatives, tourism operators and forest department staff — hailing from the vicinity of the Great Himalayan National Park Conservation Area, a UNESCO Natural World Heritage Site.

Adopting a structured approach, the programme began with an exploration of the breadth of heritage across nature(ç—fr), imaarat(bekjr)and traditions (çFkk)— referred to as PIP — before delving into in-depth discussions about World Heritage. Conducting these sessions on-site at iconic World Heritage Sites such as Keoladeo National Park and the Taj Mahal further reinforced the importance of pride, ownership and collective responsibility required to preserve heritage.

Negotiating Heritage, Identity & Citizenship in the Himalayas, 6-7 January, 2025 — Aiding Academic Discourse on Heritage

The multi-disciplinary nature of heritage calls for engagement with many schools of thought and academic disciplines. WII-C2C, in collaboration with the Centre for Himalayan Studies, School of Civilization, Somaiya Vidyavihar University and Humanities Himalaya Society, convened a gathering of scholars from different states and communities to focus on the heritage of Himalayan communities. The conference, attended by 25 participants, highlighted inspiring narratives of resilience, community-led conservation, and harmonious living with nature. These discussions explored potential frameworks and actionable directions for preserving the region's remarkable heritage. The workshop also had a heritage walk to Guru Ram Rai Darbar, a historically significant landmark in Dehradun and integral to the city's identity and culture.

MEA-ITEC 1st Training Course on Natural Heritage (TCNH) & 2nd Certificate Course on Natural Heritage Management (CCNHM)— Advancing International Capacity-Building in Natural Heritage

As a UNESCO Category 2 Centre, WII-C2C stands out globally for its exclusive focus on Natural World Heritage.

In line with its mandate, the Centre hosted two courses for international participants on Natural Heritage funded by the Government of India's Ministry of External Affairs under the India Technical and Economic Cooperation (ITEC) programme. Building on the first programme in 2024, these two capacity-building for natural heritage courses were advertised through Indian embassies, consulates and high commissions worldwide. Out of numerous qualified applicants, a total of 25 participants from 17 countries across four continents were selected to attend. The two-week 1st Training Course on Natural Heritage (TCNH), held from 20-31 January, 2025, and the four-week 2nd Certificate Course on Natural Heritage Management (CCNHM), from 17 February - 13 March, 2025, comprised diverse cohorts. Participants from Ecuador, Peru, Paraguay, Ghana, Ethiopia, South Sudan, Rwanda, Uganda, Tanzania, Mozambique, Palestine, Tajikistan, Bulgaria, Russia, Sri Lanka, Myanmar and Vietnam attended these courses. Participants, ranging from professionals in wildlife management, agriculture, tourism, urban planning, and academia, benefited from expert-led sessions and valuable cross-learning experiences. Classes themed on Natural Heritage & Conservation, Concepts and Conventions, Heritage Management, Heritage Interpretation, and Socio-Economic Aspects of Heritage enabled a holistic understanding of heritage applications. Sessions on biodiversity, international conservation designations, World Heritage management, the Outstanding Universal Value (OUV) framework, and the nomination process deepened their insight into pursuing World Heritage Site recognition. Field tours to Rajaji National Park, Keoladeo National Park, Taj Mahal, Fatehpur Sikri, and Qutb Minar provided hands-on exposure to the intricacies of managing World Heritage Sites, fostering shared experiences and creating lasting memories. Interactions with experts at the Archaeological Survey of India and the National Museum in New Delhi enriched participants' understanding of heritage and its many dimensions.

Conclusion

In summary, the first quarter of 2025 marked significant progress for WII-C2C in advancing its expertise in the domain of Natural Heritage. By organizing these programmes and drawing from the rich knowledge and diverse experiences of the trainees, the Centre has both shaped and been enriched by the array of values explored. Recognizing the intricate nature-culture linkages that transcend global cultures, these events have propelled the discourse on natural heritage forward and will serve as a guiding framework for the Centre's future initiatives.

WII's Partnership for Global Wildlife Health: A Field-Based Training Program

Wild animals face enormous health challenges due to climate change and ongoing human impacts on natural environments, prompting a new paradigm in veterinary medicine that spotlights the health management of wild animals.

In response, the Wildlife Institute of India (WII) in partnership with the Zoological Society of London (ZSL), the University of Edinburgh (UoE), the Royal Veterinary College (RVC), the University of Melbourne (UoM) and Toronto Zoo has been jointly running a field course titled "Interventions in Wild Animal Health (IWAH)" in Sariska Tiger Reserve since 2016. This course provides a good opportunity for prospective veterinary specialists to learn about the complexities involved in preserving the health of wild populations and covering ecological survey techniques, disease outbreak investigation, pathological examination, understanding challenges of the human-wildlife interface, wildlife forensics, and best practices in wild animal restraint and anesthesia in the field.

In a significant expansion of its reach, the 2025 iteration of the IWAH course was held in Africa for the first time, taking place at the Wildlife Research and Training Institute (WRTI) in Kenya and Hell's Gate National Park from 17th February to 6th March 2025. This 18-day course drew 27 wildlife veterinarians from 13 different countries, focusing on developing field practical skills in population monitoring, disease outbreak investigation, and wildlife capture and restraint. The course was led by a team of expert tutors from collaborating institutions, including WRTI, Kenya Wildlife Service, WII, UoE, RVC, ZSL, UoM, and Toronto Zoo.

A team of experts, including Dr. Ruchi Badola, Dean of the Faculty of Wildlife Sciences; Dr. Parag Nigam, Scientist G and Head of the Department of Wildlife Health Management; and Dr. Bilal Habib, Scientist F, Department of Animal Ecology and Conservation Biology from WII, provided valuable inputs to the course.

Since its inception, the IWAH course has had a profound impact, enhancing the capacities of 254 veterinarians from 35 different countries in various aspects of wild animal health, welfare, and conservation. By shaping the perception of veterinary professionals and promoting a sustainable and harmonious coexistence, the course has played a vital role in fostering a community of professionals dedicated to the responsible handling and conservation of wild animals.

For those interested in participating in the next iteration of the IWAH course, which is scheduled to take place in India in February 2026, please visit (https:\\iwah.org) for further information.

For more details contact - nigamp@wii.gov.in

Between Lectures and Landscapes: Orienting into a Wildlife Veterinarian

-Dr. Abhilasha Sharma

As my colleague and I sat on the lawn's edge at *Tiger's Den* at Sariska Tiger Reserve, waiting for our cab after everyone had left, a quiet sense of lost purpose settled over us. The training had ended, and there was no more nudging us to move to the next item of the schedule. Now, with the training over, we had nothing left to do but return home. Yet, the inertia of the 10-day-long training lingered.

This was the most anticipated training from the Department, and I feel fortunate to have been part of the Orientation Workshop on Wildlife Management and Health. Organized by the prestigious Wildlife Institute of India, this workshop aimed to sensitize veterinarians from the Animal Husbandry and Veterinary Department, the Forest Department, and NGOs working in wildlife conservation. It served as a concise yet comprehensive capsule of essential aspects, with each session meticulously tailored to meet the unique challenges of being a wildlife veterinarian in India.

The classrooms were alive with a myriad of topics viz. wildlife rescue, management, health, law enforcement, and conflict mitigation. The hands-on sessions were the most impactful—whether it was the mock drill of wildlife crime scenes or the health assessment of a leopard. Both the remains of dead animals and live ones had valuable lessons to offer. We even learned to determine the sex of a reptile! The field trips provided an invaluable perspective. The level of sophistication demonstrated in the approach towards optimal healthcare for animals was truly awe-inspiring. Most notably, learning about innovative enrichment techniques and training methods, rooted in positive reinforcement, stood out as a remarkable model for animal welfare. This experience compelled us to rethink traditional training systems and explore ways to improve animal well-being and comfort. Though 10 days felt too short for such an intensive course, it was masterfully structured to reshape our thinking and equip us for the field. Though exhausting at the moment, by the end, we found ourselves wishing for just a little more time.

Entire team of operation: health assessment of a male chital (2nd) at STR

At first glance, the life of a wildlife veterinarian seems full of adventure, but the deeper I delve, the more I realize that beneath the adrenaline rush lies a foundation of experience, meticulous observations, and patient learning- essential elements that ground them and make them adept wardens of wildlife health. Although veterinary practice is inherently demanding and risky, the challenges of wildlife veterinary work are even greater. Unlike clinical practice, where patients are treated in controlled environments, wild animals live in complex ecosystems where countless factors are in constant, unpredictable motion. This magnifies the challenges, requiring heightened preparedness and a diverse skill set. A veterinarian in the wild must not only be proficient in veterinary medicine but also have a strong grasp of ecology, biology, and related disciplines. Additionally, they must be keen observers, quick in both thought and action and capable of making rapid decisions to navigate the unpredictable dynamics of wildlife care. In the wild, there are no second chances—carelessness can lead to fatal consequences.

Beyond medical expertise, leadership is crucial in wildlife conservation. A good leader must balance scientific principles with practical realities while respecting the natural order. Knowing when to intervene and when to step back is crucial—resisting the temptation to play God. Leadership is also about recognizing when to step aside, and ensuring responsibilities are distributed so the team operates seamlessly. This was a vital lesson we learned during our field exercise in Sariska. As a sportsperson, I have always believed that mistakes are essential for growth, allowing us to refine our skills before the real test. But in the field, there are no second chances—every action has consequences, and focus is paramount. During the exercise, our group was divided into two teams and my colleague and I were assigned to collect biological samples from a darted chital. Having observed the challenges faced by the first team, we adjusted our approach, improving coordination for a smoother darting, assessment, and release. Each member carried out their assigned role with precision, without overstepping boundaries. This seamless collaboration reinforced the value of teamwork, adaptability, and real-time learning.

To be a wildlife veterinarian, one must be not only observant but also open to new ideas and perspectives. While we are trained to closely examine our patients, we often overlook the environment they inhabit. This course, especially each class, provided us with fresh lenses through which to observe the world. Our field trip to Keoladeo National Park transformed the way I looked at birds. Species I had previously lumped together as mere “crows,” “ducks,” or “storks” suddenly revealed their diversity. With the help of our tuk-tuk driver and some diligent note-taking, we identified nearly 30 different bird species.

In a moment of sheer excitement at spotting a Nilgai crossing a waterbody alongside flocks of common coots and cormorants, one of my colleagues even lost her precious workshop notebook to the water; fortunately, it was later retrieved! Although the adrenaline rush from this trip has started to fade, I still find myself holding onto its high—as my colleague and I found ourselves spotting pelicans and knob-billed ducks at a tourist spot in Rajasthan. The healing abrasions on my legs from the field-work in Sariska Tiger Reserve serve as a tangible reminder: Yes! I was part of the team and I collected blood from a chital. And now, this small “battle scar” is something I wear with pride- a silent testament to the journey, the intensive

lessons that were made easy by our mentors and the moments that will stay with me forever.

The more I learned in the last few days, I realised how little I actually knew. This training was designed to do exactly that—to sensitize and reorient us, shifting our perspective from that of a clinician to that of a conservationist. But what truly stays with me are the skills beyond the classroom—keen observation, adaptability, and teamwork. These lessons are not just for the wild; they shape the way we navigate challenges, make decisions, and work as a team in everyday life.

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Every member in the group sprung into action according to their designated roles during the operation of health assessment of a darted Chital at STR

Fishing A Cat

-Joshika Komarla

From the boat at night, we spotted the eye-shine of salties just like this one.
Photo Credit: Shreyas Prashant.

Cats are generally elusive, and this is especially true for the smaller ones. As a group, we were all ruefully reminded of this on our Techniques Tour in Tadoba—where our fascination with a tiger cub on the trail caused us to miss a rare sighting of a Rusty-Spotted Cat mother and cub! We saw around ten tigers on that trip, but never a Rusty, except on camera traps.

This time, heading out for our Wetlands Tour, we were all excited for the chance to spot a fishing cat (*Prionailurus viverrinus*) - a cryptic felid found in Bhitarkanika. On our second night, we boarded our bus around 10 PM, heading to a jetty where we'd switch to a boat to search for fishing cats. Somewhere along the way, the bus braked hard - just in time for us to see something sandy-shaded dart across the road. A Jungle Cat! Our luck wasn't looking too bad after all. We hadn't even reached the jetty, and we'd already seen more than we'd bargained for - a lifer for many of us.

Once at the jetty, we quickly took our places on the boat, gripping the rails for support. Within minutes, we were off along the channels of the Brahmani River. Our Tour-In-Charges, Dr. Gopi and Dr. Chinmaya, reminded us to keep our windcheaters handy, anticipating a return by midnight. None of us knew what the night had in store for us.

Looking down at the waters around us, we expected darkness. After all, it was late at night in a place far from city lights. We should have seen nothing - but instead, the river shone back at us. It took us a moment to realize that the waters were teeming with bioluminescent algae.

As the bow of our boat sliced through the current, the disturbance shimmered with light. Mullet fish skipped across the current, breaking the water's tension; wherever they jumped, they left light in their wake. For the first hour or two, it felt like a dream. However, as the night dragged on, the luminescence dimmed and the wind hit hard, leaching warmth from our bodies. Eventually, we drifted into the mouth of the Bay of Bengal. We moved back and forth between the waters of the Brahmani River and the open expanse of the Bay, and somewhere in between the mangroves sent out ripples of light - they were fireflies!

We had seen these flashes the night before as well. As we walked back from the jetty in Bhitarkanika National Park to our accommodation, hundreds of thousands of fireflies lit up the canopy. Male fireflies pulsed their beams in unison, signaling to nearby females. The night sky and the trees became one, stars and fireflies twinkling alike. As beautiful as everything around us was, we had yet to achieve our objective: spotting a fishing cat.

Finally, around 1 or 2 AM, we pulled into a floating jetty. Imagine our dismay when we realized this wasn't the end of our journey - it was just another tactic in our search for the elusive cat. We had arrived at Habalakatti Island. There, we set off on foot, tracking for about 30 minutes. But with nothing to show for our efforts, except a brief sighting of an unassuming dog-faced water snake, we decided to head back and continue our search from the boat instead.

Back on the boat, our sentry was slowly losing men - one by one, we slipped below deck, hoping to sneak in a quick nap. A few of us weren't so lucky; both the fishing cat and sleep had managedto evade us. By 3 AM, the night was cold, and swarms of mosquitoes drained the last of our energy.

The handful of us who stayed up all night.

Then, suddenly - at around 4:15 AM - the field assistant, who had stood firm at the bow since we boarded, began gesticulating wildly at the few of us still awake on deck. He had seen something. It was the cat!

Talk about elusive and cryptic - we had spent the better part of six hours being bitten raw by mosquitoes, only to catch a fleeting glimpse of the cat's rear end as it slinked back into the thick cover of the mangroves. The cat was much larger than we'd pictured, nearly twice as big as a house cat, with a sturdy build and gangly legs.

The dog-faced water snake we saw slithering along a small stream on Habalakatti Island.
Photo Credit: Shreyas Prashant.

Author:
Joshika *is an MSc Wildlife Sciences student at WII with a keen interest in population dynamics and conservation. Her writing is driven by field experiences and the questions that arise from them.*

A Not So Welcomed Guest (*Trachemys scripta elegans*)

-Priyanjali Singh

First observed in the Wildlife Institute's lake in February 2025, the red-eared slider turtle (*Trachemys scripta elegans*) has been present for an extended period. Although numerous students and researchers have reported sightings of two turtles in the lake, I have yet to see them together. This species, originally native to the Mississippi River basin in North America and a highly sought-after pet globally, has become one of the most problematic invasive species. With millions exported worldwide, it has invaded numerous countries, posing significant threats to native ecosystems due to its aggressive behavior and competitive nature.

Recent observations in India indicate its establishment in natural habitats, raising considerable concerns about ecological impacts. Discussions with faculty suggest that the most probable cause for the turtle's introduction to this area is an accidental release, likely due to its appealing habitat in the institute's lake.

These turtles have gotten habituated to humans over time allowing observations at distances as close as three meters.

The turtles have been frequently observed basking on the cement impoundment within the lake. Here, the shallow water is warmer than in other areas and provides a dry, accessible basking area for effective thermoregulation. No notable interaction with other species was observed, but sometimes it is observed to be basking with the other turtle species of the lake, such as the Indian flapshell turtle (*Lissemys punctata*)

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Priyanjali Singh *is currently a student in the MSc in Freshwater Ecology and Conservation. Her interests lie in understanding the river systems and how the ecology and health are affected during the Inter-Water Basin Transfer between two rivers.*

Photograph taken on 7th February, when I first sighted the turtle.

Artificial Canopy Bridges installed in Assam's Hollongapar Gibbon Sanctuary

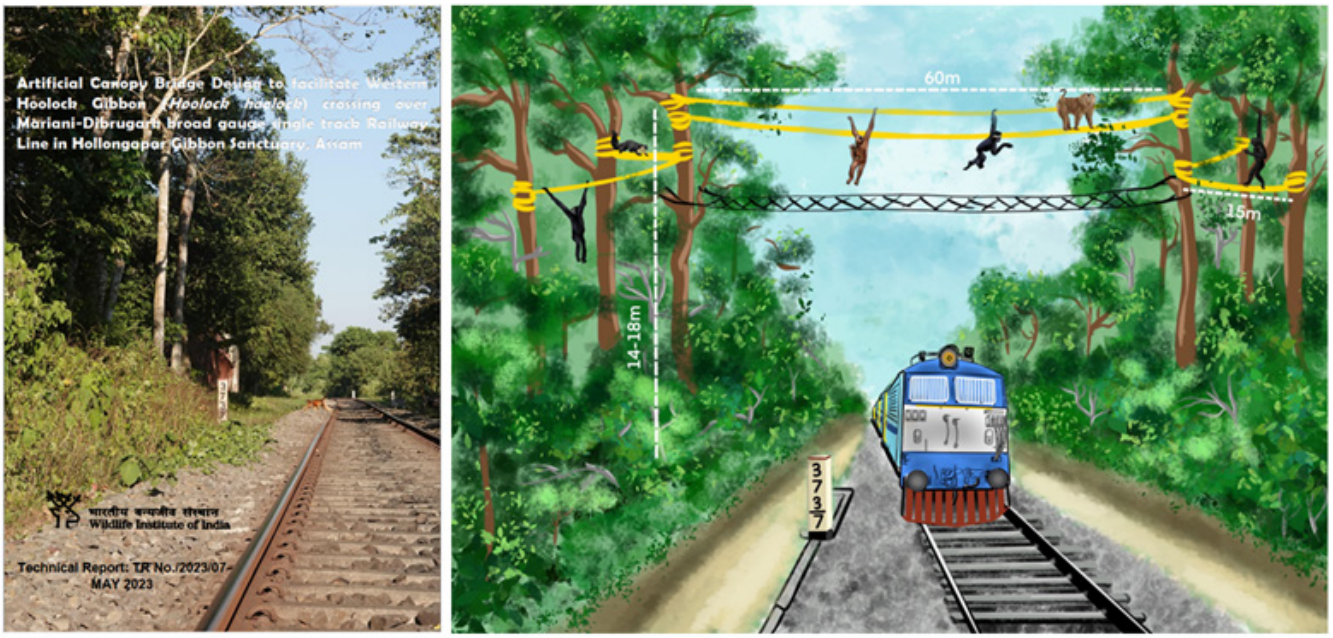
-Rohit R.S. Jha, Nandha Kumar & Govindan Veeraswami Gopi

The Hollongapar Gibbon Sanctuary (HGS) is a tiny 20.98 sq.km Protected Area in Assam's Jorhat district. HGS is situated near the Naga hills and Mariani town at an elevation of 100-120 m above mean sea level in the Northeast biogeographic zone of India. Named after India's only ape, the sanctuary is a home to endangered western hoolock gibbon (*Hoolock hoolock*). Gibbons are apes in the mammalian family Hylobatidae (the 'smaller apes') with four extant genera and 20 species that all reside in the canopies of dense forests in South and Southeast Asia. Predominantly at ease in occupying middle to upper forest canopies, Gibbons move gracefully yet acrobatically from one branch to the other, primarily using their long forelimbs — this mode of locomotion is called *brachiation*.

In this small biodiverse Sanctuary, a population of 125 gibbons living in 26 family groups — as per a Departmental census conducted in 2019 — have been compartmentalised into two unequal habitat fragments by the single track Lumding-Dibrugarh railway line. While this linear infrastructure exists since 1887, the Sanctuary has become a *forest island* due to deforestation for establishment of tea plantations and villages on all sides during 1880-1920, facilitated by the then colonial government. The railway track-imposed canopy gap (>30 m) and the Sanctuary's isolation particularly threaten the gibbon's long-term survival in HGS due to its exclusively canopy-dwelling lifestyle.

In this scenario, and after concerns were raised due to impending track electrification plans by Indian Railways, the Divisional Forest Officer of Jorhat (Territorial) Division (second author), wrote to the Wildlife Institute of India (WII) requesting assistance in designing canopy bridges as a mitigation measure. This photo-story essentially provides a brief glimpse of WII's involvement in this exercise, right from inception, in late 2022, to the field installation of artificial canopy bridges, in early 2025.

November-December 2022: *(left)* As a first step, an all-stakeholder meeting was organised by the DFO Jorhat in the HGS premises, which was attended by railway officials, primatologist Dr. Dilip Chetry (Aaranyak), team of WII ; *(right)* thereafter seven suitable sites along the railway track for artificial canopy bridges (ACBs) installation were identified and trees marked *(images: Rohit R.S. Jha).*



May 2023: *(left)* WII submitted a comprehensive Report to the Assam Forest Department describing the suggested double-rope (Type A, 12 mm diameter, low-static, mountaineering grade, rappelling ropes complying to EN1891 standard) ACB design, *(right)* additionally incorporating a safety net below the double-rope bridge as a fail-safe to prevent any accidental animal death *(illustration of ACB design: Vabesh Tripura/WII).*

(left) The 1.65 km railway track (part of Lumding-Dibrugarh rail section) within the HGS remained un-electrified for a long time; however, its electrification proposal in 2021-22 and *(right)* subsequent laying of overhead transmission lines in 2024-25 by Indian Railways hastened the implementation of ACBs for gibbons/arboreal animals at HGS as a mitigation measure *(images: Rohit R.S. Jha)*.


February 21, 2025: Facilitation of the installation of ACBs in the field with the expertise of the team from Assam Mountaineering Association (AMA); *(left)* AMA's Jeet Gogoi demonstrated and oriented the local field team to essential climbing, rope-mounting and safety techniques; *(right)* DFO Jorhat briefed on the need for installing ACBs for gibbons at HGS *(images: Rohit R.S. Jha)*.


February 21, 2025: *(left)* ACB installation work at site no. 6 began in all earnest through and in the dense rainforest cover, where the stupendous climbing skills of the local field team — led by Pappu, Indra, Shibu and others, under the watchful eyes of the AMA expert and ecologically-relevant inputs by the first author; *(right)* the DFO secured 'railway blocks' of specific durations to help haul the ropes across the overhead wires/railway track once they were secured on one side *(images: Rohit R.S. Jha)*

February 21, 2025: *(left)* After a final and sufficient tightening of the rope from the ground, the *(right)* double-rope artificial canopy bridge at site no. 6 became officially the first one to be fully installed at 1.40 pm, bringing joy to all our faces; shortly thereafter the Assam-Avadh Express became the first train to pass under the ACB. Two other ACBs were put up similarly (at site nos. 4 & 7) along with a few secondary lateral single-rope connections within the fragments to help gibbons get acclimatised to the bridges' material and texture.
(images: Rohit R.S. Jha)

February 22-23, 2025; *(left)* With the help of harness and other safety gear, the first author climbed (rather was pulled up) several trees at >50 feet height to help install (and train Pappu in installing) pairs of motion-triggered, infrared and 4G-enabled camera traps to capture animal crossing events; *(right)* a test image captured and transmitted through internet (accessible by a mobile app on ground) by one of the cameras during installation overlooking the double-rope ACB *(images: Rohit R.S. Jha & Assam Forest Department).*

March 2025: After a few days' break, work resumed on installing ACBs at two other identified sites (for a total of five) and safety nets beneath ACBs at all five sites; *(left)* hauling up the relatively heavier 2.5 m-width safety nets (polypropylene material, varying thickness) was a tough task, while *(right)* the local field team climbed up (Indra is seen in this image) and placed bamboo sticks as 'tighteners' that ensured the shape and width of the safety net to the required extent. Work carried on until April 04 until secondary single-rope connections on either side at all ACB locations was given and camera traps installed/checked *(images: Rohit R.S. Jha)*.

March 2025: Field installation of ACBs at the HGS was successful only due to it being a collaborative exercise led by forest officials and staff, local climbing team (led by Pappu, Indra and Shibu) with support from AMA's expert mountaineers and ecologists from WII *(image: Rohit R.S. Jha)*.

Hearteningly, and right after the first set of ACBs were installed, gibbons ***(left and centre top)*** and other arboreal animals such as hoary-bellied squirrel (centre bottom) and capped langur ***(right)*** have begun venturing very close to the ACBs, however no actual crossing event has yet been observed. These animal approaches are being regularly and meticulously monitored by the Sanctuary's field staff while the Conservation Advisory & Policy Cell at WII continues providing all possible technical support and knowledge inputs; we hope that gibbons start using the bridges very soon ***(images: left, centre bottom and right by Stanzin Zangmo; centre top courtesy: Nandha Kumar).***

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Photo Credit: Arnab Chattopadhyay

Revisiting r- and K-Selection: Why this classic theory no longer fits modern ecology

-Shivam Shrotriya

Few would dispute the influence Eric R. Pianka (1939-2022) left on evolutionary and theoretical ecology. He was a renowned American biologist known for his seminal work on lizards. His most significant works include niche measurement, niche overlap and competition, and r- and K-selection in life-history evolution. On Pianka's death (12th September 2022), we held a Friday Forum discussion at the Wildlife Institute of India hostel, commemorating his great work developing these now-ubiquitous ecological concepts. The r- and K-selection model (Pianka 1970) was one of the topics discussed, and it was astonishing to see how most of the participants knew the theory and understood its core ideas well but didn't quite grasp why the theory is considered an outdated concept in modern literature on life-history research.

I reckon that most of us do not delve into literature beyond our core research field and accept the concepts learnt in our ecology classes as foundational without raising questions. Pianka himself introduced the concept of r- and K-selection in the ecology curriculum through his book Evolutionary Ecology, first published in 1974, which is considered a classic. Many of the ecology textbooks to date not only include a section on the r- and K-selection but also give a sense that it is a time-tested and well-accepted theoretical concept. Years back, during my general readings, I read an excellent blog post by Dr Jeremy Fox on how r- and K-selection is a zombie idea in ecology (Fox, 2011), which sparked more reading into this topic. In this article, I'm giving a short overview of what the r/K selection theory entails and why it makes little sense to interpret life histories in light of the modern understanding of evolutionary ecology.

The r- and K-selection explains why some animals have lots of babies while others have only a few.

The basic idea revolves around the selection of life histories as strategies towards either maximising breeding productivity or maximising breeding efficiency by increasing the survival potential of the offspring. The species that are thought to follow r-selection, or maximise reproduction, produce a large number of offspring during breeding. Most of these offspring die young, but the breeding numbers ensure that enough individuals survive to keep the species going and transfer the parental genes to the next generation. The young ones grow fast and start reproducing early in life. Such species are supposed to have evolved in unpredictable climates or where environmental conditions fluctuate a lot, and population size is far from reaching the carrying capacity of their environment. Examples of r-selected species could be insects, frogs, fishes and invasive plants. On the other hand, the species that are thought to follow K-selection reproduce less frequently, have fewer babies, and invest their time and energy in raising and protecting their young ones. The individuals in these species grow slowly and take longer to mature and reproduce. These species are supposed to have evolved in stable environments where food and space limited the population size, or in other words, the population dynamics is operating at the carrying capacity. Although there is a higher competition for resources in these populations, the individual survival probability is higher, particularly at a young age. Some of the examples of K-selected species could be elephants, wolves, whales and us, the humans.

On the surface, the theory of r- and K-selection appears to make perfect sense, classifying all the species into r- or K-selected based on their reproduction strategy. It even logically follows further, seemingly predicting the population growth stage and physiology of the species based on the reproduction rates

. A species showing semelparity (single massive reproductive phase) must have a short life span, occur at densities far lower than carrying capacity and have plentiful resources. And a species showing iteroparity (repeated slow reproduction) must have a larger body, delayed reproduction, and evolved under a stable environment. When the idea is floated that this is not a good picture of the reality, most ecology students are quick to point out that species may not be pure r- and K-selected but fall on a continuum from r- to K-selection, evolving in a fluctuating environment that exerted different r- and K-selection pressure at various stages of their evolution (an explanation from Pianka himself).

Why it is then that the r- and K-selection is considered an outdated and zombie idea? Reznick *et al*., (2002), reviewing r- and K-selection theory, quoted Stearns (1992) in the opening: "*This explanation was suggestive and influential but incorrect.*"

The purpose of a scientific theory is not only to explain the existing patterns but also to predict about the subject based on knowledge of connected information. As the interest in life history research gained momentum following Pianka's work, researchers soon realised that the theory was failing to meet its predictions. Empirical and experimental studies repeatedly found that the populations of the same species evolving under different densities still showed selection for similar life history. On the other hand, at times, populations of different species with similar densities and resource availability grew apart in their life history strategies (see examples in Reznick *et al.,* 2002; Mallet 2012).

What were the main reasons behind this monumental failure? To start with, the model offers an overly simplistic model of life history evolution as the outcome of a single selective pressure- density dependence. But the world is not so simple. For example, the model does not involve predation, a real parameter that can affect the life histories. In addition to density-dependent selection, populations may face other types of selection pressures, such as frequency-dependent selection.

A frequency-dependent selection is when the success of a life history trait, as being a prolific breeder or having a few young ones, depends on how common or rare it is in the population. For example, in a fish species where most individuals spawn many eggs, predators might be feasting on these eggs, leaving only a few survivors. A few individuals in this population may increase their reproductive fitness by investing in spawning fewer eggs and hiding them better.

Simplicity and failure to account for additional parameters are not the only reasons. There lies a conceptual flaw in the model itself. To understand this, we need to learn a bit of history of how Pianka came up with the r- and K-selection ideas. Everyone who studies basic population ecology knows the logistic growth model of population.

The original logistic model was developed by Verhulst (1938) as a contrast to exponential growth, explaining self-limiting growth in biological populations. And almost all the textbooks represent this model mathematically as:

$$\frac{dN}{dt} = rN\left(1 - \frac{N}{K}\right)$$

Where, r represents the intrinsic rate of population increase when the population density is very low, N is the initial population size, and K is the population size at equilibrium where addition and subtraction rates in the population are equal. The model is a mathematical statement saying that the population growth at an early stage, when density is low and resources are practically unlimited, would be as close to the intrinsic growth rate. As individuals start adding, the competition for resources rises and begins to play its role in limiting population growth, and the graph of growth takes an S-shape.Later works by Pearl, attempting to estimate the cap on the human population (Pearl 1930), Gause, conducting experimental studies on the growth of microorganism populations (Gause 1934), and Odum's 1953 book Fundamentals of Ecology steered to the K - the upper asymptote of S-shape curve - being generally perceived as carrying capacity or saturation level of the population growth (in Mallet 2012).

The concept of r and K selection has its origin in the famous island biogeography theory (MacArthur and Wilson 1967). In their envisioned island under the first colonisation and having unlimited resources, MacArthur and Wilson thought that in the absence of competition during early colonisation, the selection would favour the individuals that could breed more and utilise the resources. When the population grows close to the carrying capacity and intensifies competition, selection would favour the individuals that remain in the population for longer over multiple reproductive cycles. MacArthur and Wilson termed these density-dependent pressures and r- and K-selection processes, standing for higher reproduction and carrying capacity. Pianka extended this concept to the evolution of life histories, stating that species evolving under r-selection end up having r-selected strategy and vice versa. The life history evolution was seen as a trade-off between r and K (Figure 1); as the population grows larger and closes on K, growth can no longer be sustained. A major problem piece here is K, a parameter that looks real but is near to impossible to measure for real-world populations. The resources fluctuate, the environments change, and the populations could evolve more complex mechanisms to deal with the rising densities. For example, the carrying capacity of a lake with a fish species could come down immediately if waters are exposed to toxins. Such a stochastic event might also reduce r along with K, making predictions even more complicated. This linear relationship between r and K hides another parameter in plain sight, the slope of line-α, measuring per-capita strength of intraspecific competition, or density-dependence. It is a parameter often ignored in the classes on r- and K-selection. The line in Figure 1 can be drawn if we know any two parameters, r and K or α. Suppose we happen to pick the second way of representation, are species no longer K-selected and instead become α-selected where selection for steeper slope would mean a higher density dependence

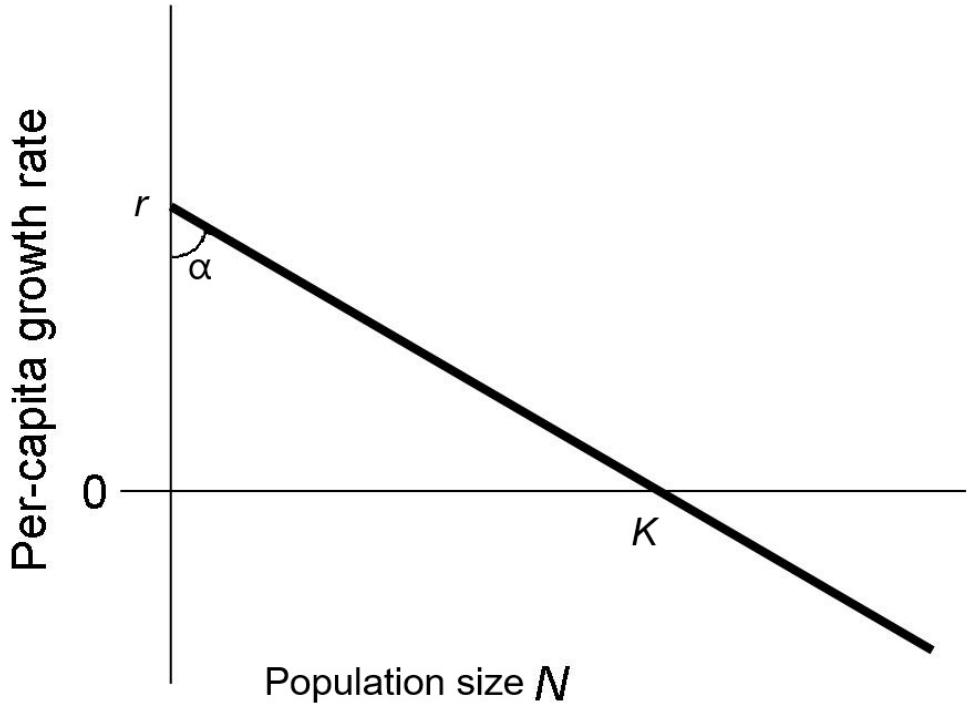

Figure 1.
The density-dependent population growth can be represented as a linear relationship between r — the growth rate — and K — the carrying capacity *(Modified from Fox, 2011).*

(or higher intra-specific competition effect) and would bring down the population equilibrium at lower density? Experimental studies show that populations evolving under low and high densities show differences in competitive ability but not in life-history strategies (see Reznick *et al*., 2002). Measuring α in empirical studies is more accessible than K, and it makes better predictions about the resource limitations remaining within the density-dependent growth model and density-dependent regulations on growth via intra-specific competition. You may also notice that in the r and α model, no trade-off is required between r and K.

The use of the logistic model with r and K as estimation parameters also falls prey to interesting mathematical paradoxes, for example, Levin's paradox (Kuno 1991; see more in Mallot 2012). It is quite possible in real world scenario where the initial population size N is higher than the carrying capacity K. Let's take example where a deer population now has to live within only half of the area previously available to them due to submergence of part of the landscape, making N at this stage already crossing new K. The intrinsic growth rate may also turn negative; reproductive capacity could decline following a change in favourable climatic conditions. An intuitive prediction would be that this population is depleting and heading towards a possible extinction. But if you put a negative r and an N larger than the K into the logistic growth equation, what you get is population growing to infinity. Try it out yourself!

A model of r- and α-selection might overcome many of the problems caused by r- and K-selection for population growth studies. However, it is still insufficient when studying the evolution of life history strategies. The r- and α-selection model remains a different version of the logistic equation:

$$\frac{dN}{dt} = rN - \alpha N^2$$

where, α is connected with K via α= r/K. The logistic equation might hold better for some populations near equilibrium, but it is unrealistic for most cases beyond lab-grown populations of microorganisms. It ignores the effects of separate sexes having different life histories, populations with discrete generations, or time delays in the response to density, effects of dominance and heterosis on mating systems, or group-living advantages. In rare instances, density-dependence could take a counter-intuitive shape; for example, populations at very low densities tend to decline further due to a failure in enough mating opportunities, also known as the Allee effect (Asmussen 1979).

Reznick *et al*.,(2002) concluded that "by focusing on a continuum of density dependence and dichotomizing suites of life-history traits, the r—K paradigm brought a lot of excitement to the empirical study of life histories. As empirical studies progressed, it became clear that the predictions of r- and K-selection were not always upheld and that the underlying assumptions (density regulation) were not easily evaluated. This dose of reality helped the field develop a more rigorous theory." The main alternative to study life histories is demographic theory or age-structured mortality models (Stearns 1992). Different age groups in a population may express mortality under density-dependent or independent selection pressures. Resource limitation might affect juvenile survival more, and predation might be pressuring the adult population. The increased adult mortality would favour early maturing and higher reproductive effort, while increased juvenile mortality would favour delayed maturity and decreased reproductive effort.

The purpose of this article is to educate the students and draw the attention of educators that r- and K-selection theory, as developed by MacArthur and Wilson and later expanded by Pianka, was a wonderful theory with no real application in actual populations. The textbooks and classes still keep teaching it as one of the core ideas in ecology, and that must be changed. The r- and K-selection could be taught for its historical relevance, yet the students must learn the current and more appropriate theories.

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Radical. Raw. Riveting.
A unique perspective on wildlife conservation at the Wildlife Institute of India

- Rajdatta Ranade

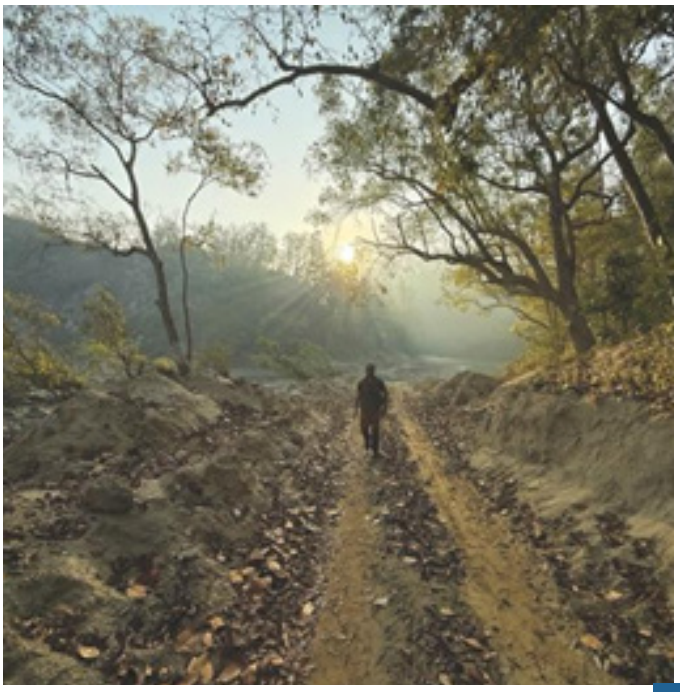
My selection in 'the 9th Course on Wildlife Conservation for Wildlife Enthusiasts' was quite dramatic. Both my wife and I had applied. She got shortlisted while I didn't. The course got oversubscribed. But just as I was getting over the disappointment, I got another email saying that some participants had cancelled and that I could get in. I confirmed instantly.

Entering WII:
As I entered the WII campus, I was greeted by a pleasant drop in temperature. The campus is a masterpiece, with unique architecture nestled inside a Sal-dominated mini forest with its own lake. While it's a birdwatcher's paradise, the overall wilderness and biodiversity inside is just amazing. Our batch of 17 individuals over the period of five days of our stay in the WII campus had frequent sightings of jackals, oriental pied hornbills and many raptors. Some of us even saw monitor lizards and the elusive porcupine.

The course:
I would like to begin by saying that the course was very thoughtfully designed. The classroom sessions over 4 days were strung together in a way that each session built on the previous ones. On the other hand, the 6-day field experience unfolded for us with gradually increasing difficulty, like the levels of a video game.

The classroom sessions:
We're all familiar with superheroes who wear capes. But I was fortunate to meet a different species of superheroes - armed with binoculars, microscopes, and an unyielding passion for conservation. I got to learn from some of India's leading conservation scientists - pioneers doing path-breaking work in this field.

Abandoned Gujjar house



Scenic landscape of Lansdowne

Our classroom was the humble Porta cabin, but the wisdom within its four walls was extraordinary. The way every person spoke to us about their area of work was mesmerizing. Take for instance, our course Director, Dr R. Suresh Kumar - a fantastic storyteller. (In my mind, I affectionately call him Dr R. Suresh Attenborough!). His sessions on Amur Falcons and Tricarinate Turtles were truly captivating. Dr Lakshminarayanan's talk on mega herbivores was inspiring. Dr Bilal's perspectives on linear infrastructure and wildlife management were thought-provoking. Dr Nigam's enthusiasm while talking about wildlife in distress was infectious. Dr Gupta's session on forensics was eye-opening. Dr Sameeha's playful charm while talking about dugongs had its own appeal. I could go on and on about each faculty member. Despite back to back sessions packed with knowledge, I greedily kept wanting more.

In all, the classroom sessions broadened our perspectives on conservation and management practices in India. We were exposed to the conservation and research of large carnivores and mega-herbivores and also the research on rather less charismatic species such as the Amur Falcons, Dugongs, Golden Mahseer, etc. The classroom sessions were structured in such a way that, sitting in the foothills of the Himalayas, we travelled far and wide in the country, from research in the Trans-Himalayan landscape to Andaman and Nicobar Islands, and from Northeast India to the arid grasslands of the western Indian region.

The field days:

Our first field session was a guided walk on the WII campus. Ms. Amarjeet and Dr. Amit Kumar led us through the lush surroundings, sharing their expertise on various lifeforms inhabiting the campus. They patiently chatted with us and answered all our questions along the way.

On the 3rd day, we were taken to Benog Wildlife Sanctuary. As we walked past 'Cloud's end', we got mesmerized by splendid views, complete with gentle streams and mini waterfalls. We soaked in the serenity of the sanctuary as we walked. By the end of it, I was happily tired and couldn't help but wonder if this trek was a fitness test in disguise.

Scenic landscape of Lansdowne

On the 6th day, we embarked on an early morning bus ride to Saneh Forest Rest House in Kotdwar. Accompanying us were Dr. Johnson and Dr. Amit Kumar. We were also joined by two people from the Gujjar community — Anu and Ammi, who were our guides, shielding and guiding the whole group from start to end. They knew the forest incredibly well.

The next 5 days in Lansdowne Forest Division were straight out of a dream, and I was in for a thrilling experience of a lifetime. From Saneh, we walked about 10 km to Kolhuchaur. 'Kolhu' is a river flowing through the hilly terrain of the Shivaliks. And 'chaur' means open meadows. We walked the scenic undulating Himalayan terrain to the crunchy sound of fallen dry leaves beneath our feet, sweet tunes of songbirds, shrill cries of raptors, and musically flowing river waters. We crossed the serpentine Kolhu multiple times along the way. The pristine landscape, fresh air, and the feeling of cool water at regular intervals on my feet washed away all tiredness that came out of walking in the harsh sun.

Along the way, Dr. Johnson and Dr. Amit spoke to us passionately about the flora and fauna of the forest. They opened our eyes to how every element in a good ecosystem is connected to and dependent on the other.

I was in awe of Dr. Johnson's understanding and interpretation of the forest. His energy and fitness were inspiring (he outpaced most of us!). Meanwhile, Dr. Amit's endless passion for plants deepened my appreciation for the green wonders of this world. It was fascinating to know about 'point endemic species' from him.

Just as we were reaching, we got stopped by an elephant in our tracks! We stepped back and patiently waited. With Anu and Ammi's guidance, we eventually reached our stay in Kolhuchaur. At night, Dr. Johnson and Dr. Amit chatted with us over a debriefing session sharing insights on the experiences of the day. As we finished dinner, we were treated to an orchestra of calls made by boobooks, lapwings and nightjars, under a clear star-packed sky. This was soon joined by sambar and deer calls, confirming the presence of a tiger nearby. The thrill of this moment, knowing we were in the midst of such raw wilderness, is something I will never forget.

The next day, we trekked about 10 km to reach Chokham. This place, bordering the Jim Corbett Tiger Reserve, gave me a true experience of staying in the wild. Drinking river water, little to no electricity and bare minimum comforts, I have never felt more united with nature. After another nocturnal orchestra, we left early morning to climb about 3 km to the mountain ridgeline.

We walked a narrow path created by elephants and used by other wildlife like tigers, bears, porcupines and more.

We were thrilled to discover that a tiger had walked our path, just hours before us. We found fresh wet scat, urine marking and pugmarks all along. Dr. Johnson showed us how to analyse these signs to get information like a tiger's diet, gender, age, etc. He showed us how this tiger had eaten a wild pig by looking at the grey hair and bone fragments inside the scat. (Fun fact: I discovered that tiger urine smells like Basmati rice!). Dr. Amit spoke to us about the various trees found in the landscape, and their correlations.
After a challenging trek, we reached the top of the ridge, one of the highest vantage points in the region, and were rewarded by a jaw-dropping view of Jim Corbett National Park. After a short break, we trekked down to Chokham and back to Kolhuchaur the same day. The next day was a leisurely day spent birdwatching and spotting wildlife. We spotted wild pigs, vultures, deer, sambar, peafowls and even a leopard! On the last field day, we walked back to Saneh. A surprise appearance by a young tusker doing a steep climb without Decathlon shoes was a revealing sight of an elephant's capabilities.

Finally, from Saneh, our bus brought us back to WII, just in time for our valedictory session. We were welcomed by Shri Virendra R Tiwari (Director) and Dr. Ruchi Badola (Dean) who heard about our experience and shared their valuable time and thoughts with us.

Campus Wildlife

A profound realisation:

In school, I studied subjects like History, Geography, Botany, and Zoology as separate disciplines. I wasn't even fond of History and Geography, to be honest. But during this WII course, I came to realise that these are not independent topics, but interconnected threads of a much larger tapestry! A single geological event - the collision of tectonic plates - gave rise to the Himalayas and shaped the landscape and biodiversity of what we call India. The British rule we read about in History further altered our landscapes. And plants and animals from Botany and Zoology inhabit them even today.

We often speak of feeling 'connected' with nature, but the truth is, we only use that word because we have disconnected ourselves from it - like logging out of a system we were always meant to be part of. It is important to understand that we are not just linked to nature; we are nature. No different from an elephant, a tiger, a Mallotus tree, or an Amur Falcon and the countless other forms that life flows through. This course has not only re-moulded my idea of conservation but has also ignited a deep desire to explore how I can actively contribute to it.

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Our stay at Chokham

Rooted in Time:
The Living Fossil of the Himalayas

-Shikhar Kaushik

A deep gorge in middle Himalayas with moisture loving species and surrounding area dominated by pine forest

The Himalayas are home to an extraordinary diversity of flora, ranging from the subtropical Sal forests of the Shivaliks to the oaks and pines of the mid-Himalayas, the birch and fir forests of the upper Himalayas, and the alpine meadows above the timberline. This rich vegetation pattern is shaped by a variety of factors, including topography, slope, aspect, climate, soil types, and species dispersal. Among these, topography plays a pivotal role in defining microclimates and influencing the exposure of a site to other environmental factors. The formation of gorges and rivulets is a common feature in the Himalayas, creating unique habitats for a wide array of plant species. Amidst the phyto-diversity of angiosperms and gymnosperms lies another fascinating group of plants: the pteridophytes. These ancient plants, which include ferns, were the first vascular plants. Unlike flowering plants, ferns lack woody growth and do not produce seeds or flowers. Instead, they reproduce via spores and are commonly found in moist, shady habitats, such as the floors of dense forests, groves, and gorges.

Within the deep gorges of the Himalayas thrive a charismatic plant whose origin dates back to the Paleozoic era (300 mya): The Cyatheoid ferns, or tree ferns. These sub-arboreal pteridophytes are distinguished by their trunk-like structures, which give them the appearance of trees. Their “trunks” are actually modified rhizomes supported by a dense mass of fibrous roots. Tree ferns belong to the order Cyatheales, which includes three major families:

Cyatheaceae, Dicksoniaceae, and Cibotiaceae. Globally, there are an estimated 500 to 600 species of tree ferns, primarily found in tropical forests. However, some species have established themselves in subtropical and temperate Himalayan forests.

Large Spiny Tree Fern *(Cyathea spinulosa)*

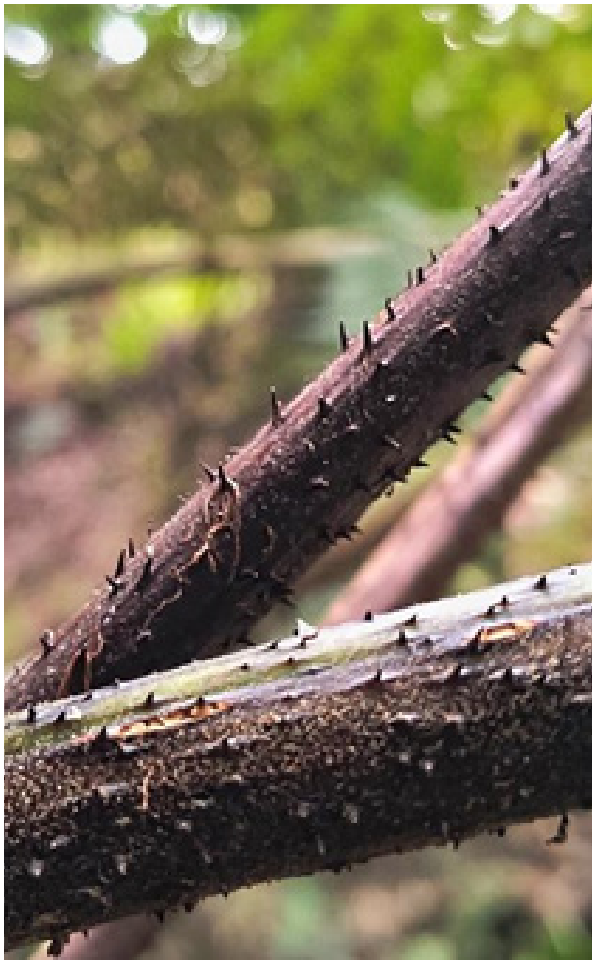
In India, 12 species of tree ferns (*Cyathea*) are known, of which only one, the Large Spiny Tree Fern (*Cyathea spinulosa*), is found in some parts of Uttarakhand. Commonly referred to as the Sala Tree, this species exhibits a sporadic distribution in the districts of Chamoli and Pithoragarh. Tree ferns, like other typical pteridophytes, thrive in moist, damp, and shady gorges along rivulets nestled within the inner folds of the Himalayas. These gorges are often surrounded by Chir Pine (*Pinus roxburghii*) and Oak (*Quercus spp.*) forests. Species commonly found in gorges along with the Large Spiny Tree ferns include *Acer laevigatum*, *Brassaiopsis aculeata*, *Goodyera procera*, *Hoya lanceolata*, *Macaranga indica*, *Machilus odoratissima*, *Macropanax dispermus*, *Maesa indica*, *Rhaphidophora sp.,* and *Saurauia napaulensis*.

The Large Spiny Tree Fern can be recognized by its thick, rhizomatous trunk covered with hair-like structures. The stipe (stalk) has spines, giving the species its name 'spinulosa'. The fronds, or laminae, are large and bear numerous pinnae, on which spore-producing structures called 'sori' are formed. The species exhibits a deciduous nature; as the plant matures, older fronds dry up and fall off, sometimes remaining attached to the stipe. This creates the illusion of a wider trunk. Like all ferns, the Large Spiny Tree Fern reproduces via spores rather than seeds. The spores are encapsulated in sporangia, with each sporangium containing around 20 spores.

Tree ferns exhibit a dual life cycle, also called "alternation of generations," which alternates between a diploid sporophyte (mature plant) and a haploid gametophyte (smaller plant). The sporophyte produces spores, which are released into the air. When spores settle in moist, favorable habitats, they grow into a small, heart-shaped structure called a gametophyte. This gametophyte produces male sperm from the antheridium and female eggs from the archegonium, which fertilize to form a zygote (sporophyte) that grows again into a mature tree fern.

The Large Spiny Tree Fern holds significant ecological and conservation importance as the only tree fern species in Uttarakhand. Due to its ornamental value, the species is listed under CITES Appendix II, which regulates its trade and requires prior permission for its transportation.
However, the future of this living fossil is uncertain due to climate change and land-use alterations in the Himalayas. One of the oldest recorded populations of *Cyathea spinulosa* is located near Pamtori Village, between Sandev and Thal in Pithoragarh District.

This population consists of seven to eight individuals and is critically important from a conservation perspective. One of the potential threats to this population could be the development of a double-lane road between Thal and Sandev in the future. The population lies perilously close to the existing road, within a gorge. If road widening proceeds without proper mitigation measures such as careful disposal of excavated rocks, this fragile population could be wiped out.



The stipe with spines.

The underside of pinna with sori.

These living fossils hold many untold mysteries, including their dispersal from tropical to temperate regions and their remarkable ability to adapt and thrive in a rapidly changing world alongside today's highly evolved plants and animals. They offer a unique window into the evolutionary history of plant life, providing insights into how ancient species have persisted through millennia. With a changing world, conservation efforts for such species are necessary. Protecting the Large Spiny Tree Fern is not merely about saving this species. It is also about preserving the delicate ecosystems that support it. The pine and oak forests surrounding these ferns create the perfect microclimatic conditions within their gorges, allowing this ancient plant to flourish. Therefore, conservation needs to extend beyond the fern itself to include the entire habitat that sustains it. Only by safeguarding these interconnected ecosystems can we ensure the survival of this living fossil for generations to come.

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Photo Credits: Shikhar Kaushik

Magnified image (15x) of sori.

International Women's Day 2025 Celebration and POSH

The Wildlife Institute of India celebrated the International Women's Day 2025 by felicitating our incredible women frontline staff, honouring their role in the smooth working of WII "From the Ground Up: Honoring the Women That Keep Us Moving". The celebration was followed by a POSH workshop, reinforcing our commitment to a safe, inclusive workplace where all thrive with dignity & freedom.

The Wildlife Institute of India (WII) celebrated **International Women's Day 2025** by honouring the incredible contributions of our women frontline staff. Under the theme ***"From the Ground Up: Honouring the Women That Keep Us Moving,"*** WII recognized their vital role in ensuring the seamless functioning of WII.

Felicitation of frontline women staff at WII

Cleaning staff:
Mrs. Kusum Devi
Mrs. Kavita Devi
Mrs. Neetu Devi
Mrs. Lajwanti Devi
Mrs. Suman Devi

Lab attended in Pashmina Lab:
Ms. Ritu

Accounts:
Mrs. Ganeshwari
Mrs. Seema Negi
Mrs. Sarita Rani

Admin:
Mrs. Anita Devi
K Ramesh sir:
Mrs. Anita Devi

IT Cell:
Mrs. Anju Rawat

Creche:
Mrs. Ranjana Bhatt
Mrs. Tasleema Khatun

The celebration was followed by a **POSH (Prevention of Sexual Harassment)** workshop, reaffirming our commitment to a safe, inclusive, and empowering workplace where everyone thrives with dignity and freedom.

Celebrating Women in Wildlife Science and Conservation - with Dr. Aashna Sharma

- Amarjeet Kaur & Ritesh Kumar Gautam

"Women in the Wild," an anthology published by Juggernaut in 2023 and edited by Anita Mani—founder of India's first bird book imprint, Indian Pitta Books—celebrates the journeys of women in wildlife conservation in India. Focusing on pioneering women who have dedicated their lives to wildlife research and conservation, Mani's book draws readers into the challenges women face, particularly in the field of scientific research.

Until the 1980s, wildlife biology was a field that saw only a handful of women. Institutions such as the Wildlife Institute of India and the Salim Ali School of Ecology and Environmental Sciences (now the Department of Ecology and Environmental Sciences, Pondicherry University) were among the first to welcome women for pursuing postgraduation in wildlife science. This book delves into the journeys of these trailblazing women—their struggles, setbacks, triumphs, passion, and resilience. It tells the stories of those who stood firm, embraced challenges, and laid the groundwork for future generations to follow their passion in wildlife research.

A synopsis from Goodreads beautifully captures the essence of the book:
"There are several, and their lives and work have been extraordinary. This is the story of these women and their journeys across the length and breadth of India's wild spaces—forests, rivers, oceans, mountains—and, more importantly, through the glass ceiling."

Similar are the stories of remarkable women in wildlife research, many of whom work among us at WII. Their journeys are inspiring, their work groundbreaking, and their stories worth sharing.

In honour of International Women's Day, this edition highlights **Dr. Aashna Sharma**, a freshwater ecologist, for her contributions to wildlife science and conservation.

Q1. Can you briefly introduce yourself and share insights into your research career at WII? What are your current research interests?

I am a freshwater ecologist and conservation biologist, currently based at the University of Washington as a visiting scientist and a Fulbright-Kalam climate postdoctoral scholar. I started my career in wildlife science at WII back in 2015, where I joined one of the ongoing projects—National Mission for Sustaining the Himalayan Ecosystem (NMSHE) as a Junior Project Fellow. WII has been the place that honed my connection to other sentient beings in a more scientific manner, bridging science and pure love of my inner child towards wildlife. While I am equally excited towards all faunal groups and ecosystems, freshwater streams are my favorite safe havens. There is so much we still need to know as scientists, about these underexplored ecosystems and all my years at WII, from being a JPF to a Project Associate, were spent in the watersheds of the Himalaya. I will forever be indebted to my mentors at WII and Punjab University for allowing me to blossom as a young researcher and teaching me all the science they felt I must imbibe for my future endeavors.

My current research interests are applied ecology in freshwater ecosystems using artificial intelligence and natural language processing, and big data to understand the impacts of land use and climate change on the freshwater megafauna of India, a group never spoken of, as a collective.

Q2. What inspired you to pursue a career in research, particularly in wildlife science?

By the time I joined WII, I had just completed a Master's (hons.) in Zoology, a field that still enchants me. There is something about fauna that has had my heart since my childhood days. I had an inner instinct to know more about and connect better with the wildlife around me, which started with feeding birds in my courtyard back in my hometown, Dharamshala in Himachal Pradesh, as a fifth-grade student.

Sitting long hours by the door trying to understand the behavior of the plum-headed parakeets, spotted doves, and house sparrows took me into a fairyland, before I headed back to complete my homework! Time flew past, and opting for Zoology for all my degrees (including my Ph.D.) seems to be the obvious pathway that destiny took me towards. I think the very basics I learnt as a Zoologist helped me evolve better as a wildlife ecologist, as I could connect the dots of species physiology, biology, taxonomy and ecology with biostatistics and machine learning approaches that could answer the most complex questions of conservation and management in the simplest ways.

Q3. Wildlife research is often considered an unconventional career path, and even more unconventional for women, especially given societal expectations. How did you navigate these challenges and stay committed to your research journey?

Ah! That's an interesting and pressing question of our times. Challenges always exist, and the career women in wildlife choose is definitely unconventional. Oftentimes, as in my case, we are the first ones in our families to choose this path of wandering into the forest, without network connectivity, ensuring we are safe, and returning back with data that can help us answer the most exciting questions from the hinterland ecosystems. As I say this, I feel this itself is an answer to how a woman in wildlife navigates such challenges. The Curiosity and zeal drive you. Your thirst to know more about your taxa, and those that you come across in your fieldwork, is the biggest incentive that helps you cross all barriers of society. In the end, whether you wish to stay put or fall is all about the conversation you have with your own mind. Think of it, and just go for it, the society will eventually end up becoming your biggest support. There is no one that stops you, but yourself—and this is one thing that stands true for both the men and women in wildlife research.

Our fields are unconventional, and so is the level of happiness you get as you work along. I personally don't find any other profession as satisfying as working in the wilderness.

Q4. Were there any women in STEM or specific role models who influenced your decision to pursue a career in research?

I would give all credit to my parents, especially my mother, who never let a speck of doubt flicker my evolving mind since a tender age. She has been a woman who made a difference in whatever she worked on, be it household chores, raising two kids, or changing the lives of hundreds of students as a government school teacher. She taught science as a Master's in Zoology herself, and brilliantly executed the administrative responsibilities as a Principal. Government schools often have the best minds of our country, they just need the right environment and the best motivation at the right time to shine through. She made it happen for many youngsters. Visiting her workplace often ignited my tender mind, that a woman is no less than a man, and I had a role model in my mom, so I'll say I was definitely lucky from this standpoint.

Q5. Having worked in different countries, have you observed any differences in how women researchers are treated in society and the workplace? If you could suggest one change to make the research field more inclusive for women, what would it be?

Be it field or workplace, I personally never felt differentiated because I am a woman. However, I say this with all the respect for women who might have faced this. I have always had a strong understanding that it's your work that speaks, not your background or your gender. We need to first prove it to ourselves that we deserve it, and the world will end up believing it as a by-product. Just love the work you are doing, or for that matter, do the work that you love—they are two sides of the

same coin, the currency being inner happiness and zeal to make a difference through the little bit you can contribute to the world out there! I've had a wonderful experience working with mentors from different countries and cultural backgrounds, and being a woman has never been a reason that made me feel I don't belong. What my experiences have taught me so far is that you are your greatest support, and maintaining a strong belief in yourself is what creates the best work environment, where you and all your colleagues end up finding happiness at work.

A change, that I would suggest, is not in the world out there, but in ourselves. Take pride in being young women with ignited minds, it's not a struggle to be one, but a strength that you must cherish. Change your belief about yourself and you will see the world around you change. Being unsure about your own goals makes you believe in the apprehensions of society and peers. If you love nature and wish to scientifically explore it, this is the field for you!

Q6. What advice would you give to aspiring researchers as they navigate their career choices?

Listen to your inner calling. It may be that you love nature, you want to wander and explore it, maybe not as a scientist but as a philosopher, go ahead with whatever you like. There is nothing wrong with diverting your career and efforts into something that you find more purpose in doing. Do not choose this field if you are demotivated by science. This is not the only option, you can contribute so much in many other fields that still enable your connection with nature, but not scientifically. But if, like myself, you are in love with both science and nature, wildlife research is the field for you. There might be doubts and comparisons that society might bring to the table; ignore those. Once you know you love this field, you are bound to do well. Remember, you excel in what you love, and there is always space at the top.

Q7. Given the still relatively low representation of women in wildlife research, what gives you hope for the future, and what steps do you think can encourage more women to enter this field?

I have always been inspired by the leadership and determination of women in science, both personally and globally. I'd like to say that things are changing. For instance, my Fulbright cohort on climate research included more women than men, each breaking barriers in their fields and demonstrating that gender is no limitation when contributing to national or global scientific advancements. Being a woman in science is a privilege as well as a responsibility. It's an opportunity to inspire others while navigating the challenges and rewards of this field. When a woman considers pursuing science, she often seeks role models who can reinforce her decision. As a postdoc, I feel my journey can serve as an example for others who are yet to take that leap.

Being a woman in science is about understanding the unique inner strength and resilience we bring to the table. It's about nurturing not just knowledge but also compassion and empathy traits that often come naturally to women. Collectively, women in science can help raise generations of sensitive, informed, and innovative minds, which is crucial for tackling the challenges facing our planet. That said, I firmly believe that women in science thrive alongside men in science. Our collective contributions, collaboration, and mutual support are what drive progress. Science is not a solitary pursuit but a team effort that benefits from diverse perspectives and shared goals. For the future, I aspire to see the global South emerge as a hub of innovative, nature-centric solutions. Greater representation from diverse perspectives, beyond just gender, will make science more inclusive and impactful.

In Conversation with Sh. V.B. Sawarkar (Former Director WII and Rtd. IFS)

-Kumar Ankit

Introduction

Mr. Vishwas Balwant Sawarkar is a renowned Forest Officer from the Maharashtra cadre with a long history of working with national and international agencies. Mr. Sawarkar retired as the Director of the Wildlife Institute of India (WII), Dehradun. His contributions as a research officer at Melghat Tiger Reserve, as Head of the Management faculty and the Dean of the Faculty of Wildlife Sciences at the WII have been noteworthy. Mr. Sawarkar is well known for his excellent teaching skills, both in the classroom and field. He has taught at several national and international agencies and foreign universities on a wide spectrum of subjects. He has authored more than 60 scientific papers and has several awards and commendations accredited to his name.

Mr. Sawarkar has contributed to reports on the status of the swamp deer and tiger in the Terai region of UP, the rehabilitation of the greater one-horned rhinoceros in Dudhwa National Park, and the challenges of co-existence between elephants and people in West Bengal. Further, he has been involved in a six-volume documentation of the collaborative project between the WII and the US Forest Service on managing forests in India for biological diversity and forest productivity. He has authored 'A Manual for Planning Wildlife Management in Protected Areas and Managed Forests' that is being used by working plan officers and PA planners. Post-retirement, Mr. Sawarkar is associated with various state Forest Departments, the Government of India, the Ministry of Environment and Forests, UNDP, and several public forums, institutes, and colleges.

1. You are highly regarded within the Indian wildlife conservation community. What inspired you to join the Indian Forest Service, and was there a pivotal moment that shaped your career and future in this field?

Answer
I spent my childhood days in Dharwad, Karnataka, where I used to venture with our family friends to the Dandeli Forest. Also, many of our family friends and two cousins were in the forest service, which left deep impressions on my mind. Thus, at an early age, the profession got into my blood, and I dreamed of becoming a forest officer. As fate would have it, I was fortunate to have been selected to undergo training as a forest officer at the Indian Forest College, Dehradun (IFC), later rechristened as the Indira Gandhi National Forest Academy. I began my career in a strict regimented system, but every unit of management was considered a family. The training included many scientific subjects at the IFC similar to the Wildlife Institute of India. These subjects were immediately relevant in matters of field practice, hitched as appropriate to the realities met with.

2. With your extensive experience in the field, do you see yourself more as a scientist or a manager? What drives you more, and why?

Answer
Management in the field cannot be separated from science. Science is needed to drive management to meet different situations, and management includes administrative wisdom. This needs a process of constant learning. When posted at the Melghat Tiger Reserve, it had become obvious that science at its great diversity had come into play and there was a great deal more to learn while keeping pace with the changing field realities.

A manager cannot effectively function without the support of science. Biologists/ecologists unravel mysteries of the natural world, and the practitioners use tenets of science to provide the required shape to it on the ground. The scientist needs to understand the role of the practitioner/manager and vice versa but to ensure an organic whole, scientists and managers must focus on what is expected from them. The WII has defined wildlife science by integrating diverse disciplines that include practice. To preserve harmony, a forester has to have a scientific bend of mind, and a scientist has to understand the practical limitations.

3. As a dedicated conservationist, wildlife expert, and forester, what significant changes have you observed in biodiversity conservation efforts and approaches over the last two decades?

Answer
It would be appropriate to include the past five decades since that timeframe triggered significant changes reflecting the concerns of the country, starting with the enactment of the Wildlife Protection Act (1972), which heralded wide-ranging changes. Dr. M.K. Ranjitsinh was the architect of this law. Project Tiger was established in April 1973, bringing wildlife management into the mainstream. The other significant change took place in 1982 with the creation of the Wildlife Institute of India, Dehradun, as the subordinate office of the Ministry of Agriculture, which later in 1986 became an autonomous institute with the establishment of its first-rate campus at Chandrabani during the 1990s. WII brought science and practice under one roof.

There were some pioneers who influenced the change. Dr. Salim Ali, whom I knew personally and had the honor of working with. Mr. M. Krishnan, a great naturalist! There were forest officers whom I had the privilege of knowing, like Mr. S.R. Choudhury from Orissa and Mr. H.S. Panwar. The latter had become the founder and director of WII and was also my boss for 10 years and a mentor for almost 25 years. It was Mr. Panwar who, for the first time in the country, successfully demonstrated the relocation of 28 villages from within the Kanha tiger reserve during the 1970s. Mr. Kailash Sankhala, the first director of Project Tiger; Mr. B. P. Srivastava, PCCF, Uttar Pradesh, and later Director General of Forests, Government of India (GoI); Mr. Sanjay Debroy, who had also become Director General of Forests, GoI; Mr. J.J. Dutta, who recently passed away, had headed the Forest Department in Madhya Pradesh; and Mr. Pushp Kumar, PCCF, Andhra Pradesh—they all count among the giants who heralded the significant change in favor of wildlife management in the country.

Most certainly, there are many more of those who influenced the conservation of biological diversity. While science and practice were complementing and coming into their own, the rapidly increasing human population of the country and meeting people's needs had posed the threat of unbridled development leading to continuous fragmentation of natural habitats and widely reported human-wildlife conflicts. To make matters worse, some laws and policies run counter to each other, with their fallout on the natural ecosystems and ecosystem services resulting in climate change.

4. Can you share any inspiring stories of your former students who have made notable contributions to wildlife conservation?

Answer

I do not see them as students but as young colleagues. Whether they joined as MSc students or researchers, many of them later became either faculty, forest officers, or NGO leaders.

I worked with Qamar Qureshi in the Terai region of UP, the Dudhwa National Park, and later the same tiger reserve on the ecology of the swamp deer. The area was challenging with a good density of tigers, several of those dubbed maneaters; there were dacoits of all shades and some desperate poachers. Later, as a faculty member, his stellar work in shaping the computer center and working with Yadvendradev Jhala in establishing the protocol for the invaluable countrywide periodic assessment of tigers, co-predators, and prey. As a teacher, he has the rare capability of paraphrasing complicated ecological aspects/biostatistical tests in terms of their application in the field that could be understood by the uninitiated.

S. A. Hussain's work on otters, freshwater ecosystems, and the latest project, Namami Gange, alongside Ruchi Badola has made a great difference. Prachi Mehta is currently working on the endangered forest owlet endemic to the Satpura Range of mountains using cutting-edge science. She is also working on a project addressing the protection of agricultural areas from elephant depredations in Karnataka with her husband, Jayant Kulkarni, an ex-IFS officer who has a PG Diploma in wildlife management from WII.

On way to Baratang—Andaman & Nicobar, 2018

The work of Bivash Pandav on Olive Ridley sea turtles and Bitapi Sinha's area of work on wildlife tourism and nature interpretation have brought credit to WII. Dr. S.P. Sinha works on the ecology of snow leopards and their role in rehabilitation and study on the ecology of the reintroduced greater one-horned rhinoceros in Dudhwa National Park.

Neema Manjrekar, Neeta Shah, and Anjana Pant have made significant contributions to wildlife science. Among those who entered the Indian Forest Service, Sonali Ghosh, currently Field Director of Kaziranga Tiger Reserve, and Manoj Nair, who is widely known for his wisdom in wildlife science, are shining examples.

5. How did you adapt your teaching approach to engage students from diverse backgrounds and varying interest levels in wildlife science?

Answer

My teaching approach started when I was posted in Melghat Tiger Reserve. In this case, these were forest guards, foresters, and range officers, a medley of different knowledge, orientation, and field experience. All had to be trained in the fundamentals of wildlife management—a broad science overlaid by what was observed in the field, resulting in evolving practice. It required a lot of patience and teamwork in the field. The start was made with bird watching, studying wildlife signatures in the field—footprints, droppings, kills, calls, etc. For the first two years, besides the field director, I was the only other officer responsible for the orientation of these men. At the institute, I made it a point to understand the educational background of potential researchers and students in the degree course and the work experience of officers who had joined the PG Diploma course from various states to get them on the same page of the subject under discussion. Using wide-ranging literature during sessions and encouraging group members to get into the habit of making use of the rich library and freely asking questions. In the field, emphasis was placed on the power of observations, making notes, discussions every evening, taking photographs, and developing the habit of writing.

All I can say is that the approach paid rich dividends.

6. Looking back, what innovations or changes in wildlife sciences are you most proud to have been part of?

Answers

Managing and maintaining wildlife habitats in the legally declared forests controlled by various laws outside protected areas is crucial. These forests are already highly fragmented in space and quality. All principles of island biogeography have come into play. There are silvicultural operations for the production of timber and collection of non-timber forest produce (NTFP). I had an opportunity to work on the possibilities of integrating wildlife conservation with forestry practice, working with students, researchers, scientists, forest officers, and various projects at

Cellular Jail in the background—Port Blair

WII and with international agencies.

I considered that it was and is eminently possible to bring about changes in silvicultural and other forestry practices with a little dent in the principal objectives to maintain a series of connecting microhabitats of biological and geomorphic origin, tweak marking rules for generating timber while addressing whatever remains of the historic species composition, and so on. I accessed forestry literature on science and practice, a diversity of working plans, and the successive National Working Plan codes. This resulted in the drafting of Chapters 6 to 9 in the WII's publication, 'Planning Wildlife Management in Protected Areas and Managed Landscapes. The success could be measured in the change brought about in many forest working plans in different states. Further, the 6-volume output addresses the integration of forestry science with wildlife conservation in key Indian landscapes- a collaborative project with the US Forest Service.

Melghat TR 2006 with Shri MG Gogate former CWLW Maharashtra and staff

On way to Banni Grasslands, Gujarat 2017 with Dr Nita Shah, WII alumnus and renowned scientist on my right and officers and staff of the forest department

7. Having a long-standing association with the Wildlife Institute of India, from being its Director to an advisor in various roles, could you share some of your fondest memories and challenges during your time here?

Answer

In 1989, in Manas Tiger Reserve, during the beginning of the Bodo uprising in that portion of Assam, a large group of Bodos had attacked the forest range office at Bansbari, severely injuring the range officer. I, along with the PG Diploma course trainees, was camping at Mathangudi on the bank of the Beki River along the international boundary with Bhutan. The wireless operator in our camp kept us awake throughout the night and then we hired a bus for the Diploma trainees and the family members of the staff who lived there with us. In this urgency, we all left the camp late at night, traveling along roads that were least used in those times to reach Guwahati.

Another event is about preparing the venue for laying the foundation stone for WII on the designated site for the new campus at Chandrabani. The foundation stone was to be laid by Mr. Rajiv Gandhi on 15th October 1984. The other dignitaries included the then Chief Minister of UP, Shri Narayan Dutt Tiwari, and the Central Minister, Mr. Digvijay Singh. Preparing for the event, Mr. V.K. Sood, a colleague of mine from the Himachal Forest Department, and I had to supervise the workers to build a large tent for the function. The spot that was decided for the tent placement was on a small knoll and had to be bulldozed to make it flat. This work started on the previous evening and continued till the next morning at 0400 hours.

Neither of us had time to shave, bathe, or eat since none of us could go home. In the meantime, the Collector of Dehradun had arrived and had started giving us orders. Covered in dirt, we had to wipe our eyes to see clearly. The then DG of Forests, Government of India, Mr. LHA Rego, who was my mentor once, refused to recognize me due to my disreputable appearance. The entire ceremony went wonderfully well. Unfortunately, neither my colleague nor I, like the laborers, did not appear in any of the photographs. However, our Director, Mr. V. B. Saharia, introduced us to the central forest minister, who met us warmly. Thereafter, I also met the DG, who appreciated our plight after I narrated the adventure. These are among many of my enduring memories.

8. What do you believe is the utmost priority for wildlife conservation in the current scenario? Is there a particular ecosystem or species you believe is underrepresented in India's conservation narrative, and why?

Answer

While experts and organizations are examining these concerns, impactful conservation requires the support of common citizens. As for the ecosystems, grasslands are poorly represented, and the ones outside the protected forests are heavily encroached and have found their way into the National Atlas of Wastelands.

In the case of species, taxonomic and life history studies and habitat preferences are vital for conservation, but it is necessary to go beyond to understand the functional role of species within ecosystems, inter alia conservation. For instance, the general importance of forests is known from the standpoint of climate change, physical and chemical components of soil, availability of freshwaters, etc. Forests have evolved through natural regeneration. Pollinators and animal-mediated seed dispersal are essential for the purpose. Insects lead the enterprise of pollination. There is a worldwide decline of such species that could significantly affect wild plant diversity, wider ecosystem stability, food security, and thus human welfare. I, therefore, consider that for a successful conservation narrative, promotion of knowledge of ecological processes and functions is most important.

9. In terms of policy and governance, what changes do you believe are necessary to strengthen wildlife conservation efforts in India?

Answer

To provide a short answer to a highly complex question, it may be stated that policies and laws need to be ecology-centric—the quality and integrity of terrestrial, freshwater, coastal and marine ecosystems. Clean air and water a productive agriculture sector, health sector, and education that enlightens the citizen in these matters. Such change stands to support the country's overall welfare. These sectors need the highest budgetary allocations among others at the Center, in the States and UTs. For this to happen, various ministries and departments, insular in their functioning, need to be on the same page to serve such central objectives.

10. What message would you like to impart to the next generation of wildlife biologists and foresters about the importance of biodiversity conservation and management?

Answer

Wildlife biologists and forest managers, apart from the training and experience they go through, must let go of their vocational turf—the preconceived notions and prejudices that risk driving a wedge in the interdependent streams. Forest management is put together by several scientific disciplines and planning. Forest management necessarily addresses living entities with economics riding on them. Biologists are in search of ecological mechanisms, such as natural processes driven by biotic interactions, that underpin the system the managers work with Biologists have to work hard to remain at the cutting edge of science, but they do not have to work in a highly regimented system with a variety of real-time bureaucratic challenges.

Biologists have to understand the challenges faced by forest managers. Foresters need to use the generated biological/ecological knowledge necessarily at broader scales to maintain managerial success under the pressures mentioned. They are often required to take risks while standing up for the right thing, and they need to protect forests from illegal activities and demands. Biologists and foresters are on the same side but with very different tools and wherewithal to work with. However, a positive collaboration can thrive if both professionals move beyond biases.

Chidiyatapu, Andaman and Nicobar 2018

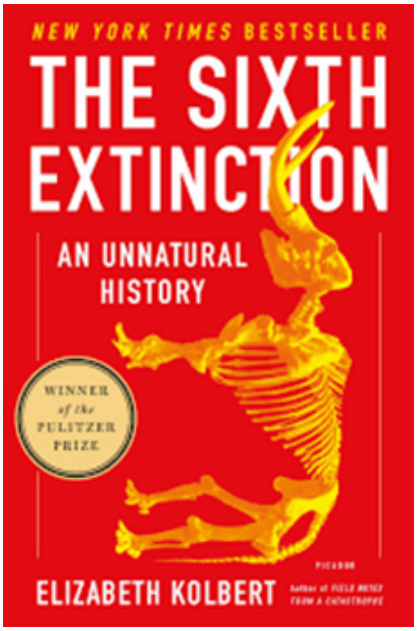
11. Lastly, considering your vast experience in wildlife science, conservation, and teaching, what five books would you recommend as must-reads for someone

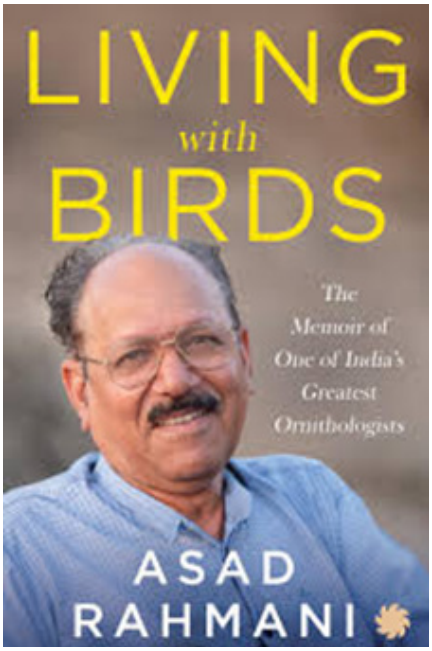
Answer

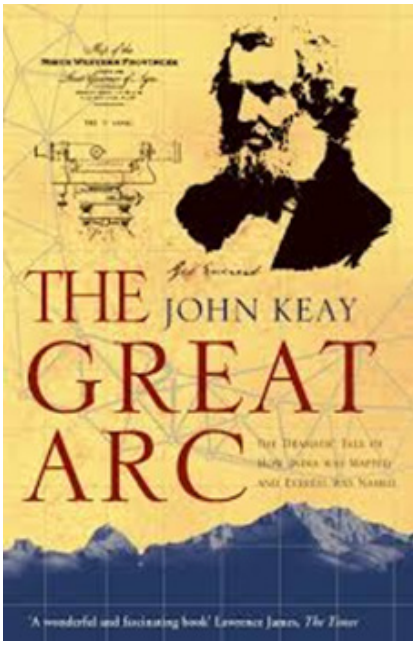
The five books I would suggest are- **The Sixth Extinction** by Elizabeth Kolbert. A book that portends what the title is about. **What an Owl Knows** by Jennifer Ackerman, is a book that highlights the mysterious lives of these birds. **The Great Arc: The Dramatic Tale of How India Was Mapped and Everest** Was Named by John Keay. One of the latest I will suggest is **Living With Birds** by Asad Rahmani. Last, I would recommend **Babylon's Ark, The Incredible Wartime Rescue of the Baghdad Zoo** by South African conservationist Lawrence Anthony.

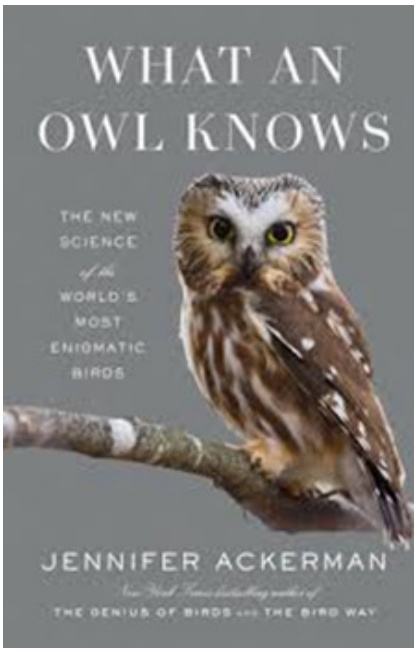
Author:
Kumar Ankit *Graduated from School of Forestry and Environment, Allahabad Agriculture University, Joined WII as Master student in 2015 (XV Batch).Currently he is senior researcher of WII and Ph.D. Scholar*

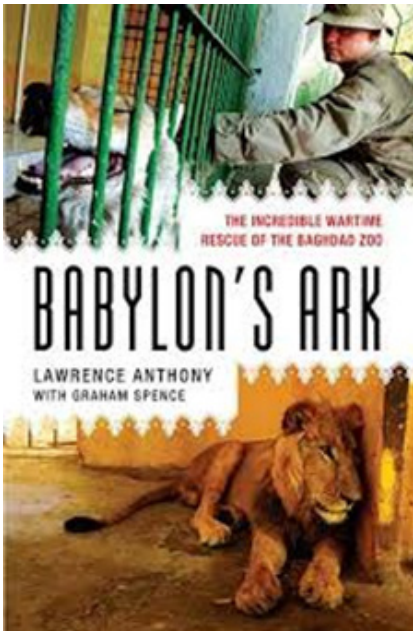
Jolly Boy Island 2018, Andaman and Nicobar with Dr Anil Bhardwaj IFS (Kerala) and Smt. Bhardwaj











5 must-reads suggested by Shri V. B. Sawarkar, IFS for everyone!

LIGHT BITES

Photo Credit: Karmannye Chaudhary

On 2nd January, 2025, Corbett Tiger Reserve organized a meeting under the "Bagh Rakshak" Scheme, aimed at promoting wildlife and forest conservation awareness among students. The meeting also featured the presentation of the "Youth United for Protected Areas", highlighting the vital role of youth engagement in safeguarding natural habitats.

Mr. Amir M Lone (Programme Officer, EIACP) delivered an insightful presentation on the Youth United for Protected Areas Proposal and shared EIACP's mandate. The meeting successfully brought together 30 participants, fostering meaningful discussions and planning impactful initiatives to promote wildlife conservation and build capacity among students under the Bagh Rakshak Scheme and the Youth United for Protected Areas programme.

On 2nd February 2025, World Wetlands Day was celebrated with the theme, "Protecting Wetlands for Our Common Future", highlights their vital role in supporting biodiversity and enhancing human well-being. The EIACP Centre at WII released an e-poster highlighting the crucial role of wetlands in promoting sustainable growth and wildlife connectivity. The poster emphasized their importance in preserving species and genetic diversity.

From 2nd to 5th February, 2025, the EIACP Centre at WII organised a series of webinars

Day 1: 'Everybody loves to reclaim wetlands' "... and what we can do about it"
Speaker: Dr. Somnath Bandyopadhyay, Development Ecologist

Day 2: Sand, Skimmers, and the River- The Conservation Story of Chambal
Speaker: Ms. Parveen Shaikh, Wildlife Biologist, BNHS
https://www.youtube.com/watch?v=UQd81b-T5Htk

Day 3: 'Wetlands: Kidneys of Ecosystem', 05 February, 2025
Speaker: Dr. Neeraj Mahar, Project Scientist-I, WII
https://www.youtube.com/watch?v=77MPtF-KomIk

On 3rd January 2025, a CAMPA workshop for fisheries and our Gangetic dolphin was held with the Block Office and forest department staff in Kolaghat town of East Medinipur district, West Bengal. They were briefed on riverine fish, dolphin conservation, and sustainable fishing practices.

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On 7th January 2025, a two-day workshop on 'Negotiation of Heritage, Identity, and Citizenship in the Himalayas' was held in conjunction with the Centre for Himalayan Studies, School of Civilization, KJ Somaiya, and the Humanities Himalaya Society at the C2C center. Key speakers were Prof. DR Purohit, Kavita Pai, and Lokesh Ohri.

On 9th January 2025, Sh. Tanmay Kumar, IAS, Secretary, MoEFCC, Sh. Pravir Pande, AS & FA & Sh. S.K. Awasthi, ADG (WL) visited the institute. Shri V.R. Tiwari, Director, WII briefed the Secretary on the Institute's activities.

On 9th & 10th January 2025, a two-day 'Exposure Visit of GHNP Ambassadors and Ecozone Stakeholders' was organized by WII-C2C and the Himachal Pradesh Forest Department. Youth, community, and forest department representatives from the World Heritage Site of Great Himalayan National Park connected with ACF and field staff of Keoladeo National Park. On the 2nd day of the exposure visit, the participants visited Fatehpur Sikri to learn about history-shaping events, the influence of geography on culture, and the importance of appreciating the linkages between nature and culture.

From 11th to 19th January 2025, the 39th Certificate Course officer trainees visited Sri Lanka as part of their overseas wildlife management tour. The trainees interacted with the higher officials from the Wildlife Conservation Department and visited different protected areas in the country. From human-wildlife conflict to management of marine ecosystems, the trainees were exposed to unique wildlife and management strategies from the field managers.

On 14th January 2025, at the Mahakumbh 2025, the WII-CAMPA Dolphin team showcased the Project Dolphin research work. Devotees were sensitized about the Ganges River Dolphin and its conservation.

A three-day training program was held on the 15th of January in the Police Training College of Narendranagar, conducted by Dr. SK Gupta, for identification and evidence collection in wildlife forensic cases.

LIGHT BITES

On 20th January 2025, the CAMPA dolphin team WII, organized a workshop on the Gangetic River dolphin in the Brahmaputra for officials from the Jorhat Forest Division in Assam.

On 20th January 2025, a two-week Natural Heritage Management Course was inaugurated at WII C2C. Ten participants from seven countries including South Sudan, Sri Lanka, Palestine, Tanzania, Ghana, Ecuador and Tajikistan attended the course. The training program aimed to strengthen the capacity for managing natural heritage sites across different countries.

On 24th January 2025, a one-day module on international biodiversity related conventions was conducted by WII-C2C for the IFS officers as part of their training program coordinated by IGNFA. The officers were exposed to multilateral agreements including CITES, CMS, Ramsar, International Whaling Commission and World Heritage Convention.

25th January 2025 marked a rare sighting of a dugong, a gentle giant of the seagrass ecosystems! The marine mammal was caught on camera by the CAMPA Dugong team near the Andaman Islands, giving us new hope for the recovery of their populations! The decade-long dugong population recovery program of MoEFCC through CAMPA, implemented by the Wildlife Institute of India continues to drive the conservation of dugongs and their habitats in the Indian coastal waters.

On 26th January 2025, WII celebrated the 76th Republic Day with a flag-hoisting ceremony. Various meritorious employees were felicitated for their service. Awards were handed to employees for their contribution to Hindi and Vigilance Saptah. Sportspersons who won accolades for the institute at the All India Forest Sports Meet, 2024, were also felicitated. Director WII, Shri Virendra R. Tiwari, briefed the gathering on achievements of the institute and stressed staying focused on achieving goals for the organization and nation-building.

On 3rd February 2025, a 10-day Orientation Course for Wildlife Health & Management for veterinary officers of Assam commenced. Dr. Ruchi Badola, Dean, and Dr. S. Sathyakumar, Registrar, graced the inaugural session. Dr. Parag Nigam introduced the workshop.

On 11th February 2025, a one-week training program on the 'Management of Coastal and Marine Biodiversity in India' for the IFS officers, supported by the MoEFCC and CAMPA Dugong program, was inaugurated in Sri Vijaya Puram by Shri. Sanjay Kumar Sinha IFS, PCCF, Andaman and Nicobar Islands. The training exposed the officers to various aspects of marine ecosystem management, including species recovery programs, the blue economy, management of islands, and restoration of mangroves and seagrasses.

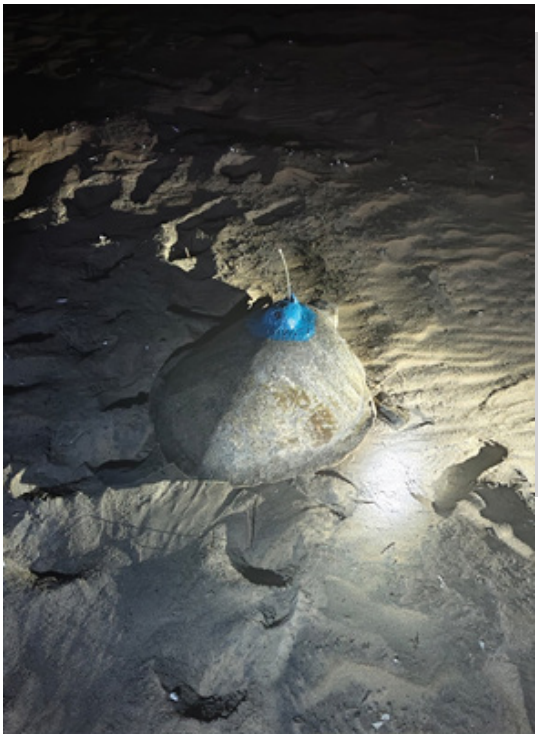
The CAMPA Dugong team trained 19 forest guard trainees on dugong ecology, seagrass habitats, marine conservation and emergency first aid for stranded marine mammals, reporting and sightings of dugongs, as part of the Dugong Monitoring Program, at the Forest Training Institute, Wimberlygunj, Andaman and Nicobar Islands. A big thanks to the Director of FTI, Shri A. C. Tilak , ACF, and Shri Raju Rathore for their support. The team continued its awareness and outreach program at Nambuthalai village in Palk Bay. The fishermen actively participated, sharing their own experiences and encounters with dugongs, making the session insightful and interactive. Long-term engagement with fisher folks is a key for marine conservation! They then conducted a follow-up sensitization program with fishers of Guptapara Village at South Andaman, with around 20 fishers joining the session. The dedicated and hardworking team has put in immense effort!

A five-day “Capacity Building Workshop on Monitoring how Climate Change Impacts on Wildlife of the Himalayas” from 25th February to 1st March, under the DST-NMSHE Task Force 4, was conducted through WII. About 30 students from Indian Himalayan states/ UTs and Nepal participated, learning much about the wondrous ecosystem.

On the 26th of Feb, Sri Subharanjan Sen, PCCF & Chief Wildlife Warden, MP, inaugurated the dynamic Mission LiFE stall, set up by EIACP Centres at WII & WWF India, in the presence of Mrs. Anjana Suchita Tirki (IFS), Field Director, Panna, and EIACP Coordinators of WII & WWF India.

On the 5th and 7th of March 2025, the CAMPA Dugong team organized capacity-building workshops for the frontline forest staff of South Andaman. These sessions trained personnel in monitoring and providing emergency first aid to stranded marine megafauna.

On the 11th, the CAMPA-Dugong team held a capacity-building program at Tushnabad Forest Range, Andaman Islands, for frontline forest personnel. The session introduced dugongs and trained them in emergency first aid for stranded marine megafauna. Ten personnel attended the training program. The event was supported by from Shri. Ravi Kant, IFS (ACF, South Andaman Division).



On 12th and 13th March 2025, two Olive Ridley turtles were successfully tagged at Gahirmatha, Odisha. The tagging of Olive Ridley turtles resumed after a long 15-year break at Gahirmatha. Spearheaded by the Odisha Forest Department and WII, the initiative aims to uncover crucial details about the turtles' migration routes.

LIGHT BITES

From 13th to 15th March 2025, Indian Delegation member and Head of International Big Cat Alliance (IBCA), Dr. SP Yadav, WII Scientists, Dr. Bilal Habib, Dr. Salvador Lyngdoh and Dr. Tanveer Ahmed attended and participated in the Conference on Study and Conservation of Snow Leopard in the World. Join Efforts, held at Kazan, Russia. The team shared their research on Snow Leopards and their conservation in India. Discussions were held on the possibilities of strategic planning and collaboration for Snow Leopard Conservation with His Excellency, Minnikhanov Rustam Nurgalievich Rais of the Republic of Tatarstan and Member of the Tartarstan Investment Development Agency, Tartarstan, Russian Federation.

On 21st March 2025, the CAMPA Dolphin team met Hon'ble State Minister Dr. Arun Kumar Saxena and presented the "Population Status of River Dolphin in India." The team updated the minister on conservation efforts in Uttar Pradesh. The Minister praised the Wildlife Institute of India's work.

On 24th and 25th March 2025, a "Two-day Special Course in Wildlife Protection, Law and Forensic Science for the Trainees Inspectors of Customs and Indirect Taxes (NACIN)", Rajasthan with the aim of controlling illegal wildlife trade and wildlife forensics was conducted by WII.

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

Two-day Special Course in Wildlife Protection, Law and Forensic Science for the Trainees Inspectors of Customs and Indirect Taxes (NACIN), Rajasthan

24th to 25th March, 2025

Sitting Row :- Mr. Dheeraj Dahiya, Ms. Meenu, Ms. Kanak Agrawal, Ms. Pragya Singh Dhakad, Mr. Manoj Narawayar, Dr. C. Ramesh, Dr. Parag, Nigam, Dr. Ruchi Badola, Mr. Virendra R. Tiwari, Mr. Hemant Hingonia, Dr. s. Sathyakumar, Dr. S.K. Gupta, Ms. C.R. Chitra, Dr. C.P. Sharma, Ms. Sarita Goyal,

Standing Row 1 :- Mr. Madhanraj, Mr. Raj Singh, Mr. Rahul Chaudhary, Ms. Mamta Swami, Ms. Sapna Chahar, Mr. Dhiraj Kumar, Mr. Brijesh Gothwal,Mr. Teekaram Meena, Mr. Satish Meena, Mr. Lakshya Middha, Ms. Neha Chaudhary, Mr. Mohammad Mustafa, Mr. Jagdish Kumar Mina, Mr. Akhil Kumar Tyagi, Mr. Rahul Modi, Ms. Shalini Gangodiya, Ms. Nishi Chaudhary, Mr. Naresh Kumar, Mr. Shivansh Shukla,

Standing Row 2 :- Mr. Prashant Kumar, Mr. Avinash Panwar, Mr. Ravinder Beniwal, Mr. Udit Goel, Mr. Vijay Partap, Mr. Abhinav Choudhary, Mr. Maalav Majmudar, Mr. Shashank, Mr. Mankesh Meena, Mr. Chirag Bansal, Mr. Ashvin Gupta, Mr. Sanskar Gupta, Mr. Suraj Prakash Sharma, Mr. Ankur Prasad, Mr. Akash, Mr. Pankaj Mangal, Mr. Pankaj Kumawat, Mr. Vishnu Sharma, Mr. Kishore Kundan, Mr. Jitendra Kumar Meena

From 17th to 26th March 2025, WII conducted the "9th Course on Wildlife Conservation for Wildlife Enthusiasts". Seventeen wildlife enthusiasts from all across the country participated in the course. The course included a 5-day classroom session covering varying topics of wildlife conservation followed by a 5-day field visit to the Lansdowne Forest Division. The program allowed participants from diverse professions to deeply engage with the essence of wildlife conservation in India.

भारतीय वन्यजीव संस्थान
Wildlife Institute of India

9th Course on Wildlife Conservation for Wildlife Enthusiasts

17th - 26th March, 2025

Sitting Row :- Ms. Manoli A Kalaskar, Mr. Rajdatta M Ranade, Dr. C. Ramesh, Ms. Amarjeet Kaur, Dr. R. Suresh Kumar, Dr. Amit Kumar Mr. V.B. Sharma, Mr. Raunak Kurl,

Standing Row :- Ms. Nupur Sawant, Ms. Diya Batra, Ms. Sneha A Agharkar, Ms. Sheily Srinivas, Mr. Shrey Srivastava, Mr. Digil MD, Mr. Sangamesh N Talwar, Mr. Prafulla U Sawarkar, Mr. Kiran BA, Mr. Nachiket S Kolhe, Mr. Mohan Chandra Pandey, Mr. Sharon Preeth S., Mr. Varun Sharma

On 28th March 2025, delegates from the Royal Veterinary College, University of London, visited WII to explore opportunities for collaboration and working together towards our common goal of advancing wildlife conservation and health with WII. Dr. Stuart Patterson, Head, Wildlife Health, and Ms. Nina Davies, Director, International & Strategic Engagement, interacted with faculty of the institute in a meeting chaired by Director, WII Shri Virendra R. Tiwari. Dr. Ruchi Badola, Dean, and Dr. Parag Nigam shared updates on WII's activities and wildlife health initiatives.

From 9th to 29th March 2025, a total of three Great Indian Bustard (GIB) chicks of the year 2025 hatched in captivity at the Sam GIB breeding center. With this, the total number of captive-bred birds has reached 17 within two years. Project GIB continues to mark significant progress towards reviving the species from extinction!

LIGHT BITES

LEGACY IN RETIREMENT:
HONOURING OUR RETIRED PERSONNEL

Shri Mahavir Prasad Aggarwal
PPS
18.08.1988 - 31.01.2025

Shri Lekh Nath Sharma
PTO
21.03.1994 - 31.03.2025

Dr. S. Sathyakumar
Scientist- G & Registrar
18.03.1999 - 31.03.2025

Shri Ramu Kumar
Lab Assistant
07.11.1989 - 31.03.2025

EXCITING EVENT COMING UP ON

World BEE DAY

INVISIBLE GIANTS EXHIBITION

20th May 2025

WII Auditorium

India's Bees and Beetles

Showcasing India's incredible diversity of bees and beetles through a large-scale photographic gallery, highlighting their ecological importance and aesthetic splendor. The exhibition aims to inspire conservation awareness, educate the public, and celebrate these often overlooked yet vital creatures.

More information to be out soon

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