WNE - INDIA

E- Monthly Newsletter

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Finalist of the WNE START-UP GRANT

Since its initiation WNE STARTUP GRANT has always looked forward to provide initiate funding support to those projects which has immense conservation value or research importance along side a futuristic approach for escalation. Through this year we have been able to come forward to individuals and organizations presenting their outstanding work and projects and toward the end of this session we are proud to fund not one but two amazing projects on species that have immense conservational importance in the current scenario - Pallas's Fish Eagle and Cantor's Giant Softshell Turtle.

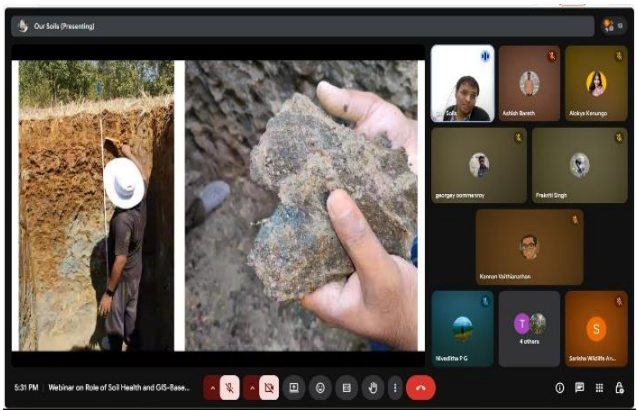
Sipu Kumar(L) and Pallla's Fish Eagle(R)

Pallas's Fish Eagle has been categorised as "Endangered" by IUCN and its global population is estimated to be around 1000-2000 individuals only. Sipu Kumar, an experience researcher & conservationist working on bird ecology proposed *"Enhancing Breeding Success of Pallas's Fish Eagle Through Community-Based Habitat Protection at Asan Conservation Reserve"* in Uttarkhand. His project aims to identify and monitor the active & potential nesting sites of these majestic birds, map and document the nesting trees, focus upon building local capacity thorugh community workshops and trainings, reduce the threat measures of habitat loss along with the forest deparmental authorities.

On the other hand, Nandan Vijayakumar, an accomplished researcher working with reptiles in Kerala propsed to work on "Conservation of the breeding grounds of critically endangered Cantor's Giant Softshell Turtle In Chandragiri River" - addessing yet another endangered reptilian species that is on the verge of exticntion form the country due to habitat loss due to river dam construction and over fishing threats. His project aims to condcut nesting survey of this turtle species and protect thier habitat from untumely flooding, engange the local communuty for monitoring and long-termed conservation initiaves while developing network engaging stakehold through capacity building.

Nandan Vijayakumar (L) and Cantor's Giant soft shell Turtle (R)

Webinar session on Land Resource Assessment in Wildlife Habitat Conservation



Dr. Aditya Kishore explain the various land resouce assenment techinqus & their application in the field of Wildlife Conservation

Our routine webinar session are not just a means for outreaching the youths, enthusiasts and working professionals, but also a medium where interesting and pressing topics are being presented by the professionals and the participants get an open ground for active discussion.

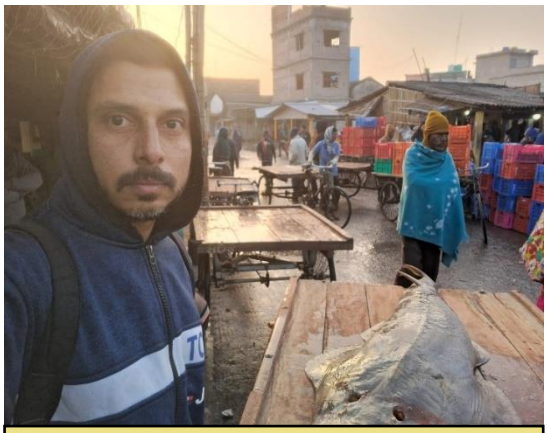
This month Dr. Moruboyina Aditya Kishore, Soil Scientist from Institute of Agricultural Science, SOA University presented an insightful and engaging talk on soil health and GIS-based technology on land resource management in Wildlife Habitat Conservation. The session was attained by students, researchers, academicians and wildlife enthusiasts. Over 50 individuals participated in the session while sharing their positive feedback.

Editorial

With the financial year 2025-26 coming to an end, WNE has focused upon it outreaching activities by offering internship programs, funding innovative projects through internship programs, funding innovative projects and establishing collaboration with organizations and institutions working both across the country.
This year WNE collaborate with organizations like Prakriti Samsad and Kankura Masat Social Welfare Society, while conducted seminars and webinars with our partners like Durgapur Government College, NIT Manipur and BSSS and so on. On the other hand, it extended collaborative projects with PSSS in Madhya Pradesh, BONROU and BIOME in Assam. These collaboration have effective increased the organization's functionality and outreach in and beyond the State, engaging multi-level collaborators and stakeholders.
Under our internship program we have engaged with nearly 50 individuals from 15 different states(also UTs)
Throughout the year, our STARTUP GRANT, have supported different projects in four different landscapes. Supporting Gooty Tarantula from tropical Dry Evergreen Forests in Andhra Pradesh to mangrove conservation in Kerala to conserving the Palla's Fish Eagle at the Himalayan region to the Chandragiri River for the conservation of Cantor's Giant soft shell Turtle.

Stepping forward to conserve the marine community of West Bengal:

Sourav Chattopadhyay has been working for over five years across the coastal margins of India to understand the marine species and their habitat with the aim of long-termed conservation to both ecosystem and its diverse species that have become vulnerable and fragile due to the rising anthropogenic pressure.



Sourav at Digha

For the past 3 months, under the RAP initiative of Wildlife Trust of India and the fund support from Fondation Segre, Sourav along with the field assistance from WNE is scouting the costal belts of West Bengal, interacting with the fishermen community to understanding current condition of the marine habitat, identify the exotic the marine's species that visit the region, assess the threat intensity and pattern befalling upon the both the species and its ecosystem. Dedicated over 70 hours in 26 rigorous field study has reveled important ground level data that highlights the socio-economic condition of the communities depended upon fishing, engagement of people in illegal activities like trading of exotic marine species & conducting over fishing, identifying the endangered species along with their nursery ground etc.

Field work and data collection is still ongoing, while Sourav is working to aware the mass by building community networking, engaging various stakeholders and educating the youths of the region to ascertin long-termed conservation on ground.

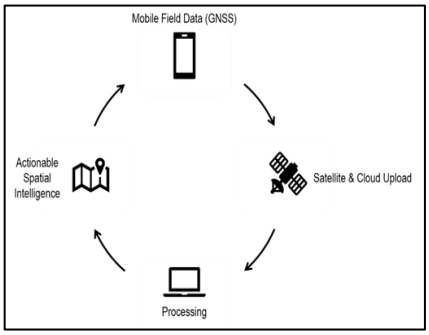
Exotic Marine Species Caught In Fishing Net

Conducting Market Survey At Fishing Harbours And Fish Market

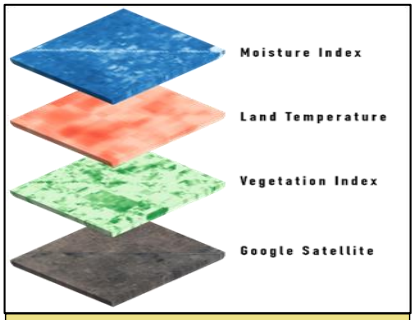
Advances of GNSS, GIS, and remote sensing in wildlife conservation

- by ***Khumukchma Shynyan***

For decades, **wildlife monitoring** is heavily relied on manual data recording and are often times subjected to transcription errors and susceptible to the fragility of paper notes in harsh conditions. Furthermore, location data was also vague and descriptive. Today, the field of wildlife conservation is undergoing paramount changes driven by technological shift and advancement such as real-time monitoring, remote sensing and GIS, mobile data collection tools, etc. Considering the increasing pressures of anthropogenic activities on natural ecosystem, these data-driven approaches are considered way more effective in conservation efforts and strategies.



With the advancements in **GNSS** (Global Navigation Satellite System), we can capture the precise location and elevation of every observation on Earth, even with our cellphones. However, data alone is not enough! Wildlife as we know, exists in a complex, three-dimensional landscape with spatial variation. For instance, studies shows that human-wildlife conflict is a result of the proximity of settlement areas to forested areas and an elephant movement is driven by the location of water bodies. So as to understand the dynamics, geography matters and this is where the concept of spatial analysis becomes indispensable.

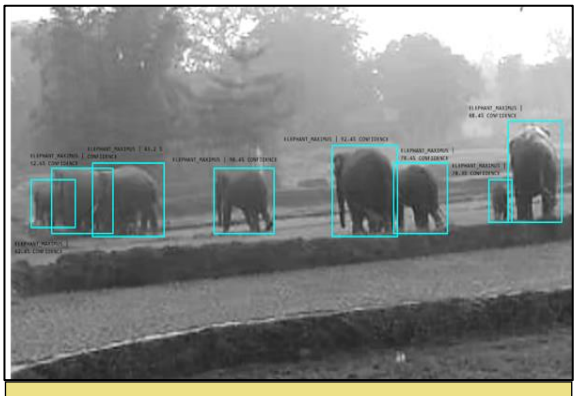


Layers of Map repesenting the topography of the landscape

Geographic Information System or in short, **GIS** provides the platform to perform this analysis. It moves beyond from simple observation to understanding the complex relationship between the wildlife and their natural ecosystem. GIS allows conservation practitioners to use multiple layers or variables (such as moisture level, land temperature, etc.) to visualize patterns. Coordinates recorded on the field can be inserted into GIS along with the multiple layers, ensuring high data integrity.

The power of GIS is further strengthened when integrated with **remote sensing** multi-temporal sensing multi-temporal satellite data. High-resolution satellite imagery such as Sentinel-2 and Landsat-8, offers frequent monitoring of ecosystem health from above. Further usage of spectral indices such as the Normalized Difference Vegetation Index (NDVI) and the Enhanced.

(a) Natural Colour **(b) NDVI**



Analysing the elephnat herd movement along the landsacpe of Ajodhya Hills, Purulia, West Bengal

As we advanced into 2026, the processing of these data is being handled by cloud computing platforms like **Google Earth Engine (GEE)**, allowing for planetary-scale analysis without the need for local computing power. Furthermore, the rise of **AI** and progresses in **Machine-Learning** allows the automation of extracting information. Ultimately, these are merely instruments. The heart of conservation remains human. By embracing these digital tools, we can ensure that 'the mud on our boots' translates into actionable spatial intelligence. As the Senegalese forestry engineer **Baba Dioum** said, "*In the end, we will love only what we understand, and we will understand only what we are taught*." Technology is clear, it is up to us how we can utilize it to conserve and protect our wildlife

DGPS Survey at Bajora in Bankura for proposed forest land demarcation

Forest cover are not just reserves of immense biodiversity but also the reservoirs of coal, the same material that is the source for generating electricity enlightening our cities, townships and rural fringes. But often due to improper demarcation of forest land, sometimes knowing or unknowing forested areas get encroached for coal mining activities, creating imbalance in the ecosystem of the area and hamper the wildlife of the region.

Wildlife And Ecology intervened in one such survey work at the Barjora area in Bankura, West Bengal where WBPDC along with the concerned mining company engaged us in providing our expertise in demarcating the forest boundaries of this region, so that the forest of Barjora being an important habitat of Asian Elephants of southern West Bengal is not affected due this mining project.

Our DGPS team along with the forest departmental staff surveyed the entire forest fringes, collecting accurate GPS points to map out a clearly demarcating forested and non-forested areas, alongside identifying key patches of elephant staying sites. Based on this DGPS survey, a detailed report has been submitted to the concerned authorities which is currently under process so that mining activity does not encroach the key forest habitat and does not hamper the ecosystem of this region which harbors a variety of floral and fauna, apart from elephants.

Our DGPS Survey Team At Site along with Survey Engineers of WBPDCL and Monte Carlo and forest staff

Another Government School identified with declining infrastructure

Degrading condition of the school toilet premises

Government Schools, even to this date, are the only institutions that the economically challenged families look forward to educate their children with quality education, for a brighter future. But insufficiency of funds often lead to lack of maintenance of such school buildings leading to collapsed classrooms, even toilets lacking the basic sanitary equipment. Thus such dire conditions often challenge the school management to run such institution.

Our EDM team identified one such government school in Bandel, West Bengal that provide education to over 800 students and above 60% of them belong to economically challenged section. The school is facing immense challenge in accommodating such a huge number of students when it's collapsing toilet facility is jeopardising the hygiene of the students, particularly the girls. Thus we have taken up an initiative to renovate this toilet facility along with partly renovating certain classrooms. To execute this work successfully we need to accumulate a fund of rupees 3 lacs. We are hopeful that with your generous support we will be able to renovate this school, only means of acquiring education for these young, bright minds. Tax relaxation benefits will be provided to against all generous donation.

Top Stories Across The Globe

Ancient River Monster: How Japan's Giant Salamander Becomes an Apex Predator

Photo Credit: WIKIPEDIA

Deep in Japan's cold, fast-flowing rivers lurks one of Earth's most remarkable amphibians—the Japanese giant salamander. Growing up to 1.5 meters long, these ancient creatures have survived for millions of years. But new research has revealed something extraordinary about how they live. A study published in the journal Oikos by University of Liège researchers has uncovered a dramatic transformation in these salamanders' lives. Young salamanders start peacefully, feeding on small aquatic insects like caddisflies, beetles, and mayflies. At this stage, they're just mid-level consumers in the river's food chain, living alongside other insect-eating creatures. But something remarkable happens when they reach around 62 centimeters in length. The salamanders undergo a complete dietary revolution, shifting from tiny insects to much larger prey including fish, frogs, and freshwater crabs. This isn't just about eating bigger meals—it's a fundamental ecological transformation. The research team analyzed 160 salamanders from the Ichi River watershed in Hyogo Prefecture, examining both stomach contents and tissue isotopes to track these dietary changes. They discovered that as salamanders grow, their jaw structures evolve to accommodate larger prey, enabling them to hunt animals that would have been impossible to catch when smaller. This transformation establishes them as apex predators in their freshwater ecosystems, where they regulate populations of fish, frogs, and crustaceans, maintaining crucial ecological balance. The findings are particularly important for conservation efforts, as these ancient amphibians are classified as vulnerable due to habitat loss and pollution. Understanding their role as top predators helps scientists develop better strategies to protect both the salamanders and the delicate river ecosystems they help maintain.

The Svalbard Paradox: Why the World's Most At-Risk Polar Bears are Getting Fatter

Photo Credit: MISSIONBLUE

SVALBARD, NORWAY — In a striking "climate paradox," polar bears in the Barents Sea are found to be gaining weight despite their habitat warming four times faster than the global average. A study from the Norwegian Polar Institute, analyzing nearly 30 years of data, reveals that bears in the Svalbard archipelago have seen a significant increase in body fat since 2000.This unexpected trend is driven by remarkable dietary flexibility. With sea ice retreating earlier each year, the bears have shifted from hunting seals to preying on land-based Svalbard reindeer , which have surged in population. Additionally, the shrinking ice has forced seals into smaller, more concentrated areas, making them easier targets for the bears in the short term. However, scientists warn this is likely a temporary "buffer" effect. While these 1,500-pound predators are proving to be resilient "improvisers," the long-term collapse of the ice-dependent food chain—from plankton to seals—poses an existential threat that land-based hunting may not be able to offset indefinitely.