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Protected Area Update

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EDITORIAL

Like 'patching up a quilt'

The theme for the edit this time emerged when browsing through the *PA Update's* corresponding issue of a decade ago for the archives section (see pg. 23) that we carry every time. Reading an old issue of the Update invariably evokes a sense of Déjà Vu. Time might be moving on, but the issues and the situation on the ground appear to be exactly where they were - 10 years ago, 20 years ago, even perhaps earlier...

Sometimes the specifics are so similar, it's like we are repeating an old story itself. It is often very frustrating and particularly so when one gets a sense that there is no positive movement and nothing is really being achieved. There are also moments of serendipity, however, when one discovers an unexpected overlap or connection. Even an unlikely insight.

And this is quite the genesis of the analogy of 'patching up a quilt'. While conservation has often been called a crisis discipline, what if we also looked at and understood it as work of constant repair and patching up. This is indeed the sense one gets looking at the stories that are now staple diet for the *PA Update*.

The struggle of conservation, broadly put, appears twofold - like two sides of the same coin. The analogy of the quilt works well here. The first challenge, and one that we are perhaps failing to live up to, is to ensure that the quilt remains in as good a shape as when received. And when we fail in ensuring that, the task comes down to mending and repairing and patching up. This, one might dare say, is the side of the coin that we have to rely on increasingly as the quilt gets tattered more and more with every passing day.

We report this time, for instance, on the felling of more than one lakh trees for relocation of people from within the Amrabad

Tiger Reserve in Telangana, on the permission granted for exploratory oil and gas drilling in close proximity of the Hollangapar Sanctuary in Assam and the approval granted to 171 new projects in the cold deserts of Ladakh. This is only a sample of what is happening across the country, the cumulative impact of which in terms of both time and space can only be imagined.

Quilts are often patchworks themselves, much like landscape approach in conservation. This patchwork, however, has intricate and complex connections that link one to the other even as they sustain each other. The current paradigm of development and economic growth, oblivious as it is to these connections and these fragilities, appears committed to ripping apart the fragile fabric of nature's infrastructure. It is these connections that are being relentlessly torn and broken down leaving us with little option but to patch up and to repair - managing this way and that - a stitch here, a surgery there, an underpass for that highway, AI technology for this railway line, a camera trap network in another forest, compensation schemes for crop depredation, another PA somewhere else...

News reporting on conservation and by extension the *PA Update* itself could be considered a museum and an archive of these efforts. It is as much an account of this tattered fabric as of the many stitches, stitching and constant repairing that is perhaps the main task of conservation. Or at least the direction in which we are clearly headed.



NEWS FROM INDIAN STATES

ANDHRA PRADESH

106 species counted in Coringa during AWC - 2025

106 bird species, including nearly 70 migratory species, were sighted in the Coringa Wildlife Sanctuary (CWS) and the adjoining wetlands in the Godavari estuary spread across Kakinada and Dr. BR Ambedkar Konaseema districts in Andhra Pradesh during the Asian Waterfowl Census 2025 conducted in early January. 56 of the total species spotted were waders and the total birds counted were a little under 40,000.

Three species spotted during the census - the Black-bellied tern (*Sterna acuticauda*), Great knot (*Calidris tenuirostris*), and Indian skimmer (*Rynchops albicollis*) are endangered. 11 species in the list are Near Threatened while the Common pochard (*Aythya ferina*) was the only Vulnerable species sighted during the census.

Bhairavapalem and Etimoga were reported as the prime habitations with at least 550 Great knots were sighted at the Bhairavapalem mudflat. In another interesting find, a Great knot that was tagged in Russia and had travelled nearly 7,500 km was sighted at the Bhairavapalem mudflat in January 2025. The same bird was sighted at the Etimoga wetland in the estuary in the winter of 2024 as well.

The count was carried out by the sanctuary officials in collaboration with the Bombay Natural History Society and the Wildlife Institute of India.

Source: T Appala Naidu. 'Asian Waterbird Census-2025: Coringa, adjoining wetlands emerge prime feeding habitat for 106 avian species, www.thehindu.com, 28/01/2025.

AP starts to train its elephants; *kumkis* from Karnataka awaited

The Andhra Pradesh (AP) government has started to train its elephants as *kumkis* because of the inordinate delay in getting four *kumkis* from Karnataka. *Kumkis* are captive elephants that are trained to capture and tame their wild counterparts.

The forest department (FD) has identified two elephants housed within the Sri Venkateswara Zoological Park in Tirupati and another at the Indira Gandhi Zoological Park in Visakhapatnam for the purpose. The three had once been wild but were captured and moved to the zoos when they started entering human settlements.

AP does have *kumkis*, one each stationed in Tirupati and Nandyal, but they have reached the advanced age of 60 years and are to be retired soon. Hence, the FD has started training the identified elephants of Tirupati Zoo for deployment in camps to be developed near the wildlife areas. A temporary holding area could be developed in Parvathipuram Manyam district by using Rs. three crore from the funds of the Compensatory Afforestation Fund Management and Planning Authority (CAMPA).

Wild elephants have been a cause of concern in parts of Manyam, Chittoor, Tirupati and Annamayya districts. The state government had entered into an agreement with Karnataka to get *kumkis* and AP's forest officers and elephant handlers have also received training in Karnataka on handling *kumkis*. The animals are expected to arrive soon from Karnataka.

AP is, however, also training its own elephants to become *kumkis* to avoid loss of life and crops.

Source: Sampat G. Samritan. 'AP decides to train its own elephants as *kumkis*', www.deccanchronicle.com, 27/01/2025.

ARUNACHAL PRADESH

Elephant sighted in Namdapha TR after 12 years

An elephant was recorded in the Namdapha Tiger Reserve (TR) recently after a gap of 12 years. According to officials, the migration corridor for elephants between Arunachal Pradesh and Myanmar has been obstructed since 1996 due to human encroachment and developmental activities. The recent sighting indicates that some natural pathways might be re-emerging, potentially allowing the return of these majestic animals.

Source: 'Elephant recorded in India's Namdapha Tiger Reserve after 12 years', www.theearthview.in, 29/01/2025

New species of pangolin discovered in Arunachal Pradesh

Scientists from the Zoological Survey of India (ZSI) have identified a new species of pangolin, the Indo-Burmese pangolin (*Manis indoburmanica*) from Arunachal Pradesh. The announcement was made in January 2025, following a comprehensive study led by Mukesh Thakur of the ZSI. The research team included Lenrik Konchok Wangmo, a PhD scholar at the University of Calcutta.

Genetic analysis confirmed that the Indo-Burmese pangolin diverged from the Chinese pangolin (*Manis pentadactyla*) approximately 3.4 million years ago. The species is primarily found in Arunachal Pradesh and Assam, with its range potentially extending into Nepal, Bhutan, and Myanmar.

The ZSI's findings highlight the urgent need for targeted conservation strategies to protect this newly identified species and its habitat.

Source: 'Team from Zoological Survey of India discovers new pangolin species', www.indiatoday.in, 10/01/2025.

ASSAM

Centre clears oil & gas exploratory drilling in ESZ of Hollongapar Gibbon WLS

The Standing Committee of the National Board for Wildlife (NBWL) has approved exploratory oil and gas drilling in the eco-sensitive zone (ESZ) of Hollongapar Gibbon Wildlife Sanctuary (WLS). This decision was taken in the recently held 81st meeting of the committee.

The project area spans 4.49 ha, including a 1.44 ha well pad and a 3.05 ha access road in the AA-ONHP-2017/4 block. The site is located 13 km from the sanctuary, home to the endangered Hoolock gibbon and six other primate species. The sanctuary itself covers 20.98 sq. km, with its ESZ extending over 264.92 sq. km to ensure connectivity with adjacent forested areas in Assam and Nagaland.

The sanctuary, named after the country's only ape species, the Hoolock gibbon provides critical forest corridors that connect to the Dissoi Valley Reserve Forest and habitats in Nagaland.

A site inspection conducted on 15 November 2024 by representatives of the Ministry of Environment, Forest and Climate Change (MoEFCC), Wildlife Institute of India (WII), and the Assam Forest Department concluded that exploratory drilling would have limited immediate environmental impact. However, they strongly opposed commercial drilling within the ESZ.

The project proponents have explained that the exploratory drilling at the sanctuary was necessitated by results from seismic mapping of the entire basin and is strictly to find hydrocarbon reserves in the area. The proponents said that any proposal for extraction of hydrocarbon reserves discovered would be confined to sites

outside the ESZ of the sanctuary and that no hazardous substances would be used during operations.

The NBWL has imposed several conditions to ensure environmental safeguards. These include the installation of real-time digital surveillance systems to monitor operations, submission of detailed operational plans to regulatory bodies before commencement, minimal tree felling, and strict pollution control measures. Additionally, oil or gas extraction within the ESZ is explicitly prohibited, even if reserves are discovered.

(Also see *PA Update* Vol. XXX, No. 5)

Source: Roopak Goswami. 'Centre clears oil & gas exploratory drilling in Hollongapar Gibbon Sanctuary', www.downtoearth.org.in, 12/01/2025.

Ganges river dolphin tagged for the first time in India

In a first for India, a male river dolphin from Kulsī, a tributary of the Brahmaputra, was recently tagged and released back. An initiative of the Ministry of Environment, Forest, and Climate Change, it was executed by the Wildlife Institute of India (WII) in collaboration with the Assam Forest Department and biodiversity conservation group Aaranyak.

The tagging under Project Dolphin is expected to help understand the dolphin's seasonal and migratory patterns, range, distribution, and habitat utilisation, particularly in fragmented or disturbed river systems. Officials said the lightweight tags emit signals compatible with Argos satellite systems even with limited surfacing time and are designed to minimize interference with dolphin movement. The project is funded by the National CAMPA Authority.

The Ganges river dolphin is unique for being nearly blind and relies on echolocation

for its biological needs. India houses about 90% of the global population of the dolphin, historically distributed across the Ganga-Brahmaputra-Meghna and Karnaphuli river systems. However, its distribution has drastically declined over the past century. Despite its wide range, significant knowledge gaps remain regarding this species due to its elusive behaviour. It surfaces for only 5-30 seconds at a time, posing a significant challenge in understanding its ecological needs and for any scientifically sound conservation interventions.

Officials said plans are underway to extend the tagging initiative to other States inhabited by Ganges river dolphins to build a comprehensive understanding of their population dynamics and habitat requirements. (Also see *PA Update* Vol. XXX, No. 6)

Source: Rahul Karmakar, 'Ganges river dolphin tagged for the first time in India', www.thehindu.com, 19/12/2024

HARYANA/NICOBAR ISLANDS

Haryana forms committee to supervise Aravali Zoo safari project

The Haryana government has formed an eight-member committee to oversee various matters pertaining to the proposed safari in the Aravali region of Gurgaon and Nuh. The committee, headed by the principal chief conservator of forests and chief wildlife warden (Haryana), will supervise the firm that will undertake the detailed project report (DPR).

The safari project inspired by UAE's Sharjah Park, was announced in September 2022 and is to be funded from money received for the compensatory afforestation for the cutting of over 130 sq kms of forest in Great Nicobar Island. The safari has been permitted in forest areas after the Union Ministry of Environment, Forest and Climate Change's directive in June 2022 indicated that zoos will be considered forestry activity. The project has

been opposed by several researchers and former forest officials.

The forest department (FD) has meanwhile initiated a comprehensive survey to identify degraded Aravali areas in Gurgaon which will be part of the safari project. The survey aims to identify areas with forest densities below 40%. The targeted areas include Sakatpur, Gairatpur Bas, Shikohpur and forest patches in Bhondsi, Ghamroj, Alipur, Tikli, Aklimpur, Naurangpur and Bar Gujar. The terrain is characteristic of the Aravali hills — undulating, with varied soil depth and scrub vegetation, poor moisture retention and susceptibility to water stress.

Following Haryana's selection of a design firm last year, the company has presented its final design with a proposed budget of Rs. 2,000 crore. However, this plan, reportedly, requires numerous approvals and careful consideration of environmental factors. The expert group of the Central Zoo Authority (CZA) has provided specific guidelines regarding safari placement, entrance designs and environmental preservation measures, particularly concerning water conservation in this deficit zone.

Earlier, in March 2022, officials of the CZA had visited the area to assess the project's feasibility. This team of the CZA officials is reported to have stated that the land is adequate at the selected site for establishment of the safari.

(Also see *PA Updates* Vol. XXVIII, Nos. 6, 5 & 4 and Vol. XXVII, No. 1

Source: Ipsita Pati. 'Haryana sets up 8-member panel to monitor Aravali Zoo Safari project', www.timesofindia.indiatimes.com, 24/01/2025.

JAMMU & KASHMIR

26 villages included in ESZ for Tral WLS

26 villages in Pulwama and Anantnag districts in the Kashmir valley have been included in the

eco-sensitive zone (ESZ) of the Tral Wildlife Sanctuary (WLS). This is supposed to be a step in the direction of protecting the endangered hangul.

The 26 villages, constituting an area of 127.10 sq. km, extend from zero to 3.26 km from the boundary of the sanctuary. The villages include Nagander, Sethpokhran, Wahabkharun in the Khrew area of Pampore tehsil; Wagad, Basantpur, Dharamgund, Aripal, Khandgund, Satura, Gutura, Narastan, Manchihama, Kahlil, Chhanakitar, Chewa Ullar, Bathnoor, Mondura, Pannyer, Pinglish, Laribal, Shikargarh, Saimooh, Buchoo of Tral tehsil in Pulwama district; and Sangnar, Pannad, Sakhras of Anantnag district.

Notified in 1945 as Conservation Reserves (CRs) by the Dogra Maharaja, both Shikargah and Khangud were upgraded to Tral WLS in 2019. The sanctuary, spread over the rugged and undulating terrain of the Greater Himalayan Mountains, encompasses an area of around 155 sq. km. It is among the few areas outside Dachigam National Park where a hangul population still survives. Tral WLS is also connected with other important wildlife areas, such as the Overa-Aru WLS and the Khrew CR.

A zonal master plan aimed at integrating "ecological and environmental considerations," is being prepared in consultation with 12 government departments that include Environment, Forests, Agriculture, Revenue, Urban Development, Tourism, Rural Development, Irrigation & Flood Control, Pollution Control Board, Municipality, Panchayati Raj, and the Public Works Department. As per the master plan there will be a complete ban on industries and commercial units like cement factories, brick kilns, hotels, hydro-projects, wood-based industries, mining and quarrying, and large-scale livestock and poultry farms that cause pollution and negatively impact the environment. The plan will demarcate all existing places of worship, villages, urban settlements, types of forests, agricultural areas, fertile lands, green areas such as parks,

horticultural areas, orchards, lakes, and other water bodies with supporting maps giving details of land use.

The plan, once approved, shall serve as the reference document for the monitoring committee to ensure compliance. The monitoring committee shall comprise the district development commissioner, Pulwama, the regional officer, Jammu and Kashmir Pollution Control Committee, the divisional forest officer Awantipora, wildlife warden, Shopian division, a representative of an NGO working in the sector, and an environmental expert.

Source: Mir Farhat Maqbool. '26 Kashmir Villages Declared Eco-Sensitive Zones For Hangul Conservation', www.etvbharat.com, 31/12/2024.

KERALA

Significant decline in wader populations between 2010 and 2019 in Kerala: study



A study has revealed that the population of wading birds in Kerala declined significantly between 2010 and 2019. Titled 'Assessing Environmental Change and Population Declines of Large Wading Birds in Southwestern India', the study was published recently in the journal *Environmental and Sustainability Indicators*.

For the study, the researchers selected 27 sites along Kerala's coast, including estuaries, sand beaches, mudflats, mangroves, and agroecosystems. These sites included the Kayamkulam, Azheekkal and Iringal estuaries, beaches at Ayikkara, Kollavi, Thikkodi, Kappad, Korappuzha, Elathur, Kallayi, Kappakkal, Gotheeswaram, Pulimudu, *Protected Area Update* Vol. XXXI, No. 1

Ariyallur, Chettuva, Puthuvypu, Purakkad and Thottappalli, the wetlands of Chooloor, Mavoor Palliyol, Manthalakkadavu, Vadakkumpad, and Changaram, the Vazhakkad Agroecosystem, inland mangroves at Kallampara, and the KVCR mangroves and mudflats.

The study assessed various environmental variables, including rainfall, sediment characteristics (salinity, pH, organic carbon, nitrogen, phosphorus), water conditions (salinity, pH, temperature, nitrate, phosphate), primary productivity (Chlorophyll-a), and prey availability (mean fish stock levels).

The six common wader species that were monitored were Great egret (*Ardea alba*), Intermediate egret (*Ardea intermedia*), Little egret (*Egretta garzetta*), Indian pond heron (*Ardeola grayii*), Western Reef egret (*Egretta gularis*), and Black-headed ibis (*Threskiornis melanocephalus*). Bird counts were conducted at all 27 sites during low tide from fixed scanning points.

Results showed a significant decline in the densities of all species from 2010 to 2019, with variations across seasons and habitats. Densities across all species peaked post-monsoon and were lowest during the monsoon. Analysis revealed that rainfall and organic carbon positively influenced primary productivity while water variables positively affected fish stock availability.

The study also identified environmental changes including increased phosphorus, salinity, and pH in both water and sediment. Organic carbon and nitrogen in sediment declined significantly, water salinity, temperature, pH, and phosphate increased, whereas nitrate and chlorophyll-a levels decreased over the study period.

The study concluded that significant declines in fish stock availability and altered environmental variables have contributed to the long-term decline of the waders. In response, large waders have adapted by shifting to agroecosystems and estuaries for foraging.

Source: Rajat Ghai. ‘Study shows wader bird species in Kerala’s wetlands declined during last decade; ecosystem in peril, say authors’,
www.downtoearth.org.in, 08/01/2025.

LADAKH

NBWL approves 171 projects in Changthang High Altitude Cold Desert and Karakorum Nubra Shyok WLS



The Standing Committee (SC) of the National Board for Wildlife (NBWL) has approved 107 proposals, covering 2,967.63 ha in the Changthang High Altitude Cold Desert Wildlife Sanctuary (WLS), and 64 proposals, covering 24,625.52 ha in the Karakorum Nubra Shyok WLS in Ladakh. The clearances were given during a meeting of the committee chaired by Union Environment Minister Bhupender Yadav on 21 December 2024.

The proposed projects include building infrastructure for troops, ammunition storage and communication networks in eastern Ladakh near the Line of Actual Control (LAC) with China. They are aimed at speeding up ammunition access to ensure quicker operational deployment, according to the Ministry of Defence.

Both the sanctuaries are home to rare wildlife such as the Tibetan wild ass, Snow leopard, Tibetan wolf and numerous bird species. Additionally, the Karakorum Nubra Shyok WLS supports species like the Tibetan

gazelle, Siberian ibex, bharal (blue sheep) and Bactrian camel.

Source: ‘Centre’s wildlife panel clears proposals to build strategic infra in eastern Ladakh’,
www.telegraphindia.com,
10/01/2025.

MAHARASHTRA

Translocated tigress gives birth to cubs in Navegaon Nagzira TR; first case in state

The tigress NT2, translocated from Pangdi near Tadoba, has given birth to three cubs in Nagzira Wildlife Sanctuary (WLS), which is part of the 653 sq. km Navegaon Nagzira Tiger Reserve (NNTR). Though two cubs were documented on the camera traps alongside the mother on 10 December 2024, the director of the reserve confirmed that there was a third cub as well. The cubs appear to be three months old.

There are numerous instances of translocated tigresses birthing cubs, including in Madhya Pradesh and Uttarakhand; this, however, is the first such case in Maharashtra.

To enhance the tiger population in NNTR, two juvenile tigresses — NT1, captured from Armori in Gadchiroli, and NT2 from Pangdi adjoining Kolsa range in Tadoba — were introduced in the core area of NNTR on 18 May 2023. NT1 left the reserve and established herself in the NNTR-Kanha corridor in Balaghat, over 70 km away, while NT2 traversed both the core and buffer zones of the NNTR. NT2’s cubs are said to have been fathered by the Pangdi male.

A third 20-month old sub-adult female, NT3, was translocated to NNTR from Tadoba on 11 April 2024. She is presently exploring the area, presumably to establish her territory and seek a mate. NT3 also ventured 60 km to Koka WLS in Bhandara district a fortnight after her release (*PA Update* Vol. XXX, No. 3).

The NNTR encompasses five protected areas (PAs) — Nagzira WLS (153 sq. km), Navegaon National Park (133 sq. km), New Nagzira WLS (152 sq. km), Navegaon WLS (123 sq. km), and Koka WLS (92 sq. km). The buffer zone spans 1,241 sq. km. The reserve has a carrying capacity of approximately 30 tigers; however only 11 tigers were reported here as per the All India Tiger Estimation 2022 report. The Ministry of Environment, Forest and Climate Change had on 15 September 2022, authorized the translocation of five tigresses to NNTR.

While three animals have already been introduced here the other two are expected to be brought soon.

Source: Vijay Pinjarkar. ‘Conservation Win: Translocated Tigress Delivers Cubs in Nagzira’, www.timesofindia.indiatimes.com, 12/12/2024.

ODISHA

FD to conduct satellite telemetry study of migratory birds visiting Chilika

The Odisha Forest Department (FD) in collaboration with the Wildlife Institute of India (WII) has decided to undertake a satellite telemetry study of migratory birds coming to Chilika Lake.

The study is expected to give the authorities data about how far birds travel in a day and track their journeys back from Chilika. The FD is planning to set up a research centre at Barkul near Chilika to carry out studies on the movement of birds, olive ridley turtles and other species.

Source: Subhashish Mohanty. ‘Odisha: Wildlife Institute of India to conduct study to track routes of Chilika's migratory birds’, www.telegraphindia.com, 04/01/2025.

1,826 crocs counted in Bhitarkanika NP

The population of saltwater crocodiles in Odisha's Bhitarkanika National Park has marginally increased in 2025. Forest officials counted 1,826 crocodiles during the recent annual reptile census whereas in 2024, they sighted 1,811 reptiles.

The enumerators conducted the survey by sighting the crocodiles in various creeks and rivers during the day and at night from January 19-21, 2025. The survey was conducted under the guidance of Sudhakar Kar, a noted herpetologist, and involved using of the Timestamp Camera App.

The count included 585 hatchlings (two feet in length), 403 yearlings (two to three feet long), 328 juveniles (three to six feet long), 164 sub-adults (six to eight feet long) and 346 adult reptiles (more than eight feet long).

The results of the censuses are as follows:

Year	No.
2000	1,192
2001	1,330
2002	1,308
2003	1,342
2004	1,355
2005	1,449
2006	1,454
2007	1,482
2008	1,482
2009	1,572
2010	1,610
2011	1,654
2012	1,646
2013	1,649
2014	1,644
2015	1,665
2016	1,671
2017	1,682
2018	1,698
2019	1,742
2020	1,757
2021	1,768
2022	1,784
2023	1,793
2024	1,811
2025	1,826

Source: Ashis Senapati. '1,826 crocodiles, including 18 albino individuals, sighted in Odisha's Bhitarkanika National Park during annual saurian census', www.downtoearth.org.in, 23/01/2025.

Census count reveals 659 gaur in 52 herds in Debrigarh WLS



The first-ever gaur census in Odisha has reported 659 guar spread over 52 herds in the Debrigarh Wildlife Sanctuary (WLS). The herd size varied

from 8 to 33. 210 animals or 30% of the total population were reported to be juveniles.

The census was conducted by the forest department (FD) on 12 and 13 November 2024. It was conducted on foot with systematic surveys along the forest roads, animal trails, water bodies, grasslands and meadows.

The tourism zone in the sanctuary recorded the presence of more than 100 gaur in six herds, including a few massively built adult bulls. Age-sex classification of the gaur population could not be ascertained because of densely forested areas and the presence of tall grasses.

Forest officials said that the actual population of gaur in the sanctuary would be more by about 20%

Source: 'Odisha: 659 Indian gaurs counted in Debrigarh Wildlife Sanctuary, 210 are juveniles', www.telegraphindia.com, 17/11/2024.

Subhashish Mohanty. 'Odisha's first-ever Indian bison census conducted in Debrigarh Wildlife Sanctuary', www.telegraphindia.com, 18/11/2024.

245 wild animals elephants and leopards died in five months in 2024: minister

A total of 40 elephants, five leopards and 200 other wild animals have died in Odisha in about five months from July 2024 to November 2024, the state assembly was informed on 26 November 2024.

State forest and environment minister Ganesh Ram Singh Khuntia, in a reply to a written question by Biju Janata Dal (BJD) member Tushar Kanti Behera, said that departmental inquiries have been conducted into the deaths of elephants and leopards. At least 26 people have been arrested in connection with the elephant deaths and two forest guards and a forester have been placed under suspension for dereliction of duty. 14 people were arrested in cases of leopard deaths.

Replying to another question by BJD member Sanatan Mahakud, the minister said that elephant attacks in the state have left 509 people injured in the same period. Herds of elephants have destroyed crops over 73,620 acres of land and damaged 10,259 houses.

The minister also informed that in Kendrapara district, crocodiles killed 22 people over the past five years, particularly in the Brahmani, Baitarani, and Kharasrota rivers, and these incidents took place when the water levels rose in the rivers during monsoon.

On 3 December 2024, the minister while replying to a question from Congress MLA Taraprasad Bahinipati, said 34 leopards and three tigers have died in the state due to various reasons in the five year period from 2019 to 2024. Of the 34 leopards, 17 were killed by poachers, three died after being electrocuted, one died in a train accident, three in road accidents, and three due to diseases. Four leopards died due to natural causes while the reasons behind the deaths of another three leopards were not yet known.

According to the Odisha Tiger Estimation report there were 30 tigers in the state and of those 27 were in Similipal Tiger Reserve. A total of 696 leopards were

enumerated in different forest areas of the state during the Odisha Leopard Estimation, 2024.

Source: ‘40 elephants, 5 leopards died in five months: Minister tells Odisha assembly’, www.telegraphindia.com, 26/11/2024.

‘Odisha: 34 leopards and three tigers died due to various reasons between 2019 and 2024’, www.telegraphindia.com, 03/12/2024.

TAMIL NADU

Coimbatore Forest Division to set up AI-cameras to detect elephant movement

After the successful functioning of artificial intelligence (AI)-based cameras to detect wild animal movement, especially elephants, at the Madukkarai Forest Range, the Coimbatore Forest Division (CFD) is planning to set up similar cameras in its other forest ranges as well. Another six AI-based cameras will be procured at a cost of Rs. 15.3 crore for the purpose under the corporation responsibility fund (CRF)

A senior official said that earlier they were focused on railway tracks inside the Madukkarai range; now they will concentrate on forest boundaries in other forest ranges. Three hotspots have been identified for the same in the conflict-prone forest ranges such as Coimbatore, Periyanaickenpalayam, and Mettupalayam. The camera sensors detect elephant movement within 300 to 400-metre from it and send a text message to the concerned forest guard, forester, and forest range office.

Source: ‘Six AI cameras costing Rs. 15 cr. to monitor animal movement across Kovai’, www.newindianexpress.com, 13/01/2025.

TELANGANA

Over one lakh trees to be felled for relocating Amrabad TR villages

Over one lakh trees are to be felled for the relocation of four villages - Sarlapally,

Kudichintalabailu, Kollampeta and Tatigindala - from the core zone of the Amrabad Tiger Reserve (TR) to the Bacharam Reserve Forest (RF) in Nagarkurnool district. 1,253 families are to be relocated in two phases - 417 in the first and the remaining 836 families in the second. Rs. 55 crore has been approved for the first phase and another Rs. 100 crore is the estimated requirement for the second phase.

Since availability of revenue land for relocation was a challenge, the forest department (FD) has identified 1,500 ha in Bacharam. However, the FD needs the Centre’s approval to de-notify the RF.

State officials were confident of getting the Centre’s nod. They have said that an extensive afforestation exercise would be taken up as compensation for utilising 1,500 ha of the RF. Already, forest officials have conducted district-level committee meetings over relocation and rehabilitation of villages. The same has been approved by the state-level committee as well.

Source: S. Sandeep Kumar. ‘Over one lakh trees to be axed to relocate four villages from Amrabad Tiger Reserve’, www.telanganatoday.com, 16/01/2025.

UTTAR PRADESH

‘ANIDERS’ installed to reduce human-wildlife conflict in Pilibhit

The Wildlife Trust of India (WTI) in collaboration with the Uttar Pradesh (UP) Forest Department (FD) recently introduced the Animal Intrusion Detection and Repellent System (ANIDERS) in Pilibhit in an effort to address the challenges posed by human-wildlife interactions, particularly tigers and leopards.

In 2024 alone, Pilibhit’s Social Forestry Division recorded 26 big cat-related conflict cases—18 involving tigers and eight involving leopards. WTI’s Rapid Response

Team (RRT), a specialised group handling wildlife emergencies and human-wildlife conflict situations, actively managed all these incidents, closely monitoring high-conflict zones. The villages of Mandaria and Dhankuni emerged as conflict hotspots due to frequent sightings of tigers and leopards, exacerbated by the extensive sugarcane farmlands that provide ideal cover for these predators.

Sugarcane fields, especially during the harvesting season, serve as prime corridors for big cats, increasing the likelihood of encounters with humans and livestock. These incidents have resulted in cattle depredation and human injuries, causing significant distress among local communities.

ANIDERS is a solar-powered system designed to detect and deter wildlife from entering human habitations. It utilises a combination of loud sounds and intense lights to startle big cats, effectively reducing the chances of conflict. 10 ANIDERS have been installed in Mandaria and Dhankuni villages, where tigers have been frequently sighted. The installation was executed by the Delhi-based Kyari Innovation Pvt Ltd..

Source: 'ANIDERS' installed to reduce human-wildlife conflict in Pilibhit', www.wti.org.in, 30/01/2025

UTTARAKHAND

WII begins to study carrying capacities of four shrines in Uttarakhand

The Wildlife Institute of India (WII) has begun a study of the carrying capacity of four Himalayan shrines - Kedarnath, Gangotri, Yamunotri and Hemkund Sahib in Uttarakhand. The study will not cover the Badrinath shrine, however.

Bhupendra Singh Adhikari, WII scientist and principal investigator of the project, said that the study was needed as the number of pilgrims visiting the temples reaches four to five lakh in the initial days of the Char Dham Yatra. The study will see if the

infrastructure available on the way to these temples is enough to accommodate this kind of crowd or if some regulation is necessary, especially when the yatra is at its peak. The study will also ascertain whether environmental rules are being complied with. It will review the solid and liquid waste management norms being followed in the temple areas and ascertain if there are enough safeguards to ensure no harm is caused to the fragile ecosystem.

Adhikari is heading the 12-member study team. Preparing the report will take nearly a year, he informed.

WII was assigned the task by the state government in October-November 2024 in view of the huge rush of pilgrims to these shrines in recent years. Around 48 lakh pilgrims visited the Char Dham temples in 2024 and about 54 lakh in 2023.



Source: 'Wildlife Institute of India begins study of Himalayan shrines' carrying capacity in Uttarakhand', www.telegraphindia.com, 04/12/2024.

State records 606 leopard deaths in last five years

Uttarakhand recorded 606 leopard deaths due to various factors including natural causes, accidents, and human-wildlife conflicts in the last five years. The figure includes 114 deaths in 2024 alone. The number was 134 in 2023, with the highest number of 138 being reported

in 2020. Of these 606 animals, 278 were males and 272 females, while the remaining 56 could not be identified.

41 leopards died in road accidents, and 28 were declared man-eaters, leading to either lifelong captivity or elimination. Territorial disputes accounted for 116 deaths while 143 leopards succumbed to natural causes. Sixty-four deaths resulted from ‘other’ accidents, with poaching and snares claiming five and four leopards, respectively. Conservationists have raised concerns over the 196 deaths classified as caused by ‘unknown reasons’.

Forest authorities link the deaths to increasing human-leopard conflicts driven by habitat encroachment and urbanisation. A senior forest officer said that as tiger and leopard populations grow, limited space leads to conflicts. Urbanisation of forest edges and the availability of easy prey, like pets and stray cattle, attract leopards to human settlements, intensifying the problem.

Chief Wildlife Warden Ranjan Mishra outlined a three-step approach to mitigate the conflict. It includes raising awareness about co-existing with wildlife, implementing forest landscape restoration in 26 conflict hotspots, and strengthening the forest ecosystem to reduce wildlife straying out for food.

The state is estimated to have around 3,000 leopards.

Source: Shivani Azad. ‘606 leopards die in Uttarakhand in 5 years’, www.timesofindia.indiatimes.com, 19/12/2024.

WEST BENGAL

ZSI assesses earthworm diversity in five WLSs

The Zoological Survey of India (ZSI) recently conducted a study to assess the spatial distribution of earthworm species across five wildlife sanctuaries (WLSs) in West Bengal. These include the Ballavpur WLS (Birbhum), Bethuadahari WLS (Nadia), Raiganj WLS and

Ramnabagan WLS (East Burdwan) and Bibhutibhushan WLS (North 24-Parganas). The highest number of 15 species were recorded at Raiganj WLS followed by 14 in Bethuadahari (15), Ballavpur (11), Bibhutibhushan (10) and Ramnabagan (8).

Shakoor Ahmed, a ZSI researcher who was part of the study, said that in areas where native species act as indicators, there is more diversity than in areas where exotic species act as indicators. All WLSs except Raiganj harboured at least one exotic species as an indicator. In contrast, Raiganj, a prime bird nesting site, uniquely featured the endemic species — *Eutyphoeus nicholsoni*.

Dhriti Banerjee, director ZSI, said that while non-native species are often used, focusing on native species can help prevent the introduction of invasive species into agricultural ecosystems. As vermiculture gains global popularity, identifying suitable native species is crucial for sustainable practices, she added.

Source: Debraj Mitra. ‘Study on spread of earthworms reveals diversity across Bengal’s wildlife sanctuaries’, www.telegraphindia.com, 28/11/2024.

FD stops collecting entry fee to PAs; concerns over revenue loss

The Bengal Forest Department (FD) has stopped collecting entry fees to protected areas in the state following instructions in January 2025 by chief minister (CM), Mamata Banerjee. The instructions were issued during an administrative meeting in Alipurduar when local MLA Suman Kanjilal drew her attention to the high entry fees and vehicle charges in the Buxa Tiger Reserve (TR).

The CM’s rationale was that high fees will discourage people from visiting PAs in the state. Instead, they will plan trips to states like Odisha, Jharkhand and Uttarakhand and it will impact the tourism sector. The department accordingly stopped collecting fees for entry to

Buxa TR and other reserves in the region such as the Gorumara, Jaldapara and Neora Valley National Parks (NP).

The halt in the collection of entry fees resulted in surge of vehicles, both two- and four-wheelers, leading to fears of impact on the forests and wildlife. There is also concern about the loss of revenue this will lead to. A section of foresters pointed out that the halt in the fee collection would hit the earnings of the department, which had an allocation of about ₹400 crore in the state budget for 2024-25.

The revenue earned through the entry fees and vehicle charges is used for the conservation and protection of nature and wildlife, and to repair and renovate the forest department's properties. 40% of the collected money is also shared with forest protection committees (FPCs) and eco-development committees (EDCs) every year. They feared a loss of support from the villagers if they did not get the funds.

The forest department used to charge each visitor Rs. 150 to enter the Buxa TR. The entry fee for a vehicle was Rs. 400. In the Gorumara NP in Jalpaiguri district, the department used to collect an entry fee of Rs. 200. An additional Rs. 80 was charged per person travelling in vehicles.

Source: Anirban Choudhury. 'Pause on forest entry fee after CM stricture: Hundreds ride free in Buxa, raising revenue concerns', www.telegraphindia.com, 25/01/2025.

12 families from Jayanti village refuse to re-locate from within Buxa TR

12 families from Jayanti village located within the Buxa Tiger Reserve (TR) are refusing to relocate inspite of being offered a compensation of Rs15 lakh each in addition to plots through forest pattas. Basic amenities like drinking water facilities, electricity and roads too have been arranged for them. The village has 449 families but only these 12 are said to be resisting relocation. Forest officials said that

they are involved in running hotels and home-stays here. They have also noted that the state government's policy against forcible eviction has come in the way of relocating these families

Jayanti is among the 10 forest villages located within the reserve that are sought to be relocated to facilitate the release of tigers in the zone following the guidelines of the National Tiger Conservation Authority (NTCA). So far, the state forest department has relocated two forest villages — Bhutiabusty and Gangutiabusty — from the reserve area to Banchaya near the Bhatpara tea garden in Kalchini. All Jayanti villagers were also shown the place before they consented to relocation in 2024.

The effort to relocate the forest settlements from the core of Buxa assumed urgency after December 2021 when at least one tiger was caught in a camera trap. Buxa is contiguous to Bhutan's Phibsoo Wildlife Sanctuary and Manas National Park in Assam and the target is to increase the prey base for tigers in Buxa to ensure that tigers that come here find the area suitable and settle down. (Also see *PA Updates* Vol. XXX. No. 1 and Vol. XXVI, No. 1).

Source: 'Villagers stay put on tiger turf, Bengal government policy against forcible eviction a hurdle in Buxa', www.telegraphindia.com, 30/01/2025.

FD directs closure of hotels and lodges within Buxa TR

The Bengal Forest Department (FD) has directed commercial establishments within Buxa Tiger Reserve (TR) to shut down immediately. This is expected to impact around 100 such commercial establishments including resorts and lodges located on reserve boundary in Alipurduar district.

The decision has come in response to a 20 May 2022 order of the National Green Tribunal's eastern zonal bench against running

commercial establishments along the boundary of reserve (*PA Update XXVIII*, No. 4). The aggrieved group had however obtained a stay against the NGT order from the Jalpaiguri circuit bench of Calcutta High Court on 29 July 2022. The bench did not give an extension to this July 2022 stay when it heard the case in December 2024. This the FD has interpreted as a lifting of the stay and passed directions accordingly.

Many in the region whose livelihood depends on tourism are worried about the development. Partho Sarothi Roy, the president of the Dooars Tourism Welfare Society objected to the issuing of notice to the villagers and argued that they would approach the higher court in the matter.

Source: Anirban Choudhury. ‘Bengal forest department directs immediate closure of hotels and lodges within Buxa Tiger Reserve’, www.telegraphindia.com, 20/12/2024.

200 more camera traps for Buxa TR

The state forest department (FD) has installed around 200 camera traps across the Buxa Tiger Reserve (TR) to estimate the population of tigers and wild animals here. During the past three years, images of tigers were captured in the reserve during winter. This year the FD has installed 200 cameras in addition to the ones that were installed earlier, said the field director.

Another forest official said that the National Tiger Conservation Authority (NTCA) considers photographs as most reliable proof of the presence of tigers. The NTCA has planned a tiger relocation programme in Buxa for which it is necessary to improve habitat and the prey base for tigers.

Forty-five days after installation, the FD will check each camera to see what images have been captured. The locations of some cameras will be changed to ensure systematic coverage of maximum area of the reserve.

Animals photographed in camera traps in the past in Buxa include tigers, a melanistic leopard, dhole, clouded leopard, and yellow-throated marten. (Also see *PA Updates* Vol. XXX, No. 1; Vol. XXVIII, Nos. 4 & 2 and Vol. XXVI, No. 5)

Source: ‘200 cameras for wildlife clicks: Buxa Tiger Reserve in Alipurduar set to track big cats’, www.telegraphindia.com, 21/12/2024.

NATIONAL NEWS

Sanctuary Wildlife Awards 2024

Following are the winners of the Sanctuary Wildlife Service Awards 2024 that were awarded at a function in Mumbai in December 2024.

Lifetime Service Award: Steve Winter and Sharon Guynup – Award-winning photographers, storytellers, changemakers

Young Naturalist Award: Meehir Pawar – Entomologist, naturalist, nature educator

Green Teacher Award: Rouf Ahmed Rather – Naturalist par excellence, educator, nature photographer

Wildlife Service Awards:

- Dr. P. Sathiyaselvam – Zoologist, avian and wetland conservationist, policy specialist

- Dr. Naveen Pandey – Veterinarian, community-based conservationist, disease ecologist

- Dr. Devesh Gadhavi – GIB defender, wildlife lover, committed conservationist

- L Krishnamoorthy – Indian Forest Service officer, leader, conservationist

- Purnima Devi Barman – Wildlife biologist, Hargila warrior, community empowerer

- Mariyambi P.C. – Marine researcher, diver, educator

- Dr. Shabeena M. – Researcher, marine protector

Source: 'Sanctuary Wildlife Awards 2024: Celebrating India's unsung green warriors', www.mid-day.com, 08/12/2024.

SOUTH ASIA

BANGLADESH

Study confirms presence of Asiatic black bear and Malayan sun bear in Bangladesh

A study has confirmed the presence of two bear species - Asiatic black bear (*Ursus thibetanus*) and Malayan sun bear (*Helarctos malayanus*) in Bangladesh. This finding is significant as the International Union for Conservation of Nature (IUCN) Red List describes bear distribution in Bangladesh as 'unclear.' The study titled 'The assessment of the conservation status of Asiatic Black Bears and Malayan Sun Bears in Bangladesh' was published in December 2024.

The researchers compiled evidence of bear presence in Bangladesh through camera trapping, literature reviews, and media reports analysis. They documented 43 verified accounts of black bears from peer-reviewed and grey literature published between 2010 and 2022.

A camera-trap survey in Rajkandi Reserve Forest (RF) produced the first-ever evidence of a small black bear population in northeastern Bangladesh. Field studies in 2016 and 2021 reported camera-trap observations and multiple poaching incidents of sun bears in Kassalong RF and Sangu-Matamuhuri RF in southeastern Bangladesh.

Analysis of media reports from 2003-2023 revealed 80 human injuries and three deaths due to bear attacks while six bear deaths and seven incidents of bear rescue were also reported. Human-bear conflict incidents peaked in summer with 79% occurring between 2018 and 2023. In this period Bangladesh recorded 23 incidents.

The study found no evidence of sloth bear (*Melursus ursinus*) in Bangladesh,

confirming their local extinction, as assessed by the IUCN. This has been linked to the loss of wet deciduous forests in northern and central Bangladesh, which were once rich in termite mounds, the primary food source for this termite/ant-eater species.

The primary threat to bears according to the study is negative interactions with humans. In eastern Bangladesh 47 bears were reportedly killed between 2007 and 2010. Most conflict incidents occurred in summer, coinciding with fruit and crop harvesting seasons. While the Bangladesh Wildlife (Security and Protection) Act 2012 (BWL) includes a compensation policy for human-bear conflict incidents, no systematic studies or initiatives have been undertaken to address conflict patterns and drivers. This contrasts with conservation efforts for tigers in the Sundarbans, where research and mitigation strategies are in place.

Illegal trade and poaching pose additional threats. The study highlights an overlooked aspect of wildlife trade that targets bears for menageries, circuses, trophies, and for bile and claws. Although both bear species are protected under Schedule I of the BWL, Asiatic black bears are kept in private and government zoos with undocumented origins.

Challenges in bear conservation in Bangladesh include inadequate infrastructure, limited research collaboration, insufficient funding, logistical difficulties, and a lack of awareness among policymakers regarding the conservation of less charismatic species.

To strengthen conservation efforts in Bangladesh, the researchers have recommended:

- involving the IUCN Species Survival Commission Bear Specialist Group and the Asian Bear Monitoring Expert Team in future monitoring efforts
- elevating bears to flagship species for conservation in Sangu-Matamuhuri and Kassalong RFs, which are identified as their last strongholds

- implementing systematic monitoring using advanced camera trapping and genetic methods
- government support for bear research and conservation initiatives in Sangu-Matamuhuri and Kassalong RFs
- developing comprehensive human-bear conflict mitigation guidelines, rapid response teams, and systematic documentation of human-bear conflict-related casualties in district hospitals
- establishing a centralized data repository at the Bangladesh Forest Department
- strengthening habitat protection in eastern Bangladesh and implementing stringent anti-poaching measures.

Source: Rajat Ghai. ‘Amid socio-political turmoil in Bangladesh, some good news regarding bears’, www.downtoearth.org.in, 06/12/2024.

INTERNATIONAL NEWS

Global decline in genetic diversity across 600 species: study

A landmark study spanning more than three decades (1985-2019) and involving the examination of 628 species of animals, plants and fungi across terrestrial and marine ecosystems has found a worldwide decline in genetic diversity. The analysis revealed that two-thirds of the studied populations are experiencing a decline in genetic diversity, with less than half receiving any conservation management. The study that was published recently in the journal *Nature*, involved researchers from Australia, United Kingdom, Sweden, Poland, Spain, Greece and China.

The majority of species studied were animals (84.7%), including vertebrates (59.2%) and invertebrates (25.5%), followed by plants (12.7%) and fungi (1.9%).

Eukaryotic species accounted for 0.6%. Most species were categorised by the International Union for Conservation of Nature (IUCN) Red List as non-threatened (least concern: 39.3%; near threatened: 6.1%) or having an unknown threat status (data deficient: 1.8%; not evaluated: 33.8%), the study noted. Meanwhile, one-fifth of the species were categorised as threatened, including vulnerable (7.3%), endangered (6.7%), critically endangered (4.9%) and extinct (0.2%).

The loss of genetic diversity was particularly high among birds and mammals. The study identified key drivers, including land-use changes, disease, natural environmental events (wildfires, floods, river changes and pre-industrial climate change) and human activities such as harvesting and habitat destruction. “Population decline and fragmentation due to anthropogenic factors, such as habitat degradation, unsustainable harvest, invasive species and extreme climatic events, lead to genetic erosion - loss of genome-wide genetic diversity and adaptive potential. Observed genetic diversity loss is therefore both a signal of population decline, and a conservation concern in its own right,” it stated.

The study found that genetic loss occurred regardless of a species’ IUCN status, suggesting that even those listed as least concern could still experience genetic decline in certain areas.

Despite the global decline in biodiversity, the study offered some hope. Conservation actions have helped reverse genetic losses and sustain diverse populations. Efforts such as habitat restoration and translocations have proven effective in maintaining genetic diversity. The golden bandicoot (*Isodon auratus*), a threatened Australian species, benefited from new populations established in western Australia. Similarly, habitat restoration and

translocation efforts for the greater prairie chicken (*Tympanuchus cupido pinnatus*) increased genetic diversity and reduced inbreeding.

Other species, including the Scandinavian Arctic fox (*Vulpes lagopus*), Hine's emerald dragonfly (*Somatochlora hineana*) and dusky gopher frog (*Lithobates sevosus*), have been supported through disease control, captive breeding and measures to enhance gene flow, the paper noted.

In a media statement, co-first author, Robyn Shaw from the University of Canberra, said, "Despite successes, we can't be complacent. Two-thirds of the populations analysed are facing threats, and among these populations less than half received any kind of conservation management. It's vital that we learn from what is working so that we can protect species in the long-term."

Source: Himanshu Nitnaware. 'Landmark study reveals global decline in genetic diversity across 600 species', www.downtoearth.org.in, 29/01/2025.

Freshwater species at high risk of extinction in Western ghats: Study

The Western Ghats mountain range is among the four regions in the world where freshwater species are most threatened with extinction, as per a recent study published in the journal *Nature*. The study, the largest global assessment of freshwater animals on the International Union for Conservation of Nature's (IUCN's) Red List of Threatened Species so far, shows that 24% of the world's freshwater fish, dragonfly, damselfly, crab, crayfish and shrimp species are at high risk of extinction.

The study found that at least 4,294 species out of 23,496 freshwater animals on

the IUCN Red List are at high risk of extinction. Crabs, crayfish and shrimps are at the highest risk of extinction of the groups studied, with 30% of all these species being threatened, followed by 26% of freshwater fishes and 16% of dragonflies and damselflies. The greatest number of threatened species were found in Lake Victoria (distributed across the African countries of Tanzania and Uganda, and on the border of Kenya), Lake Titicaca (in the Andes mountain range bordering Peru and Bolivia), Sri Lanka's Wet Zone (in the central and southwestern region of the island nation) and the Western Ghats of India.

The threatened species in the Western Ghats include the Saffron reedtail (*Indosticta deccanensis*), a dragonfly that is found only in some localities in the mountain range and is considered "Vulnerable" by the Red List, and the Dwarf Malabar Puffer (*Carinotetraodon travancoricus*), a species of freshwater puffer fish found in some streams of the Ghats and is "Data Deficient." However, species like the *Kani maranjandu*, a spider-like tree crab discovered from the southern Western Ghats in Kerala in 2017, are not even currently assessed in the Red List – there is no data on its conservation status at all.

The reasons for freshwater species being the most threatened in these regions including the Western Ghats include pollution, mainly from agriculture and forestry, which impacts over half of all threatened freshwater animals. Other reasons include land conversion for agricultural use, water extraction and the construction of dams, which also block fish migration routes, overfishing and the introduction of invasive alien species.

The study also found that water stress and eutrophication are poor surrogates or indicators to be used in conservation planning for threatened freshwater species. Areas with high water stress, where there is

high demand and low supply, and areas with more eutrophication, where an excess of nutrients in the water leads to overgrowth of algae and plants, are home to fewer numbers of threatened species than areas with lower water stress and less eutrophication.

The study recommends targeted action to prevent further extinctions and calls for governments and industry to use this data in water management and policy measures.

Source: Aathira Perinchery. 'Western Ghats Among World's 4 Regions Where Freshwater Species Are at Highest Risk of Extinction', www.thewire.in, 14/01/2025.

Himanshu Nitnaware. 'More than one in three tree species threatened with extinction, finds IUCN's first Global Tree Assessment', www.downtoearth.org.in, 29/10/2024

CHINA

1,000 snow leopards in China's Qinghai-Tibet region: study

The Sanjiangyuan area of China's Qinghai province, part of the Tibetan Plateau, holds a population of 1,000 snow leopards, comprising 11~21 per cent of the global snow leopard population, a new study has revealed. The findings are significant as China is estimated to encompass 60% of the snow leopard habitat,

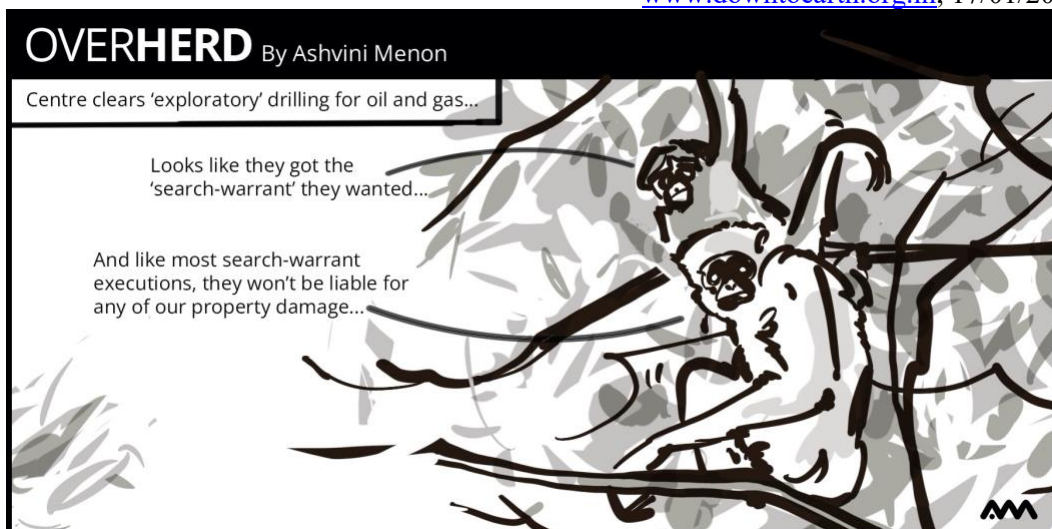
making the country crucial for global snow leopard conservation.

Sanjiangyuan contains the headwaters of three of East and Southeast Asia's great rivers — the Yellow, the Yangtze and the Mekong. The study noted that the high numbers of snow leopards in the area could be due to large numbers of bharal or blue sheep. Previous studies have shown that bharal accounted for over 80% of the food intake of snow leopards here and also that bharal density here ranks among the highest in the world.

The researchers combined and standardized existing camera trap survey data from 12 sites collected by four organizations during 2015~2021 to estimate snow leopard population in an area of 360,000 sq. km on the Tibetan Plateau. The analysis revealed that the population could be between 755 and 1,341 snow leopards, with a likely mean of 1,000.

The International Union for Conservation of Nature (IUCN) downgraded the snow leopard's conservation status from 'Endangered' to 'Vulnerable' in 2017, based on population size estimations. However, concerns about potential biases in population size estimation have led to controversy surrounding this downgrading, says the study.

Source: Rajat Ghai. 'Sanjiangyuan in China's Qinghai-Tibet region a bastion of snow leopards: Study', www.downtoearth.org.in, 17/01/2025.

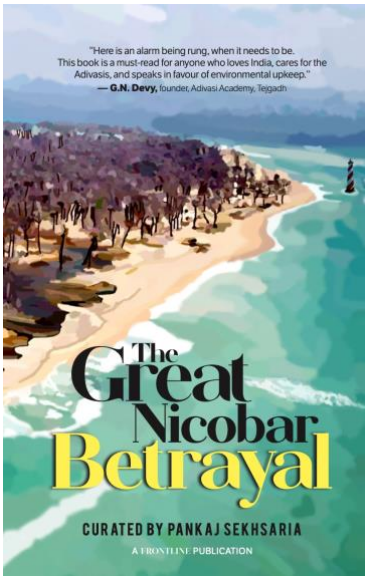


Protected Area Update in Marathi – for Maharashtra

The *Maharashtra Sanrakshit Kshetra Vartapatra*, is a sister publication of the *Protected Area Update*. Started in April 2020, it has now entered 5th year of publication. The 24-page newsletter in Marathi – a regional language, is published four times a year. The *Maharashtra Sanrakshit Kshetra Vartapatra* provides a curated compilation of news and information related to wildlife protection and conservation in PAs of Maharashtra.

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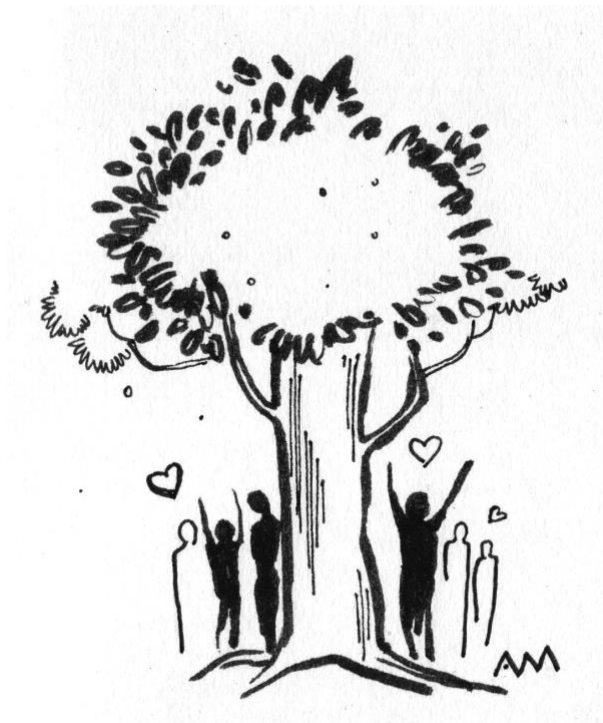


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Articles by Pankaj Sekhsaria, Aathira Perinchery, Janki Andharia, V Ramesh & Ravinder Dhiman, B Chaudhari, Ishika Ramakrishna, Uday Mondal, Mahi Mankeshwar, Shrishtee Bajpai, S Harikrishnan, Manish Chandi, Ajay Saini, and Norma Alvares. Foreword by: Madhav Gadgil.

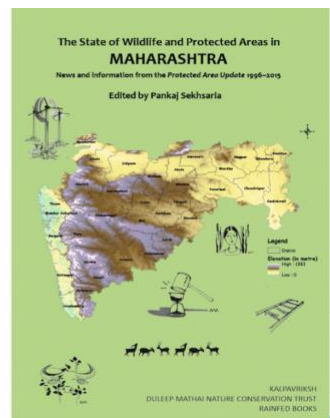
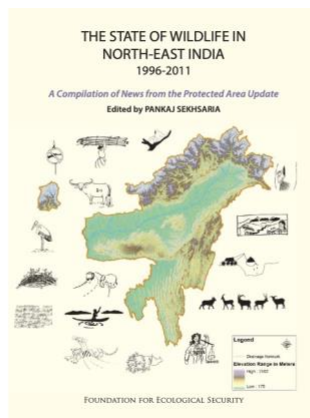
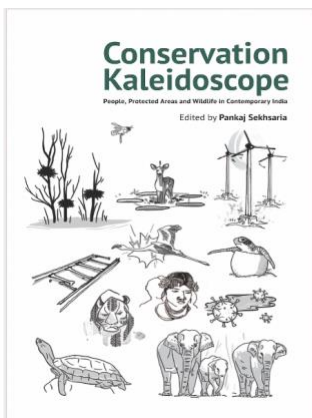
Endorsement: "Here is an alarm being rung, when it needs to be. This book is a must-read for anyone who loves India, cares for the Adivasis, and speaks in favour of environmental upkeep." - G.N. Devy



BOOKS FROM THE *PA UPDATE*

- 1) *Conservation Kaleidoscope: People, Protected Areas and Wildlife in Contemporary India*, 2021, 450 pp, 140 line drawings., Price: 650
- 2) *The State of Wildlife and Protected Areas in Maharashtra: News and Information from the Protected Area Update 1996-2015*, 2019. 250 pp, 100 line drawings, Price: Rs. 400
- 3) *The State of Wildlife in North-East India 1996-2011: A compilation of news from the Protected Area Update*, 2013, 330 pp, 100 line drawings, Price: Rs. 300

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MADHYA PRADESH

Wireless network technology for monitoring of Panna TR

Scientists from the Ohio State University, United States of America and the Indian Institute of Information Technology, Allahabad (IIIT-A) are collaborating to develop a wireless technology for monitoring of the Panna Tiger Reserve (PTR).

The project involves the development of a wireless network of low-powered radars for the forest boundary. When the system notices a human entering the tiger reserve, or an animal leaving the forest, it will sound an alarm. This will help in keeping a watch, detecting and tracking the movements. Each radar by itself has a radius of 15 meters and if the system is adopted, there could be a requirement of 750-1000 radars. The project is now entering its operational phase at Panna, and after monitoring its operation here, it might be replicated elsewhere based on its success.

At present, the number of tigers in Panna is around 21 and tracking is done manually.

In similar developments elsewhere, another scientist at IIIT-A has experimented with fibre-optic sensors to detect and identify trespassers, while researchers at the Indian Institute of Science, Bengaluru are developing pyro-electric infrared sensors for the same purpose.

Source: Vanita Srivastava. 'Sensor technology may soon help protect tigers', *Hindustan Times*, 09/12/14.

MIZORAM

NBWL asks for an EIA of fencing, road projects in Dampa TR

The standing committee of the National Board for Wildlife has in its approval to proposals for fencing and road construction along the India-Bangladesh border in the Dampa Tiger Reserve asked for an environmental impact assessment

(EIA) of these projects. The EIA has to be conducted at the expense of the Border Security Force, which is doing the fencing. The number of border outposts proposed inside the tiger reserve will also be reduced from seven to five.

The revenue department will transfer 1519.575 hectares of non-forest land as compensation for an equivalent area required to be diverted inside the tiger reserve from neighbouring areas or elsewhere as stipulated by the expert team of the standing committee.

The Ministry of Home Affairs had called for construction of seven border outposts, the road as well as the fencing, to stop infiltration from Bangladesh. Wildlife experts have, however, noted that the border outpost, a concrete road and fences if constructed, would cause a huge impediment to the movement of animals and could hamper conservation of tigers and other key species in Dampa (Also see *PA Update* Vol. XVIII, No. 6).

Source: 'Panel calls for scan on Dampa tiger reserve', *The Telegraph*, 14/12/14.

ODISHA

Fishermen held for illegal fishing in Gahirmatha sanctuary

Nine fishermen were held for allegedly unlawful fishing activity in the Gahirmatha Marine Sanctuary in violation of the provisions of the Wildlife Protection Act 1972 and the Orissa Marine Fishing Regulation Act 1982. The trawler used by the fishermen was also seized by the patrolling unit of the forest department.

Fishing has been banned along the 20 km stretch of the sanctuary from November 1 and sea patrolling has been stepped up within the sanctuary area in view of the annual mass nesting of the endangered Olive Ridley sea turtles that occurs in this period in these waters.

Source: 'Nine fishermen held for illegal fishing in Odisha', *zeenews.india.com*, 26/11/14.

PERSPECTIVE

What about the root loss hidden under the soil?

Decalepis hamiltonii Wight & Arn. is a woody climber/liana. It is a non-timber food product (NTFP) and tribals have been collecting the roots to manage their health. It is known as *makali beru* in Kannada, *nannari* in Tamil and *maredugeddalu* in Telugu. The roots are medicinal, fragrant, thick and approximately 50 kg of roots can be harvested from a single plant in a short time. The root extract is stronger than the original vanilla and this creates more demand now. Foreseeing the multiple usage of this plant from local to global and the absence of large-scale cultivation to meet the increasing demand, the wild sources are at high risk. There are many concerns and gaps in our knowledge: where are the roots collected from? What is the intensity of harvest and trade? Further, does the root collection has any impact on the population size, structure, yield or reproduction of the plant? Scientific results to these questions are needed. Absence of ecological, social, political aspects connected with the root collection and trade impedes conservation and management decisions.

Protected areas are the only hope for saving this species and there is a concern about its status outside PAs. It is a wind dispersed species and the seeds are indiscriminately placed in all habitats. It is found to be growing well in both loamy and rocky areas which support the sustenance of the population, until it is not disturbed by any anthropogenic activity. Mere presence of the individuals does not mean the population is healthy/abundant, especially where the roots are harvested and the status is hidden under the soil. Climbers and root harvested species are rarely undertaken for study from the perspective of harvesting impact because they are less charismatic, involve a laborious excavation process in the wild and also have methodological challenges. Studies undertaken in lab, in pots/hydroponics forego

wealth of information from the natural conditions.

Scientific rigour and passion are essential to undertake studies in the wild for lesser-known plants like the root harvested NTFPs and climbers. There is a need for a voice and awareness from the pro-plant citizens, faculty members and students. Hope we don't lose anymore endemics from our country/locally in silence without knowing its decline though they have high potential to raise livelihoods. Let's identify more species/populations facing unsustainable root collections and protect them.

- **Sathya Sangeetha** is an ecologist, involved in conservation of RET species using geospatial technology. Her Ph.D. thesis is on finding the impact of root harvest on *Decalepis hamiltonii*.

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