Dear Members,

We bring to you, our valuable members, the latest conservation newsletter of the BNHS, which is packed with updates from our field work, publications, and the events we conduct for nature conservation. This is our attempt to make sure you get to know about our work in real time, and that you are with us on our journey!

**Pravinsingh Singh Pardeshi joins as President of BNHS**

Pravinsingh Pardeshi, a retired IAS officer of the 1985 batch, after serving as the Vice President of BNHS for many years, now leads us as President. An avid wildlife lover, he has in-depth knowledge of wildlife management. During his tenure as the Principal Secretary (Forest), he expanded the protected area network of Maharashtra, by doubling the areas of Nagzira, Navegaon, and Bor wildlife sanctuaries, notified three new tiger reserves including Nagzira, Navegaon, and Bor Tiger Reserve, created a protected area for wild buffaloes in Kolamarka (Gadchiroli) and added new large wildlife sanctuaries at Pranhita (Gadchiroli), Umred - Karhandla (Nagpur), Gangewadi for great Indian bustard in Solapur, and Mamdapur Conservation Reserve for blackbucks in Nashik district.

He was instrumental in notifying a generous rehabilitation policy for voluntary relocation, which included five times the land value as compensation, an additional ₹ 15 lakhs per family and to every adult male and female above 18 years, for over 35 villages from Melghat, Navegaon-Nagzira, Tadoba, Tipeshwar, Karhandia, and Sahyadri Tiger Reserve, which created an inviolate tiger habitat of over 3,000 sq. km across five tiger reserves and three smaller wildlife sanctuaries. To ensure social fencing he developed the policy of sharing tourism revenue of all tiger reserves with local communities; he delinked the dependence of women on forest fuel wood by providing LPG based gas connection. He was instrumental in setting up the Mangrove cell for protection of the coastal ecosystem, resulting in expansion of mangrove cover that led to the formation of mangrove sanctuary in Vashi creek to protect bird life, including flamingos. During his long career as an IAS Officer, Mr Pardeshi has held various senior leadership positions in the Indian Administrative Services viz Chief Executive Officer, Collector, Divisional Commissioner, and Additional Chief Secretary of Chief Minister of Maharashtra state. As Collector of Latur he was responsible for the much appreciated rehabilitation of Latur after the devastating earthquake that hit Killari in 1993.

He has also served in the United Nations Development Program (UNDP) as Chief of Post Disaster and Conflict Recovery Division. He was responsible for the reconstruction programme of UNDP after the tsunami in Indonesia, Kashmir earthquake in Pakistan and recovery programmes in Nepal, Sudan and Congo after post conflict peace process. As Municipal Commissioner of Mumbai he created over 65 Miyawaki forests and mandated all large private developers to set aside 1/3rd of their mandatory open spaces as Miyawaki forests as condition for giving completion certificates. He reduced the fares of BEST, the public transportation provider in Mumbai, by 50% (₹ 5) and inducted over 1,500 wet lease buses running on gas or electricity that increased numbers of public transport users from ₹ 22 lakhs in 2019 to ₹ 44 lakhs in 2020. He developed the rapid testing strategy against COVID-19 in Mumbai by involving all private labs and converted the SevenHills Hospital into state of art Covid treatment center, which saved thousands of lives.

Mr Pardeshi is also a Member of the Capacity Building Commission constituted under the Mission Karmyogi launched by Hon’ble Prime Minister at New Delhi, and Chief Executive Officer of Maharashtra Institute for Transformation – MITRA, which is Maharashtra’s NITI Aayog. His experience will lend immense support to us to achieve science-based conservation of endangered RDB species and fabulous ecosystems.

**Role of Army in Biodiversity Conservation – a way forward**

BNHS has been working with Indian Armed Forces as a knowledge partner since a long time. On March 17, 2023, Maj. Gen. Bhupesh Goyal, Commandant of Command Hospital, Pune, visited Hornbill House where he interacted with the members of the Governing Council (GC).

He spoke on the “Role of Army in Biodiversity Conservation and a way forward”. During his interaction, he shared the problems faced by the Indian biodiversity and landscapes observed by him, and suggested solutions to tackle them. The GC members also shared their knowledge on specific issues pertaining to wildlife conservation. On this occasion, Maj. Gen. Bhupesh Goyal, released a set of three booklets prepared by BNHS for the Indian Army staff working in Ladakh, and Jammu and Kashmir, in the presence GC members, Mr Kishor Rithe, Honorary Secretary, and Dr Bivash Pandav, Director.
Rajasthan Government declares Lesser Florican Conservation Reserve in Ajmer

The Bombay Natural History Society (BNHS) is collaborating with the Rajasthan Forest Department to collect essential information about the lesser florican, a Critically Endangered bird species in India. The goal is to understand the bird’s behaviour, distribution, habitat, and status, and protect it from extinction.

The lesser florican has been spotted in 26 locations across 50 villages in the Ajmer district and surrounding areas of Kekri, Bewar. In 2020, the National Green Tribunal (NGT) prohibited mining in areas where the bird was found and called for the creation of community/conservation reserves for the bird. In response, the Ajmer Forest Division designated 931 hectares of land near Arward, Kheeriya, and Goyla villages as the Lesser Florican Conservation Reserve. This reserve and the surrounding landscape are one of the few remaining breeding grounds for the lesser florican in the country. Their global population is less than 700 mature individuals, in the states of Madhya Pradesh, Gujarat, Maharashtra, Karnataka, Telangana Andhra Pradesh, and Rajasthan, making it vital to conserve their habitat to avoid their extinction.

The Conservation Reserve has dense vegetation of *Prosopis juliflora*, which is being actively cleared by the forest department to restore the habitat and make it more conducive to the breeding and survival of the lesser florican. We have organized a sensitization program to educate the community about lesser florican conservation and raise awareness. Conserving this bird is crucial, not only for its survival, but also for maintaining the ecological balance and biodiversity of semi-arid grasslands. The joint efforts of the BNHS and the Rajasthan Forest Department have been successful in creating a safer and more favourable environment for the lesser florican.

New conservation reserve notified for Lesser Florican

Jaipur: The forest department has notified a new conservation reserve (Arwar village, Ajmer) having an area of 931 hectares to protect the endangered bird species Lesser Florican.

It is one of the four bustard species in India. All species are in the International Union for Conservation of Nature (IUCN) Red List of threatened species.

An official said, this will be the 23rd conservation reserve in the state. “This is an ambitious plan of the forest department. After providing protected status for the area, conservation work for Lesser Florican can be done in an effective manner,” he added.

An official said, after the forest areas become conservation reserves, it will be mandatory to get clearance under the Forest Conservation Act, 1990, and approvals of State Board of Wildlife (SBWL) and National Board for Wildlife (NBWL) to carry out any development project within the area.

Experts said, the conservation reserve category for a protected forest was first introduced in the amendment in 2002 to the Wildlife Protection Act, 1972. It was necessitated to keep existing or proposed protected areas safe from private ownership of land. As per the provisions of the conservation reserve, the state government can also seek participation of locals for conservation of the protected area.
**Ornithologists discuss seabirds, their habitats, and movements**

BNHS with the support of BirdLife International organised a three-day workshop on *The North Indian Ocean Seabird*—collectively documenting important areas and seabird movements, from June 7–9, 2023, at Hornbill House, Mumbai. Forty-one delegates attended the workshop in person, while twenty-two delegates participated online. Kishor Rithe, Honorary Secretary and Interim Director welcomed the delegates and spoke about the 140 years of journey of BNHS and its work on Central Asian Flyway (CAF). Dr Tammy Davis from BirdLife International, UK, explained the objectives of the workshop.

The gathering of ornithologists from several countries discussed seabirds, their important habitats, and movement patterns in the North Indian Ocean (Arabian Sea and Bay of Bengal). Ornithologists from UK, Sri Lanka, Réunion, Netherlands, and Maldives presented their research findings and so did the experts, scientists, and birdwatchers across India, actively involved in seabird research and monitoring.

The workshop aimed to compile the available data on North Indian Ocean seabirds to document major movement patterns to complement the existing marine Important Bird and Biodiversity (IBA) network, and to discuss current and future threats and research needs. The workshop has penned down policy and management interventions and also formulated a strategy highlighting important areas and connectivity, as well as identifying major threats to seabirds to guide future management and research needs.

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**Vultures translocated from Pinjore to build breeding stock at Bhopal**

BNHS has been managing four Vulture Conservation Breeding Centres (VCBC) across the country in partnership with the governments of Haryana in Pinjore, Madhya Pradesh in Bhopal, West Bengal in Rajabhatkhawa, and Assam in Rani, Guwahati for years. It has contributed significantly in securing the future of the *Gyps* species in India by breeding more than 700 birds in captivity, since 2004, with support from the MoEF&CC, respective State Governments, and the Royal Society for the Protection of Birds.

The transfer of 20 white-rumped vultures from Pinjore to Bhopal on June 22, 2023, for the genetic management of vultures at the Pinjore centre and to increase the founder population of vultures at the Bhopal centre is another significant achievement for conservation of vultures in India. This transfer was authorized by PCCF (WL) IFS Pankaj Goel & Wildlife Warden of Haryana.

To ensure safe transport, the vultures were housed in boxes and loaded into a specially arranged 17-seater air-conditioned tempo traveller bus. Mr Shubhhoranj Sen, Additional Principal Chief Conservator of Forests (Wildlife), and Ms Padmapriya Balakrishnan, Director, Van Vihar National Park, released birds in the aviary at VCBC, Bhopal.

The selected birds (birds that had siblings were selected for genetic management) ranged in age from three to eight years, with five breeding pairs among them. We hope that these pairs will breed at the Bhopal centre during the upcoming breeding season.
**Government bans Ketoprofen and Aceclofenac**

BNHS has achieved a huge success in its campaign to achieve a country-wide ban on the veterinary use of ketoprofen and aceclofenac. The final gazette notification in 2008 ensuring a ban on diclofenac had come after an arduous campaign conducted by our team, and we knew that the next step to obtain a similar ban on aceclofenac and ketoprofen would also be challenging. However, BNHS strove to pursue state and central governments to save the vultures.

The Drugs Technical Advisory Board (DTAB), Government of India, has finally issued a ban on the manufacture, sale, and use of these veterinary drugs in May. This is a huge step taken by the Government of India for vulture conservation, and BNHS is immensely grateful to DTAB for imposing a ban on these drugs.

**International Year of Millets**

At a time when India is on the forefront of promoting and popularising the health benefits of millets during the International Year of Millets, BNHS highlighted the importance of millets for birds through a poster.

Some farmers consider birds as ‘pests,’ but they often forget that birds consume several crop-damaging insects, and are actually farmer’s friends. Most of us are unaware that apart from human consumption, a majority of millets are in reality cashed upon as bird feed – for both wild and domesticated cage-birds. Weaver birds, parrots, munias, buntings, finches, doves, pigeons, francolins, and quails are some of the birds that feed on different millet varieties.

For instance, the Foxtail Millet *Setaria italica* popularly known as *Kangni* – a cash crop in high demand – is the staple diet for most captive birds.

According to Dr Rajat Bhargava, an ornithologist with BNHS and a former aviculturist, the cage and aviary bird industry is the largest consumer of millet varieties worldwide. Due to the intact demand, several rare millet varieties are still being cultivated and sold at a premium that in turn benefit not only wild birds, but also indirectly farmers!

**Odisha Forest Rangers visit Hornbill House**

A team of 32 Odisha Forest Ranger trainees of the 2022–2023 batch visited Hornbill House and Conservation and Education Centre, Mumbai as their Central and West India Study Tour to learn research methods. Such visits help the future officers in advancing their role in forest conservation and management.

During this visit, Mr Rahul Khot, Deputy Director, Collections, BNHS and his team addressed the importance of the BNHS museum specimens and collections, and elaborated on the different specimens housed in the Museum to the gathering; the special specimen collection was also displayed to the officers.
Artificial roosting sites on floating platforms

It is well-known that habitat loss and degradation are resulting in decline in animal populations worldwide. One potential approach for mitigating these threats is to create artificial habitat structures as substitutes for lost or degraded natural structures. Floating nest platforms can be an effective management tool, as they support breeding populations of both migratory and resident waterbirds (enhancing productivity and survival), when natural sites are unavailable. Such platforms can be a good conservation measure during extreme weather events, such as flood or storm that are becoming more frequent due to climate change, resulting in higher bird mortality. Floating roost platforms are less prone to mammalian and reptilian predation, are isolated from human disturbance, and are not susceptible to erosion.

The use of artificial floating roosts as a conservation measure for roosting populations of waterbirds is not a recent concept, but this experimental study by Dr S. Balachandran, Deputy Director, BNHS, at the Puthalam Saltpans is the first of its kind in India, and we eagerly await the results!

Assembling and setting up of the floating docks

Wooden frame to be fixed on atop of the floats

The platforms fixed on floats. The boards of the structure were made of waterproof wood; gaps were created to provide rainwater drainage

Concrete blocks weighing 3.5 kg were attached to metal chains (8 ft) fixed to the floats to provide anchorage

Four concrete blocks were attached to the four corners of the floats to avoid uncontrolled movement due to frequent waterlevel changes in the salt pans

Shifting of artificial floating platforms to the water
We have been monitoring sandbar-nesting of riverine birds in the 24 islands of Vikramshila Gangetic Dolphin Sanctuary (VGDS) since April 2022.

This year between April and June, we recorded a total of 169 active nests of eight nesting species and 43 chicks of six species, but failed to find their nests. Altogether 159 chicks of nine species of sandbar-nesting riverine birds in VGDS were ringed by the BNHS team led by Dr P. Sathiyaselvam. Our most important finding during this survey was the breeding of Endangered Indian skimmer. We sighted seven adult birds, and two nests were located with four eggs each. One nest was washed away due to increased water level in the river Ganga, and three eggs hatched successfully from one nest. This finding is important as the breeding of the Indian skimmer in VGDS has been recorded after 12 years.

This year we conducted a training programme for the frontline staff of VGDS and Dolphin Mitras to involve them in the nest monitoring activities and maximize the efforts of the survey. A total of 62 people participated in the training programme, which was conducted in two phases, one-day class-room session and three-day field training.
BNHS-EIACP publishes AviEcoBase – an indispensable mobile app for birders

BNHS-EIACP published a field guide, in Hindi, धार मरस्त्थल के वन्यजीव एक ज्ञालक (Wildlife in Thar Desert – a glimpse) to spread awareness on the floral and faunal diversity of the Thar Desert, the last refuge of Rajasthan’s state bird, great Indian bustard. The book was launched at Phalodi on April 27, 2023, by Dr Bulaki Das Kalla, Cabinet Minister of Education (Primary and Secondary), Art, Literature, Culture and Archaeology, Government of Rajasthan, who appreciated the BNHS team and recommended the guide as a good educational material on Thar Desert.

The field guide provides comprehensive information such as common name, scientific name, IUCN status, food habits, breeding, and threats for 56 birds, 11 mammals, 13 reptiles, and 19 plant species found in the Thar Desert that can be easily comprehended by school students, local residents, and forest department officials.

Besides the basic information on some common and rare wildlife, the book also mentions the ongoing conservation activities conducted by BNHS in the Thar landscape. A pdf copy of the book is available at: धार मरस्त्थल के वन्यजीव एक ज्ञालक (bnhsenvis.nic.in)

AviEcoBase – an indispensable mobile app for birders

The Programme Centre (PC) of the Environmental Information Awareness, Capacity Building and Livelihood Programme (EIACP), a Resource Partner (RP) on avian ecology at BNHS maintains a database of references pertinent to avian ecology.

The (BNHS-EIACP) has developed a mobile application AviEcoBase for birders that provides more than 24,000 bibliographic references on Indian birds from the Journal of the Bombay Natural History Society, Hornbill, Sanctuary Asia, BirdLife International, Birding ASIA, Indian BIRDS, Forktail, among others.

The references from the database can be searched through three primary filters, namely, species name, name of the Indian state, and subject keywords, such as feeding, breeding, roosting, nesting, etc. Alternatively, one can also choose to only use the ‘species name’ filter if one wishes to find all references related to a bird, irrespective of the state or subject keyword. The consequent search would yield research papers with all publication details, such as journal name, publication year, author name, etc.

A main feature of the application is that the research papers can be easily downloaded through the single-tap download option. The easy access of bibliographic references on mobile phones can aid ornithologists, naturalists, scientists, and especially University students, who wish to go beyond birding and pursue research on avian ecology.

This user-friendly informative application on birds can be downloaded for free from the Google Play Store using the link: https://play.google.com/store/apps/details?id=com.bibliography.project
The BNHS in collaboration with the Kanyakumari Forest Division organised the book launch of its latest publication, a coffee table book on **Birds of Kanyakumari Saltpans** authored by Dr S. Balachandran, Deputy Director, BNHS – India’s leading expert on shorebird migration studies, and co-authored by Mr M. Ilayaraja, IFS (District Forest Officer, Kanyakumari) and two researcher fellows from BNHS, Mr Paul Antony B. and Ms Preethi S. at The Collectorate, Nagercoil on May 9, 2023.

The book was released by Thiru T. Mano Thangaraj, Honourable Minister, Information Technology and Digital Services Department, Government of Tamil Nadu. The event was attended by important dignitaries of Kanyakumari district like Thiru P.N. Sridhar, IAS (District Collector), Thiru D.N. Hari Kiran Prasad, IPS (Superintendent of Police), Tmt. A. Sivapiya (District Revenue Officer), Thiru R. Mahesh (Municipal Corporation Mayor, Nagercoil), Thiru Anand Mohan, IAS (Municipal Corporation Commissioner, Nagercoil), Thiru H.R. Koushik, IAS (Sub Collector). The event was heavily attended by students and staff from Scott Christian College, Nagercoil, Centre for Marine Science & Technology, Rajakkamangalam, and Noorul Islam Centre for Higher Education, Kumarakovil.

Dr S. Balachandran briefly spoke of several BNHS research activities at Kanyakumari and about the book highlighting his three decades of work at these saltpan habitats. The book he said, “is an indispensable resource for anyone who wants to learn more about the amazing birds of the saltpan habitat. A combination of well-researched text, detailed maps, and stunning photographs, make this book an essential resource material for anyone interested in the incredible diversity of avian life of saltpans.”

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**BNHS birders spot Endangered rufous-necked hornbill in Bengal’s Kalimpong**

A team of BNHS, led by Asif Khan, Associate Officer, BNHS, witnessed the rare rufous-necked hornbill during a recent BNHS birding tour at the Neora Valley National Park and Latpanchar in Kalimpong district of West Bengal. Situated between the central Himalayan region and north-eastern regions of India, the Neora Valley National Park and Latpanchar – a small hamlet en route to the national park – exhibit a unique ecosystem that inhabits rich biodiversity, particularly, avian diversity, which is a slice of both areas. During the tour, the group recorded over 180 bird species, Endangered.
International Leopard Day Celebration

CEC-Delhi celebrated International Leopard Day on May 3, 2023, at Asola Bhatti Wildlife Sanctuary with generous support of the Department of Forests and Wildlife, GNCT of Delhi. The event featured a series of enlightening sessions on leopard conservation, accompanied by an engaging walk along the Leopard Trail. During the talk along the walk, the participants were introduced to camera trap technology, employed to study these majestic creatures in their natural habitat. The program was attended by 50 enthusiastic participants that included individuals of diverse age groups hailing from various regions within Delhi NCR.

Capacity building training of Forest Guards

CEC-Delhi with support from Department of Forests and Wildlife, GNCT of Delhi, organized a comprehensive training session for the Forest Guards at the esteemed Indian Institute of Public Administration, New Delhi, on May 19, 2023.

The training session included informative presentations on practical applications of camera trap technology. A case study conducted by CEC-Delhi at the Asola Bhatti Wildlife Sanctuary was presented to the participants, offering valuable insights to the topic. The event also featured a detailed discussion on bird and butterfly identification techniques.

This training initiative aimed to enhance the skills and knowledge of the Forest Guards, empowering them to contribute effectively to preserve and protect the biodiversity in the region.
Address the Emerging threats to Indian Birds – Dr Asad R. Rahmani

On May 17, 2022, after a long break, BNHS resumed its members’ programmes at Hornbill House where Mr Robert D’souza, a Life Member of BNHS and alumnus of IIT Mumbai presented his experiences about camouflage, mimicry, and warning coloration with the help of photographs taken by him over the years.

Since then, we have regularly conducted talks from experts, which are streamed live for those who cannot attend in person. The most recent talk was by Dr Asad R. Rahmani, a renowned ornithologist and former Director of BNHS on ‘Emerging threats to Indian Birds’.

Nearly 200 bird species in India are listed in IUCN Red List. Dr Rahmani comprehensively described the emerging threats faced by birds and the likely solutions to mitigate them. He mentioned that “one does not need to reiterate that biodiversity is under threat globally, due to human-related activities. Hunting, habitat destruction, pesticides, and expansion of agriculture and human habitation are well-known factors, but new threats are emerging in the form of death by wind farms and powerlines, invasive species, free-ranging stray dogs, hitting on tall buildings, sand mining, unscrupulous photographers, unrestricted tourism, plastic pollution, and climate change. The lecture was well-attended by members of BNHS.”
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Mission: Conservation of nature, primarily biological diversity, through action based on research, education and public awareness.

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