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An everlasting bond, by Dr H.S.A. Yahya

New accomplishments

Book reviews

Editor

Dr Deepak Apte

Editorial team

Maithreyi M.R., Neha Mujumdar

Layout & Design

V. Gopi Naidu

Great Hornbill Mascot: DEBORSHEE GOGOI

E D I T O R I A L

A platform to connect

I was not sure whether to start the editorial with sad or happy news; there has been a surge of both recently. On March 21, 2019, we lost a family member – our long-standing employee Mrs. Asha Patil. Ashatai, as she was popularly known, had been with CEC since the time of its construction in 1994, and was an integral part of its growth and success. She lost her fight to a brief illness. On behalf of the BNHS family, I extend my condolences to her family. BNHS lost three of its life members, Mr. Derick Turner, Mr. Biswaroop Raha and Mr. Jaimesh Thaper. In a generous gesture, the Late Derick Turner has left behind Rs 20,74,893 in his Will to BNHS, to support its conservation work.

On a more cheerful note, the response from members to our new e-newsletter has been overwhelming. We had no platform so far to share with them the length and breadth of the work we are involved in. *ecoScapes* has filled this lacuna. You would have realized by now that *Hornbill* is more conservation oriented; the few published special issues have even won your appreciation. Our forthcoming special issues promise to bring you some hardcore conservation perspectives. The second issue of *ecoScapes* covers our work over the last 6 months.

We are delighted to inform you that the Maharashtra Government has extended the lease of our Conservation Education Centre (CEC) at Goregaon, Mumbai, for another 30 years, until 2044, at the same concessional lease of one rupee per annum. We greatly appreciate the Maharashtra Government and the Hon'ble Chief Minister Shri Devendra Fadnavis, who had assured us of this support during his March-2018 visit to the Hornbill House. CEC, under repairs for the past one year, has started its operations. Members are welcome to visit the Centre with prior intimation to the Centre Manager, Dr Raju Kasambe (cec-mumbai@bnhs.org or r.kasambe@bnhs.org). Members get free entry on producing their membership card; others have to pay an entry fee.

We have organized an international conference at Lonavla, Maharashtra, titled 'Wetlands, migratory waterbirds and flyways of Asia'. Do register ASAP as only about 139 seats are left. Members can avail discounted rates until May 30, 2019. We have some great national and international faculty attending the conference. Please see the link <https://cwamwaf.in/conference/page/2/> for registration.

Our research work on various threatened species like Vultures, Indian Skimmer, Lesser and Bengal Florican, Green Avadavat and Finn's Weaver is yielding newer insights that will help us undertake focused conservation work. We have had some fascinating recoveries of ringed birds. We have started digitizing our collections, beginning with type specimens. Our scientists have published some excellent work in the past six months, including the description of two new genera *Monilesaurus* and *Microauris* and two new species of agamid lizards from the Western Ghats. BNHS has forayed into children's publications with a book on India's success story of Amur Falcon conservation. It will be an added impetus to BNHS. Do buy a copy. We have started a section for our members. In this issue, we have Dr H.S.A. Yahya recollecting his BNHS days. If you have such special stories to share, do write in (500–700 words) and we will be pleased to carry them. We have shifted book reviews section to e-newsletter, considering that *Hornbill* is getting bigger and bigger, with focus on special and theme-based issues.

Last but not the least, we appeal to our members to help us raise funds through donations or by connecting us with people who can help. Some of our flagship projects such as Climate Change and Himalaya, Bengal and Lesser Florican, Great Indian Bustard and Coral Reefs require your financial assistance.

Director, BNHS



CAF National Action Plan launched



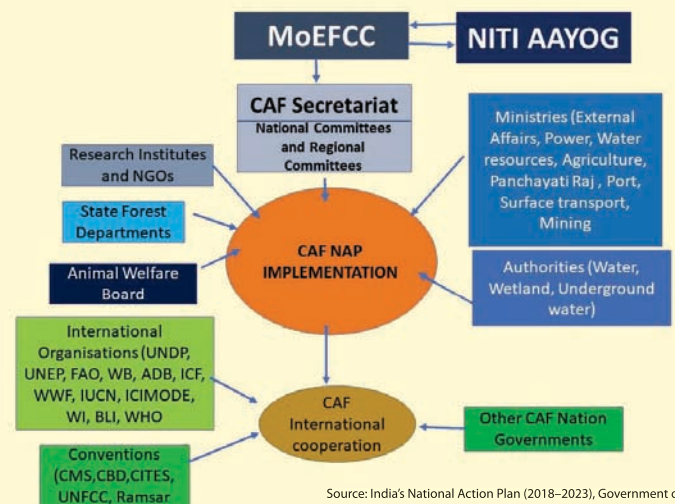
The National Action Plan for the Conservation of Migratory Birds and their Habitats along the CAF being launched in New Delhi, November 2018

Every year, like clockwork, thousands of migratory birds fly from their northernmost breeding grounds to their southernmost wintering grounds. They use the same flyway each year, occasionally stopping over land for rest and refuel. There are nine recognised flyways and the one that concerns India the most is Central Asian Flyway (CAF) covering 30 countries. India plays a strategic role in the flyway as it provides critical stopover sites to over 93% of the bird species known to use this migratory route. About 171 waterbird species that use the CAF winter in India.

To conserve these birds species and their habitats in India, the Ministry of Environment, Forests and Climate Change (MoEFCC) launched National Action Plan on November 19, 2018, with BNHS as the main knowledge partner.



DIAGRAM ON IMPLEMENTATION OF CENTRAL ASIAN FLYWAY NATIONAL ACTION PLAN (2018-2023)



Source: India's National Action Plan (2018–2023), Government of India

BNHS has played a key role in drafting the action plan. It consists of six inter-related components: 1) species conservation, 2) habitat conservation and sustainable management, 3) capacity development, 4) communication and outreach, 5) research- and knowledge-based development and 6) international cooperation. As many as 44 crucial wetlands, 31 important landbird sites and 20 migratory bird species have been prioritised for conservation under the action plan. It emphasizes the need for coordination and cooperation between various Central Government ministries, State Government departments, managers of protected areas, local communities, civil societies and the private sector for the conservation of migratory birds and bird habitats along the flyway. Six regional committees have been constituted and a series of regional committee meetings are being organised to discuss the progress in executing the plan.

BNHS scientists Dr Nita Shah, Dr Sathiyaselvam and Dr Ramesh Kumar attended the eastern, western and southern regional committee meetings held in Sundarbans, Bhuj and Bengaluru respectively as members of the committee. They held discussions with the PCCFs (Principal Chief Conservator of Forests) of various states with regard to extending the scope of bird monitoring and bird migration studies in their respective states. BNHS has also agreed to provide technical support to the state forest departments wherever possible. ■



BNHS at MOP7

BNHS participated in the 7th session of the MOP (Meeting of Parties) to the intergovernmental treaty AEWA (Agreement on the Conservation of African-Eurasian Migratory Waterbirds), held in Durban, South Africa, from December 3 to 8, 2018.

The AEWA is dedicated to the conservation of migratory waterbirds and their habitats across Africa, Europe, the Middle East, Central Asia, Greenland and the Canadian Archipelago. The MOP is AEWA's principal decision-making body. The 7th MOP attracted 289 participants, including delegates representing 66 countries, observers from NGOs and IGOs (International Association of Government Officials) and the

press. The theme for discussion was 'Beyond 2020: shaping flyway conservation for the future'. The highlights of the meet included the adoption of a Strategic Plan and the Plan of Action for Africa for the period 2019–2027 as well as an agreement on key species action plans.

BNHS scientists Dr Nita Shah and Dr Ramesh Kumar organised a side event on the Central Asian Flyway (CAF). The event highlighted India's efforts towards establishing an institutional mechanism to facilitate the implementation of the CAF Global Action Plan 2005, tabled during the CMS (Convention on the Conservation of Migratory Species of Wild Animals) meet held

in New Delhi in June 2005. The event also showcased the Indian Government's recent National Action Plan for the Conservation of Migratory Birds and their Habitats along the Central Asian Flyway (2018–2023), involving BNHS as the knowledge partner.

BNHS also put up a stall with posters representing its various projects such as Wetland Programme, Indian Skimmer Project, Vulture Conservation and Central Asian Flyway Action Plan, and exhibited copies of the INDIAN BIRD MIGRATION ATLAS. Participants visiting the stall showed a keen interest in BNHS activities and appreciated the organisation's efforts towards bird conservation in India. ■

CAF Partners' meet at Chilika



The first ever South Asia BirdLife Partner to Partner meeting of CAF countries was held in Chilika in Odisha from January 20–24, 2019, to lay out a roadmap for effective site and species conservation on the flyway. Chilika Development Authority extended the logistic support for the meeting.

The Association for the Conservation of Biodiversity of Kazakhstan CEO Vera Voronova, BirdLife Asia Regional Director Vinayagam Dharmarajah, Royal Society for the Protection of Nature, Bhutan Chief Tashi Phuntsho, BirdLife Conservation Nepal CEO Ishana Thapa, Field Ornithology Group of Sri Lanka members Salindra and Gayomini and Royal Society for the Protection of Birds Partner Development Officer Paul Insua-Cao attended the meeting.

Joint initiatives, possible collaboration and cooperation to implement the flyway-level initiatives in their respective countries, joint research and monitoring and joint fundraising for conservation activities were discussed in the meeting. A dedicated CAF website, to be anchored and coordinated by BNHS, is on the anvil. ■

CEC lease renewed

BNHS is indebted to the Maharashtra Government for agreeing to renew the lease of CEC (Conservation Education Centre) land in Mumbai at the concessional rate of one rupee per annum; formalities for the same have been completed.

New BNHS centre in central India: status update

In our previous newsletter, we announced a BNHS Conservation Research and Training Centre that is under construction on a 20-acre land in central India. The centre will cater to the needs of the in-house researchers, policy makers, government agencies, NGOs, corporate bodies and the general public, and focus on capacity building in nature conservation and policy. We are happy to share the news that Mr Aniket Bhagwat, one of the finest landscape architects in India and Life Member of BNHS, has agreed to help pro-bono to develop an architectural design and to hand hold until the construction is completed.

BNHS plans International Conference

Come November, Lonavala will be host to an international conference on wetlands, migratory waterbirds and flyways of Asia. The flyways cut across several countries and provide a suitable passage for birds that embark on long journeys twice every year, visiting the same or similar habitats.

These habitats are being increasingly altered for human development, and are likely to disrupt the lifecycles of scores of species. The need of the hour is to find sustainable ways of addressing the issue and the conference is a step in that direction.

Conceived and executed by the BNHS, with support from the Ministry of Environment, Forests and Climate Change, Maharashtra State Government, Mangrove Foundation and BirdLife International, the 5-day conference will see a coming together of policy makers, scientists, conservationists, managers, journalists, students and other stakeholders. It will provide a common ground to share information and assess the current status of the wetlands and migratory waterbirds occurring along the Asian flyways. MoEFCC will run a parallel meeting of CAF range countries alongside the conference.

Though the focus will be on Central Asian Flyway (CAF), the conference will be a site to share information and experiences on the wetlands and migratory waterbirds of the two flyways that partly overlap the CAF, namely the African-Eurasian Flyway (AEF) and East Asian-Australasian Flyway (EAAF).

Plenary talks, panel discussions, thematic presentations, side events and workshops are some of the events lined up for the 5 days. Accepted papers from the proceedings will be published in a special issue of the *Journal of the Bombay Natural History Society*.

International Waterbird Census Coordinator and Senior Technical Officer, Wetlands International Taej Mundkur; BirdLife International CEO Patricia Zurita; Conservation of Arctic Flora and Fauna Secretary Tom Barry and All-Russian Initiative for Nature Conservation (ARRINC) All-Russian Research Institute for Nature Conservation Deputy Director Evgeny Syroechkovskiy will deliver the plenary talks.

BNHS members, including member students, will get a special fee concession to attend the conference. Registration is now open; for more information, log on to <https://cwamwaf.in/conference/page/2/>

ONLY FEE STRUCTURE FOR CONFERENCE

Category	Early Bird (₹)	Regular (₹)
Student (UG and PG)	2850	3550
Researchers (JRF, SRF, PhD, Post-Doctoral, RA)	4250	5300
General (Scientist, Policy maker, Naturalist, Teacher/ Professor, Photographer, Government employee, Journalist, Corporate)	7500	9450
BNHS Members	3550	4720
BNHS Member Student	2350	2950

Early Bird Registration: 30 May 2019

Last date for regular registration: 31 August 2019



INTERNATIONAL CONFERENCE ON
**WETLAND AND MIGRATORY
WATERBIRDS**
OF THE ASIAN FLYWAYS

DATE: **NOVEMBER 18 – 22, 2019**

VENUE: **FARIYAS RESORT, LONAVALA,
MAHARASHTRA**

ORGANIZED BY



BOMBAY NATURAL HISTORY SOCIETY

SUPPORTED BY



GOVERNMENT OF
INDIA



Government of
Maharashtra



Conservation research & action

Species

Vulture

As many as 587 *Gyps* Vultures (White-backed *Gyps bengalensis*, Slender-Billed *Gyps tenuirostris* and Long-Billed Vulture *Gyps indicus*) are housed in the four Vulture Conservation Breeding Centres (VCBCs) at Pinjore, Raja Bhatkhawa, Rani and Bhopal. The former two centres have received funding from the Government of India and the respective State Governments for 2018–19. The Bhopal centre is fully supported by the Madhya Pradesh Government. The Assam centre is completely supported by the Royal Society for the Protection of Birds (RSPB).



VIBHU PRAKASH

Vibhu Prakash

The breeding season in all the centres commenced in November 2018. The integration of these vultures into the wild is one of the goals of VCBCs, and the stage is set for their release.

Workshops: Two workshops were organised in February this year highlighting the release programme, besides discussing various other issues pertaining to vulture conservation with the stakeholders.

The first was held at Panchkula, Haryana from February 13 to 14. It was inaugurated by Mr. S. N. Roy, IAS, Additional Chief Secretary, Forests, Haryana and attended by forest officials of the 5 adjoining states which fall within the 100 km radius of the Vulture Safe Zone.

The other was held at Chalsa, West Bengal from February 23 to 24. Mr Indeevar Pandey, IAS, Additional Chief Secretary, Forests, West Bengal,

Mr. Soumitra Das Gupta, IFS, IG, MoEF&CC, Mr. Ravi kant Sinha Chief Wildlife Warden West Bengal, Dr R.P. Saini PCCF and MD WBFDC and Dr Deepak Apte, Director BNHS flagged off the workshop. Representatives of various departments and wildlife experts from West Bengal, Assam, Meghalaya, Madhya Pradesh, Odisha and Tamil Nadu participated. The workshops provided an opportunity to put forth specific recommendations to various bodies such as Indian Veterinary Research Institute, Animal Husbandry Departments, Drug Controller General of India and Forest Departments.

Vulture Safe Zone (VSZ): Various surveys and conservation programmes were carried out in the VSZs identified in Madhya Pradesh, Uttar Pradesh, Assam, Haryana and West Bengal. Undercover surveys to find out the easy availability of the banned veterinary drug diclofenac and other harmful substances to vultures, capacity-



Shri S S Bisht, retired IFS officer and former director of Project Elephant, lighting the lamp at the inaugural ceremony of vulture conservation and reintroduction workshop at Chalsa, West Bengal, on February 23, 2019

building programmes for foresters and forest guards, awareness workshops for the lay people including Gausevaks, and scientific studies to estimate the prevalence of diclofenac in the liver samples of cattle were some of the programmes that formed the focus of the vulture programme. ■

Green Avadavat

The effort to protect the endemic Green Avadavat *Amandava formosa* from local extinction saw progress in the form of a MoU on conservation breeding signed between Udaipur Forest Department and BNHS in Udaipur this January. It is a highly sought-after cage bird, both in the domestic and international markets, second only to Red Avadavat *Amandava amandava*.

The decision to breed this species, globally listed under the Vulnerable category, in captivity comes in the wake of its rapid decline owing to habitat degradation and loss.

Most birders in India would be astonished to know that there is a Green Avadavat Breeders Group under the umbrella of Queensland Finch Society in Australia. This group, dedicated to captive breeding of our endemic species, has a stock of less than 100 birds. Aviculturists in India cannot keep stocks of the Green Avadavat since it is a protected species, and captive breeding is not encouraged as it may lead to hidden trade in the species.

BNHS surveys to locate the key populations of the bird species across India and understand its behaviour and ecology are in progress. It inhabits grass, low bush and tall grassland habitats, sugarcane fields and boulder-strewn scrub jungle of central India. ■



RAJAT BHARGAVA

Flamingos

Mumbai region witnessed a sudden increase in the numbers of Lesser Flamingos in January 2019, our monthly surveys in the Thane creek areas and Sewri mudflats have revealed. The Lesser Flamingo *Phoeniconaias minor* and Greater Flamingo *Phoenicopterus roseus* together numbered about one lakh and twenty thousand.

The surveys were part of the project to monitor and mitigate the impacts of MTHL (Mumbai Trans-harbour Link) on Flamingos and other avifauna and formulate a conservation blueprint for Sewri-Nhava Seascape.

From October 2018 to February 2019, we undertook 10 bird-monitoring surveys, which included various aspects of bird studies like total count surveys, specific census, bird behaviour surveys and bird movement and migration studies. We also looked at the prey-base diversity and density in the study areas by surveying benthic organisms and planktons. Considering the effluents and sewage released in the food habitats, we are now collecting data



AMOL LOKHANDE

on the heavy metal concentrations in the various levels of the food chain for further studies.

The study area, falling in Mumbai and Navi Mumbai, is under rapid urban development, and designing the study for the fragmented and rapidly vanishing bird habitats was very challenging.

The draught-like conditions in states like Gujarat and Telangana could have triggered the increase in Flamingos to the Mumbai coasts. However, it is too early to predict the reasons; prolonged and consistent sampling is necessary to throw more light on the matter. ■

Flamingo count

BNHS initiated the first coordinated Flamingo Count on February 23 and 24, 2019 in selected states of India, during which period both Greater Flamingo *Phoenicopterus roseus* and Lesser Flamingo *Phoeniconaias minor* were counted. BNHS has identified both the species under the priority list of birds which need immediate conservation interventions. These are also included in MoEFCC's National Action Plan (NAP) for the Conservation of Migratory Birds and their Habitats along the Central Asian Flyway.

The NAP has proposed to formulate and implement Single Species Action Plan (SSAP) for the coordinated conservation of 20 priority waterbird species, including Greater and Lesser Flamingos in India. This count was organised with an intent to assess the current population trends of both the species, which in turn will help in preparing the SSAP. As this work is mooted through citizen science programme, it also fulfils another activity of the NAP – promoting migratory bird conservation through public awareness and local peoples' participation.



Participants were asked to choose any preferable day and sites (either from shortlisted sites or their preferred sites) and carry out the counts as per information provided on BNHS website. Google forms and fill-in forms in word format were made for systematic collection of data and were available online.

We received 182 responses from about 100 sites in different states, involving over 200 participants. The states included Karnataka, Tamil Nadu, Gujarat, Haryana, Uttar Pradesh, Rajasthan, Maharashtra, Odisha, Telangana, Andhra Pradesh and union territories Delhi and Puducherry. The state forest departments of Odisha, Maharashtra and Tamil Nadu actively participated in the count. The other participants included IBCN members, college students, nature clubs and birdwatchers. The results of the count are being analysed and the results will be published by April 2019. ■

Flamingo Count

23rd -24th February 2019

Organised by

Select short-listed sites from BNHS website or send us sites of your preference

Count Greater and Lesser Flamingo

Fill google form or datasheet and send to flamingocount@bnhs.org

Contribute to National Conservation Initiative

Visit www.bnhs.org or E-mail flamingocount@bnhs.org

Photograph: Daksha B.

Lesser Florican

On a steady decline, the Endangered Lesser Florican *Sypheotides indicus* seems to have just two strongholds left in its range spread across the states of Rajasthan, Madhya Pradesh, Gujarat, Maharashtra and Andhra Pradesh. One is Velavadar Blackbuck National Park in Gujarat, a protected area, and the other, the Shokaliya landscape in Ajmer district, a non-protected area. BNHS has decided to focus its study on the non-protected area, given that the threats to its survival are greater here.

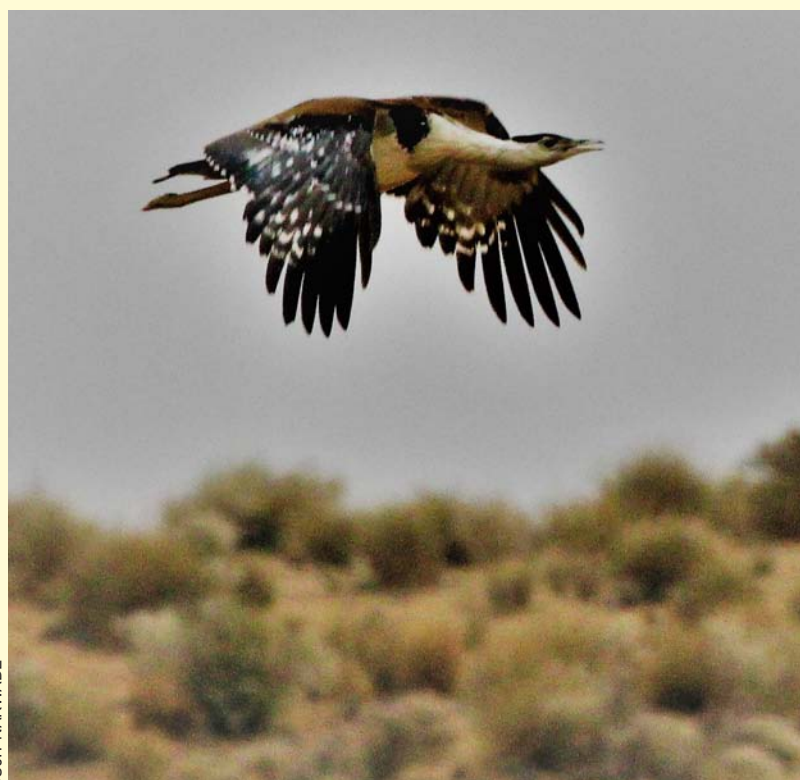
What are the Lesser Florican's distribution sites in the Shokaliya landscape that covers seven tehsils? What are its potential habitats? What are the possible threats to the bird species in this fast-developing human-dominated landscape? These are some of the questions being addressed through the BNHS study. ■



SUJIT NARWADE



SUJIT NARWADE



SUJIT NARWADE

Great Indian Bustard

The Great Indian Bustard (GIB) *Ardeotis nigriceps*, categorized as Critically Endangered, is one of the bustards whose population is dwindling at an alarming rate. It is said to be extinct in 90% of its former range including parts of Karnataka, Maharashtra, Andhra Pradesh and Gujarat. Only a little over hundred are expected to be around, mainly in Rajasthan.

Our study on the bird species in Maharashtra over the last several years has helped to understand that a wider landscape-based outlook is necessary to conserve the vast mosaic of grasslands, desert, farmlands and villages that is crucial for the survival of the species. The GIB has always co-existed with humans, relying on the grasslands and farmlands for roosting, breeding and nesting.

We are in talks with the Rajasthan Forest Department to work in unison to safeguard and restore the available habitats in Rajasthan. An inter-organizational co-ordination is always better to run any conservation programme effectively. Since the local communities share their space with the GIB, no conservation measure can be complete without their co-operation and involvement. ■

Pheasants & finches

In the last six months, five new sites were surveyed in Sikkim for potential habitats of our study species – pheasants and finches. The sites, covering various altitudinal gradients from 1000m to 4000m, included Dentam in West Sikkim, Dzuluk and Gnathang in East Sikkim and Ralong and Chalamthang in South Sikkim.

Dentam harbours potential habitats of our study species, the Kalij Pheasant *Lophura leucomelanos*. BNHS plans to conduct workshops for the forest department staff and the local communities to create awareness about illegal poaching.

Chalamthang, lying in the lowland forest of Sikkim, is home to some of our study species like Red Junglefowl *Gallus gallus* and Kalij Pheasant. The village is maintained by the Chalamthang Eco- Development Committee (EDC) that puts in serious efforts to be a Green village.

Gnathang Valley shares its border with Bhutan and China. In its rugged terrain dominated by scrubby sub-alpine vegetation, we encountered our study species such as Himalayan Monal *Lophophorus impejanus*, Plain Mountain-finch *Leucosticte nemoricola*, Spot-winged Grosbeak *Mycerobas melanozanthos* and Pink-browed Rosefinch *Carpodacus rodochroa*.

Dzuluk is a small settlement with a mesmerising landscape that attracts people from all over the world. It is home to our study species Himalayan Monal, Satyr Tragopan *Tragopan satyra* and Blood Pheasant *Ithaginis cruentus*. Feral dog population surviving on open garbage dumps has caused increased mortality of these native species. Poaching was also reported by the locals in the surrounding forests of Dzuluk.

In Ralong, we found a new site of the study species – Yellow-breasted Greenfinch *Chloris spinoides* and Dark-breasted Rosefinch *Procarduelis nipalensis*. Potential habitats of Kalij Pheasant were found in Maenam Wildlife Sanctuary, situated near Ralong.

These regular surveys are a first step towards understanding the effects of climate change on the avian species in the Eastern Himalayas. ■



RAJAT BHARGAVA

Spot-winged Grosbeak



CLIMATE CHANGE TEAM

Kalij Pheasant

Finn's Weaver



RAJAT BHARGAVA

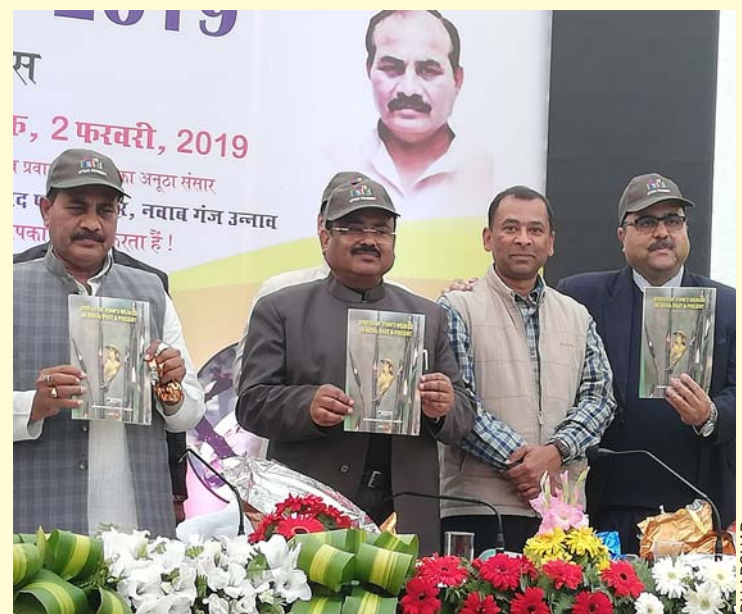
BNHS continued to highlight the declining state of the Finn's Weaver *Ploceus megarhynchus* in its terai grassland habitat. Land reclamation and drastic changes in land-use patterns in non-protected sites are propelling its decline. The bird species is endemic to India and Nepal.

Unlike the three Indian weaver species that normally have suspended nests slung from branches or fine twigs, the nests of Finn's Weaver are large globular structures on rather bare tree tops or reed beds,

with the entrance on one side near the top. Our study shows that nest predation by crows is another important threat adding to their decline; it estimates a global population of less than 1,000 Finn's Weaver, with about 500 adult birds in India. Considering the escalating threats and dwindling population, BNHS mooted the proposal for its conservation breeding, which is the need of the hour. In response, The UP Forest Department has commissioned the conservation breeding project at Hastinapur Wildlife Sanctuary, Meerut, where BNHS will work with Meerut Forest Department and Central Zoo Authority (CZA), under the guidance of UP Forest Department.

BNHS report on the Finn's Weaver, 'Status of Finn's Weaver in India: past & present', written by Dr Rajat Bhargava, yet again saw a formal

release, this time at Nawabganj Bird Sanctuary at Unnao, near Lucknow, Uttar Pradesh, on the occasion of World Wetland Day and Uttar Pradesh Bird Festival 2019. Uttar Pradesh Forest Minister Shri Dara Singh Chauhan along with Senior Forest Officers released the report. UP Forest Department Head, Shri Pawan Kumar, PCCF and Chief Wildlife Warden Shri Sunil Pandey highlighted the conservation issues related to the species. Simultaneously, on February 02, the report was released at Hastinapur Wildlife Sanctuary, Meerut by Shri.Lalit Verma, Chief Conservator of Forest, Western Uttar Pradesh. ■



ABU ARSHAD

Finn's Weaver report being released at Nawabganj Bird Sanctuary on February 2, 2019

SANJAY KARKARE



Indian Skimmer

BNHS study of the Vulnerable Indian Skimmer *Rynchops albigollis* at the National Chambal Sanctuary involves identifying its important nesting sites and understanding its nesting success and migration. Bird ringing has therefore been part of this study. Indian Skimmer and other riverine birds like Black-bellied Tern *Sterna acuticauda*, Little Tern *Sternula albifrons*, Small Pratincole *Glareola lactea*, Black-winged Stilt *Himantopus himantopus*, River Lapwing *Vanellus duvaucelii*, Great Thick-knee *Esacus recurvirostris* and River Tern *Sterna aurantia*, totalling 203 birds, were ringed from May to June 2018. The birds were marked with numbered metal ring and a coloured flag (white flag with alpha numeric number engraved in red colour). In February 2019, we observed that a few of the ringed skimmers have started returning to the ringing sites in the Sanctuary. ■

Giant Clams

Giant Clams are the world's largest molluscs and can live up to 200 years. Their absence or presence in the coral reefs reveals the ecological status of the reefs. India has five of the 12 species found in the world. Of them, *Tridacna* sp. holds the focus of BNHS studies in Lakshadweep and Andaman and Nicobar Islands.

We carried out an analysis of the impacts of climate change and El Niño occurrence on Giant Clams *Tridacna maxima* in Lakshadweep,



T. maxima

DEEPAK APTE

based on our studies in the archipelago for the last one and a half decades. Our analysis indicates that the Sea Surface Temperature (SST) anomalies induced by climate change are likely to adversely impact *T. maxima* population in future, unless immediate conservation measures are taken up on a large scale.

We have embarked on a new project, where Gorgonians or soft corals are being used as surrogates to study the impact of climate change and El Niño in Lakshadweep. In the Andamans, we are assessing the population dynamics of sea grass under anthropogenic pressure, its growth, long-term survival and recruitment rate. ■



Red Gorgonian Sea Fan *Melithaea* sp.

SUMANTHA NARAYANA

Molluscan taxonomy

As part of the effort to create a molluscan database for India, our expeditions continued on the coasts of Odisha, Tamil Nadu, Maharashtra, Gujarat, Goa, Andaman and Nicobar and Lakshadweep. Intensive surveys threw up several new records and a few probable new species of heterobranch sea slugs to India.

A paper on the first record of *Chelidonura hirundinina* in Lakshadweep has been accepted for publication and manuscripts for the other newly recorded molluscs are underway. Three range extensions were reported from Gujarat; *Thorunna furtiva* was reported for the first time from the state. ■



Mexichromis lemniscata

DEEPAK APTE

Conservation research and action

Landscape

Nature and Community Conservation at Doimara

Doimara in Arunachal Pradesh lies just below the Eaglenest Wildlife Sanctuary and hence assumes importance as a biodiversity hotspot and tourist destination. The sanctuary land mainly belongs to Sherdukpen community, whose members also reside in Doimara village, West Kameng, Arunachal. This underlines the need to put together a People's Biodiversity Register (PBR) for Doimara. To initiate the process, BNHS has taken up a Nature and Community Conservation Programme in Doimara.

From October 2018 to March 2019, PBR work was taken up along with community rapport building with Sherdukpen community and initiation of Biodiversity Management Committee (BMC) members. We found the area had the potential to possess not just one but two Community Conserved Areas (CCAs).

Interviews were held with the villagers to gather information about the people, their land, their life, natural resources like water, agro-biodiversity, domesticated-wild biodiversity and domesticated-wild timber species. We documented the diverse food items of the Sherdukpen community.

Our team conducted a preliminary survey of birds, butterflies, herpetofauna etc of the region. Doimara presently has 14 households with 60-odd people. The village is getting warmer by the day due to timber logging, according to the villagers. Invasive species and pests are the



CLIMATE CHANGE TEAM

other problems assuming significance here. The village, owing to its nearness to Eaglenest, has a great potential to become a tourist hub but this development cannot be at the cost of Doimara's biodiversity and this is what BNHS nature and community conservation programme hopes to achieve. ■

Threatened birds of Brahmaputra grasslands

BNHS has taken up the task of identifying a network of grassland corridors in the Brahmaputra floodplains of Assam for the conservation of the threatened birds of the region. As part of the project, a survey was carried out in the state from October 2018 to March 2019 to locate important protected habitats for grassland birds. The survey, which extended from the western border of the state to its central part, covered the national parks (NP) (Kaziranga NP, Rajiv Gandhi Orang NP, Manas NP), Pobitora Wildlife Sanctuary and non-protected river islands.

Systematic sampling was carried out in the protected and non-protected areas to understand the habitat and locate the threatened species. In order to study the anthropogenic pressure on grasslands, the local people were interviewed and their dependency on the habitat was recorded.

The highlight of the study was a first record of the Endangered Swamp Grass-Babbler *Laticilla cinerascens* in a non-protected area. It was a small population observed, and the species was found threatened by habitat conversion for agricultural expansion. The people were found cutting and burning grass, sometimes even



AKSHAYA MANE



AKSHAYA MANE

before the breeding season. The use of pesticides to control insects, which is the major food source for the bird species, could also be another major threat, which needs to be studied more deeply.

At present, BNHS is engaged in communicating with the stakeholders, including the local farmers who depend on the grasslands for their livelihood, to understand their needs and accordingly formulate awareness campaigns for the conservation of the bird species. ■

Bird Migration Study Centre

The Bird Migration Study Centre has prepared a report on the impact of Gaja cyclone on the waterbirds of Point Calimere Sanctuary based on the post-cyclone survey. The centre distributed relief materials to 250 affected families of Kodikkarai and Kodikkadu villages.

The centre also took up various bird census and counts at Chilika, Bhitarkanika, Gulf of Mannar, Thirunelveli, Kanyakumari and Pallikaralai. Training in bird count and identification was part of many of these programmes; the BNHS team also held a bird ringing programme at the UP Bird Fair in February 2019.

Preparation for the second phase of Mangrove plantation has begun. Dr Balachandran, who heads the BNHS Bird Migration Study Centre, also represented BNHS in Arctic Migratory Birds' Initiative (AMBI) meeting and Spoon-billed Task Force meeting at Hainan, China in December 2018, where he participated in the discussions on the waders of the East Asian Australasian Flyway, and spoke on Spoon-billed Sandpiper and Lesser White-fronted Goose status in India. ■

Studying land use, land cover patterns



One of the threats to migratory birds is the loss of habitats to human development. Migratory birds tend to return to their earlier locations year after year. Any loss of the habitat can be stressful for them. To conserve these birds, it is first necessary to understand the land use, land cover patterns. Time series data for the last four decades were analysed by using GIS tools to understand the land use land cover change. One such study was taken up at Point Calimere, where the BNHS Bird Migration Study Centre is located. The project outcome was presented at a MoEFCC national workshop. ■

Bird ringing

Bird ringing undertaken at major locations since October 2018

Location	Number of ringed birds	Number of species ringed
Chilika lake, Odisha	960	36
Gujarat (Khijadiya bird sanctuary, Khijadiya salt pans, Sachana and Dhichda lake)	128	36
Telangana (Manjeera and Pakal Wetlands)	104	34
Maharashtra (Wetlands around Navi Mumbai)	440	29

Ringing helps to track and study birds, especially those that migrate across continents. BNHS has been consistently ringing and studying birds for several decades now, the earliest record being the year 1927. The BNHS publication, INDIAN BIRD MIGRATION ATLAS, is a testimony to this work.



Some interesting finds: 1. Two individuals of Greater Flamingo ringed in Gujarat were re-sighted; one in suburban Mumbai, Maharashtra and the another in Bikaner, Rajasthan. 2. The birdwatching community

of Jamnagar has been contributing significant information to the BNHS ringing team; many birds ringed in the late 2017 and early 2018 were re-sighted during the migratory season of 2019. Some of the re-sighted birds including Bar-tailed Godwit *Limosa lapponica*, Greater Sandplover *Charadrius leschenaultii* and Crab Plovers *Dromas ardeola* indicate a strong site fidelity, which is, returning to the same site every year. ■

Biodiversity Assessment

- **Biodiversity study of Mahendragiri, Tamil Nadu:** The February 2019 trip to ISRO Propulsion Complex (IPRC) in Mahendragiri, Tamil Nadu, brought to close the fieldwork related to documenting the flora and fauna in the complex. The final report of the project is underway. ■
- **Bird hazard studies in Mumbai airport:** BNHS took up a one-year project in October 2018 to study bird hazard to aircraft at the Chhatrapati Shivaji Maharaj International Airport and help to mitigate it. ■

Citizen Science counts

Regular seasonal and yearly bird counts under Common Bird Monitoring Programme (CBMP) winter count (January 13 to 20, 2019) and Salim Ali Bird Count (November 11 and 18, 2018) saw enthused participation. The CBMP summer season count is on (April 14 to 21). With a little training, anyone interested in bird or biodiversity conservation can partake in these initiatives. This year, the annual Baya Weaver count in May is being planned for an extended period, given that nesting in India varies from region to region. Do be on the lookout for announcements on bnhs website. Write out to n.dudhe@bnhs.org or call 22818957.



Conservation research and action

Seascape



VISHAL BHAVE

An intertidal habitat along the Jaigad coast, Maharashtra

EBSA

As part of the Ecologically and Biologically Significant Marine Areas (EBSA) project of BNHS, regular surveys were undertaken for selected sites in Ratnagiri and Sindhudurg. These sites are rich in intertidal communities (like sea anemones, hydroids, corals and echinoderms) and microniches (like underside of pebbles and rock pools), including species having global conservation significance (like the Vulnerable Olive Ridley Turtle). Rocky shore surveys and specimen collection continued along the two districts. The PBR (People's Biodiversity Register) work for Raigad district was resumed in December 2018. A series of PBR workshops were held in each taluk. ■



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BNHS Assistant Director (Policy Cell), Dr Rahul Mungikar speaking to forest department officials and local people on biodiversity laws and their importance in Pali, Raigad district

Long-term monitoring of Konkan coast



VISHAL BHAVE

We have taken up long-term ecological monitoring of selected coastal sites in Ratnagiri and Sindhudurg districts to assess the coastal health and infer patterns and changes in biodiversity over an expanse of time using the monitoring protocols developed by BNHS. A

survey was taken up for the two districts in February and March this year, and the exercise will continue for the next twenty-five years so that there is robust data to prepare predictive analysis model. The data on other faunal and floral species is being processed and organised. ■

Mangrove conservation



VISHAL BHAVE

Drone image of BNHS's Mangrove plantation in progress at Kasari, Maharashtra

As many as 50,000 Mangrove saplings were planted at the Jaigad creek in Kasari, Ratnagiri district, where water had dried up in the mudflats owing to the impact of Kasari-Satkondi Kharland bund. BNHS also provided 50,000 saplings to Forest Management Committee, Kasari.

We have been carrying out Mangrove restoration in the region since 2014. Remote sensing data (Landsat data - 1995, 2000, 2013 to 2018) shows that our intervention has been helpful in restoring the mudflats and reviving mangrove growth since 2015. ■

Report a tagged bird!

BNHS has developed a mobile application to record banded birds sighted in the wetlands of Maharashtra. The application was demonstrated to the Mangrove Foundation authorities and they have approved it. It is now being tested in the field with bird sighting records. The mobile app will be launched on June 5, 2019. ■

Bird surveys in Maharashtra

Regular bird surveys were held since January 2019 at the major congregational sites around Mumbai to estimate the migratory waterbird populations. The surveys were part of the project 'Elucidating the migratory routes of waterbirds wintering along the Maharashtra coast'. In two dedicated workshops, students, researchers, self-help and eco-community group members and frontline staff of Sindhudurg region were trained in bird monitoring, handling and marking. ■



BNHS Policy cell

- BNHS showcased its conservation work at the Conference of Parties (COP) of the Convention on Biological Diversity (CBD) held in Sharm El Shaikh, Egypt from November 16 to 28, 2018.
- Two meetings on Great Indian Bustard (GIB) conservation were held in Jaipur (Jan 20-24, 2019) and Delhi (February 21, 2019). The Jaipur meeting focused on GIB Recovery programme undertaken by WII (Wildlife Institute of India) and BNHS under CAMPA funding, while the Delhi meeting saw the coming together of BNHS, WII, The Corbett Foundation, Sanctuary Asia, WWF, media and some power companies. In two panel discussions moderated by BNHS, the challenges to GIB conservation and the onus on India to save the bird species were discussed.
- BNHS has taken up the task of drafting a National Action Taken Report on the CAF Action Plan 2005 and National Action Plan 2018-25. A template is being prepared to collect information on the two plans from the CAF sites.
- Other activities under Policy Cell since October 2018: training in PBR documentation in ENVIS workshop, Pune; workshop on the implementation of Biological Diversity Act in Raigad; talk on National Biodiversity Act and its Implications in Biodiversity Research at NCCS, Pune; assistance to MoEFCC to bring out a book titled Biodiversity and Climate Change that was released at the 24th COP to UNFCCC in Poland in December 2018. ■

Conservation Education

CEC Mumbai

Happy news for BNHS members and others! The Conservation Education Centre (CEC) at Goregaon, closed for about year for renovation, is now open.

The renovation work, however, did not come in the way of the CEC team's efforts to spread the message of conservation. It reached out to 8575 underprivileged school children in Mumbai through various activities like kitchen gardening, butterfly gardening and combating plastic pollution. To test if the activities were effective, the students were given 'voter id pads' similar to those used in shows like 'Kaun banega crorepathi', a method that was an instant hit with the children. CEC also

had outdoor sessions in forests and greener areas of Mumbai for 1105 students, mostly from tribal areas of Thane and Palghar districts.

Online courses: The CEC team successfully completed online courses for the 2018-2019 year in ornithology, leadership in biodiversity conservation, butterfly studies, herpetology, botany and marine biology. The field camps offered many learning opportunities and the participants encountered several rarities.

To know more about the courses for the coming academic year, log on to <http://www.bnhs.org/content-details/mumbai-cec>

NIC Dombivali: The construction work at the Nature Interpretation Centre (NIC) at the Lodha Palava site in Dombivali is in full swing. We hope to open the NIC's doors to the public in October 2019. ■



Renovated CEC at Goregaon



Blueprint of NIC Dombivali

CEC Delhi

Located in the idyllic settings of Asola Bhatti Wildlife Sanctuary of Delhi, CEC Delhi provides the perfect platform to be close to nature and learn about its importance. Sure enough, the centre attracts scores of people every season.

The months running up from October to March saw a footfall of 6121 participants. A wide variety of activities including wildlife week celebration, reptile awareness workshop, seed ball making, Golden Jackal safari, Red Pierrot Butterfly study survey, flora mapping, migratory bird walk and raptor survey drew students, teachers, corporates, forest department officials and other individuals alike to CEC.



During the Wildlife Week celebrations, held in October 2018, Minister of Food Supplies, and of Environment and Forest, New Delhi, Shri Imran Hussain inaugurated the Aravalli Forest Centre, a unit of CEC Delhi setup to focus on Aravalli Forest, its geology and flora and fauna. Vulture and Leopard awareness programmes marked the October celebrations. Flamingo count at Okhla Bird Sanctuary and Najafgarh Jheel was the highlight of February 2019. The raptor survey in February marked a first sighting of Black Eagle for Asola. BNHS citizen science initiative, Common Bird Monitoring Programme, was held at Asola in October and November 2018. ■



CEC Nagpur

The Nagpur CEC, located in the Raj Bhavan premises, has been abuzz with activities. A host of competitions have been drawing both school and college students to Raj Bhavan Biodiversity Park. The competitions, which BNHS conducted along with the Forest Development Corporation of Maharashtra, were mainly geared to spread green awareness and highlight the importance of biodiversity conservation among students. Competitions included painting, making paper bags and nest boxes, etc. focusing on nature and wildlife. The city bird of Nagpur, Oriental Honey-Buzzard, too figured as a topic in the competitions. The beginning

two months of this year alone saw over 500 students partaking in the activities of CEC Nagpur.

Besides the Raj Bhavan activities, BNHS and Pench Tiger Reserve Foundation jointly organised nature camps for the students in the periphery of the tiger reserve in Bor Tiger Reserve and Umred-Karhandla-Pawani WLS.

Similar nature camps are also being held for students in the buffer area of Tadoba-Andhari Tiger Reserve since last year. This is a joint venture of BNHS with Tadoba-Andhari Tiger Reserve Foundation. ■



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eMammal: A playact with double benefit



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A little awareness and personal involvement are all that it takes to conserve our wildlife. And when the involved individuals are children, the result can be truly promising. This has been proved by the eMammal project taken up by BNHS in some schools of Maharashtra since 2014.

The citizen science initiative, which involves school children handling camera traps in the wild, comes with double benefit. It not only promotes scientific understanding in children, but also helps scientists generate valuable data on animal population size, their movement and habitat use.

In the first phase of this project (2014-2015), BNHS collaborated with North Carolina Museum of Natural Sciences and Museo de Paleontologia (Mexico). The outcome was a paper in BioScience journal (December 2018) titled 'Citizen Science in Schools: Students Collect Valuable Mammal Data for Science, Conservation, and Community Engagement' and a paper presentation at the Citizen Science Association Conference 2019 in Raleigh, North Carolina, USA.

In the second phase (2017-2019), with assistance from Sahyadri Nisarg Mitra and ICICI Bank funding, BNHS worked with over 2000 students from 20 schools in Konkan and northern Western Ghats and generated more than 3,50,000 images for scientific study and a plethora of experiences for the school children.

The success of eMammal so far has inspired us to plan a third phase and we are seeking individuals and organisations to join hands with us in this venture. To seek more information on eMammal, contact r.khot@bnhs.org or call 022-22821811. ■

@ Hornbill House

Collections

In our previous issue, we had reported that we have started digitizing BNHS natural history collections numbering over 1,35,000 specimens of various taxa from the Indian subcontinent, many over a hundred years old. Digitizing will help to make them more accessible to the public. Given the enormity of the collections and their vulnerability, the process will take about 10 years to complete.

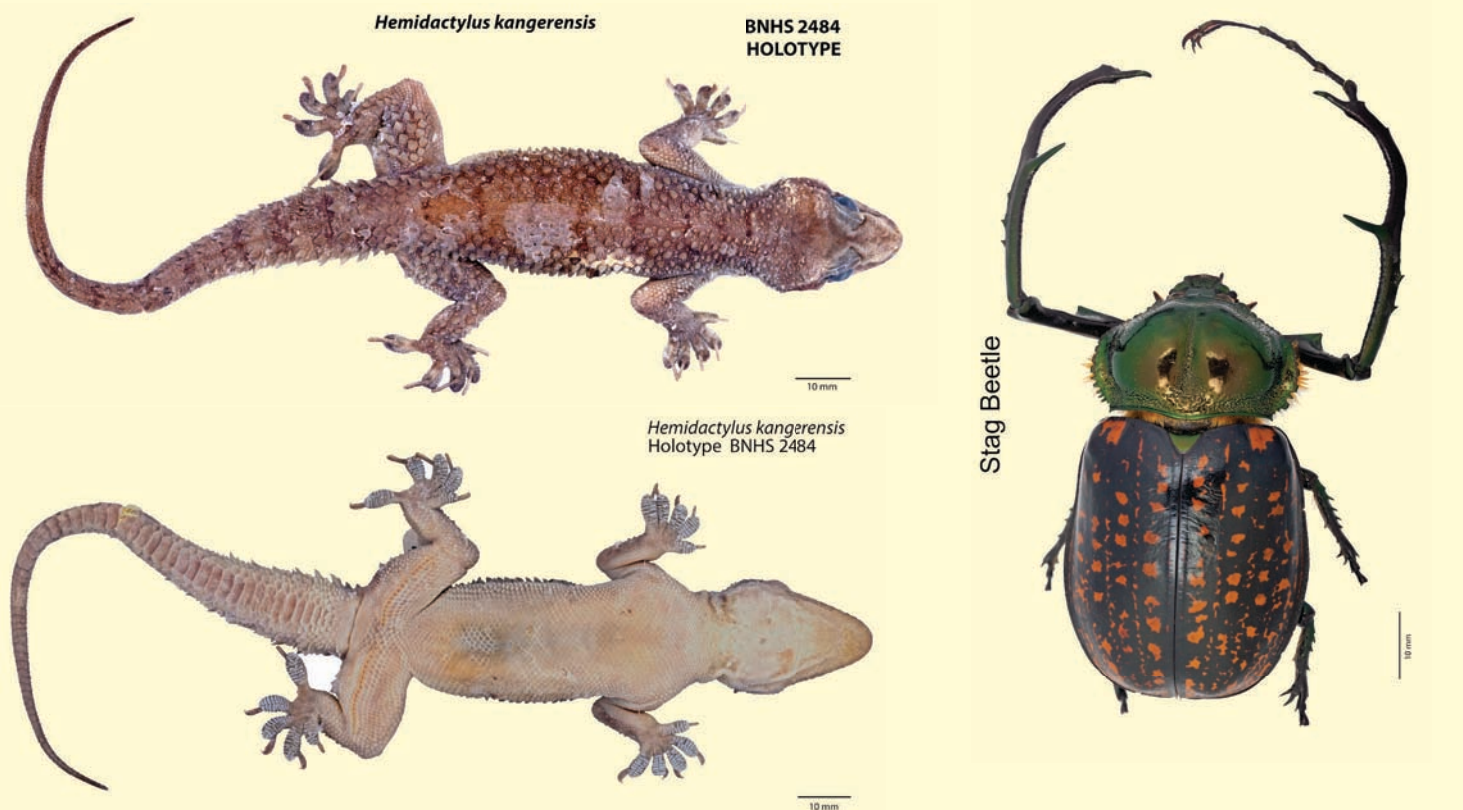
Right now, we are digitizing the raw metadata associated with specimens in the form of day-book entry and registers. Work on 32 registers and files with information on the specimens of insects, lizards, snakes, amphibians, birds and bird eggs is complete. All the images have been catalogued and backed up. We are also proofreading these register entries to correct errors, taxonomic changes and location name changes.

Digital photography of the specimens: We have set up a dedicated digitization room for photographing the specimens. The images will be processed, catalogued, stored into various formats, and will be updated

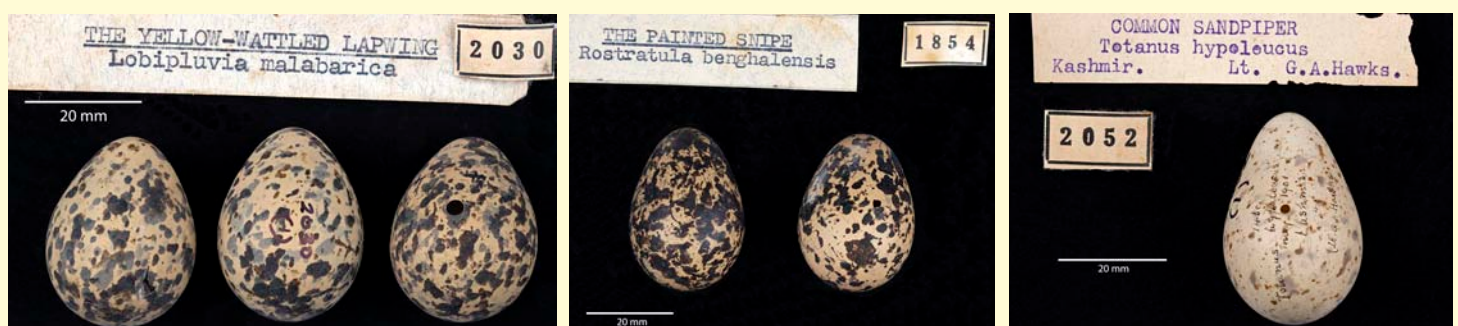
regularly along with the relevant specimen data, thus making available a complete species profile. This will reduce the handling of specimens, thus enabling their protection.

The images taken are being stacked together to provide high-resolution images for each profile. So far, a total of 70 specimens, including holotypes and paratypes of reptiles, have been photographed and catalogued. We have started a similar process for bird eggs.

Data entry and digitization of collection metadata: We are also in the process of entering and cleaning the data of various taxa, along with stock checking of the specimens, which will help to rectify inaccuracies. Currently, we are scrutinizing and cataloguing type specimens of each faunal group present in the BNHS collection. This information is being compared with the original information published during the description of the respective species to verify for errors in location, status of specimens, labels, etc. ■



ALL IMAGES BY DIGITIZATION TEAM



Library: rare books get a robust uplift

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Before



After



BNHS PHOTO LIBRARY

The restoration work on rare books has been in full swing at the BNHS library, thanks to the support from the National Archives of India, Ministry of Culture. The government body has extended this support since 2010, helping to preserve 81 antiquarian books so far, some over a hundred years old. The year 2018–19 alone saw 45 being lined up for restoration.

The Himalayan Society for Heritage and Art Conservation's paper conservation team is involved in the current restoration work. The process involves basic cleaning, de-acidification and lamination of the damaged paper using chemicals of conservation standard. ■

Exhibition of rare books

The restoration work found a perfect realization in the form of a rare book exhibition at BNHS in January 2019. Open to all, the IXth edition of rare book exhibition greeted visitors in a new cast. Among those on display were *Vivarium Nature of the Naturalist's Miscellany or Coloured Figures of Natural Objects; Drawn and Described Immediately from Nature* (1790), *Western India in 1838* (1839) and *Life in Bombay and the Neighbouring Out-Stations* (1852).

The exhibition was inaugurated by Mr. Sushil Garje, Director of the State Archives, Govt. of Maharashtra. BNHS Governing Council members, Director and staff were present at the inauguration. Around 2000 people visited the exhibition. ■



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ENVIS

The MoEFCC has initiated Green Skill Development Programme (GSDP) for the employment and upliftment of the nation's youth. As one of the ENVIS units set up by the Indian Government and a focal centre for information on avian ecology, BNHS ENVIS started three short-term certificate courses under GSDP in August 2018. The courses are titled: Value Addition and Marketing of Non-Timber Forest Product (Plant Origin), Bird Identification and Basic Ornithology and Bird Migration and Migration Study Techniques.

In January this year, a certificate course on 'Bird Identification and Basic Ornithology' was conducted for the second batch of participants at the Forest Guard Training Institute, Shahapur, from January 21 to 31, 2019.

A valedictory function was held on March 15, 2019 for the two bird-centric courses conducted since August 2018. Dr Deepak Apte, Director BNHS, gave away the certificates to the participants in the presence of Capt. Mandar Salaye, Deputy Director BNHS, Dr Girish Jathar, Assistant Director BNHS; Dr Raju Kasambe, Assistant Director BNHS and Mr. Sanjay Karkare, Assistant Director BNHS.

On January 16, 2019 ENVIS-BNHS organized a workshop on Bird Migration at Mahapragya Public School, Kalbadevi, which saw enthused participation from students. ENVIS celebrated the World Wetlands Day (February 2) by organising an essay competition on the topic 'Birds affected by Climate Change', attracting participants across India. The World Wildlife Day (March 3) was marked by a poster making competition on 'Life below water: for people and planet' and International Day of Forests (March 21) was celebrated through a photography competition.

The BNHS ENVIS team attended a regional workshop of ENVIS centres chaired by Dr Anandi Subramaniun, Principal Advisor, MoEFCC, in Bhubaneswar, Odisha, in December 2018. The 10 participating centres presented their performance and data updates, which was evaluated by



BNHS PHOTO LIBRARY



the ENVIS Secretariat. The participants also received hands-on training in Arc GIS application.

Four issues of BNHS ENVIS newsletter, BUCEROS 22(2), 22(3) and 23(1&2), which carry news and activities surrounding bird species, are ready to be dispatched to the subscribers. ■

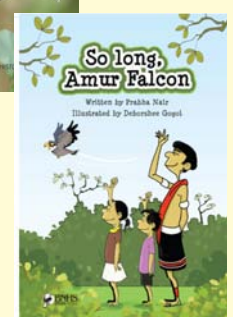
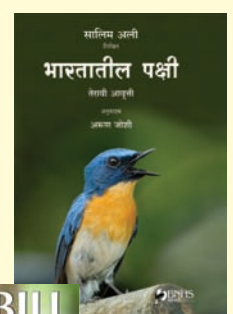
Publications

New/forthcoming releases

BNHS has forayed into children's publications with a book on India's success story of Amur Falcon conservation. It will be an added impetus to BNHS which reaches out to a wide section of people through an array of publications.

- SO LONG AMUR FALCON is written by Prabha Nair and illustrated by Deborshee Gogoi, The simple straightforward narration, colourful depiction and the powerful message of conservation promises to strike a chord with the young readers.
- BHARATĀTIL PAKSHI, the Marathi version of The Book of Indian Birds, was released in November 2018. The bird guide by Dr Sâlim Ali, first published by BNHS in 1941, continues to enjoy a great shelf life; its translation by Arun Joshi will be an added impetus. Also forthcoming is a Gujarati translation of the same book, by Dr Ashok Kothari.
- Between November 2018 and February 2019, one main paper, one description and sixteen short notes were uploaded on the JBNHS website. The print copy of JBNHS Vol. 114, including papers published throughout the year, was dispatched to the subscribers; Vol 115 is ready for the press. Papers uploaded since February 2019 will be sent to press in December 2019.
- One of the highlights of the Oct-Dec 2018 Hornbill issue was 'Extinction, courtesy Homo sapiens', an article by Dr Ranjit Manakadan and Asif Khan that brought to fore the harsh yet familiar truth regarding the extinction of so many species in the world.

The forthcoming issue is a thematic one on illegal wildlife trade that thrives in India even today despite the wildlife protection laws in place. India's rich biodiversity offers much to the illicit traders but their game can end if there is no market demand. This issue is yet again a reminder that the responsibility of conserving our wildlife rests with us more than ever before. ■



Central Marketing Department

The Central Marketing Department plays a huge role in putting together the much-needed funds required for various conservation work taken up by the BNHS. It does so through the sale of innovative products focused on nature like calendars, greeting cards, diaries, T shirts and mugs which it conceives and develops every year. The CMD is responsible for the sale of in-house books and also provides a platform for other authors and publishers.

Whatever the products are, they strive to promote environment education. The CMD supported the call to ban plastic by making cloth bags adorned with Warli paintings and Flamingo silhouette and steel sippers and mugs carrying the 'reuse' message.

The Udaipur bird festival and Mumbai's Kalaghoda festival held this year were renewed opportunities for the CMD to take BNHS work to the masses and also raise funds. At the bird festival, Ms. Harini Venugopal, Deputy Conservator of Forest, extended the much needed support to the BNHS team while in Mumbai's Kalaghoda, the State Bank of India helped to distribute BNHS desk calendar free to students and others visiting the stall. The CMD participated in the Tata Mumbai marathon held in January 2019; thirteen runners wore BNHS T shirt and cap. The event was supported by Mr Hans Sigg, who also sponsored two runners for the marathon – Mr. Anand Verghese and Mr. Sailesh Mahimtura. ■



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Bird Rescue and Rehabilitation training workshops

The Wildlife Crime Control Bureau, along with several state governments, has had a successful run in deterring wildlife crimes in the last several months. In some locations, where live birds were seized, BNHS was called to identify them and also help train forest staff and local NGOs to rescue and rehabilitate birds. In the last six months BNHS scientist Dr Rajat Bhargava conducted four such small training workshops for various stakeholders, with hands-on modules. ■



RAJAT BHARGAVA



RAJAT BHARGAVA

A life member donates

The Late Derick Turner, a life member of BNHS who was based in Bideford, UK, has left behind Rs 20,74,893 in his Will to BNHS. The contribution was made from his estate in the UK as per his Will dated 23/12/2011. Mr Turner passed away on November 10, 2016. BNHS is indebted to Mr Turner for his generous contribution, and for his faith in our conservation work. ■

An everlasting bond

Whatever I have been in life, I owe it to the BNHS, my alma mater, writes Dr H.S.A. Yahya

I have been with BNHS as a research scholar, volunteer, staff, JBNHS reviewer and life member, and I consider this association a divine design. As a master's student in Bihar University, Muzaffarpur in 1975, three occasions drew me to BNHS. An examination question on Dr Sálím Ali was the trigger point; after the paper, I remarked to my friends in light vein that I would do a PhD under the man's supervision. Was my childhood interest in outdoor and nature a source of this inspiration? I do not know. I did not even know if Dr Ali guided PhD students. The second occasion was soon after MSc, when my professor advised me: 'Go to Poona, there is a scientist named Sálím Ali, do some good research with him.' He did not know that Dr Sálím Ali lived in Bombay! The third occasion that actually brought me to Bombay was a conversation with my elder brother, Prof. Shakir Yahya, about my future. I mentioned Dr Sálím Ali, and to my surprise, he had already met the man through his father-in-law; thanks to the duo, I was on my first long train journey, from Bihar to Bombay.

The meeting cast a deep impression on me – here was a man, so senior, so renowned who had actually stood up to greet an unknown young boy! Dr Sálím Ali asked me if I could identify birds and trees. I was familiar with some common birds. Dr Ali smiled, "It is not enough; avian ecology is a vast subject." He entrusted me to Mr J.C. Daniel, BNHS Curator, for further assessment, who instructed Dr Robert Grubh, Assistant Curator, to talk to me and report to the 'Old Man'. It was what some senior staff fondly called Dr Ali, I was to discover soon.

Dr Grubh showed me a few bird specimens at BNHS. He took me on a birdwatching trail with BNHS members at Borivali National Park (BNP; now Sanjay Gandhi National Park). I was thrilled to use a binocular; it marked the beginning of my journey with birds. I started visiting the BNHS library regularly. I was also fortunate enough to be taken under the wings of Sayed Abdullah Hussain, Dr Ali's trusted lieutenant and a great avian/wetland ecologist and nature conservationist, though with no formal higher education.

It was soon time to choose a PhD topic; I decided to work on a fruit-eating group of birds. 'Which group?' Dr Ali quizzed. I did not answer; at that point I did not know which were the prominent groups. He asked me to come with a list. Mr J.S. Serrao, the BNHS librarian then, was most helpful. Having typed and retyped 10 volumes of the *Handbook of Birds of India and Pakistan*, he was familiar with the references pertaining to Indian birds. From the list I prepared, Dr Ali ticked 'Barbets', kicking into motion my fieldwork days. After four months at BNP, my first report was ready and, after being screened by senior researcher Priya Davidar and Dr Grubh, the report was sent to the 'Old Man'. The report pleased him greatly and won me the Sálím Ali-Lok Wan Tho Ornithological Research Fund! Soon after, Dr Ali sent me to Periyar Tiger Reserve (PTR); Dr Vijayan, Dr Ali's former student and then head of the wildlife division at Kerala Forest Research Institute, was starting a long-term research project on the ecology and population of large mammals at PTR. It was the most formidable and memorable period of my life and I am indebted to Dr Ali was sending me there and to Dr Vijayan for helping me to find a firm footing in PTR.



Dr H.S.A. Yahya with his Guru Dr Sálím Ali in Bharatpur, November 1980.

Photo by: Belinda Wright

I also travelled to other field locations across India where I had the opportunity to observe *Megalaima zeylanica*, *M. haemacephala*, *M. asiatica* and *M. lineate*, in addition to *M. viridis* and *M. rubricapilla* of PTR. At the coffee estates adjoining PTR and a few in Karnataka, my study established that barbets did not cause damage to coffee cherries as suspected. Instead they helped to control a deadly stem borer (*Xylotrichus quadrepes*) that affected the plants!

Back in Bombay to write my thesis titled *A Comparative Study on Ecology and Biology of Barbets with Special Reference to Megalaima viridis and M. rubricapilla malabarica at Periyar Tiger Reserve, Kerala*, I stayed in a hostel close to BNHS. Being the financial capital, it was never easy living in Bombay even then, especially for a non-resident student. When I had arrived from Bihar the first time, I had the good fortune of staying with my relatives and well-wishers. During field days, if one had to visit the BNHS office in Bombay, we were allowed to stay at the upper level of Hornbill House, which was a great blessing for researchers like me.

After my doctorate, I had the opportunity to serve BNHS as a Research Officer (projects) in-charge of Bharatpur Field Station, where hydrobiology and avifauna projects were launched; help establish a bird ringing station at Harike (Punjab); work on Lesser Florican as part of Endangered Species Project, and volunteer for many projects. I cherish the wonderful interactions I had with my colleagues like Mr Daniel, Dr Asad Rahmani, Dr K.K. Mohapatra, Dr Vibhu Parkash, Dr Subramanyam and Dr P.K. Gupta.

Even when I left BNHS to join as a lecturer at LNM University, Darbhanga, the Society drew me back on several occasions; my vacation time became volunteering time, where I worked on various BNHS projects, a practice that continued when I joined Aligarh Muslim University in 1986. I had the chance to work on the directory of Important Bird Areas, a collaborative project under the leadership of Dr Asad Rahmani, then BNHS Director. Whatever I have been in life – a professor, dean, Planning Commission member, Union Public Service Commission board member, a writer and more – I owe it to the BNHS, my alma mater. I wish it the very best to continue growing and nurturing minds to conserve our invaluable natural wealth, under the leadership of the present Director Dr Deepak Apte and others to come. ■

New accomplishments

- A new species of mollusc in India described to Science by BNHS has been aptly named *Haminoea aptei*, after Dr Deepak Apte, BNHS Director and a consummate marine researcher.



Haminoea aptei

■ ■ ■

- Dr Deepak Apte was honoured by the Rotary Club of Bombay with Taru Lalvani Environmental Protection Award 2018–19. He received the award on March 26, 2019, where he was also invited to speak on the subject Environment – The need to Protect.



BNHS Director Dr Deepak Apte (left) receiving the Taru Lalvani Environmental Protection Award from Rotary Club of Bombay President Mr. Vijay Jatia at the Taj Mahal Hotel, Mumbai, on March 26, 2019

■ ■ ■

- Total 16 species of heterobranch sea slugs were recorded and all are new to Goa. 17 New records to Gulf of Mannar; 7 possible new species to science; Rediscovery of 7 species last recorded in 1952.

■ ■ ■

- Dr Bhavik Patel from the Marine Conservation Programme, was selected for Leadership in Environment and Development (LEAD) Fellowship for 2019-2020.

■ ■ ■

- BNHS scientist Saunak Pal was part of a study, along with scientists from the Centre for Ecological Sciences, IISc, Bangalore, where two new genera *Monilesaurus* and *Microauris* as well as two new species of agamid lizards (Montane Forest Lizard or *Monilesaurus montanus* and Spiny-headed Forest Lizard or *Monilesaurus acanthocephalus*) and a new species of gecko (*Hemidactylus paaragowli*) were described from the Western Ghats.



SAUNAK PAL

Monilesaurus acanthocephalus



SAUNAK PAL

Hemidactylus paaragowli

■ ■ ■

- First record of *Epidendrium aureum*, a gastropoda associated with *Tubastrea* corals, from Lakshadweep, India. A scientific note on the new record, by Sumantha Narayana and Dr Deepak Apte, has been published in *Spixiana* journal.



Epidendrium aureum

■ ■ ■

- The Gujarat team recorded a feeding trail of Dugong, the only herbivore marine mammal from Narara in the Gulf of Kachchh. This is the second record of the trail from coast of Gujarat. The paper has been published in the *Journal of Threatened Taxa* in January 2019. ■

■ ■ ■

Workshop on environment education

BNHS scientist Nandkishor Dudhe participated in BirdLife International Environmental Education Network Workshop in Malaysia from February 21 to 26, 2019. The workshop, jointly organised by Malaysian Nature Society (BirdLife Partner in Malaysia) and BirdLife Asia Secretariat, as part of Partner to Partner (P2P) Cooperation among the Asian Partners, saw participants from 11 countries. ■



Google Earth training

BNHS scientist Dr Vishal Bhawe attended Google Earth Engine Indian Advanced Summit held in Bangalore in February 2019. The Google Earth Engine 'combines satellite imagery and geospatial datasets with planetary-scale analysis capabilities, thus allowing scientists and researchers to detect changes, map trends and quantify differences on the Earth's surface'. The three-day workshop was focused on advanced training related to the planetary-scale platform for Earth science data and analysis. ■

Training in Bioacoustics

Bioacoustics, which involves an intersection of physics, biology, ecology and natural history, is an upcoming field in India. It provides the necessary means to describe new species, understand genetic diversity, infer behaviour and behavioural ecology of various organisms and also understand the ecological impacts of deforestation and landscape changes.

BNHS scientist Rohan Bhagat attended a training in Bioacoustics, organised at by IISER Tirupati in March 2019, with support from Indo-US Science and Technology Forum and Department of Science and Technology, Government of India. ■



Accolades for BNHS Scientist

BNHS Scientist Unmesh Katwate won the second prize for his talk at the 20th Student Conference on Conservation Science (SCCS) held in Cambridge from March 26-28, 2019. Titled 'Endemic and threatened cyprinids in the Western Ghats of India: taxonomy and conservation of cryptic freshwater species', the talk focused on his research on the systematics and conservation of small barbs. The conference hosted more than 250 delegates from over 50 countries across the globe. Along with the award, he also received two books from the British Ecological Society (BES) and a two years' free subscription to all BES journals (personal subscription and institutional/BNHS).



Unmesh Katwate (front row, third from right) along with other participants at a meeting with Sir David Attenborough at Cambridge. UK

Since it was the 20th birthday of SCCS, organisers invited Sir David Attenborough for an interaction with the delegates on why freshwater ecosystems are neglected and why people are still disconnected from freshwater conservation. Unmesh also had other learning opportunities through a special meeting with Conservation Biologist Dr Kevin Smith, who looks after Freshwater Biodiversity Unit of IUCN in David Attenborough Building, Cambridge; a talk at Bournemouth University on the 'Conservation of cryptic fish species diversity in freshwater ecosystems of Western Ghats'; a visit to Freshwater Biological Association and a visit to fish movement/migration monitoring station.

Unmesh is currently in the Life Science department of Natural History Museum (NHM), cataloguing and digitising India's lost fish treasure that has not yet been catalogued. ■

Training programme in Borneo

BNHS scientist Biswajit Chakdar participated in a one-month training programme at Borneo, under ZSL EDGE Fellowship Programme. The training will be of use for the on-going project titled 'Strengthening conservation measures of Bengal Florican in North-east India through enhanced ecological knowledge and community awareness', to be carried out the next two years in the grasslands of Assam and Arunachal Pradesh. ■



BIRDWING FIELD GUIDE TO INDIAN MOTHS

by V. Shubhalaxmi

Published by: Birdwing Publishers,

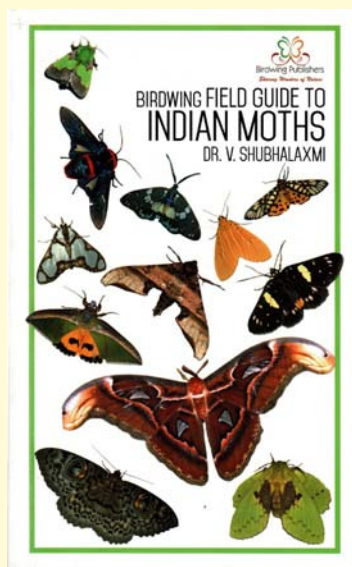
Navi Mumbai. 2018

Size : (17.5 x 10.5 cm)

Pages : 460

Price : INR 3,500/-

Paperback



Reviewed by Asad R. Rahmani

Biodiversity-wise, India is blessed. Whichever taxa we take, we find that India has an abundance of species. Take for example moths, the nocturnal cousins of butterflies. In India, till now, more than 12,000 species have been recorded, out of the 1,42,000 odd species listed worldwide. Just imagine, a country consisting of about 2.8% of the total landmass of the world, has 8% of the moths described in the world till now.

In our vast and diverse country, we need good books on all major taxa, particularly the so-called lower taxa. Fortunately, there are a few books on butterflies, but there was no popular book on moths. Dr V. Shubhalaxmi has filled this lacuna. As there are so many species of moths in India, I would say that this book is the beginning of knowing our moth diversity, though it covers only 773 species – less than 10 percent of the total number of moth species found in India. The Bible for Indian moths has been a set of four volumes in the *FAUNA* series published more than 120 years ago: Hampson, G.F. (1892–1896) *THE FAUNA OF BRITISH INDIA. MOTHS* (Vols 1 to 4). There was another work by J.S. Kirti and Navneet Singh (2015–2016) *ARCTIID MOTHS OF INDIA* (Vols 1 & 2), but these are highly technical books.

The present book is designed and written in a typical field guide style and has many plus points and a few minus ones. The plus points are that it is handy, easy to use in the field, gives a very good introduction to moths for the general public, and is profusely illustrated with over 300 photographs. The negative is that less than 10% of Indian moths

are covered, so moth aficionados will always find many species in the field that are not covered in this book. Actually, if we consider this point profoundly, it is really not negative – it provides a stimulus to others to bring out more books on moths, perhaps region-wise or habitat-wise. One of the refined impacts of any book is to spark more interest in the subject, which this book has done.

With the success of this wonderful book, I hope Shubhalaxmi, affectionately known as The Moth Lady to her admirers, will write more books on her life-long passion. India is such a large country with so many habitat types, and we need books on moths (and other taxa) of every major habitat/region (e.g., Western Ghats, Central India, grasslands, tropical forests, etc). I think, I am suggesting a life-long work for her!

The Introduction sets the tone and quality of the book. It deals with the popular question of the difference between moths and butterflies in a nicely illustrated manner. The second chapter Moth Body describes the head, thorax and abdomen – the main parts of a moth. I did not know that some moths (Noctuids) have hairy or lashed compound eyes. In the Food chapter, there is an extraordinary photograph of a moth sucking tears from a bird in Madagascar. Yes, there are some moths and butterflies that feed exclusively on the tears and blood of birds and mammals! Chapters on Breeding Biology and Moth Behaviour are full of interesting information. The Moth Watching chapter teaches us how to watch moths, how to attract them towards light, and how to identify them without taking a specimen. The Moth Photography chapter that follows, gives us useful tips. It also deals with the ethics of moth photography. Specific identification of moths is a herculean task which can dent the enthusiasm of any amateur, but the book provides useful tips on how to narrow down to the species or generic level by noting size, resting position, shapes and patterns, structure of legs, antennae, and habitat. Reading this chapter will not make you a moth taxonomist, but it will certainly help you in identification, at least up to family or genus level.

The bulk of the book contains species accounts. Symbols are used to tell us where a species lives (e.g., undisturbed, disturbed, or mixed habitats), impacts on agriculture, dimorphism, flight pattern, wingspan, wing shape when sitting, etc. Five to six species are described per page, sometimes only three for the larger species. Most illustrations are life-size, so the relative size of taxonomically close species is easily seen.

This book has many firsts: 1) Coined common names for most of the moth species/subfamilies; 2) Ecology section for most of the species; 3) 'Made easy' steps on moth identification; 4) Cut-out image style used for moth pictures; 5) Use of symbols to reduce text; and 6) Section on Moth Education.

This is a wonderful addition to the long list of books on Indian biodiversity, and I hope it will generate interest in moths that play such an enormous ecological role on this planet. Admittedly, the caterpillars of some moths are agriculture 'pests', but most of the moths are not harmful to us. Eggs, larvae, caterpillars, and adult moths are vital parts of the food chain. Moths are also very good indicators of environmental pollution and disturbed habitats. The time has come to pay more attention to these nocturnal aerial fairies that daintily flutter around night lights. Purchase a copy of this book and your nocturnal life will never be boring again! ■

Reviewed by Maithreyi M.R.

The book starts with a preamble. It is not a 'how to' get to a place. Nor about what to do once you get there. It is about the joys of travel, of seeking stories in all that the eye beholds, be it animate or inanimate objects.

And like the driftwood, the author sets sail, encountering stones, trees, animals, humans. He takes you along to places where nature reigns supreme, imbibing experiences from all things big and small. His recollections are punctuated with stories from history, legends and mythologies, thus lending the objects he beholds a sense of rootedness. They serve to remind us that these aspects of nature have been around on earth as long the humans have, or even more.

Tales of a Driftwood:

Recollections of Mostly Unplanned Travel

Gangadharan Menon

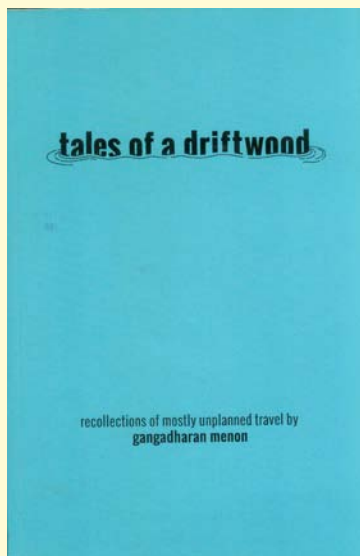
Published by Partridge Publishing,

New Delhi, 2016

Size : (23 x 15 cm)

Pages : 208

Paperback



In 36 stories of travel packed into 208 pages, he drives you through the meandering road flanked by the Western Ghats that suddenly plateaus at Malshej Ghat; oars you through the uncharted backwaters of the 'Sliced River' to reach lesser-known islands of Kerala; walks you up Manpada (part of Sanjay Gandhi National Park in Mumbai); pitches up a tent for you bang in the middle of Mollem National Park in Goa; gets you lost amidst a swarm of Blue Mormon butterflies in the forests of Kondhwal in Maharashtra; lends you the perfect initiation to the ways of the forest at Durshet, not far from Mumbai, and more. The author effortlessly brings alive histories yoked with every place he visits, be it forts nestled in wilderness ("Blue sky and blue waters"), idols banished to river banks ("Living with the other half") or shapes chiseled in stones ("The breathing stones").

He charts lesser-known destinations such as Murinjapuzha in Kerala, Kanoi in Rajasthan and Kelus on Konkan coast. But even when he makes a mere diary entry of a much-talked about destination like Tadoba, his eyes seek the unusual. Being a pilgrim whose sole purpose is to merge with the experiences his travels afford, the author has little patience for idle picnickers who leave behind trails of waste and destruction.

Wherever he goes, the author is quick to note the all-consuming greed of humans which is eating into habitats in the name of development, altering the 'global forest' into a 'global village'. This anxiety is seen and felt in several stories such as "Three shades of green", "A tent with a view" and "A tale of two sanctuaries". There are lessons for India to learn from countries like Bhutan, he shows in "Bhutan: land of happiness". It opens with an endearing anecdote that adorns the walls of most houses and monasteries in Bhutan. It is the story of an elephant, a monkey, a rabbit and a bird arguing their right to the fruits of a tree and together claiming it. The animal-centric story serves as a reminder to the reader, a human, that every being has the right to nature's resources. One creature alone cannot hog it all up.

Nowhere in the book does the narration dwell on a point for too long, but inspires the readers to seek more about the place. As he peppers his observations with legends and mythologies, the author however at times feels an unnecessary compulsion to justify/make meaning of the present through these stories. For instance, in "A tale of two sanctuaries", where he relates a mythology narrated by their guide at Namheri National Park, about the curse of 'Lord Ram' on 'ruddy shelducks'. 'The fact that these ducks move around in pairs during the day and sleep separately in the night is interestingly explained in this story,' he begins, and rounds it up with a rationale bordering on the problematic: 'And the curse continues to be legally valid to this date'. Not all stories come with such riders. Like the story of Tripurasura narrated in "The temple town sanctuary", where he ends by saying 'And this sweat, it is believed, now runs as river Bhima'. There is a sea of difference between the phrases 'legally valid' and 'it is believed'. Clearly, a choice of words is all it takes to alter the intent or implication.

Packed amidst the travels is a tribute to Sálím Ali. In "A birdsong for Salim Ali", the author notably picks out brief but interesting sparks from Ali's life and writings that endear the birdman to even his uninitiated readers. The tribute yokes Ali's story with a pilgrimage to two sanctuaries named after him, one in Thattakad, Kerala and the other in Goa, both a birder's delight. Even as he describes the two wondrous habitats, he is quick to note how they are being subsumed by human needs and wastes.

Simple and to-the-point narration makes the book an easy read. Much like the driftwood, the stories drift by but not without leaving a thirst in the reader to know more about these places. They drive home a simple truth: without going to places, one can never have a real understanding of the other. ■

The Zoo Around You

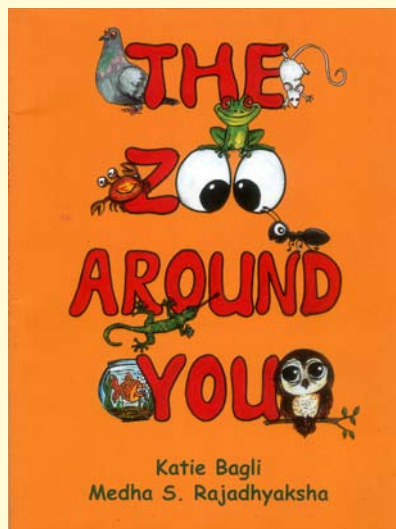
by Katie Bagli and

Medha Rajadhyaksha

Published by Inking Innovations, 2018

Size : (24 cm x 17.5 cm)**Price** : INR 199/-

Paperback

**Reviewed by Gayatri W. Ugra**

This lovely book for children by Katie Bagli, this time co-authored by Medha Rajadhyaksha, who has also contributed numerous exciting illustrations, brings the reader closer to nature with a series of poems about the natural world around us. Each poem is a light-hearted take on one of the ecosystems that are quite familiar to the readers: the wall, the garden, the kitchen, and so on.

The theme of the book is the “zoos” around us. Enlivened by conversations between a little girl, her Mom, Dad, and Aunt Megh, we are taken around familiar places like a home garden, a bookshelf, or even a bed! Charming verses are used to describe common Indian animals (I wish there were more plant facts too). Habitats are also taken up, like the nocturnal garden (pp. 52–53), and a rainy day (p. 38), my favourite poem in this collection. It has all the exuberance that a youngster would feel while splashing about in the rain, and being reminded that frogs are most active in this season.

Every poem is accompanied by a simple fact file, giving interesting and important information about animals. The poems, along with sketches, succeed in delivering natural history lessons in bite-sized, easily digestible, in fact delectable pieces.

The book is printed on art paper with a laminated, colour-printed cover. If this is because the sales of such books are increasing, and a bigger production budget is possible, it is real good news for young readers as well as nature educators. It is hoped that in future more colour illustrations will feature in these books. ■

Reviewed by Gayatri W. Ugra

As kids, we depended on a series of paperback Golden Nature Guides to find answers to our curious questions about plants and animals, and all things natural. The problem was that there were no such books about Indian species and habitats. That was the time when we had no alternatives, apart from the limited output of the National Book Trust. So, there was this yawning gap in natural history bookshelves where children’s books ought to have been.

It is now heartening to see one exciting title after another appearing to fill the lacuna. And if you have been familiar with the author’s amazing range of activities, you should not be surprised to find that they come from the desk of the ever so unassuming and modest Katie Bagli. I had the privilege of attending a Tree Appreciation Walk guided by her, and benefited from her ability to encourage interest and explain nature facts in the simplest manner. She has authored several beautifully illustrated age-appropriate titles, and one of them is *ON THE WILD SIDE*, a collection of poems on animals and plants, that delivers nature facts in such an exciting learning-for-fun manner.

The chapter titles create a sense of anticipation, leading the young reader to discovery. “Sunjoy’s Magic Tree” is one chapter that I loved reading. It talks about the entire food web related to the life of a Red Silk Cotton tree, from the bugs that ate the seeds and made them viable, through the growth of the sapling into a tree, when butterflies laid eggs on it, producing caterpillars that ate the leaves. Flowerpeckers came and shed Loranthus seeds on the tree, and this parasitic creeper itself hosted sunbirds that came to feed on its flower nectar.

All along, a lesson in field biology is being delivered, skillfully garbed in a story, and it can be imbibed as learning should be imbibed, in fun. Some interesting story-poems include: Why are leaves born red? Battle among the mangroves, The lonely goatherd, Magic monsoon spell, The hermit crabs, The return of the feathered performers (about the Bengal Florican).

Finally, the illustrations are lively black and white sketches by the author herself, and they add much interest to the poems. The fireflies (p. 77), the march of the hermit crabs (pp. 86–87), and the denizens of Sunjoy’s tree, all of them animate the text. Priced at Rs 175/-, the book is not beyond the reach of its target readership. ■

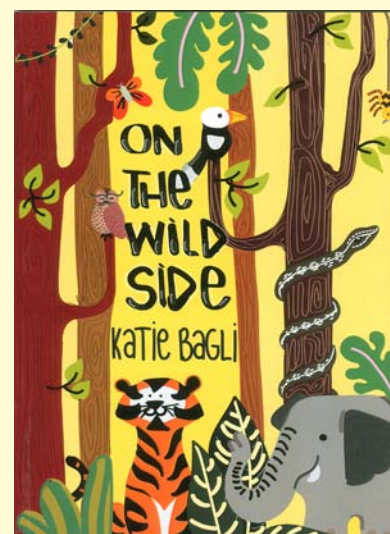
On the Wild Side

by Katie Bagli

Published by Inking Innovations, 2017

Size : (24 x 17.5 cm)**Price**: INR 175/-

Paperback



Reviewed by Zai Whitaker

I am a Black-headed Skimmer; white-headed rather, thanks to galloping age. This is a book I planned to skim, but ended up reading with attention. For one thing, biographies are such a great way to get to know people, without all the hassles required to develop a friendship, organizing meals, making polite chatter, and going out when you'd much rather stay home. Moreover, the voices of Donald (Don) Anderson and Joshua Mathew make for an easy and pleasant read.

Don obviously had his hunter-dad Kenneth's vigorous and colourful language, peppered with what we as children called badwords. But then someone who has the courage to sit up alone all night waiting for a man-eater to appear, can say whatever he likes, as far as I'm concerned. The dual dialogue, Don and Joshua's, gives an interesting stream-of-consciousness flavour to this portrait of the life and times of hunter-naturalist Kenneth Anderson and his family.

Another hook for me was the fact that I had known, or known of, several of the characters in Don Anderson's life. The legendary Ralph Morris family of the BR Hills were close friend of my parents, and we are still in touch with Ralph's mountaineer-anthropologist daughter Monica Jackson. I had the pleasure of visiting Kenneth Anderson himself at his Whitefield home, and being rudely received by his unfriendly rock python, which later came to live in our Madras Snake Park collection. But there's more to this book than names and places that people in the conservation circuit will recognize. It is the poignant story of a family of Brit Stayed-Ons, who loved this country, its people, its jungles and wildlife, and chose not to grab the many opportunities they had of emigrating to Australia, England, and other "safe havens". Their identity was already on shaky ground, as they were Anglo-Indian, which in many circles had a derogatory flavour (the term had a range of meanings, from mixed blood to true blue Brit domiciled in India). Post Independence, the Andersons acquired the Stayed-On label as well, complete with British passports which had to be hidden from the authorities. Don's own self-image is an interesting subject, and he describes himself at different times as Indian, Anglo-Indian, and British. At one point, he refers to himself as white-ish: neither here nor there.

His father, the Jim Corbett of the south (NINE MAN EATERS AND ONE ROGUE and over 50 other books), comes through as a self-absorbed and complex fellow, passionate about hunting and obviously a crack shot who ended the careers of many man-eating tigers and leopards. Pre- and post-Independence, until the Wildlife Act of 1972, hunters like him, Corbett, and Ralph Morris played an important part in the lives of many destitute communities living on the fringes of the forest, terrified that they may be the next victim of the current man-eater roaming the area. Both Corbett and Anderson have described the gratitude and adulation of these people towards them. But what was it like for their own families? What was it like for Don? He was the child of an increasingly famous hunter-writer, whose books created a substantial fan club and who kept up a frenetic pace in life, with a full-time job, frequent jungle trips, churning out books, and I suspect, quite a game eye for women. All this takes time. What was he like as a father?

Daughter June was obviously the favourite, and the supposed bright spark of the family. The number of times Don describes himself

The Last White Hunter:

Reminiscences of a Colonial Shikari

by Donald Anderson with Joshua Mathew

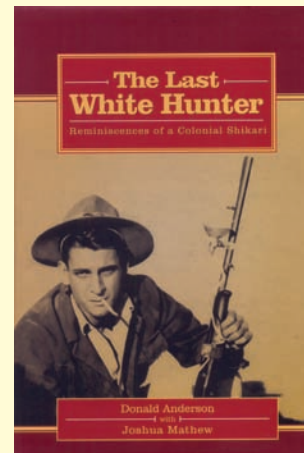
Published by Indus Source Books, 2018

Size : (23 x 15.5 cm)

Pages : 265

Price : INR 650

Hardback



as a dead-loss, and his unerring focus on his shortcomings rather than achievements, speaks of a deep inferiority complex. On page 33, for example, he describes the categories of students at school: the brainy ones, the hard-working ones, *"and of course ones like me who were neither."* There were bouts of cruelty from Kenneth, such as when sister June snatched on Don for finishing off, with a stone, a bird he'd shot... because one was not supposed to abandon an injured animal. In his mind, he had done the right thing, but Kenneth took him off to the police chowki and had him locked up for the night. He was six! In retaliation, he hunted down his sister in the garden and shot her, *"aiming for the heart"*, and luckily only grazing her shoulder. A veritable Lord of the Flies type of atmosphere!

At age eight, Don was walking 12 miles to school and back every day. His Tamil ayah Catherine prophesied that *"One of these days, something is going to happen to this boy, because he doesn't get any love and affection in this house!"* Maybe the resultant lack of self-esteem was also why he had no lasting relationships with the many women who routinely threw themselves at him. He speaks candidly about his interest in the other sex: *"There were no condoms in those days and heaven knows the repercussions of my actions"*.

It was always a brief encounter, and the last chapters about his lonely life in a godown-like room resisting the landlady's wishes to *"throw him out"*, make sad reading. Luckily for him, Joshua Mathew and a few other young fans of Kenneth befriended and helped Don till his death in July 2014. And luckily for us, Mathew wrote this book from his conversations with Don.

In Kenneth's hunting heyday and when Don was growing up, until the early 1970s, Bangalore was the springboard to several healthy jungle

ecosystems where one was likely to see tiger, leopard, elephant, and bison on a weekend trip. Before, and for 25 or so years after Independence, the city was a rendezvous for hunters, anglers, and wildlife watchers. You could pack your vindaloo and rotis and within a two or three hour drive, be in serious wildlife territory. Trigger-happy Don stopped hunting after a promise made to his dying father, and took to the camera. Kenneth had been an inveterate property buyer and Don, besides his job at Binny's, had also been a hunting guide and a stunt double for Stewart Granger in a Hollywood film. In spite of this motley income, and the family assets, Don slipped into penury in his old age, probably because of bad advice and his own naiveté about practical matters. He cuts a pathetic figure at this stage of his life, making friends with people who had the means to drive him to nearby forests, depleted though they had become because of poaching, granite quarrying, and all the other activities that have brought our wilderness to its knees. One of his favourite trips was to Sangam on the Cauvery, to fish for mahseer. The record weight is 125 lb (56.7 kg), and Don is listed amongst the record holders for one that weighed 104 lb (47.2 kg).

Kenneth was a superstitious man, with beliefs in multifarious mantras and talismans. When he was bitten by a cobra, he refused to go to the hospital for antivenom and insisted on getting the "proper" treatment: telephoning a particular railway station master. His instructions were followed and Kenneth survived (but the cobra died soon after). No doubt, a lethal dose had not been injected, and any hocus pocus would therefore have "worked". Don sneered at his father's superstitious beliefs, but obviously was not far behind himself. Like Kenneth, he also performed various poojas, including one that ensured good wildlife sightings. He would "bless" his friends' cameras and guarantee good sightings and photographs. One of the ingredients for this photography pooja was tiger scat, many packets of which were found in his room after his death.

There is no pomposity in Don's narrations of his exploits; the opposite rather. It is therefore easy to believe what he describes and certainly his stamina and pluck is equal to his father's. From what I've heard from Ralph Morris, Don would charge off, on foot and with a faulty Winchester with its sights askew, when he heard of a nuisance tiger or leopard in the vicinity. One of the best accounts in this book is that of a tiger in the Gajnore area leading down to the Bhadra river. Don had taken a week's leave from his job at Binny's, in answer to a notification and reward from the Mysore government for licensed hunters to kill a man-eating tiger that was taking travellers between Chitraldoorg (Chitradurga) and Shimoga. It had become bolder by the day, making raids into villages in daylight. The village population was both terrified and resigned, believing that

this was punishment for having abandoned traditional values and going after money into nearby towns. Arriving at a spot where the tiger had been frequently seen, Don sat up in machans with no luck, and his leave was coming to an end. Then the man-eater took a man working in his field, and Don, knowing that he would return for the meat, wrapped some goat meat in cloth and laid a trap. As often happens, the villagers' superstitions had to be dealt with; they were against this attempt to trick what they thought was the devil; worse misfortune would befall them. It was a month later, and after the tiger had taken one more victim (a young girl) that he was shot:

My perfect shot killed it on the spot, and soon, the glorious morning sun bathed my first man-eating tiger and me in soft light and created an unforgettable memory.

In his conversations with Joshua Mathew and others, Don bemoaned the rapid loss of our jungles and wildlife, and the disastrous developments which have led to the decimation of our priceless wilderness areas. As many other hunters have said, he felt the irony of not being allowed to hunt while poachers and encroachers had a field day. Other countries such as South Africa and Australia have consistently used the skills, knowledge, and passion of jungle junkies like Don and Kenneth, to help in wildlife management. But in India, they have been generally sidelined and we have thus missed out on the use of a valuable human resource. Don's rant about invasive Lantana, for example, indicates that he might have been a useful, albeit eccentric, member of a wildlife advisory board:

Lantana was introduced in India in the early 1800s and slowly found its way all the way to south India. It is truly a scourge for none of the herbivores will eat it; cutting or burning it only seems to make it grow back even faster, and unlike many forest plants, it is of absolutely no use to either man or animal. ... Soon large grasslands of the BR Hills were overrun with the weed, partly due to the large amount of bamboo that was extracted from these parts.

A fascinating life, in fascinating times. He had seen a vast range of changes in Bangalore, from cycling around the city with a kerosene lamp for light to being bemused by the internet and 'especially "Googly"'. He had grown up surrounded by *chokras*, *ayahs*, and cooks in the vast environs of Prospect House, and died in what sounds like a godown, an unwanted tenant. I am grateful to Joshua Mathew for having told his story, because Don was not an ordinary man. A person with no materialistic ambitions, whose 'biggest dream was to be a white-ish hunter in India', and who looked for jobs that might not pay well but give him enough free time to keep visiting his beloved jungles. ■

Book Reviews Section Editors: Dr Ranjit Manakadan, Dr Gayatri W. Ugra, Vibhuti Dedhia



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CONTACT US

Bombay Natural History Society

Hornbill House, Shaheed Bhagat Singh Road, Mumbai 400 001

Tel: (91-22) 2282 1811 Fax: (91-22) 2283 7615; E-mail: director@bnhs.org; Web: www.bnhs.org