

ENVIS Centre on
AVIAN ECOLOGY

BUCEROS

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ABOUT ENVIS

ENVIS (Environmental Information System) is a network of subject-specific centres located in various institutions throughout India. The focal point of the present 66 ENVIS centres in India is at the Ministry of Environment, Forest and Climate Change, New Delhi, which further serves as the Regional Service Centre (RSC) for INFOTERRA, the global information network of the United Nations Environment Programme (UNEP) to cater to environment information needs in the South Asian subregion. The primary objective of all ENVIS centres is to collect, collate, store and disseminate environment related information to various user groups, including researchers, policy planners, and decision makers.

The ENVIS Centre at the Bombay Natural History Society was set up in June 1996 to serve as a source of information on Avian Ecology.

Objectives of the ENVIS Centre at BNHS

- ✍ To create a bibliographic database of published literature related to avian ecology study
- ✍ To publish and distribute BUCEROS newsletter on avian ecology to its members
- ✍ To create and upload databases on avian ecology on ENVIS website www.bnhsenvis.nic.in
- ✍ To reply to queries related to birds



BUCEROS

ENVIS Newsletter
Avian Ecology
Vol. 21, No. 2, 2016

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Laggar Falcon *Falco jugger*
by Kushal Adaki

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EDITORIAL

Birds arouse the interest of most people studying wildlife and nature. In recent years, birding and study of birds has seen a huge influx. A large number of enthusiasts from across the country demand new technologies, more information, and guidance to assist birding.

In this issue, our readers will learn about 'Internet of Birds', a new web-based portal launched by BNHS in collaboration with Accenture Labs. This portal aims to help bird enthusiasts identify birds in an image in just one click.

Many birds in India are rare or are uncommon, one such bird the Laggar Falcon *Falco jugger* is considered to be an uncommon resident to Maharashtra. An article in this issue includes the sporadic sightings of the bird, as well as its characteristics to help identification of this uncommon beauty.

Regional languages are the best way to connect with locals. We have included a Marathi article in this issue to encourage locals to write about their experiences or share their knowledge. This article will throw some light on the sightings, habitat, and ongoing research on the shy Spotted Crake (ढलकेवलढ फटाकडी) *Porzana porzana*.

BNHS-ENVIS participates in various workshops and conferences to promote the ENVIS Scheme. BNHS-ENVIS presented its work at the Goa Bird Festival organized by the Goa Forest Department, as well as during Wildlife Week celebration organized by BNHS. We have given an overview of these activities in this issue.

Last but not least, we have an Abstracts section where we provide snippets of interesting recent research work done on birds from the Subcontinent.

Hope you all enjoy the issue.

Happy Reading!

Sailee Joshi-Gupte
Information Officer

Goa Bird Festival 2016

The Goa Bird Festival, organized by Forest Department, Government of Goa, was the first bird festival to be held in the state of Goa. The 3-day festival, held from November 11–13, 2016, had lectures on various topics from Eco-tourism to online data analysis by experts of the field, and, birding trails at Bondla, Mollem, Caramboli, and Dr Salim Ali Sanctuary. On behalf of BNHS, Ms Tejashree D. Nakashe, IT Assistant from ENVIS Centre on Avian Ecology attended this event. Not only was she facilitating outreach activity for the Centre in the exhibition area, she also attended the lectures at the festival.

The Festival started with an inaugural lecture by Dr Asad R. Rahmani, Scientific Advisor, BNHS, on 'Endangered birds and their conservation', followed by a presentation by Dr Vijay Mohan Raj, CFO, Karnataka Forest Dept, Belagavi, on 'Developing local capacities for eco-tourism in and around protected areas'. The last lecture for the day was on 'Birds in urban settling' by Dr Dhananjay Mohan, CFO, Uttarakhand.

The second day session began with a lecture on 'Conservation of Wetlands for Aquatic birds' by Prof. B.C. Choudhury, retd faculty of Wildlife Institute of India, and 'Managing Nature based eco-tourism (JLR)' by Mr Kartikeyan, Chief Naturalist of Jungle Lodges and Resorts. The lectures ended with a talk by Mr Suhel Quader, renowned Ornithologist, on the website ebird.org and the use of freely available data.

The Goa Bird Festival provided an opportunity to spread the word about ENVIS scheme, and the work done by the BNHS-ENVIS. Ms Nakashe interacted with the participants and briefed them on the activities and information available on the website of the ENVIS Centre. She promoted ENVIS Newsletter BUCEROS, which resulted in addition of 24 new members to the centre.



Asif N. Khan

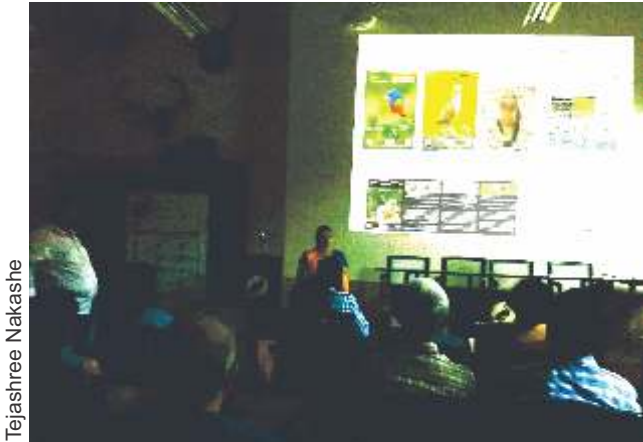


Asif N. Khan

ENVIS staff interacting with participants during Goa Bird Festival 2016

World Wildlife Week 2016

The first week of October is celebrated as World Wildlife Week. On this occasion the BNHS-ENVIS team reached out to the general public to spread awareness about the working of ENVIS scheme. Ms Sailee Joshi-Gupte, Information Officer at BNHS-ENVIS Centre, briefed about the centre's website and BUCEROS – the quarterly newsletter of the Centre, under the 'outreach initiative of BNHS' programme organized by BNHS on October 05, 2016, during Wildlife Week at Hornbill House, BNHS. Ms Nakashe, designed a brochure for the event, expressing the rich biodiversity of India. Ten new members were added for the BUCEROS through this event.



Tejashree Nakashe



Tejashree Nakashe

ENVIS staff promoting ENVIS activities during World Wildlife Week celebration at Hornbill House, BNHS

ENVIS data used by media

ENVIS Centre has a huge bibliographic database which is used by a variety of people from students to professionals to media representatives for their work. The centre recently provided bibliographic data on Black-necked Crane to *daily O*, an online news portal for their article on this bird. The link of the published news article is:

<http://www.dailyo.in/politics/black-necked-cranes-arunachal-birds-tawang-migratory-avian-life-tibet-himalaya/story/1/14538.html>



Black-necked cranes at one of the only two wintering sites at Zemithang in Pangchen Valley, Tawang. (Photos: Degin Dorjee)

According to data on migratory birds by ENVIS Centre on Avian Ecology, hosted by Bombay Natural History Society (BNHS), almost 20 per cent of all known bird species, about 2000 of them, make regular seasonal movements.

Alarmingly, "more than 40 per cent of these migratory species are declining and nearly 200 are now classified as globally threatened." The dangers they face include destruction and degradation of habitats, pollution and badly-sited infrastructure.

Upload & Click: How to identify the odd bird in two easy steps

Nature lovers, amateur birdwatchers, and ornithologists have a reason to cheer as they can now identify birds in two easy steps: Upload & Click. The Bombay Natural History Society (BNHS) in collaboration with a technology company Accenture Labs has launched ‘Internet of Birds’ (<http://internetofbirds.com>) – an online tool for birdwatchers that makes birding convenient by identifying birds in photographs.

This is the first such online tool in India that helps identify bird species seen across the country, where many people find it difficult to identify birds unless they have access to experts or have previously read books on the subject.

Launched on 30th December, 2016, ‘Internet of Birds’ uses image recognition to identify bird species from a repository of digital photos on its site.

“The purpose of the platform is to help beginners and amateur birdwatchers identify birds easily,” says BNHS’ Ms Bilwada Kale. For the likes of Rahulratan Chauhan, an avid birdwatcher, the Internet of Birds is a “fresh initiative” that will help him deepen his hobby. “India has so far had nothing of this sort,” says the 32-year-old. “The platform is a novel way to identify various bird species. I am sure it will go a long way.”

“Of the 1,300 species of birds present in India, only 316 species’ information has been fed into the system”, says Ms Kale. But the platform, eight months in the making, has been designed for crowd sourcing so that if one uploads a photo of a bird, which isn’t in the system, it advises the person to contact a bird expert or BNHS. Additionally, it will tag the photo and contribute it to BNHS so information on the bird can be added to the database later.

“Each time a picture is contributed to the system, it teaches itself, increasing accuracy in the recognition of bird species,” says Sanjay Podder, Managing Director of Accenture Labs (India). “We use technology to educate people on nature. The platform is still in its developing stages and there's a lot more to come.”

While the platform has been gaining the attention of nature lovers and bird watchers, users have been equally quick to offer suggestions. “The site is accurate but there can be more information, it can educate the user about a few characteristics of the bird identified” feels Chauhan, who uploaded several photographs of various bird species. “For example, it should tell me how I can better identify a particular bird from different angles in its natural environment.”

Adesh Shivkar uploaded 30 photos of birds on Internet of Birds earlier this week but the professional photographer, bird watcher and director of ‘Nature India’ – a bird watching tour organising company, came away a wee bit disappointed about how the information was structured. “On the site, bird names are listed alphabetically instead of being placed in family groups,” opines Shivkar. “For instance, the White-throated Kingfisher is placed below the White-rumped Vulture and not with its family of Kingfishers — which are all jumbled. This makes it troublesome to identify how many species are there in each family.”



Shivkar suggests that since India has so many bird species, the database would be better equipped to identify birds for amateurs if it has information of a majority of birds. “It’s not pleasant to constantly be advised to connect with a bird expert,” he says, adding that “since birdwatchers are also travellers, the platform can be extended into an offline app since forests and remote birding environments don't always have internet access.”

How to use Internet of Birds

- Log on to the <http://internetofbirds.com/>
- Click on the bird in the center of the screen and upload your image
- Contribute to BNHS by sending your bird photos to internetofbirds@gmail.com

Source: <http://www.dnaindia.com/india/report-upload-click-how-to-identify-that-odd-bird-in-two-easy-steps-2289689>



Endangered bird spotted in SW China

A rare bird species typically found in India and Southeast Asia has been spotted in southwest China, providing valuable material for research on the endangered bird.

A Beautiful Nuthatch was pictured among a group of other bird species during a field inspection in Yunnan’s Daweishan National Nature Reserve from April to May, Mo Mingzhong, a wildlife official in Honghe Hani and Yi Autonomous Prefecture, said on Monday [06-06-2016].

“The Beautiful Nuthatch is extremely rare and was barely found in China before, so it is quite significant to even have taken a picture of the bird,” Mo said.

Chinese scientists obtained a specimen of the species for the first time in 1972, but there has been no systematic research since then, said Wu Fei, an ornithologist with the Chinese Academy of Sciences.

He Yongming, deputy head of Daweishan National Nature Reserve, said that park staff will enhance protection for the birds.

The Beautiful Nuthatch is listed as Vulnerable on the IUCN Red List of Threatened Species.

Source: http://news.xinhuanet.com/english/2016-06/06/c_135416916.htm

Sighting of Laggar Falcon *Falco jugger* at Anjaneri hills – Nashik

Text: Avinash Bhagat and Clara Correia

Photographs: Avinash Bhagat

While studying *Ceropegia* flowers at a plateau of Anjaneri hills – Nashik (19°55'52.2" N, 73°35'33.9" E) on September 22, 2014 we sighted a pair of birds flying rapidly above, later identified as adult Laggar Falcons *Falco jugger*. No record shots could be taken as the birds disappeared behind the hills. On a subsequent visit on September 26, 2014, we observed probably the same pair, and were able to photograph the bird. This time the long flight of the birds gave us ample time to observe the details through binoculars. The birds were confirmed as adult Laggar Falcon (Fig 1).



Fig. 1: Dorsal (left) and Head-on (right) views of Laggar Falcon

Field characteristics:

Laggar Falcon is a medium-sized bird of prey around 43–46 cm. It is ashy brown and has blackish ‘trousers’ (tibiotarsus feathers). The wings are long and pointed, and used almost continuously during flight. It has a white forehead and narrow supercilium above a black eye-line. The bill is short and powerful with a distinct ‘tooth’ on each side. The crown is pale rufous with variable black streaks, which helped in the identification. It has a black teardrop-shaped ‘moustache’ mark on each side of the head. The underparts are white from chin to belly with vertical light brown spots darker on the flanks and thighs. The legs and feet are yellow with black claws. Sexes are alike, but the male appears slightly smaller.

Distribution:

The Laggar Falcon occurs in the Indian subcontinent, stretching from extreme south-east Iran, south-east Afghanistan, Pakistan, through India, Nepal, Bhutan, Bangladesh, and north-west Myanmar. There have been sporadic sightings in Maharashtra and it is considered an uncommon to rare resident (Rahmani *et al.* 2014). (See Table 1)

Table 1: List of Sighting records of Laggar Falcon in Maharashtra

Sr. No	Observer	Sighting	Place	Year
1	Sunjoy Monga	Single Adult	Mumbai	2001 (Prasad 2003)
2	Kanwar B. Singh	Single Adult	Lonavla	2002 (Prasad 2003)
3	Sunjoy Monga	Single Adult	Aurangabad	2003 (Rahmani <i>et al.</i> 2014)
4	Prasad	Pair	Western Maharashtra	2006 (Rahmani <i>et al.</i> 2014)
5	B. Raha	Pair	Ramshej Ghat and Borgad	2010 (Rahmani <i>et al.</i> 2014)
6	Gopal Paliwal and Sudhir Bhandarkar	Single Adult	Navegaon National Park–Gondia	2011 (Paliwal and Bhandarkar 2014)

It is mostly found from sea level to 1,000 msl (Rahmani *et. al* 2014); Anjaneri hill is situated at 1,300 msl. In the 1970s, the global population of the species was estimated to be 10,000–25,000 pairs (Cade 1982). It used to be a common falcon in India, but numbers have declined markedly in recent times, hence the bird is uncommon today. The moderately rapid and ongoing population decline is suspected due to habitat degradation, pesticide in its food, and capture for falconry (Naoroji 2007). It has been listed as ‘Near Threatened’ in IUCN Red List 2016.

Acknowledgement:

We thank Adesh Shivkar for reconfirming the identification.

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ठिपकेवाली फटाकडी

लेखन: राघवेंद्र वंजारी आणि राहुल वंजारी

छायाचित्र: राघवेंद्र वंजारी



भारतीय उपखंड रॅलिडी कुटुंबातील फटाकडी, पाणकोंबडी आणि वारकरी पक्ष्यांच्या एकूण पंधरा प्रजातींनी व्यापलेला आहे. कमी उंचीची दाट झुडुपे व पाणगवत असणारी चिखलाची जमीन हा या प्रजातींचा प्रमुख अधिवास आहे. जलचर वनस्पतींची बीजे, किडे, अळ्या, गांडूळ आणि शिंपल्यांसारखे मृदुकाय प्राणी हे रॅलिडी कुटुंबियांचे अन्न. या संधातील पक्षी त्यांच्या अधिवासात आढळणाऱ्या इतर कुळातील पक्ष्यांसोबत कमी-अधिक प्रमाणात सहसंबंधित असतात. उथळ पाण्यातील सजीवांना भक्ष्य बनवून हे जलीय जीववस्तुमान नियंत्रित करतात त्यामुळे निसर्गचक्र सुरळीत चालण्यास मदत होते. टायफा, आयपोमिआ, जलपर्णी, जलतण अशा जलवनस्पतींनी आच्छादलेली पाणथळ गवताची ठिकाणे ही रॅलिडी कुटुंबियांची आश्रयस्थाने आहेत. बहुतांशी ह्या प्रजाती लाजऱ्या प्रवृत्तीच्या असल्या तरी त्यातील काही सहजपणे वावरताना आढळतात. हे पक्षी हिंस्र प्राणी अथवा शिकारी पक्ष्याची उपस्थिती नाही याची खात्री करूनच पाण्यात उतरतात. सदर लेख हा या पक्ष्यांच्या सोलापूरमधील स्थितीविषयी माहिती देणारा आहे.

एकोणीसाव्या शतकाच्या उत्तरार्धात अनेक पक्षीनिरीक्षकांनी ठिपकेवाली फटाकडी (स्पॉटेड क्रेक) Porzana porzana पाहिली आहे. दरम्यान महाराष्ट्र राज्यात मुंबई (बॉम्बे), नाशिक, रायगड, धुळे, सोलापूर आणि अहमदनगर ह्या जिल्ह्यांत पूर्वी या पक्ष्याचा आढळ नोंदविला गेला आहे (प्रसाद २००३). या पोट संदर्भात सोलापूरात हा पक्षी आढळल्याची नोंद असून अलिकडील काळात मात्र सोलापूरसंदर्भात प्रसिध्द झालेल्या यादीत या पक्ष्याची नोंद नाही. त्यासाठी आधिकाधिक निरीक्षणे आणि नोंदीची गरज आहे (गायकवाड व इतर १९९७).

समुद्र सपाटीपासून सुमारे ४५५ मी. उंचीवर असलेला सोलापूर जिल्हा खुल्या माळरानाचा भाग आहे. गवताळ प्रदेश, काटेरी झुडूपांची वने आणि विखुरलेल्या अधिवासांचे हे क्षेत्र आहे. दख्खन पठारावरील हा एक जैवविविधतासंपन्न प्रांत आहे. पर्जन्य छायेतील प्रदेश असूनही वनस्पतींच्या शेकडो प्रजाती येथे आढळतात.

सोलापूर शहराच्या सभोवताली असणाऱ्या पाणवट्यांना वारंवार भेटी देत असताना आम्हाला एक लाजाळू पक्षी दिसला. हा पक्षी उडण्यात जास्त तरबेज नव्हता. निळसर तपकिरी रंगाच्या या पक्ष्याच्या अंगावर पांढरे ठिपके असून तो आकाराने लावापेक्षा मोठा होता. दलदलीत आपले खादय शोधताना त्याचे शेवाळी रंगाचे पाय स्पष्ट दिसत होते. यावरूनच हा पक्षी ठिपकेवाली फटाकडी आहे याची खात्री पटली. आपले अन्न शोधण्यात तो मग्न होता. त्यावेळी पाण्याची पातळी चांगलीच वाढलेली होती ज्यामध्ये फटाकडीचे पाय निम्याहून अधिक बुडाले होते. काही मीटर चालल्यानंतर तो पाण्याचे शिंतोडे आपल्या संबंध पंखांवरून पसरवत होता. याच ठिकाणी आम्ही काही दिवसांच्या अंतराने परत या पक्ष्याच्या नोंदी घेतल्या.

या पक्ष्याची बाह्य शारीरिक रचना दलदलीत राहण्यासाठी पूरक असते. प्रौढ पक्ष्याची उंची २२ सें.मी. असून त्याची जाड आणि आखूड चोच, गडद रंगसंगती, लांब बोटांची रचना दलदलीत वावरण्यास उपयुक्त ठरतात. निळसर राखाडी चेहरा, तपकिरी छाती आणि सर्वांगावर चिलखतासारखे पांढरे ठिपके असे रूप त्याला परिस्थितीशी जुळवून घेण्यास अनुकूल ठरते.

शरद ऋतुमध्ये म्हणजेच जुलैच्या सुरुवातीला ते हिवाळी प्रदेशांकडे स्थलांतर करतात आणि एप्रिलमध्ये प्रजननासाठी युरोपिय देशात परततात. हे पक्षी एकट्याने, जोड्यांमध्ये किंवा समूहात दिसतात, तरीही सामान्यतः दोन ते चार जणांचा लहान गट करून राहणे पसंत करतात. छोट्या थव्यांनी एकत्र येऊन ते यशस्वीपणे स्थलांतर करतात. हे पक्षी मोठ्या प्रमाणात दक्षिण आफ्रिकेतही आढळतात.

Porzana वंशाबाबतचा जागतिक स्तरावरील अभ्यास तसा मर्यादितच आहे, कारण यातील प्रजाती फारच लाजऱ्या स्वभावाच्या असल्याने त्यांना पाहणे आणि त्यांची निरीक्षणे नोंदविणे आव्हानात्मक आहे. यावर सखोल अभ्यास करताना लक्षात आले की यांची प्राथमिक माहिती मिळविणे अत्यावश्यक आहे. ती सर्व माहिती पक्षीनिरीक्षक आणि सर्वसामान्यांपर्यंत पोहोचविणे हा या लेखाचा मुख्य उद्देश आहे. युरोपिय देशात प्रजनन करत असल्याने या प्रजातींचा उल्लेखनीय अभ्यास तेथे करण्यात आलेला आहे. उपलब्ध आणि प्रकाशित आहवालांचे विश्लेषण केल्यानंतर असे समजले की, हा पक्षी भारतासाठी हिवाळी पाहुणा आहे.

तेरा महिन्यांच्या स्वतंत्र कालावधीत एकच ठिपकेवाली फटाकडी आम्हाला पहायला मिळाली. डिसेंबर ते मे या काळात ह्या पक्ष्याच्या सर्वाधिक नोंदी झाल्या. भारतात या प्रजातींविषयी सांख्यिक प्रगणना, परिस्थितीकीय संशोधन आणि स्थलांतर यांचा अभ्यास काहीसा दुर्लक्षित असल्याचे निदर्शनास आले.

सन २०१३-१५ मध्ये वंजारी यांच्या निरीक्षणांतून समोर आलेल्या माहितीनुसार ठिपकेवाली फटाकडीचा सोलापूरातील आढळ हा अधोरेखित करण्याजोगा आहे [वंजारी व वंजारी २०१४, वंजारी व इतर २०१५ आणि वंजारी व वंजारी (इन प्रेस)]. परंतु यांच्या संख्येतील फरक सांगणे तूर्तास अशक्य आहे, त्या मागील कारणमिमांसेचा अभ्यास अद्याप सुरू झालेला नाही. तरी त्यांच्याविषयी तात्काळ, व्यापक व चिकित्सक अभ्यासाची गरज असल्याचे आढळून येते.

ऋणनिर्देश:

श्री. अंबादास गायकवाड यांचे क्षेत्रभेटीतील मार्गदर्शन व प्रा. शीतल शिरसठ यांनी प्रजाती आणि अधिवासांविषयी दिलेल्या दुय्यम माहितीबाबत आभार व्यक्त करतो. तसेच, सदर लेखामध्ये योग्य ती अक्षरजुळणी केल्याबद्दल आम्ही सौ. सायली जोशी-गुप्ते (माहिती अधिकारी, बी.एन.एच.एस) यांचेही आभारी आहोत.

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Mapping the potential of the Critically Endangered Forest Owlet *Heteroglaux blewitti* in India

Jathar G., D. Patil, M. Kalra, T. de silva, A.T. Peterson, M. Irfan-Ullah, A.R. Rahmani, P. Mehta
& J. Kulkarni

The Forest Owlet *Heteroglaux blewitti* was discovered and described scientifically in the 1870s, but went unrecorded since 1880s until 1997; it was believed to be extinct for 113 years. Although the species was rediscovered and has now been intensively studied, the limits of its geographic distribution remain poorly known. This study related known occurrences of the species to remote-sensed environmental landscape characteristics to generate ecological niche models that helped to identify potential distributional areas. We detected the species during field surveys at one location not known previously to hold populations of the species, and identified many other possible areas of distribution for the species using our niche models.

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Preferable habitat is potential factor for surviving of high population of Sarus Crane *Grus antigone antigone* Auraiya district (U.P.)

Sengar, V., V. P. Singh & A. Parmar

Auraiya district lies entirely in the Gangetic plains, but its physical features vary considerably and are determined by the rivers that cross it. It is situated between 26° 21' to 26°55' N latitude , 79°12' to 79°45' E longitude. The potential habitat of Sarus Crane *Grus antigone antigone* was studied during 2011-2013 in Auraiya district of Uttar Pradesh. During observation, it was found that the Sarus Cranes used wetlands as well as agricultural fields for nesting, foraging, roosting, and resting. They also occasionally used barren land for foraging and moving. This may be due to failing of habitat.

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