

ENVIS Centre
AVIAN ECOLOGY

ENVIS Newsletter

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ENVIS Newsletter Vol. 16, No. 2 (2011)



Supported by Ministry of Environment & Forests, Govt. of India



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ENVIS

ENVIS (Environmental Information System) is a network of subject specific centres located in various institutions throughout India. The focal point of the present 78 ENVIS centres in India is at the Ministry of Environment and Forests, New Delhi, which further serves as the Regional Service Centre (RCS) for INFOTERRA, the global information network of the United Nations Environment Programme (UNEP) to cater to environment information needs in the South Asian sub-region. 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 and Inland Wetlands.

ENVIS TEAM AT THE BNHS

Project Coordinator : Dr. Asad R. Rahmani
Scientist-in-Charge : Sujit S. Narwade
Information Officer : Divya Varier
Data Processing Assistant : Tejashree Nakashe

Cover : Crab-plover *Dromas ardeola*
by Bhasmang Mehta

Cover design and layout: Divya Varier, Tejashree Nakashe, ENVIS, BNHS.

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Bombay Natural History Society,
Hornbill House, S.B. Singh Road,
Mumbai 400 001, Maharashtra, India.
Tel.: (91-22) 2282 1811
Fax: (91-22) 2283 7615
E-mail: bnhs@envis.nic.in
Website: www.bnhsenvis.nic.in

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BNHS launches revised field guide of Dr. Sálim Ali and S. Dillon Ripley

Correct identification is the basis of meaningful birdwatching as well as scientific field research. A field observation is meaningful and educative only when the species concerned is correctly identified. For correct identification, an apt pictorial representation along with the key characters and description of the species is essential. The Bombay Natural History Society recently launched a new book *Birds of the Indian Subcontinent: A Field Guide*, co-authored by Dr. Ranjit Manakadan, Assistant Director, late Mr. J.C. Daniel (ex-Vice President) and Mr. Nikhil Bhopale, Programme Officer, BNHS. The book is based upon *A Pictorial Guide to the Birds of the Indian Subcontinent* by Dr. Sálim Ali and S. Dillon Ripley, first published in 1983. It offers a lot more information, illustrations and other features as compared to the earlier book.

It contains information about 1251 species of birds from India, Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka and Maldives. It has notes on over 100 other tentative species found in the Subcontinent, 112 plates of colour illustrations, along with 53 colour photographs and informative text spread over 400 pages.

For more details: <http://www.bnhs.org/press/press-releases/318-2011-08-03-06-27-58.html>



Conservation loses two of its strongest pillars of support

Shri B.G. Deshmukh (1929 – 2011)

Shri B.G. Deshmukh, BNHS President, passed away on 7th August 2011 in Pune. He was 82 years old. Late Shri B G Deshmukh was associated with BNHS for more than 15 years. He was a senior IAS officer from the 1951 Maharashtra Cadre. During his illustrious career, he had worked in Nashik district, Brihanmumbai Municipal Corporation (BMC), and later in Delhi as the Cabinet Secretary and then the Principal Secretary. He was associated with several other NGOs such as Praja Foundation, of which he was the Chairman. He was a great supporter of good governance. He had authored several books including *A Cabinet Secretary Looks Back*.



Shri J.C. Daniel (1927 – 2011)

Shri J.C. Daniel, Vice President, BNHS and veteran conservationist passed away on 23rd September 2011 in Mumbai. He was 84 years old and was associated with the ENVIS Centre of BNHS from the time of its establishment. Shri Daniel joined BNHS as a researcher in the 1950s. Subsequently he held several posts in BNHS including Curator, Director, Honorary Secretary, Executive Editor of *JBNHS*, Editor of *Hornbill*, Research Guide to M.Sc. and Ph.D. students and as head of various sub-committees. Shri Daniel received several awards during his lifetime. He worked on various projects involving oriental vertebrates, species and habitat conservation, and natural history publications. His research work spans several species such as Indian Wild Buffalo, Asian Elephant, Blackbuck, Tiger, Nilgiri Tahr, Saltwater Crocodile and Golden Gecko. He authored and edited various books for BNHS such as *The Book of Indian Reptiles and Amphibians*, *Cassandra of Conservation*, *Petronia*, *A Century of Natural History*, and *A Week with Elephants*. His most recent book *Birds of the Indian Subcontinent – A Field Guide* was released in July 2011.



Supreme Court clears denotification of Great Indian Bustard Sanctuary

With the Supreme Court allowing the Maharashtra government to cut down the size of the Great Indian Bustard Sanctuary area spreading over Solapur and Ahmednagar districts by nearly 85% last month, forest officials are in the process of stepping up conservation efforts in the remaining areas, with a special focus core area of around 193 sq. km in isolated pockets in Solapur district. But even that will not be an easy task.

The sanctuary has been reduced from 8494 sq. km to 1222 sq. km. According to Praveen Pardesi, Principal Secretary (Forests), Maharashtra, with total staff of 60 personnel it was impossible to monitor such a large area, which included developed townships. Now the government can focus on core areas and improve conservation efforts. However, the government will have to acquire private lands to make continuous patches available for breeding of the bird. A budget of Rs 10 crore has been set aside to acquire 434 hectares in the core area of Nannaj Mardi, officials said. Core areas imply lands owned by the forest and revenue departments that can be given strict protection. Denotification will halve the protected area under the Wildlife (Protection) Act in the state. The bustard population in the sanctuary has reduced from 61 in 1989 to just 13 in 2011. With less than 300 GIBs remaining in the country, International Union for Conservation of Nature (IUCN) declared the bird Critically Endangered in 2011.



Conservationists believe that the denotification of the Great Indian Bustard Sanctuary will help in efficient implementation of conservation measures for the Great Indian Bustard *Ardeotis nigriceps* by concentrating attention on the reduced area (Photo: Sujit Narwade)

Activists say it all started in 1979 with a "knee-jerk" reaction to safeguard one of the heaviest flying birds, when the government notified the entire region including urban and developed areas of Solapur and a few other towns in the vicinity. Despite that, the authorities could not prevent steady habitat erosion and subsequent decrease in bustard numbers in this vast unsustainable expanse. The bird, which reportedly lost out to the peacock when the national bird was chosen because of its tricky spelling, feeds on insects around farms and prefers to live on dry grasslands. However, increased use of pesticides and insecticides has affected the availability of food for the bird, which also needs undisturbed areas for breeding.

For more details:

<http://www.hindustantimes.com/Officials-fighting-to-protect-Great-Indian-Bustard/Article1-739047.aspx>

Farmland birds in Europe fall to lowest levels

The Pan-European Common Bird Monitoring Scheme has compiled population figures for 145 common and widespread bird species in 25 European countries between 1980 and 2009. Amongst those species covered, farmland birds were found to be the most threatened group, with 20 out of 36 species in decline, and their overall numbers at an all-time low, down by 48% since 1980. Some of the species that have declined the most over the last three decades include familiar farmland birds like Grey Partridge *Perdix perdix* (-82%), Skylark *Alauda arvensis* (-46%), Linnet *Carduelis cannabina* (-62%) and Corn Bunting *Miliaria calandra* (-66%).



Eurasian Skylark *Alauda arvensis*
(Photo: Michael Finn)

Conservationists say the results prove the need for urgent reform of the Common Agricultural Policy (CAP) so that it rewards and encourages farmers who put conservation measures in place on their land. Proposals for the upcoming reform of CAP were published in October 2011, but BirdLife Europe is concerned that the proposal does not contain enough support for agri-environment schemes which fund wildlife-friendly farming measures. Ian Burfield, European Science and Data Manager, BirdLife International, opined that the new figures confirm that farmland birds have shockingly halved in number across Europe since 1980. While the rate of decline may have slowed in recent years, it is clear that attempts to halt the loss have been insufficient, and that massive efforts are needed to reverse the trend.



Eurasian Linnet *Carduelis cannabina*
(Photo: Michael Finn)

Trees Robijns, EU Agriculture and Bioenergy Policy Officer, added that CAP is an EU-wide policy tool that has visible effects on the landscape. Until recently however, this policy has helped farmers to produce more food, but the environment and biodiversity have suffered as a result. He opined that proper targeted funding for wildlife-friendly farming and effective and efficient schemes in place are needed so that such declines can be reversed and the countryside be made richer and healthier for birds, plants, insects and people as well as for producing food, feed, fuel and fibre.

For more details:

<http://www.birdlife.org/community/2011/08/farmland-birds-in-europe-fall-to-lowest-levels/>

A Breeding Site of Asian Openbill *Anastomus oscitans* in Adina Protected Forest, Malda district, West Bengal

Photographs and Text: Arunayan Sharma

The Asian Openbill *Anastomus oscitans* is a wetland dependant species. Global population trends have not been quantified, but the species is not believed to approach the thresholds for the population decline criterion of the IUCN Red List (i.e. declining more than 30% in ten years or three generations). For these reasons, the species is listed as of Least Concern. This species is native and breeding in Bangladesh, Bhutan, Cambodia, India, Laos, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand and Vietnam. The total breeding population of Asian Openbill in South Asia is more than 300,000 and the 1% threshold population is 3000 individuals (Wetlands International, 2006). There are very few places in India where 1% threshold population of this species breeds on a regular basis. The Gangetic floodplains of West Bengal are dotted with many large and small water bodies which are excellent refuge and breeding habitats of water birds. For this reason a large number of water birds and wetland-dependent species are found in the state, particularly in the Gangetic floodplain belt. Among them the central part of West Bengal is exceptional for water birds and wetland-dependent species. Presence of heronries in this region is a common feature.



The Adina Protected Forest, an excellent place for watching birds, is located in Malda district, West Bengal. It lies in Gajol block, 20 km north of the district centre Malda Town (English Bazar). The breeding colony of Asian Openbill in Adina Protected Forest is one of the best heronries of this region. It is popularly known as Adina Deer Park since it is one of the Spotted Deer *Axis axis* breeding centres of the Forest Department of West Bengal, from where surplus populations of these deer are transferred to the sanctuaries and national parks of West Bengal from time to time. The protected forest is a reforested area under the social forestry programme of West Bengal Forest Department which began in the 1970s. The main tree species found here are Kadamba *Anthocephalus cadamba*, Jarul *Lagerstroemia flosreginae*, Sissoo *Dalbergia sissoo* and Eucalyptus, and it classifies as Tropical Dry Deciduous Forest. The area of the sanctuary is c. 1.70 sq km. There are two water bodies inside and a bigger freshwater body outside the forested area. The core of the forest, where the main plantation is of Eucalyptus, is the main breeding ground for Asian Openbill. The agricultural fields nearby and small water bodies support a wide variety of food for birds, particularly for the Asian Openbill whose main food is the Apple Snail *Pila globosa*.

The Asian Openbill starts flocking in Adina Protected Forest from June or with the arrival of monsoon and stays there till December. The birds arrive in small groups, inspect the area and

select nesting trees. By the first week of July, the whole group assembles and nest building activity commences. Competition for selection of nesting trees and nest building is high in this small heronry. Individuals which are unable to get suitable trees for nesting do so on trees along the agricultural fields and sometimes on trees in the backyard of adjacent human settlements, outside the protected area. Sometimes Asian Openbills build their nests in close proximity of other water birds. During incubation period, egg lifting was found to be a common feature, by Large-billed Crows *Corvus macrorhynchos*. Another common but beautiful sight was the parents protecting their chicks from the scorching sun by spreading their wings over them. In October, parents start training their juveniles to fly. During this phase, a large number of juveniles fall down from the nest and are killed by stray dogs, jackals, jungle cats and monitor lizards. By the end of December most of the chicks have fledged and birds start leaving the forest.



Nesting flock of Asian Openbill on a tree in Adina PF

Adina Protected Forest is a mixed heronry of various species of water birds, mainly Little Cormorant *Phalacrocorax niger*, Black-crowned Night-heron *Nycticorax nycticorax* and Cattle Egret *Bubulcus ibis*. Along with them a large number of Asian Openbills have been breeding here over the last two decades. Each year approximately 3,000 to 3,500 pairs breed here successfully. It was found that the population of Asian Openbill was stable between 6,000 to 7,000 individuals from 1997, with a small increase in the last couple of years since conservation measures were initiated from the year 2000 in the protected areas. Some birds die due to heavy rain and storm. Even though considerable human activity and other disturbances occur during their breeding period, a large number of Asian Openbills flock to the small area of Adina Protected Forest. It is probable that the same birds that hatched and were raised here, return year after year. The birds might have become habituated to human disturbances. This site-fidelity in the Asian Openbill could be investigated further. A good reason for the site-fidelity might be abundance of food. The area being dotted with many large water bodies, riverine beds and marshy areas, has an abundant population of the Apple Snail. This small heronry regularly supports 4-6% of the existing population of Asian Openbill of South Asia, making it worthy of being designated as an Important Bird Area of India under the Category A4(I).



A single branch of a tree holding several nests of Asian Openbill

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- 1) BirdLife International (2011): Species fact sheet: *Anastomus oscitans*. Downloaded from <http://www.birdlife.org>.
- 2) Wetlands International (2006): *Waterbird population estimates – 4th edition*. Wetlands International, Wageningen, The Netherlands.

Birds Losing the Battle: Case of Urban wetlands, Navi Mumbai, Maharashtra

*Pravrajit Ghosh and N. S. Srinivasulu Reddy**

If you grow bird lovers by visiting Mumbai, you would certainly have witnessed something interesting concerning the preservation of the wetlands near the coast line in the city. Two particular places (18° 54' lat, 73° 30' N, 73° 58' E, 50° E) have been visited a good few years (the authors) located some where between Nivata-Sheva and Uran village. On your visit you will find something new to be just not as perceived with the usual place. The area has wetlands, shallow, marshy, ponds, open meadows, mangroves, road-cum-ponds, dry-cum-washed ponds with well-maintained sports grounds, soccer, swimming, a plethora of buildings, including old mansions, etc. in the centre, with a huge parking space for birds and birds' alike. Surely all the layers of it may be supposed to be not just a case, but a bird's heaven in all the cities there. But you may not realise when I show many such "meadows, ponds, lawn, and golf" gathered together in huge numbers. Their sudden loss—due to various reasons and growth in the city and the direct consequence of Greater Mumbai's ever increasing population looks as if a bird's heaven is simply disappearing. That was one of the scenes which I had expected with the urban "meadows", but all these magnificent stretches of wetlands near Uran in the city have been destroyed—due to the urbanisation and growth. This magical place would flourish and prosper in both a socio-economic and genetic revolution towards facilities or urban development. However, there is a time when we are left with the reality of these dreams that turn a paradise worth the name into a barren, lifeless, and polluted place. I am guilty for not saving some of these areas, I have learned from this lesson.



* The author is a marketing management professional and can be contacted at suvrashis@gmail.com

Year 2009

Year 2011

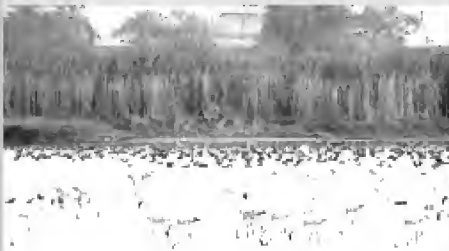


Large tracts of the wetlands have been land-filled in Uran (map courtesy: Google Earth)



Greater Flamingos engaged in a fight, which looks like a round of fencing with their bills

Both Greater and Lesser Flamingos used to be sighted in this area. Flamingos are much loved birds owing to their yellow and gentle nature however very lately always about every going somewhere with each other. Near here is a pair of white Greater Flamingos (*Phoenicopterus roseus*) photographed here in January 2008. It was during the first Sunday of the New Year and I was accompanied by my wife and Dr. Harsh and his family. I was busy photographing the 300 odd birds that were on the wetland. All of a sudden, from the background in the water, two white Greater Flamingos happened to walk towards me. They later moved in front of me and watched the former. In a typical fight appear to be courting behaviour between two adult flamingos. The birds actually in aggressive act where they were fighting with each other. It looked like a round of fencing with bills. The scene must have lasted for about 2-3 seconds but I was fortunate enough to have captured the moment.



Lesser Flamingos feeding alongside waders and ducks



Pied Avocets (above) in flight, and on the water surface (below)



Painted Storks, one of the Near Threatened species, seem to have lost another habitat

Lesser Flamingo (*Phoenicopterus minor*) though seen in these wetlands, were definitely not found in numbers as compared to the Greater Pied Avocets (*Recurvirostra amurensis*) and magpie. The birds have upturned slender bills with which they sweep the muds from side to side in a called head. The action resembles that of a trucky-truck being plied during a game; hence the name or so called trucky-truck-bird. There were large numbers of Pied Avocets in almost every visit to the wetland. While searching for a Right Tropicbird, one common bird, the birdkeepers or visitors, several other birds, Common Sparrow, Plover, Lesser Grebe with another special species mentioned above. I had on several occasions seen almost 50-100 of them assembled in a close packed flock. Incidentally this could be seen along with flocks of Painted Stork, *Myzoceryt leucorhynchos* and occasionally with Grebe, Horned Grebe, *Ardeola* and Purple Heron, *Ardea purpurea* etc.



A flock of busily feeding Glossy Ibis



Black-headed Ibis, a Vulnerable species, used to be regular visitors to the wetlands



Large flocks of Spoonbill such as these were common in Uran

Both Black-headed Ibis *Threskiornis melanocephalus* and Glossy Ibis *Plegadis falcinellus* used to be seen here. The greenish-bronze sheen of the Glossy Ibis was an admirable sight as they moved about in the marsh in great numbers in a feeding frenzy. They always seemed too busy stuffing themselves to be bothered about onlookers like us. However the moment you tried to venture a little closer to them, they bobbed up their heads and took off in unison, only to settle down at the nearby marsh to resume their feast. Black-headed Ibis were relatively easier to approach and bolder than the Glossy ones. Gulls and terns congregated in thousands here each season with Black-headed Gull *Larus ichthyaetus*, Brown-headed Gull *Larus brunnicephalus*, Heuglin's Gull *Larus heuglini*, Common Tern *Sterna hirundo*, Whiskered Tern *Chlidonias hybridus*, Gull-billed Tern *Gelochelidon nilotica*, Caspian Tern *Sterna caspia* completing this assortment. There have been moments when the sky above me was suddenly overcast by a cloud of gulls appearing out of thin air to settle down, and the same pattern being repeated by a flock of terns following them. After settling down, the Caspian Tern, being taller and larger in size than the others, easily stood out in this crowd.

Mumbai region records about 44 species of shorebirds, of which nearly half could be found in the wetlands of Uran alone. Shorebirds are known to exhibit site-fidelity, i.e., they return to the same site year after year during winter.



Mixed flocks of godwits and sandpipers were a regular feature of the wetland during winters



A flock of Garganey in flight



Wintering Ruddy Shelduck at Uran

Ducks arriving in several hundreds each season at this haven included Northern Shoveller *Anas clypeata*, Garganey *Anas querquedula*, Gadwall *Anas strepera* and Ruddy Shelduck *Tadorna ferruginea*. The Spot-billed Duck *Anas poecilorhyncha* and Lesser Whistling Duck *Dendrocygna javanica* were also seen. Storks were one of the major attractions at Uran with a large resident population of Painted Stork to mesmerize you, and also the lovely Asian Openbill *Anastomus oscitans* to add to the company. Many others have also sighted the rare migrant Oriental White-stork *Ciconia boyciana* here, however in spite of numerous attempts I was never fortunate enough to catch a glimpse of them.



L-R: Sighting of Common Redshank *Tringa totanus*, Marsh Sandpiper *Tringa stagnatilis*, Purple Swamphen *Porphyrio poliocephalus* and Caspian Tern (one of the largest terns found in India) was common in the wetland

This account of my experiences gives an idea of the rich avian biodiversity that the area held. Almost all of this is gone now. The present state of these wetlands portrays a very sad picture, since a vast expanse of this paradise has now been land-filled for developmental activities. Now the area has undergone such a drastic change that it does not even remotely resemble the once-bountiful wetland it was.



Landfilling activities in full swing at Uran wetlands

One of my most memorable photographs of Uran is of the foot-print of a Greater Flamingo. Today I just flip through the many picture-memories I collected over the years, and recollect the incidents as I narrate to you the saga of Uran - a fast-degrading paradise.



BOMBAY NATURAL HISTORY SOCIETY

Founded in 1883 for the study of natural history, the Bombay Natural History Society (BNHS) is now one of the premier research and conservation organisations in the country. The Society publishes a journal, the *Journal of the Bombay Natural History Society*, devoted to natural history and also has a popular publication, *Hornbill*, for the layman. It has also published a number of books on wildlife and nature. Its library has a large collection of books and scientific journals on wildlife and the environment. The Society's invaluable collection of bird, mammal, reptile, amphibian and insect specimens has been recognised as a National Heritage Collection.

Membership of the Society is open to individuals and institutions within India and abroad. For more details, please write to:

Membership Officer,
Bombay Natural History Society,
Hornbill House,
Shaheed Bhagat Singh Road,
Mumbai 400 001. INDIA.

BUCEROS is an ENVIS (Environmental Information System) newsletter published thrice a year by the ENVIS Centre at the BNHS, sponsored by the Ministry of Environment and Forests, New Delhi.

The Centre collects, collates, stores and disseminates information on Avian Ecology.

Address for correspondence

Project Coordinator
ENVIS Centre,
Bombay Natural History Society,
Hornbill House, Shaheed Bhagat Singh Road,
Mumbai 400 001. INDIA.

Tel: (91-22) 22821811
Fax: (91-22) 22837615
Email: bnhs@envis.nic.in
Website: www.bnhsenvis.nic.in

EDITORIAL TEAM: Dr. Asad R. Rahmani, Dr. Gayatri Ugra, Mr. Sujit Narwade

DISCLAIMER: The views expressed in this newsletter are not those of the editors' or of the BNHS.

Printed by Bro. Leo at St. Francis Industrial Training Institute, Borivli, Mumbai 400 103 and Published by the Honorary Secretary for the Bombay Natural History Society, Hornbill House, Shaheed Bhagat Singh Road, Mumbai 400 001.