

ENVIS Centre
AVIAN ECOLOGY

BUCEROS

ENVIS Newsletter

Vol. 14, No.3 (2009)



BNHS
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ENVIS

ENVIS (Environmental Information System) is a network of subject specific centers 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.

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Bustard Forum

There are many Indian bird species moving to the brink of extinction as a result of the various factor including anthropological disturbances. All the Bustard species occur in Indian subcontinent are in great danger and comes under threatened category as listed below. Majority of them are endemic to Indian subcontinent and are in need of strong conservation efforts by all of us.

List of bustard species found in India:

- 1) Bengal Florican *Houbaropsis bengalensis* (Critically endangered),
- 2) Lesser Florican *Sypheotides indicus* (Endangered),
- 3) Great Indian Bustard *Ardeotis nigriceps* (Endangered),
- 4) Little Bustard *Tetrax tetrax* (Near Threatened) – Last reported in 1911 in Kashmir.
- 5) Great Bustard *Otis tarda* (Vulnerable) - Last reported in 1947 in Punjab.
- 6) McQueen's Bustard (Houbara) *Chlamydotis undulata* (Vulnerable).

Numbers of all the above mentioned species had already declined in the pre-independence era as a result of relentless 'game' hunting and human encroachment in their prime habitat. Once found widely spread across the Indian subcontinent, these birds can now be found only in certain grassland pockets of the subcontinent. Though various scientists have studied their distribution and habitat ecology, a full knowledge of their exact population and movement patterns has not been established. Their local movement between seasons is yet to be understood. Taking advantage of the internet, BNHS-ENVIS Centre on Avian Ecology is planning to start a Bustard Forum under the supervision of Dr. Asad Rahmani, Project Coordinator, ENVIS Centre and Director, BNHS. We collected all the available references on the Bustards from BNHS library and in next step the quantitative data will be extracted from the literature. In further step recent sighting records will be uploaded on the website.

The forum will be linked to the website of the BNHS-ENVIS Center and be moderated solely by the ENVIS staff. Through this forum we expect to develop an authentic database based on observations of Bustards from ornithologists and birdwatchers all over the world. Researchers, conservationists, government and forest officials are welcome to give their inputs. Our primary goal being collection of authentic data which will be properly verified and then be posted on the forum along with due credits to the observer. We know there are many of people from who are keenly interested in bird conservation and keeping the updates of the bustards from the local regions. We are trying to connect all such groups and provide a platform to share their experience and knowledge through Bustard forum.

The outcome of this collective effort will hopefully help in determining the current distribution areas and movement patterns in the bustards. This forum is also expected to serve as a platform for bringing out unpublished data to the advantage of researchers. This data will definitely aid the Bustard conservation programme.

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Link:

<http://www.bnhsenvis.nic.in/bustardforum.html>

First World House Sparrow Day celebrated

The World House Sparrow Day was celebrated for the first time on 20th March 2010 in India and many important cities in the world. Mohammed Dilawar, an ornithologist working with Bombay Natural History Society, took the lead in India to highlight the plight of these chirpy human companions who are now in great trouble, mainly due to our activities. Mrs. Sheila Dixit, the Chief Minister of the Delhi Government inaugurated the House Sparrow Day on March 20 at her residence. Speaking at the event organized by Nature Forever Society in collaboration with Bombay Natural History Society, Eco-sys Action Foundation (France), Avon Wildlife Trust (UK) and numerous other national and international organizations, the Chief Minister said this first-of-its-kind event would also address the problem and look for solutions. The decline in its number is a grim reminder of degradation of the urban environments and the danger from it to the human welfare in the longer run. The World House Sparrow Day, Dilawar says will bring together all the individuals and organisation working on the conservation of House Sparrows and urban biodiversity on a common platform. The event will be promoted by a dedicated interactive website www.worldhousesparrowday.org. World Sparrow Day is expected to get the attention of government agencies and the scientific community on a whole for more conservation measures and research on the common bird species and urban biodiversity.



Delhi Chief Minister Sheila Dikshit inaugurating 'World House Sparrow Day' function at her residence in New Delhi (Credit: Zoher Postwala)

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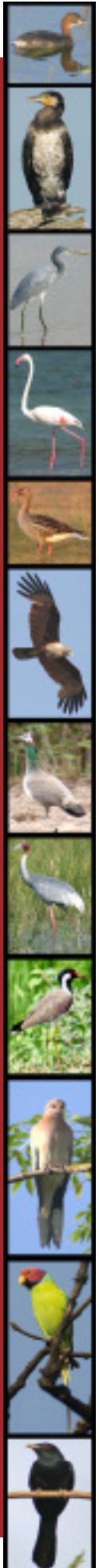
Flamingo Festival

The Bombay Natural History Society (BNHS) successfully organized, the, Flamingo Festival on 27th March 2010 sponsored by Bharat Petroleum. Over 15,000 Greater Flamingos and Lesser Flamingos and two dozen other waders (water birds) on the mud-flats near Sewri Jetty made a mesmerizing sight that charmed thousands of bird lovers and the general public. School and college children, families, corporate employees, municipal employees, people from the port trust, police and journalists had a first-hand experience of the beauty of flamingos that fly down to Sewri mud-flats every year from Kutch in Gujarat. These birds have almost become a symbol of conservation of Mumbai's wildlife. On the occasion, BNHS Director, Dr. Asad Rahmani opined that the flamingos in the Sewri-Mahul area are a treasure for



Congregation of Lesser *Phoeniconaias minor* and Greater Flamingos *Phoenicopterus roseus* in Sewri mudflats (Credit: Dr. Swapna Prabhu)

Mumbai city and the area, which is designated as an IBA (Important Bird Area), should be properly protected and developed as a tourist destination in a sustainable manner. The objective of Flamingo Festival was to make more and more citizens aware of this natural treasure, so that public opinion is built up for the conservation of the area. In the past, the BNHS has organized Flamingo Festival three times till now and this was the fourth. The primary objective was to introduce the common citizen to these beautiful birds that have been visiting Mumbai every winter for years and to sensitize them towards nature. The second objective was to use this as an effective platform to reach out to the people with the message of conservation and the environmental issues.



A 'rooftop hospital' for injured birds of prey

Fifteen years ago, brothers Nadeem Shehzad and Mohammad Saud rescued an injured Black Kite *Milvus migrans govinda* from Chandni Chowk and took it to the well-known Jain Bird Hospital. To their surprise, the hospital authorities refused to touch it, saying they didn't treat birds of prey. Today, the brothers have learned to treat such birds and have 28 injured kites recuperating on their rooftop. They can operate on the birds, stitch their wounds and heal them. With almost no monetary support, their motorcycle operates as an ambulance and the rooftop of their home in Chawri Bazar as their 'little hospital'. According to them, most of the birds are injured by the sharp string (*manjha*) of paper kites. They recently rescued a Steppe Eagle *Aquila nipalensis*, a migratory bird which was found injured in Surajkund by a mindful local. The bird was delivered to them and since then is being looked after by the brothers. They plan to release it if it recovers fully by April. Both brothers spend Rs 3,000-5,000 per month on feeding and treating these birds, which mostly come out of income from the family business. Fortunately, they have the support of their parents who not only help them financially but also feed the birds, some of whom are permanent residents at their rooftop as they cannot take flight anymore.

For more details: <http://timesofindia.indiatimes.com/articleshow/5655711.cms>



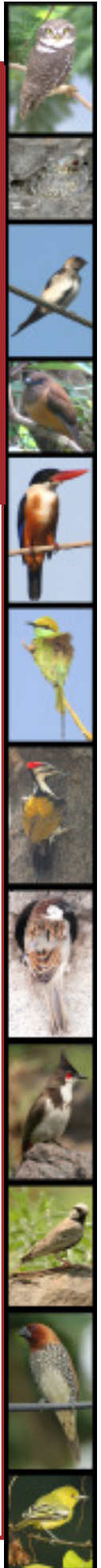
Man-made nest experiment successful

Bird watchers and conservationists were overjoyed to see the Sarus Cranes *Grus antigone* nesting in a man-made nest called *timba* locally in a pond in Dadusar village in Dholka this year. The experiment was carried out by farmers and nature lovers in the area to create ray of hope for nesting sites for this vulnerable species. Over the period of time, shallow wetlands with marsh vegetation that are natural nesting places of Sarus, have been fast disappearing. According to Chandu Pagi, a farmer in Dadusar village, local people created five man-made *timbas* in a farm pond in Dadusar village last year. They collected soil from the pond and built a *timba* before the breeding seasons started. Out of five *timbas* a pair of Sarus Cranes nested and bred on one *timba* successfully with two chicks. Due to increasing encroachment on natural habitats of the species, the Sarus Cranes are posed with difficulties in the breeding season. There is a need to ensure that the Sarus Crane's natural habitats remain secured and protected. Farmers living near breeding areas of the Sarus need to be encouraged to adopt organic farming measures so as to prevent toxic effects of pesticides on the birds.

For more details: <http://epaper.timesofindia.com/Default/Scripting/ArticleWin.asp?From=Archive&Source=Page&Skin=TOINew&BaseHref=TOIA/2010/01/20&PageLabel=4&EntityId=Ar00403&ViewMode=HTML&GZ=T>



Sarus Cranes *Grus antigone* (Credit: Saurabh Desai)



Bangladesh to track migratory birds by satellite

Bangladesh has introduced costly satellite transmitters for tracking migratory birds that will help identify their movements. Birds are being fitted with the transmitters, each weighing five grams and costing 3 lakh rupees. Migratory birds come to Bangladesh every year as a stop on the 'Asian Flyway' and 'East Asian-Australian Flyway'. The task of identifying their migratory routes will be much easier, pointed out Tapan Kumar Dey, forest conservator (wildlife and nature conservation circle) of the Forest Directorate. Any risk of bird flu infection through migratory birds can also be monitored. They have earmarked those species of birds which travel the longest distance routes, for e.g. from the North Pole via Mongolia and Himalayas to Bangladesh. The transmitters were fastened to the birds in Moulavibazar district's Kulaura and Baralekha areas. The US Geological Survey has supplied the transmitters and along with them the Wildlife Trust, New York and Food and Agricultural Organisation are funding the project. Rings were also fitted on the legs of the birds. India-based Bombay Natural History Society is assisting with the ring project. Anwarul Islam pointed out that migratory birds are usually blamed for carrying avian influenza and now it can be examined if they carry the virus or not. Before fastening transmitters and rings the birds are being examined for the virus. Rings have been fitted on the legs of some 30 species. They plan to use transmitters with 20 species of birds this year as the winter is over and the birds begin to leave the country. At present, some 176 migratory birds are seen in Bangladesh.

For more details: <http://bdnews24.com/details.php?id=155185&cid=2>

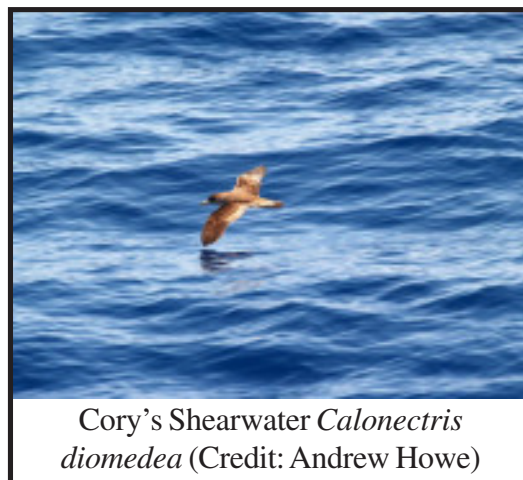


Seabirds' movement patterns tied to what fishermen toss away

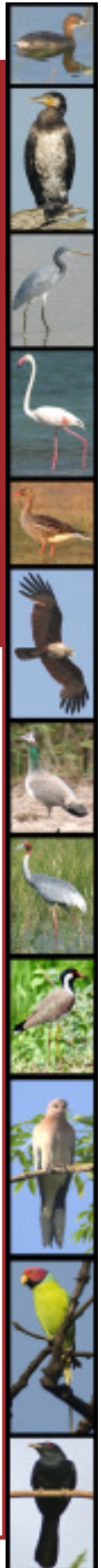
Humans and human activities have clearly altered the Earth's landscape and oceans in countless ways, often to the detriment of other plants and animals. A new report published in *Current Biology*, shows just how tangled a food web we have woven. Two species of Mediterranean seabirds change their every move based on the activities of local fisheries and, in particular, the fish that people toss away. The study shows that human activities in the natural environment can promote critical transitions in the spreading properties of foraging animals by locally changing the predictability and availability of their resources, points out Frederic Bartumeus,

Princeton University. Their study suggests an elementary but often disregarded connection between human local resource exploitation and global movement patterns of organisms. The findings may have important implications for conservation biology and the study of invasive species, the researchers said. Bartumeus' team took advantage of existing satellite data on the Cory's shearwater *Calonectris diomedea* and the Balearic shearwater *Puffinus mauretanicus*, which tracked the seabirds' movement over multiple foraging trips. Each trip typically lasts less than two days and covers distances anywhere from 10 to 1000 kilometers. When the fisheries don't operate, seabirds essentially combine local searching with very large traveling distances. According to Bartumeus, such a movement pattern allows for efficient explorations when the birds are looking for their natural prey of small fish and squid, which are highly mobile and unpredictably distributed in space and time. In contrast, when fishermen are discarding fish, seabirds perform local searches around the boats, which act as an "attracting force." As a result of such confined movement, the spreading of scavenging seabirds in the seascape decelerates with time, and movement patterns involve well-defined spatial scales related to the fishery activity.

For more details: <http://www.sciencedaily.com/releases/2010/01/100128130219.htm>



Cory's Shearwater *Calonectris diomedea* (Credit: Andrew Howe)



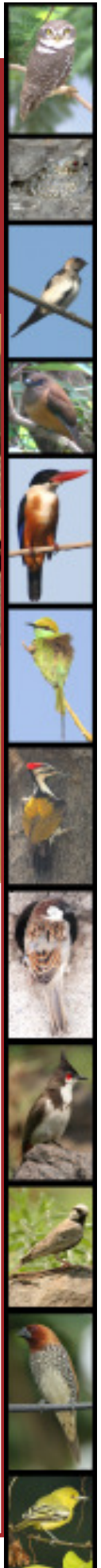
Thol - a bird paradise of Gujarat

by
Girish Jathar and Dhaivat Hathi



The mid August and early September is the time for arrival of thousands of migratory birds to Gujarat. The state is strategically located between two avian migratory routes, one from Central and North Asia to East Africa and another from Middle East and Europe to peninsular India. This has attributed to seasonal assemblage of the bird species in some wetlands. This makes Gujarat a strategic bottleneck for migratory birds. Compassionate attitude and non-violent culture of Gujarat are responsible for the human-wildlife co-existence.

The wetlands are integral part of rural Gujarat. Being semi-arid region water is precious commodity to wildlife as well as humans. In the past, many reservoirs were built by the then rulers for people. Those reservoirs are still serving the purpose and supporting humans and wildlife as well. These reservoirs are favourite places of all the migratory bird species. In Gujarat there are many places where huge congregation of waterfowl and other migratory species can be seen. The Thol Bird Sanctuary, an Important Bird Area (IBA) is one of the places. The Sanctuary has long history of 98 years. It was built by the then ruler Sayajirao Gaekwad in 1912 to supply water for irrigation. The water is still used by the local people for paddy cultivation and other crops. In 1988, this wetland was declared as Thol Bird Sanctuary by Government of Gujarat. The Sanctuary covers only 7 sq. km. of the 14.5 sq. km. of the command area of the reservoir. As water recedes, many islands come up and this provides a good habitat for the birds to rest and roost. Along with these, *Acacia* trees and other submerged plants also provide good roosting places. The reed beds on western side of the park adjoining to the farmlands also provide adequate shelter to many bird species. Most importantly the *Prosopis juliflora* has invaded the open parts of the western side however, that has turned out to be good site for many bird species.

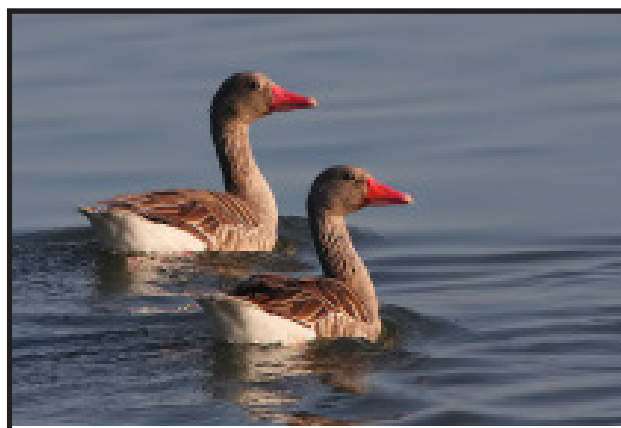


Avifauna

Out of 479 species found in Gujarat, more than 200 can be seen in the vicinity of the Sanctuary. Of these more than 90 are water-dependant. The migratory birds start arriving here by late August and early September. Huge flocks of waders arrive in early September. Local people say that the waders arrive here in night and settle in their paddy fields. They stay here only for a day or two and suddenly disappear. Later, huge flocks of teals, shovelers, pintails and pochards arrive here followed by flocks of Common Cranes *Grus grus*. By the end of December Greylag Geese *Anser anser* and other bird species arrive here.



Gregarious Common Cranes *Grus grus* gather here large numbers for roosting (Credit: Saurabh Desai)

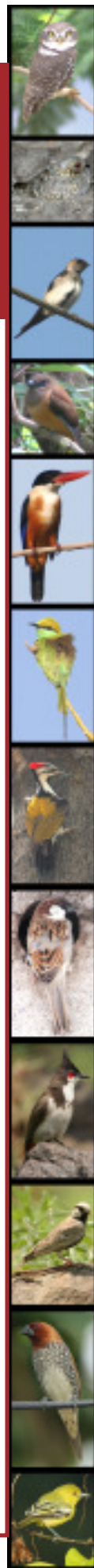


Greylag Geese *Anser indicus* (Credit: Saurabh Desai)

Our 20 visits to the Thol Bird Sanctuary between October 2008 to April 2009 revealed interesting information some bird species.

Sr. No.	Name of species	Maximum numbers seen (values are approximate)	Months
1.	Great White Pelican <i>Pelecanus onocrotalus</i>	2,000	February
2.	Greater Flamingo <i>Phoenicopterus roseus</i>	1,000	March
3.	Greylag Goose <i>Anser anser</i>	2,000	January-February
4.	Bar-headed Goose <i>Anser indicus</i>	150	February
5.	Common Crane <i>Grus grus</i>	5,000 +	November-February
6.	Northern Shoveler <i>Anas clypeata</i>	1,000	November to March
7.	Northern Pintail <i>Anas acuta</i>	1,000	November to March
8.	Garganey <i>Anas querquedula</i>	1,000	November to March
9.	Ruff <i>Philomachus pugnax</i>	2,000	March
10.	Black-tailed Godwit <i>Limosa limosa</i>	1,000	March
11.	Little Cormorant <i>Phalacrocorax niger</i>	1,500	March
12.	Painted Storks <i>Mycteria leucocephala</i>	1,000	March
13.	Glossy Ibis <i>Plegadis falcinellus</i>	20,000	March



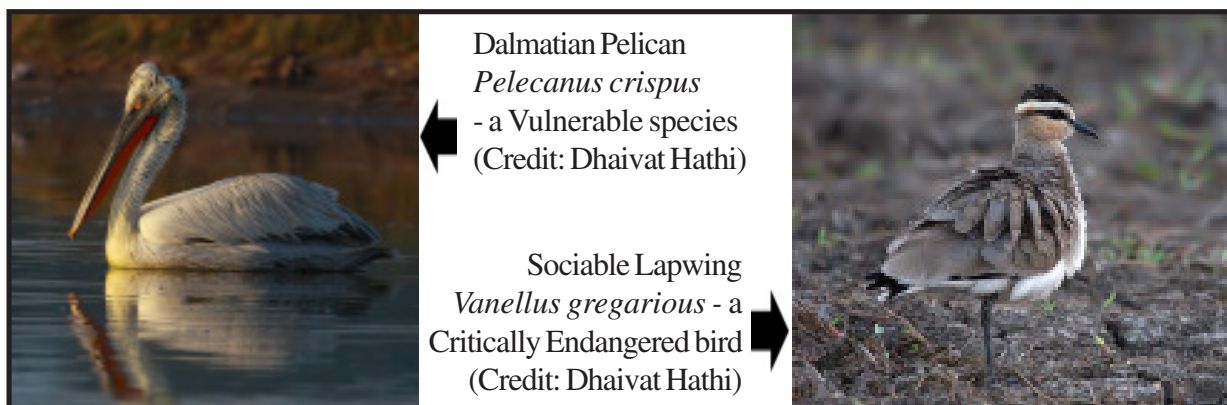


This Sanctuary also supports following nine Threatened and seven Near Threatened species.

List of the threatened bird species

Sr. No.	Name of the species	Criteria
1.	White-rumped Vulture <i>Gyps bengalensis</i>	CR
2.	Indian Vulture <i>Gyps indicus</i>	CR
3.	Sociable Lapwing <i>Vanellus gregarious</i>	CR
4.	Egyptian Vulture <i>Neophron percnopterus</i>	EN
5.	Dalmatian Pelican <i>Pelecanus crispus</i>	VU
6.	Indian Spotted Eagle <i>Aquila hastata</i>	VU
7.	Greater Spotted Eagle <i>Aquila clanga</i>	VU
8.	Eastern Imperial Eagle <i>Aquila heliaca</i>	VU
9.	Sarus Crane <i>Grus antigone</i>	VU
10.	Ferruginous Duck <i>Aythya nyroca</i>	NT
11.	Lesser Flamingo <i>Phoeniconaias minor</i>	NT
12.	Painted Stork <i>Mycteria leucocephala</i>	NT
13.	Black-headed Ibis <i>Threskiornis melanocephalus</i>	NT
14.	Oriental Darter <i>Anhinga melanogaster</i>	NT
15.	Black-tailed Godwit <i>Limosa limosa</i>	NT
16.	European Roller <i>Coracias garrulous</i>	NT

CR – Critically Endangered, EN – Endangered, VU- Vulnerable, NT- Near Threatened



Conservation Issues

The Sanctuary faces very few threats and none of them are serious except the water use and use of fertilizers and pesticides in the adjoining farms.

The Thol reservoir is fed by Narmada irrigation canal. The water is maintained in the reservoir to irrigate the fields of three villages. In 2009-2010 the reservoir was full of water and there was almost no open space for the birds to roost. Hence the number of birds visiting this place declined significantly. However, in February and March the water table reduced and islands popped up. This eventually benefited the birds. The number of birds increased significantly in February and March. The dispute for water between the locals and the Sanctuary is a serious matter and can be solved amicably through discussion.

The second and major problem is use of pesticides in the adjoining fields. As there is no paucity of water in this area locals grow at least three crops in a year. The major ones are paddy, wheat and pulses. Due to topography of the Sanctuary the water is exchanged between reservoir and the fields regularly. It is possible to certain extent that the residues of the pesticides enter into the lake via this process. This may be harmful to the birds as well as other wildlife in the area. There were few incidences of poisoning of waders such as Ruff towards the end of March 2009. More than 20 ruffs were found dead in a fallow field. This issue needs urgent attention to avoid future mortalities of the birds due to pesticide poisoning.

There are some minor threats such as oil spill from neighbouring oil wells. These are some stray incidents however, in last two years none of such incidents have been observed. The growing tourism is of little concern. Most of the tourists come here for picnic on Saturdays and Sundays. They are not aware of the rules and regulations of the Sanctuary and hence keep littering and making noise. The Forest department lacks sensitivity and motivation to tackle this problem hence this has long been neglected. However, urgent action in this issue is required before it worsens.

To save this Sanctuary a community based conservation programme is required. Avid birders of Ahmedabad can take part in this programme and work with the local communities to save this 'treasure'.

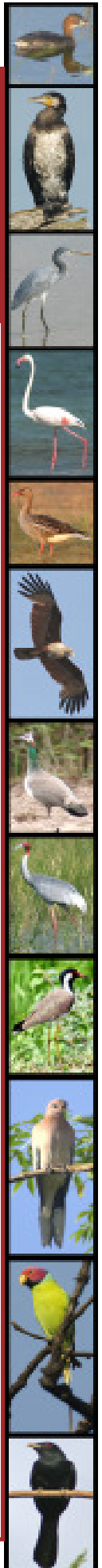


Great White Pelicans
*Pelecanus
onocrotalus*
congregate here in
huge numbers and
can be seen here
almost for six months
(Credit: Nitesh
Parulekar)

Authors:

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Birds of the Upper Nilgiris Plateau, Western Ghats, India

Zarri, A.A., A.R. Rahmani and B. Senthilmurugan

Although excellent bird collections have been amassed from the Nilgiris in southern India and several bird surveys have been conducted since the late 19th century, they were either focused on the lower elevations, species specific or not intensive. Bird surveys and community investigations in the higher elevations of the Nilgiris are few, with results generally unpublished, or described only in travelogues. In the course of this first systematic effort to study the bird community structure and ecology of this region, several rare and significant birds were recorded and their status evaluated. We present here an annotated checklist of 192 bird species, of which 145 were recorded by us between December 2000 and April 2004, and 47 are records of other workers from the Upper Nilgiris Plateau (1,700 m above msl). The species list also includes ten Threatened birds: five recorded during this study and five recorded by other workers in the past. The checklist also includes seven Near Threatened species, including four recorded during this study and three by other workers. A review of the literature indicates a drastic decline in the populations of wintering snipes, Eurasian Woodcock *Scolopax rusticola* and some raptors, and the disappearance of four vulture species. Threatened species and Western Ghats endemics, such as the Black-chinned Laughingthrush *Trochalopteron cachinnans* and the White-bellied Blue Robin *Myiomela albiventris*, and the winter visitor Kashmir Flycatcher *Ficedula subrubra* were identified to be at risk on account of habitat loss and anthropogenic pressures. We discuss the conservation problems for the avifauna of the Upper Nilgiris Plateau.

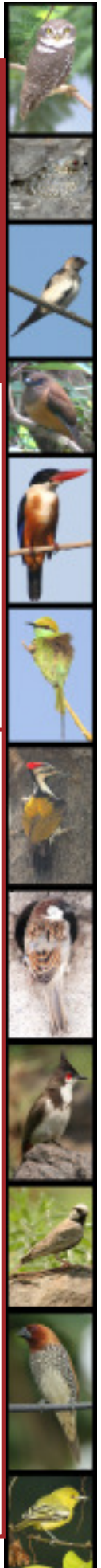
J. Bombay Nat. Hist. Soc., (2008), Vol. 105 (2): pp. 181-195

Avian influenza surveillance in wild migratory, resident, domestic birds and in poultry in Maharashtra and Manipur, India, during avian migratory season 2006-07

Shailesh Pawar, Satish Pande, Aniruddha Jamgaonkar, Santosh Koratkar, Bishwajoy Pal, Satish Raur, Madhuri Nanawarel, Koninika Rayl, Alok Chakrabarti, Sadhana Kode, Vishal Thite, Madhukar Khude, Satish Randive, Atanu Basu, Amit Pwashe, Aditya Ponkshe, Pranav Pandit and Pramod Deshpande

India reported outbreaks of Highly Pathogenic Avian Influenza (UPAI) U5NI in poultry in the states of Maharashtra, Gujarat and Madhya Pradesh (February-April 2006); Manipur (July 2007); West Bengal (January 2008) and Tripura (April 2008). The role of migratory birds in the transmission of the UPAI U5NI remains a subject of debate. Avian Influenza (AI) surveillance in wild migratory, wild resident, domestic birds and poultry was undertaken by National Institute of Virology (NIV) jointly with Ela Foundation, Pune, India during 2006-07. A total of 1968 faecal specimens (1369 droppings from wild migratory and wild resident birds; 474 droppings from poultry and 125 cloacal swabs from chickens and ducks) were collected. These samples representing 10 avian families of wild migratory birds, four families of wild resident birds totalling 36 species, were from eight districts of Maharashtra covering 20 water bodies and two districts of Manipur. The samples were screened for AI viruses by reverse transcriptase polymerase chain reaction (RT-PCR), real-time PCR and were processed for virus isolation in embryonated chicken eggs and cell culture. Two samples from wild ducks were positive for viruses other than AI, newcastle disease virus (NDV) and infectious bursal disease virus (IBDV). During the study period no sample was positive for Influenza A viruses, Influenza A (U5NI) or any other strain of UPAI by RT-PCR and virus isolation. In view of the recent UPAI U5NI outbreaks in poultry in India, continued and more widespread AI surveillance is necessary to elucidate the role of wild migratory, resident, domestic birds and poultry in the transmission of AI viruses.

Current Science, (2009), Vol. 97 (4): pp. 550-553



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:

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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.

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