BUCEROS

ENVIS NEWSLETTER

Avian Ecology

Vol. 12 No. 1 (2007)

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

BNHS INDIA CONSERVING NATURE SINCE 1883

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ENVIS

ENVIS (Environmental Information System) is a network of subject specific nodes located in various institutions throughout the country. The Focal Point of the present 25 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

Centre-in-Charge	:	Mr. J.C. Daniel
Project Coordinator	:	Dr. Asad R. Rahmani
Scientist-in-Charge	:	Dr. Girish A. Jathar
Information Officer	:	Ms. Kavita Mallya
Research Officer	:	Mr. Hemant Tripathi

Cover: Black-necked Stork
Ephippiorhynchus asiaticus
by Kedar Bhide

Cover design and Page layout: Gopi Naidu, Publications BNHS.

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C O N T E N T S

National News

Bird spotted after 140 years

A rare bird not reported seen in India for 140 years has been spotted near the eastern city of Kolkata, giving bird watchers and scientists hope for studying the species. The Large-billed Reed Warbler, an olive-brown bird with a long beak and short wings, was discovered in 1867 in the Sutlej Valley of India. Because it was so rare, scientists had long debated whether it represented a true species or was an aberrant individual of a more common species. That debate ended when an ornithologist captured one outside of Bangkok, Thailand, in March 2006. Photographs and DNA testing confirmed the Large-billed Reed Warbler as a separate species. Experts say that at first glance, the bird looked like a more common species. But the bird constantly fanned its unique wedge-shaped tail said Sumit Sen, the birder who photographed the bird. Sen believes that the bird was always there unnoticed. Four bird experts, including the ornithologist who has the original Large-billed Reed Warbler's skin, have confirmed that Sen's photographs are of a Large-billed Reed Warbler.

SUMIT SEN

Source: http://www.news24.com/News24/Technology/News/0,,2-13-1443_2098324,00.html

Migrant watch

Indian Birds, India's leading journal of the scientific study of birds, supported by the National Centre for Biological Sciences (NCBS), Bangalore, has initiated **MigrantWatch**, a new and unique initiative in which members of the public from all over the country monitor the movements of nine species of birds that migrate to India during winter. These birds arrive from the Himalayas or even further north. The prerequisite to participate is a basic ability to identify the nine species which include: Northern Shoveler, Marsh Harrier, Wood Sandpiper, Common Swallow, Grey Wagtail, Brown Shrike, Black Redstart, Greenish Warbler, and Rosy Starling. Participants keep an eye for these species in their vicinity and report the first date of arrival of each species. Participants can also keep a daily record of the species and submit by email or post. Countrywide maps of migration dates will be made; over the years, MigrantWatch will allow an assessment of the effect of changing temperature and monsoon on the migration time and pattern each year.

The programme is supported by National Center for Biological Science (NCBS) Bangalore, under a new "Citizen Science" initiative. Citizen Science refers to scientific investigations carried out with the help of a network of volunteers. Citizen Science programmes worldwide are being used in a variety of studies, including on stars, birds, butterflies and water.

For details on participation and bird identification guidelines log on to www.ncbs.res.in/citsci

Trawling threats to Albatross

An estimated 100,000 Albatrosses die annually in the longline fishing industry. Recent studies reveal that large numbers of Albatrosses are also dying in trawl fisheries. A recent study estimated 12,000 Albatrosses to have died in the South African trawl fishery in one year. Birdlife International, in partnership with the Royal Society for Protection of Birds (RSPB), UK and working with collaborators across the world, are committing to raise £2 million over the next five years, doubling the capacity of its Albatross Task Force programme.The Task Force members crucially advise fishing crews on the simple and cost-effective ways to avoid catching Albatrosses that steal bait from the longline hooks. A vital part of the Albatross Task Force's work is to encourage crews to use effective mitigation measures, such as the bird-scaring lines. Measures such as weighting the lines, so they sink more quickly or attaching streamer (bird-scaring) lines to the stern of the vessels have proved highly effective and have gained international recognition. Officials say that the Albatross Task Force would advise and support mitigation techniques, raise awareness and ultimately, reduce seabird casualties. Expanding the programme would double the number of Task Force instructors and reach several new countries. The expansion of the task force should benefit a number of albatross hotspots, especially those along the Pacific and Atlantic coasts of South America.

To find out more about the Save the Albatross campaign:
.visit www.savethealbatross.net
Source: http://www.birdlife.org/news/news/2007/06/albatross_investment.html

Europe's disappearing farmland birds

New research has shown that Europe's farmland birds have declined by almost 50% in the past 25 years – a trend caused by EU-wide agricultural intensification being driven by a policy in need of urgent reform. The results, released today, bring together the most comprehensive biodiversity indicators of their kind in Europe, collated by the Pan-European Common Bird Monitoring Scheme (PECBMS) - a partnership led by scientists from the European Bird Census Council, BirdLife International, the Royal Society for Protection of Birds (RSPB) and Statistics Netherlands. The results confirm the extent to which farmland birds have declined. Across Europe as a whole from 1980 to 2005, common farmland birds have on average fallen in number by 44%–the most severe decline of the bird categories monitored. Officials confirm that birds can be vital indicators of environmental change and their decline is a clear evidence of the environmental degradation that has occurred across European farmland.This portends a severe threat to the species and habitats with which they coexist. Species like Eurasian Skylark *Alauda arvensis*, Red-backed Shrike *Lanius collurio*, Corn Bunting *Miliaria calandra*, Northern Lapwing *Vanellus vanellus* and Eurasian Tree Sparrow *Passer montanus* are familiar names in the long list of declining farmland bird species. The bird organizations involved in the study are calling for a reform of the Common Agricultural Policy (CAP), a system of European Union subsidies and programmes that has led to considerable agricultural intensification in EU Member States. Although this drive has lessened with successive reforms, the CAP still appears to fail farmland birds and the European environment in general. Officials say that the EU has made encouraging strides forward in environmental legislation, yet for farmlands -which accounts for nearly half of the total land surface of Europe; it is still working to an outdated policy that still encourages unsustainable intensive farming, while failing to support those extensive farming systems that are vital for biodiversity conservation and rural economies. Findings from the study also show decline of forest birds: across Europe as a whole from 1980 to 2005, numbers of common forest birds have fallen on an average by 9%. The researchers highlight the speed with which forest ecosystems react to changes in management which are much slower than in farmlands, so this decline may carry a very serious warning. Further studies to investigate the driving factors, management regimes in particular are being urged by researchers. Forest bird declines have been particularly severe in the boreal forests of Northern Europe, where they are thought to be threatened by highly intensive forestry exploitation.

Source: http://www.birdlife.org/news/news/2007/06/europe_bird_declines.html

Sewri - Mumbai's Ruby

Rushikesh Chavan
Conservation Officer , Bombay Natural History Society, Mumbai

The open mudflats of Sewri and Trombay, located along the Arabian Sea, showcases one of the wondrous sites of Mumbai. An Important Bird Area (identified by the BNHS and BirdLife Intetrnational), it is host to more than 20000 birds, which winter here from October up to March, captivating millions of Mumbaikars.

An area c. 10 km long and 3 km wide, it is dominated all along the coast by mangroves and refineries of the Oil and Natural Gas Corporation (ONGC), Bharat Petroleum Corporation Limited (BPCL) and Hindustan Petroleum Corporation Limited (HPCL), with Bhabha Atomic Research Centre (BARC) in the backdrop. Sewri is dominated by mangrove vegetation and supports diverse flora. 53 species of vascular plants have been recorded here. Although small area wise, 150 species of birds have been identified along with 2 species of flamingos (Greater and Lesser Flamingo). More than 15000 Flamingos are seen during the peak season, the Lesser Flamingos being present in greater numbers. Adorned with a hue of pink, deep red bills and irises, it is breathtaking to watch these threatened species run on water and take off. No wonder they are called 'agnipankh' (fire-winged)!

The Sewri mudflats also welcome the unsung heroes of migration, the waders! Waders are small birds that wade through shallow waters in search of food. The area is filled with wader activity. 7000 Lesser Sand Plovers were sighted in January 2003. Globally threatened species such as the Greater Spotted Eagle *Aquila clanga*, Eastern Imperial Eagle *Aquila heliaca* and White-rumped Vulture *Gyps bengalensis*, Marsh Harrier *Circus aeruginosus* along with Spotted Greenshank *Tringa guttifer* Common Redshank *Tringa totanus*, Marsh Sandpiper *Tringa stagnatilis*, Common Greenshank *Tringa nebularia*, Curlew Sandpiper *Calidris ferruginia*, and Brown-headed Gull *Larus brunnicephalus* among others. The large number of Little Stints *Calidris minuta* seen here are notably much above the 1% threshold of biogeographic population determined by Wetlands International. This wetland is also home to mammals, rodents and bats; the Golden Jackal *Canis aureus*, being a predominant denizen. Other fauna includes eight species of reptiles, twenty eight species of butterflies, more than hundred species of molluscs and nine species of crustaceans.

This wonderful site is threatened by the 22 km long sea link that is to be built, cutting right through the mudflats. The Rs. 4000 crore Nhava-Sewri Trans Harbour Sea Link hangs like a pall on the mudflats and its inhabitants. The construction period itself spells doom for the mudflats, even if the sea link does not. Undoubtedly, Mumbai needs infrastructure and development. But development like these requires a price to be paid in terms of loss of habitat and biodiversity. Mumbai is the only metropolitan city in the world, which can boast of having such a wonder amidst a metropolis. Is it worth losing? Is there a practical compromise? I think there is! The sea link needs realigning by at least 800 m to the south, to give the birds a fighting chance to feed in their preferred habitat. It is up to the State Government, the Maharashtra State Road Development Corporation, the Forest Department and the people of Mumbai, to protect this mudflat for the posterity of not just our city, but also our country and the world.

Grassland Hues

MOHIT KALRA

Sutirtha Dutta

Junior Research Fellow, Wildlife Institute of India, Dehradun

My venture through some of the diverse landscapes of the country as a researcher of the Wildlife Institute of India (WII) and the Bombay Natural History Society (BNHS), has etched out indiscriminate patchworks of natural frames in my mind. One of them standing out in relative clarity at the moment is the memories of my first visit to Kutch. My train to Kutch was hurrying its way through the Little Rann at dusk. On the horizon, a stretch of continuous red, different from the twilight hue attracted my attention. The source of the red - Greater and Lesser Flamingos! Since then, I have had a considerable but interrupted association with Kutch, its wildlife, people and landscape.

This arid country of black hills and rolling plains is flanked by the Rann in the north and the Gulf to the south. An extremely harsh climate with occasional respite from long awaited precipitation has let down the ecosystem stochastic in resource base. With the first rainfall, acres of bare and dry tract transform overnight into green flushes of life. Insect abundance increases along side. Higher vertebrates' population grows eventually. Consequently, one would find here an exclusive array of fauna like Spiny-tailed Lizards, Sandgrouse, Bustards, Caracals and Desert Cats - species that have mastered their hold over arid habitats.

Kutch lies in the crossroad of 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 the avian community with seasonal assemblages of species, dynamic through time. Increased resource availability post monsoon, opens up many new spaces for these passage migrants. A couple of years of generous rains between 2005 and 2007 have swerved a fresh flow of life to Kutch. Rosy Pastors start arriving as early as July. Waves of Whimbrels approach in early August; settle in groups across open grasslands and spread across the sky in reckless haste to forage every now and then before moving coastward. Harriers and Steppe Eagles carry forward the sequence.

Grasslands of Kutch provide seasonal space for three bustard species, the endangered Great Indian Bustard *Ardeotis nigriceps* and Lesser Florican *Sypheotides indicus*, and the vulnerable Houbara Bustard *Chlamydotis undulata*. Bustards are 'rain breeders'. Approaching monsoon brings the Great Indian Bustards and good numbers of Lesser Floricans (or Likhs) to the inland grasslands. Naliya and adjoining open habitats covering around 60 square kilometers in Abdasa taluka are the breeding spots. Both the species are promiscuous with males in exclusive leks and displaying prominently between July and October.

The territorial display leaps of Lesser Florican males to establish territories and attract females, make this otherwise shy species conspicuous in this season. Females however, continue their elusive life among the scrubby growths and grasslands. The distinct croak of a displaying male Lesser Florican and its leap; cheek feathers erected, legs paddling and abrupt fluttering of wings to expose the white feathers are a sight to behold. With progressing monsoon and increasing grass height, more and more Likhs arrive and occupy the grass-crop mix. They are presumed to vacate these breeding grounds for wintering in the south-eastern and northern grasslands of the country.

The Great Indian Bustard breeding is spatially constricted with males displaying, their throat pouch inflated into balloons from elevated leks, and females in flexible flocks visiting the arenas. Reproductive rate of this species is slow and males exhibit extreme site fidelity, both of which necessitate the protection of their breeding grounds. These endangered bustards are supposed to prefer open, low to medium height grasslands with scanty shrubs maintained through wild ungulate and/or traditional livestock grazing. Besides the bustards, the grasslands of Kutch host a plethora of bird life, notably, the Black-shouldered Kite *Elanus caeruleus*, the Indian Courser *Cursorius coromandalicus*, Cream-colored Courser Cursorius cursor, eight species of Larks, several species of quails, Buttonquails, francolins, Short–toed Eagle *Circaetus gallicus*, Tawny Eagle *Aquila rapax*, falcons, buntings and warblers.

Historically, much of Kutch was occupied by low grasslands stretching from the coast of Mundra, Mandvi, Abdasa and Lakhpat talukas across several miles before breaking into scrubland and thorny woodlot in the north. These 'common lands' were traditionally subjected to agro-pastoralist land use by sparsely populated local communities. They also accommodated the transient pastoralist caste, Rabaris, during their post-monsoon north westerly migration. Gradual invasions of intensive agriculture supplemented by genetic crops, fertilizers and pesticides have pushed pastoralism to a dead end. Following the mass exodus of Kachchhis, village lands with somewhat ambiguous proprietary rights could easily be grabbed and broken to permanent cultivation at relatively cheaper prices by immigrants.

The grasslands of Kutch, much like the others of our country are getting ripped into pieces so small that they might lose their ecological functions, unnoticed. With every addition to our knowledge of natural science, grows the responsibility to ensure its right use; and to restore the heterogeneity of ecological and social systems through a holistic approach. In a backdrop of facts like high livestock population, absence of national grazing policy and accelerated agricultural conversions, grassland ecosystems of our country elicit greater concern as milestones in the 'conservation causeway' that are yet to be laid.

Threatened Birds of India

Introduction

A total of 324 (12%) bird species in Asia, which include 41 Critically Endangered, 66 Endangered and 217 Vulnerable are globally threatened with extinction. India has 75 globally threatened species: 12 Critically Endangered, 10 Endangered and 53 Vulnerable. Most threatened bird species are specialized in their habitat requirements, and are totally dependent on a particular type of forest, grassland or wetland for their survival. The continuing loss and damage to their habitats is by far the most important threat faced by these species.

The IUCN and BirdLife International have detailed account on taxonomy, distribution and conservation status of the threatened bird species since 1960s. The main purpose of this data is to catalogue and highlight those taxa that face a higher risk of extinction, i.e. those listed as Critically Endangered, Endangered and Vulnerable. This data also includes information on taxa that are categorized as Extinct or Extinct in the Wild; on taxa that cannot be evaluated because of insufficient information, i.e. are Data Deficient; and on taxa that are either close to meeting the threatened thresholds or would be threatened were it not for an ongoing taxon-specific conservation programme, i.e. are Near Threatened.

CATEGORIES OF THREAT LEVELS TO BIRDS	
Extinct	Not seen for at least 50 years
Critically Endangered	Likely to be extinct
Endangered	High risk of extinction
Vulnerable	Risk of extinction
Near threatened	Close to vulnerable
Least Concern	Does not qualify for any of the above
Data deficient	No information available

Fact File

- In 1960s, IUCN and BirdLife International introduced the term 'Red Data Book'
- In 1963, the late Sir Peter Scott conceived the idea of an International Red Data Book – a register of threatened wildlife that includes definition of degree of threat
- In 1980, the first bird 'Red Data Book' was published by BirdLife International in conjunction with IUCN
- In 2000, 'Threatened Birds of the World' was published by BirdLife International
- In 2001, 'Threatened Birds of Asia' was published by BirdLife International
- In 2006, Threatened Birds of the World was updated and published in digital format (CD).

Conservation of the Threatened Species

Community management, joint forest management, public awareness, site support groups and declaration of Important Bird Areas (IBA) as protected areas are the key factors in long-term conservation of the threatened species.

THREATENED BIRDS SCENARIO (BIRDLIFE 2006)		
Species	World	India
Critically Endangered	181	12
Endangered	351	10
Vulnerable	674	53
Total	1206	75

Critically Endangered

Pink-headed Duck *Rhodonessa caryophyllacea*

The Pink-headed Duck, a large diving duck is a remarkable, mysterious and, sadly, almost certainly extinct species. 60 cm. in size, it is a graceful, long-necked duck. Males have deep pink head and neck, blackish-brown centre of throat, foreneck and most of the remaining plumage. The bill is rosy-pinkish. Females have a duller and browner body, pale grayish-pink head and upper neck with brownish wash on the crown and hind neck, and duller bill. Juvenile has a duller brown body than a female, with fine, whitish feather fringes. Males utter a weak whistle, females - a low quack.

Pink-headed Duck *Rhodonessa caryophyllacea*

The Pink-headed Duck was locally distributed in the wetlands of India, Bangladesh and Myanmar, and occurred rarely in Nepal, with most records from north-east India and adjacent Bangladesh. It is shy and secretive, inhabiting secluded and overgrown still-water pools, marshes and swamps in lowland forest and tall grasslands, particularly areas subject to seasonal inundation and, in winter, also lagoons adjoining large rivers. Outside the breeding season it was usually encountered in small groups and occasionally in flocks of 30-40. Some, and possibly all, populations undertook local seasonal movements, resulting in scattered historical records as far afield as Punjab, Maharashtra, and Andhra Pradesh.

Its breeding habitat is lowland marshes and pools in tall-grass jungles. The nest is built amongst grasses. They are gregarious birds, and form flocks of 30 or more. Pink-headed Ducks eat aquatic plants, and, typically up-end for food much more than other diving ducks.

It was always considered uncommon or rare and was last seen in the wild in 1949, surviving until around the same time in captivity. Recent "sightings" and positive leads from a series of questionnaires about its possible continued existence in north-east India were the result of confusion with Red-crested Pochard *Netta rufina*. Hopes remain that it may be rediscovered in remote wetlands in northern Myanmar where a survey in Kachin State in 2003 gained a possible sighting and two credible reports from local fishermen. Its extinction cannot be confirmed until this part of its former range has been more fully surveyed.

It is not known why it was always considered rare, but the rarity is believed to be genuine (and not an artifact of insufficient fieldwork) as its erstwhile habitat was frequently scoured by hunters in colonial times. The Pink-headed Duck was much sought after by hunters and later as an ornamental bird, mainly because of its unusual plumage. As a sedentary species, it suffered year-round persecution during a period (the late 19th and early 20th centuries) when hunting levels in India were high. Like most diving ducks, it was not considered good eating, which should facilitate the survival of any remnant birds. The last specimen was shot in 1935 in Darbhanga, Bihar. Its disappearance resulted from a combination of hunting and habitat loss. Clearance of forest and drainage of wetlands for agricultural land has destroyed much of its habitat. It is likely that egg collection and disturbance also contributed to its decline.

Source: BirdLife International (2007): Species factsheet: *Rhodonessa caryophyllacea*. Downloaded from http://www.birdlife.org on 8/11/2007

Bird Quiz

Birds inhabit almost every corner of the world, from the Arctic Tundra to the tropical rain forests. Although they are all around us, birds hold many surprises. Take Buceros' bird quiz and discover how much you know about the ornithological world….

Avian Terms: Guess a term for each of the following

[Numbers in brackets = Number of letters in each word]

1. A complete set of eggs laid by one female bird. (6)
2. An assembly of birds for the purpose of communal (or social) display. (3)
3. Birds belong to this biological class. (4)
4. Flower pollination by birds. (12)
5. Grinding organ in birds. (7)
6. Birds active at twilight and just before dawn. (11)
7. The nest or nest site of a raptor. (5)
8. Birds that live in flocks. (10)
9. The bird symbolizing peace. (4)

Odd One Out (O3)……

[Hint- Nest types]

1. Green Bee-eater, Common Kingfisher, Red whiskered Bulbul, White-throated Kingfisher.
2. Grey Francolin, Jungle Bush Quail, Red Wattled Lapwing, Small Minivet.
3. Laughing Dove, Rose-ringed Parakeet, White-cheeked Barbet, Scaly-bellied Woodpecker.

Amazing bird facts

- ☐ The name of the first known bird – *Archaeopteryx lithographica* found in fossilized form simply means
- ☐ 'ancient winged form recorded/written in rocks/stones'.
- ☐ Nuthatches perch upside down and descend trees head first so that they can find food that right side up
- ☐ birds miss !
- ☐ The size of a bird is the body length including bill and tail.
- ☐ A Swiftlet's nest made from strands of gummy saliva is the central ingredient of the bird's nest soup.
- ☐ The speciality of a Woodpecker's tongue is that it is 4 times longer than its bill.
- ☐ A bird which may legally be shot during its particular open season is known as a game bird.

Answers to BIRD QUIZ

Avi-terms…

1. Clutch 2. Lek 3. Aves 4. Ornithophily 5. Gizzard 6. Crepuscular 7. Eyrie 8. Gregarious 9. Dove

Odd One Out…

1. Red-whiskered Bulbul, it builds a cup shaped nest while the rest dig a hole in mud for their nest.
2. Small Minivet, it builds cup shaped nests, the rest lay eggs on ground.
3. Laughing Dove, it builds a stick nest, the rest are cavity nesters.

THE SOCIETY'S PUBLICATIONS

		Non-Members	Members
1.	The Book of Indian Birds by Sálim Ali, 13th edition	495.00	370.00
2.	A Pictorial Guide to the Birds of the Indian Subcontinent by Sálim Ali & S. Dillon Ripley, 2nd edition	under revision	
3.	A Guide to the Cranes of India by Prakash Gole	75.00	70.00
4.	Birds of Wetlands and Grasslands by Asad R. Rahmani & Gayatri Ugra	500.00	375.00
5.	Birds of Western Ghats, Kokan and Malabar by Satish Pande, Saleel Tambe, Clement Francis M. & Niranjan Sant	995.00	.750.00
6.	Petronia by J.C. Daniel and Gayatri Ugra	360.00	270.00
7.	The Book of Indian Animals by S.H. Prater, 3rd edition	275.00	210.00
8.	A Week with Elephants — Proceedings of the Seminar on Asian Elephants, June 1993 Edited by J.C. Daniel & Hemant Datye	450.00	340.00
9.	The Book of Indian Reptiles and Amphibians by J.C. Daniel	595.00	445.00
10.	The Book of Indian Shells by Deepak Apte	295.00	225.00
11.	The Book of Indian Trees by K.C. Sahni, 2nd edition	295.00	225.00
12.	Some Beautiful Indian Climbers and Shrubs by N.L. Bor & M.B. Raizada, 2nd edition	525.00	390.00
13.	Common Indian Wildflowers by Isaac Kehimkar	375.00	280.00
14.	Illustrated Flora of Keoladeo National Park, Bharatpur by V.P. Prasad, Daniel Mason, Joy E. Marburger & C.R. Ajithkumar	695.00	520.00
15.	Cassandra of Conservation Edited by J.C. Daniel	200.00	150.00
16.	Important Bird Areas in India - Priority sites for conservation Compiled and edited by - M.Zafar-ul-Islam & Asad R. Rahmani	3000.00	2250.00
17.	Uttar Bharat ke Pakshi (Hindi) by Richard Grimmett, Tim Inskipp and Satyapraksh Mehra	500.00	375.00
18.	Uttar Bharat na Pakshiyo (Gujrati) by Richard Grimmett, Tim Inskipp and Sarita Sharma	500.00	375.00
19.	Shumali Hindustan ke Parinde (Urdu) by Richard Grimmett, Tim Inskipp and M. Zafar-ul Islam	500.00	375.00
20.	Threatened Birds of India Compiled by M. Zafar-ul Islam and Asad R. Rahmani	75.00	75.00
21.	Field Methods for Bird Surveys by Salim Javed and Rahul Kaul	150.00	150.00
22.	Indian Bird Banding Manual. Complied by S. Balachandran--------	100.00	100.00
23.	Birds of Sanjay Gandhi National Park by Sunjoy Monga	50.00	40.00
24.	National Parks and Sanctuaries in Maharashtra, Vol. I & IIPratibha Pande	500.00	375.00
25.	In Harmony with Nature by BNHS and RSPB by V. Shubhalaxmi, P. Mahajan, V.G. Gambhir, M. Joshi and M. Ansari	350.00	315.00
26.	Treasures of Indian Wildlife by A S.Kothari & B F. Chapgar	1900.00	1200.00

Registered with the Registrar of Newspapers under No. MAHENG/2002/9451 ISSN 0972-1037

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, insect and plant 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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Bombay Natural History Society,
Hornbill House,
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Mumbai-400 001. INDIA.

BUCEROS is an ENVIS (Environmental Information System) newsletter published thrice yearly 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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Printed by Bro. Leo at St. Francis Industrial Training Institute, Borivli, Mumbai 400103.
Published by the Hon. Secretary for the Bombay Natural History Society, Shaheed Bhagat Singh Road, Mumbai 400001.