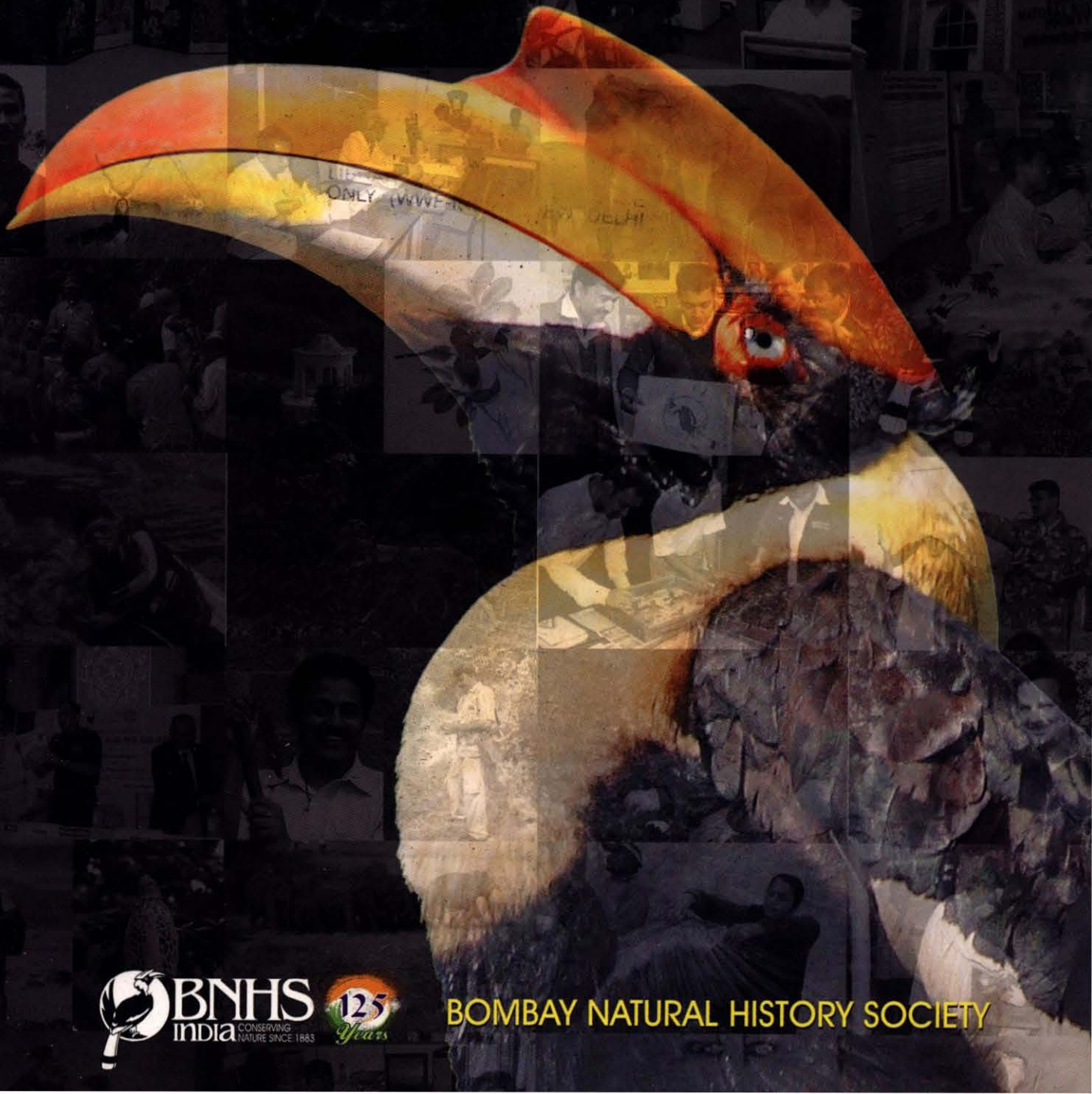


HORNBILL

DISCOVER THE LIVING WORLD

OCTOBER-DECEMBER, 2009

Events Special



BOMBAY NATURAL HISTORY SOCIETY

Painted Stork
Mycteria leucocephala

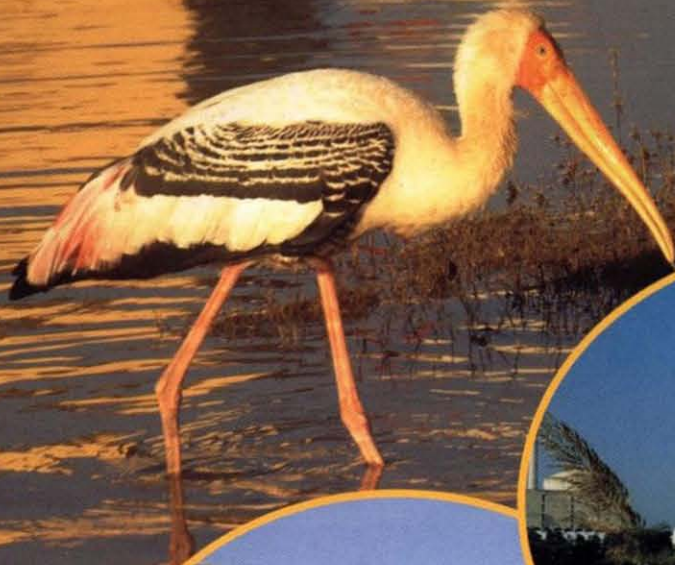
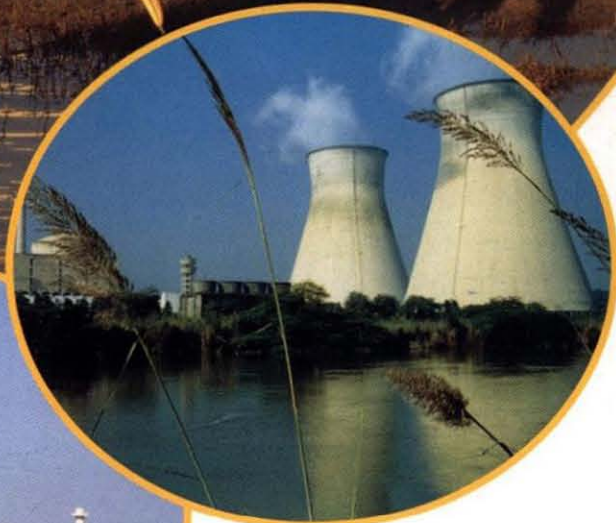


Photo: Nikhil Bhopale



The Painted Stork (*Mycteria leucocephala*) is a large wading bird in the stork family. This large stork has a heavy yellow bill with a down-curved tip. The head is bare and orange or reddish in colour. The long tertials are tipped in bright pink and at rest they extend over the back and rump, which hide short and black tail. There is a distinctive black breast band with white scaly markings. The rest of the body is whitish in adults. The legs are yellowish to red but often appear white. The juveniles reach breeding condition after two to three years. The bare red skin on the head is developed when reaching breeding maturity. They fly with their neck outstretched.

The Painted Stork is widely distributed over the plains of Asia. They are found south of the Himalayan ranges and are bounded on the west by the Indus river system where they are rare and extend eastwards into Southeast Asia. They are mainly seen on freshwater wetlands although they sometimes forage on the coast. They are resident in most regions but make seasonal movements.

They forage in flocks in shallow waters along rivers or lakes. They immerse their half open beaks in water and sweep them from side to side and snap up their prey of small fish that are sensed by touch. As they wade along they also stir the water with their feet to flush hiding fish. They also take frogs and the occasional snake. Birds forage mainly in the day but may forage late under exceptional conditions. They nest colonially in trees. The best nesting sites are at the tops of the trees. They make short distance movements in some parts of their range in response to food and for breeding. A lot of variation is noticed in the onset of breeding across sites with the season at Kokrebellur and Edurupattu around January or February but at Telineelapuram, Kundakulam and Tirunelveli the breeding begins around October or November.

Painted Storks being large and colourful birds and their nesting colonies become centres of tourist interest. Particularly well-known nest site are those that are close to human settlements and these include the colony in the south Indian villages of Kokrebellur and Veerapura. In Kokrebellur, the birds nest within the trees in the village forming mixed nesting colonies with the Spot-billed Pelican. The local people provide security to these birds during the brief nesting season when the birds arrive in October leaving the village in a couple of months.

The Painted Stork is listed as Near Threatened by Birdlife International and IUCN, owing to some decline seen in most of its range, particularly outside India. It is seen in many NPCIL sites such as Madras Atomic Power Station (MAPS) and Kundankulam Nuclear Power Project (KNPP) in Tamil Nadu, Rajasthan Atomic Power Station (RAPS), Rawatbhata in Rajasthan and Narora Atomic Power Station (NAPS) in Uttar Pradesh.

The Environment Stewardship Programme (ESP) of NPCIL, a voluntary programme, envisages scientific study of bio-diversity, particularly avi-fauna, in the Exclusion Zones (EZs) and the environs of its seven nuclear power stations. EZ is a 1.6km radius area around the centre of nuclear plant. While only a fraction of this area is used for the plant structures, remaining is used for green-beltting. A large number of bird species have made EZs their homes. The programme also includes training of local volunteers, public awareness campaigns to sensitize members of public on environment, improving habitat, particularly of avi-fauna, etc.

NPCIL as a responsible corporate citizen believes that these efforts will help in promoting habitat conservation and awareness on the importance of a healthy environment to make the world a better living-place.



Nuclear Power Corporation of India Limited

(A Govt. Of India Enterprise)

Vikram Sarabhai Bhawan, Anushakti Nagar, Mumbai- 400094, <http://www.npcil.nic.in>



EXECUTIVE COMMITTEE

President

Mr. B.G. Deshmukh, IAS (Retd.)

Vice Presidents

Dr. K. Ullas Karanth

Mr. Homi R. Khusrokhhan

Honorary Secretary

Dr. Ashok Kothari

Honorary Treasurer

Mr. E.A. Kshirsagar

Director

Dr. A.R. Rahmani

Members

Mrs. Sumaira Abdulali

Dr. A.M. Bhagwat

Dr. Ravi Chellam

Mr. J.C. Daniel

Mr. Debi Goenka

Mr. Prakash Gole

Dr. A.J.T. Johnsingh

Mr. Ashish Kothari

Mr. Sunjoy Monga

Ms. Pratibha Pande

Mr. Satish Pradhan

Dr. R. Sukumar

The Joint Secretary, Ministry of Environment & Forests, Govt of India
The Addl. IG Forests (WL) Ministry of Environment & Forests, Govt of India
The Director of Archaeology & Museums, Govt of Maharashtra

Editors

Asad R. Rahmani

Isaac Kehimkar

Vibhuti Dedhia

Editorial Assistant

Priyanka Iyer

Consultant Editor

J.C. Daniel

Layout

V. Gopi Naidu

Cover Concept

Priyanka Iyer

Cover: Great Pied Hornbill
Vilas Ambre

Published and printed quarterly by Dr. Ashok Kothari for the Bombay Natural History Society, Printed at Stusa Mudra Pvt. Ltd., Lower Parel, Mumbai.

Reg. No. RN 35749/79, ISSN 0441-2370.

For more information on the Society and its activities, write to the Honorary Secretary, Bombay Natural History Society, Dr. Sálím Ali Chowk, S.B. Singh Road, Mumbai 400 001, Maharashtra, India.
Tel.: (91-22) 2282 1811
Fax: (91-22) 2283 7615
E-mail: bnhs@bom4.vsnl.net.in
Website: www.bnhs.org

Views expressed by the contributors in the Hornbill are not necessarily those of the BNHS. Unsolicited articles and photographs, and materials lost or damaged are not our responsibility and no claims will be entertained.

CONTENTS

copy

4

BNHS over 125 years – A Journey! 1883-2008



30

125 years Celebrations begin!



35

BNHS Exhibition at the Museum (CSMVS)



37

'Jewels of India'



47

BNHS-Green Governance Award



59

International Conference: "Conservation in a Globalising India"



66

Bird Migration Centre: Point Calimere



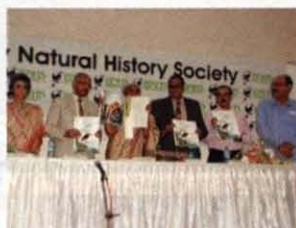
69

BNHS Sálím Ali Award for Community Conservation 2008-09



78

"Living Jewels from the Indian Jungle"



80

Workshop on BNHS' strategic plan for 2010-2015



82

BNHS' Annual Research Seminar



85

Workshop on Statistics



88

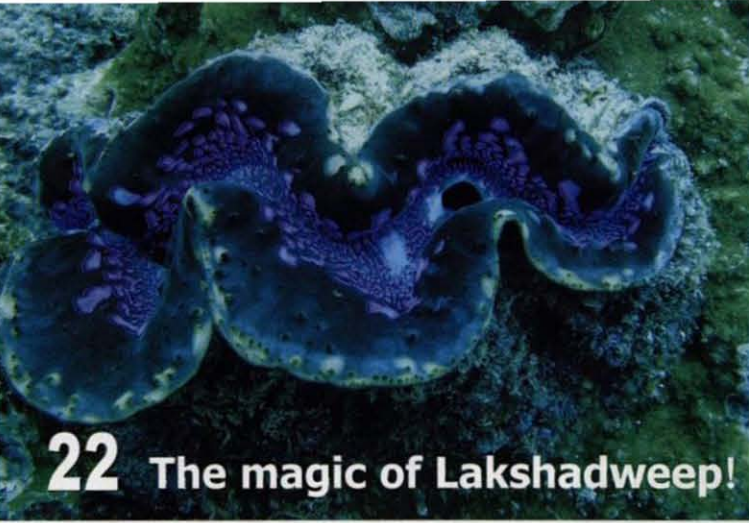
Book Release: Natural history and the Indian Army



91

"Medicinal Plants of India"





22 The magic of Lakshadweep!



42 If only hope could save ...



52 Know your mangroves



24 Secrets of SGNP!



72 Tidal Pool

BNHS Mission

Conservation of nature, primarily biological diversity,
through action based on research,
education and public awareness



Celebrating birthdays

Celebrating birthdays is a joyous moment full of fun and merriment. We all enjoy it during our younger days, but as we grow old and begin shouldering responsibilities, the fun of celebrating a birthday slowly disappears. But, in case of an institute or an organisation it is just the opposite, the older the merrier. Any organisation that survives for more than 100 years is looked at with awe and respect; this admiration further increases when you add another 25 years to its age.

The BNHS turned 125 years in September 2008. The BNHS Executive Committee (EC) under the leadership of Mr. B.G. Deshmukh, IAS (retd.), President, decided to celebrate it through various functions and events in different parts of the country and reach out to maximum members of the BNHS, and the civil society in general. This special issue of *Hornbill* deals with those events. The one-year celebration was guided and supervised by Mrs. Pheroza Godrej, former Vice President of the Society. Personally as well as on behalf of BNHS staff, I want to thank her for her guidance and for raising fund. Without funds, these events would not have been possible. We also acknowledge the support of other members of the EC.



Ms. Pheroza Godrej
Former Vice President, BNHS

Members and staff (former and present) are the backbone of the Society. Some staff members remain in the limelight due to the nature of their work, and scientists get recognition through their research papers and books, but there are members of the staff who remain 'hidden' from the view although their role in the running of the Society is as important as that of a BNHS scientist. In this special issue of *Hornbill*, we have tried to highlight the role of almost every staff of BNHS. We have tried to include pictures of every staff during various functions and those who missed the 'frame' are included separately with a small write-up on their contribution. I want to personally thank all the staff of BNHS for their untiring work during these functions. I am sure some of them will be there when BNHS celebrates its 150 years.

It would have been difficult to organise functions in various cities, without the local support. The help of local members of BNHS is pictorially acknowledged in this issue. If we have missed anyone, it is inadvertant.

Lastly, we want to thank all the donors and supporters of the BNHS for always coming to help the Society.

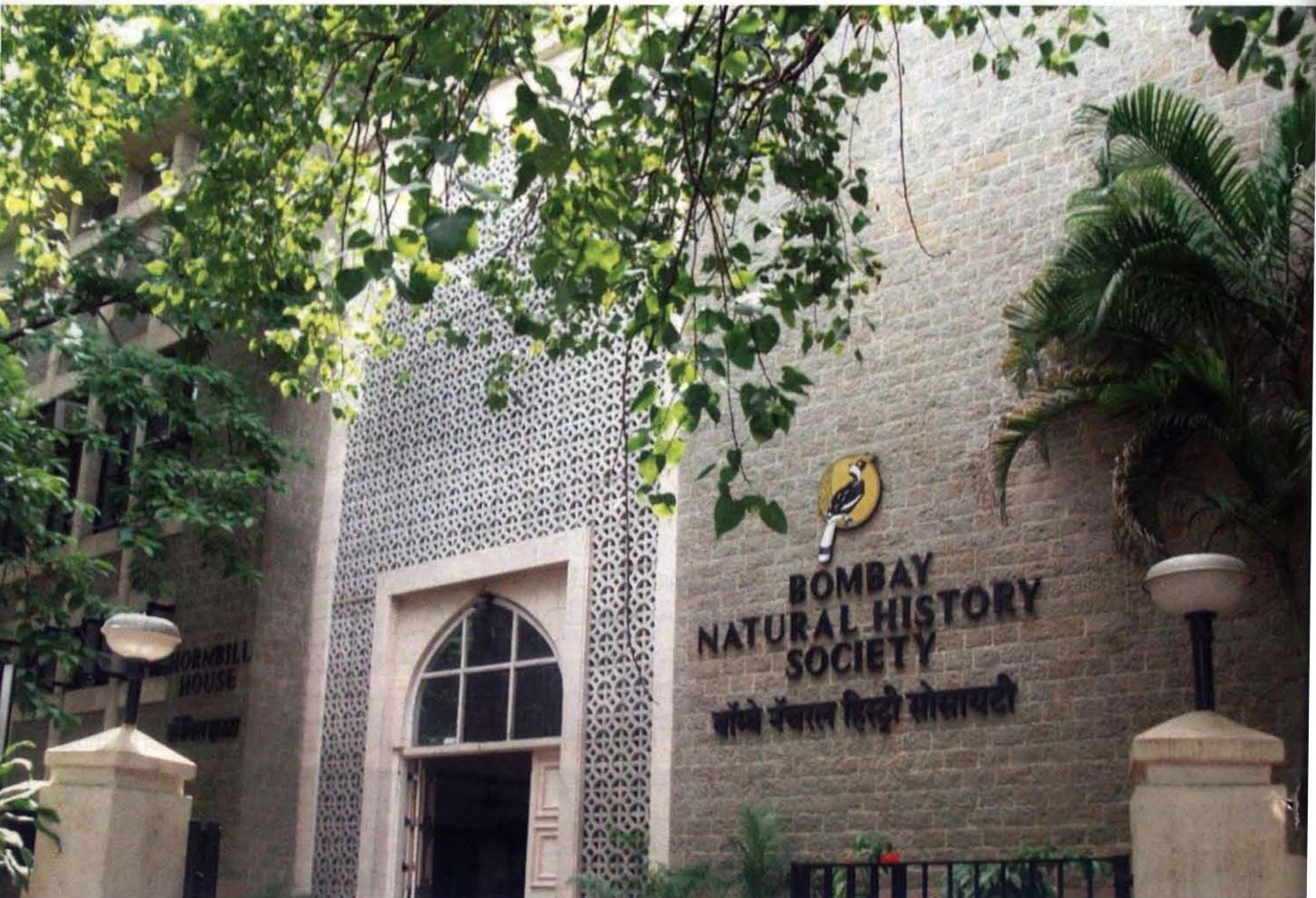
As *Hornbill* is a natural history magazine, I thought it would be appropriate to include pictures of all those animals and sites at which BNHS scientists and members have been working for many years. I hope you already have the special issue of *Hornbill* (Oct-Dec. 2008), which covers all the major projects of BNHS. That issue was to commemorate the beginning of 125th Year Celebrations, and this special issue is what we did during the year. I hope these two special issues of *Hornbill* will make a memorial compendium of the work that the Society was doing during its 125th year.

Asad R. Rahmani



BNHS OVER 125 YEARS – A JOURNEY! 1883-2008

Be it a mere meeting to 'collect and exchange natural history information' or progressing into being India's largest wildlife organisation, the Bombay Natural History Society has seen it all through its more than 125 years of existence! The Bombay Natural History Society (BNHS) was founded by Dr. D. MacDonald, Mr. E.H. Aitken, Col. C. Swinhoe, Mr. J.C. Anderson, Mr. J. Johnson, Dr. Atmaram Pandurang, Dr. G.A. Maconochie, Dr. Sakharam Arjun on September 15, 1883. When many people in and around India were engaged in activities like shikar and collection of animal specimens as a mere hobby, there were also these eight men who decided to make use of these collections and use them to enable scientific study. With this idea, BNHS has contributed 125 glorious years of nature and wildlife conservation.



Hornbill House – The head office of Bombay Natural History Society in Mumbai

“Conservation of nature, primarily biological diversity, through action based on research, education and public awareness”

This is the mission that BNHS has been working successfully towards in the past and continues to do so successfully even today. Wildlife conservation and the efforts initiated and undertaken by the Society have proved significant at several instances. The efforts and results that the Society gets would have been impossible to attain without the Society’s several research activities. The data furnished by the researchers and members is what enables the working of the Society in every sense.

The vast collection of books and exhibits that the Society prides to hold is one the most varied and important documentations on wildlife and nature possessed, which interestingly has been contributed not only by the staff and members, but also by the well-wishers of the Society. The initiation of the Natural History section at the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (formerly known as the Prince of Wales Museum of Western India) and the various major and minor wildlife projects which have contributed to the documentation of important information, are but a few examples of the vast ocean of potential that the Society and its members hold.

The Society’s achievements during the first 100 years have been documented in the Centenary issue of the *Hornbill*. The July to December issue of 1983 of the *Hornbill* reconstructed the story of BNHS through its initiation and its progress through its first 100 years.



The BNHS has over years been recognised for its work in nature conservation



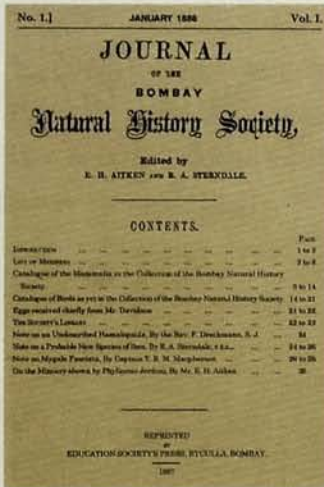
(L-R): Dr. Asad R. Rahmani, Director, Mrs. Pheroza Godrej, Vice President, Mr. B.G. Deshmukh, President, Mr. J.C. Daniel, Honorary Secretary



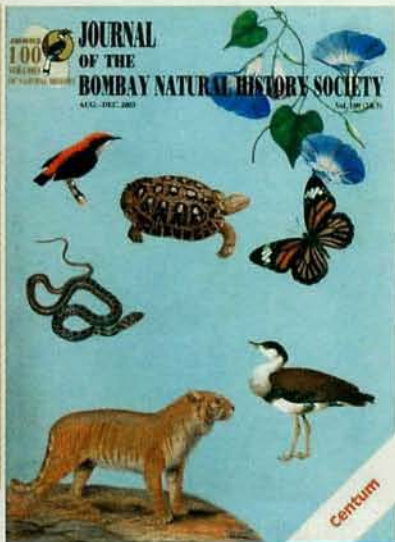
Front row: (L-R): Mr. Ashish Kothari, Dr. Asad R. Rahmani, Mr. J.C. Daniel, Dr. Ashok Kothari, Mr. B.G. Deshmukh, Mr. Homi R. Khusrokhhan, Mr. E.A. Kshirsagar, Mr. M.G. Mathews

Back row: (L-R): Mr. Prakash Gole, Dr. A.J.T. Johnsingh, Dr. R. Sukumar, Dr. Ravi Chellam, Mr. Sunjoy Monga, Dr. A.M. Bhagwat and Ms. Pratibha Pande. Inset: (L-R): Dr. A. Ullas Karanth, Mr. Satish Pradhan, Mr. Debi Goenka and Mrs. Sumaira Abdulali

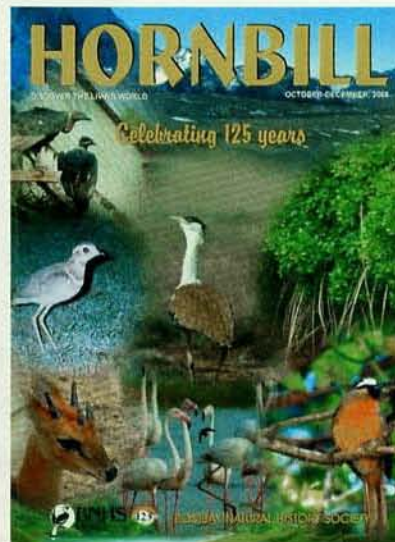
EVENT SPECIAL



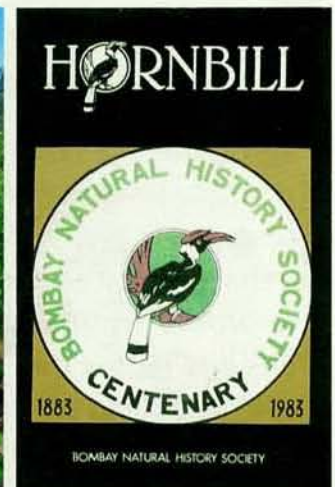
JBNHS – First issue (1886)



JBNHS – Centenary issue (2003)



Hornbill - Project special (2008)



Centenary issue (1983)

Several major and minor projects, which truly can be called the milestones in the history of wildlife conservation, and also that of BNHS, are seen in detail in this Centenary issue. The progress and achievements of the Society since the centenary celebrations of the Society are highlighted in the October-December, 2008, issue of the *Hornbill*, which celebrated the successful 125 years of BNHS.

Publications Department

The ever widening scope of research and development led to the establishment of several departments in the Society. As the Society had been established to collect and share data and exhibits in the first place, the publications came into being. In 1886, the first *Journal of the Bombay Natural History*

Society (referred to as JBNHS hereon) was published, which not only made most of the important data easily exchangeable to different experts and researchers, but also documented them, thus creating a database of very valuable information. As the papers published in JBNHS were very technical and scientific, it was not always easy for the common readers to understand them. Therefore, in 1976 the Society came out with a new publication called *Hornbill* meant for its common readers. *Hornbill* was named so after the Great Indian Hornbill 'William' who stayed in the Society from 1894 to 1920.

Hornbill is a quarterly magazine which usually sees accounts of personal experiences of members as well as experts on different aspects of nature and conservation.



The next generation of BNHS researchers (L-R): Mohit Kalra and R.K. Jagdish, Senior Research Fellows work in the Climate Change Project of the Society



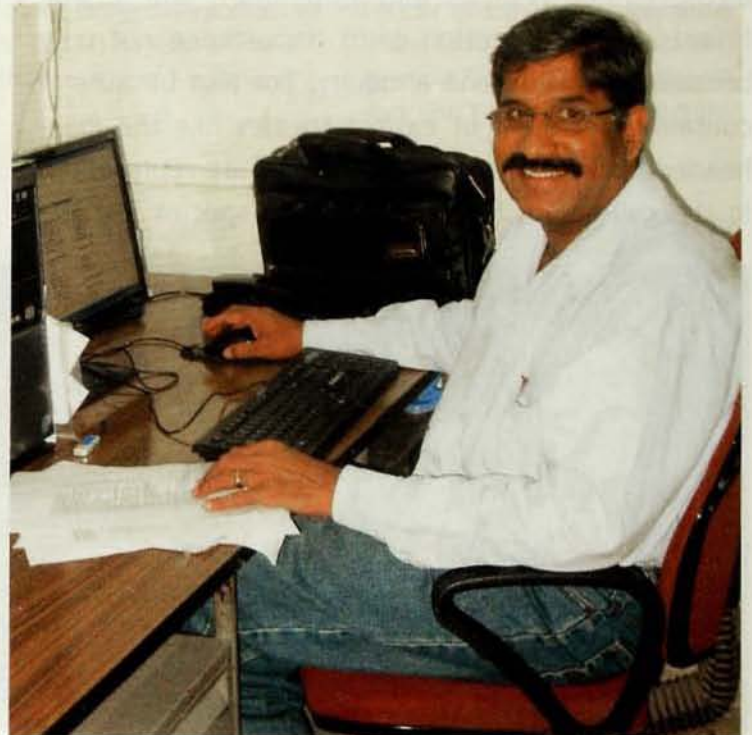
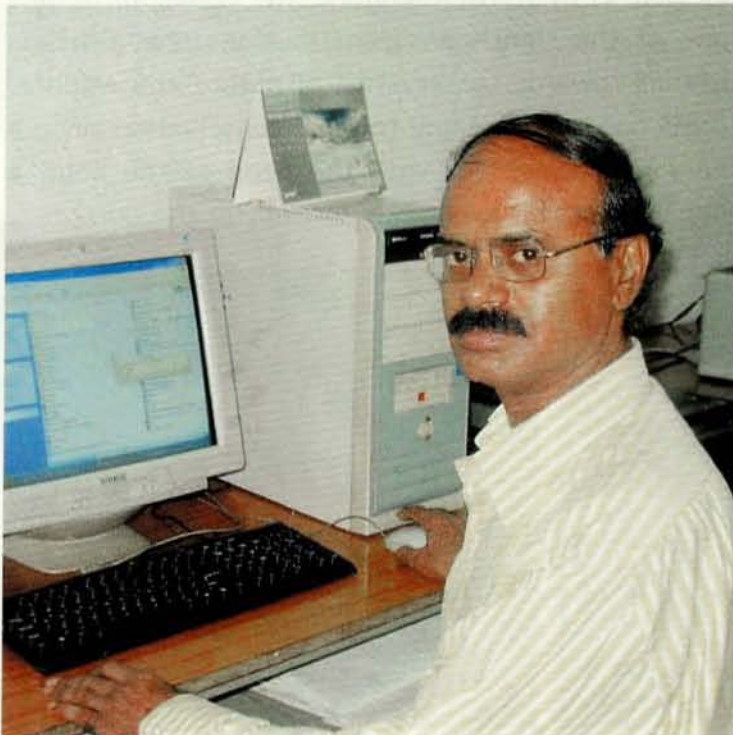
(L-R) Vibhuti Dedhia, General Manager, Publications, Priyanka Iyer, Publications Assistant, Divya Sarma, Publications Assistant and Sonali Vadhavkar, Publications Officer

JBNHS and *Hornbill* contain articles and research papers. But, there is always more to be said and communicated about any field of research especially regarding biodiversity. This was also taken care of by the Publications Department when they printed several scientific books of which a few are *The Book of Indian Birds* by Salim Ali, *The Book of Indian Animals* by S.H. Prater, *The Book of Indian Trees* by K.C. Sahani, *The Book of Indian Butterflies* by Isaac Kehimkar, *The Book of Indian Shells* by Deepak Apte, *The Book of Indian Reptiles and Amphibians* by J.C. Daniel and *Ducks, Geese and Swans of India* by Asad. R. Rahmani and M. Zafar ul-Islam.

The publications of the BNHS also included coffee table books such as *Salim Ali's India* and *Treasures of Indian Wildlife* compiled by Ashok Kothari and B.F.C. Chhappgar. The publications of BNHS have been one of the first points of reference to naturalists and amateurs alike.

Computer Department

The publications of the Society are designed by V. Gopi Naidu, Manager (Designing), while the computers, printers, scanners, and other technologies required by the staff are taken care of by J.P.K. Menon, Systems Manager.



(L-R): V. Gopi Naidu, Manager (Designing) and J.P.K. Menon, Systems Manager



The Collection team is headed by Varad Giri, Curator



The supporting team includes (L-R): P.S. Parvate, Office Attendant, Sameer B. Bajru, Research Assistant, and Vinod Patil, Field Assistant

Collection Department

The Society, apart from recording its works in the form of publications, also has a very wide collection of specimens. The Society began this collection with an aim of collating data and enabling a wider scope of research and study.

The ever increasing membership of the Society led to the expansion of its activities, which in turn resulted in a rapid growth of its collections. Today, the Collection of the BNHS consists of over 20,000 mammals, 30,000 birds, 10,000 reptiles and amphibians and 50,000 insects. This Collection gains importance not only because of quality and antiquity, but also because it contains specimens of extinct species like the Pink-headed Duck of which five specimens are represented in the collection, highly endangered species like the

Jerdon's Courser, White-backed Vulture and Great Indian Bustard, to name a few.

This invaluable Collection of the Society is a part of the National Heritage of India. Majority of the exhibits seen in the Natural History section of the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya have been contributed by the Society. These exhibits have been there since 1936 when the Natural History Section had just been built. The collections seen here were contributed by the members of the Society, its staff, as well as by its well-wishers. The Collection is just one of the significant contributions that BNHS is making towards conservation of nature and wildlife. BNHS has been working towards conservation since a very long time, but with the need of the hour, a department was eventually formed for the purpose.



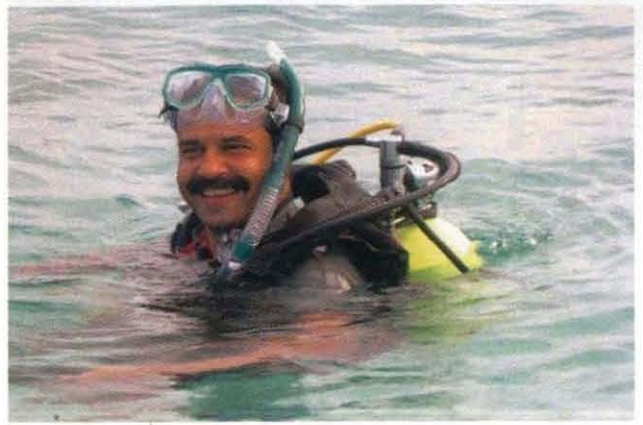
(L-R): Rahul V. Khot, Research Assistant, Vithoba M. Hegde, Senior Field Assistant, and Shyam B. Jadhav, Attendant, Collection



Kshamata Gaikwad, Research Assistant, Collection (extreme right)

Conservation Department

BNHS through its Conservation Department has undertaken some of India's most crucial conservation issues. The Department works on issues of national and global significance. The Department also regularly conducts various programmes for different target groups. It also offers volunteer opportunities to help create awareness regarding the conservation of wildlife and nature. Initiatives such as City Forests and Urban Biodiversity, Island and Oceans Initiative, Green Governance programme, Mangrove Restoration and Conservation Education Unit, Tiger Cell, Forest Guard Fund and BNHS Legal Cell are some of the prominent works of the department.



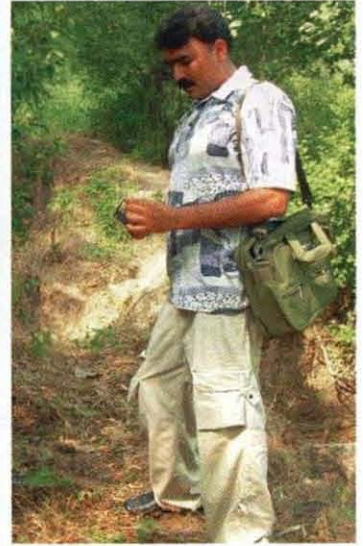
Deepak Apte, Assistant Director, is the Principal Investigator for many projects – Giant Clam Project, Mangrove Project, Satpuda Landscape Tiger Programme and the All-India Coordinated Project on Taxonomy (Mollusca)



Rushikesh Chavan heads the Conservation Department. He oversees the conservation action of the BNHS and projects undertaken by the Department



Nishigandha Pednekar is Education Officer on Project Mangroves section of Maharashtra. (inset) Rajendra Pawar, Project Assistant, Mangrove Project



Krishna Tiwari is a Project Officer of City Forest Initiative and looks into conservation issues of Sanjay Gandhi National Park and Tungreshwar Wildlife Sanctuary



Priti Salaskar is Education Officer and conducts many presentations and nature trails for school students, mainly in Mumbai, to create awareness



Swapna Prabhu is the Systematic Botanist at BNHS and is involved in various research and education activities



Karamathulla Sahib, Junior Research Fellow, is working on the conservation of Giant Clams at the Lakshadweep Field Station



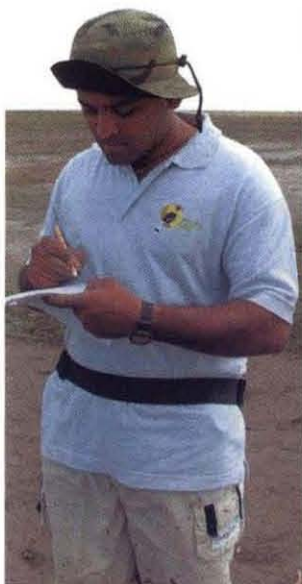
Sanjay Karkare, Education Officer, Satpuda Landscape Tiger Programme and is seen here with local children giving vital information about Tiger conservation



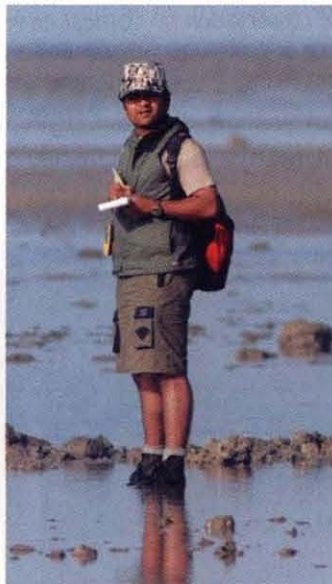
Idrees Babu K.K., Scientist, works on Giant Clams and Marine Protected Areas at the Lakshadweep Field Station



Vishal Bhave, Research Fellow, is working on the opisthobranchs at Ratnagiri, Maharashtra. He is seen here with Vishwas Shinde, Project Assistant, carrying out field studies



Bhavik Patel (L) and Manan Shukla (R) are part of the Project Mangrove Restoration and Education team of the BNHS at Gujarat.



Dishant Parasharya is Project Officer on All-India Coordinated Project on Taxonomy (Mollusca)



Aditi Nair is a Senior Research Fellow working on Octopus at Lakshadweep



(L-R): S. Balachandran, Assistant Director, P. Sathiyaselvam, Scientist 'B' and the BNHS team are working hard to save the beautiful water birds with the support of international organisations

Research Department

BNHS is always striving to conduct research on topical subjects. One of the most important projects is on the avian influenza and movement of migratory birds through ringing and satellite tracking. Dr. S. Balachandran along with his dedicated team - Sathiyaselvam and field assistants, with the support of international organisations, is studying this subject on the east coast (Assam, West Bengal, Orissa and Tamil Nadu), while another project is led by Dr. Asad Rahmani, Director, in Uttar Pradesh. The U.P. Project involves scientists of Department of Wildlife Sciences, Aligarh Muslim University and many members of BNHS.

A Bird Migration Study Centre has been established at Point Calimere, Tamil Nadu and the major funders are Sanmar Chemplast, Mr. B. Ugamraj Nahar, Mr. P.R. Ramasubramania Raja, Citi Bank and Ion Exchange. Another one of the major enthusiasts and donor supporting the Centre is Mrs. Boer.

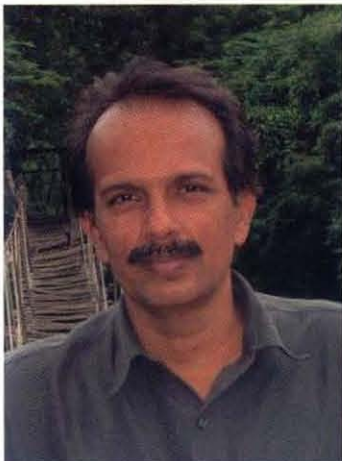


Mrs. Boer

BNHS has been studying the Asian Elephant for the last three decades, under the supervision of Mr. J. C. Daniel. With increasing human population and shrinking habitat, this majestic iconic animal of our culture, literature and religion is under severe threat. We regularly hear news of its death either through poaching or train accidents.

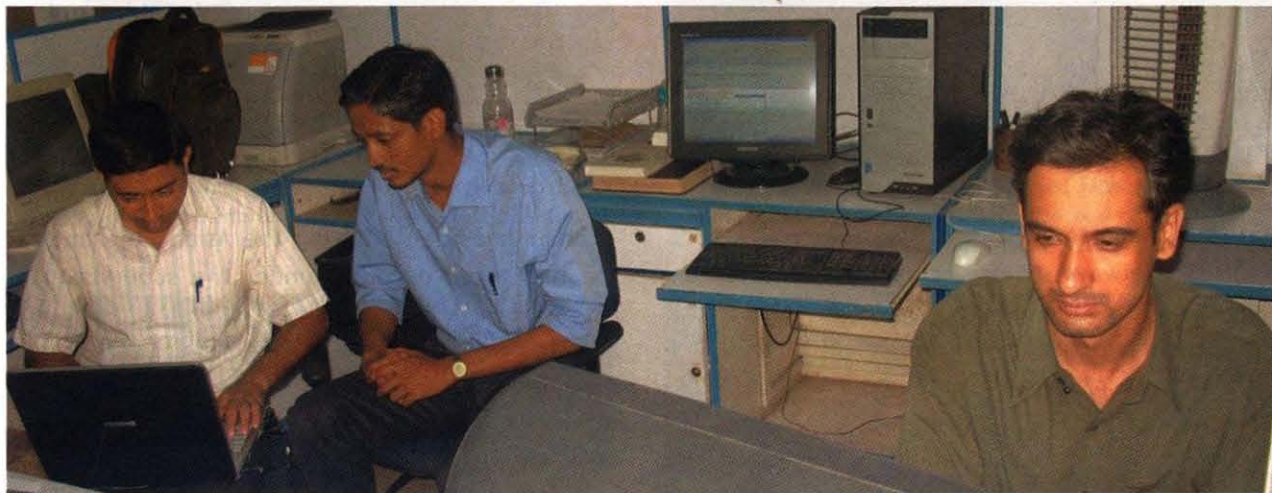
Presently with every passing day the elephant-human conflict is a problem that is becoming increasingly tense and urgent. Elephant habitats are surrounded by fields and this results in crop-raiding by the elephants. Consequentially, many farmers have surrounded their farms with electrical fences, which may not always protect their farms from the crop raiders, but it does deter the elephants to quite an extent.

The BNHS conducted a research project on the elephant to learn more about their changing distribution, population and habitat. The findings of the Project should help wildlife managers better understand and manage problems associated with dispersal and colonisation of elephants.



Ranjit Manakadan, Assistant Director, BNHS, is the Principal Investigator of the projects on Elephants, and Pelicans among others

The Important Bird Areas (IBA) Programme is a worldwide initiative of BirdLife International, of which BNHS is India Partner. The IBA Programme aims at identifying, documenting and protecting threatened birds and their habitats. In 2004, India's IBA directory was published - a result of contribution by nearly 1,000 scientists, amateurs birdwatchers, ornithologists and area/site experts, and many BNHS members. The IBA Programme is supported by the Royal Society for the Protection of Birds, UK.



(L-R): The IBA team includes Noor Khan, Associate Officer, IBA, Sagar Satpute, Information Officer and Abhijit Malekar, Associate Officer, IBA

The fall in numbers of *Gyps* species of vultures was highlighted by Dr. Asad Rahmani and Dr. Vibhu Prakash of BNHS from 1996-97 onwards. Since then, it has become a global conservation concern as more than 99% of vultures have disappeared within a span of 10-15 years, chiefly through the veterinary drug diclofenac that came in to use in India in 1993-94.

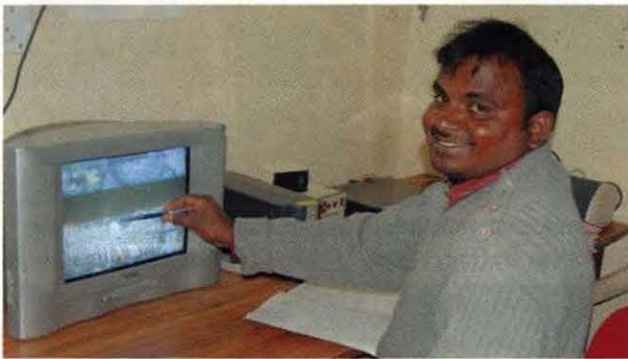
The critical condition of these birds caused BNHS to start Vulture Conservation Breeding centres at Pinjore in Haryana, Buxa in West Bengal and Rani Forest in Assam with major funding by the RSPB. These centres are fully supported by the respective state governments, and the central government. The vulture breeding centres are managed by Dr. Vibhu Prakash and his dedicated team of veterinary doctors, ornithologists and assistants, while Dr. Nita Shah looks after the advocacy part. From RSPB, Dr. Chris Bowden, Head, Vulture Programme manages this international initiative.



(L-R): The Vulture Programme team: Rhys Green, Cambridge University, Andrew Cunningham, ZSL, Nita Shah, Advocacy Officer, BNHS, Chris Bowden, Head-Vulture Programme, RSPB, Ian Barber, International Officer, Asia Division, RSPB, Vibhu Prakash, Head-Vulture Programme, BNHS, Asad R. Rahmani, Director, BNHS, Richard Cuthbert, RSPB



A view of the Vulture Conservation Breeding Centre at Pinjore in Haryana. **Inset:** Vulture chick born at the Centre



R. Venkitachalam, Scientist at the Vulture Breeding Centre



Nikita Prakash, Scientist at the Vulture Breeding Centre



Devojit Das, Scientist at the Centre, Rani Forest Range, Assam



(L-R) T. Selvakumar, Assistant Centre Manager, Sachin Ranade, Centre Manager and Scientist, and Asad R. Rahmani along with the dedicated team of the Vulture Breeding Centre at Buxa, West Bengal

Conservation Education Centres, Mumbai and Delhi

The Conservation Education Centres (CEC) of the BNHS teach people of all age groups about nature through various activities. The first education centre of the BNHS began functioning at Mumbai in 1995. On September 15, 1983, the Society's 100 year celebration, it was presented with 33 acres of forest land by the Government of Maharashtra next to the Sanjay Gandhi National Park.



CEC-Mumbai



CEC-Delhi



Shubhalakshmi Valyure, Centre Manager,
CEC-Mumbai



Deepa Fernandes, Administration Officer,
CEC-Mumbai



Kavita Kumar, Education Officer,
CEC-Mumbai



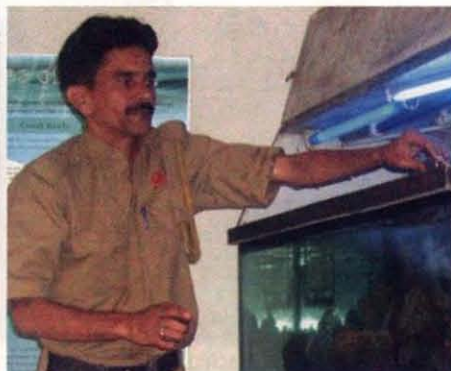
Priti V. Choghale, Senior Education Officer,
CEC-Mumbai



Sachin V. Chorgha, Education
Officer, CEC-Mumbai

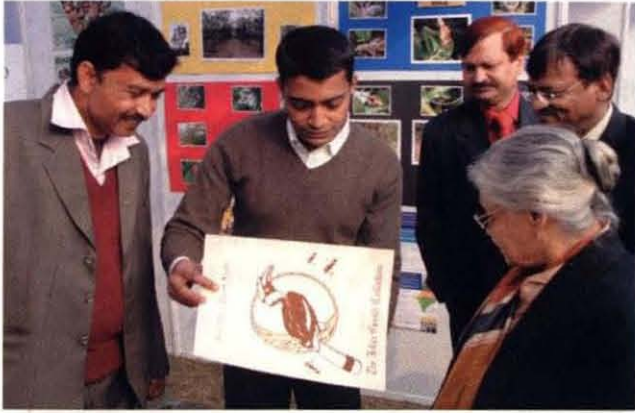


Baloo Patil, Watchman, CEC-Mumbai and
Umesh Shimpi, Driver, CEC-Mumbai



(L-R): Dashrath Lad, Dilip Giri, Ashish Yadav, Watchmen,
CEC-Mumbai

Prakash Ghadashi,
Office Assistant



(R-L): Hon'ble Chief Minister Sheila Dixit, Delhi, Mr. Dharmendra, IAS, Secretary, Environment and Forest, Govt. of Delhi, Mr. Anil Kumar, Director (Environment), Govt. of Delhi, were shown CEC-Delhi by C.R. Naveen, Centre Manager and Programme Officer, and Ishtiaque Ahamed, Education Assistant



The Education Centres of the BNHS are visited by thousands of students all through the year. Rajinder Singh is Programme Assistant at CEC-Delhi (extreme left)

In 2005, the Society established its second Education Centre with similar aims at the Asola Bhatti Wildlife Sanctuary near Delhi.

Participants at the programs of CECs are not only explained the workings of nature, but are also guided through interactive games and interesting exhibits.

Through these Centres the BNHS has successfully aimed at creating awareness and education of the masses with reference to environment and its importance. The Centres are visited by thousands of nature enthusiasts and members each year.

Library

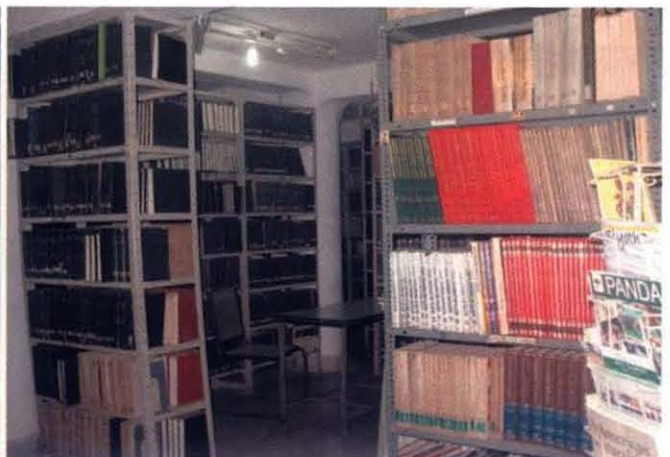
BNHS was established to collect, collate and disseminate knowledge on Indian natural history. From the very beginning, members came forward to donate

books and journals, the finest example is the Gould's priceless book *Birds of Asia* donated of by Mr. Evans Fraser.

The opportunities that the Society offers in the field of education is only one of its achievements. Access to knowledge is an easy task when spoken of the Library of the BNHS. The library's 22,000 books and scientific journals covering varied aspects of wildlife and conservation issues can be considered as one's initiation to acquiring knowledge regarding natural history. The library is in itself like a treasure chest, which contains not just century old books and journals, but also natural history lithographs not found elsewhere in India, exciting old shikar books, photo-negatives, transparencies, all of which are certainly priceless.



Nirmala Reddy heads the BNHS Library. Tarendra Singh has been assisting in the Library for almost three decades



A view of the BNHS Library with its priceless collection of rare books

EVENT SPECIAL

Central Marketing Department

The Central Marketing Department (CMD) markets BNHS products such as cards, calenders, t-shirts, mugs, photo frames, and for connoisseurs we have reprints of 100 year old paintings that featured in the priceless book by John Gould. Well, the CMD has a lot more in store than just products. The team also generates funds through advertisements, cultural events and art auctions, and has built strong bonds with corporates. The BNHS promotes eco-friendly products through this Department, the proceeds from which are utilised for conservation activities.



(L-R): CMD team: Sandesh Kadam, Executive Sales Support and Administration, Divyesh Parikh, Head - CMD, Sudhir Jetke, Office Assistant, Gisha Shankar, Administration Executive

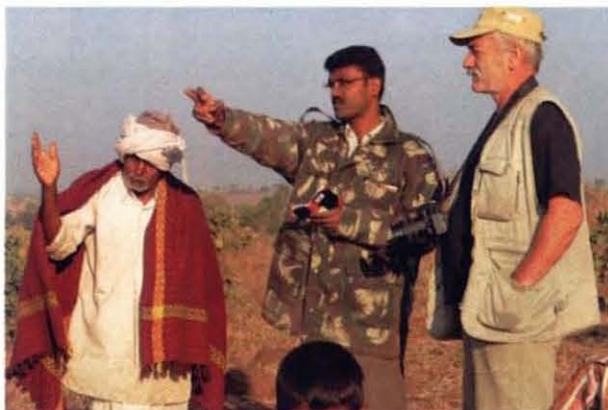


(L-R): Praneesh Baikar, Office Assistant and Amjad Hussain, Office Assistant, help to package and despatch products of the CMD to the clients

ENVIS

The Environment Information System or ENVIS at BNHS was initiated at the Sálim Ali Centenary Celebrations by the Ministry of Environment and Forests, Government of India. ENVIS is a database of information on Avian Ecology. They primarily collect, collate, store and disseminate environment information on avian ecology.

Apart from this, the University of Mumbai, in 1957 recognised the Society as an approved research institution which is authorised to admit students for research programmes in the field of ornithology leading to a M.Sc and P.hD of the University. This recognition was extended to the field of research in mammals and reptiles. The University of Mumbai and the Society, thus started field ecology in India. This section is at present handled by the team at the ENVIS.



(L-R): Sujit Shivaji Narwade, Scientist In-Charge, ENVIS, with RNDr. Lubomír Peške expert on reintroduction programmes and radio-telemetry



(L-R): Divya B. Varier, Research Officer, and Sagar Satpute, Information Officer, collate data for the ENVIS database

Membership and Programmes

BNHS offers to individuals, institutions and corporate bodies all over the world, membership to the Society. Members receive the quarterly magazine *Hornbill* and also make contributions in the form of articles and photographs to it. A member is allowed to access the vast collection of the Library.

A member can participate in nature camps, treks and walks organised by the Society that are handled by the Programmes Department. These camps are not regular tourist visits, but a complete learning experience wherein our experts teach about nature's awe-inspiring biodiversity.

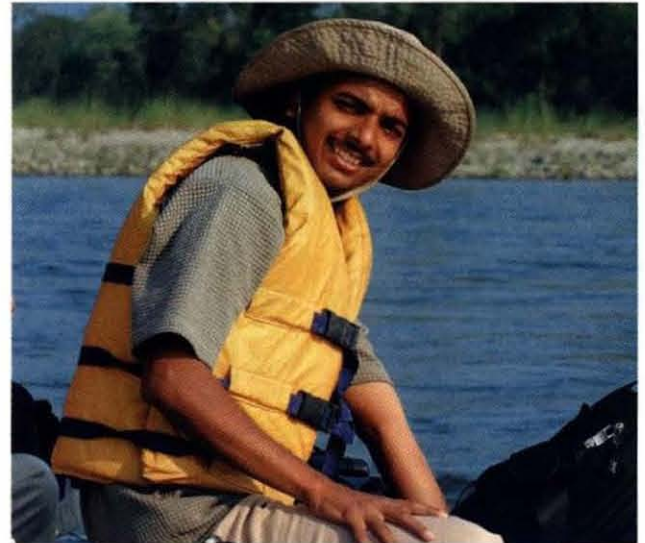
These trips take members to all over India's different biogeographic zones and also around the world.



Sonu Bellani heads the Membership Department of the Society



Isaac Kehimkar is General Manager, Programmes



Nikhil Bhopale is Programme Officer, and a good bird watcher



The BNHS International camp in Africa

EVENT SPECIAL

Administration and Accounts

Last but definitely not the least are people who are continuously working behind the scenes to make this organisation work as it does. The Administration Department includes a dedicated team that toil hard to facilitate easy functioning of the Society.



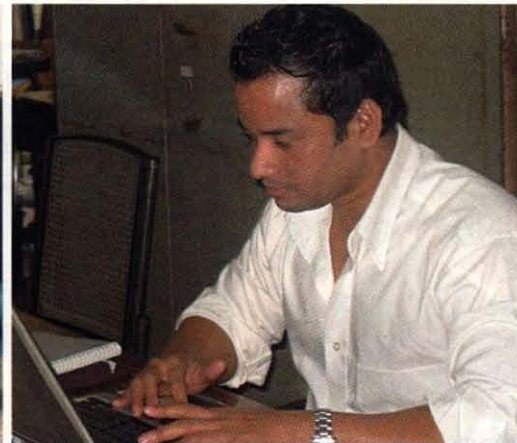
Shalet Alva, Secretary, and
M.G. Matthews, Administration Manager



Deepali Chaubal, PA to Director, and Sachin Kulkarni, Project Manager



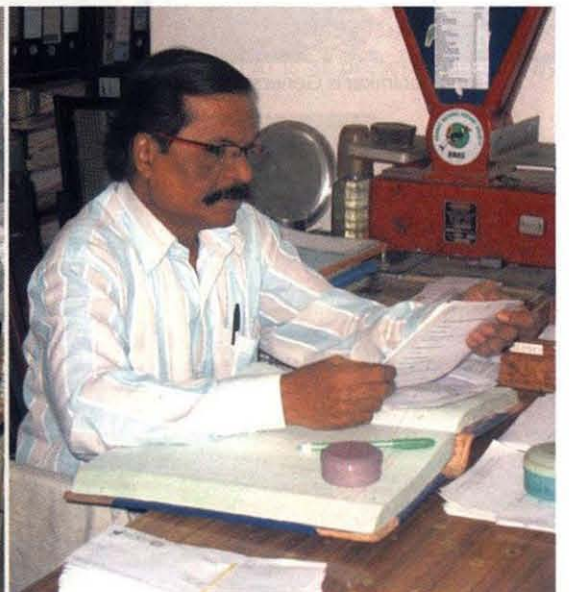
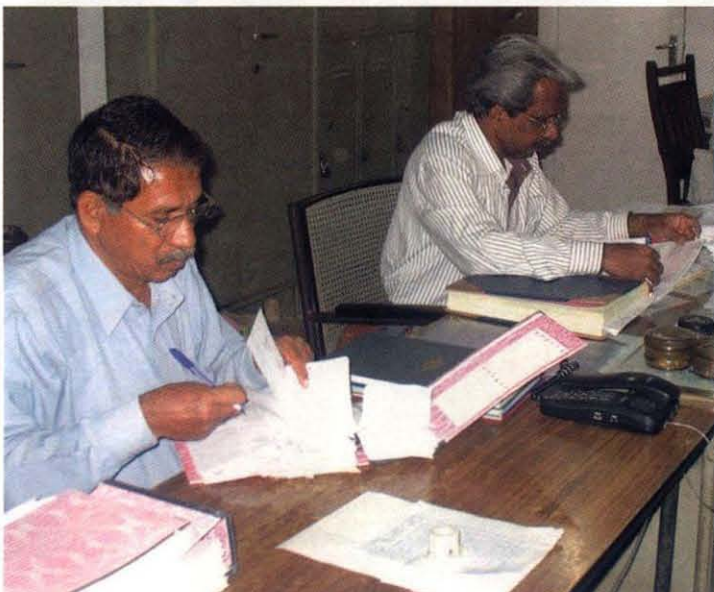
Rutika Paradkar, Officer (Front Office)



Umesh Pawar, Assistant Manager, HR



Atul Sathe, PRO



(L-R): Vasant Naik, Office Administration, Santosh Mhapsekar, Officer (Sales), and Sunil Ghavnalkar, Officer (Despatch)



(L-R): S.V. Karambale, Senior Office Attendant (third from left) and Office Attendants - Sunder Ranga Pattem, Ravi K. Tawde, Sadanand Shirsat and P.S. Parvate



(L-R): Parasnath Jaiwarh, Driver, and Ranga Pattem, Office Attendant

Most of the working of the Society, at the end of the day, is not possible without money transactions. This is facilitated by the Accounts Department at the Head Office.



(L-R): Manisha T. Dahiphale, Accounts Assistant, Darshana S. Patil, Accounts Officer, Kamlesh Hasaye, Office Attendant, Swapnil Mestry, Ajit Majgaonkar, Accounts Assistant (Vulture Project), Inset (L-R): Varsha D. Chalke, Chief Accountant, Sandeep Dhuri, Account Assistant, and Shabnam Shaikh, Senior Account Assistant



Uma Pratap Singh, Security Guard, has been striving tirelessly to keep the Society safe since four decades

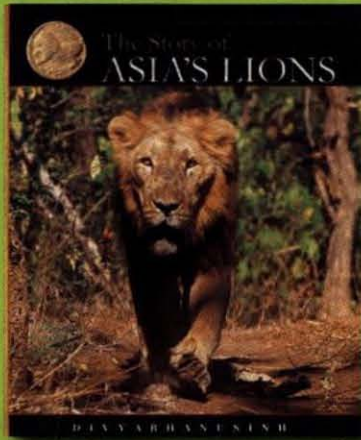


Vijaya Das and Bharati Pawar assist in keeping the Society's Office 'spick and span'

Great Pied Hornbill *Buceros bicornis*

The Great Pied Hornbill has an interesting nesting behaviour wherein the pair selects a hollow in a tree in which the female completely seals herself, except for a slit. All throughout the raising of the young, the male feeds the family through the small slit. The diet pattern is interesting as it consists of fruits, seeds as well as small lizards and insects. A diorama of William, the BNHS mascot, exhibiting this very behaviour, can be seen at the Natural History section of the Chhatrapati Shivaji Maharaj Vastu Sangrahalaya, Mumbai.





The Story of Asia's Lions

A history of the Asian Lion, a dying species in India over the last hundred years, and the attempts to find it a second home which may be its last hope.
by Divyabhanusinh

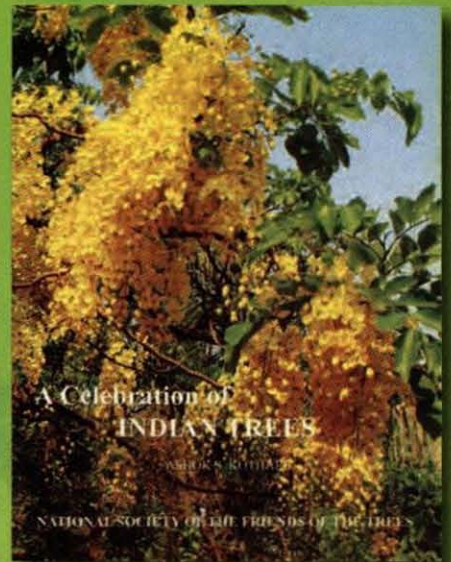
Offer price: Rs 1300.00 (MRP Rs 1950.00)

A Celebration of Indian Trees

Over 140 species of trees – indigenous and introduced, that have become part of the Indian landscape are described and beautifully illustrated.

by Ashok S. Kothari

Offer price: Rs 1625.00 (MRP Rs 2500.00)



MARG BOOKS AS CORPORATE GIFTS

For bulk orders of more than 25 copies of a single book at a special price, a special message can be printed with the company's name and logo on a prominent page in the book and delivered in individual gift boxes.

SUBSCRIBE TO MARG BOOKS FOR THREE YEARS at a special price of Rs 11,250.00 in India and be among the first 250 privileged art enthusiasts to get a limited edition signed digital print (250 prints only), by the artist Prabhakar Kolte, absolutely FREE. (3 years / 12 issues)

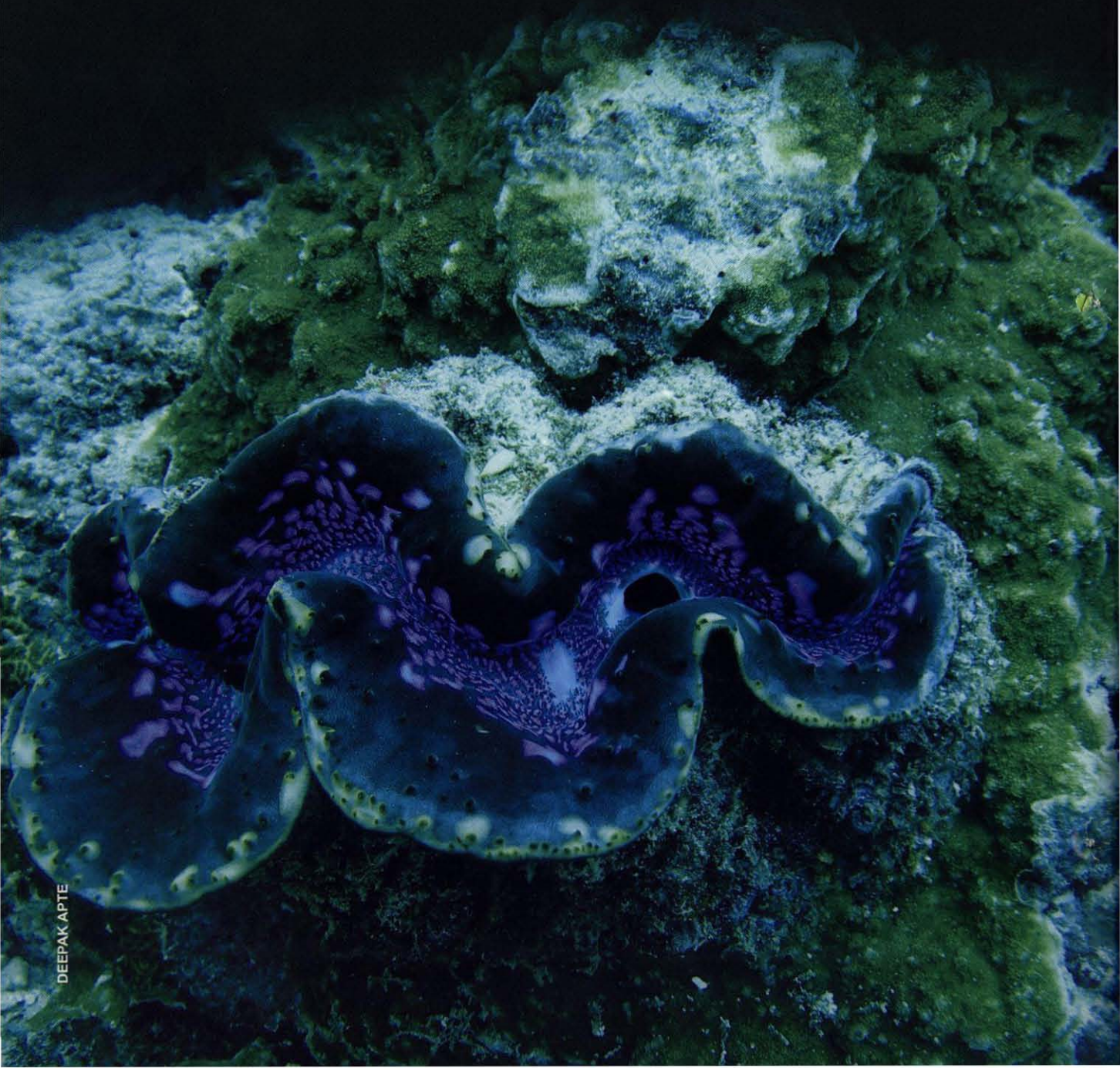
SUBSCRIBE TO MARG BOOKS FOR ONE YEAR at a special price of Rs 3750.00 in India by February 28, 2010 and be among the first 50 to receive an attractive bag designed by differently abled young adults of the Shraddha Charitable Trust, Mumbai. (1 year / 4 issues)

For more information, please contact: Baptist Sequeira, Senior Manager-Sales, Marg Publications,
Army & Navy Building, 3rd Floor, 148 Mahatma Gandhi Road, Mumbai – 400 001, India.
Tel.: (91-22) 22842520, 22821151, 22045947/48 Fax: (91-22) 22047102 E-mail: margpub@tata.com

www.marg-art.org

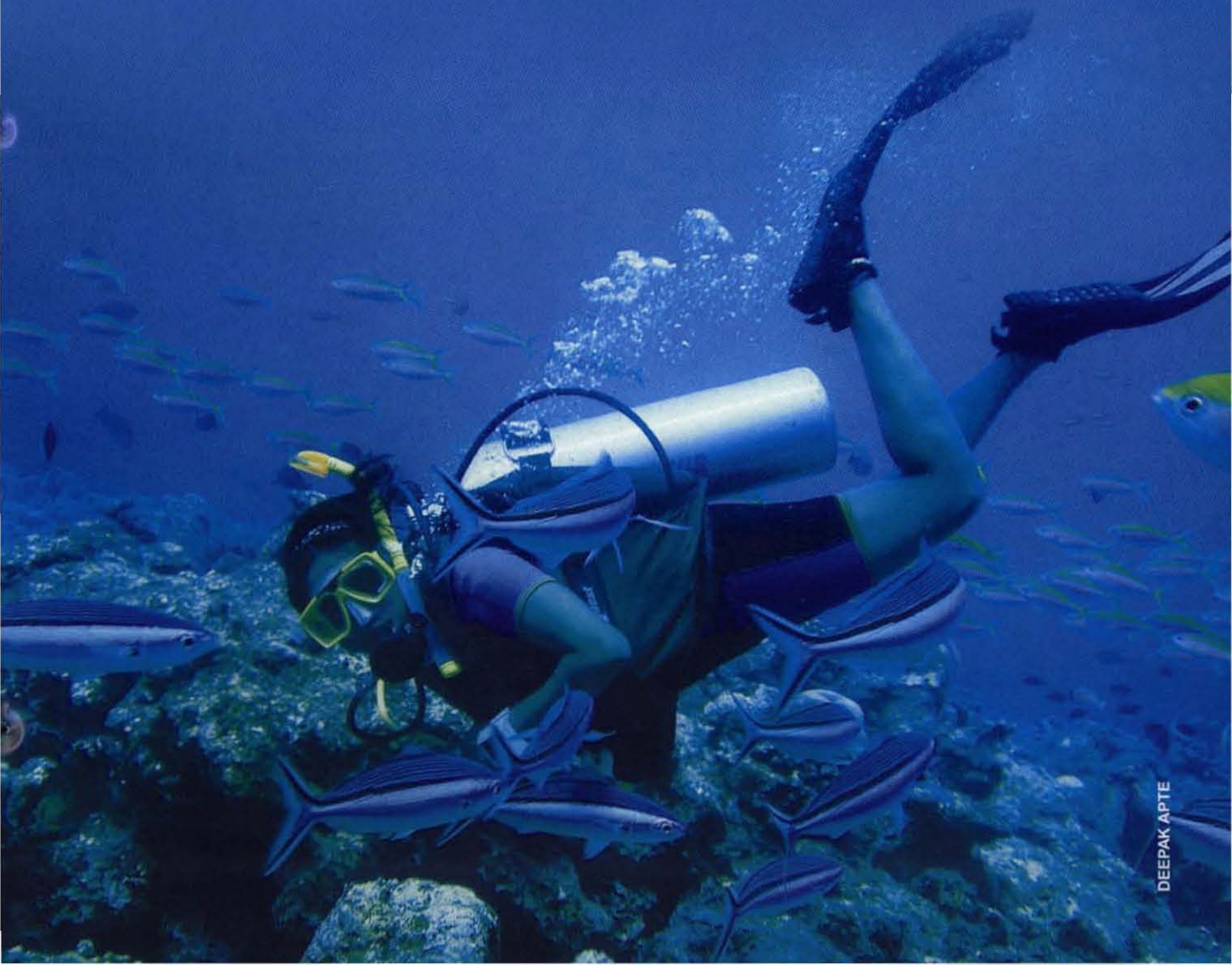
The magic of Lakshadweep!

Lakshadweep Islands of India has one of the most beautiful coral reef systems in the country. BNHS saw the importance of this chain of islands that has many marine habitats, and a treasure trove of biological diversity and scientific information. The Society established a field station at Lakshadweep Islands in 2004 to study the ecology, biology and conservation of Giant Clams. BNHS has successfully completed phase I of Project Giant Clam in collaboration with LEAD International, with financial support from Darwin Initiative, United Kingdom. Project Giant Clam aims to conserve these massive molluscs through community participation. The proposed Agatti Conservation Reserve, which is a culmination of four-year work of the BNHS at Lakshadweep Islands, will be India's first marine conservation reserve. The Project has paved way for new approaches in conservation of marine biodiversity. The unanimous support of the local community further confirms the idea that by involving local people right from the inception of the Project can yield fruitful results and help gain community confidence. The Project findings can be seen at www.lead.org.



In order to protect marine biodiversity 20-30% of the seas must be under protection (currently 1% is protected). To achieve this International Union for Conservation of Nature (IUCN) and other influential organisations have called for action to set up a global network of Marine Protected Areas by 2012. According to IUCN, Marine Protected Areas is any area of the intertidal or subtidal terrain, together with its overlying water and associated, flora, fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment.

The rise in environmental awareness among the local communities will go a long way in reef conservation in Lakshadweep. Encouraged by the success, and assessing the potential for reef research and observation, BNHS has decided to start a long term research station at Lakshadweep. (seen below: Avani Patel, former BNHS employee)



Secrets of SGNP!

Text: Priti Salaskar and Divya Sarma

Abundant worldwide, most fungi are inconspicuous because of the small size of their structures, and their cryptic lifestyles in soil, on dead matter, and as symbionts of plants, animals or other fungi. They may be more noticeable when fruiting, either as mushrooms or molds. Fungi perform an essential role in the decomposition of organic matter and have fundamental roles in the cycle of nutrient exchange.

One of the scientific definitions of Fungi is that they are organisms which have a nucleus and lack the pigment, chlorophyll. They originate from spores and reproduce both sexually and asexually.

The Fungal kingdom encompasses an enormous diversity of taxa with varied ecologies, life cycle strategies, and morphologies ranging from single-celled aquatic chytrids to large mushrooms. However, little is known of the true biodiversity of Kingdom Fungi.



Tree - eared or Wood - eared Mushroom

Auricularia sp. is commonly known as Tree - Eared Mushroom or Wood - eared mushroom. They are known so because their shape and size is like an ear. They are saprophytic, i.e., they grow on dead or dying barks of trees. These edible mushrooms are pink in colour and are fleshy, gelatinous, slimy and slightly elastic. This mushroom may also be considered the harbinger of rains.



Stink Horn Mushroom

Dictyophora sp. is commonly known as the Stink Horn Mushroom or the Veiled Mushroom. It generally grows in the soil but near bamboo wood piles. It emits a peculiar stink which attracts snails and flies. These animals disperse the spores that are found on the upper yellow coloured part of the mushroom. The life span of this mushroom is just 2 - 3 hours!

Shuttle Cock Mushroom

Clathrus sp. is commonly known as the Shuttle Cock Mushroom because of its shape. Tiny pea-sized, it comes from the family of the Stink Horn Mushroom, but does not stink. It is seen growing on dead wood and also commonly found on bamboos. It grows in clusters like the *Dictyophora* sp. and attracts insects.

RUSHIKESH CHAVAN

Dead Man's Finger Mushroom

Xylaria sp. is commonly known as the Dead Man's Finger mushroom because of the shape and appearance. These inedible mushrooms are generally found on rotting wood and leaves.

RUSHIKESH CHAVAN

Horse Hair Mushroom

Marasmius sp. is a saprophytic mushroom. They are often seen growing on leaf litter or on the trunks of trees. These bright coloured mushrooms are a beautiful sight as they grow in plenty of clusters.

PRITI SALASKAR

Earth Stars

Geastrum sp. is commonly known as Earth Stars. This saprophytic leathery mushroom grows in the shape of an egg at the center of which are its spores. These spores are mostly dispersed by rain drops and wind. They usually are seen growing on leaf litter apart from other dead organic matter.



PRITI SALASKAR

Yellow Finger Mushroom

Calocera sp. is commonly known as the Yellow Finger Mushroom. They belong to the group of jelly fungi and are slimy saprophytic mushrooms. They are usually spotted growing on rotten wood and their spores are ochreous, elliptical and smooth.



PRITI SALASKAR

Bracket Fungi

Polyporus sp. is commonly known as the Bracket Fungi. This mushroom is parasitic as well as saprophytic at times. It is seen growing on dead wood in large numbers. It is dried and sold as a decorative item due to its hard appearance.



PRITI SALASKAR



Priti Salaskar, Education Officer, BNHS, is an M Sc. in plant pathology and mycology. She has studied the macro-fungi, of SGNP for three years.



Divya Sarma, Publications Assistant, BNHS is a Master in English Literature and has keen interest in natural history.



Get Featured in RobinAge

Send us your articles, stories, school news, poems and drawings to reporter@robinage.com or post them to RobinAge, 504, Shah and Nahar Industrial Estate, Dr E Moses Road, Worli, Mumbai - 400018, Tel: 022 66626818



ROBINAGE
CREATING BRIGHT SPARKS
WEEKLY CHILDREN'S NEWSPAPER

Monday 10th - 12th 2009 (Vol 3, No 4) www.robinage.com

THE ROBINAGE BRIGHT SPARK SCHOLARSHIPS 2009 - 5

Wi-Fi

MOM

> 10, 11 AND 12

DINOSAURS IN INDIA

Aaliya Babi, Princess of Balasiner, also called 'Doctor Dinosaur', takes a walk across the Balasiner Fossil Park at Rajpuri. The site has the distinction of being the third largest site for dinosaur fossils and the second largest dinosaur egg hatchery in the world.

THE UNIVERSITY OF MUMBAI

April Fool!!!

QUIZ TIME

Are You A Young Adult?

What will you do in these situations?

If you had your pet dog, you would...
A) Take care of it B) Ignore it C) Give it away D) Kill it

Before you meet a friend you would...
A) Call him B) Write to him C) Visit him D) Ignore him

If you fought with your best friend, you would...
A) Ignore him B) Fight back C) Apologise D) Tell the teacher

When you have a problem, you...
A) Tell your parents B) Tell your friends C) Tell the teacher D) Ignore it

If your classmate was the first prize winner of you, you would...
A) Ignore him B) Congratulate him C) Tell the teacher D) Tell the principal

If you had an option to buy just one book, you would...
A) Buy a story book B) Buy a science book C) Buy a cartoon book D) Buy a comic book

FOOTBALL FRENZY

MY PAGE

MOM AND ME PARTY TIME

EXAMINATION fever

STORY TIME

SUBSCRIBE NOW! ☎ 022 67399610 **ROBINAGE.COM**

RENEWAL YES NO

WRITE IN BLOCK LETTERS ONLY

Name

Date of Birth

Delivery Address.....

City..... Pin.....

Mobile..... E-mail.....

School..... Class.....

Hobbies.....

Do you have computer? Yes No

ARE YOU GIFTING THIS SUBSCRIPTION?

Yes and I would like my name to appear as:

With compliments from.....

HOW DID YOU HEAR OF ROBINAGE?

PAYMENT DETAILS

(To pay by credit card log on to www.robinage.com)

Cheque/DD No*..... Date..... Amount.....

Bank..... Branch.....

* Cheque/DD should be drawn in favour of RobinAge.

Outstation cheques to add Rs 40 as bank charges.

Contribute an additional 10% of your subscription value to **CHILDLINE India Foundation**

Send this form to RobinAge, 504, Shah and Nahar Industrial Estate, Dr E Moses Road, Worli, Mumbai - 400018.

E-mail: circulation@robinage.com

SUBSCRIBE FOR

1 Year : 52 Issues Rs 480

2 Year : 104 Issues Rs 900

FOR OVERSEAS

1 Year : 52 Issues US \$110

GROUP SUBSCRIPTIONS

(FOR 5 OR MORE SUBSCRIPTIONS ONLY)

1 Year : 52 Issues Rs 440

2 Year : 104 Issues Rs 800

Number of subscriptions

Amount Rs

Write delivery names and addresses on a separate stapled sheet.

Delivery Option (Select One)	Extra Charges (Per Year)	Estimated Delivery Time
■ Regular Book Post: Anywhere in India	-	2 to 12 days
■ Courier: Mumbai, Thane and Navi Mumbai only	Rs 200	Up to 3 days

Signature and Date

Terms and Conditions: Please allow a lead time of 14 days from payment for the first delivery. RobinAge shall not be responsible for postal or courier delays, transit loss or mutilation of copies. No cancellation of subscriptions will be entertained after commencement of subscription.

125 Years Celebrations Begin!

September 15, 2008

The BNHS 125 year celebrations commenced elegantly on September 15, 2008, at Y.B. Chavan, Auditorium, Mumbai. It was inaugurated by the Hon'ble Chief Minister of Maharashtra, Mr. Vilasrao Deshmukh.



The Hon'ble Chief Minister, Vilasrao Deshmukh was welcomed by Mr. B.G. Deshmukh (IAS ret'd.), President, BNHS, Mrs. Pheroza Godrej, Vice President, BNHS, Mr. J.C. Daniel, Honorary Secretary, BNHS, and Dr. Asad R. Rahmani, Director, BNHS, on reaching Y.B. Chavan auditorium on the joyous occasion of the celebration of 125 years of the BNHS.

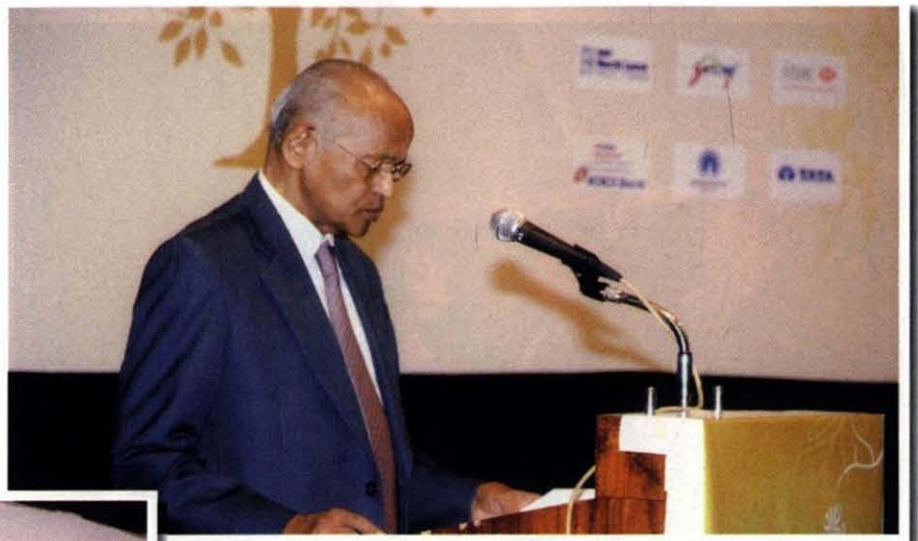


The BNHS was introduced to the audience in a unique manner, with the screening of a documentary that spoke of the myriad life forms present on our vast planet, the work done by BNHS in the past and its present projects, programmes and research activities.

Mr. Vilasrao Deshmukh showed a keen interest in the publications and products of the Society, which Mrs. Pheroza Godrej showed to him. The books on display gave an overview of the various aspects of biodiversity published by the BNHS.

'Loke Wan Tho's Birds', a BNHS publication, was released by Mr. Vilasrao Deshmukh during the function. The book is about the famous ornithologist's works which showcases stunning photographs from his field studies in India, New Guinea, Malaysia, and Singapore. It also contains extracts from the diaries he kept of his trips, about places, people, birds, and himself.





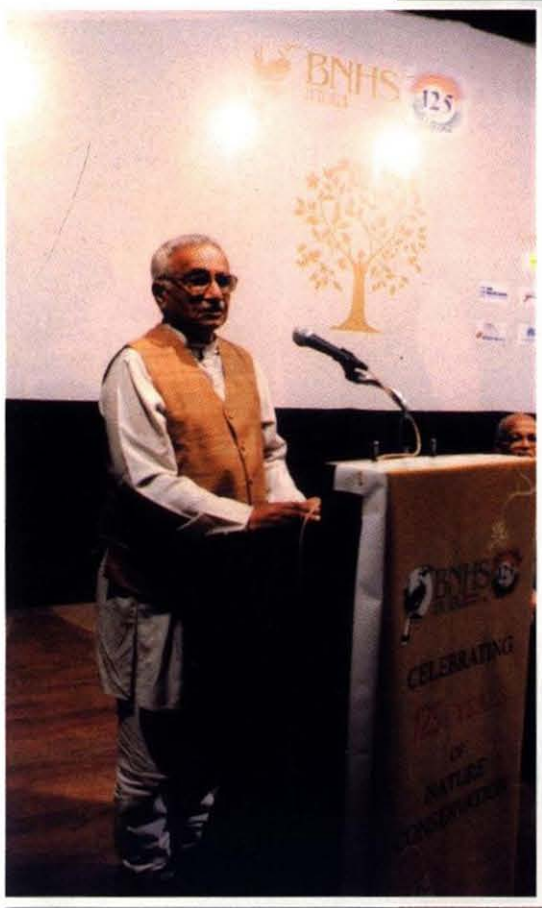
Mr. B.G. Deshmukh, President, BNHS, said; "Today after 125 years, BNHS is India's premier institution and foremost non-governmental organisation in nature conservation. It is the only voluntary organisation in the country, which has a sustained uninterrupted tradition of scientific research, education and conservation activities."

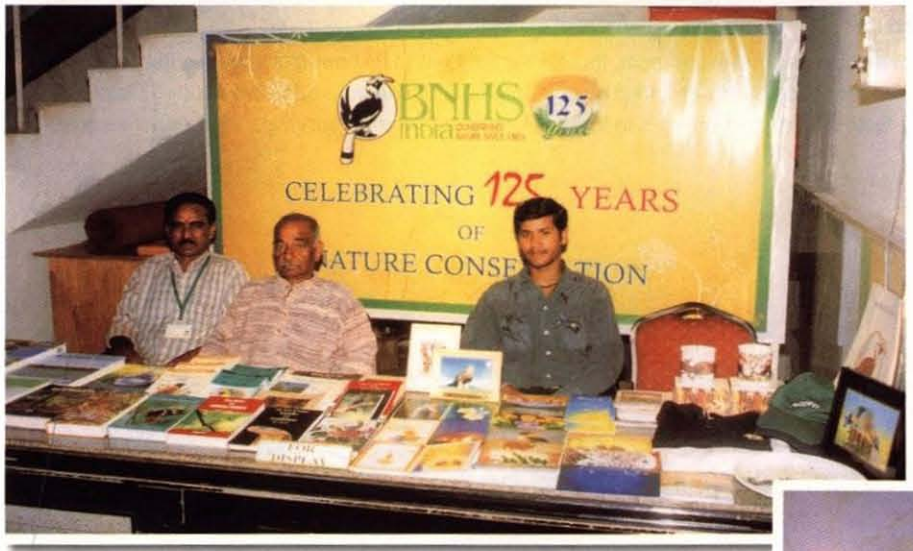


Mr. Lavkumar Khachar, one of the senior birders, and one of BNHS' oldest members was present on the occasion. He reminisced about his experiences: "It should be understandable that I was keen to become a member of the Society, which in those days carried as much prestige as does a membership of the Wellington."



The event saw one of the Society's youngest members Sooraj Bishnoi who predominantly spoke about the perils of global warming and about his key learning from BNHS, "Thanks to BNHS, I have made presentations to thousands of school students about the magic of nature captured through my camera."

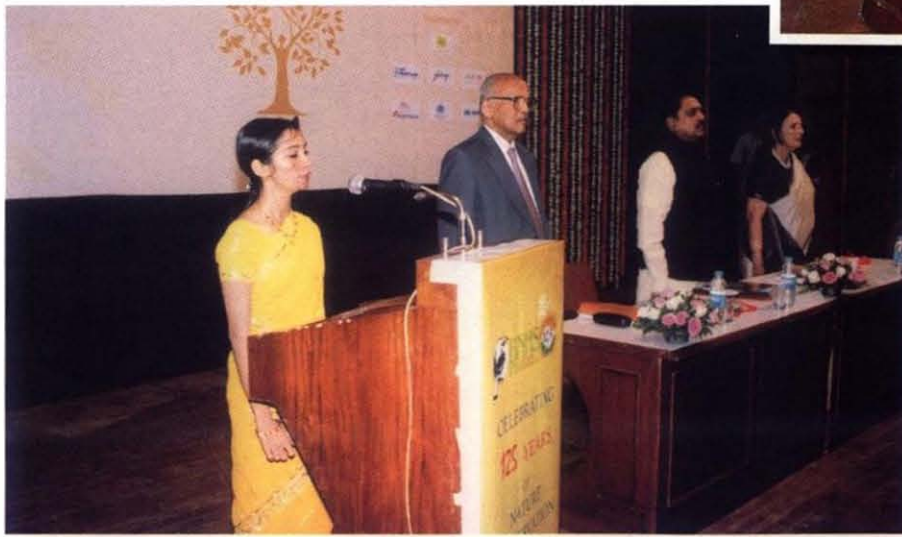
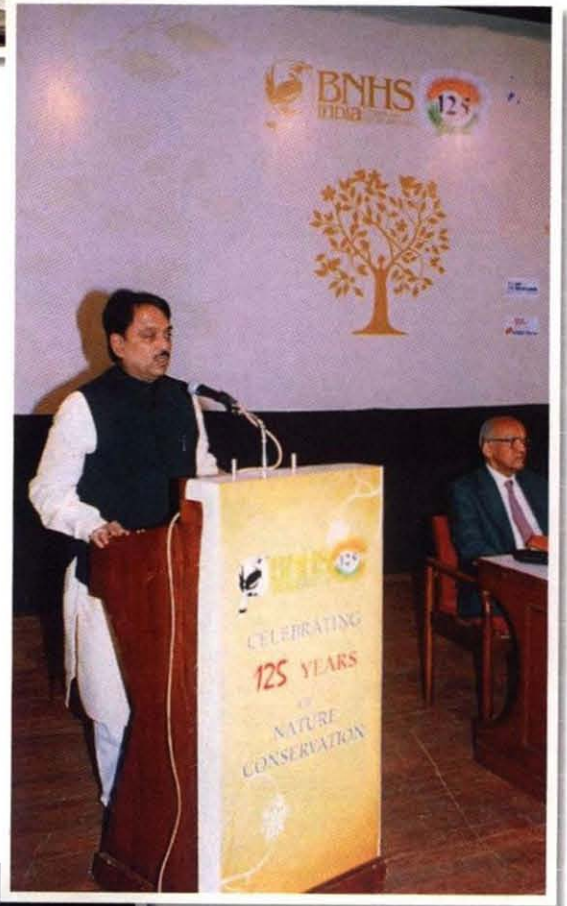




The products and publications of the BNHS were on display for all the members, former staff and well-wishers of the Society to glance through as well as purchase. This stall was handled by Mr. Ranga Pattem, Mr. Uma Pratap Singh and Mr. Amjed Hussain, staff of BNHS.

The Hon'ble Chief Minister spoke about the importance of India's immense and rich natural wealth and the excellent work done by the BNHS in this regard. He also spoke about the issue of global warming faced by the world and its seriousness. Also, he assured the august audience by stating that he would support the aim of conserving the country's treasure trove to the best of his abilities. Mrs. Pheroza Godrej, Vice President of the BNHS extended her thanks to all the eminent personalities and the audience for supporting the BNHS and making the celebration of 125 years special by their presence.

The Programme concluded with the National Anthem sung by Mrs. Sonali Vadavkar, Publications Officer, BNHS, and was followed by dinner.



Blackbuck *Antilope cervicapra*

The Blackbuck is the sole representative of the genus *Antilope* in India. Its striking colour and its beautiful spiralled horns, which may reach shoulder height of the animal, give it an elegance hardly equalled by any antelope. These antelopes live in open plains covered with scrub or cultivation. Today, one of the fastest terrestrial animals in India is losing the race for survival, as most of its grassland habitat has disappeared.



BNHS Exhibition at the Museum (CSMVS)

September 16, 2008

To commemorate its legacy of 125 years, BNHS held an exhibition at the Curator's Gallery, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya (CSMVS) to enlighten the masses about its illustrious past, its founders, projects and departments. The Director of the CSMVS, Mr. Sabyasachi Mukherjee spoke about the long-standing relationship between the BNHS and the Museum.



L-R : Mr. B.G. Deshmukh, President, BNHS, Mr. E.A. Kshirsagar, Honorary Treasurer, BNHS, Mr. Sabyasachi Mukherjee, Director, CSMVS, Mrs. Pheroza Godrej, Vice President, BNHS and guests.

Event special

The exhibition that lasted for eight days from September 16-24, 2008, was inaugurated by Mr. B.G. Deshmukh. The celebration was attended by the former and current staff members of the BNHS. (L-R: Mrs. Nishigandha Pednekar, Education Officer, Mangrove Project, Mr. B.G. Deshmukh, Mrs. Pheroza Godrej, Mr. Nalini Jayal, Mr. Vithoba Hegde, Sr. Field Assistant, Collections, Dr. Asad R. Rahmani, Director and Ms. Vibhuti Dedhia, General Manager, Publications)



The exhibition spoke about the genesis of the Society, its founders, the important people without whom the Society would not be where it is today, its departments, major projects and concluded with a message to the people that the future of our natural wealth was in their hands. (L-R: Dr. Erach Bharucha, Ex. Executive Committee Member, Ms. Dilnavaz Variava, Vice President, BNHS, Mr. Nalini Jayal, Mrs. Pheroza Godrej and Mr. B.G. Deshmukh)

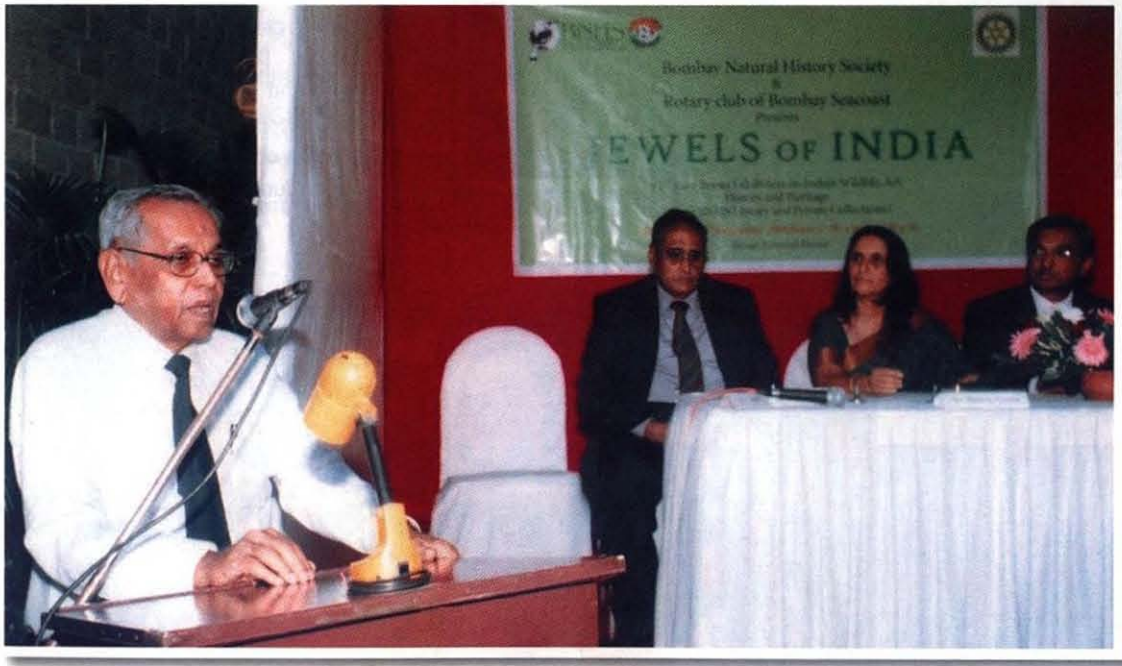
BNHS organised an informal get together to celebrate this happy occasion with its present and ex-staff members with their families and its well-wishers. The occasion provided for a relaxed atmosphere for the get-together to celebrate the 125th birthday of the Bombay Natural History Society with cake and dinner.



'Jewels of India'

December 16-23, 2008

The BNHS library holds a large collection of books, journals and other research materials that have stood the test of time and are priceless. These books and materials that are inaccessible to members and other individuals, are displayed in the Rare Book Exhibitions. The first six such exhibitions have seen tremendous success in the past and the Society organised the 7th Rare Book Exhibition as a part of its 125 year celebrations.



BNHS organised its 7th Rare Book Exhibition, jointly with the Rotary Club of Mumbai Seacoast, to share its treasured rare books. The exhibition titled 'Jewels of India' was held from December 16-23, 2008. The Rotary District Governor, Mr. Bansi Dhurandhar inaugurated the exhibition at Hornbill House, while the then Honorary Secretary of the BNHS, Mr. J.C. Daniel welcomed the guests and gave a brief account of the history of the BNHS.

Event special

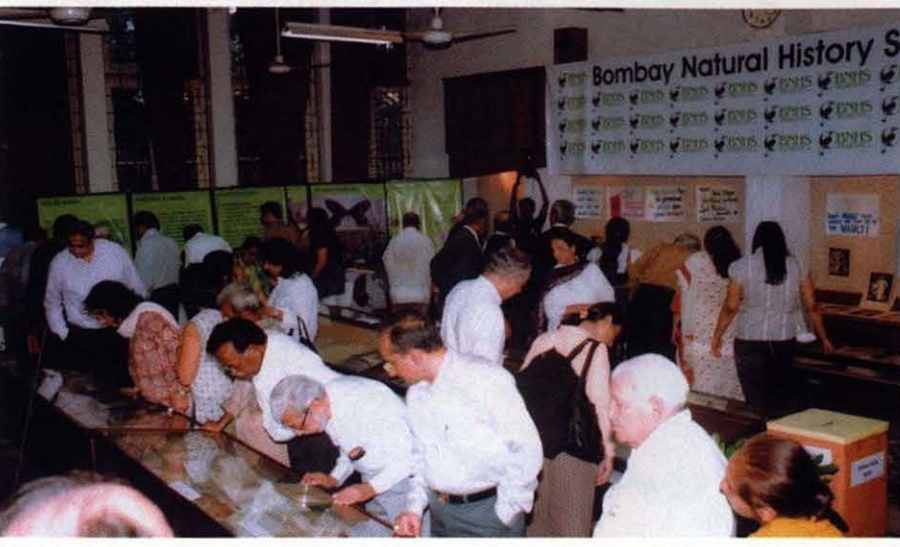
Mrs. Dilnavaz Variava, Vice President, BNHS, explained the valuable source of scientific knowledge that BNHS offers. She was instrumental in the establishment of the Central Marketing Department of the BNHS, which deals with the products of the Society.



Dr. Ashok Kothari, Executive Committee Member, BNHS and the man behind the exhibition gave a brief account about the exhibition. Dr. B.F. Chhappgar, a marine biologist and a member of the Library Sub-Committee, spoke about a forthcoming publication of the BNHS, 'Living Jewels from the Indian Jungle'.

The Rotary District Governor Mr. Bansi Dhurandhar spoke about the association between Rotary and the BNHS, and appreciated the efforts of Dr. Ashok Kothari and Dr. B.F. Chhappgar for providing the next generation with an insight into the history of our rich cultural and natural wealth.





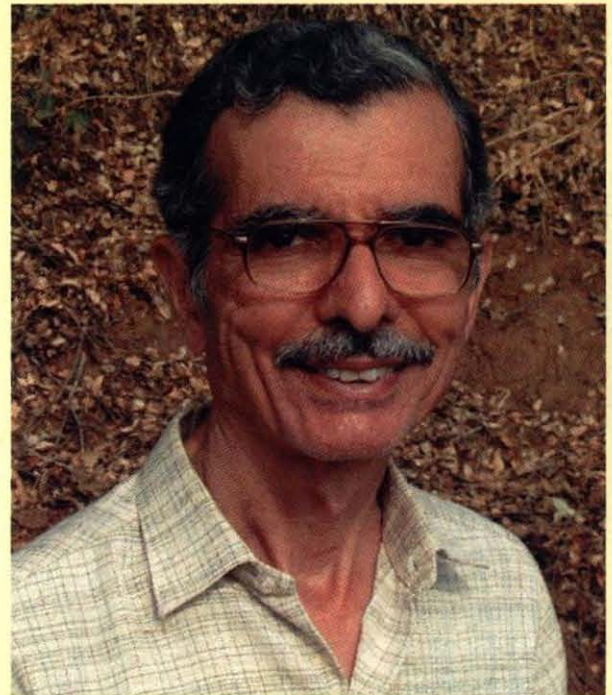
The books displayed, covered subjects such as Indian wildlife, art, natural history, heritage and culture. This book collection was from the BNHS library and the private collection of Dr. Ashok Kothari. Over 3,500 book lovers visited the exhibition.

Member Contribution

The association of Mr. J.P. Irani and the BNHS goes a long way. He became a life member of the BNHS through Dr. Sálím Ali. During his over four decades of association with the Society he has made some invaluable contributions, to name some:

- Designed book jackets for BNHS publications and designed greeting cards.
- Designed the Centenary stamp of BNHS released by Late Smt. Indira Gandhi, and a stamp for the Sálím Ali Centenary celebrations.
- Judged many art competitions organised by the BNHS.

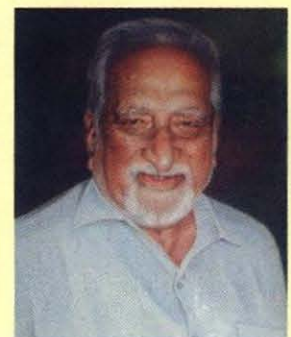
He has gifted a number of his oil paintings to the BNHS, such as the portraits in oil of Dr. Sálím Ali and Humayun Abdul Ali, the most recent being a painting of the Great Indian Hornbill on the completion of 125 years (See page 40-41). He has also reproduced an old lithograph in oil of the Bor Ghats, one of the Biodiversity Hotspots of our country. In 2003, the Society felicitated Mr. Irani by presenting him the first Sálím Ali Lok Van Tho Award for his outstanding contribution to Bird paintings.



J.P. Irani



Portrait of Dr. Sálím Ali



Portrait of Humayun Abdul Ali





If only hope could save ...

Text: Rushikesh Chavan

The Wild buffalo *Bubalus bubalis* of Asia is one of the most threatened species of wild herbivores; even though except for man, the tiger is the only enemy the Wild Buffalo has to fear. With its last few populations found only in some parts of Central and North-east India, it is believed that their number now remains less than fifty in Central India. The wild buffalo originally ranged from eastern Nepal and India, east to Vietnam, and south to Malaysia. It has been substantially reduced numerically and eliminated from the greater part of its former range. The Wild Buffalo in Central India has been wiped out of its last remaining areas such as Sitanadi WLS, Pameda WLS, and less than 10 individuals remain in Udanti WLS. It is even possible that no pure strain of Wild Buffalo remain. BNHS has been working towards conservation of Wild Buffaloes in Central India for more than 8 years.



P.M. LAD

A large bull may reach over 2 m at its shoulders and over 900 kilograms on the scale. Head measured from tip to tip of horn across the forehead may reach 2.75 m. The record horn measurement of a cow is 1.97 m. Though it has a finer carriage the Wild Buffalo differs little in general appearance from the tame one, except that it is heavier, more athletic and robust looking.



BNHS PHOTO LIBRARY

Indravati Tiger Reserve in Chattisgarh is a very important protected area for its state animal – the Wild Buffalo. It may well have the largest population of Wild Buffalo remaining in Central India. Due to the extremist activities, the correct estimate of their population is not known.



RUSHIKESH CHAVAN

The traditional *Pardhi* system of hunting (they flush out animals from the forest and hunt indiscriminately) is not just a threat to *Sambar Cervus unicolor*, the *Pardhis* are also known to hunt the Wild Buffalo.



RUSHIKESH CHAVAN

In Central India, deforestation for timber and other forest produce has led to loss of habitat of the Wild Buffalo. Unlike its North-east cousins, which prefer swamps and tall grasslands, the Wild Buffalo of Central India now lives in the drier hard ground of the forest.




BNHS PHOTO LIBRARY

With increasing human population, the pressure on the forest from agriculture is also on the rise resulting in decreasing open areas for the Wild Buffalo which in turn leads to conflicts. Though Wild Buffalo in Central India use forested areas, open grasslands also form an important part of their habitat.




RUSHIKESH CHAVAN

The domesticated buffalo often use the same pools as the Wild Buffalo. As a result, the Wild Buffalo have to use the pools at night hours as opposed to day hours (which they are known to use for wallowing). Also, the chances of inter-breeding with domestic buffalo cannot be ruled out.



RUSHIKESH CHAVAN

There are less than 10 individuals of this majestic animal left in the Udanti Wildlife Sanctuary. An attempt is being made by the Chattisgarh Forest Department with the help of NGOs to breed Wild Buffalo in captivity and rehabilitate them back into the wild.



S.K. SINGH

These two bulls were seen fighting for mates during the rut, which sometimes can be fatal. However, as the numbers plummet, such events are becoming very rare to see. There is an urgent need to have a species recovery plan, which needs to be implemented. If we fail to make a positive intervention, probably the only place to see them would be in publications like the *Hornbill*.

Rushikesh Chavan is presently the Conservation Officer at the BNHS.



Event special

BNHS-Green Governance Award

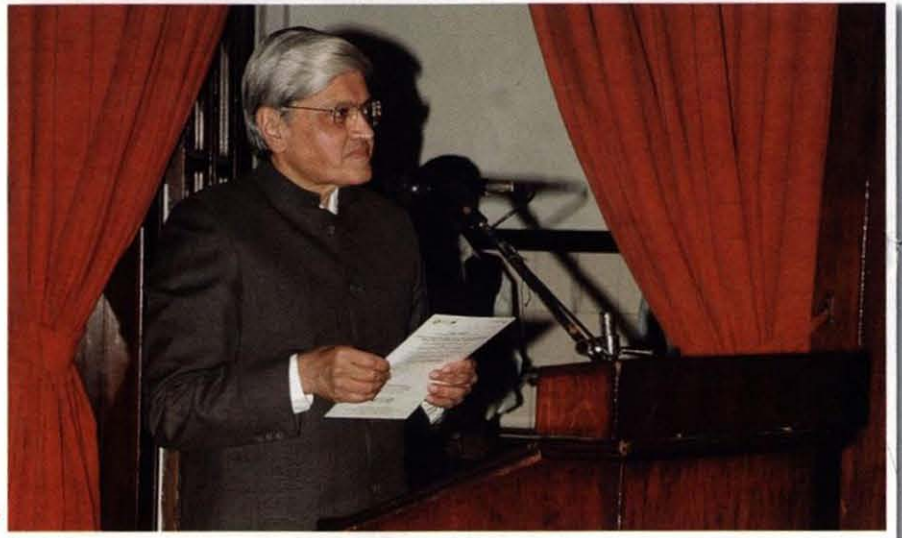
January 3, 2009



The Green Governance Award, funded by the ICICI, was started with the aim to promote biodiversity and recognise conservation efforts undertaken by Corporates, Government agencies, and small and medium enterprises. This Award Programme encourages many well-known organisations to contribute towards protecting nature and its inhabitants. This programme is pursuing planners, financial institutions and industry captains to integrate environmental concerns and precautions at the project planning phase to avoid large-scale destruction of natural resources.

Event special

The award function for 2008-2009 was held at the Raj Bhavan in Kolkata. The function was honoured by the presence of Mr. Gopalkrishna Gandhi, the then Hon'ble Governor of West Bengal. He commended and spoke in appreciation of the aims and objectives of the Green Governance Award. He also graced the function by presenting the winners with the awards.



The purpose of this Award is to recognise the efforts of organisations beyond meeting the statutory compliance for protection and conservation of environment. The three awards are presented under the categories of Conservation and Restoration of Habitat, and Conservation of Flora and Fauna. Award winners from all three categories are honoured with a trophy and citation from BNHS.

In 2008-2009, the Green Governance Award was given to the Indian Army, who under the guidance of Major General Ashok Sheoran undertook the daunting task of water conservation and creation of green belts in the rain shadow area of Ahmednagar Station. Due to their efforts and dedication, within five years the area was transformed to what it is now called, the 'Green Lungs' of Ahmednagar Station.



Event special

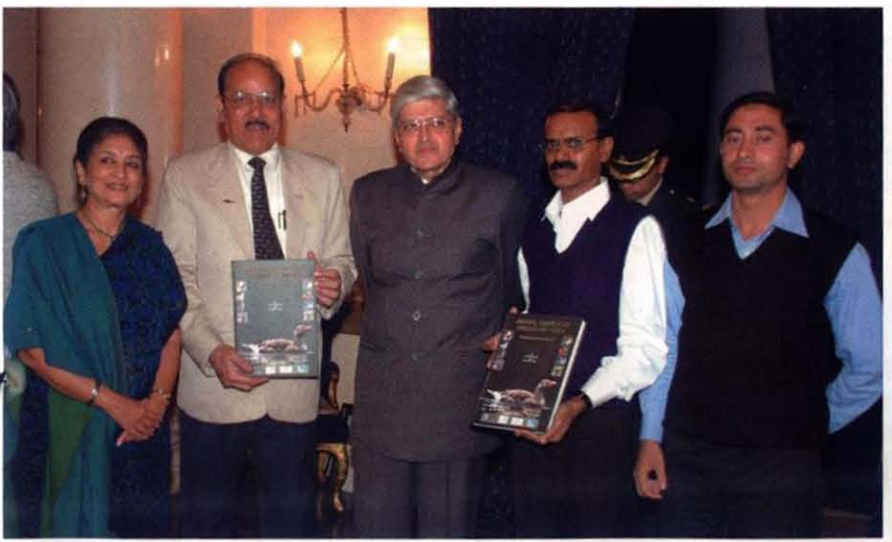


The Indian Coast Guard was honoured for their contribution in conserving the Olive Ridley Turtle. Vice Admiral R.F. Contractor AVSM NM, Director General, Indian Coast Guard, under the Government Agency category, had begun the benign task of Olive Ridley Turtle Conservation in the 1980s. They helped protect the turtles in the sea areas from indiscriminate fishing methods and enforced laws against violators. General S.P.S. Basra, received the Award on behalf of the Indian Coast Guard.

Tata Power Co. Ltd. has always strived to create environmental assets and bring about an ecological equilibrium at their sites, and Mr. Prasad Menon, Managing Director, Tata Power Co. Ltd, has supported this cause at his best. They have undertaken activities such as row plantations, mangrove planting and rain water harvesting for which they were honoured with the Award. Mr. Banmali Agrawala from Tata Power accepted the Green Governance Award on the company's behalf.



During the award function, Mr. Gopalkrishna Gandhi also launched a BNHS publication 'Ducks, Geese and Swans of India: their Status and Distribution' by Dr. Asad. R. Rahmani and Mr. M. Zafar-ul Islam. The book furnishes the available information on Indian Anatidae species with the help of maps. The book is a combined effort of the authors, the Important Birds Areas team, the Indian Bird Conservation Network and the participants at the Asian Waterbird Census programme. (L-R Mrs. Tara Gandhi, Dr. Asad. R. Rahmani, Mr. Gopalkrishna Gandhi, Mr. V Gopi Naidu and Mr. Noor I. Khan)



Event special



The festivities of January 3rd did not end here, as BNHS honoured few of the foremost conservationists from India with the Sálím Awards for Nature Conservation.

The BNHS conferred the Sálím Ali National Award for Nature Conservation 2008-09 to Mr. Romulus Whitaker for his tireless work towards the conservation of herpetofauna. Mr. Whitaker set up the Madras Crocodile Bank, a gene pool for all the world's crocodilians and India's premier research centre for herpetology. The Madras Crocodile Bank breeds many threatened crocodiles and rehabilitates them to the wild. His books, papers, brochures, talks and documentaries are also a great contribution.



Sálím Ali National Award for Nature Conservation 2008-09 was also awarded to Dr. K. Ullas Karanth by BNHS. Dr. Karanth is one of India's foremost wildlife biologists. He is a renowned researcher who works on the ecology of tigers and other predators across the country. He has studied predator-prey population ecology in Pench, Kanha, Kaziranga, Nandapha, Sundarbans, Ranthambore, Melghat, Tadoba, Kudremukh, Bhadra and Bandipur. His special areas of expertise include radio-telemetry, camera trapping and line transect surveys, and mitigation of human-wildlife conflicts. He has provided his expertise to research projects in Thailand, Malaysia and Indonesia.



NATURE QUOTES

If a man walks in the woods for love of them half of each day, he is in danger of being regarded as a loafer. But if he spends his days as a speculator, shearing off those woods and making the earth bald before her time, he is deemed an industrious and enterprising citizen.

Henry David Thoreau

Northern Pintail *Anas acuta*

NIKHIL BHOPALE



Birds are some of the best indicators of the changes taking place in the environment. With the looming dangers of climate change and massive destruction of wetlands, we need to monitor bird populations to take effective conservation measures to save them. Studies conducted by the BNHS Bird Migration Study Centre at Point Calimere, Tamil Nadu shows the migratory route of Northern Pintail and many others and this gives us an idea of the changes in their behaviour due to various anthropogenic pressures.

KNOW YOUR MANGROVES

Some of the well-known species of mangroves and mangrove associates are described for better understanding of their role in the environment.

Avicennia marina

Grey mangrove *Avicennia marina* is also locally known as 'Tivar'. Commonly seen along the influence of highly saline and silty water. It is one of the dominant mangrove species found in India. Its bark has astringent properties, roots can be used as a remedy for minor fish stings, and its leaves are used as fodder. It is also extremely tolerant to various stresses of pollution and salinity.



NISHIGANDHA PENDEKAR

Aegiceras corniculatum

River mangrove *Aegiceras corniculatum* is also locally known as *Chipi* or *Funagi*. It has crescent-shaped fragrant white flowers and its yellowish-pink fruits grow in bunches. Due to its low salt tolerance levels, *A. corniculatum* grows more towards areas with higher content of freshwater. This river mangrove is a rich source of fine quality honey and is highly valued by honey gatherers.



NISHIGANDHA PENDEKAR

Excoecaria agallocha



NISHIGANDHA PENDEKAR

Excoecaria agallocha commonly known as Milky mangrove is also known as *Hurha*. Its roots are laterally spreading, superficial and snake-like. This mangrove has high salinity tolerance and also has adapted to freshwater conditions. Male inflorescence looks like a cat's tail. The milky juice extracts can cure fish stings, toothaches and ulcer.

Salvadora persica



NISHIGANDHA PENDEKAR

Toothbrush plant *Salvadora persica* is also known as Meswak. It does not have 'true mangrove'-like special adaptations, it is a mangrove associate. It can survive just beyond the line of high tide. The leaves are thick and waxy, with an eye catching green colour. There are two varieties based on the colour of the fruit – white and dark red. The plant is well-known for its medicinal properties and is used in dental care.

Ceriops tagal

Yellow Mangrove *Ceriops tagal* is locally known as *choti chipi*. Found on the better drained soils in the inner and outer fringes of intertidal zones, they are short and stunted trees growing on saline environments. They are seen to grow to 5 m of height in areas with freshwater influence. The wood is used as firewood, the bark as tannin and charcoal, and also used as a component in adhesive. In fact, a decoction prepared from its bark is considered a cure for malaria. The leaves act as a cure for skin diseases and roots can be used as purgative.



NISHIGANDHA PENDEKAR

Rhizophora mucronata

Red Mangrove *Rhizophora mucronata*, locally called as *Kandal*, are viviparous, i.e., they germinate when still attached to the parent plant. Its well-developed aerial stilt roots allow easy recognition of this species in the field. Small, white flowers are pollinated by wind or insects. Propagules (seedlings) are cylindrical, narrow at the apex and c. 65 cm long. Wood can be used as firewood, the bark of prop roots are used as mosquito repellent and the bark acts as a cure for diabetes.



NISHIGANDHA PENDEKAR

Sonneratia apatela



NISHIGANDHA PENDEKAR

Mangrove Apple *Sonneratia apatela* is easily identified by its narrow elliptic leaves, apetalous (without petals) flowers with large, mushroom shaped stigma. Its pneumatophores, which are 60-150 cm long, arise from horizontal and corky roots that are forked twice or thrice. It is also associated with anchor roots and nutrition roots. Commonly found in places affected with a mixture of fresh and brackish water, on islands near estuaries and intertidal zones of creeks and swamps. Leaves can be used as fodder and fruits can be pickled.

Acanthus ilicifolius



NISHIGANDHA PENDEKAR

Acanthus ilicifolius has leaves with spiny edges that gives it its common name – Sea Holly. Sometimes, salt can be seen as a white crystalline layer on the upper surface, which is excreted through its leaves. The plant covers large areas and forms thickets as its growth is stunted due to disturbance in mangrove ecosystem. Forming the undergrowth in mangroves, it provides shelter for small creatures, and food for those that manage to graze their thorny leaves. It is also an indicator of degradation of habitat.



responsibility



responsibility



responsibility

**Different people
value things
differently.
That's why we
offer different
banking solutions.**

www.hsbc.co.in

HSBC 
The world's local bank

A photograph of a wolf walking through a forest. The wolf is in the center of the frame, facing left. It has a thick coat of fur with shades of brown, grey, and tan. The background is a dense thicket of green leaves and branches. In the top left corner, there are a few pink flowers. The overall lighting is soft and natural, suggesting a forest environment.

Wolf Canis lupus

DHAMENDRA KHANDAL

Its size, large skull and teeth distinguish the wolf from the rest of the dog family. In India wolves are more common, in bare and open regions. Wolves are found in Tibet, Ladakh and parts of Kashmir and also extend their range into the desert zone and dry open plains of peninsular India.



Asian Elephant *Elephas maximus*

One of the interesting behaviour patterns of elephants is their uncanny ability to unearth water springs and to dig out salt licks. Elephants and some other herbivores visit salt licks to replenish their stock of minerals and also supplement their diet. These supplements help these behemoths fight diseases and other health problems effectively. This magnificent animal has declined over much of its range and has an estimated world population of around 40,000. More than 50% of these occur in India, confined largely to the forests of the Himalaya and the Western Ghats.

The BNHS conducted a research project on the elephant to learn more about their changing distribution and other lesser known behaviour. The elephant Project was conducted in two phases (January-December 2005 and September 2006-March 2008), and was funded by the US Fish and Wildlife Services (USFWS). The main objective of the Project was the assessment of a case history of dispersal and colonisation of the elephants in Tamil Nadu and Andhra Pradesh.

Great Indian Bustard *Ardeotis nigriceps*

All the three members of the Bustard family are threatened with extinction, with the Bengal Florican being recently listed as critically endangered. If immediate measures are not taken up quickly, the Great Indian Bustard and the Lesser Florican will also join this category. There is an urgent need to start 'Project Bustards' to save these birds of the grasslands and other associate species.



International Conference: “Conservation in a Globalising India”

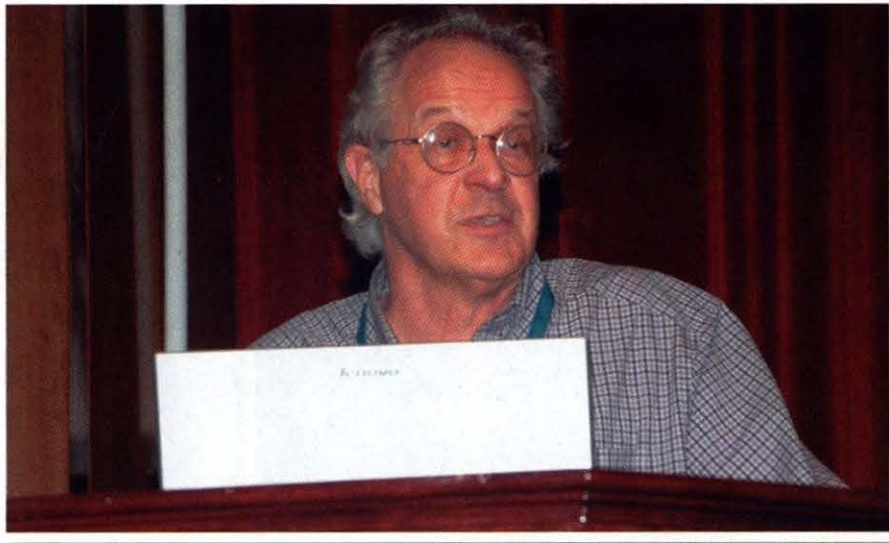
February 17-18, 2009 , Bengaluru



BNHS organised an international conference on 'Conserving Nature in a Globalising India' from February 17-19, 2009, in collaboration with the Indian Institute of Science (IISc) in Bengaluru, at the IISc campus. One of the main aspects discussed in the conference were the conservation challenges, such as unsustainable development, pollution, climate change and conflicts over natural resources arising due to the rapid globalisation of India. The Conference also covered topics like biodiversity conservation, community conservation and co-management, science-based species conservation, impacts of tourism, trade and globalisation on biodiversity, conservation governance, and agriculture and conservation. The inauguration of the seminar commenced with introductory messages from Dr. R. Sukumar, Chairman, Centre for Ecological Sciences, IISc; Dr. Nigel Collar, BirdLife International; Chief Guest Dr. Ashok Khosla, President, IUCN; Mr. B. G. Deshmukh (retd. IAS), President, BNHS; Prof. Madhav Gadgil and Dr. Asad R. Rahmani, Director, BNHS (L-R).

Event special

Dr. Ashok Khosla, spoke about biomimicry and its benefits that have been enjoyed by mankind in the past and also what we can do by using it as a tool in the future. He also referred to using biomimicry to reduce the scale of human induced environmental problems and examples of how this can become a reality. After the introduction by Professor Madhav Gadgil of the Sálim Ali International Award for Nature Conservation, the Award for 2008-2009 was presented to Dr. Nigel Collar by Dr. Ashok Khosla.



Dr. Collar, a Leventis Fellow in Conservation Biology at Birdlife International, UK, is respected and admired worldwide for his efforts to document the conservation status of the birds, and for initiating conservation action to aid threatened species. Dr. Nigel Collar spoke about his passion for birds and gave a unique insight of the ongoing association between man and birds that has been in existence since time immemorial.

BNHS released its special *Hornbill* issue in honour of its 125 year anniversary at the Indian Institute of Science, Bengaluru. The issue contains informative articles on the ongoing research projects of BNHS. *Hornbill* is the Society's nature magazine that caters to students, professionals and amateurs alike with its first person account of adventures in the wild, members' activities and comments on the latest concerns of nature conservationists, all in a highly readable format. *Hornbill* is complementary to all members of BNHS.

(L-R: Dr. Ashok Khosla, Mr. B.G. Deshmukh)

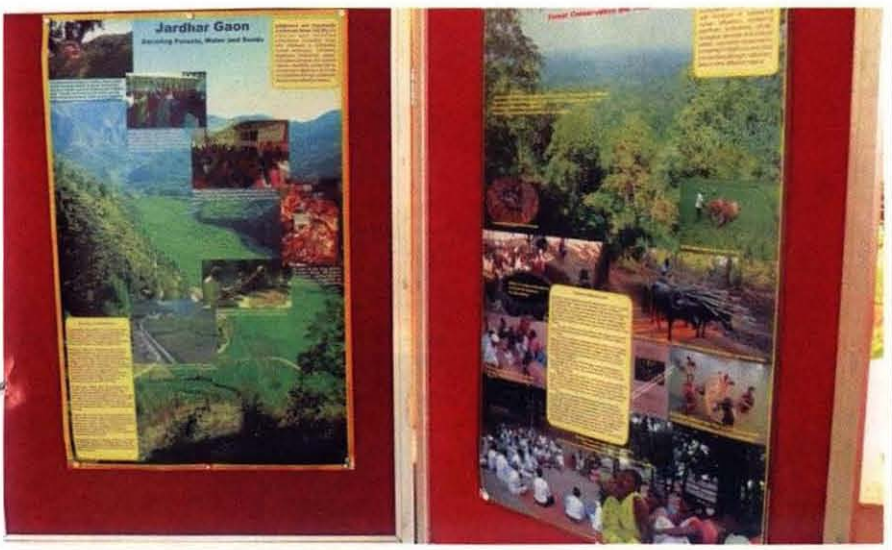




Event special

A DVD of the first 100 volumes of *JBNHS* was released at the conference by Prof D.N. Rao, Division of Biosciences, IISc. Mr. Kumaran Sathasivam, Life Member, BNHS, Mr. Joseph Joy, Principal Software Architect, Microsoft Research India, and Dr. K. Yoganand, Professor and Head of Mathematics, S.J. College of Engineering, Mysore undertook the mammoth task of digitizing the 100 volumes of the *JBNHS*. (L-R): Dr. Asad. R. Rahmani, Dr. K. Yoganand, Prof D.N. Rao, Mr. Kumaran Sathasivam, Mr. Joseph Joy, Mr. J.C. Daniel, BNHS and Ms. Vibhuti Dedhia.

Many expert speakers, through presentations, gave their views on topics that are of grave importance in the world of conservation. Some experts had brought along local people from the area of their expertise, so everyone could know about the problems through them directly. But experts were not the only ones who gave their views, many young aspiring researchers, students and naturalists made quick presentations in the speed talks section that was held on February 18, 2009, and made their mark very effectively.



The second day ended with a very informative poster session which displayed posters created by many researchers, naturalists and students about their work on environmental problems and on other nature related aspects.

Event special

Mr. Ramchandra Guha, an ecological historian, critic writer and biographer, gave an apt assessment of the situations faced by wildlife conservation in India. His excellent oratory skills helped the audience to understand his ideas better.

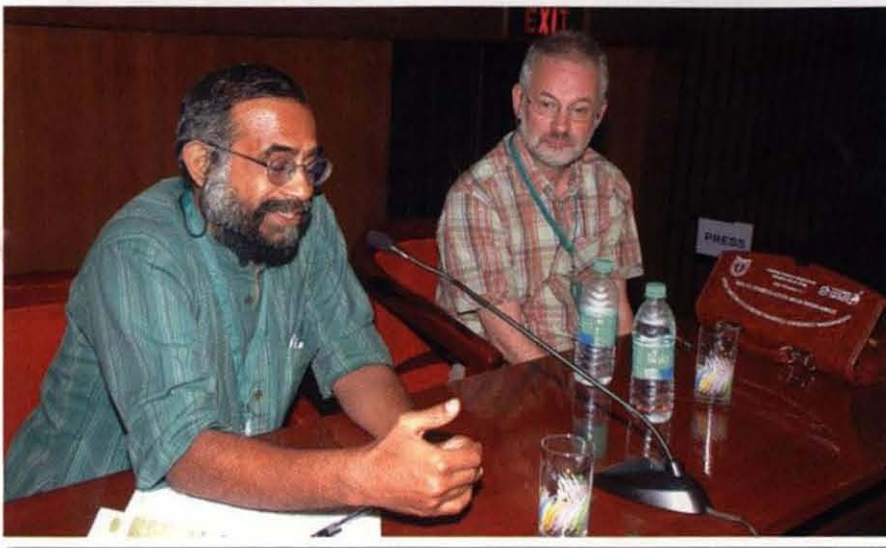


During the span of the conference the audience, which mainly included researchers, scientists, students and naturalists, was quite interactive and this made the conference very interesting. Mrs. Tara Gandhi, one among the dignitaries present at the Conference, also voiced her opinion in reciprocation to the presentations and talks.

The conference also proved to be a meeting point for many researchers and scientists working on different aspects of wildlife conservation and many species of flora and fauna, from all over the country.



Event special



Mr. Ashish Kothari, EC Member, BNHS, and Dr. Rhys Green, Principal Research Biologists, RSPB, and Senior Researcher, Cambridge University, chaired the session on 'Agriculture and Conservation' which dealt with the Human-Wildlife conflict situation with reference to the degradation of habitat for agricultural purposes. It also sensitised the audience about the problems faced by the people living in these conflict areas.



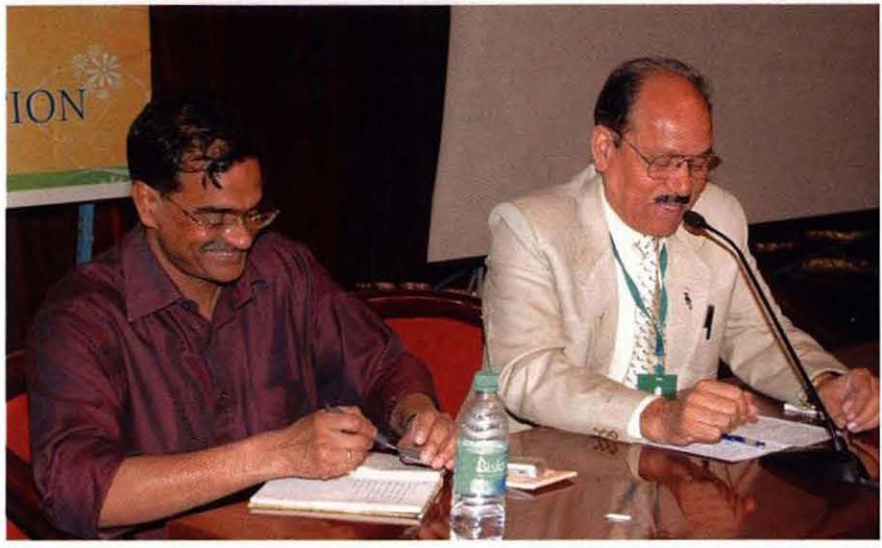
The talk on Marine Protected Areas was an eye-opener as it dealt with a topic that is currently of importance to the world of conservation as the marine environment is one of the sensitive ecosystems. Mr. Pankaj Sekhsaria spoke about the problems faced by the islands of Andaman and Nicobar after the tsunami and importance of studying island and ocean ecosystems.



Mr. B.C. Choudhury being one of the well-known experts on marine ecosystems was the person who chaired the session on Marine Protected Areas. The discussion between him and the speakers gave rise to dissemination of little known information about Marine Protected Areas of India.

Event special

The final day of the seminar was as informative and interesting as the earlier two. The concluding session was presided by Dr. Mahesh Rangarajan, Professor, Delhi University and Dr. Asad R. Rahmani. The concluding talk by Dr. Mahesh Rangarajan which highlighted many of the important points that rose in the span of the Conference and gave an apt holistic summary of the conference. Dr. Rahmani presented the vote of thanks to all the dignitaries, staff, supporters and well-wishers present at the conference.



The staff of the BNHS were called to the stage and acknowledged for their efforts of management and passion with which the conference was conducted for the benefit of conservation. (L-R): Mr. Divyesh Parikh, Head-CMD, Mr. Khan, Assistant Officer, IBA Programme, Mr. Ajit Majgaonkar, Accounts Assistant (Vulture Programme), Mr. Santosh Mhapsekar, Officer Sales, Mrs. Deepali Chaubal, Director, Mr. V. Gopi Naidu, Manager (Designing), Mr. Vidyadhar Atkore, Manager, Programme, Mr. Sachin Kulkarni, Resource Manager, Mr. Abhijit Malekar, Assistant Officer, IBA Programme, Mr. Rushikesh Chavan, Conservation Officer.

A memorable moment on the last day of the three-day Conference with the entire team of BNHS, the dignitaries and all other researchers, naturalists and students was just the right way to informally end the journey into the world of conservation – the problems and its solutions.



Spot-billed Pelican *Pelecanus philippensis*

The Projects on the Spot-billed Pelican and water birds was funded by the Ministry of Environment and Forests. The Project on the Spot-billed Pelican was the assessment of its population, distribution and conservation issues in southern India. The Project on waterbirds was to assess their population and distribution in Pulicat lake and in the adjoining wetlands.



Event special

Bird Migration Centre: Point Calimere

February 22, 2009, Tamil Nadu

BNHS launched India's first bird migration study centre on February 22, 2009, at Point Calimere, Kodikkadu Village, Nagapattinam District, Tamil Nadu. The Centre was inaugurated by Mr. R. Sundararaju, Principal Chief Conservator of Forests (WL) and Chief Wildlife Warden, Government of Tamil Nadu, and Dr. P.L. Gautam, Chairman, National Biodiversity Authority (who presided over the function). Dr. Asad R. Rahmani, Director, and Mr. J.C. Daniel, Honorary Secretary, BNHS, were also present on the occasion.



The Centre aims at studying the movements of migratory birds extensively through a network of researchers (professionals and amateurs) and wildlife officials in different parts of India to conserve their habitats. The Centre came into existence after an eight-year long struggle and hardwork by Dr. S. Balachandran, Assistant Director, BNHS. The Centre houses a conference hall with a capacity of 30 seats, library and a laboratory apart from the staff and scientist rooms. The major contributors for the Centre to become a reality are Sanmar Chemplast, Mr. B. Ugamraj Nahar, Mr. P.R. Ramasubramania Raja, Citibank and Ion Exchange.

Event special



As a part of the inaugural function, a workshop sponsored by the National Biodiversity Authority and Forest Department was organised on "Conservation and Management of Point Calimere, Ramsar Site: Past, Present and Future". Participants included individuals who had worked at Point Calimere, institutions that had done research work in the area, lecturers and post graduate students from A.V.C. College, Periyakulam College, Arulanandar College, and many more.



The objective of the Centre is to undertake the study of bird migration and related research through a network of researchers in different parts of India and to impart training to amateur birdwatchers, naturalists and wildlife officials on the techniques of bird ringing, bird population, avian ecology and behaviour studies. It also aims at disseminating knowledge on the role and importance of migratory birds and wetlands in maintaining the biological diversities of India.



The Bird Migration Study Centre at Point Calimere acted as the perfect place to hold the camp for the ornithology course of the year 2008-2009 conducted by the BNHS. All the course participants learnt about sampling techniques, interesting facts about water and forest bird migration.



Forest Owlet *Heteroglaux blewitti*

The Forest Owlet was considered extinct until it was rediscovered after 113 years by eminent American ornithologists Ben King and Pamela Rasmussen on November 25, 1997. From 1998 to 2001, Dr. Farah Ishtiaq studied the Forest Owlet and published her findings in national and international journals. Subsequently, the Forest Owlet Project of the BNHS was started in 2001. The main Project was funded by the Ministry of Environment and Forests, Government of India, and partially by the Smithsonian Institute and Justice Peter Helm Foundation. Its main aim was to collect baseline information on status and distribution, habitat utilisation, breeding biology, behavioural ecology, threats and conservation issues with regards to the Forest Owlet, and to provide recommendations for effective conservation of this elusive bird. This study was done by Dr. Girish Jathar.



BNHS Sálim Ali Award for Community Conservation 2008-09

September 11, 2009, Khichan



The Sálim Ali Award for Community Conservation 2008-2009 was presented on September 11, 2009, by Dr. Asad R. Rahmani, Director, BNHS, to Shri Ratan Lal Maloo (Jain), for his relentless efforts to protect and conserve for posterity the bird life in and around Khichan, Rajasthan, and for inspiring others to join in the task. The function was organised by Mr. Krishna Kumar Vyas, Phalodi, a well-wisher and supporter of the BNHS, and Mr. Manoj Kulshreshtha, BNHS Life Member and State Co-ordinator, Indian Bird Conservation Network, Rajasthan.

Event special

Shri Maloo started feeding birds at the *Pakshi Chugaghar* at Khichan. Initially, for the first ten years Shri Maloo and his wife (left) would personally feed nearly 1,000 birds with over 50 kg of grain every day. After his wife met with an accident while handling the grain bags, he appointed a salaried person for feeding the birds.



Shri Maloo has developed this activity into a full-fledged social responsibility initiative, which his uncle Shri Krishna Lal Maloo had envisaged. Over the years, Shri Maloo got land from the Gram Panchayat under the leadership of the former Sarpanch Shri Suresh Jain. The Forest Department helped in fencing the area with barbed-wire to protect the birds from predators

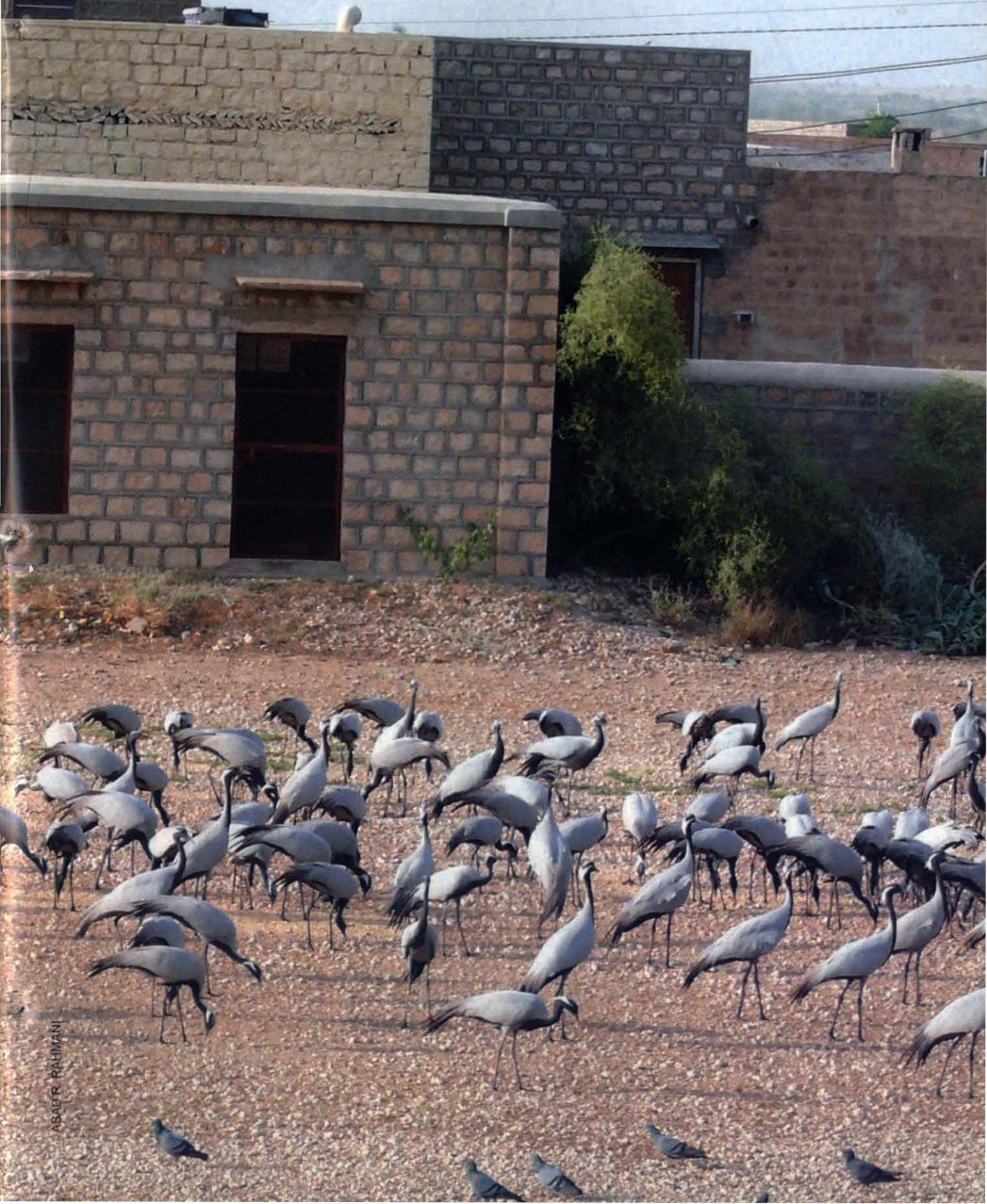
Subsequently, more people contributed to build a boundary wall on two sides of the enclosure, along with a granary and a shelter for injured birds. It is commendable that all running expenses, to the tune of Rs. 15 lakh per annum, are borne by Shri Maloo, with support from other villagers and some tourists.



Shri Maloo himself still continues to feed the birds and even the shy cranes are known to approach him at a distance of 1-2 m, which is extremely rare. A well-equipped enclosure now stands in Khichan to facilitate the feeding and tending of the birds.

Demoiselle Crane *Grus virgo*

Demoiselle cranes are gregarious and wary birds that sometimes mix with Common cranes and feed early in the morning and evening. India is a vital wintering ground for these cranes which is a safe haven. The responsibility for their safety is undertaken in many places by the local people, which is a commendable act in itself.



Tidal Pool

Text and Photographs: Vishal Bhawe

Marine flora and fauna are one of the most mysterious branches of life on earth despite it being the one among the first to evolve on our planet. It has many ecosystems within its vast boundaries. Tidal pools, among other marine systems, are one of the neglected areas but are among the best places to see little known marine life. There can be astonishing life forms to see ... if you know what to look for.



Sea anemones are a group of water dwelling, predatory animals. It is a polyp (a tubular organism with tentacles) and usually attaches itself to rocks or coral. It has a central mouth which is surrounded by tentacles with nematocysts or stinging cells that paralyze and entangle small marine animals. Also, sea anemones are closely related to corals, jellyfish, tube-dwelling anemones, and Hydra.

Tidal Pool



Tidal pools are usually found around rocky shores, which can be a puddle as small as the mouth of a mug, to being as large as an Olympic Games swimming pool! The inhabitants of tidal pools can cope with their dynamic environment, which are affected with evaporation, tidal changes, reshaping of the coastline or change in the climate. The major changes occur due to tidal actions and change in nutrient levels. Let us take a peek into this wonderful, colourful and unique life in a tidal pool!

Hydroids are colonial plant-like animals closely related to jellyfish, with stinging cells and are commonly seen amongst the varied life in a tidal pool. Hydroids are generally mistaken for sea weeds. On touching the hydroid *Aglaophenia* sp., a stinging sensation may be experienced by the person.

Octopuses are commonly seen in the intertidal rock pools and are a part of the same group as chitons, snails, limpets, scallops, oysters, clams and mussels. The octopus also belongs to a major class of molluscs called the cephalopod (feet are directly attached to head). A master of disguise, the octopus can instantly change the colour and texture of its skin to match the surrounding area.





The brightly coloured butterfly fish is easily noticed in the low tide zones of a tidal pool because of their striking colour and slender movements. There are 120 species of butterfly fish in ten genera. These fish generally feed on coral polyps and sea anemones. Fish like coral fish and banner fish are also common butterfly fish.

Sea Mats belong to the family of zoanthids and are composed of polyps. Sea Mats are photosynthetic and make food with the help of sunlight. These bright and colourful zoanthids can be seen easily in tidal pools as they are sessile. They are characterised by a symbiotic association with zooxanthalae (single-celled plants that live in the tissues of animals).

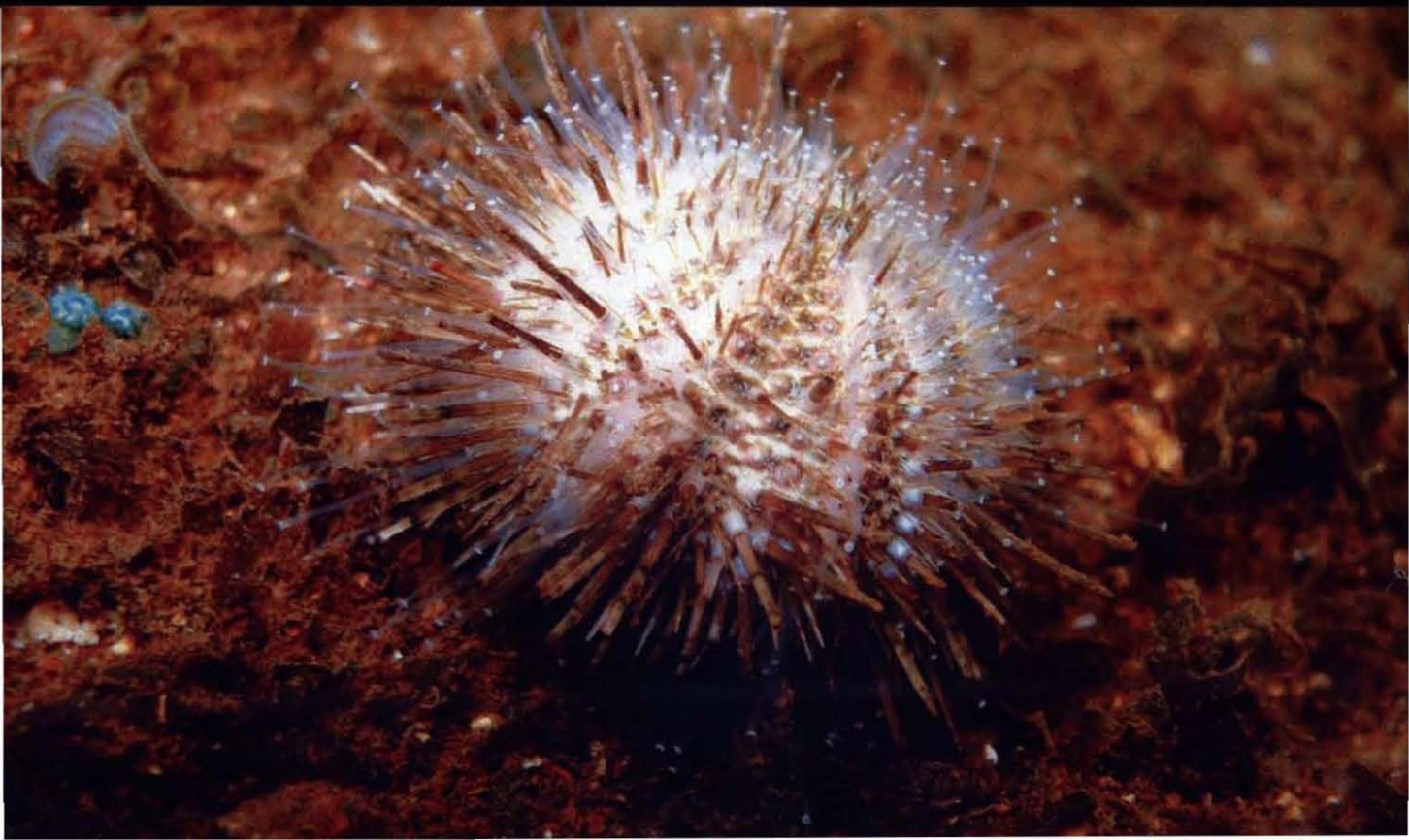


Tidal Pool



Sea slugs are the largest group of shell-less molluscs that set a different trend when it comes to slugs with their myriad colours and beauty! These beautiful organisms are often seen in shallow intertidal zones in a tidal pool. The body colour of *Phidiana militaris* (above) varies according to the changes in its diet, which generally consists of hydroids.

Sea urchins are essentially globular animals with spines and belong to same group as star fish and sea cucumber. Their spines may be of different shapes and sizes; some species have it thick and blunt, while others are thin and needle-like. Sea urchins have no visible eyes and legs but they can travel by using their adhesive tube like feet. They generally feed on algae and sea grass.



Tidal Pool



Green Algae are usually found in the mid tide zones of a tidal pool. *Caulerpa* can be seen attached to rocks, Sand and substrate beds with penetrating root-like hairs or rhizoids. Seen under the microscope one can spot a unique feature of this algae, that is, they consist of one cell with many nuclei.

Sea cucumbers have a leathery skin and an elongated body. They are usually seen at the bottom of a tidal pool and feed on detritus in the sea. Secretion of a mass of sticky white threads is their way to repel or trap their enemies. They also have a very unusual way of respiration; they take in water through their anus to breathe.



Vishal Bhawe is project officer at BNHS studying Opisthobranchs (a diverse group of marine molluscs) at Ratnagiri, Maharashtra.



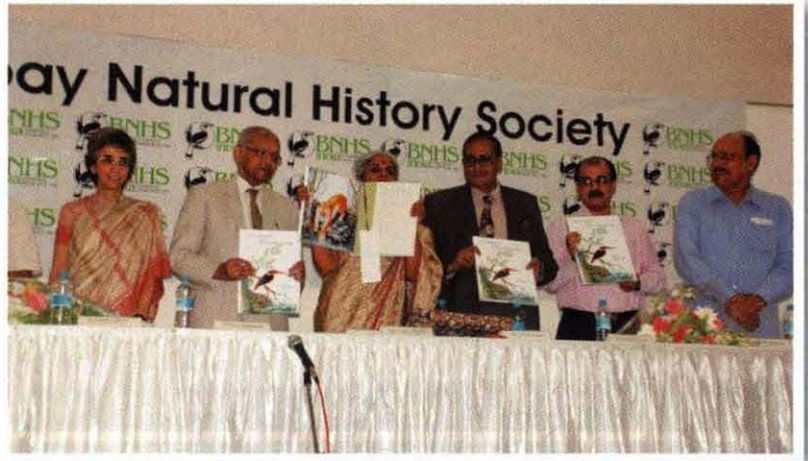
“Living Jewels from the Indian Jungle”

September, 12, 2009, Mumbai

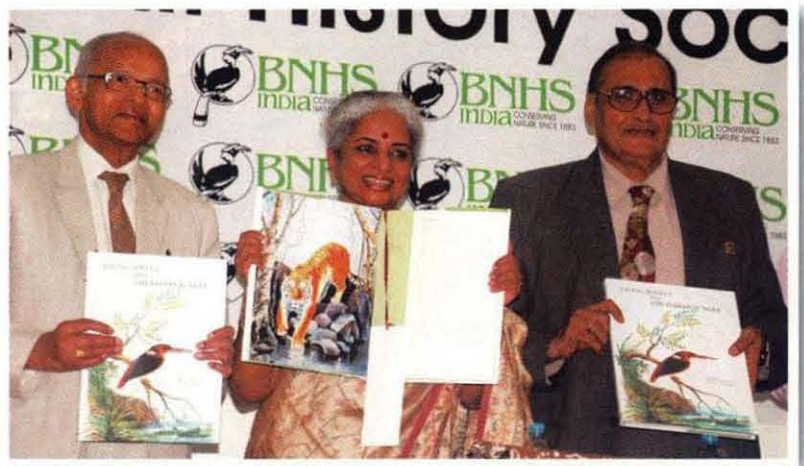
LIVING JEWELS FROM THE INDIAN JUNGLE edited by Dr. Ashok Kothari and Dr. B.F. Chhapgar, a beautiful coffee table book from the BNHS was released on the September 12, 2009, by Smt. Usha Thorat, Deputy Governor of Reserve Bank of India.



The articles, paintings and photographs reproduced in the book have been taken from rare sources in the BNHS Library. The book consists of 80 plates.



(L-R): The function was graced by the presence of a number of dignitaries including Ms. Radhika Sabawala, General Manager, Marg Publications; Mr. B.G. Deshmukh, President, BNHS; Smt. Usha Thorat; Dr. Ashok Kothari; Mr. Sabyasachi Mukherjee, Director, Chhatrapati Shivaji Maharaj Vastu Sangrahalaya and Dr. Asad R. Rahmani, Director, BNHS.



Smt. Usha Thorat praised the efforts taken by the editors and emphasised on the necessity of such books to create awareness about wildlife conservation among people. The book gives an interesting insight into the natural heritage of Indian jungles over the past two centuries with paintings, photographs, reproduction of lithographs, and articles depicting Indian wildlife of the past.

Fire-tailed Sunbird *Aethopyga ignicauda*

Sunbirds are smaller members of the avian family with a fast and purposeful flight. The fire-tailed sunbird is a colourful nectar feeder found in North east India. This beautiful lithograph of both male and female of this species, is reproduced from the book of well known ornithologist - John Gould. He did extensive work on the birds of Asia during the nineteenth century. Many of these lithographs have been reproduced in the coffee table books compiled by Dr. Ashok Kothari and Dr. B.F.C. Chhapgar of the BNHS.



Event special

Workshop on BNHS' strategic plan for 2010-2015

September 18-20, 2009, Kashid

A three-day workshop was organised from September 18-20, 2009, to prepare a strategic plan for the BNHS for the period 2010-2015 at Kashid, Alibaug, by Mr. Satish Pradhan, Chairman, Institution Building Sub-Committee and Mr. Homi R. Khusrokhhan, Vice President, BNHS.



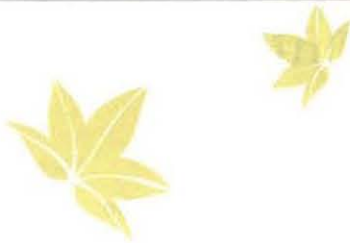
The workshop was aimed at thinking on various issues that have a potential to reorganise the strategy development and execution process and to set the organisation in order in terms of capabilities, finances and management. The core values discussed were: BNHS comes first in the professional priorities of all staff and the practice of transparency, honesty and integrity is essential.



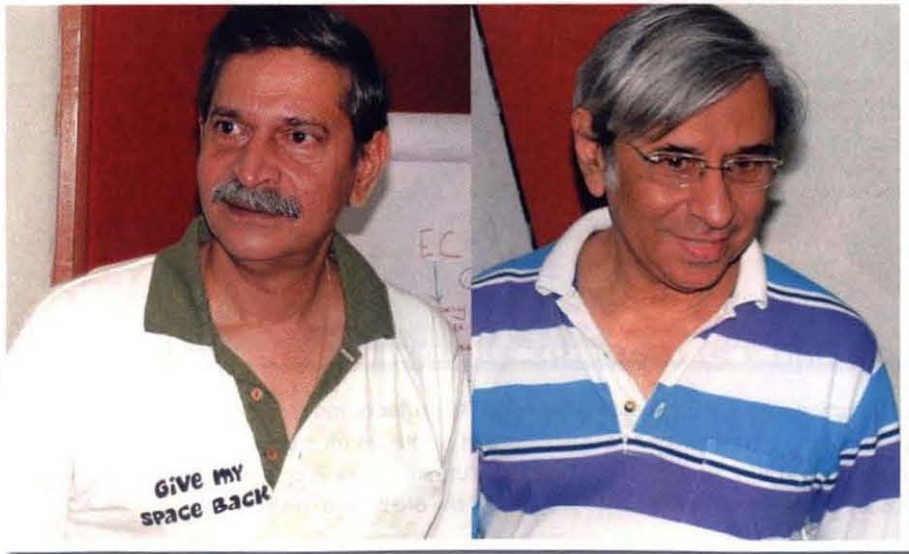
Event special



All the heads of the departments, EC members, and policy makers participated in the event to lay down the strategic plan for the BNHS for the next five years. There were discussions among the staff members on many different aspects and there was also a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of the BNHS. (L-R: Atul Sathe, PR Officer, Mr. M.G. Mathews, Administration Manager, Ms. Nirmala Reddy, Librarian, Dr. Ranjit Manakadan, Assistant Director, Dr. Asad R. Rahmani, Director, Dr. S. Balachandran, Assistant Director)



The workshop helped better communication and facilitated meeting many of the researchers and head office staff to understand each other's view points better. Also, it had its lighter moments that helped make the bond stronger among BNHS staff to strive better for overcoming the organisation's problems. (L-R: Mr. Sachin Kulkarni, Project Manager, Mr. J.C. Daniel, EC Member, Mr. C.R. Naveen, Centre Manager and Programme Officer, CEC-Delhi, Dr. S. Balachandran, Assistant Director, Mr. Varad Giri, Curator)



The men behind the scenes who made this workshop a reality are Mr. Satish Pradhan and Mr. Homi Khusrokhhan. They conducted the workshop with expertise and took special interest in making the next five years of the BNHS memorable.



Event special

BNHS' Annual Research Seminar

September 22-23, 2009, Mumbai

The Annual Research Seminar is the coming together of all BNHS researchers where they discuss the ongoing research projects undertaken by the BNHS. The aim of the Seminar is to monitor the progress of the projects. The Seminar provides a platform for researchers to showcase their work, interact with members and staff of the BNHS head office, to address queries and interact with other scientists. It creates a healthy competition between the researchers and motivates them to keep up the good work.



After 125 years into wildlife research and preservation, the BNHS takes pride in all of its projects and strives for conservation of India's natural wealth, protection of the environment and use of natural resources for a balanced and healthy development for present and future generations. Dr. Nita Shah, Head, Vulture Advocacy Programme, gave an eye-opening presentation on the Advocacy done for one of the major projects of the BNHS and the hurdles faced along the way.

Event special



The Annual Research Seminar of 2009 held a discussion to evaluate the progress in the current projects and conservation activities undertaken by the BNHS. The panel of judges included Dr. Rachel Reuben, former Honorary Secretary, BNHS, Mr. Ian Barber, International Officer at RSPB, and EC Member Mr. J.C. Daniel, also the former Honorary Secretary of the BNHS.



The winners of the Annual Research Seminar were: (L-R) Ms. Aditi Nair, Senior Research Fellow, Mrs. Priti Salaskar, Education Coordinator, Mangrove Project, Mr. Rushikesh Chavan, Conservation Officer and Mr. P. Sathiyaselvam, Scientist, Chilka Project, with the panel of the judges and Vice President, Mr. Homi Khusrokhhan and Director, Asad R. Rahmani.

We are grateful to

RISHAD NAOROJI

for a generous donation to the
Kekoo Naoroji Memorial Fund
to support the publication of *Hornbill*

We are grateful to

SETH PURSHOTAMDAS THAKURDAS & DIVALIBA CHARITABLE TRUST

for a generous donation to the
Pratap Saraiya Hornbill Fund
to support the publication of *Hornbill*



Sow seeds of appreciation for our biodiversity

India is blessed with priceless treasures from dense forests, grasslands, deserts, mountains, corals and coastlines, which harbour a biodiversity that is the envy of the world. The health of natural habitats and their wild denizens is the finest indicator of the long-term health of our nation. All these combined constitute the survival assets for over one billion Indians to ensure a better quality of life.

We at Union Bank want to spread the conservation message to all our customers and beneficiaries.



Union Bank
of India

Event special

Workshop on Statistics

September 24-27, 2009, Mumbai

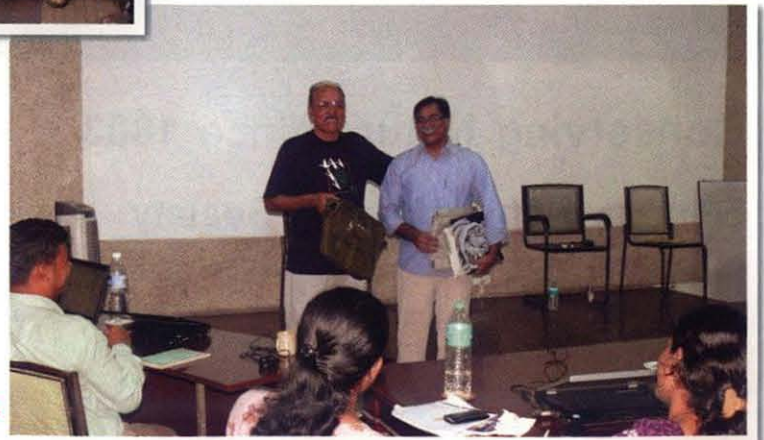
BNHS organised a workshop on Statistics conducted by Mr. Qamar Qureshi of the Wildlife Institute of India, for its employees from September 24-27, 2009, to enhance their understanding of the fundamentals of analysing and understanding data that are collected during a project or study. The science of biostatistics encompasses the design of biological experiments, collection and analysis of data from those experiments; the interpretation of data, and inference from the data. and its results.

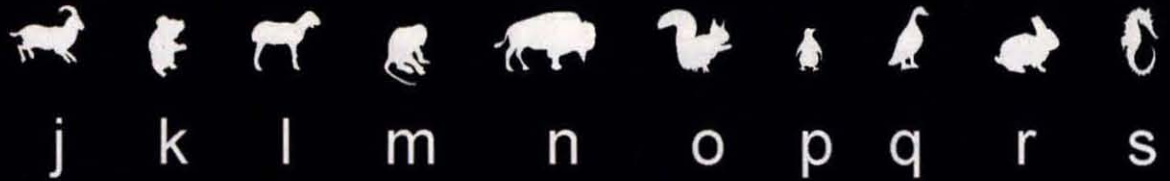
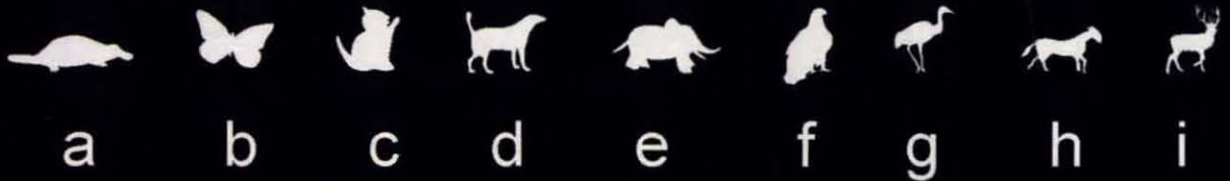
In many projects, the researcher may have to tailor the basic concepts and theories of biostatistics to analyse the data of his research. This process was explained very clearly and in great detail by Mr. Qureshi by giving examples of the projects on which researchers, present at the workshop, were working on.



The four-day workshop was very fruitful and many concepts of statistics were explained with the help of exercises to facilitate better understanding. Dr. Asad R. Rahmani gave one such practical exercise on the importance of random sampling.

The Workshop was completed with the felicitation of Mr. Qamar Qureshi with gifts and tokens of appreciation presented to him by Dr. Asad R. Rahmani, Director, BNHS.





Conserving Nature since 1883

Bombay Natural History Society

Hornbill House, S.B. Singh Road, Mumbai 400 001, Maharashtra, India.

Tel: (022) 2282 1811; Fax: (022) 2283 7615; Email: bnhs@bom4.vsnl.net.in, www.bnhs.org

For details write to the Honorary Secretary at the above address



BNHS
india
CONSERVING
NATURE SINCE 1883



Jerdon's Courser *Rhinoptilus bitorquatus*

Dr. Bharat Bhushan of the BNHS rediscovered the Jerdon's Courser in the Pennar river valley, Andhra Pradesh, in 1986. The Jerdon's Courser study from August 2000, was funded and sponsored by the Darwin Initiative, Andhra Pradesh Forest Department, University of Reading and the Royal Society for the Protection of Birds (RSPB). The main objective of the Project was to study the ecology, distribution and to collect more information about this elusive bird.



Book Release: Natural History and the Indian Army

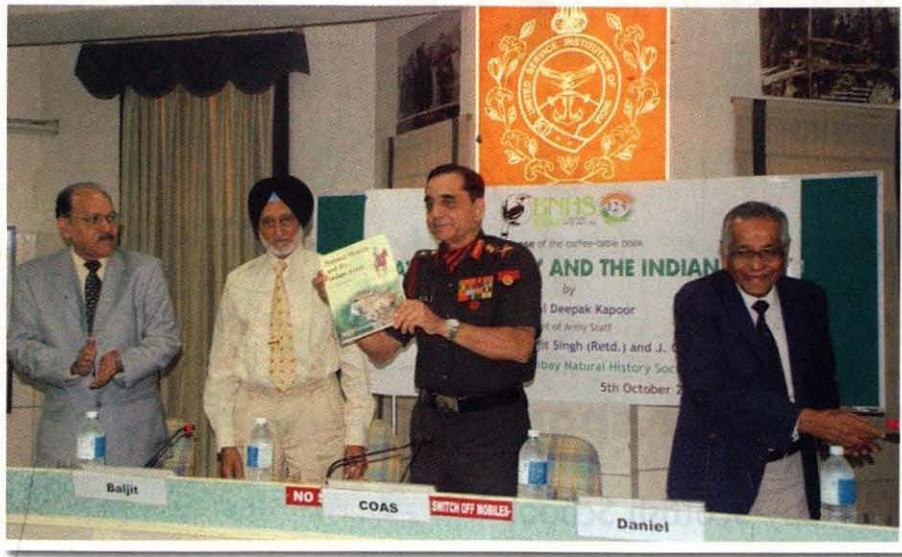
October 5, 2009, New Delhi

Along with the greenery, lands belonging to the Indian Army are often safe havens to myriad forms of wildlife of every description. The presence of the Army invariably overlaps with wildlife rich areas such as the trans-Himalayan highlands of Ladakh, the forested slopes of Kashmir and the forests of Manipur and Arunachal Pradesh. And the Indian Army has taken land to be their responsibility and have tirelessly worked towards keeping its treasure trove of nature intact and pristine. The latest coffee table book from BNHS, titled *Natural History and the Indian Army* beautifully depicts this lesser known achievement of the Indian Army.



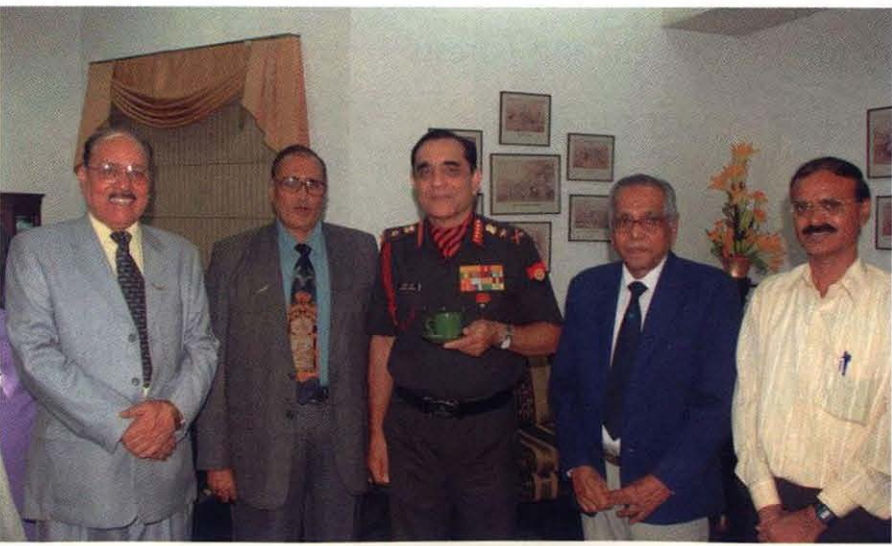
The dignitaries present at this memorable event included (L-R) Dr. Asad R. Rahmani, Director, BNHS, Lt. Gen. Baljit Singh (compiler), Gen. Deepak Kapoor, Mr. J.C. Daniel (compiler).

Event special



The Chief of the Army Staff, General Deepak Kapoor PVSM AVSM ASM VSM ADC released the book titled *Natural History and the Indian Army* published by Bombay Natural History Society (BNHS) at a function held at the United Service Institution (USI) in New Delhi. This coffee table book has been co-edited by Lieutenant General Baljit Singh (Retd.) and Mr. J.C. Daniel.

General Deepak Kapoor spoke about the long-standing relation between the Indian Army and our country's priceless natural wealth. He also referred to the bond between the Society and the Indian Army wherein the Society has recognised the magnanimity of work done and the efforts put in by many army officers stationed in remote inaccessible parts of our country. He also mentioned that he will try and keep this bond strong and sturdy in the future as well.



The function was attended many army personnel, and the friends of BNHS. (L-R: Dr. Asad R. Rahmani, Dr. Ashok Kothari, Gen. Deepak Kapoor, Mr. J.C. Daniel, Mr. Gopi Naidu). Mr. Gopi Naidu had designed the book.



We thank our sponsors

Bombay Scottish School

Chhatrapati Shivaji Maharaj Vastu Sangrahalaya

Club Mahindra

Council of Scientific and Industrial Research

DSP Merrill Lynch

Ganjam Nagappa and Son Pvt. Ltd.

HSBC

ICICI

Interface Communications

Indian Institute of Science, Centre for Ecological Studies

Murugappa Group

Ministry of Environment and Forests

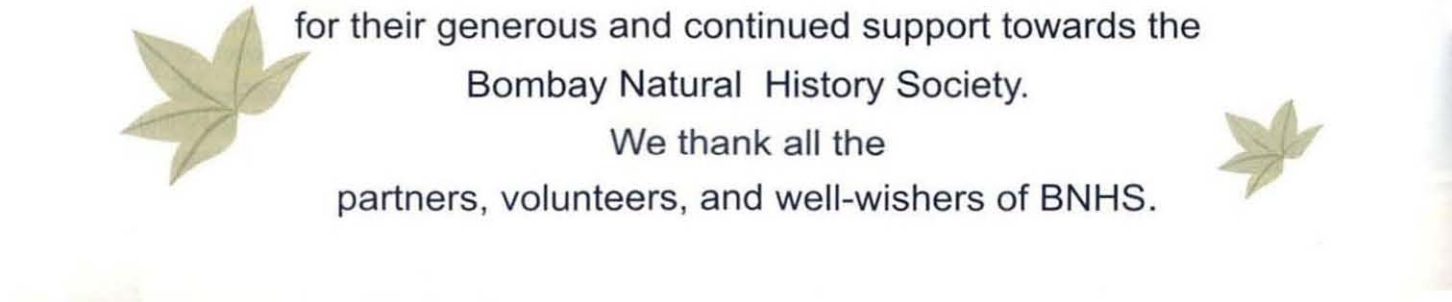
Pirojsha Godrej Foundation

Rotary Club of Bombay Sea coast

Tata

for their generous and continued support towards the
Bombay Natural History Society.

We thank all the
partners, volunteers, and well-wishers of BNHS.



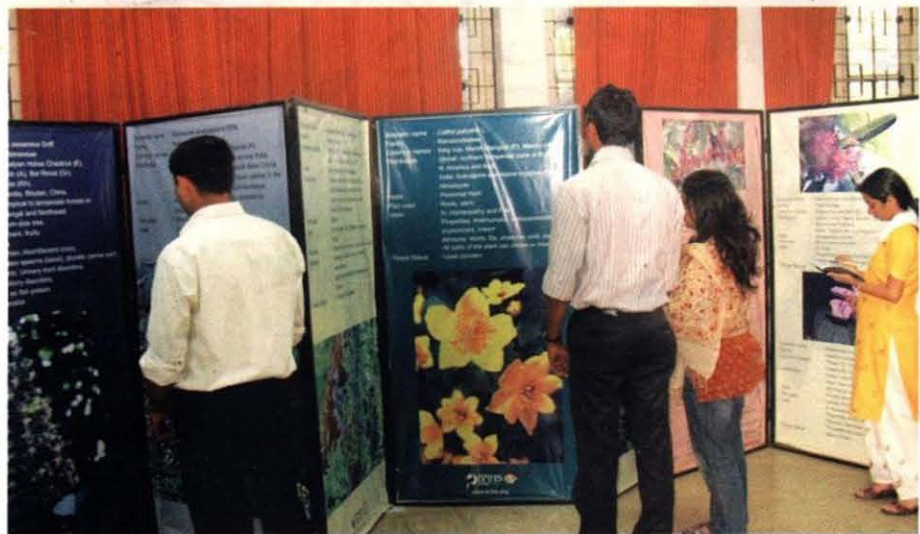
“Medicinal Plants of India”

October 6-9, 2009, Mumbai

On the occasion of Wildlife Week, BNHS organised an exhibition on 'Medicinal Plants of India' from October 6-9, 2009, at Hornbill House, Mumbai. The exhibition showcased the plant wealth of India and the traditional knowledge associated with it. Ayurveda is one of the best gifts from India to the world that documents around 700 medicinal plants and their properties, which cure over 1,120 ailments. The country's plant diversity also provides drugs for alternative medicine, namely Homeopathy, Unani, and Siddha and Tibetan systems.



Event special



Scientific name : *Rhododendron arboreum* SM.
 Family : Ericaceae
 Common names : Pullasa (S), Bruans, Barah (H),
 Kattupuvvarasu (Mi).
 Distribution : Global: From Pakistan to Tibetan Himalayas.
 India: Forests and scrubs of temperate to
 alpine Himalayas.
 Habit : An evergreen small tree.
 Part used : Leaves and flowers.
 Uses : In: Ayurveda, folk.
 Properties: Expectorant, astringent.
 Ailments: Cough, diarrhoea, dysentery,
 headache, menstrual disorders, vomiting.
 Flower juice is used as sharbats.
 Threat Status : Near-threatened.




 www.bnhs.org

The exhibition included two components: The panels describing 25 lesser-known plants confined to high altitude areas of the country. These included images of species such as *Aconitum ferox* (Ativisha), *Dactylorhiza hathagerica* (Salam Panja), *Habenaria intermedia* (Vridhhi), *Picrorhiza kurria* (Kutaki), *Podophyllum hexandrum* (Bakakri) in their habitat along with notes on common names, habit, medicinal properties and threats.

The exhibition displayed a panel on *Rhododendron arboretum*, a species that can be used as an astringent and expectorant that works wonders on cough, diarrhoea and even vomiting. Besides these, a large portion of our plant diversity forms a significant part of Indian folk medicines. Hundreds of indigenous communities depend on this wild flora for their well-being. A number of these species are posed under various levels of threats imposed by over-exploitation and aggravated habitat loss.


A few potted specimens of well-known medicinal plants, which are commonly used in home remedies all over the country, were also displayed. A few names to mention are Aloe (*Aloe vera*), Guggul (*Commifera mukul*), Shivan (*Gmelina arborea*), Vekhand (*Acorus calamus*), Amla (*Phyllanthus emblica*). A very informative slideshow on the topic by Mr. Sawarkar was a part of this event, where he portrayed around 100 plants used mostly in Ayurveda.



Maximum Mumbai. Maximum Network.



Loop
MOBILE



My tomorrow depends
on what you do today

Decisions of today will shape the world of tomorrow.

Representing future generations and their interests in today's decision-making processes is ingrained in the ethos of MSPL. Our approach therefore transcends regulatory, programmatic and jurisdictional constraints, and emphasizes on synergizing ecology and economy.



It is this responsibility towards mother earth and its future residents that has led us to invest in wind energy. An initiative which shall ensure availability of much-needed power for accelerated progress, at a minimal environmental footprint. Today with a Group wide installed generation capacity of 216 MW we are one of the largest producers of wind energy in the country and we are on course to double this capacity by 2012.

At MSPL, we want to make a difference and it is our endeavour to gift our children a more sustainable world than the one we inherited.



MSPL LIMITED

Baldota Enclave, Abheraj Baldota Road
Hospet-583203, Karnataka, India.
www.mspllimited.com