First and foremost, I wish to extend warm greetings for a safe, healthy, and happy New Year. I hope that the year will bring good news for our wilderness too.

I hope you have had a chance to go through our latest e-newsletter *ecoScapes*, along with the abstracts of various research and conservation projects undertaken by BNHS presented during our Annual Research Seminar. The response to the e-newsletter has been overwhelming, and we have received some donations to continue our work on endangered species.

The last quarter has been very hectic for Team BNHS. Our “International Conference on Wetlands and Migratory Waterbirds of the Asian Flyways” received an overwhelming response, with 280 delegates including scientists, academics, conservationists, state forest officials, and decision makers from 18 countries participating to review the current status of migratory waterbirds and conservation issues related to the wetlands of the Asian flyways, with focus on the Central Asian Flyway. A resolution from the conference will be tabled at the upcoming 13th Conference of Parties (COP) of the Convention on the Conservation of Migratory Species of Wild Animals (CMS) being hosted by India.

On the last day of the conference, BNHS presented the Sálim Ali International, National, and Community Nature Conservation Awards, and the newly initiated J.C. Daniel Conservation Leader Awards for Young Men and Women. Some of the keynote talks of the conference and the entire awards ceremony were live-streamed.

The New Year will witness another major event, CMS COP 13, hosted by the Government of India (GoI) in Gandhinagar from February 15–22, 2020. BNHS is assisting GoI not only in the preparations but will also contribute to the scientific documents related to the event. BNHS Senior Scientists Dr P. Sathiyaselvam and Dr Ramesh Kumar Selvaraj are currently deputed to MoEF&CC to assist in CMS COP preparations. BNHS is also assisting Government of Gujarat in the preparatory work, and Dr Dishant Parasharya and Dr Bhavik Patel are deputed for the same. BNHS has received an invitation to the COP High-Level Segment, where ministers of CMS range countries will discuss core issues of policies and conservation measures for migratory species.

BNHS’s wetland and bird migration research is expanding by leaps and bounds under the leadership of Dr P. Sathiyaselvam and his team comprising Dr S. Sivakumar, Dr Ramesh Kumar Selvaraj, Dr Madhumita Panigrahi, Ms Tuhina Katti, and Mr Omkar Joshi with scientific advice by the legendary bird migration specialist Dr. S. Balachandran, Deputy Director, BNHS. We received a boost for this programme with major financial support from MoEF&CC. Under this grant, BNHS will be working across 17 states, 48 waterbird sites, and 31 landbird sites. Our first key objective is to develop site-specific actions related to conservation of migratory bird species and their habitats in Protected Area Plans (both Management and Working
plans) and also to formulate action plans for non-protected areas. The second key objective is to train 350 forest department staff in bird ringing and CAF related work; the third is to develop comprehensive bird sensitivity maps and GIS tools to guide in the setting up of wind farms and transmission lines; and the fourth is to develop a National Action Plan for 20 key migratory species.

Similarly, we have been assigned a major project by the Government of Maharashtra to develop a conservation blueprint for six key wetlands of Maharashtra specific to CAF. The Government of Bihar recently approached BNHS to develop a proposal to set up a conservation blueprint for the major wetlands of Bihar with specific focus on CAF. BNHS member Mr Manoj Mishra helped us develop the proposal, which is at an advanced stage of discussion. Soon BNHS is expected to start a regional center in Bihar with support from the Bihar State Government. Recently, the Jammu and Kashmir, Lakshadweep, and Andhra Pradesh governments approached us to assist them in bird monitoring and management plan work in Wular Lake, Pitti Island, and Kolleru Bird Sanctuary, respectively.

The last quarter also witnessed a tragedy unfolding at Sambhar Lake, with mortality of about 20,000 waterbirds due to avian botulism. BNHS assisted the Rajasthan Forest Department during the period. We ringed about 300 rescued birds, and released them into the wild. We will continue to monitor these birds.

Conservation breeding programme for the Great Indian Bustard (GIB) received a major boost recently and the GIB breeding centre in Rajasthan now hosts nine healthy chicks that hatched from eggs collected from the Thar Desert. BNHS continues to work in the desert landscape, especially in its community engagement programme under the able leadership of Dr Sujit Narwade, to save the Critically Endangered Great Indian Bustard.

At the end, I wish to express my appreciation to Mr Anupam Koley for sharing his stunning image of Irrawaddy Dolphin from Chilika Lake for the cover of Hornbill. It is probably one of the finest images of the species that I have seen so far.

Deepak Apte
## CONTENTS

**January-March, 2020**

**GOVERNING COUNCIL**

**PRESIDENT**
Mr Homi R. Khusrokhan

**VICE PRESIDENTS**
Ms Usha Thorat
Mr Praveensinh Pardeshi (IAS)
Mr Bittu Sahgal

**HONORARY SECRETARY**
Mr Debi Goenka

**HONORARY TREASURER**
Mr E.A. Kohirsagar

**DIRECTOR**
Dr Deepak Apte

**MEMBERS**
Ms Sumaira Abdulali
Dr Erach Bharucha
Dr Bharat Bhushan
Dr Ravi Chellam
Ms Tara Gandhi
Mr Arun Kumar Gupta
Mr Isaac Kehimkar
Dr Ashok Kothari
Mr Kulojyoti Lahkar
Mr Satish Pradhan
Dr Asad R. Rahman

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

**EDITORS**
Deepak Apte
Vibhuti Dedhia
Ranjit Manakadan

**CONSULTANT EDITORS**
Gayatri W. Ugra
Isaac Kehimkar

**EDITORIAL ASSISTANT**
Sonali V. Vadhavkar

**LAYOUT**
V. Gopi Naidu
Sanchita S. Kadge

**COVER**:
Irrawaddy Dolphin
Anupam Koley

Published and printed quarterly by the Honorary Secretary for the Bombay Natural History Society, Printed at Akshata Arts 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. Salim Ali Chowk, S.B. Singh Road, Mumbai 400 001, Maharashtra, India. Tel.: (91-22) 2282 1811 Fax: (91-22) 2283 7615 E-mail: info@bnhs.org 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.

---

### FEATURES

**Raptor Migration in India – Time to Unravel the Mystery!**

**Sachin Ranade**

**A Tale of Two Ospreys**

Nirav Bhatt, Meenu Dhakad, and Ishan Dhar

**Secretive Migrations of Indian Freshwater Fishes**

Unmesh Katwate

**When the Entire Indian Ocean is your Swimming Pool**

Adhith Swaminathan

**A Lifetime in Flight – Epic Migration over Generations!**

Neha Mujumdar

**The Dugong in India**

K. Sivakumar

**Critically Endangered Amphibians of India**

Saunak Pal

**Wildlife Hunting in Bustard Areas**

Sujit Narwade

---

**News Briefs**

56