

Conservation at crossroads!

It gives me immense pleasure to don a new hat as Director of BNHS and write to you.

We as a nation are at a crossroads. We have explored only one-third of our developmental potential. In the environmental context, we have destroyed one-third of our natural resources, while two-thirds are awaiting their turn – an interesting and telling perspective from Mr. Homi Khusrookhan, President, BNHS.

The pace of environmental clearances to large projects without due diligence is indeed worrisome. Though there cannot be second thoughts about the need for us to develop, the blindfolded pursuit of development brings all species and habitats to the brink of collapse.

There are several high profile issues currently under debate. Be it the 780 MW Nyamjang Chhu dam, to be constructed on Nyamjang Chhu river, that will submerge a wintering site of the rare Black-necked Crane; or the proposed expansion of NH 7 that will cut through one of the finest forests of Central India; or the proposed Sewri Nhava-Sheva Sea Link, which if not realigned, will pass through the heart of the foraging area of more than 40,000 flamingos in Mumbai; or the proposed Poshitra Port which will completely destroy one of the finest coral reefs of the Gulf of Kutch. Several such issues can be added to this list.

Linear projects such as highways through forests or forest corridors are insidious killers. Take the case of the busy Aurad-Sadashivgad State Highway 34, which passes through Dandeli-Anshi Tiger Reserve in north-west Karnataka. It has claimed the lives of 50 animals so far, of which six are individuals of the King Cobra that have been killed in the past two years alone. The expansion of NH 7 will impact two wildlife corridors – Pench-Kanha and Pench-Nagzira. Road kill count on NH 7 is also not ordinary. Take a look at the report of the Wildlife Institute of India, which includes a total of road induced kills of 272 mammals, 143 birds, 490 snakes, and 183 anurans in a span of 430 days of the study. If one takes a look at the national and state highways pan India, one can imagine the extent of wildlife decimation on the roads.

While the focus of conservation advocacy is primarily charismatic species like tigers, elephants, and rhinos, many species not as charismatic disappear unknown to us. At BNHS, however, we focus on all species, with special focus on the non-charismatic species. Take the case of the endemic Sea Slug *Sakuraeolis gujaratica*. This tiny, but astonishingly beautiful sea slug (Phylum Mollusca) is probably the world's most narrowly distributed marine faunal species. The global distribution of this species is confined to less than 300 sq. m within Poshitra Bay. The BNHS team is currently studying this species to develop a species conservation and recovery plan.

Another example is that of the Kondana Soft-furred Rat *Millardia kondana*, which was first described in 1975 from Sinhgad, Pune, Maharashtra, the only known site, measuring about 23 ha, for the species. Considering its extremely small range of distribution and declining habitat, IUCN Red List of Threatened Species 2015 classifies it as Critically Endangered. BNHS initiated a project in 2012–2014 to collect baseline data on distribution, population, habitat requirement, and threats to the species. We have discovered several new populations, estimated occupancy and population, determined habitat requirements, uncovered threats, and created public awareness for conservation of the species. Presently, we are working with the Forest and Archaeological Departments of Maharashtra for developing a policy for its long-term conservation.

Take the case of Giant Clam *Tridacna* sp., which are world's largest bivalves growing up to 1 m that can live up to 300 years. For the past 11 years, BNHS scientists have generated profound information on the population ecology of three species of giant clams from Lakshadweep and



Andaman & Nicobar islands. These are Schedule I species of the WLPA as well as IUCN Red List as Data Deficient and Vulnerable. BNHS research has helped in developing a Giant Clam Species Recovery Plan for the Government of India.

In a landmark judgement, an Australian federal court ruled against a mining company in a bid to save the local skink and snake species. Mining giant Adani's plan to build one of the largest coal mines in Australia suffered a major setback after a court revoked its environmental approval. The federal court found that impacts had been not properly considered for two threatened and non-charismatic species, the Yakka Skink and the Ornamental Snake, in the Galilee Basin project site before granting approval to the project. The \$16.5 billion project was expected to produce 40 million tonnes of coal a year in its first phase. The case forces many of us to introspect on the ever increasing need to highlight the plight of neglected species and habitats.

But not all prospects are so gloomy. In recent times, we have had some good news too. Spotting of a mother and calf of Blue Whale by a team of young researchers Mihir Sule and Ketki Jog, part of the BNHS course on marine and coastal biodiversity, along the coast of Malvan, Maharashtra, is one such news. Recently, the Government of Maharashtra declared an area of 16.90 sq. km as Flamingo Sanctuary in Thane Creek. This is a welcome addition to the marine protected area network on the west coast, though the boundaries of the Sanctuary would have been better delineated by including parts of the mudflats of Sewri, Navi Mumbai and Uran as important flamingo feeding and roosting areas. Karnala Sanctuary was expanded by 6.85 sq. km, while 91.52 sq. km of Toranmal forest and 5.69 sq. km of Anjaneri forest have been declared as a Conservation Reserve.

On February 08, 2015, the Department of Commerce of the Ministry of Commerce, Government of India, issued an order prohibiting the export and import of shark fins in India. While most of the pelagic shark populations in India have plummeted, according to recent report by Central Marine Fisheries Research Institute (CMFRI), the ban may be of help to curb the targeted hunting of large sharks. Stocks of shark, skates and rays across Indian states are declining (Kizhakudan *et al.* 2015). There is a positive movement towards developing a National Plan of Action for Sharks in India, in line with the International Plan of Action for conservation and management of sharks (IPOA-Sharks) developed by FAO.

And lastly, I have pleasure in introducing two young nature enthusiasts and members of the BNHS, Sushant More and Mandar Sawant. Sushant is doing his first year graduation in science, and Mandar is pursuing his graduation in chemical technology. Their quest to document endangered flora like *Ceropegia* is remarkable. We are proud of both these youngsters who chose to document some of the non-charismatic and lesser known species. You can see their remarkable work in a photofeature in this issue of *Hornbill*.

We hope to receive for *Hornbill* more of the fascinating work that our members are doing across India. I am also glad to share the news that *JBNHS* is now online. We have already started the online portal for manuscript submission. We hope to bring out the *JBNHS* on time with this initiative.

Deepak Apte

Reference:

KIZHAKUDAN S.J., P.U. ZACHARIA, S. THOMAS, E. VIVEKANANDAN & M. MUKTHA (2015): Guidance on National Plan of Action for Sharks in India. CMFRI Marine Fisheries Policy Series No. 2. 104 pp.