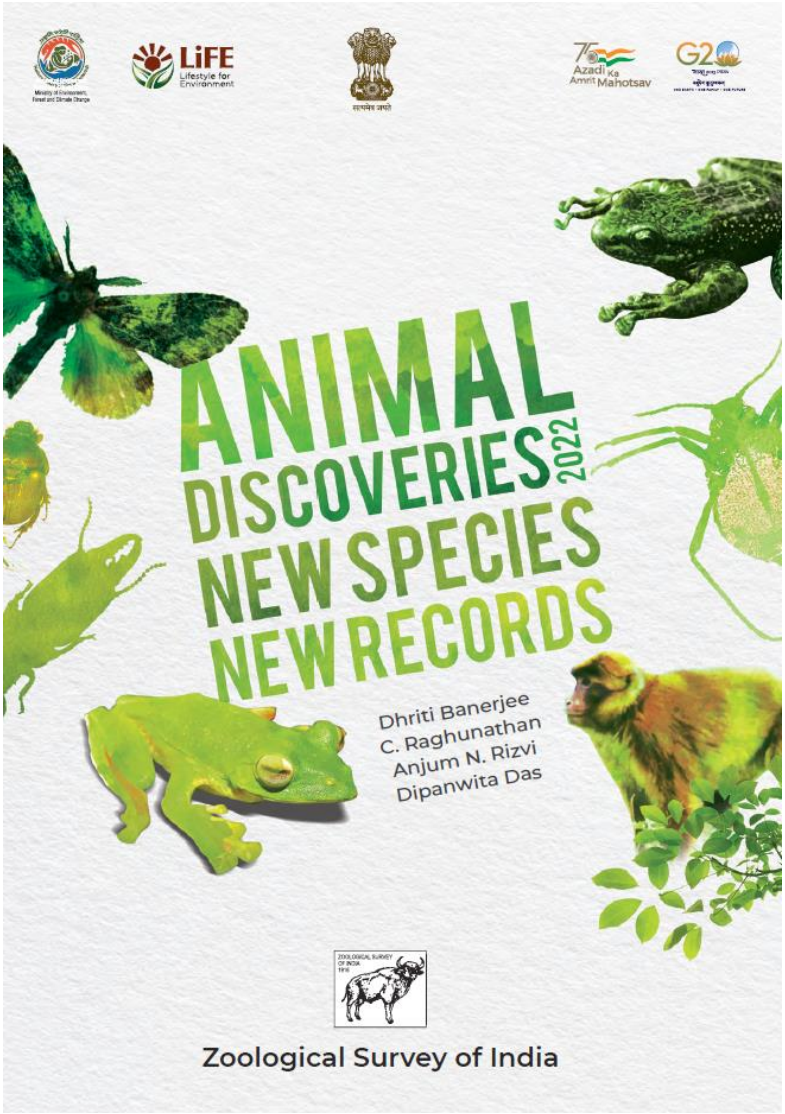
ANIMAL DISCOVERIES 2022 - NEW SPECIES & NEW RECORDS

Editors: Dhriti Banerjee, C. Raghunathan, Anjum N. Rizvi and Dipanwita Das

The new discoveries are important since a million species
on the planet are on the brink of extinction.….

The Zoological Survey of India (ZSI) is the country's premier scientific organization under the Union Ministry of Environment, Forests and Climate Change, that studies India's faunal resources for conservation and management. Since 2007, ZSI has taken steps to collect data on faunal discoveries in India and publish them as a document entitled "*Animal Discoveries- New Species and New Records*" every year. The present book for the year 2022 deals with 664 new discoveries published by the scientists, faculties and researchers from India which include 467 new species and 197 newly recorded species to India. As a result of it, the faunal diversity of India has been enhanced to 103922.species. Year 2022 witnesses the highest number of new discoveries in the last 10 years.



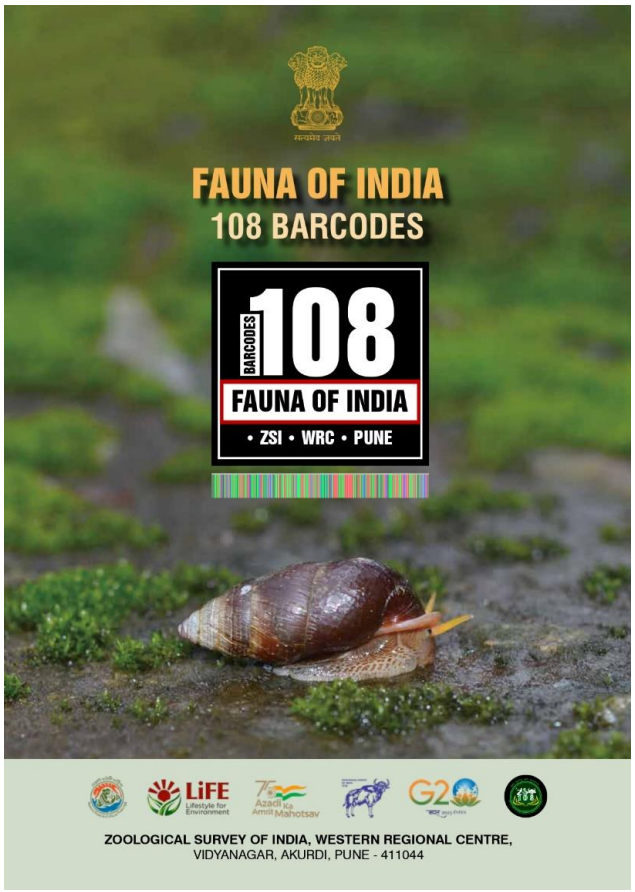
The major contribution this year is the discovery of 3 new species and one new record of mammal, 2 new records of birds, 30 new species and two new records of reptiles, six new species and one new record of Ampbhia and 28 new species and 8 new records of Fishes.
The maximum number of new discoveries have been recorded from invertebrates with 583 species, while vertebrate constitutes 81 species. Insects dominate among invertebrates with 384 species, whereas, Fishes dominated among vertebrates followed by Reptiles, Ampbhibia, Mammals and least with Aves.

During 2022, maximum new discoveries are recorded from Kerala contributing 14.6%, followed by Karnataka with 13.2%, Tamil Nadu 12.6%, West Bengal 7.6% and Arunachala Pradesh with 5.7%. Good percentage of new discoveries have been recorded from Andaman & Nicobar Islands with 8.4%. More than 100 institutes, colleges have contributed to new discoveries besides Zoological Survey of India with its 16 regional Centres.

FAUNA OF INDIA: 108 BARCODES

K.P. Dinesh, A. Shabnam; A.S. Kalawate, S.S. Talmale, Md. Jafer Palot,
S.R. Patil, B. Tripathy & D. Banerjee

This Book 'Fauna of India: 108 Barcodes' is an attempt to build a DNA barcode reference library for 108 species comprising of various faunal groups ranging from small mammals, reptiles, amphibians, moths, ladybird beetle, termites, cockroaches, praying mantis, desert locust, spiders and to landsnails and freshwater mollusca. Out of 75 vertebrate species of fauna fror which DNA barcodes generated and uploaded in NCBI, 39 are Endemic, one is CR, six are EN, five are VU and two are NT category of IUCN Redlist Assessment, including one Schedule I species and 10 Schedule II species under the Wildlife (Protection) Act, 1972, amended 2022. Similarly, 33 species of invertebrate barcodes representated by moths, ladybird beetle, termites, cockroaches, praying mantis, desert locust, spiders and mollusca. This data is



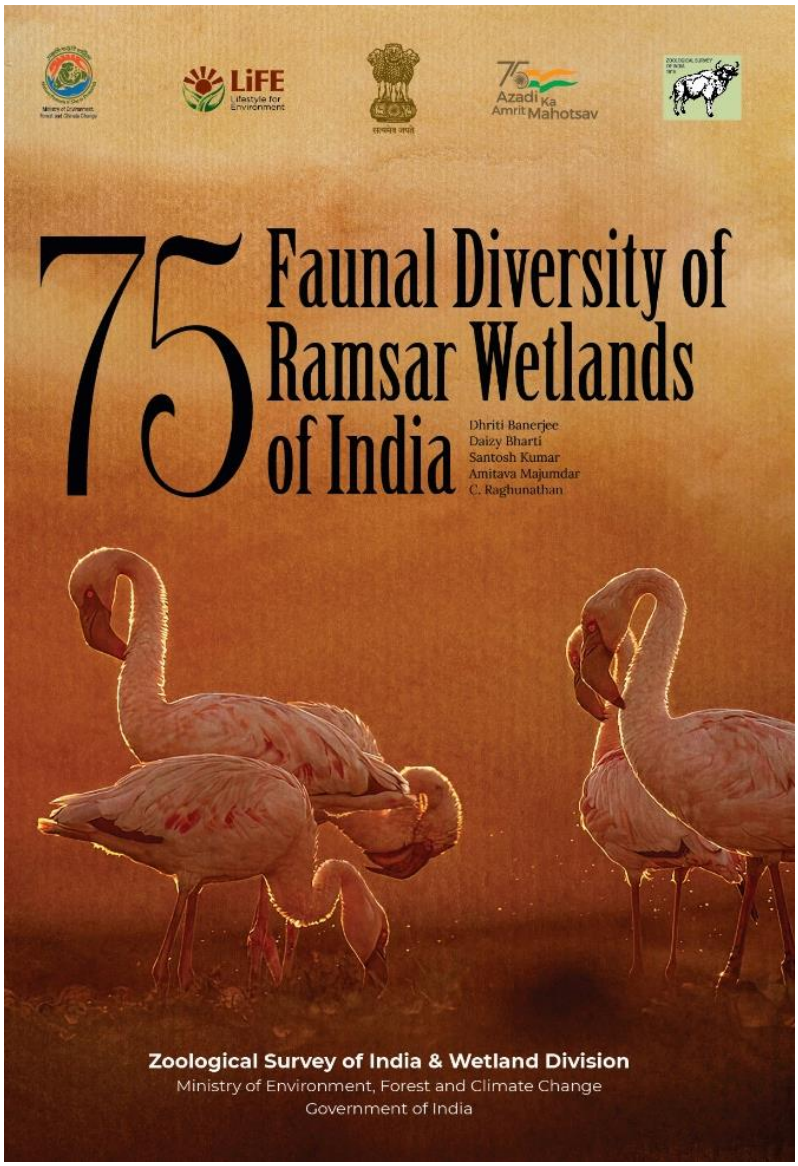
expected to serve as baseline reference for taxonomic and bioinformatic studies in future, as the species identities are based on verifiable voucher specimens, with authenticate locations and other supporting ecological information.

The 108 DNA barcode publication is symbolic to commemorate the 108th Foundation Day of ZSI.

FAUNAL DIVERSITY IN 75 RAMSAR WETLANDS OF INDIA

Banerjee, D., Bharti, D., Kumar, S., Majumder, A. & Raghunathan, C.

Because of their significance to the environment, society, and economy, wetland habitats are among those that are recognised as being essential to the advancement of sustainable development and the welfare of humans. It is noteworthy that over 80% of the population depends on rivers, canals, wells, farms, rainwater, and wetlands to sustain a variety of agricultural operations. Wetlands are also quite susceptible to global environmental variations due to changes in their hydrological regimes. A changing temperature and altered rainfall patterns are expected to have an impact on a wide range of ecosystem processes, and they also drastically lower biodiversity in these shallow-water wetlands. Invasive species, pollution, habitat loss, degradation, and fragmentation are the key challenges to maintaining



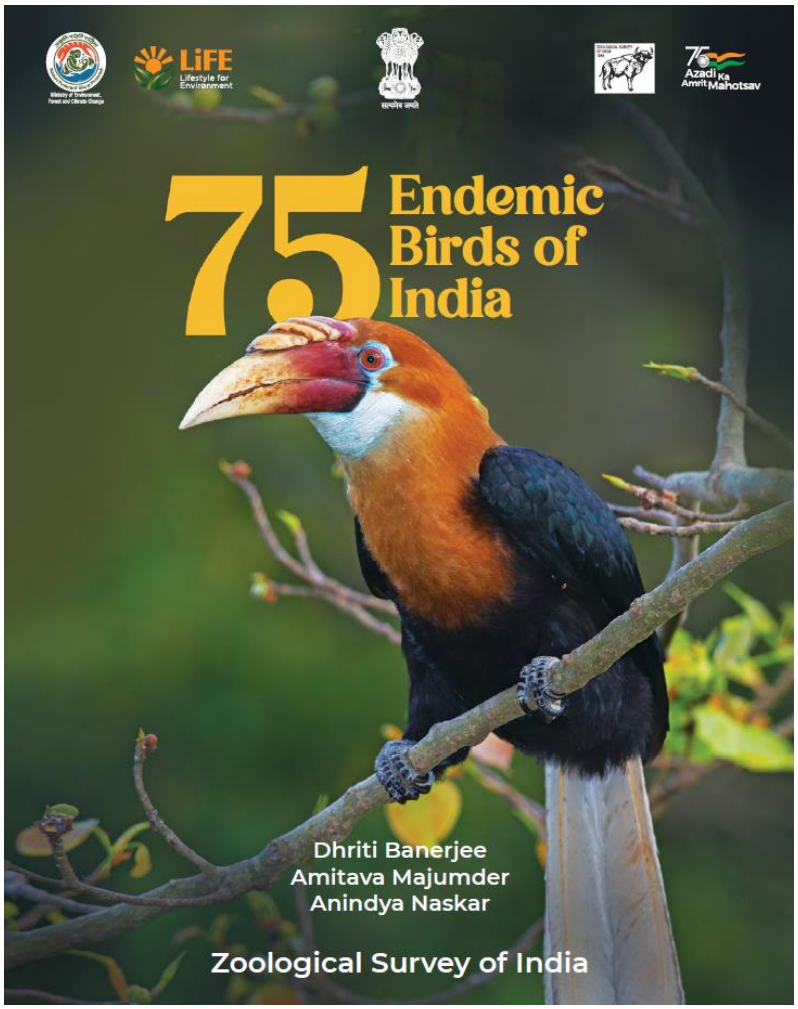
biodiversity in wetlands. The survival of animals that rely on wetlands and the environments that support them may be threatened by these changes.

The wetlands convention currently has 172 Contracting Parties. The Convention is an intergovernmental treaty that establishes the guidelines for action and global collaboration in the interest of protecting wetlands and their resources. There are 2,493 wetlands that are considered to be of international significance worldwide, with an area of 25,67,59,538 ha. There have so far been 75 Ramsar sites identified, covering an area of 13,26,677 ha, since India joined the Ramsar Convention in 1981. The nodal organisation for carrying out the conservation programme on wetlands, mangroves, and coral reefs is the Ministry of Environment, Forest, and Climate Change (MoEFCC), Government of India. Financial support is also being provided from time to time by the MoEFCC for conservation and management plans for the wetlands in India. Still we are far from comprehending the variety of animals that these wetlands host. The book provides a list and distribution records of over 8,200 species that have been reported thus far from the Indian Ramsar wetlands. Along with this, the book offers details on the protected species under IWPA, IUCN, CITES, and CMS and also identifies gap areas where biodiversity studies are needed. The book contains significant information on the animal diversity and their distribution in Ramsar wetlands throughout India, which is crucial given the pressing need to better understand and maintain the wetlands. The book will help stakeholders, policymakers to identify the management plan goals for this ecologically sensitive ecosystem, as well as act as a link between biodiversity conservation and sustainable livelihoods.

75 ENDEMIC BIRDS OF INDIA

Dhriti Banerjee, Amitava Majumdar & Anindya Naskar

“75 Endemic Birds of India" encourages you to enter the fascinating world of avian wonders. This comprehensive book covers 75 species of indigenous birds found within India's jurisdictional limits, providing a complete visual experience. The book goes beyond mere visuals by offering vital insights about each species with etymology and their historical relevance along with vital facts such as subspecies differences, distinguishing traits, preferred habitats, breeding habits, and food preferences. Understand the potential risks that these birds



face, their conservation status according to the latest Wild Life (Protection) Act of 1972 (as revised in 2022), and their inclusion in international protection frameworks like IUCN, CITIES, and CMS been given. "75 Endemic Birds of India" is a great resource for bird enthusiasts, wildlife lovers, and anybody interested in India's avian treasures. Immerse yourself in the beauty of these extraordinary birds through a selection of stunning images, while also learning more about their ecological importance.

RECORDS OF THE ZOOLOGICAL SURVEY OF INDIA (VOLUME 123, SPECIAL ISSUE) ON ANIMAL TAXONOMY SUMMIT 2023

ZSI is bringing out the special issue of **the Records of the Zoological Survey of India** (Volume 123, Special Issue), to achieve the purpose of 'Animal Taxonomy Summit 2023', in commemoration with 108th foundation Day of Zoological Survey of India. This special issue includes 61 articles focusing on the following 3 major themes: Taxonomy, Biodiversity and Conservation and Biogeography.