



ZSI e-news



सत्यमेव जयते



Zoological Survey
of India, 1916



From the Director's Desk



It is a matter of pride that Zoological Survey of India participated in the Science Leaders Conclave at IICT, Hyderabad to bring awareness among the scientific community/leaders about the contribution made by the scientists to meet the needs of the country. It is also a great achievement of ZSI as the scientists tagged over 6000 Olive Ridley Turtles in Odisha coast during the mass nesting to understand their migratory pathways. Since the country is gradually freed from Covid-19 pandemic, training programme on coastal and marine biodiversity has been organized at Marine Aquarium cum Regional Centre, Digha with physical presence of participants through which 40 students were benefitted. The museums of ZSI Regional Centres and Headquarters and the ZSI galleries in Indian Museum thrown opened for general public which drawn 97,710 footfalls during the month. Faunistic surveys were conducted to Andaman and Nicobar Islands, Meghalaya, Manipur, Odisha, Andhra Pradesh, Tamil Nadu, Bihar, Kerala, West Bengal and Gujarat to assess the faunal diversity in different ecosystems. Altogether 19164 specimens comprising 1863 species covering protozoa to mammalia have been identified, of which 5 species turned out to be new species and 9 species reported as new record to the country. As a measure to strengthen the species in National Zoological Collections, 136 species have been newly augmented. The molecular studies are gaining momentum in present days due to establishment of DNA molecular laboratories in Regional Centres and as a result of it 274 DNA sequences have been generated and uploaded in NCBI/BOLD. Almost 42 identification and advisory services have been rendered on various institutions which includes confiscated and seized wildlife material besides specimens from research institutions. In addition, publication of 2 books, 33 papers and 35 book chapters are worth mentioning. I appreciate all my colleagues of ZSI for their significant contribution to make March 2022 as yet another productive month.

Jai Hind

Dr. DHRITI BANERJEE
Director
March 6, 2022
Kolkata

March
2022
Vol. 36

Monthly E-Newsletter from
Zoological Survey of India
© Government of India

Published by
The Director,
Zoological Survey
of India, Kolkata,
INDIA

Edited by
Dr. Dhriti Banerjee
Dr. C. Raghunathan
Dr. S. Sheela

Citation:
Zoological Survey
of India, 2021:
E-NEWS, 36: 1-21

Email: director@zsi.gov.in
Website: www.zsi.gov.in

Cover photo: Green
crested Lizard *Bronchocela
cratellata* Kuhl 1820

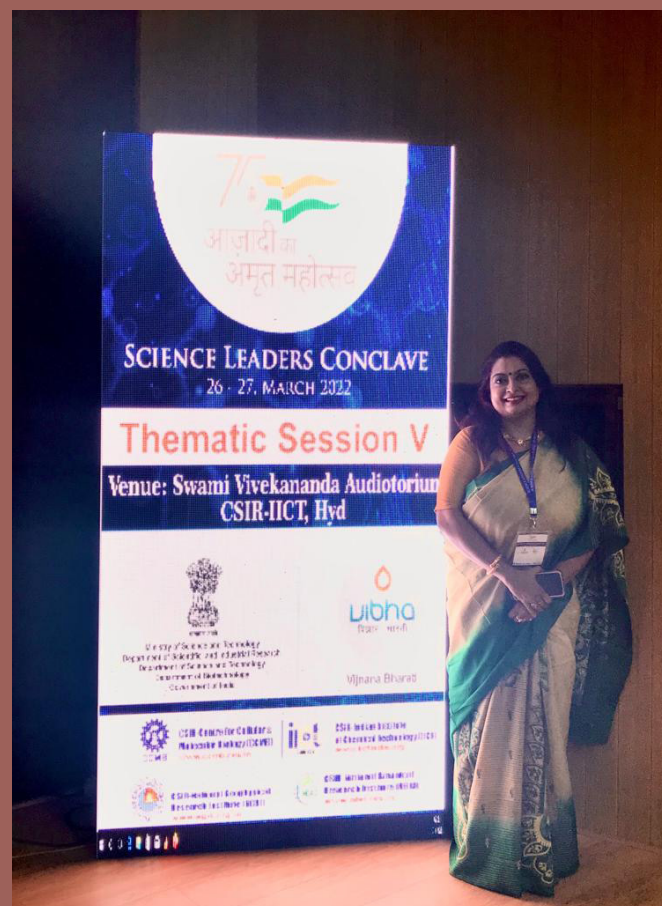
HEADQUARTERS, KOLKATA

During the course of Parliamentary Session of India, replies for Lok Sabha and Rajya Sabha starred/unstarred questions pertaining to Red eared Slider Turtle, Preventing biodiversity losses due to invasive alien species, Effect of Climate Change on flora and fauna, Effects of Global Warming on Maritime Flora and Fauna, Preservation of Coral Reefs from climate change, Measures to curb prevailing environmental issues and Extinction of Indian Tent species Turtle have been submitted to administrative Ministry. Inputs have been provided to the Ministry on the policy matters such as setting of Digital Zoological Park for 75th year of independence, Round 1-India UK FTA-TSD Track (Environment) - Template for Joint Summary and Actions, Round 2 of UK FTA negotiation in respect of Environment, India's G20 Presidency under the topics, and Joint Communique and Deliverables, Knowledge Partners, and Article X.3: General

Commitments relating to the Environment under draft Trade and Sustainable Development Chapter. Different cases of confiscated wildlife material have been identified for Forest Range Officer, Howrah, Divisional Forest Officers, Darjeeling and Jalpaiguri, Zoological Garden, Kolkata, Assistant Wildlife Warden, Jaldapara National Park and Deputy Field Director, Buxa Tiger Reserve, and reports submitted. Survey conducted in Rajiv Gandhi WLS, Andhra Pradesh during 22nd March to 31st March 2022 and Pondicherry State from 4th to 17th March 2022. Altogether 9332 specimens comprising 1050 species from different faunal groups have been identified. Among them lepidopteran insects genus *Suhela* N. Singh, Ranjan, Kirti & Chandra, 2022 and species *Suhela*

alboflavalis (Moore, 1888), comb. n. and *Patania shompen* N. Singh & Ahmad, 2022 and dipteran insect *Culex* (*Culex*) *gaugleri* sp. nov Suman *et al.* 2022 are new to science. As a part of molecular studies, 141 DNA sequences have been generated while augmenting 39 species under platyhelminthes, nematodes and insects to the National Zoological Collections. Biodiversity awareness programme was conducted on 25th March 2022 for underprivileged students in a rural school in village at Paschim Bardhaman. Forty forest officers from Forest Training Institute, Coimbatore, Tamil Nadu were visited to get exposed about the faunal diversity of India. International Women's Day was celebrated on 8th March 2022 under the leadership of Dr. Dhriti Banerjee, Director, ZSI with the

Dr. Dhriti Banerjee, Director,
ZSI in Science Leaders
Conclave at ICT, Hyderabad



active participation of all the women employees of ZSI. Dr. Dhriti Banerjee participated in the Science Leaders Conclave on 26th and 27th March 2022 organized by Ministry of Science and Technology at ICT, Hyderabad.

Dr. Dhriti Banerjee, Director,
ZSI addresses in ZSI-FBRC,
Hyderabad



NORTH EASTERN REGIONAL CENTRE, SHILLONG, MEGHALAYA

Three species of frogs were augmented to the NZC including a new record to India from Arunachal Pradesh: *Amolops adicola*, *A. aniqiaoensis* & *A. indoburmanensis*. Two surveys were conducted under the programmes *Studies on Cladoceran diversity of Protected Areas of Western Arunachal Pradesh* from 2nd - 11th March, 2022 and Faunal Inventory of Murlen NP, Mizoram from 16th -25th March, 2022. 38 species containing 04 spp. of Reptilia, 04 spp. of Amphibia, 13 spp. of Pisces, 04 spp. of Crustacea and 13 spp. of Hemiptera were identified. Identification service rendered for two species of Rotifera, 1 species of Cladocera and 2 species of Copepoda to Department of Zoology, Dera Natung Government College, Itanagar, Arunachal Pradesh



A view of Murlen National Park, Mizoram



Tylonycteris robustula Thomas, 1915

WESTERN REGIONAL CENTRE, PUNE, MAHARASHTRA

Total 1676 examples of 101 species belonging to 13 different faunal groups have been identified during this month. One new species each of freshwater crab and Amphibia have been described by scientists of the centre. 15 mt DNA barcodes belonging to 8 species of amphibians were submitted to the GenBank. Confiscated wildlife material identified for the Range forest Officer, Sangli, Maharashtra; Police Sub Inspector, Lanja Police Thane, Maharashtra; Mahila Police Upnirikshak, Rajapur Police Thane, Maharashtra and Assistant Police Inspector, Turbhe Police Thane, Navi Mumbai, Maharashtra. Identification and advisory services rendered also to the Chief Wildlife Warden, Maharashtra state on snakes; Deputy Conservator of forests, Ranni Forest Division, Kerala on checklists of birds, mammals and reptiles of Ranni Forest Division; Modern College, Pune for Blattodea, Coleoptera, and Diptera; Shri Shivaji Science College, Maharashtra for molluscan shells; Krantisinh Nana Patil College, Maharashtra for freshwater Mollusca specimens; Isoptera Section, ZSI, Kolkata on butterflies; WGRC, Kozhikode on Amphibians and Southern Regional Centre, Chennai on Coleoptera. The front roadside wall of the campus is painted with picture of various fauna in collaboration with PCMC to spread the awareness of the conservation of the fauna and *Swachh Bharat*.



Wall of the campus painted with picture of various fauna





Northern Plains Gray
Langur, *Semnopithecus
entellus* (Dufresne, 1797)

CENTRAL ZONE REGIONAL CENTRE, JABALPUR, MADHYA PRADESH

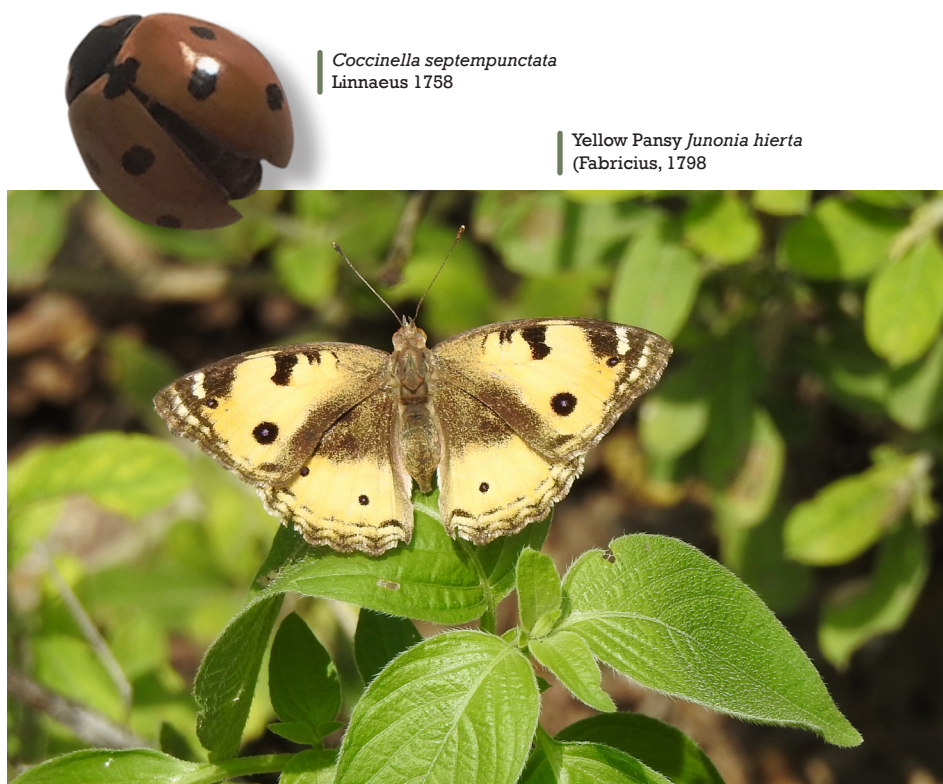
Surveys conducted to Sanjay, Panna and Fossil NPs, Madhya Pradesh from 05.03.2022 to 16.03.2022. Scientists of the centre identified and registered 305 specimens comprising 91 species containing Lepidoptera (63 species), Arachnida (07 species), Coleoptera (05 species), Odonata (04 species), Hemiptera (06 species) and Amphibia (06 species). Identification & advisory service rendered to Rain Forest Research Institute, Jorhat, Assam, for identification of 3 species of Aves.



Chital, *Axis axis*
(Erxleben, 1777)

DESERT REGIONAL CENTRE, JODHPUR, RAJASTHAN

Survey of Purna WLS has been conducted from 7th to 16th March, 2022. Total 1271 exs referable to 114 species have been identified. ZSI stall has been set up during the Kisan Mela orgnaized by *Krishi Vigyaan Kendra, Gudamalani, Barmer* and Centre won the first prize by Shri Kailash Chaudhary, Hon'ble Minister of State for Agriculture and Farmer Welfare on 19th March, 2022. Organized Quarterly meeting on Official language of Hindi on 07th March, 2022 at DRC, ZSI, Jodhpur. Hindi Karyashala has been organized in the Centre on 10th March, 2022 and competition of General knowledge MCQ was organized among all the officials. Celebrated International Women's day at DRC, ZSI, Jodhpur on 8th March, 2022.



Coccinella septempunctata
Linnaeus 1758

Yellow Pansy *Junonia hierta*
(Fabricius, 1798)

NORTHERN REGIONAL CENTRE, DEHRADUN, UTTARAKHAND

Grey bush chat, *Saxicola
ferreus* Gray & Gray, 1847

Scientists of the centre examined and identified 258 specimens as 50 species (i.e. 5 spp. of Protozoa (Testate amoebae), 13 spp. of Phthiraptera, 28 spp. of Lepidoptera, 2 spp. of Pisces and 2 spp. of Amphibia). Four DNA barcodes were generated belonging to faunal orders Lepidoptera, Orthoptera, Coleoptera and Hemiptera. World Wildlife Day celebrated by delivering lectures on wildlife conservation and awareness on 03 March, 2022. International Women's Day celebrated by felicitating Women staff of the centre and delivering lectures on theme 'Break The Bias' on 08 March, 2022. Training programme organized to celebrate Azadi Ka Amrit Mahotsav on topic entitled "Faunal diversity, identification and access to



Trainees of Forestry Training Academy, Uttarakhand visited on 10 March, 2022

various resources" for 44 trainees of Forest Range Officers batch 2021-23 from Forestry Training Academy, Haldwani, Uttarakhand on 10 March, 2022. Scientist of the centre attended witness hearing on identification of confiscated

wildlife material through video conferencing conducted by Hon'ble Addl. Chief Judicial Magistrate, 2nd Court, Alipurduar, West Bengal on 16th & 17th March, 2022.

SOUTHERN REGIONAL CENTRE, CHENNAI, TAMIL NADU

Surveys were conducted in the Agasthyamalai Biosphere Reserve of Tamil Nadu part and the Phylogeography of Rhesus macaques in various parts of Uttar Pradesh and Manipur, and 3863 specimens of diverse faunal groups were collected. The scientists of the centre identified and registered 616 specimens belonging to 127 species of Zooplankton, Lepidoptera, Odonata, Hemiptera, Blattodea, Psocoptera, Mollusca, Pisces, and Reptiles. Identification and advisory services provided on Mollusca to the Department of Zoology, Govt. Arts College, Ooty, Tamil Nadu. The scientists evaluated one Ph.D. thesis and reviewed manuscripts for two periodicals. Women's Day was observed in the office premises of the Zoological Survey of India, Chennai.



Survey team

Kalakkad Mundanthurai
Tiger Reserve



**GANGETIC
PLAINS
REGIONAL
CENTRE,
PATNA,
BIHAR**

Green Shank *Tringa
nebularia* (Gunnerus,
1767)



Survey has been conducted in Bihar state from 4th-14th March, 2022. Total 466 exs. under 43 species identified. The ZSI, GPRC, Patna participated in the Bihar Diwas 2022 and displayed the artificial and original museum specimens for public awareness from 22-24 March 2022. Scientist reviewed manuscript related to new host plants for butterfly species, for *Journal of Animal Diversity*.

White Breasted
king Fisher
*Halcyon
smyrnensis*
(Linnaeus, 1758)

**HIGH ALTITUDE
REGIONAL CENTRE,
SOLAN, HIMACHAL
PRADESH**

Pradesh) from 04th to 16th March 2022, to collect and rear mayflies to study the association of larva and adult. DNA sequence generated and uploaded for three species. Five manuscripts have been reviewed by the scientists of the centre. Identification & Advisory services provided to Punjabi University, Patiala and K.R.C. College of Horticulture, Bagalakot, Karnataka.



Rufous Sibia,
Heterophasia capistrata
(Vigors, 1831)

Scientists and staff members of the centre identified 392 specimens containing 36 species (06 Species of Vertebrate and 30 species of insects). One intensive survey was conducted to the district of Sirmour (Himachal

MARINE BIOLOGY REGIONAL CENTRE, CHENNAI, TAMIL NADU



| *Gymnothorax favagineus* Bloch & Schneider, 1801

108 species from 267 examples identified, which include 15 species of moss inhabiting Testate Amoebae from 37 exs., 08 species of marine sponges from 18 exs., 07 species of marine Nematodes from 13 exs., 02 species of foraminiferans from 07 exs., 13 species of scleractinian corals from 30 exs., 13 species of Mollusca from 38 exs., 04 species of marine crabs from 08 exs, 39 species of Pisces from 87 exs., and 08 species of Orthoptera from 29 exs. Three B.Tech. (Biotechnology) students from JEPPIAR Engineering College, Chennai, were given placements to complete their dissertation work.

| *Galaxea* sp. photographed from a reef slope in Lakshadweep

ANDAMAN AND NICOBAR REGIONAL CENTRE, PORT BLAIR

Two long term surveys were conducted to Great Nicobar Island during 1st March to 18th March 2022; and Trak Island, Isle of Man, Meroe Island, Treis Island and Thilangchong Island of Nancowry group of Islands during 9th to 17th March 2022 to study the terrestrial and marine faunal diversity; Local surveys were conducted in South Andaman i.e., Chidiyatappu, Sippighat, Ograbraj, Shoal Bay, Ferrargunj, Pongibalu, Mount Harriet and Baratang



| *Echinometra mathaei violacea*
Michelin 1845

| Red-eared
Frog *Hylarana
erythraea*
Schlegel 1837

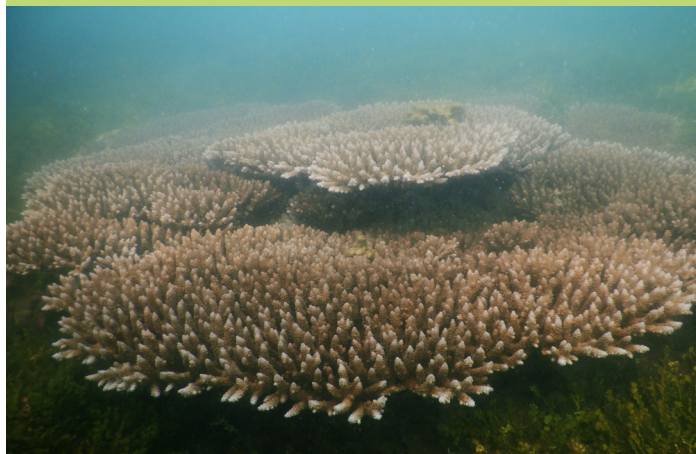


to study the terrestrial faunal diversity during 3rd to 7th; 17th, 18th & 19th March 2022 and Burmanallah, North Bay to study the marine faunal diversity during 5th to 7th March 2022. A total of 373 species comprising Fishes 7 species; Coral 90 species; Zoanthid 2 species; Molluscs 26 species; Decapoda 13 species, were identified from the marine environment and Amphibia 6 species; Arachnida 43 species; Chiroptera 1 species; Coleoptera 4 species; Diptera 1 species; Hemiptera 7 species; Lepidoptera 86 species; Odonata 1 species; Reptilia 11 species; Aves 75 species were identified from the terrestrial environment.

SUNDERBAN REGIONAL CENTRE, CANNING, WEST BENGAL

Porites lobata
Dana, 1846

Acropora cytherea
(Dana, 1846)



Survey undertaken to Gulf of Mannar on 5th to 15th March 2022 and 358 examples collected. In addition, three local surveys conducted to Canning and collected 26 specimens of fishes and 4 specimens of crustaceans. A total of 1422 examples (256 spp.) were identified among them 226 examples (104 spp.) identified from GoM coast, 348 examples (46 spp.) were identified from Ganga Sagar, 7 fish samples (6 spp.) from Namkhana, 302 examples (35 spp.) were identified from Visakhapatnam coast, 70 examples (23 spp.) identified from Pondicherry coast and 4 examples (1 sp.) identified from Sunderbans. Women's Day celebrated on 8th March 2022.

FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD, TELANGANA

The scientists, staff and research scholars of the centre examined 511 specimens from Telangana, Andhra Pradesh; (Rollapadu Wildlife Sanctuary; Papikonda National Park, Amrabad and Kawal Tiger Reserves, Godavari and Krishna River; Amravati and Visakhapatnam smart cities) and identified 10 species of Aquatic Coleoptera from 31 exs., 6 species of butterflies from 9 exs., 2 species of Odonata from 5 exs., 1 species of Decapoda from 1 ex., 3 species of Reptiles from 4 exs., 4 species of Ostracoda from 109 exs., 5 species of Branchiopoda from 52 exs., 14 species of Mollusca from 65 exs., and 43 species of fishes from 235 exs during the month of March. Dr. Dhriti Banerjee, Director, ZSI and team of scientists and staff from FBRC, Hyderabad visited Eastern Ghats Regional Centre's site at Amaravathi, Andhra Pradesh on completion of compound wall construction. Eight DNA barcodes have been submitted to NCBI and BOLD.

Director, ZSI meeting with
APCRDA Commissioner



FBRC-Orientation programme
on PBR on 29th March 2022

WESTERN GHAT REGIONAL CENTRE, KOZHIKODE, KERALA

Methocha (Dryinopsis)
taprobane Krombein, 1982

Malabar Wildlife
Sanctuary



Methocha (Dryinopsis) taprobane Krombein, 1982, a Hymenopteran wasp was reported for the first time from India. Two days local survey was conducted to Malabar Wildlife Sanctuary, Kerala on 16.03.2022 and 17.03.2022. Scientists of the Centre have identified 68 invertebrate species (Coleoptera 11 spp.; Dermaptera 05 spp.; Hymenoptera 30 spp., Mantodea 09 spp. and Lepidoptera 13 spp.). Reviewed one manuscript on Hymenoptera for the Journal 'Records of Zoological Survey of India' and another for 'Journal of Hymenoptera Research'. Identification services rendered to ZSI, Headquarters, Kolkata on a few wasp specimens.

ESTUARINE BIOLOGY REGIONAL CENTRE, GOPALPUR-ON-SEA, ODISHA



Fishing cat in Coringa Wildlife sanctuary

During the month, conducted two surveys along the Odisha and Godavari Mangrove ecosystems Coringa Wildlife Sanctuary. Sighted six otters in Chilika and taken camera trap footage of serval otters in Coringa Wildlife Sanctuary and in many places spraints were also documented. Along with otters, fishing cats were also recorded in the camera trap at Chilika and Coringa Wildlife sanctuary. Other mammals like spotted deer, Jungle cats, golden jackal in Devi mangrove,

Jungle cats in Bichitrapur mangrove, Civet cats and golden jackal in Coringa Wildlife sanctuary, Golden jackal in Dhamra mangroves were also sighted. From different surveys a total of 673 specimens were collected and total of 315 specimens were identified which includes Isopods, crabs, molluscs and fishes belonging to 78 species. A new conger eel species *Rhynchoconger smithi* Mohapatra, Ho, Acharya, Ray, Mishra, 2022, is described based on four specimens collected from Petuaghat fishing harbor, West Bengal, India. Also two species *Minous pictus* Gunther 1880 and *Minous trachycephalus* (Bleeker 1855) were reported for the first time from Indian waters. During the Arribada this season at Rushikulya estuary a total of 5125 turtles were tagged onshore during nesting. Three DNA barcodes were uploaded in the NCBI database. Identification services rendered to Centurion University on Isopod. Reviewed 3 manuscripts for different journals.

Smooth coasted otters *Lutrogale perspicillata* (Geoffroy Saint Hilaire, 1826)



ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR



Namdapha NP

Two local surveys and one extensive survey to Eastern Arunachal Pradesh conducted from the centre and collected 478 examples under 06 faunal groups. Identified and registered 34 species of 268 examples (26 Diplopoda, 23 Lepidoptera, 29 Orthoptera, 5 Crustacea, 172 Mollusca, 5 Amphibia, 8 Reptilia). Celebrated Women's Day on 8th March, 2022.



Petaurista petaurista
(Pallas, 1766)

MARINE AQUARIUM AND REGIONAL CENTRE, DIGHA, WEST BENGAL

Director, ZSI visit to
MARC, Digha



Dr. DHIRITI BANERJEE
DIRECTOR, ZSI, Kolkata



Dr. S. BALAKRISHNAN
Secy D & OC, ZSI, Digha

Dr. DHIRITI BANERJEE
DIRECTOR, ZSI, Kolkata

Status survey of Windowpane Oyster *Placuna placenta* has been conducted at Andhra Pradesh Coast during 16th to 25th March 2022. In addition, three days local surveys to Digha Mohana & Udaypur, West Bengal undertaken to study the intertidal animals. Altogether 365 specimens and 97 species belonging to 160 ex. of Mollusca (34 spp.), 158 ex. of fishes (50 spp.), 25 ex. of Arthropoda (09 spp.), 11 ex. of Annelida (01 sp.), 08 ex. of Echinodermata (02 spp.) and 03 ex. of Cnidaria (01 sp.) were identified. Adjudicated Ph.D. theses for University of Madras, Manonmanium Sundarnar University and Bharathidasan University. A team of 80 Forest Range trainee officers from Forest College & Research Institute (FCRI), TSFA, five state officers visited Marine Aquarium, Digha on 10th March 2022. Apart from that, the marine aquarium of the centre received a footfall of 17,678 persons during the month.

NEW DISCOVERIES AND NEW RECORDS

NEW SPECIES



| *Euphyctis jaladhara* Dinesh, et al.



| *Spiralothelephusa andhra* Pati, et al.

PUBLICATIONS

BOOKS

1. Chandra, K., Banerjee, D., Raghunathan, C., Gupta, D., Rai, P. and Sharma, G. 2022. *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 1-369 (Published by the Director, Zool. Surv. India, Kolkata).
2. Malviya, S.J., Dubey, S. and Kushwaha, S. 2022. *Avian Fauna of Madhya Pradesh. A pictorial hand book guide*. Published Shai graphics Jabalpur. ISBN:-978-93-5406-933-8.

PAPERS

1. Acharya, S. 2022. Ticks and Mites of medical importance in India. *ENVIS Newsletter, ZSI, Kolkata*, 28(3): 2-14. Published by ENVIS Centre on Biodiversity (Fauna), Zoological Survey of India, Kolkata.
2. Ahmad, A. and Gupta, N. 2021. Ootaxonomy and egg shell morphology of Phthirapteran species infesting *Coturnix coturnix* (Linnaeus, 1758) (Phthiraptera: Amblycera: Ischnocera). *Indian Vet. J.* 98(7):14-18.
3. Ahmad, A. 2022. Rate of population expansion of ischnoceran louse, *Goniodes dissimilis* Denny, 1842 (Isochnocera: Phthiraptera: Insecta). *Asian J. Adv. Res.* 14(1): 45-54.

4. Ahmed, S., Marimuthu, N., Tripathy, B., Julka and Chandra, K. 2022. Earthworm community structure and diversity in different land-use systems along an elevation gradient in the Western Himalaya. *Appl. Soil Ecol.* 176, 1-11. 10.1016/j.apsoil.2022.104468.
5. Bahuguna, A. and Negi, P. 2022. Use of taxidermy samples to generate Forensically Informative Nucleotide Sequences of globally threatened species of small cats including the species from India using 12SrRNA and Cytochrome b. *Biological forum-International Journal.* 14(1): 861-869.
6. Bhattacharjee, R., De, S., Sharma, G., Ghosh, S., Mishra, S., Suman, D.S. and Banerjee, D. 2022. Prevalence of mouthpart sensilla and protease producing symbiotic gut bacteria in the forensic fly *Chrysomya megacephala* (Fabricius, 1794): Insight from foraging to digestion. *Acta Trop.* 229:106380. doi: 10.1016/j.actatropica.2022.106380. PMID: 35217030. (IF =3.112)
7. Biakzuala, L., Lalremsanga, H. T., Tariatang, A. D., Mathipi, V., Muansanga, L., Hrima, V., Kumar, V., Kundu, S., Purkayastha, J. and Vogel, G. 2022. Contributions to the taxonomic status and molecular phylogeny of Asian Bronzeback Snakes (Colubridae, Ahaetuliinae, *Dendrelaphis* Boulenger, 1890), from Mizoram State, Northeast India. *Zoosystema* 2022 (7): 177-96. <https://doi.org/10.5252/zoosystema2022v44a7>. <http://zoosystema.com/44/7> IF: 1.094

8. Chatterjee, P., Mukherjee, T., Dutta, R., Sharief, A., Kumar, V., Joshi, B.D., Chandra, K., Thakur, M. and Sharma, L.K. 2022. Future simulated landscape predicts habitat loss for the Golden Langur (*Trachypithecus geei*): A range level analysis for an endangered primate. *Sci Total Environ.* 2022 Feb 23;826:154081. doi: 10.1016/j.scitotenv.2022.154081. IF : 7.9
9. Das, G. N., Singh, N. and Brown J.W. 2022. Nomenclatural notes on two Indian tortricids (Lepidoptera: Tortricidae: Tortricinae: Archipini). *Zootaxa* 5105 (1): 148–150.
10. Das, P., Saha, G.K., Chandra, K. and Gupta, D. 2022. New additions to the Ladybird beetle Fauna of India (Coleoptera: Coccinellidae). *Far Eastern Entomologist*, 499: 9–17.
11. Dinesh, K.P., Channakeshavamurthy, B.H., Deepak, P., Shabnam, A., Ghosh, A. and Deuti, K. 2022. Discovery of a new species of *Euphlyctis* (Anura: Dicroglossidae) from the western coastal plains of peninsular India. *Zootaxa*, 5100(3): 419–434. <https://doi.org/10.11646/zootaxa.5100.3.6>
12. Dutta, R., Mukherjee, T., Sharief, A., Singh, H., Kumar, V., Joshi, B.D., Banerjee, D., Thakur, M. and Sharma, L.K. 2022. Climate change may plunder the facultative top predator Yellow-throated Martin from the Hindu-Kush Himalayan Region, *Ecological Informatics*, 69, 101622, <https://doi.org/10.1016/j.ecoinf.2022.101622>. IF : 3.1
13. Gurumayum, S. D. 2021. A report on the occurrence of two exotic cold-water fishes in the natural water bodies of Arunachal Pradesh-Northeast India, *Rec. zool. Surv. India*: Vol. 121(4): 499–503.
14. Hanima, R.K.P., Girish Kumar P. and Hegde, V.D. 2022. New Records of *Methocha* (*Dryinopsis*) *taprobane* Krombein, 1982 (Hymenoptera: Tiphidae, Methochinae) from India. *Far Eastern Entomologist*, 450: 12–14.
15. Hassan, M. E., Amartya Pal, Saha, P. C. and Rahul Mondal. 2022. First record of predation behaviour of *Perillus bioculatus* (Fabricius, 1775) (Pentatomidae: Asopinae) predating on *Aulacophora indica* (Gmelin, 1790) (Coleoptera: Chrysomelidae) a pest of bitter melon in agro-ecosystem of Bihar, India, *Insect Environment*, 25 (1): 10–17.
16. Kalawate, A.S., Dinesh, K.P. and Shabnam, A. 2022. First Indian DNA barcode record for the moth species *Pygospila tyres* (Cramer, 1780) (Lepidoptera: Crambidae: Spilomelinae) distributed in Asia and Australia. *Journal of Threatened Taxa*, 14(2): 20637–20642.
17. Khan, I. A., Kumar, A. and Bhatt, D. 2022. Breeding biology of Eurasian Magpie, *Pica pica bactriana* in Kargil region of Ladakh, India. *J. Exp. Zool. India*. 25: 529–534.
18. Kumar, A. 2022. Observations on the birds of Valley of flowers and adjoining localities, Uttarakhand, India. *J. Exp. Zool. India*. 25: 583–588.
19. Kumar, A. and Khan, I. A. 2021. Ecotourism-Wildlife: Ladakh. *Environ.* 18(4): 4–17.
20. Kumar, V., Pakrashi, A., Kalleshwaraswamy, C.M., Banerjee, D. and Tyagi K. 2022. Gene rearrangement in the mitogenome of whiteflies (Hemiptera: Aleyrodinae) along with their phylogeny and characterization of complete mitogenome of *Aleurodicus rugioperculatus*. *Mol Biol Rep.* <https://doi.org/10.1007/s11033-022-07275-7> IF: 2.5
21. Marimuthu, N., Vignesh, S.K., Raheem C.N.A. and Idreesbabu, K.K.. 2022. Mass occurrence of blue button hydrozoan fauna in the Lakshadweep Archipelago, India. *Curr. Sci.* 25(4): 369–370.
22. Mohapatra, A., H-C Ho, Acharya, S., Ray, D. and Mishra, S. S. 2022. A new congrid eel, *Rhynchoconger smithi* sp. nov. (Anguilliformes : Congridae), from Bay of Bengal, India. *Journal of Fish Biology.* <https://doi.org/10.1111/jfb.15031> (Wiley).
23. Palot, M.J. 2022. *Keralathile Uruga Jeevikal* (Reptilian diversity of Kerala- an overview). *Souvenir of Sahyadri Natural History Society, Thiruvananthapuram*, for 2021–2022: 28–33.
24. Pati, S.K., Mandal, S. and Jaiswal, D. 2022. Description of a new species of *Spiralothelphusa* Bott, 1968, and redescription of *Spiralothelphusa wuellerstorfi* (Heller, 1862) (Decapoda: Brachyura: Gecarcinucidae). *European Journal of Taxonomy* 798: 1–29.
25. Praveen, K., & Subramanian, K. A. 2022. First Description of Male of *Drabescus kemp* Pruthi (Cicadellidae) from India. *Indian Journal of Entomology*, 1–3. <https://doi.org/10.55446/IJE.2022.164>.
26. Ray, D., Mohapatra, A., Tudu, P.C., Mishra, S.S. 2021. First report of two fishes of genus *Minous* (Scorpaeniformes: Synanceiidae) from Indian coast, with a key for the identification of Indian species. *Records of Zool. Surv. India* 121 (4): 505 – 510.
27. Ray, D., Mishra, S.S., Mohapatra, A. and Ghorai, N. 2021. Notes on Carangids (Carangiformes: Carangidae) from West Bengal Coast with new records. *Records of Zool. Surv. India* 121 (4): 511 – 521.

28. Saikia, B., Mostaque, A. Laskar, Sinha, B., Debnath, M., Sengupta, S., Das, H., Shabnam, N. A., Kharkongor, I.J. and Dinesh, K.P. 2022. Confirmed report of *Amolops aniqiaoensis* (Anura: Ranidae) from India with additional distribution records for two more species of *Amolops*. *Reptiles & Amphibians*, 29(1): 214-224.
29. Singh, N., Ranjan, R., Kirti, J.S. & Chandra, K. 2022. *Suhela* N. Singh, Ranjan, Kirti & Chandra, gen. n., a new genus for *Conogethes alboflavalis* Moore, 1888 (Lepidoptera: Crambidae: Spilomelinae). *SHILAP Revta. lepid.*, 50 (197): 5-11.
30. Singh, N., Ahmad, J. and Chandra, K. 2022. A new species of genus *Patania* Moore, 1888 from India (Lepidoptera: Crambidae: Spilomelinae). *SHILAP Revta. lepid.*, 50 (197): 5-11.
31. Sreeraj, C. R., & Sen, A. 2022. Javanese Rice Fish (*Oryzias javanicus*) - First Record from Andaman and Nicobar Islands. *Asian Basic and Applied Research Journal*, 5(3), 44-48.
32. Suman, D. S., De, S., Sharma, G., Chandra, K., and Banerjee, D. 2022. *Culex* (*Culex*) *gaugleri*, a new species (Diptera: Culicidae) from India. *Records of the Zoological Survey of India*, 121(4):429-439.
33. Vinayan, P., Nair, K., Samuel, A., Palot, M.J. and Sadasivan, K. 2022. An updated checklist of dragonflies and damselflies (Odonata) of Kerala with their Malayalam names. *Malabar Trogon*, 19(3): 31-37.

BOOK CHAPTERS

1. Bahuguna, A. 2022. Amphibia In: *Fauna of Agroecosystem of Haryana and Punjab*, 1-178 +8 plates (Ed. Director, ZSI): 118-127. ISBN 97-81-8171-584-5.
2. Bahuguna, A. 2022. Reptilia, In: *Fauna of Agroecosystem of Haryana and Punjab*, 1-178 +8 plates (Ed. Director, ZSI): 128-143. ISBN 97-81-8171-584-5.
3. Banerjee, D., Naskar, A., Sengupta, J. and Mridha, R.S. 2021. Insecta: Diptera. In: *Fauna of Himachal Pradesh, State Fauna Ser.* 26(2):271-383.
4. Rizvi, A.N., Maity, P. and Rai, P. 2022. Nematoda: Nematode Parasites of Vertebrates. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*; 53-62 (Published by Director, Zool. Surv. India, Kolkata).
5. Rizvi, A.N., Maity, P., Rai, P. and Kar, A. 2022. Nematodes: Soil Nematode. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*; 63-73 (Published by Director, Zool. Surv. India, Kolkata).
6. Rizvi, A. N. and Datta, R. 2022. Nematoda (Nematodes Parasitic in Arthropods). In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 75-77 (Published by the Director, Zool. Surv. India, Kolkata).
7. Chandra, K., Banerjee, D., Raghunathan, C., Gupta, D., Rai, P. and Sharma, G. 2022. Faunal Diversity of Indian Gangetic Plains - An Overview. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 1-10 (Published by the Director, Zool. Surv. India, Kolkata).
8. Dinesh, K.P. 2021. Amphibians. In: The Director (Ed.), *Fauna of Koyna Wildlife Sanctuary, Maharashtra, Conservation Area Series* 66: 54-67 (Published by the Director, Zoological Survey of India, Kolkata).
9. Ghosh, J., Rai, P. and Gupta, D. 2022. Rotifera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 47-52 (Published by the Director, Zool. Surv. India, Kolkata).
10. Ghosh, J., Dutta, S. and Gupta, D. 2022. Acanthocephala. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 79-83 (Published by the Director, Zool. Surv. India, Kolkata).
11. Ahmed, S., Rai, P. and Gupta, D. 2022. Annelida: Clitellata: Oligochaeta and Hirudinea. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 85-90 (Published by the Director, Zool. Surv. India, Kolkata).
12. Ghosh, J., Rai, P., Gupta, D. and Raghunathan, C. 2022. Crustacea. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 109-116 (Published by the Director, Zool. Surv. India, Kolkata).
13. Ghosh, J., Gupta, D. and Chandra, K. 2022. Insecta: Odonata. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 125-132 (Published by the Director, Zool. Surv. India, Kolkata).
14. Kumar, H., Chandra, K., Ghosh, J. and Gupta, D. 2022. Insecta: Orthoptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 133-139 (Published by the Director, Zool. Surv. India, Kolkata).
15. Chandra, K., Ghosh, J. and Gupta, D. 2022. Insecta: Phasmida. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 141-143 (Published by the Director, Zool. Surv. India, Kolkata).

16. Ghosh, J., Dutta, S., Gupta, D. and Emiliyamma, K. G. 2022. Insecta: Dermaptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 145-148 (Published by the Director, Zool. Surv. India, Kolkata).
17. Gupta, D., Ghosh, J., Ahmed, S. and Chandra, K. 2022. Insecta: Mantodea. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 149-153 (Published by the Director, Zool. Surv. India, Kolkata).
18. Ghosh, J., Bhunia, D., Chandra, K. and Gupta, D. 2022. Insecta: Blattodea: Isoptera (Termites). In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 155-158 (Published by the Director, Zool. Surv. India, Kolkata).
19. Dutta, S., Ghosh, J., Gupta, D. and Chandra, K. 2022. Insecta: Psocoptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 159-162 (Published by the Director, Zool. Surv. India, Kolkata).
20. Ahmed, A., Dutta, S., Chandra, K. and Gupta, D. 2022. Insecta: Phthiraptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 163-169 (Published by the Director, Zool. Surv. India, Kolkata).
21. Pati, S.K. 2021. Crustacea: Decapoda: Brachyura (freshwater crabs). In: K. Chandra, P.C. Pathania, K. Rajmohana and S.S. Hundal (Eds.), *Faunal Diversity of Agroecosystems in India*: 183-196 (Published by the Director, Zoological Survey of India, Kolkata).
22. Pati, S.K. 2021. Freshwater crabs (Crustacea: Decapoda: Brachyura). In: The Director (Ed.), *Fauna of Koyna Wildlife Sanctuary, Maharashtra, Conservation Area Series* 66: 95-103 (Published by the Director, Zoological Survey of India, Kolkata).
23. Singh, L. R. K., Saini, J., Ahmed, I., Gupta, D. and Chandra, K. 2022. Insecta: Hymenoptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 189-232 (Published by the Director, Zool. Surv. India, Kolkata).
24. Gupta, D., Chandra, K., Ghosh, J. Das, P., Dutta, S. and Saini, J. 2022. Insecta: Coleoptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 233-277 (Published by the Director, Zool. Surv. India, Kolkata).
25. Gupta, D., Ghosh, J., Rai, P. and Chandra, K. 2022. Insecta: Neuroptera. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 279-283 (Published by the Director, Zool. Surv. India, Kolkata).
26. Das, P., Shah, S.K., Singh, N., Rai, P. and Gupta, D. 2022. Insecta: Lepidoptera (Butterflies). In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 285-294 (Published by the Director, Zool. Surv. India, Kolkata).
27. Gupta, D., Ghosh, J., Das, P. and Ahmed, S. 2022. Myriapoda: Diplopoda and Chilopoda. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 333-335 (Published by the Director, Zool. Surv. India, Kolkata).
28. Chandra, K., Raghunathan, C., Prabhakar, R., Ghosh, J., Saini, J. and Gupta, D. 2022. Vertebrata. In: *Faunal Diversity of Biogeographic Zones of India: Gangetic Plains*: 351-379 (Published by the Director, Zool. Surv. India, Kolkata).
34. Sharma N., Sidhu, A.K. & Pathania, P.C. 2021. Insecta: Lepidoptera: Nymphalidae. *Fauna of Himachal Pradesh, State Fauna Series*, 26 (Part-2): 93-109. (Published by the Director, Zool. Surv. India, Kolkata).
35. Sidhu, A.K. & Sharma, N. 2021. Insecta: Lepidoptera: Papilionidae: Pieridae: Lycaenidae and Hesperidae. *Fauna of Himachal Pradesh, State Fauna Series*, 26 (Part-2): 93-109. (Published by the Director, Zool. Surv. India, Kolkata).
36. Jadhav, S. S. 2021. Fauna of Koyna Wildlife Sanctuary, Maharashtra, Conservation Area Series, 66: 68-91 (Published by Director, Zool. Surv. India).

MEETINGS ATTENDED

1. Dr. Dhriti Banerjee, Director attended an International Women's Day Webinar on 'Women who broke the Glass Ceiling' organized by Press Information Bureau (PIB), Kolkata, Ministry of Information & Broadcasting, Birla Industrial & Technological Museum and National Council of Science Museum, Ministry of Culture on 7th March, 2022; celebrated International Women's Day 2022 by organizing cultural activities at ZSI HQs Kolkata on 8th March, 2022; attended program as a Guest of Honor and celebrated International Women's Day 2022 with Chennai Custom Zone & Tamil Nadu & Pondicherry GST & Central Excise Zone on 8th March, 2022 (virtual mode); addressed a National Seminar on 'Equality Today for a Sustainable Tomorrow' on the day of 8th March, 2022 at Society of Biological Sciences and Rural Development (SBSRD), Prayagraj; inaugurated two days' Regional Workshop as Chief Guest

on *Coastal Biodiversity-Recent Trends & Techniques in Conservation* at Marine Aquarium and Regional Centre (MARC), ZSI, Digha organized by ENVIS Centre on Biodiversity (Fauna), ZSI, Kolkata on 10th & 11th March, 2022; attended meeting at La Martinere for Girls, Kolkata on 11th March; attended as Chief Guest in 'Capacity Building Workshop in Nematode Taxonomy & Satellite Symposium on Advances in Nematology' (CBNT-SSAN 2022) organized by Nematology Laboratory, Department of Zoology, Chaudhary Charan Singh University, Meerut on 21-30th March, 2022; participated in Science Leaders Conclave organized at CSIR-IICT, Hyderabad and delivered speech on Damage to habitat of vulnerable species, and extreme temperature rise would lead to biodiversity loss impacting the local economy and traditional ways of life in several communities on 26-27th March, 2022; attended a one day National Seminar cum workshop entitled "Invasive Alien Species: An undesirable guest to the natural ecosystem" under the NMHS funded project "Invasive Alien Plants in Himalayas: Status, Ecological Impact and Management" organized by Botanical Survey of India on 30th March, 2022.

2. Dr. C. Raghunathan chaired the meeting for scrutinizing the proposals for new annual programme of research of ZSI for the FY 2022-2023 on 1st March 2022; chaired the meeting for GIZ project on Freshwater Fauna of North East held on 4th March 2022; chaired the interview committee for recruitment of JRF under the DST sponsored project on Hymenopteran pests; chaired the Transfer Committee meeting of ZSI on 9th March 2022; attended the meeting of West Bengal Biodiversity Board for PBRs held on 3rd March 2022; attended the meeting of Eco-sensitive Zone Committee held on 4th March 2022 convened by MoEFCC; visited GPRC, Patna as Chief Vigilance Officer to sort out the issues pertaining to daily wages payments on 7th and 8th March 2022; attended 11th inter-ministerial meeting on Envisat held on 15th March 2022 through virtual mode; chaired the assessment of CSIR JRF of ZSI for promoting to SRF held on 28th March 2022.
3. Dr. Gaurav Sharma, Scientist-E, as a special invitee participated in the 17th Board members meeting of Uttarakhand Biodiversity Board organized by The Chairman, Uttarakhand Biodiversity Board, Dehradun on 15 March, 2022; as an expert member participated in the meeting for revision and validation of prepared Uttarakhand Peoples' Biodiversity Register organized by The Chairman, Uttarakhand Biodiversity Board, Dehradun on 16 March, 2022.

4. Dr. C. Sivaperuman, Scientist-E attended Research and Advisory Committee meeting in the Department of Environment and Forests to review the research proposals on 10th March 2022; attended online meeting in connection with the Penguin research particularly on brain structure with officials of MoES, GoI and other experts on 16th March 2022; attended state level Zoonosis meeting at Regional Medical Research Centre, Port Blair organised by Directorate of Health Services, A & N Administration on 24th March 2022; attended the valedictory function of Training workshop on Leptospirosis at Regional Medical Research Centre, Port Blair as Guest of Honour on 24th March 2022; attended meeting under the Chairmanship of Director, Department of Tourism, A & N Administration in connection with the development of artificial reef in South Andaman on 29th March 2022.
5. Dr. Deepa Jaiswal, Scientist E & Dr. Karuthapandi, Scientist C attended Meeting on "Threatened Fauna of Andhra Pradesh" with PCCF & Member Secretary, Andhra Pradesh Biodiversity Board at Vijayawada on 16th March, 2022; attended Inaugural Programme on "Preparation of Peoples Biodiversity Register" under GSDP conducted by EPTRI, Gacchibowli, Hyderabad as Guest of Honour on 4th March, 2022; inaugurated Virtual Lab-Digital Innovations in Zoology (DIZA) under DBT Star College Scheme in St. Anns College, Hyderabad on 23rd March 2022.
6. Dr. Gopal Sharma, attended a meeting on Free Range Dolphin population survey in Ganga on 24.03.2022 organized by WII.
7. Dr. S. S. Jadhav, Scientist D attended a meeting on the occasion of International Forest Day (Interaction) organized by Andhra Pradesh Biodiversity Board on 21st March 2022.
8. Dr. Avtar Kaur Sidhu, Scientist-E, attended interactive session on, "Butterflies, microclimate and climate change" on 23.03.2022, by Robert Wilson, National Museum of Natural Sciences, Madrid, Spain.
9. Dr. N. Sharma, Sci-E attended meeting of the Arunachal Pradesh Research Committee for granting research permission in Wildlife Protected Areas on 25.03.2022 at PCCF (WL & BD) office, Itanagar.
10. Dr Devanshu Gupta attended a meeting regarding the Draft MoU between Calcutta University and ZSI on 24 March 2022; deputed to attend 44 trainees of Central Academy for State Forest Service, Coimbatore – 2020 - 22 SFS Course – East India Tour – Field visit and camp arrangements.

11. Dr. K. A. Subramanian, Scientist-E & Officer-in-Charge, attended DGQI review meeting organized by Statistics Division, MoEF&CC.
.....
12. Dr. Atanu Naskar, Asst. Zoologist has attended a virtual meeting with Yale University regarding discussion of the EPI Indicator on 15th March 2022.
.....

TRAININGS/ WEBINAR ORGANISED

1. An “Orientation programme on Peoples Biodiversity Register” organized by Freshwater biology Regional Centre, Zoological Survey of India, Hyderabad on 29th March 2022.
.....
2. MARC, Digha organized a one day seminar on “Marine Biodiversity and its Conservation” for class 12th Students and Faculty members of The Pentecostal Assembly School, Bokaro, Jharkhand on 23rd March 2022.
.....
3. MARC, Digha organized a two days Regional Workshop on “Coastal Biodiversity Recent Trends and Techniques in Conservation” jointly organized by ENVIS Centre, Zoological Survey of India, Kolkata and Marine Aquarium and Regional Centre at Digha on 10th – 11th March 2022.
.....
4. EBRC, Orissa trained the Forest Department staffs on the Protection and Conservation of Olive Ridley sea turtles and counting of the turtles during mass nesting on 15.03.2022 at the Forest Department.
.....

delivered a lecture on Biodiversity and Anthropology; delivered a lead lecture ‘Invasive Fauna in India’ in the seminar “Invasive species: an undesirable guest to the natural ecosystem” organized by Botanical Survey of India, Kolkata on 30th March 2021.
.....

2. Dr. Gaurav Sharma, Scientist-E delivered an invited lecture on topic entitled “Fauna sampling, assessment, identification and access to various resources” to participants of One-week Compulsory Training Course for IFS Officers at conference hall of Indira Gandhi National Forest Academy, Dehradun on 09 March, 2022; delivered lecture on topic entitled “Faunal diversity, identification and access to various resources” to 44 trainees of Forest Range Officers batch 2021-23 from Forestry Training Academy, Haldwani, Uttarakhand at conference hall of ZSI, NRC, Dehradun on 10 March, 2022.
.....
3. Dr. C. Sivaperuman, Scientist-E delivered a talk on Overview of Faunal Diversity of Andaman and Nicobar Islands in the One week IFS course on Management of Coastal and Marine Biodiversity in India: Challenges and Prospects organised by Wildlife Institute of India in Port Blair on 7th March 2022; delivered a talk on Overview of Faunal Diversity of Andaman and Nicobar Islands in the National e-Conference on Insight into the Current Scenario of Conservation of Natural Resources in India – 2022, organised by Department of Zoology, Thanthai Periyar Government Arts and Science College, Trichy in collaboration with National Biodiversity Authority & Biodiversity Conservation Foundation on 25th March 2022.
.....
4. Dr. Gopal Sharma delivered a talk in All India Radio on the topic Jal Vigyan ka Mahatva on 16.03.2022 at AIR Patna; delivered a lecture on the impact on Fauna after implementation of Small Scale Industries in the rural area by the Khadi Garamodyog Commission on 30.03.2022 at Hotel Chanakya Patna.
.....

LECTURES DELIVERED

1. Dr. C. Raghunathan delivered a keynote lecture on the National Conference on Global Marine Biodiversity – Status, Threats and Conservation organized by V.V. Vanniyaperumal College for Women, Virudhunagar, Tamil Nadu on 9th March 2022; served as a Guest of Honour in the inaugural session of National Conference on Anthropology: Biological Diversity and Affinities- a critical rethinking of endurance in India, organized by St. Joseph University, Dimapur, Nagaland on 17th March 2022 and
14. Dr. Deepa Jaiswal, Scientist E delivered a lecture on “ZSI-FBRC: Significant achievements in Wetland Studies” to GSDP participants from EPTRI and students from Anwar Uloom College at ZSI, Hyderabad on 15th March, 2022.
.....
5. Dr. S. Balakrishnan, Scientist – D, delivered an online lecture as an invited speaker on “Coastal and marine biodiversity: threats and their conservation” in DBT sponsored – International Conference on Recent Progresses in Biological Sciences – 2021 organized by Department of Zoology, Ayya Nadar Janaki Ammal College (Auto.), Sivakasi, Tamil Nadu on 05th March 2022.
.....

6. Dr. Marimuthu, Scientist-D delivered a lecture entitled, "General Non-Chordata fauna" given to ACF trainees of Central Academy for State Forest Service, Coimbatore, Tamil Nadu.
.....
7. Dr. Karuthapandi, Scientist-C delivered a lecture on "Mammals" to GSDP students organised by EPTRI, Hyderabad, on 11th March 2022. He also attended "Thematic plan Workshop on Biodiversity Conservation of RET species for BMC of Andhra Pradesh" organized by APSBB at Tirupati on 19th March 2022.
.....
8. Dr. Rehnuma Sulthana, Asstt. Zool. delivered a lecture on "Zoogeographic Regions: RET species, Economically and Ecologically important fauna" to GSDP students organized by EPTRI, Hyderabad, on 7th March 2022.
.....
9. Dr. Boni Amin Laskar, Scientist-D delivered lecture on "DNA Barcoding and its applications" to GSDP students on 15th March 2022.
.....
10. Dr. P.C. Pathania, Scientist-D, delivered Invited talk as keynote speaker on World Water Day (Groundwater makes the invisible-Visible) on 22 March, 2022 organized by BAMB, Khalsha College, Garhshankar, Punjab on 22.03.2022.
.....
11. Dr. Arachana Bhauguna, Scientist-E, delivered invited lecture in International Conference on law & forensic justice (w.e.f. 5th March to 6th March 2022) organized by National Forensic Science University, titled Generating Scientific Proofs for Wildlife forensic cases for Criminal Justice System: A review based on research experience on 5th March 2022.
.....
12. Dr. Sandeep Kushwaha, delivered a lecture on Common parasitoid of true bugs in Capacity Building Workshop in Nematode Taxonomy & Satellite Symposium on Advances in Nematology (CBNT_SSAN 2022)" on 21-30 March, 2022, organised by Nematology Laboratory, Department of Zoology, Chaudhary Charan Singh University, Meerut.
.....
13. Dr. S. Mitra Participated and delivered a lecture in 2 days regional workshop on Coastal Biodiversity: Recent Trends And Techniques In Conservation on 10 and 11 march, 2022 organized by MARC, ZSI Digha and ENVIS, ZSI, and guided in field training and workshop in Laboratory.
.....
14. Dr K. K. Bineesh served as technical faculty in the 'Age determination of fishes using Otolith' workshop, organized at KUFOS, Kochi, from 20-26 March 2022.
.....
15. Dr. K.P. Dinesh, Scientist-D delivered an online talk on "Utility of Molecular tools in the principles and practices of Animal Taxonomy: An integrated approach" in the symposium 'Recent trends in Biology' organized by the Zoology Department, SPPU University, Pune on 12/03/2022.
.....
16. Dr. Anil Mohapatra Delivered a lecture on Marine Faunal Diversity and conservation in India in the Webinar organized by Department of Marine Sciences, Berhampur University on 27 .03.2022.
.....
17. Dr. S. S. Jadhav, Scientist D delivered lecture on "Fish Identification and Type Concept" to GSDP students on 15th March 2022.
.....
18. Dr. Indu Sharma, Scientist-E and Dr. R. Bano delivered lecture on "Introduction of Zoological Survey of India and its Research Activities" and "Insect fauna of Rajasthan and Gujarat" to 57 students of Science and Agricultural Govt. Sr. Secondary School, Lohavat, Jodhpur on 9th March, 2022.
.....
19. Dr. Indu Sharma and Dr. R. Bano delivered lecture on "Vertebrate Fauna of Desert Ecosystem" and Basic techniques of collection and preservation of some major insect groups to 40 students of M.Sc. Zoology of Jai Narayan Vyas University, Jodhpur on 11th March, 2022.
.....
20. Ms. Debashree Dam, Scientist – B delivered a lecture as an invited speaker on "Future Perspective of Zoology" to the B.Sc., Zoology 06th Semester students at P.K. College, Contai, Purba Medinipur on 01st March 2022; delivered a lecture on "Role of Marine Aquarium in Aquaculture Management" to the B.Sc., Zoology 06th Semester students at Ramnagar College, Ramnagar, Purba Medinipur on 03rd March 2022.
.....

TRAININGS ATTENDED

1. Dr. Avtar Kaur Sidhu, Scientist-E, attended online Training Programme on "Annual Performance Appraisal (APAR)" on 11th & 12th March, 2022 organized by Integrated Training & Policy Research, New Delhi.
.....
2. Dr. S. Balakrishnan, Scientist – D, attended workshop on Financial Management held in online mode from 21st – 25th February 2022 organized by Institute of Secretariat Training and Management, Department of Personnel and Training, New Delhi.
.....
3. Dr. Aditya Kapil Valiveti, Scientist – B (Chemi.), participated and attended on "OTP-CPPP & GeM – 02 – orientation training program on CPPP & GeM for dealing hands" held in online mode from 21st – 23rd March 2022 organized by Institute of Secretariat Training & Management, Department of Personnel and Training, New Delhi.
.....

4. Dr. Sandeep Kushwaha, attended two days training and awards sessions for the best editors of the year 2021 in association with IESRF and the KERF society, on March 4th - 5th, 2022, organized by IP Innovative Publication Pvt. Ltd.
.....
5. Dr. Sandeep Kushwaha, attended Capacity Building Workshop in Nematode Taxonomy & Satellite Symposium on Advances in Nematology (CBNT_SSAN 2022)" on 21-30 March, 2022, organised by Nematology Laboratory, Department of Zoology, Chaudhary Charan Singh University, Meerut.
.....
6. Dr. R. Bano, Scientist-E participated in "Orientation Training Programme on CPPP & GeM for dealing hands" organized by Institute of Secretariat Training and Management (ISTM), New Delhi through online mode from 21-23 March, 2022.
.....

STORYLINE

International Women's Day Celebration



"Where the mind is without fear, and the head is held high... Into that Heaven of freedom my father, let my country awake".

Rabindranath Tagore.

It is indeed an awakening moment for one of the oldest premier taxonomic institution of the country, Zoological Survey of India. Dr. Dhriti Banerjee set an example that when the mind is without fear and one puts in hard work, coupled with grit discipline, confidence, determination, will force and self-belief, the impossible is achievable inspite of stiff challenges. Breaking the glass ceiling she went into the pages of history in August 2021 when she became the first women Director in 105 years of history of ZSI. Tagore has always been her inspiration and these words of Tagore rang in her ears from

early childhood. She says her strong family culture and roots raised her to be fearless and upright from very early stages of life and encouraged her to believe that sky is the limit and one has to not only dream big but also hard work for it.

The month of March 2022 was a very special month dedicated to the celebrations of International women's Day. For the first time in the history of ZSI, Women's day was celebrated on 8th March 2022 at a Pan India level in all 16 regional Centres of ZSI including Headquarters, Kolkata. The theme for International Women's Day 2022 was 'Break The Bias' which focuses and hopes to create a gender equal world. As per directives from Director, ZSI, every women employee in the organization irrespective of her

position and role in ZSI was felicitated with floral tributes and made to feel special for their contribution to the organization. The regional Centres celebrated the day by organizing seminars on gender equity, through different cultural programmes, competitions, speeches etc. The month of March was a month of recognition and celebration for Zoological Survey of India. Dr. Dhriti Banerjee was honoured with prestigious awards and felicitations from many organizations. The Press Information Bureau (PIB), Kolkata, Ministry of Information & Broadcasting, Birla Industrial & Technological Museum and National Council of Science Museum, Ministry of Culture felicitated her on 7th March 2022 at an International Women's Day Webinar on 'Women who broke the

Glass Ceiling'. On 8th March, 2022 Chennai Custom Zone & Tamil Nadu & Pondicherry GST & Central Excise Zone felicitated her on achieving the prestigious honor of first women director of ZSI. The prestigious Nari Shakti Samman-2022 was conferred on her by the Society of Biological Sciences and Rural Development (SBSRD), Prayagraj, Uttar Pradesh. She was also a special Guest speaker and addressed a National Seminar on 'Equality Today for a Sustainable Tomorrow'. On 21st March 2022 at the inaugural function of 'Capacity Building Workshop in Nematode Taxonomy & Satellite Symposium on Advances in Nematology' (CBNT-SSAN 2022) at Chaudhary Charan Singh University, Meerut, the Helminthological Society of India

conferred on her the prestigious 'Prof. H R Mehra' Award for her outstanding contribution in the field of Dipteran Taxonomy, Conservation, Molecular Systematics and Biodiversity. Truly the unstoppable, first women Director of ZSI was awarded with the 'Outstanding Women Achiever 2022' by Bharat Chambers of Commerce and Bharat Chambers Ladies Forum at a Special Panel Session on 24th March 2022 on the occasion of International Women's Day 2022 where she spoke on a special panel session on 'Have the pandemic and other Challenges made us stronger'.



Dr. Banerjee strongly feels and advocates the fact that an organization can progress when both men and women have equal respect for each other and support each other in work. She dreams of an organization which is free of bias, stereotypes, and discrimination. On International women's day she assured the women employees that ZSI has always been a safe haven for women to work and will continue to do so. She also said that the greatest skill set which women possess is the power of multitasking and in the organization also they must be ready for multitasking as and when the need arises. She added that in 2016 there were 100 women scientists in ZSI and she is confident that there will be a threefold increase in the number by 2026. Dr. Dhriti Banerjee's vision is to raise ZSI to greater and greater heights through unbiased empowerment of its scientific fraternity for a sustainable tomorrow. Her dream is to see every woman in the organization happy, to excel the best of way in scientific research, to face all

challenges strongly with a smile whether in the home front or workplace, to work hand in hand and wholeheartedly for the progress of the organization as a whole. Her focus is also to encourage the girls and women of Rural India to take interest in Science specially taxonomic studies and contribute to the faunal wealth of the country. Her vision "From Lab to Field" through the various Outreach programs for school and colleges is specially focused on women and is not only encouraging them to choose their career in faunal taxonomic studies but they are also contributing in spreading awareness on local biodiversity conservation among the mass. Dr. Dhriti Banerjee strongly believes that there is the power of 'Shakti' in every women. It is for each one of us to wake up and recognize that special inner strength and explore it to the best of ability.

Debashree Dam



ZSI Headquarters



HARC, Solan

WRC, Pune





FBRC, Hyderabad



GPRC, Patna



NRC, Dehradun



APRC, Itanagar



CZRC, Jabalpur



MARC, Digha.



SRC, Chennai



WGRC, Calicut