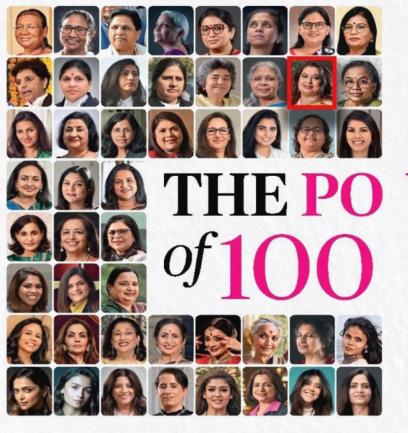
ZSI E-News

Vol. 59 | November 2023 | Monthly E-Newsletter from Zoological Survey of India

















from the Director's Desk

Greetings! As the year draws to a close, I extend my heartfelt gratitude for your support and collaboration. Here's to a year of resilience, growth, and shared achievements. Wishing you all a peaceful and joyous year-end. Thank you for being an integral part of our scientific community. Together, let us celebrate the pursuit of knowledge and the impact it has on shaping a better future.

It is with great pleasure that ZSI presents the latest December 2023 edition of ZSI E News to provide the glimpses of ZSI activities and its newest developments, research findings, and scientific endeavors on faunal exploration in India. In the ever-evolving faunal diversity of science, this newsletter serves as a testament to our commitment to excellence, innovation, and the relentless pursuit of knowledge. As we navigate the frontiers of discovery, it is both an honor and a privilege to share with you the remarkable work that ZSI has undertaken.

A two-week Career Progression Mandatory Training (CPMT) for Junior Zoological Assistant were organized from 11th to 22nd December 2023 at ZSI Headquarter, Kolkata. ZSI undertook an important study to document the marine biodiversity at V.O. Chidambaranar Port Trust at Tuticorin along with other faunal explorations. ZSI signed an MoU with School of Energy, Environment & Natural Resources, Madurai Kamaraj University, Madurai for Scientific and Academic Cooperation. Comprehensive aerial surveys off the coast of Daman to study marine mammals were conducted to record the marine mammals utilizing the assistance of the Indian Coast Guard helicopter. ZSI, Headquarters, and its 16 Regional Centres have actively conducted Mission LiFE activities in office premises nearby arears to spread awareness. A total of 1513 species were identified during the month including four new discoveries of species and four new records of species. A total of four books, 17 research papers in peer-reviewed journals and one book chapter, and two popular articles and one abstract were published during the month.

I am delighted to express my sincere appreciation to the brilliant scientists and staff of ZSI for their unwavering commitment and outstanding contributions throughout the year. Your relentless pursuit of excellence has not only elevated our institution's reputation but has also propelled us towards new frontiers of discovery. Thank you for being the driving force behind the scientific achievements of ZSI. I look forward to another year of exploration, and groundbreaking discoveries as we continue our collective journey towards a brighter and more informed future.

Wishing you all New Year filled with hope, joy, and exciting opportunities. May it bring you success and fulfillment in all your endeavors. Happy New Year!

Jai Hind,

Dr. Dhriti Banerjee Director 5th January 2024 Kolkata



HEADQUARTERS, KOLKATA

Surveys were conducted to Birbhum, Bankura and West Bardhaman districts under the Annual Programme Faunal Composition of Tropical Dry Deciduous Forest, Phase I: West Bengal. A total of 654 species of faunal communities belonging to Apterygota, Chalcididae, Diptera, Dermaptera, Ephemeroptera, Formicidae, Hemiptera, Lepidoptera, Odonata, Orthoptera, Mollusca, Nematoda, Platyhelminthes, Acanthocephala, Crustacea, Porifera, Cnidaria, Annelia, Echinodermata, and Aves were identified in this month. Two species of Mollusca were newly reported as new to India. One species of Echinodermata, four species of Hemiptera, seven species of Platyhelminthes, eight species of nematode and thirty five species of Lepidoptera were augmented to the National Zoological Collections. Identification and advisory services were rendered to Alipur Zoological Garden, Kolkata, Bidhan Chandra Krishi Vishwavidyalaya, Uttar Banga Krishi Vishwavidyalaya, Ramkrishna Mission Vivekananda Centenary College, Department of Zoology and Environmental Sciences, Gurukula Kangri Vishwavidhyalaya, Haridwar. Students from Bankim Sardar College, Tangrakhali, Canning, Don Bosco College, Moram, Manipur, Dr. Abraham Johnson, Assistant Professor, National Forensic Science University, Gujarat, and Dr. Shinichi Nakahara, Post-Doctoral Fellow from Museum of Comparative Zoology, Harvard University, USA had visited various sections of the headquarter.

NORTH EASTERN REGIONAL CENTRE, SHILLONG, MEGHALAYA

A total of 67 species of faunal communities belonging to Hemiptera, Orthoptera, Odonata, Araneae, Decapoda, Chiroptera, Pisces, Amphibia and Reptilia were identified in this month. Identification & advisory services rendered to Department of Environment & Traditional Ecosystem, Martin Luther Christian University, Shillong. Mission LiFE awareness campaign were organized.



Rattus nitidus (Hodgson, 1845)



WESTERN REGIONAL CENTRE, PUNE, MAHARASHTRA

Surveys were conducted to Kali Tiger Reserve and to Daroji Sloth Bear Sanctuary. A total of 76 species of faunal communities belonging to Hemiptera, Hymenoptera, Coleoptera, Lepidoptera, Crustacea, Mollusca, Pisces, Amphibia and Mammalia were identified in this month. A MoU was signed with Fergusson College, Pune for Research and Academics at Fergusson College on 5th December 2023. Identification and advisory services provided to Shri Harkirat Singh Sangha of Rajasthan, Women's College, Ch. Sambhajinagar, Maharashtra, Department of Zoology, Pratishthan Mahavidyalaya, Paithan, Chhatrapati Sambhajinagar district and Department of Zoology, Prof. Ramkrishna More Arts, Commerce and Science College, Akurdi, Pune, Maharashtra.



Peninsular rock agama Psammophilus dorsalis (Gray, 1831)





Reservoir of Gandhisagar dam inside Gandhisagar wildlife sactuary, Mandsaur (M.P).

CENTRAL ZONE REGIONAL CENTRE, JABALPUR, MADHYA PRADESH

A survey was conducted to Kuno-Palpur National Park, Sheopur district and Gandhi Sagar Wild Life Sanctuary, Mandsaur district of Madhya Pradesh. A total of 78 species of faunal communities belonging to Orthoptera, Lepidoptera, Hemiptera, and Mollusca were identified during the month. Students from Govt. Senior and Higher Secondary School, Bichhiya (M.P.), Govt. Girls School, Patan (M.P.), Home Science College Jabalpur (M.P.) and Govt. Science College Jabalpur (M.P.) visited the ZSI museum.



Hands on training of entomological stretching and pinning was given to the internship students at ZSI, CZRC, Jabalpur.

DESERT REGIONAL CENTRE, JODHPUR, RAJASTHAN

A total of 67 species of faunal communities belonging to Insecta, Mollusca, and Pisces were identified during the month. Local visitors visited the Museum of the Centre. Prof. Kartar Dhiman, Vice-Chancellor of Shri Krishna Ayush University, Kurukshetra (Haryana) visited during the period.



Rufous treepie Dendrocitta vagabunda (Latham, 1790)



Joint Regional Official Language Conference for Northern Regions-2023 at IIT Jodhpur.

NORTHERN REGIONAL CENTRE, DEHRADUN, UTTARAKHAND

One survey was undertaken to three conservation reserves of Punjab i.e. Rakh Sarai Amanat Khan, Ranjeet Sagar and Beas river. A total of 77 species of faunal communities belonging to Protozoa, Phthiraptera, Orthoptera, Lepidoptera, Hymenoptera, Pisces, and Amphibia were identified during the month. The Officer-in-Charge and staff organized and participated in Mission LiFE Programme- "Save Water, Save Electricity" awareness Rally and Special Campaign 3.0 Swachhta Cleanliness Drive Programme in and around ZSI, NRC campus, Dehradun City and Kaulagrah Market, Dehradun.



Mission LiFE Awareness Selfie point at ZSI, NRC, Dehradun.



Sapling planted with trainees of Rajasthan Forest Department at ZSI, NRC, Dehradun.

SOUTHERN REGIONAL CENTRE, CHENNAI, TAMIL NADU

A total of 245 species of faunal communities belonging to Hemiptera, Hymenoptera, Lepidoptera, Odonata, Mollusca, Pisces, Amphibia, and Reptilia were identified during the month. The officers of this centre attended 3 days capacity building program on Biodiversity Act 2002 and Global Biodiversity Framework along with recent developments organized by National Biodiversity Authority and M.S. Swaminathan Research Foundation, Chennai.



Great Thick Knee



River Lapwing



Gharial

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Faunistic survey was undertaken to Kaimur Wildlife Sanctuary, Bihar

GANGETIC PLAINS REGIONAL CENTRE, PATNA, BIHAR

A survey was conducted to Kaimur Wildlife
Sanctuary, Bihar. A total of 37 species of faunal communities belonging to Insecta, Mollusca, and Fish were identified during the month. Identification and advisory services were rendered to Ph.D.
Scholar, Bihar University, Muzaffarpur.



Dr. Gopal Sharma, Scientist-E attended a pre-budget meeting in Patna Secretariat for expected budget on Dolphin Conservation in next financial year 2024-25



Dr. Gopal Sharma, Scientist-E judge science competition at KV Kankar Bagh

HIGH ALTITUDE REGIONAL CENTRE, SOLAN, HIMACHAL PRADESH

A total of 67 species of faunal communities belonging to Insecta and Pisces were identified during the month. Identification and advisory services were rendered to Department of Fruit Sciences, Punjab Agricultural University, Ludhiana, Punjab and University of Agricultural Sciences, Raichur, Karnataka. Under Mission LiFE, two selfie stands were installed at SBI bank, Solan and at Gurudwara Saproon, Solan to make people aware about the environment.



Collection from Agroecosystem of Cauliflower & Cabbage field



Selfie at State bank of India, Solan



Collection from Agro Ecosystem of Koron, Kenthdi, Distt Solan HP

ANDAMAN AND NICOBAR REGIONAL CENTRE, PORT BLAIR

One survey was conducted to outer Harbor Port at V.O. Chidambaranar Port, Tuticorin, & Gulf of Mannar, Tamil Nadu and one local field survey was carried out to south Andaman and one long term field survey was conducted to Great Nicobar Island. A total of 280 species of faunal communities belonging to Coleoptera, Lepidoptera, Odonata, Mollusca, Echinodermata, Pisces, Reptilia, and Aves were identified during the month. Identification and advisory services were rendered to Ms. Pillai Food Agencies, Port Blair and to the Department of Environment and Forests, Port Blair. An interactive meeting was organised with Hon'ble Lt. Governor, A & N Islands as a part of Compulsory Training Workshop on Natural Resource Management and Conflict Skills for Forest Management for the Indian Forest Service (IFS) Officers on 8th December 2023 at Zoological Survey of India, Port Blair. A Hindi Workshop was organised "To motivate officers and employees to do their official works in Hindi" on 15th December 2023, Dr. Prashanth Bhadu, Principal, Andaman Law College was the Chief Guest and delivered a talk on the theme. Shri. Nilesh Kumar Shar, Joint Secretary, MoEF&CC, Gol, Shri. Raghukumar Kodali, Advisor, MoEF&CC, Gol, Shri. Keshav Chandra, IAS, Chief Secretary, Andaman and Nicobar Administration, Shri. Devesh Chandra Srivastava, IPS, Director General of Police, Andaman and Nicobar Police, Dr. P.S. Easa, Former Director, & Member, RAMC, ZSI, Dr. Deepak Apte, Former Director, Bombay Natural History Society, Mrs. Anita Devi, Principal, Navy Children School, Port Blair Mumbai and Twenty Indian Forest Service officers (IFS) and students and faculties from Tagore Government College of Education visited the centre during the month.



Nicobar Emerald Dove Chalcophaps india augusta Bonapte 1855



Sarcophyton stellatum Kukenthal, 1910



Hon'ble Lt. Governer & Vice Chairman Island Development agency Admiral D. K. Joshi interacting with the IFS Officers.



IFS Trainees



Shri Devesh Chandra Srivastava IPS, Director General of Police, A & N Islands distributing the certificate to the IFS trainees.









Cycloseris cyclolites (Lamarck, 1801)

Mission LiFE activities

SUNDERBAN REGIONAL CENTRE, CANNING, WEST BENGAL

A major survey was conducted at V.O.C. Port, Tuticorin and adjoining areas and one day local survey undertaken in Sunderbans. A total of 50 species of faunal communities belonging to Crustacea, Mollusca, Pisces and Cnidaria were identified during the month. Mission LiFE program was organized on 26th December 2023 in Government ITI in Tangrakhali, Canning, South 24 Paraganas, West Bengal.



Dr. Rama Krishnan, Former Director of ZSI visited the centre.

FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD, TELANGANA

A total of 84 species of faunal communities belonging to Coleoptera, Hemiptera, Mollusca, Rotifera, Crustacea and Pisces were identified during the month. M.Sc. Students from Tumkur University visited Museum on 5th December 2023.



Blue-capped Rock Thrush *Monticola cinclorhyncha* (Vigors, 1831)



Pheasant-tailed jacana Hydrophasianus chirurgus (Scopoli, 1786)

WESTERN GHAT REGIONAL CENTRE, KOZHIKODE, KERALA

One survey was conducted to Wayanad Wildlife Sanctuary. A total of 62 species of faunal communities belonging to Testate amoebae, Coleoptera, Hemiptera, Mantodea, Hymenoptera, Arachnida and Crustacea were identified during the month. Three species of Hymenoptera was described as new to science and two species of Hymenoptera were reported as new to India.

ESTUARINE BIOLOGY REGIONAL CENTRE, GOPALPUR-ONSEA, ODISHA

One day local survey was conducted to Bahuda estuary. A total of 109 species faunal communities were identified. Eleven DNA barcode belonging to 11 species were uploaded in the NCBI data base. Students from Department of Zoology, Khallikote University along with their teachers visited museum facilities at the Centre on 1st December 2023 and all students were briefed about the work carried out at the Centre. Students along with their teachers from Department of Marine Science, Berhampur University visited different facilities of the Centre on 12th December 2023. Students from Aryan Public School, Aska accompanied by their teachers visited the museum on 18th December 2023. Distinguished University Professor Dr. William F. Fagan, Department of Biology, University of Maryland has visited the Centre on 19th December 2023 and gave a talk on "New use of old data". Members of the Centre had carried out a routine cleaning of office campus to promote cleanliness and safe living environment on 13th December 2023.



40 students from Department of Zoology, Khallikote University along with their teachers visited museum facilities on 1st December 2023.



Prof. Dr. William Fagan from University of Maryland visited EBRC, Gopalpur on 19th December 2023.



Crocodylus porosus Schneider, 1801 in Bhitarkanika national park



Mission LiFE with Dr. Devendra Kumar, GB Pant Institute along with Scientists of the Centre

ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR, ARUNACHAL PRADESH

Surveys were conducted to Chimi & Mogly village, Upper Siang, Kane WLS & Yordi-Rabe Supse WLS and to Yordi-Rabe Wildlife Sanctuary. A total of 125 species of faunal communities belonging to Lepidoptera, Orthoptera, Hemiptera, Coleoptera, Polydesmida, Mollusca, Pisces, and Amphibia were identified during the month. A new species of fish *Glyptothorax heokheei* was published during the month. Various Mission LiFE activities were conducted.



Field photographs from Extensive Survey at Upper Siang (Geku Circle), Arunachal Pradesh



Training programme on 26.12.2023.

MARINE AQUARIUM AND REGIONAL CENTRE, DIGHA, WEST BENGAL

Surveys were conducted to Tuticorin coast and Digha coast. A total of 100 species of faunal communities belonging to Annelida, Nematoda, Mollusca and Crustacea were identified during the month. A total 46 educational institutions from Assam, West Bengal, Odisha, and Maharashtra visited the Marine aquarium and museum for the month as part of educational tour.



NEW DISCOVERIES

NEW RECORDS



Glyptothorax heokheei P Singh, 2023



Piyumoides indicus Amal & Girish Kumar, 2023

ZSI E-News Zoological Survey of India



Odontomutilla fletcheri Lelej, Terine & Girish Kumar, 2020

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BOOKS

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- 3. Banerjee, S., Sreeraj, C. R., Sen, A., and Raghunathan, C. 2024. First report of *Ellobium incrassatum* (Mollusca: Gastropoda) from India and another molluscan new record from the Indian Sundarban. *Acta Biologica Turcica*, 37(2): M4:1-8.
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- Ghosh, A., Sajan, S., Mondal, T., Tripathy, B. and Mukhopadhyay, A. 2023. First Record of Cordiform Bivalves Cardilia martini Deshayes, 1844 (Mollusca, Cardilidae) from India. Thalassas: An International Journal of Marine Sciences, https://doi.org/10.1007/ s41208-023-00647-1
- Mohanty, S.R., Patnaik, L. and Mohapatra, A. 2023. First record of *Lethrinus olivaceus* Valenciennes, 1830(Perciformes: Lethrinidae) from the northern east coast of India. *Indian Journal of Geo-Marine Science*, 52(3): 155 – 157.
- 8. Pal, A., Dash, S, Gupta, D. and Saha, P.C. 2023. Redescription of *Carbula indica* (Westwood, 1837) (Hemiptera: Heteroptera: Pentatomidae) from West Bengal, India with a key to the Indian species of genus *Carbula* Stål, 1865. *Entomo*, 48(4): 525-530.
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- 15. Singh, P., Chowdhury, B.R., Gurumayum, S.D. and Kosygin, L. 2023. *Glyptothorax heokheei*, a new species of catfish (Teleostei: Sisoridae) from the Brahmaputra River drainage, Arunachal Pradesh, Northeast India. *Zootaxa*, 5383.75–82.
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BOOK CHAPTER

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POPULAR ARTICLES

 Palot M.J. and Meppayur, S. 2023. Windblown Pelagic Birds recorded during the

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- Valiveti, A.K. 2023. Marine Litter: An Emerging Threat – Solutions, Initiatives & Implementations in India- published in the APML OSEAN, Marine Litter News in the month of December 2023, ISSN 2287-8971.

ABSTRACT |

 Kar, O., Mukherjee., K., Roy., D., Pramanik., D., Naskar., A., Homechaudhuri.,S. and Banerjee, D. 2023. Diptera: Synanthropy of necrophagous flies (Insecta: Diptera) from wet markets of Kolkata Metropolitan area, West Bengal, India & its Sanitary implications. Abstract Volume: 6th Regional Science and Technology Congress. 256 pp.

MEETINGS ATTENDED

1. Dr. Dhriti Banerjee, Scientist - G, Director, Zoological Survey of India, is among the top 100 Women Achievers in India listed by the prestigious Magazine of India Today for leading the way in the fields of Science. Dr. Dhriti Banerjee is featured along with other Women Achievers like the Hon'rable President of India, Smt. Draupadi Murmu. Director, ZSI attended meeting with the scientists of the Northern Regional Centre (NRC), ZSI, Dehradun to review the progress through virtual mode on 5th December 2023; the meeting of Departmental Promotion Committee (DPC) for promotion to the post of Scientist 'B' in Level-10 in the Zoological Survey of India, MoEFCC for the vacancy year 2023 at UPSC, New Delhi on 6th December 2023; the Inaugural Session of Two-week Career Progression Mandatory Training (CPMT) on 11th December 2023 for Junior Zoological Assistant from 11th December, 2023 to 22nd December, 2023 at ZSI Headquarter, Kolkata; the meeting of the National Institution for Research and Application of Natural (NIRANTAR) in virtual mode on 14th December 2023; addressed the 77th Annual General Meeting of the Zoological Society, Kolkata on 13th December 2023 held at the Department of Zoology, University of Calcutta, Kolkata; meeting at Ballygunge Science College, University of Calcutta on 14th December 2023 with

the Head of Department regarding PhD Course Work; welcomed and addressed the Ex-employees of ZSI on the occasion of the get-together event at Headquarter on 15th December 2023; meeting at V.O. Chidambaranar Port Trust at Tuticorin on 18th December 2023; regarding coral reef survey in the proposed port extension area, signed an MoU with School of Energy, Environment & Natural Resources, Madurai Kamaraj University, Madurai on 19th December 2023 at MKU campus for Scientific and Academic Cooperation Between Zoological Survey of India and Madurai Kamaraj University; conducted a comprehensive aerial survey off the coast of Daman to study marine mammals on 22nd and 23rd December 2023 utilizing the assistance of the Indian Coast Guard helicopter; virtual meeting on DPC for promotion to the post of Assistant Zoologist in ZSI hosted by MoEFCC on 26th December 2023; the Review Meeting by AS(Admin) under Mission Mode Recruitment on 28th December 2023 through virtual mode and attended a meeting with officials at the Ministry of Environment, Forest & Climate Change, New Delhi on 29th December 2023.

2. Dr. C. Raghunathan, Scientist-F, ZSI, Headquarters, Kolkata, provided reply for Lok Sabha Question Diary No, 6504 on Conservation of Marine Species submitted to Ministry on 7th December 2023; provided reply for Rajya Sabha Question Diary No. U3208 on Regional Climate and Biodiversity Centre submitted to Ministry on 13th December 2023; provided the inputs to the draft 'Toolkits for Training of Trainers (ToT) for People Biodiversity Registers (PBRs) on aquatic biodiversity including their management & monitoring" prepared by Protection and Sustainable Management of Aquatic Resources in the North-Eastern Himalayan Region of India (NERAQ), giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on 14th December 2024; provided reply for Rajya Sabha Starred/Unstarred question with Diary No. S4938 regarding "Status on the Endangangered Animal Species' sent to Ministry on 14th December 2023; chaired the 34th Scientific Consultative Meeting of ZSI Regional Centres and the 88th of ZSI/

- HQ held on 6th December 2023; attended the meeting with Vice Chancellor, Madurai Kamaraj University on 19th December 2023 for signing MoU with ZSI; conducted aerial survey at Off Daman by Indian Coast Guard Helicopter on 22nd December 2023; chaired the interview for recruitment of JRF in the DST sponsored project for Hemiptera Section of ZSI headquarters on 26th December 2023; chaired the meeting to consider the cases of appointment on compassionate ground on 26th December 2023 at ZSI Headquarters; attended the 52nd Meeting of Expert Committee (ESZ) chaired by Additional Secretary, MoEFCC on 27th December 2023 through virtual mode.
- 3. Dr. Gopinathan Maheswaran, Scientist-F, ZSI, Headquarters, Kolkata, attended a meeting at MoEFCC on NIRANTAR under the Chairmanship of Secretary, MoEFCC. Both ZSI and BSI were part of vertical along with FSI and discussed about sharing knowledge and joint monitoring of selected permanent pots in future and visited Miao of Namdapha Tiger Reserve from 26th to 31st December 2023 to recruit two field assistants and accordingly two local boys have been recruited as field assistants in the project.
- 4. Dr. Anil Mohapatra, Scientist-E, ZSI/EBRC, Gopalpur-on-Sea, served as an external subject expert for the selection of Research Scholar Fellowship in Marine Science for Berhampur University on 14th December 2023; participated in the meeting of State wildlife Board, Odisha on 28th December 2023 and participated in the meeting with local NGos and CBOs on protection and conservation of Olive Ridley Sea Turtles for the season 2023-24 on 1st December 2023.
- Dr. Aparna Kalawate, Scientist-E, ZSI/WRC, Pune, attended the Coleopterists Society: Annual Symposium and Annual General Meeting through virtual mode on 8th December 2023.
- Dr. Basudev Tripathy, Scientist-E, ZSI/WRC, Pune attended Public Hearing Meeting of JNPA Vadhavan Port Project, burrow pit biodiversity at Daman on 21st December 2023 and Maharashtra State Coastal Zone Management Authority Meeting for

- JNPA Vadhavan port, held virtually on 15th December 2023.
- 7. Dr. C. Sivaperuman, Scientist-E, ZSI/ANRC, Port Blair, attended Institutional Animal Ethics Committee (IAEC) meeting at ICAR-Central Agricultural Research Institute, Port Blair on 4th December 2023 to review the ongoing research project and new research projects which are involved using animals; attended 10th General Body meeting at Sri Venkateswara Dental College, Puducherry on 26th December 2023 as a University Nominee; attended annual day function at Nirmala Senior Secondary School, Port Blair on 16th December 2023 as a Guest of Honour; attended meeting of the signing of MoU between ZSI and Madurai Kamarai University, Madurai on 19th December 2023 along with DZSI, & Dr. C. Raghunathan, Additional Director; conducted an aerial survey along with Director, ZSI, and Dr. C. Raghunathan, Additional Director at Daman coast in connection with the project "Biodiversity study in Burrow Pit area for Vadhavan Port Project Ltd." During 22nd -23rd December 2023.
- Dr. D Khynriam Scientist D, ZSI/NERC, Shillong, attended a meeting on Regional Assessment of Red List Status of Freshwater Fishes at GIZ Office, Guwahati on 16th December 2023.
- Dr. Deepa Jaiswal, Scientist E, ZSI/FBRC, Hyderabad, attended Andhra Pradesh Biodiversity Board meeting on 21st December 2023.
- 10. Dr. G. Srinivasan, Scientist E, ZSI/APRC, Itanagar, attended a meeting as a member for technical evaluation of research proposals received from various organizations for granting research permission in the wildlife protected areas and the other forest areas in Arunachal Pradesh at the office of PCCF (WL BD) on 6th December 2023.
- 11. Dr. Gaurav Sharma, Scientist-E, ZSI/NRC, Dehradun, participated as Chief Guest to inaugurate "Entrepreneurship Development Programme (05 Days Hands On Training) on Apiculture (Bee Keeping)" organized by USERC, ICAR-IISWC & KVIC, Dehradun

- held at the Conference Hall of Indian Institute of Soil & Water Conservation, ICAR, Dehradun on 12th December 2023; attended the meeting with Executive Engineer, CCU, Regional Office, Dehradun for discussion and progress of approved Renovation CCU work 2023-24 and also for discussion on new CCU proposal for 2024-25 at ZSI, NRC, Dehradun on 14th December 2023; participated as nominated by The Director, ZSI in the "Standing Consultative Committee Meeting of Uttarakhand Forest Department" at Manthan Conference Hall of Van Bhawan, Uttarakhand Forest Department Headquarter, Dehradun on 18th and 19th December 2023 and participated as External Examiner to conduct Ph. D. Viva Voce of Ms. Irina D. Sarkar, Research Scholar, WII at Conference Hall, UNESCO C2C, Wildlife Institute of India, Dehradun on 26th December 2023: attended Mega Event "Global Investors Summit 2023 Destination Uttarakhand" xIndia from 8th and 9th December 2023
- 12. Dr. Gopal Sharma, Scientist E, ZSI/GPRC, Patna, attended the Hindi meeting organized by the Ministry of Environment Forest and Climate Change Govt. of India on 8th December 2023; attended a prebudget meeting in Patna Secretariat for expected budget on Dolphin Conservation in next financial year 2024-25; attended the Nagar Rajbhasha Karyanvayan Committee (NARAKAS) Meeting on 14th December 23 at Income Tax Office Patna.
- 13. Dr. Indu Sharma, Scientist- E and Dr. R. Bano, Scientist- E, ZSI/DRC, Jodhpur, attended the Inaugural Ceremony of Good Governance Week 2023 through Webex on 19th December 2023 and NRAKAS-2, Half-yearly meeting on 22nd December 2023 at CAZRI Jodhpur regarding progress of the Hindi of Centre.
- 14. Dr. Indu Sharma, Scientist- E, Shri Jitendra Kumar, Asst Zool. and Shri Akhilesh Kumar, LDC, ZSI/DRC, Jodhpur, participated in the Joint Regional Official Language Conference for Northern Regions-2023 under the Ministry of Home Affairs, 28th December 2023.

15. Dr. J.S. Yogesh Kumar Scientist – E, ZSI/SbRC, Canning attended as Chief Guest of Formers Day Celebration in ICAR-Central Soil Salinity Research Institute, Canning 4th December 2023 and as Chief Guest of Christmas Day and Food Festival in De Paul School, Canning on 19th December 2023.

- Dr. P.S. Bhatnagar, Scientist-E, ZSI/CZRC, Jabalpur, attended a meeting for which invited by the Central Council for Research on Homeopathy under Ministry of AYUSH in New Delhi on 13th December 2023.
- 17. Dr. S. Balakrishnan, Scientist E, ZSI/MARC, Digha attended and participated as an invited chief quest "Digha State General Hospital, Annual Function 2023" organised by Digha State General Hospital Staff Association, New Digha on 23rd December 2023; participated as an Chief Guest of Honor forvaledictory function of the "District level science exhibition" organised by Digha Science Centre, Ministry of Culture, Digha on 30th December 2023 and participated as an Guest of Honor for Inaugural function of the "District level science exhibition" organised by Digha Science Centre, Ministry of Culture, Digha on 28th December 2023.
- 18. Dr. S.D. Gurumayum, Scientist E, ZSI/APRC, Itanagar, attended committee meeting of the formulation of guidelines and project proposal for Community Conserved Forest Area (CCA) at PCCF office, Government of Arunachal Pradesh, Itanagar on 6th December 2023 and was invited as Special Guest in One day Seminar on Women and Health on 18th December 2023 at DK convention Hall, Itanagar organised by G. B. Pant National Institute of Himalayan Environment (GBP-NIHE) North-East Regional Centre, Arunachal Pradesh.
- 19. Dr. Santosh Kumar, Scientist-E, ZSI, Headquarters, Kolkata, was deputed by MoEFCC, New Delhi to attend a roundtable meeting on the 'Wise Use of Wetlands in South Asia through Regional Collaboration and Exchange' in Pokhara, Nepal, from December 13th to 15th December 2023 organized by International Centre for Integrated Mountain development (ICIMOD), Nepal and Wetlands International South Asia

- (WISA), Delhi. The meeting included officials from India, Bangladesh, Bhutan, China, Nepal, and Sri Lanka. Dr. Santosh Kumar chaired the session on 'Identifying Potential Modalities for Collaborations and Resource Mobilization'. During the meeting, Dr. Kumar discussed ZSI research on Indian wetlands and presented data on faunal diversity in 75 Ramsar wetlands across the country. The meeting focused on developing operational modalities for the Regional Platform for Wetlands Management; creating a proposal for submission to the Ramsar Convention for establishing a Ramsar Regional Initiative in South Asia; identifying and prioritizing key activities for the regional platform, including capacity building, research, and knowledge sharing; planning for regional mapping and management review of high-altitude wetlands to enhance data availability and management; identifying funding opportunities and resource mobilization strategies to ensure the sustainability of the regional platform's activities.
- Tamal Mondal, Scientist-D, ZSI, Headquarters, Kolkata, provided comments and revised the PPT of MoEFCC on the Know Your Ministry (KYM) module titled "Environment & Climate Change Divisions" as per the requirement of MoEFCC through ZSI/HQs; provided reply to provisionally Admitted Starred/Unstarred Question for the Rajya Sabha on Status on the Endangered Animal Species as the requirement of MoEFCC through ZSI/HQs; provided reply to provisionally admitted Parliamentary Ouestion on Request for inputs on Parliamentary Question- U3208 as the requirement of MoEFCC through ZSI/ HQs and attended a meeting on BIS WG 2 -Restoration of Mangrove Ecosystem Meeting on 29th December 2023 as the member of Bureau of Indian Standard.
- 21. Dr. Temjenmongla, Scientist D, ZSI/APRC, Itanagar, attended One-day Seminar on "Women & health in the North-eastern Himalayan Region" Sponsored by National Commission for Women, New Delhi and organized by GB Pant, National Institute of Himalayan Environment, Itanagar on 19th December 2023.

- Dr. V.D. Hegde, Scientist-E, ZSI/WGRC, Kozhikode, interacted with the M.Sc. (Zoology) students of Govt. Brennen College, Dharmadam, Thalassery on 19th December 2023.
- 23. Mr. Oishik Kar, SRF, ZSI, Headquarters, Kolkata, attended the 6th Regional Science and Technology Congress 2023-24 from 21st to 22nd December 2023 and have received a national award namely "Sudeb Bhusan Ghosh Memorial Young Scientist Award," 2023 on 13th December 2023.
- 24. Scientists & Research Scholars of ZSI/APRC, Itanagar, participated in the International Mountain Day programme organized in collaboration with GB Pant Institute of Himalayan Environment & Development, NERC, Itanagar, on 11th December 2023.
- 25. Shri. Sreejith S. Kumar, Assistant Zoologist, ZSI/WGRC, Kozhikode, was invited to chair and evaluate a seminar session in ACRAST 23 organized by Science Orbit Jamia Madeenathunnoor at Baithul Izza, Narikkuni, Kozhikode on 23rd December 2023.
- 26. डॉ. अपर्णा कलावटे, वैज्ञानिक-ई और डॉ. एस.एस. तलमले, वैज्ञानिक -सी, दिनांक 05 दिसंबर, 2023 को आयोजित नगर राजभाषा कार्यान्वयन समिति (कार्या-2), पुणे की तृतीय छमाही बैठक मे भाग लिया और केंद्र की कोशिका पत्रिका का अनावरण किया।

TRAININGS ORGANIZED

- Training was organized by ZSI/APRC, Itanagar, on International Mountain day, on the theme Restoring Mountain Ecosystem on 11th December 2023 in collaboration with G. B. Pant National Institute of Himalayan Environment (GBP-NIHE) North-East Regional Centre (NERC), Itanagar (Arunachal Pradesh) and a 2 Days Capacity Building Workshop on Animal Taxonomy was organized from 14th -15th December, 2023.
- 2. 71st batch of 45 Forest Guards for 6 months Regular Training of Forest Directorate, Government of West Bengal, Office of the Director, State Forest Training Institute, Kharagpur, West Bengal "Marine Biodiversity and Conservation" organised by ZSI, MARC, Digha on 29th December 2023.

- 3. A three-day Compulsory Training Workshop on Natural Resource Management and Conflict Skills for Forest Management was organized by ANRC, Port Blair from 6th 8th December 2023 for the Indian Forest Service (IFS) Officers sponsored by the Ministry of Environment, Forest and Climate Change, Government of India. The three-day training workshop inaugurated by Shri. Keshav Chandra, IAS, Chief Secretary, A & N Administration as Chief Guest in the presence of Dr. T.S. Ashok Kumar, PCCF & Shri. Kamal Datta, IFS, Addl. PCCF, Department of Environment and Forests, A & N Islands.
- One-day training cum interactive sessions "Marine Ornamental Fauna Biodiversity and Conservation" was conducted by MARC, Digha for the 11 trainee students and officers from Indian Institute of Forest Management [IIFM], Bhopal, Madhya Pradesh, India on 26th December 2023.
- 5. One day Hindi Karyasahala on "Role of Unicode in the development of Rajbhasa" was organised by CZRC, Jabalpur on 27th December 2023 for the Officers & Staff of ZSI, Jabalpur. The guest lecture was delivered by Mr. Ghanshyam Namdeo, Dpty. Director, Hindi teaching Scheme, Dept. of Official Language.
- One week training workshop on "Collection, Preservation and Identification of common insects" in collaboration with Home Science College, Jabalpur, Madhya Pradesh was organized by CZRC, Jabalpur on 14-22th December 2023.
- 7. One week internship was given on "Biodiversity in National Parks of MP" to the students of Govt. Science College, Jabalpur, Madhya Pradesh from 6th-14th December 2023 by CZRC, Jabalpur.
- 8. Two Training programme was organized by NRC, Dehradun on topic entitled "Faunal Diversity and Protected Animals of India" to 58 Forester Trainees of Rajasthan Forest Department, FTI, Jodhpur at Conference Hall of ZSI, NRC, Dehradun on 5th December 2023 and on topic entitled "Faunal Diversity and Protected Animals of India" to "57 Forester Trainees of Rajasthan Forest Department,

- FTI, Alwar" at Conference Hall of ZSI, NRC, Dehradun on 7th December 2023.
- A training programme on taxonomy for collection, preservation and identification of collembolan fauna was imparted by Apterygota section, Headquarter to Ms. Chavan Mohini Madhukar, Ph.D. scholar, Shivaji University, Kolhapur, Maharashtra from 18th to 21st December 2023.
- 10. दिनांक 20.12.2023 को गंगा संभूमि प्रादेशिक केंद्र, पटना में हिंदी कार्यशाला का आयोजन किया गया। डॉ. गोपाल शर्मा वैज्ञानिक ई और कार्यालय प्रमुख, डॉ. एम. ई. हसन, वैज्ञानिक-ई और श्री मनीष चंद्र पटेल, सहायक प्राणी विज्ञान ने हिंदी अधिक से अधिक काम करने पर बल दिया।

TRAININGS ATTENDED

- Dr. Archana Bahuguna, Scientist-E and Dr. Narender Sharma, Scientist-E, ZSI/NRC, Dehradun, attended two days workshop on "Good Governance" at Will and Skill Training & Research Institute (TRI), Dehradun from 14th to 15th December 2023.
- Dr. Kashmeera N.A., Junior Zool. Assistant, ZSI/DRC, Jodhpur, participated in the Career Progression Mandatory Training (CPMT) for Junior Zoological Assistants held at Zoological Survey of India, Kolkata from 11th to 22nd December 2023.
- Mr. Amartya Pal, Senior Research Fellow, Hemiptera section, ZSI HQ, attended a workshop on "Molecular biology tools and techniques" organized by Biotechnology lab, Department of Zoology, Ramakrishna Mission Vivekananda Centenary College, Rahara from 28th to 30th December, 2023.
- 4. Shri. R. Sakthivel, Scientist-B, Shri. G. Ramesh, Assistant Zoologist, Dr. Praveen K., Sr. Zool. Asst., Ms. Neethu K.P, Sr. Zool. Asst., & Dr. M. Senraj, Taxidermist Gr.II, ZSI/SRC, Chennai, attended 3 days Capacity Building Program on Biodiversity Act 2002 and Global Biodiversity Framework along with recent developments organized by National Biodiversity Authority and M.S. Swaminathan Research Foundation, Chennai from 27th to 29th December 2023.

LECTURES DELIVERED

- Dr. Anil Mohapatra, Scientist E, ZSI/EBRC, Gopalpur-on-Sea, delivered an invited lecture on "Recent Advances in Taxonomic studies of Anguilliform fishes of India": presented online in the workshop on Ichthyotaxonomy journey from conventional to molecular methods: special prominence of marine fishes organised by NBFGR, Kochi in collaboration with the Fishery Survey of India on 21st December 2023.
- Dr. Avtar Kaur Sidhu, Scientist-E, ZSI/ HARC, Solan, acted as resource person and given lecture on, "Tools and Techniques in Animal Taxonomy" on 29th December 2023 at Department of Biosciences, Himachal Pradesh University, Shimla on two days National Workshop cum Seminar on "Current Trends of Research in Biological Sciences".
- Dr. C. Sivaperuman, Scientist-E, ZSI/ANRC, Port Blair delivered a talk on an overview of Biodiversity of Andaman and Nicobar Islands at Sri Venkateswara Dental College, Puducherry on 26th December 2023.
- 4. Dr. Gaurav Sharma, Scientist-E, ZSI/NRC, Dehradun, delivered lecture on topic entitled "Faunal Diversity and Protected Animals of India" to 42 students and 03 faculty of "Hariom Saraswati College, Dhanauri, Haridwar, Uttarakhand at Conference Hall of ZSI, NRC, Dehradun on 1st December 2023; on topic entitled "Faunal Diversity and Protected Animals of India" to 58 Forester Trainees of Rajasthan Forest Department, FTI, Jodhpur at Conference Hall of ZSI, NRC, Dehradun on 5th December 2023; on topic entitled "Faunal Diversity and Protected Animals of India" to " 57 Forester Trainees of Rajasthan Forest Department, FTI, Alwar" at Conference Hall of ZSI, NRC, Dehradun on 7th December 2023; on topic entitled "Faunal Diversity and Protected Animals Of India" to 30 Trainees of "Entrepreneurship Development Programme on Apiculture (Bee Keeping)" organized by USERC, ICAR-IISWC & KVIC. Dehradun at Conference Hall of ZSI. NRC, Dehradun on 13th December 2023 and on topic entitled "Status of Faunal Diversity & Protected Animals of India" to 26 Forestry

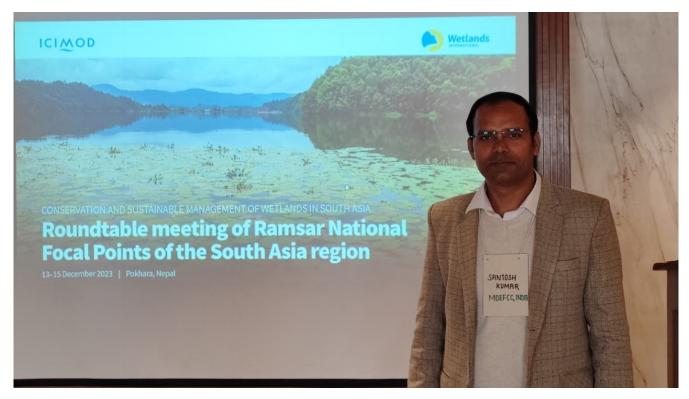
- Students & 02 Faculty of North Eastern Regional Institute of Science & Technology, Arunachal Pradesh at Conference Hall of ZSI, NRC, Dehradun on 24th December, 2023.
- Dr. K.A. Subramanian, Scientist E, ZSI/SRC, Chennai, delivered lectures on biodiversity conservation and freshwater biodiversity at the UGC- Human Resource Development Centre, University of Madras and Department of Zoology, University of Madras, Chennai "a Refresher course in Zoology, Batch-XII for Faculty members of various Universities and Colleges on 1st December 2023.
- Dr. Navneet Singh, Scientist-E, ZSI, Headquarters, Kolkata, delivered a talk on 'Diversity of moths' in the 'Career progression mandatory training programme (CPMT), for Jr. Zool. Asst. ZSI, HQ on 13th December 2023.
- 7. Dr. P. Girish Kumar, Scientist-D, ZSI/WGRC, Kozhikode, delivered a lecture to the graduate, post graduate and research students of St. Joseph's College, Devagiri, Kozhikode on 20th December 2023 on the topic "Research methodologies in morphotaxonomy with special reference to wasps" as a part of Zoology Association inauguration of the college.
- 8. Dr. S. Balakrishnan, Scientist E, ZSI/ MARC, Digha, delivered lecture on "Marine

- Biodiversity and Conservation" 71th batch of 45 Forest Guards for 6 months Regular Training of Forest Directorate, Government of West Bengal, Office of the Director, State Forest Training Institute, Kharagpur, West Bengal organised by ZSI, MARC, Digha on 29th December 2023 and on "Marine Ornamental Fauna Biodiversity and Conservation" one-day training cum interactive sessions was conducted for the 11 trainee students and officers from Indian Institute of Forest Management [IIFM], Bhopal, Madhya Pradesh, India on 26th December 2023.
- Dr. Sandeep Kushwaha, Scientist-C, ZSI/ CZRC, Jabalpur, delivered a lecture on "thesis writing" to the faculty of Home Science college Jabalpur.
- 10. Dr. Suranjana Banerjee, Assistant Zoologist, ZSI, Headquarters, Kolkata, delivered lecture on collection, preservation and identification of Odonata insects and other insect orders of MIO section and displayed specimens of MIO section to students of North Bengal University, Darjeeling on 7th December 2023.
- Dr. Tamal Mondal, Scientist-D, ZSI, Headquarters, Kolkata, delivered a talk on 'Corals' in the 'Career progression mandatory training programme (CPMT), for Jr. Zool. Asst. ZSI, HQ on 20th December 2023.

PHOTO GALLERY



Inaugural Session of Two-week Career Progression Mandatory Training (CPMT) on 11th December 2023 for Junior Zoological Assistant from 11th December 2023 to 22nd December 2023 at ZSI, Kolkata.



Dr. Santosh Kumar, Scientist-E, ZSI HQ, was deputed by MoEFCC, New Delhi, to attend a roundtable meeting on the 'Wise Use of Wetlands in South Asia through Regional Collaboration and Exchange' in Pokhara, Nepal

ZSI E-News Zoological Survey of India





Director, ZSI addressed the 77^{th} Annual General Meeting of the Zoological Society, Kolkata on 13^{th} December 2023 held at the Department of Zoology, University of Calcutta, Kolkata.







Director, ZSI welcomed and addressed the Ex-employees of ZSI on the occasion of the get-together event at HQs on 15^{th} December 2023.

ZSI E-News Zoological Survey of India





Signed an MoU with School of Energy, Environment & Natural Resources, Madurai Kamaraj University, Madurai on 19th December 2023 at MKU campus for Scientific and Academic Cooperation between Zoological Survey of India and Madurai Kamaraj University.



Felicitation at Daman Coast Guard Office on 22nd December, 2023.



Conducted a comprehensive aerial survey off the coast of Daman to study Burrow pit and marine mammals in the Arabian Sea on 22^{nd} and 23^{rd} December 2023, utilizing the assistance of the Indian Coast Guard helicopter.



Dr. Dhriti Banerjee, Director, ZSI is among the top 100 Women Achievers in India listed in India Today's prestigious 'The She List 2023' (released on January 01, 2024) for leading the way in the fields of Science. Dr. Dhriti Banerjee is featured along with other Women Achievers like the Honorable President of India, Smt. Draupadi Murmu. Dr. Dhriti Banerjee is one of the top 100 Indian women echelons in 2023.

TOP 100 WOMEN

ACHIEVERS OF INDIA

your team with great respect to earn their

love and

respect"

A family trip to Ben-ares where everyone

saris, Ohriti is an ardent Durga devotee, organising a high-profile pujo in her family home for the past three years. "My in-laws' family had an unbroken tradition of holding a pujo

for the past 300 years. When asked to take over, I