

ZSI E-News

Vol. 61 | February 2024 | Monthly E-Newsletter from Zoological Survey of India





from the Director's Desk

It gives me great pleasure to introduce our monthly newsletter, which represents the monthly progress of scientific research and endeavors that drive our institution's pursuit of knowledge and innovation. The February 2024 issue of ZSI E-News offers a detailed overview of the activities, events, and discoveries of the Zoological Survey of India and its 16 regional centers spread across the country for esteemed readers. In each issue, we strive to capture the essence of our collective work, highlighting the groundbreaking discoveries, insightful analyses, and collaborative projects that influence our academic community. From the laboratory to the field, our committed scientists and researchers are continuously pushing the boundaries of what are possible, uncovering mysteries, and advancing understanding in various fields.

Surveys were conducted in various states of India, including West Bengal, Odisha, Bihar, Tamil Nadu, Andhra Pradesh, Kerala, Maharashtra, Gujarat, Madhya Pradesh, Haryana, Uttarakhand, Rajasthan, Himachal Pradesh, and Arunachal Pradesh, to document the diversity of fauna. On 16th February 2024, Ms. Nameeta Prasad, Joint Secretary of the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India, visited ZSI Kolkata to evaluate its activities. A meeting was then held, chaired by the Joint Secretary of MoEFCC, at ZSI Headquarters, where the roles and responsibilities of ZSI and the Botanical Survey of India (BSI) in the IUCN Red listing process were discussed. Dr. Yash Veer Bhatnagar, the Country Representative of IUCN, and Dr. Ashiho Asosii Mao, the Director of BSI, were also present at the meeting. On 20th February 2024, Ms. Urmila Harit, Director of Official Language at MoEFCC, Government of India, visited ZSI Kolkata and conducted an inspection of its activities. Various inputs were provided on matters related to the Environment and Climate Sustainability Working Group (ECSWG) established during the Brazilian G20 Presidency. These inputs included discussions on Biological Diversity of Areas beyond National Jurisdiction (BBNJ), the Joint Working Group of Sundarbans in Dhaka focusing on the Declaration of Marine Protected Area adjacent to the Sundarbans of India and Bangladesh, the National Biodiversity Strategy and Action Plan, the 59th Programming Committee meeting on SAARC on Environment and Natural Disasters, the global action plan on Biodiversity and Health, CBD Notification 2024-002, National Biodiversity Strategy and Action Plan (NBSAP), and the Adoption of National Biodiversity Targets (NBTs) in alignment with the Kunming-Montreal Global Biodiversity Framework (KMGBF). ZSI/HQ and its regional centers organized several seminars, symposiums, and capacity building training programs across the country to raise awareness about biodiversity conservation. Throughout the month, a total of 1525 species from 14 phyla were identified within the faunal communities. Notably, ten new species were described in the vertebrate and invertebrate faunal groups, and six previously unrecorded faunal communities were documented from India.

I would like to express my admiration to the entire team at ZSI for their exceptional efforts throughout the month.

I truly believe that this version of the E-News will be a successful one in inspiring the readers to engage in ZSI activities more efficiently.

Jai Hind,

Dr. Dhriti Banerjee
Director
5th March 2024
Kolkata

Cover: Flame-throated bulbul,
Rubigula gularis (Gould, 1836)
Courtesy: WRC, Pune.

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HEADQUARTERS, KOLKATA

Three surveys were conducted to Balukhand – Konark Wildlife Sanctuary, Odisha, and Satpura range to Aravalli range of Gujarat, Rajasthan and Hariyana, and Arunachal Pradesh. A total of 670 species of faunal communities belonging to Arachnida, Chalcididae, Diptera, Hemiptera, Lepidoptera, Orthoptera, Dermaptera, Formicidae, Mollusca, Porifera, Echinodermata, Annelia, Cnidaria, Acanthocephala, Platyhelminthes, Nematelminthes, and Aves were identified during the month. Two species of Hymenoptera were described as new to science and four species of Lepidoptera and one species of Hemiptera reported as new to Indian fauna. A total of 31 species of Hemiptera, Hymenoptera, Lepidoptera, Nematelminthes and Platyhelminthes were augmented to the National Zoological Collections. Identification and advisory services were rendered to K.N. University, West Bengal, U.B.K.V.

Coochbehar, Kulpi Janapriyo High School, Banda University of Agriculture & Technology, and M.V.P. Samaj's ACS College, Nasik. Inputs of ZSI to the Ministry on, Payments for ecosystem services mentioned in issue note of Environment and Climate Sustainability Working Group (ECSWG) developed under the Brazilian G20 Presidency; Oceans specifically for "Biological Diversity of Areas beyond National Jurisdiction (BBNJ)"- Promote ratification and mobilize resources for the implementation of the BBNJ Agreement; Joint Working group of Sundarbans in Dhaka on Declaration of Marine Protected area adjacent to the Sundarbans of India and Bangladesh; draft MoU between India and France on (1) Scientific co-operation and research in area of coastal ecology and marine environment, (2) Marine spatial planning, (3) Coastal ecosystem services; National Biodiversity Strategy and Action Plan;



Insect sampling from yellow pan trap

59th Programming Committee meeting on SAARC: Agenda item pertaining to Environment and Natural Disasters; draft global action plan on Biodiversity and Health, CBD Notification 2024-002; National Biodiversity

Strategy and Action Plan (NBSAP) and Adoption of National Biodiversity Targets (NBTs) in alignment with the Kunming-Montreal Global Biodiversity Framework (KMGBF).



Survey along riverine ecosystem of Balukhand-Konark Wildlife Sanctuary

Crabs along inter-tidal areas of Balukhand-Konark Wildlife Sanctuary



Coastal habitat of Balukhand-Konark Wildlife Sanctuary

NORTH EASTERN REGIONAL CENTRE, SHILLONG, MEGHALAYA

One field survey conducted under the annual programme of research “Exploring the subterranean biodiversity: Selected cave fauna of Meghalaya, 1st Phase Khasi Hills”. A total of 62 species of faunal communities belonging to Araneae, Hemiptera, Orthoptera, Odonata, Decapoda, Mollusca, Pisces, Amphibia, Reptilia and Mammalia were identified during the month. An exhibition stall was set up at the State Convention Centre, Shillong on the occasion of National Science Day celebration on 28th and 29th February, 2024.



Cave dwelling Shrimps.



ZSI exhibition hall during state level National Science Day celebration.



In the Western Ghats region of southern India, the Western Ghats Montane Endemism Conservation Group (WGMECG) and Kottarimala, I. currently have a small mammal herbarium with about 1000 specimens of 100 species of rare and endangered animals with 250 species of birds. The WGMECG is a conservation group in the Western Ghats before the Wildlife Conservation Act 1967. Some of the species are listed in the IUCN Red List. These animals will be displayed in the variously shaped herbaria, in species of frogs and crabs and other species. The WGMECG has been established in the Western Ghats and will be present in the Western Ghats. The WGMECG is a conservation group for the public with guides to the forest and explain each species. The WGMECG is a conservation group for the public with guides to the forest and explain each species. The WGMECG is a conservation group for the public with guides to the forest and explain each species.

Survey was conducted to Bhagwan Mahaveer Sanctuary and Mollem National Park, Goa. A total of 79 species of faunal communities belonging to Coleoptera, Diptera, Hemiptera, Hymenoptera, Lepidoptera, Odonata, Mollusca, Crustacea, Pisces, Amphibia, and Reptilia were identified during the month. Identification and advisory services rendered to the Police Up-Nirikshak, Sthanik Gunhe Anveshan Vibhag, Raigad-Alibag Police Adhikshak Karyalay, Alibag, Sahayak Police Nirikshak, Gunhe Shakha, Ghatak-3, Kalyan-Thane Police Aayuktalay, Manpada, Maharashtra, More College, Akurdi, Pune, Babasaheb Ambedkar Marathwada University, Aurangabad, N.M. College of Agriculture, Navsari, Gujrat and K.J. Somaiya College of Arts, Commerce & Science, Maharashtra. National Science Day was celebrated at the centre. In the press meeting organized at Patrakar Bhawan, Pune on 23rd February 2024, detailed information was shared about the work done by Zoological Survey of India, Western Regional Centre, Pune, about the diversity present in animals, their forensic molecular DNA and its impact on the environment, which was covered by more than 50 print and press media and some news channels.

CENTRAL ZONE REGIONAL CENTRE, JABALPUR, MADHYA PRADESH

Survey was conducted to Bori Wildlife Sanctuary, Hoshangabad. A total of 58 species of faunal communities belonging to Orthoptera, Lepidoptera, Pisces, and Amphibia were identified during the month. Identification and advisory services rendered to TFRI, Jabalpur, JNKVV, Jabalpur. The centre successfully hosted the scientific assessment meeting in which a total of 40 scientists from ZSI/HQ and 10 Regional Centres including the First lady Director of ZSI, Dr. Dhriti Banerjee participated. Director of ZSI, Dr. Dhriti Banerjee inaugurated the statue of First Director of ZSI, Dr. T. N. Annaldale and also released 1st edition of Half Yearly Bulletin of CZRC and “Short-horned Grasshoppers of Maharashtra” (Insecta: Orthoptera) present in WRC, ZSI, Pune on 1st February 2024. A Hindi Workshop titled – “Methodology of Parliamentary Committee on Hindi State Language” on 14th February 2024 was held in the centre, Sh. Raj Ranjan Srivastav, Secretary, Nagar Rajbhasha Karyanvayan Samiti Kramank-2, Jabalpur graced the occasion as the Chief Guest. A junior research fellow from Sant Gahira Guru University, Chattisgarh, Home Science College, Gyan Ganga Orchids The International School, Hitkarni Higher Secondary School, Nachiketa College of Computer Science visited the centre during the month.



Director ZSI, Dr. Dhriti Banerjee visiting the CZRC museum.



Director ZSI, Dr. Dhriti Banerjee with the ZSI scientists and staff during her visit at CZRC Jabalpur.

DESERT REGIONAL CENTRE, JODHPUR, RAJASTHAN

Survey was conducted to Todgarh-Raoli Wildlife Sanctuary, Rajasthan. A total of 46 species of faunal communities belonging to Gastropoda, Insecta, and Pisces were identified during the month. Centre conducted a Cleanliness Campaign under the Special Swachhata Campaign 3.0 at Adarsh Park, Saraswati Nagar, Basni, Jodhpur on 16th February 2024. Stall of various books of Fauna of various Ecosystems, Protected Areas of Rajasthan, Gujarat and Country was set up during book fair at Government Sumer Public Divisional Library, Department of Language and Library, Government of Rajasthan, Jodhpur. Students from AMG Sr. Sec. School, Jhalamand, Jodhpur visited the centre.



Jungle Babbler- *Argya striata* (Dumont, 1823)



Landscape at Todgarh WLS, Rajsamand Rajasthan.



World Wetland Day 2024 celebrated at RAMSAR site-Asan Conservation Reserve, Uttarakhand

NORTHERN REGIONAL CENTRE, DEHRADUN, UTTARAKHAND

A total of 63 species of faunal communities belonging to Phthiraptera, Orthoptera, Odonata, Lepidoptera, Pisces, Amphibia, and Reptilia were identified during the month. Mission LiFE activities were organized by sapling plantation, cleaning of ZSI hoardings, maintenance of plantation and protection with Tree Guard in and around Dehradun, under Special Campaign 3.0 swachhta/ cleanliness awareness drive conducted in and around the office campus and at Kaulagarh Market. World Wetlands Day 2024 was celebrated at Ramsar Wetland Site- Asan Conservation Reserve, Uttarakhand, India in collaboration with



Training on Protected Animals of India given to Foresters of Haryana Forest Department, FTI, Gurugram



Painting Poster Competition on Plastic Pollution jointly organized by ZSI, NRC and NMNH, New Delhi

MAATY organization, Dehradun. Under NIRANTAR Gol initiative, the Zoological Survey of India and National Museum of Natural History (NMNH), New Delhi jointly organized "Painting Competition on theme Plastic pollution and its impact on biodiversity", students of eleven colleges and Universities of Uttarakhand participated in the 'Interactive Session with Youth on Awareness on plastic pollution and its impact on biodiversity' on 20th February 2024.



Hands-on-Training on Animal Taxonomy jointly organized by ZSI, NRC & USERC, Dehradun



Scaly-breasted Munia
(*Lonchura punctulata*) often
seen at Baraila Lake, Bihar

GANGETIC PLAINS REGIONAL CENTRE, PATNA, BIHAR

A total of 40 species of faunal communities belonging to Insecta, Mollusca and Fishes were identified during the month. Special Campaign 3.0 cleanliness programme was organized. Identification and advisory services were rendered to Dr. Shahid Khan, Assistant Professor, Oriental College, Patliputra University, Bihar on some biocontrol agents.



Dr. Anil Kumar, Scientist-E delivered guest lecture in National Symposium on Avian Biology' 23rd to 25th February 2024 at Graphic Era (Deemed to be University), Dehradun

HIGH ALTITUDE REGIONAL CENTRE, SOLAN, HIMACHAL PRADESH

Surveys were conducted to Agro-ecosystem of low and mid-hill at Orupenth, near Dharampur, Solan and to Mandi. A total of 60 species of faunal communities belonging to Insecta, and pisces were identified during the month. Under Mission LiFE Programme, an awareness programme was organized at Kumarhatti Bus Stop Solan, H.P. on 2nd February 2024. In the same, Officers encouraged the use of public transport, carpooling and also suggested some other measures like avoid use of plastic, turn off running taps at public places, switching off electrical appliances when not in use etc. to save environment. Selfie Point was also installed at the location and passengers and travelers were advised to take selfies and post on their social media account to create further awareness.



Doing collections in Pea fields during the Agroecosystem Survey of Low and Mid Hills.



On the Eve of World Wetland day 02-02-2024 Selfie Point were installed at Kumarhatti Busstop and aware the public about the Wetlands.

MARINE BIOLOGY REGIONAL CENTRE, CHENNAI, TAMIL NADU

Survey tours were undertaken under the projects, “Lesser Known Marine Fauna of Lakshadweep” and “Status survey of Nilgiri marten, Nilgiris in the Western Ghats of Tamil Nadu”. A total of 30 species of faunal communities belonging to Porifera, Mollusca, and Pisces were identified during the month. Students from the Zoology and Botany disciplines of Nehru Memorial College, Tiruchirapalli visited the centre. Identification services were rendered involving confiscated marine materials.



Students visit on 27th February, 2024.



Softcoral photographed in Lakshadweep



Gorgonian photographed in Lakshadweep atolls

ANDAMAN AND NICOBAR REGIONAL CENTRE, PORT BLAIR

Surveys were conducted to Great Nicobar Island, Little Andaman and South Andaman. A total of 164 species of faunal communities belonging to Coleoptera, Hemiptera, Lepidoptera, Odonata, Mollusca, Pisces, and Aves were identified during the month. Identification and advisory services were rendered to Department of Environment and Forests, Port Blair. Ms. Nameeta Prasad, Joint Secretary, MoEF&CC visited and reviewed the activities and achievements of ANRC/ZSI on 28th February 2024. Dr. A.A. Mao, Director, Botanical Survey of India, Kolkata, Dr. Devendra Kumar & Shri. Yogesh Kumar, Forensic Department, A & N Police, Ms. Sunita Verman, Group Director, Ministry of Electronics & Information Technology and her team, students and five faculties from Kendra Vidyalaya-II, Minnie Bay, Port Blair, guide trainees of Directorate of Tourism, A & N Administration visited the centre during the month. Dr. Naveen Kumar, Research Associate & Mr. Vankari Rahul, Ph.D. Scholar served as resource person as a part of visit to Swaraj Dweep by Hon'ble President of India on 21st and 22nd February 2024.



Andaman Tree Nymph *Idea agamarschana cadelli* (Wood Mason & de Niceville, 1880) *Fungia fungites* (Lannaeus, 1758)



Ms. Nameeta Prasad, Joint Secretary, MoEF&CC, Gol, Dr. A.A. Mao, Director, & RAMC members of BSI reviewed activities & achievements of ANRC.



Ms. Nameeta Prasad, Joint Secretary, MoEF&CC, Gol, Dr. A.A. Mao, Director, & RAMC members of BSI visited ANRC on 28th February 2024



Menella Gray, 1870



Reef Ecosystem in Lakshadweep.

SUNDERBAN REGIONAL CENTRE, CANNING, WEST BENGAL

One Survey was undertaken in Lakshadweep. A total of 24 species of faunal communities belonging to Mollusca, Crustacea, and Pisces were identified during the month. Mission LiFE presentations given in Bhandum Mahal Tuition centre on 2nd February 2024. One day seminar organized during World Wetland Day on 2nd February 2024 in ZSI-SbRC, Canning, West Bengal.

World Wetland Day
celebration.



FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD, TELANGANA

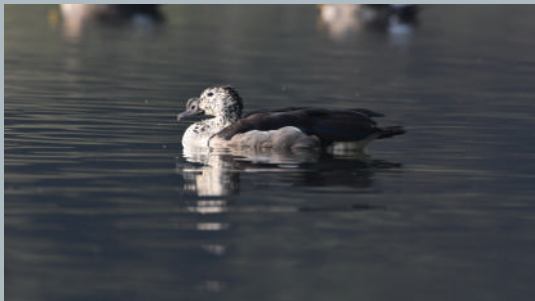
A book titled “Faunal Diversity of Sasthamkotta Lake” was released during the month. A total of 81 species of faunal communities belonging to Coleoptera, Hemiptera, Rotifera, Crustacea Mollusca, and Pisces were identified during the month. “World Wetland Day 2024” at Kaikaluru, Andhra Pradesh was celebrated in association with A.P State Biodiversity Board and Botanical Survey of India on 02nd February 2024. Students from S.N Vanitha Govt Degree & PG College visited the centre on 23rd February 2024.



Culicicapa ceylonensis (Swainson, 1820) grey-headed canary-flycatcher



Halcyon smyrnensis (Linnaeus, 1758) white-throated kingfisher



Sarkidiornis melanotos (Pennant, 1769) knob-billed duck





Exhibition

WESTERN GHAT REGIONAL CENTRE, KOZHIKODE, KERALA

One major survey tour was conducted to Parambikulam tiger reserve. A total of 105 species of faunal communities belonging to Arachnida, Testate amoebae, Coleoptera, Scolopendromorpha, Dermaptera, Hemiptera, Hymenoptera, Mantodea, and Pisces were identified during the month. Three species of Hymenoptera (Pompilidae) were described as new to science. The Centre has participated in an exhibition conducted in connection with the 36th Kerala Science Congress held at the government college Kasargode from 8th to 12th February 2024. The LiFE pledge event was organized in the office and one new selfie point is installed in front of the office.



Mission LiFE campaign.

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

Surveys were conducted to Bahuda, Devi & Nuanai estuarine, backwaters and mangrove ecosystems, Odisha. A total of 119 species of different faunal groups were identified during the month. Eight DNA barcode belonging to 6 species were uploaded in the NCBI data base including 1 novel sequences. Two new species *Ariosoma gracile* Kodeeswaran, Kathirvelpandian, Mohapatra, Kumar & Sarkar, 2024 and *Ariosoma kannani* Kodeeswaran, Kathirvelpandian, Ray, Kumar, Mohapatra & Sarkar, 2024 were described in collaboration with NBFGR, ICAR. *Bleekeria nigrilinea* Psomadakis, Yoshinaga, Wah and Ida, 2021 was reported for the first time from country with its DNA analysis. During the month students from Saraswati Sishu Vidya Mandir, Nilakanthanagar, Berhampur and Klorofeel school visited museum facilities at the centre. Indian Patent awarded for 507599. Ecofriendly bacterivorous ciliate based device for sustainable management of water cleaning and sanitation. Inventors: Santosh Kumar, Daizy Bharati, Antonietta La Tarza, DS Suman, Kailash Chandra, Dhriti Banerjee. Awarded on 6th February 2024. Priority date 4th March 2020.



Golden Jackal *Canis aureus* Linnaeus, 1758



Grey francolin (*Francolinus pondicerianus* (Gmelin, JF, 1789))



Yellow-wattled Lapwing (*Vanellus malabaricus* (Boddaert, 1783))

ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

A total of 119 species of faunal communities belonging to Lepidoptera, Orthoptera, Hemiptera, Pisces, and Amphibia were identified during the month. International Wetland Day was celebrated at Government Higher Secondary School, Ganga on 2nd February 2024. Various Mission LiFE activities were conducted during the month.



Capacity building workshop on Animal Taxonomy organized by ZSI APRC, Itanagar on 8th – 9th Feb., 2024



Dr. SD Gurumayum, Scientist – E, attending the PCCF meeting.



SD Gurumayum, Scientist – E, attending the 3rd State Wetland authority (SWA) meeting.



Mission LiFE activities

MARINE AQUARIUM AND REGIONAL CENTRE, DIGHA, WEST BENGAL

Survey was conducted to Chennai, Andhra Pradesh, West Bengal and Odisha coasts. A total of 69 species of faunal communities belonging to Polychaete, Nematoda, Mollusca, Crustacea were identified during the month. A new species of sea slug is described as new to science and named after the President of India as *Melanochlamys droupadi*. National Science camp participants (Electronic Engineering diploma students and faculty members) from Digha Science Centre visited and interacted with team MARC, ZSI, Digha on 27th February 2024. Educational institutions from Assam, West Bengal, Odisha and Maharashtra visited the Marine aquarium and museum for the month as part of educational tour.



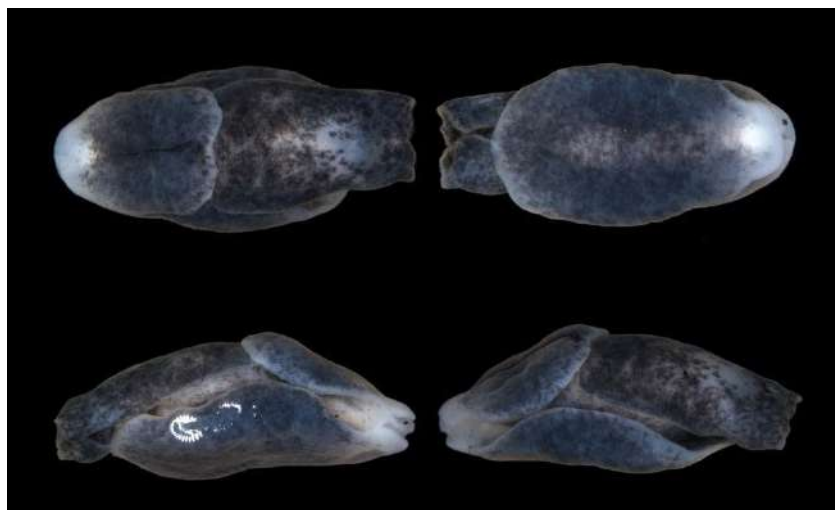
On the occasion of World Wetlands Day an Educational training program on the role and importance of wetlands in our ecosystems was conducted. 30 graduation students from Nirmala College, Ranchi, Jharkhand.



Amini Island, Lakshadweep landscape view near jetty,

NEW DISCOVERIES

NEW SPECIES



*Melanochlamys
droupadi* Tudu,
Sajan, Acharya and
Mohapatra, 2024



Ariosoma gracile
Kodeeswaran,
Kathirvelpandian,
Mohapatra, Kumar &
Sarkar, 2024



Ariosoma kannani Kodeeswaran, Kathirvelpandian, Ray, Kumar, Mohapatra & Sarkar, 2024



Episyron keralaensis Anju, Girish Kumar & Thejass, 2024 (Hymenoptera: Pompilidae) from Kerala



Episyron nigrocalcarius Anju, Girish Kumar & Thejass, 2024 (Hymenoptera: Pompilidae) from Kerala



Episyron rufotibius Anju, Girish Kumar & Thejass, 2024 (Hymenoptera: Pompilidae) from Kerala

NEW RECORDS



Bleekeria nigrilinea
Psomadakis, Yoshinaga,
Wah and Ida, 2021

PUBLICATIONS

PAPERS

- » Alam, I., Majumder, A., Naskar, A. and Maheswaran, G. 2024. Bird observations from Pulicate Lake Bird Sanctuary and the adjoining areas in India. Records of the Zoological Survey of India, 123(3): 233–249. DOI:10.26515/rzsi/v123/i2/2023/172562
- » Anju, K., Girish Kumar, P. and Thejass, P. 2024. Review of the spider wasp genus *Episyron* Schiødte, 1837 (Hymenoptera: Pompilidae) from India, with description of three new species. Zootaxa, 5405(4): 562–576. <https://doi.org/10.11646/zootaxa.5405.4.5>.
- » Cyriac, V.P., Mohan, A.V., Dinesh, K.P., Torsekar, V., Jayarajan, A., Swamy, P., Vijayakumar, S.P. and Shanker, K. 2024. Diversifying in the mountains: spatiotemporal diversification of frogs in the Western Ghats biodiversity hotspot. Evolution, qpa006. <https://doi.org/10.1093/evolut/qpae006>
- » Das, S., Pal, S., Narayanan, S., Subin, K., Palot, M.J., Rajkumar, K.P. and Deepak, V. 2024. Discovery of a new species of Kangaroo lizard (Squamata: Agamidae: *Agasthyagama*) from the Southern Western Ghats of India. *Vertebrate Zoology*, 74: 151–168. <https://doi.org/10.3897/vz.74.e113084>
- » Debnath, R., Rajmohana, K., Sen, S., Shabnam, A. and Dinesh, K.P. 2024. On baeine wasps (Hymenoptera: Scelionidae) as egg parasitoids of myrmecomorph spiders (Araneae: Salticidae) from India, along with description of a new species of *Idris* Förster. *Zoologischer Anzeiger*, 309: 66–74. <https://doi.org/10.1016/j.jcz.2024.02.001>
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- » Deepak, P., Dinesh, K.P., Chethan Nag, K.S., Ohler, A., Shanker, K., Souza, P.D., Prasad, V.K. and Ashadevi, J.S. 2024. Discovery and description of a new species of burrowing frog *Sphaerotheca* Günther, 1859 (Anura: Dicroglossidae) from the suburban landscapes of Bengaluru, India. Zootaxa, 5405(3): 381–410. <https://doi.org/10.11646/ZOOTAXA.5405.3.3>
- » Farooqui, S.A., Siddiqua, K.S., Joshi, R. and Rayhan, MD.J. 2024. First record of *Eudocima srivijayana* (Bänziger, 1985) from India (Lepidoptera: Erebididae: Calpinae). *Entomological news*, 130(5): 459–461.
- » Ghosh, S., Bhattacharjee, R., De, S., Banerjee, D., Hasan, M. N. & Mandal, C.K. 2023. Morphological description and molecular DNA barcoding of a new record of earthworm *Travoscolides chengannures* from Odisha, India. *Asian Journal of Conservation Biology*, 12(2): 298–303.
- » Jadhav, S. S., Deepa, J. and Revathy D. 2023. 'Freshwater Fishes' *Faunal Diversity of Sasthamkotta : Wetland Ecosystem Series*, 24: 137–153.
- » Jehamalar, E.E., Dash, S. and Samuel, A.S. 2024. *Xenobates indicus* sp. nov. (Hemiptera: Gerromorpha: Haloveliidae) from India, the first species of the genus described from the Indian subcontinent. Zootaxa, 5410(1): 145–150
- » Kharkongor, I., Saikia, U., Khyntiam, D and Saikia, B. 2024. Current status of Faunal Diversity of Siju Cave, South Garo Hills, Meghalaya. *Records of the Zoological Survey of India*, 123(3):283–303
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- » Pal, A., Dash, S. and Pal, S. 2023. First report: *Spermatodes variolosus* (Walker, 1867) in Indian rice ecosystem along with taxonomy

- of pentatomid bugs in Terai rice fields, West Bengal, India. *Journal of Entomological and Acarological Research*, 55: 12000. doi:10.4081/jea.2023.12000.
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 - » Raina, R. H., Sharma, I. and Choudhary, P. 2023. New distributional records of Bees (Hymenoptera: Apoidea) from Purna Wildlife Sanctuary, Dang, Gujarat, India. *Records of the Zoological Survey of India* 123(3): 219-227.
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MEETINGS ATTENDED

- » Dr. Dhriti Banerjee, Scientist – G, Director, Zoological Survey of India visited ZSI Central Zone Regional Centre (CZRC), Jabalpur for the Scientist's Assessment Meeting and chaired the Assessment Committee constituted to assess the scientific achievements in ZSI made by each Scientist (B to E) of the regional centres during the preceding years and assessment was conducted in CZRC, Jabalpur on 1st & 2nd February 2024; inaugurated the Statue of Dr. Thomas Nelson Annandale in CZRC office, inaugurated model of Cheetah, Leopard and sloth bear in CZRC, visited Museum of CZRC and in under-development DNA lab; attended discussion meeting of Organizing Committee was held at HQ regarding Animal Taxonomy Summit (ATS) 2024 on 5th February 2024; attended the following 3 days Seminar and Training Programmes of Graduate and Post-Graduate student of K.S. Saket, P.G. College, Amaigunj, Faizabad, Uttar Pradesh on 8th February 2024, interaction and training programme in the graduate student of Government P.G. College, Varanasi on 9th February, 2024; interacted with the graduate student of Lucknow Christian College, (an Associate Post Graduate College of Lucknow University) at Lucknow on 10th February 2024; chaired the Assessment Committee constituted to assess the scientific achievements in ZSI made by each Scientist (B to E) of the HQs during the preceding years on 12th to 13th & 15th February 2024 at ZSI Hqs., Kolkata; attended as a special guest in an exhibition of wildlife photography celebrating 50 years of Project Tiger at the Welcome Art Gallery, ITC Sonar on 15th February 2024; as a member of NCSM, Director attended 139th meeting of the Governing Body of National Council of Science Museums (NCSM) held at National Science Centre, Delhi on 22nd February 2024 to follow-up actions taken on the minutes of the 138th meeting of the Governing Body and to consider the status report on projects and activities of NCSM; chaired a Session

on Satellite Symposium: Fish Genetic Resource and Conservation Fisheries and shared her experience in field of faunal diversity and conservation in the 13th Indian Fisheries and Aquaculture Forum (IFAF) Fostering Indian Fisheries and Aquaculture for attaining Sustainable Development Goals at Biswa Bangla Convention Centre, Kolkata organised by ICAR-National Bureau of Fish Genetic Resources, Lucknow on 24th February 2024; visited MoEFCC, New Delhi on 26th to 27th February 2024 to discuss various matters of ZSI; attended the National Conference of PCCF & HoFF on 29th February 2024 under the chairmanship of the Hon'ble MoEF&CC, New Delhi; Green Credit program, NIRANTAR, Process simplification for promotion of agroforestry, Promotion of Ecotourism were discussed during the meeting; was felicitated by the Acharya Jagadis Chandra Bose Memorial National Science Day Award 2024 for her excellent contribution in Research and Development in society on the occasion of the Inaugural Session of 37th National Science Day Celebration on 28th February 2024 organised by the Science Association of Bengal at Ramakrishna Mission Institute of Culture, Kolkata; delivered a key note address as Guest of Honour of the programme. Ms. Nameeta Prasad, Joint Secretary, MoEFCC, Govt. of India visited ZSI Kolkata on 16th February 2024. A meeting has been convened under the chairpersonship of Joint Secretary, MoEFCC at ZSI Hqs. through hybrid mode to discuss the red listing of species by ZSI and BSI. Dr. Yash Veer Bhatnagar, Country Representative, IUCN and Dr. Ashiho Asosii Mao, Director, BSI were also presented in the meeting.

- » Dr. C. Raghunathan, Scientist – F, ZSI/HQ, Kolkata, served as a Member Secretary to assess the progress of Scientists of ZSI held on 1st and 2nd February 2024 at CZRC, ZSI, Jabalpur; provided the ZSI comments on G20, Brazil, Priority 3 Oceans specially for Biological Diversity of Areas Beyond National

Jurisdiction (BBNJ) - promote ratification and mobilize resources for the implementation of the BBNJ agreement has been submitted to the Ministry on 5th February 2024; provided the comments of ZSI on the CBD draft global action plan to mainstream biodiversity and health link submitted to the Ministry on 8th February 2024; provided the background note of ZSI for agenda points of Bangladesh for the upcoming meeting of Joint Working group of Sundarbans in Dhaka scheduled on February 2024 has been submitted to the Ministry on 9th February 2024; provided ZSI inputs for updating National Biodiversity Strategy and Action Plan has been submitted to the Ministry on 9th February 2024; served as a Member Secretary to assess the progress of Scientists of ZSI held on 12th, 13th and 15th February 2023 at ZSI Headquarters, Kolkata; attended the meeting related to IUCN red listing of species at ZSI, Kolkata, chaired by the Joint Secretary, CS-II Division, MoEFCC on 16th February 2024; provided the ZSI comments on the draft MoU between India and France on scientific co-operation and research in area of coastal ecology and marine environment, marine spatial planning, coastal ecosystem services submitted to the Ministry on 19th February 2024; provided the ZSI inputs for the CBD Notification 2024-002 – Draft Global Action Plan to Mainstream Biodiversity and Health Linkages submitted to the Ministry on 19th February 2024; provided the ZSI inputs on draft Global Declaration of River Dolphins and a country analysis matrix has been submitted to the Ministry on 19th February 2024; provided the ZSI inputs for the updated status of SDG -15 required by Rajya Sabha Secretariat has been submitted to the Ministry on 26th February 2024; provided the ZSI inputs for 59th Programming Committee meeting on SAARC: Agenda item pertaining to Environment and Natural Disasters has been submitted to the Ministry on 26th February 2024 and chaired the assessment of CSIR and UGC JRF and SRF of ZSI

Headquarters on 27th February 2024.

- » Dr Anjum N. Rizvi, Scientist – E, ZSI/HQ, Kolkata, attended as member the meeting regarding Scrutiny of the Research Proposal received under Emeritus Scientist Scheme of ZSI on 6th February 2024.
- » Dr. A.S. Kalawate, Scientist-E, ZSI/WRC, Pune, attended and presented views on phasing out of Pentachlorophenol in a Stakeholders' consultation meet on Pentachlorophenol and its salts, a POP listed under the Stockholm Convention: VCIT on 23rd February 2024 on virtual mode at 10.30 am organised by CPCB, Kolkata and NEERI, Kolkata and a meeting on Academic Research proposals for seeking comments of Members of Animal Expert Committee of MSBB on application for access to Biological Resources under rule 17 of the Maharashtra Biodiversity Rules 2008 as an expert of Animal Expert Committee of MSBB on 9th February 2024 on virtual mode and provided comments for the research proposals.
- » Dr. Anil Mohapatra, Scientist-E, ZSI/EBRC, Gopalpur-on-Sea, attended Launch Workshop BIMSTEC-India Marine Research Network BIMReN on 23rd February 2024 in the 13th Indian Fisheries & Aquaculture Forum at Biswa Bangla Convention Centre, Kolkata West Bengal and the National Science Day programme of NIST, University, Berhampur as Chief Guest on 28th February 2024.
- » Dr. Atanu Naskar, Scientist – C, ZSI/HQ, Kolkata, attended a Seminar and training programme of UG & PG student of K.S.SAKET, PG College at Faizabad on 8th February 2024, an interaction and training programme with the UG students of Government P.G.College Varanasi on 9th February 2024, an interaction and training programme with the UG students of Lucknow Christian College on 10th February 2024 and a Discussion Meeting on IUCN Redlisting on 21st February, 2024.
- » Dr. Avtar Kaur Sidhu, Scientist-E and Smt Anjoo Dhar Asstt Zoologist, ZSI/HARC, Solan, attended “International Conference on

- Technological Advancements for Sustainable Development towards Biodiversity Conservation” organized by Shoolini University, Solan, Himachal Pradesh (in collaboration with Indian Science Congress Association (Chandigarh Chapter) & Zoological Society of India) on 22nd February and Dr. Avtar Kaur Sidhu, Scientist-E Chaired Plenary Session – II of the conference.
- » Dr. Avtar Kaur Sidhu, Scientist-E, ZSI/HARC, Solan, attended online 5th meeting of the Wildlife Board for Union Territory of Jammu & Kashmir held under the chairmanship of Hon’ble Lieutenant Governor of Union Territory of Jammu & Kashmir (Chairperson of the Wildlife Board) on 9th February 2024; online discussion meeting with DZSI and scientists of ZSI on IUCN Red listing on 21st February 2024, online discussion meeting on Animal Taxonomy Summit 2024 (ATS 2024) with DZSI held on 5th February, 2024 and 26th February, 2024.
 - » Dr. B. Sinha, Scientist – E, ZSI/NERC, Shillong, participated in the second regional consultation on updating of National Biodiversity Strategy and Action Plan organized by the National Biodiversity Authority at Kaziranga National Park between 6-7th February and participated in the panel discussion on social and economic value of preservation and protection of traditional knowledge organized by the Bioresource Development Centre, Shillong on the 22nd February 2024.
 - » Dr. Basudev Tripathy, Scientist-E, Dr. A.S. Kalawate, Scientist-E, Dr. S.S. Talmale, Scientist-C and Dr. S.R. Patil, Scientist-B, ZSI/WRC, Pune, attended a meeting and visited PIB office.
 - » Dr. Basudev Tripathy, Scientist-E, ZSI/WRC, Pune, attended EAC Meeting on Biodiversity of Burrow Pit in Arabian Sea for the Vadhavan Port at New Delhi on 6th February 2024; discussion Meeting on IUCN Red listing virtually organised by ZSI HQ, Kolkata on 21st February 2024.
 - » Dr. C. Sivaperuman, Scientist-E, ZSI/ANRC, Port Blair, served as member for assessment of Scientists of Regional Centre’s & Headquarters during 31st January 2024 – 3rd February 2024; 12th – 15th February 2024 at ZSI Jabalpur & ZSI, Kolkata, attended review meeting under the chairmanship of Ms. Nameeta Prasad, Joint Secretary, MoEF&CC, Government of India on 16th February 2024 at ZSI, Kolkata, attended IUCN meeting under the chairmanship of Ms. Nameeta Prasad, Joint Secretary, MoEF&CC, Government of India & Dr. Yes Ver Bhatnagar, Country Director, IUCN, India on 16th February 2024 at ZSI, Kolkata, attended Capacity Building Workshop on Compilation of Environmental Accounts during 19th - 20th February 2024 at Chennai organised by Ministry of Statistics & Programme Implementation, Social Statistics Division & Department of Economic and Statistics, Government of Tamil Nadu.
 - » Dr. Deepa Jaiswal, Scientist – E, Dr. S. S. Jadhav, Scientist E and Dr. M. Karuthapandi, Scientist D, ZSI/FBRC, Hyderabad attended “Discussion Meeting on IUCN Redlisting” organized by DZSI, Kolkata on 22nd February 2024.
 - » Dr. Kamal Saini, Scientist-B, ZSI/HARC, Solan attended online on 5th February 2024 (4:00PM onwards) through online mode the ‘Animal Taxonomy Summit 2024 (ATS 2024)’ meeting organized by the DZSI, Kolkata and online meeting regarding NPS Oversight Mechanism on 14th February 2024 at 03:30 PM organized by the Controller of Accounts Ministry of Environment, Forest and Climate Change, New Delhi.
 - » Dr. Manpreet Singh, Scientist-D, ZSI/HARC, Solan, attended online lecture series under Knowledge Exchange Series on Aquatic Resources Management on topic “What aquatic ecosystems mean for the indigenous and Local Communities” organized by GIZ-NERAQ, on 26th February 2024.
 - » Dr. Md. Jafer Palot, Scientist-C, ZSI/WRC,

- Pune, served as a resource person at the Short course on 'Biodiversity: Understanding & Conserving the Richness of Life on Earth' and delivered a lecture on 'Faunal diversity of Western Ghats- An overview' organised by the Community Agro biodiversity Centre, M.S. Swaminathan Research Foundation, Kalpetta, Wayanad, Kerala on 20th February 2024.
- » Dr. Mirnal Kumar, Scientist-D, ZSI/ANRC, Port Blair, served as Chairman for Trade Test of recruitment of Regular mazdoor under Working Plan & Silviculture Division, Department of Environment and Forests, during 27th – 29th February 2024.
 - » Dr. P. C. Pathania Scientist-E, ZSI/HARC, Solan, attended Online Lecture on the topic, "Studying the sexual dynamics of functional colors in butterflies" Auburn University, Auburn, Alabama, USA organized by McGuire Center "Expanding Horizons in Lepidoptera Research" Seminar: Vince Ficarrota, on 13th February 2024.
 - » Dr. P. S. Bhatnagar, Scientist-E, ZSI/CZRC, Jabalpur represented ZSI in the Third Regional Consultation meeting on the Updation of National Biodiversity Strategy and Action Plan (NBSAP) and Adoption of National Biodiversity Targets (NBTs) in alignment with the Kummin-Montreal Global Biodiversity Framework (KMGBF) held on 26th and 27th February 2024 at Bhopal (M.P.).
 - » Dr. S. D. Paunikar, Scientist - E and Dr. Saipari Sailo, Scientist – D, ZSI/CZRC, Jabalpur, attended meeting of evaluation of candidates for the post Laboratory Attendant at ICMR-National institute of Research in Tribal health, Jabalpur on 16th February 2024.
 - » Dr. S.D. Gurumayum, Scientist – E, ZSI/APRC, Itanagar, attended The Animal Taxonomy Summit 2024 (ATS 2024) committee meeting held on 5th and 26th February 2024 through online mode; presented the Status of ongoing projects of APRC, ZSI, Itanagar at PCCF office, Govt. of Arunachal Pradesh on 7th February 2024 and attended the 3rd State Wetland authority (SWA) meeting at Conference Hall block 2, Civil Secretariat Itanagar held under the chairmanship of Honourable forest environment and climate change on 12th February 2024.
 - » Dr. Souvik Sen, Scientist-D, ZSI/HQ, Kolkata, attended the 'Review meeting of ZSI' under the chairpersonship of Ms Nameeta Prasad, Joint Secretary, MoEFCC at ZSI, Kolkata on 16th February 2024; attended 'Official Language Inspection' meeting under the chairpersonship of Ms Urmila Harit, Director, Rajbhasa, MoEFCC at ZSI, Kolkata on 20th February 2024 and 'Discussion Meeting on IUCN Redlisting' under the chairpersonship of Dr Dhriti Banerjee, Director, ZSI on 21st February, 2024.
 - » Dr. Tamal Mondal, Scientist-D, ZSI/HQ, Kolkata, provided detailed inputs with respect to the Priority 2: Payments for ecosystem services mentioned in issue note of Environment and Climate Sustainability Working Group (ECSWG) developed under the Brazilian G20 Presidency as per the requirement of MoEFCC through ZSI/HQs, detailed inputs with respect to the Priority 3: Oceans specifically for "Biological Diversity of Areas beyond National Jurisdiction (BBNJ)- Promote ratification and mobilize resources for the implementation of the BBNJ Agreement as per the requirement of MoEFCC through ZSI/HQs; provided detailed inputs with respect to the agenda points of Bangladesh for the upcoming meeting of Joint Working group of sundarbans in Dhaka on Agenda Point 3: Declaration of Marine Protected area adjacent to the Sundarbans of India and Bangladesh to maintain marine biodiversity hotspot as well as illegal exploitation of marine biodiversity using harmful gears as per the requirement of MoEFCC through ZSI/HQs; provided detailed inputs with respect to the information related to updation of National Biodiversity Strategy and Action Plan as per the requirement of MoEFCC through ZSI/HQs; provided detailed inputs with respect to the Kunming

Montreal Global Biodiversity Framework adopted during the fifteenth meeting of the Conference of the Parties to the Convention on Biological Diversity in December 2022 as per the requirement of MoEFCC through ZSI/HQs; provided detailed inputs with respect to the inputs on the updated version of the draft global action plan on Biodiversity and Health, CBD Notification 2024-002 as per the requirement of MoEFCC through ZSI/HQs; detailed inputs with respect to the soliciting comments on draft Dolphin Declaration and country analysis as per the requirement of MoEFCC through ZSI/HQs; detailed inputs with respect to the requisition for a note containing the updated status of SDG-15 as per the requirement of MoEFCC through ZSI/HQs; detailed inputs with respect to the 59th Programming Committee meeting on SAARC: Agenda item pertaining to Environment and Natural Disasters as per the requirement of MoEFCC through ZSI/HQs; prepared detailed report on Marine Biodiversity Study on the Outer Harbour of V.O. Chidambaranbar Port, Tuticorin, Tamil Nadu and submitted and prepared detailed report on the National Workshop on Advances in Fish Systematics: Morphological and Molecular Approaches at ZSI/FBRC, Hyderabad organized 18th and 19th January 2024 and submitted; attended a meeting with Ms. Nameeta Prasad, Joint Secretary, Ministry of Environment, Forest and Climate Change, Government of India and Dr. Yash Veer Bhatnagar, IUCN-India in connection with the ZSI and BSI role in Indian-IUCN status evaluation at ZSI/HQ., Kolkata on 16th February 2024; attended a meeting during the visit of Mrs. Urmila Harit, Director Official Language, Ministry of Environment, Forest and Climate Change, Government of India at ZSI/HQ, Kolkata 20th February, 2024.

- » Dr. Uttam Saikia, Scientist – D, ZSI/NERC, Shillong, attended an online meeting of MoEFCC, ZSI and BSI scientists on a discussion on preparation of Red List of Indian Fauna.

- » Smt. Ilona J Kharkongor, Scientist – E, Dr. Temjenmongla, Scientist – D, Mr. LSKhongsai, Sr.Zool.Asstt. & Mr. KP Nath, SRF of ZSI/APRC, Itanagar, attended the Inaugural function of Daporijo Permanent Seismological Observatory & Heliport Aviation Weather Observing System for NE Region organised by Centre for Earth Sciences & Himalayan Studies, Govt. of Arunachal Pradesh on 25th Feb., 2024, at DK Convention Hall, Itanagar,

TRAININGS ORGANIZED

- » ZSI/APRC, Itanagar, organized a two day Capacity Building Workshop on Animal Taxonomy on 8th – 9th February 2024 held at the centre. A total of 21 (Twenty one) students from Dera Natung College, Itanagar took part in the training programme. During the training programme, all Scientists and Scientific staff of the centre delivered lectures on different topics.
- » ZSI/SbRC, Canning, organized a one day seminar during World Wetland Day on 2nd February 2024. The lectures entitled “Coastal Biodiversity of India” and “Environmental Impact study on Ichthyofauna of river Barak”. A total of 50 students participated from Government ITI, Canning.
- » On the occasion of “World Wetlands Day” an Educational training program on the role and importance of wetlands in our ecosystems was conducted by ZSI/MARC, Digha. 30 graduation students from Nirmala College, Ranchi, Jharkhand participated in this training session and Mission LiFE activities on 2nd February 2024.
- » ZSI/MARC, Digha, conducted one day training program entitled “Marine Environment and Pollution for the Forest Range Officers, Kharagpur division on 23rd February 2024.
- » A “Training Programme on Protected Animals of India” organized by ZSI/NRC, Dehradun for First Batch of 24 Trainees of Haryana Forestry Training Institute, Sohna-Gurugram, Haryana at the conference hall of ZSI, NRC, Dehradun on 01 February, 2024.
- » A “Training Programme on Protected

Animals of India” organized by ZSI/NRC, Dehradun for Second Batch of 38 Trainees of Haryana Forestry Training Institute, Sohna-Gurugram, Haryana at the conference hall of ZSI, NRC, Dehradun on 09 February, 2024.

- » A “Hands-on-Training on Animal Taxonomy” was organized jointly by ZSI/NRC, Dehradun and Uttarakhand Science Education and Research Centre (USERC), Government of Uttarakhand, Dehradun at the conference hall of ZSI, NRC, Dehradun for 100 (hundred) participants trainee of B. Sc., M. Sc. Zoology and M. Sc. Forestry students of 11 Colleges and Universities of Uttarakhand from 19 to 23 February, 2024. The Chief Guest of the inaugural function was Er. Deepak Gairola, ITS, Secretary, Department of Programme Implementation, Government of Uttarakhand, the Guest of Honors was Dr. Vijay Veer, Former Director, DRDO, Tejpur, Assam and Dr. Anita Rawat, Director, USERC, Dehradun on 19 February, 2024 and the five days training programme coordinated by Dr. Gaurav Sharma, Officer-in-Charge, ZSI, NRC, Dehradun and Dr. Manju Sundriyal, Scientist, USERC, Dehradun from 19 to 23 February, 2024.
- » Dr. K.P. Dinesh, Scientist-E, ZSI/WRC, Pune, provided training to Ms. Anjali Priti Bachelors in Bioengineering student from DY Patil International University, Pune for her internship programme for a period of five months from January 2024 to June 2024.
- » Dr. S.S. Talmale, Scientist-C, ZSI/WRC, Pune, provided training on mammals to three M.Sc. Zoology students (Ms. Sanjana S. Mali, Ms. Pradnya S. Kamble and Mr. Gaurav B. More) from Ferguson College, Pune, for their MSc. Dissertation work.

TRAININGS ATTENDED

- » Dr. Temjenmongla, Scientist – D, ZSI/APRC, Itanagar, attended the Training of Trainers Programme on “Conservation Education:

Himalayan Biodiversity & Environment”, organized by G.B. Pant National Institute of Himalayan Environment, NE Regional Centre, Chandra Nagar, Itanagar, Arunachal Pradesh on 21st February 2024.

- » Sh. Prabir Narayan Konwar, Sr. Zoological Assistant of ZSI/NERC, Shillong, attended a taxonomic training on odonata under Dr. K A Subramanian at SRC, Chennai.

LECTURES DELIVERED

- » Dr. Deepa Jaiswal, Scientist – E & Officer in Charge, Shri. Nethavath Naresh & Shri. Indranil Singha, Senior Zoological Assistant, ZSI/FBRC, Hyderabad, attended and delivered Lecture on 5 Days National Level Faculty Development Programme on “Innovation in Biosciences-Need of the Hour” from 19th to 23rd February, 2024. Organized by St. Ann’s College for Women, Mehdiapatnam.
- » Dr. Anil Kumar, Scientist-E ZSI/GPRC, Patna, delivered guest lecture titled, ‘Wetlands of River Ganga Basin: Significance for bird migration and conservation issues’ on 28-02-2024, at Patna University, Patna.
- » Dr. Anil Mohapatra, Scientist – E, ZSI/EBRC, Gopalpur-on-Sea, delivered an online lecture on “Marine Biodiversity and Conservation: Indian Prospective” - in the faculty development programme on “Recent Scenario in Biological Science” organized by P. G. and Research Department of Zoology, V.O. Chidambaram College, Tuticorin on 15.02.2024 and on “Describing new species (With special reference to marine fish): Discovery, Challenges and ecosystem approach” - in refresher course for Biosciences organized by Malaviya Mission Teacher Training Centre (MMTTC), Utkal University on 28th February 2024.
- » Dr. Archana Bahuguna, Scientist-E, ZSI/NRC, Dehradun, delivered a lecture on “Herpetofauna: Taxonomy and DNA Barcode” to the participants of Hands-on-Training

on Animal Taxonomy” jointly organised by Zoological Survey of India, Northern Regional Centre, Dehradun and Uttarakhand Science Education and Research Centre (USERC), Dehradun on 21st February 2024 and on “Traditional Knowledge System of Uttarakhand” organized by Department of Botany, Harsh Vidya Mandir (PG) College Raisi, Haridwar and Department of Zoology D.B.S. college, Dehradun, Uttarakhand, sponsored by Uttarakhand State Council for Science and Technology (UCOST), Dehradun on 23rd February 2024.

- » Dr. Bindu L., Scientist-E, ZSI/WGRC, Kozhikode, delivered a lecture on Taxonomy and Biodiversity to the BSc. Zoology final year students of N.S.S College, Manjeri on 21st February 2024.
- » Dr. C.K. Mandal, Scientist-C, ZSI/HQ, Kolkata, delivered a lecture entitled, “Annelida” at GNC section, ZSI-HQ for Graduate students of B. B. K. College Nagaon, Barpeta, Assam on 22nd February 2024
- » Dr. Gaurav Sharma, Scientist-E, ZSI/NRC, Dehradun delivered lecture on topic entitled “Migratory Birds and importance of Wetland” to 132 students of school, colleges and Universities of Uttarakhand during celebration of World Wetlands Day 2024 conducted at RAMSAR Site-Asan Conservation Reserve, Uttarakhand, India on 2nd February 2024; on topic entitled “Status of Faunal Diversity and Protected Animals of India” to First Batch of 24 Trainees of Haryana Forestry Training Institute, Sohna-Gurugram, Haryana on 1st February, 2024 and to Second Batch of 38 Trainees of Haryana Forestry Training Institute, Sohna-Gurugram, Haryana at the conference hall of ZSI, NRC, Dehradun on 9th February 2024; on topic entitled “Status of Faunal Diversity and their conservation in India” in the “Hands-on-Training on Animal Taxonomy” on 19 February, 2024 and on topic entitled “Status of Mammalian Diversity of the World with special reference to India” on 22 February,

2024 to 100 (hundred) participants trainee of B. Sc., M. Sc. Zoology and M. Sc. Forestry students of 11 Colleges and Universities of Uttarakhand programme jointly organized by ZSI, NRC, Dehradun and Uttarakhand Science Education and Research Centre (USERC), Government of Uttarakhand, Dehradun at the conference hall of ZSI, NRC, Dehradun, on topic entitled “Awareness on plastic pollution and its impact on biodiversity” to 110 students of school, colleges and Universities of Uttarakhand in the programme jointly organised by Zoological Survey of India and National Museum of Natural History, New Delhi held at the Conference Hall of ZSI, NRC, Dehradun, Uttarakhand on 20 February, 2024.

- » Dr. Indu Sharma, Scientist-E, ZSI/DRC, Jodhpur, delivered three invited lectures on “Faunal Diversity of Desert Ecosystem and its Conservation”, “Aquaculture and its Principles” and “Taxonomy and its importance” on 22nd, 23rd and 26th February 2024 respectively at Department of Zoology, JNVU, Jodhpur on 28th February, 2024.
- » Dr. Md. Jafer Palot, Scientist-C, ZSI/WRC, Pune, participated and delivered a keynote address on ‘Community Participation in Ecosystem Management- a Kerala Scenario’ in the Two days’ workshop on ‘Community Participation in Ecosystem Management’ organised by BhoomimitraSena Club of Farook training College, Kozhikode in collaboration with Directorate of Environment & Climate Change, Government of Kerala on 19th and 20th February 2024.
- » Dr. N. Marimuthu, Scientist – E, ZSI/HQ, Kolkata delivered an invited talk entitled, “Coral recruitment vs. Fish grazers; Prerequisite assessment prior to restoration processes” at Blue Carbon Symposium 2024, organised by Department of Marine and Coastal Studies, Madurai Kamaraj University, Pudhumadam, Tamil Nadu on 23rd February 2024.
- » Dr. Narender Sharma, Scientist-E, ZSI/NRC,

Dehradun, delivered a lecture on “Collection, Preservation and Identification of Insects” to the participants of Hands-on-Training on Animal Taxonomy” jointly organised by Zoological Survey of India, Northern Regional Centre, Dehradun and Uttarakhand Science Education and Research Centre (USERC), Dehradun on 20th February, 2024.

- » Dr. P.C. Pathania, Scientist-E, ZSI/HARC, Solan, delivered an invited talk for PG students on the topic entitled, “Biodiversity and sustainable Development” by celebrating the National Science Day-2024 organized by Department of Zoology, Guru Gobind Singh College, Sector-26, Chandigarh in association with Prof. Puran Singh Science Society, Chandigarh on dated 7th February 2024.
- » Dr. R. Bano Scientist- E, ZSI/DRC, Jodhpur, delivered a talk on “Conservation of Environment: Lifestyle for Sustainable Tomorrow” under the Mission LiFE at Government Sumer Public Divisional Library, Department of Language and Library, Government of Rajasthan, Jodhpur on 15th February 2024 and on “Methodology for collection, preservation and identification of Apterygotes” at Department of Zoology,

JNVU, Jodhpur on 28th February, 2024.

- » Dr. R. Chandran, Scientist–C, ZSI/HQ, Kolkata, delivered invited talk entitled, “Impact of Ghost nets on coral reefs” at Underwater Ghost Net Removal program, organised by Gujarat State Forest Department and CSIR-CIFT at Mithapur, Gujarat on 29th February 2024.
- » Dr. V.D. Hegde, Scientist-E, ZSI/WGRC, Kozhikode, delivered key note address at Keveeyem college, Valanchery, Malapparam on the occasion of the Wetlands Day Celebration on 31st January 2024, a lecture to the B.Sc. (Zoology) students of N.S.S. College, Ottapalam, Palakkad on 1st February 2024.
- » Mr. Manoj Kumar Meena, Scientist-B, ZSI/NRC, Dehradun delivered a lecture on “Studies on the Faunal diversity and their conservation in India” to the 24 Forester trainees of Haryana Forestry Training Institute, Sohna-Gurugram, Haryana on 1st February, 2024.

PHOTO GALLERY



Director visited ZSI Central Zone Regional Centre (CZRC), Jabalpur for the Scientist's Assessment Meeting on 1st & 2nd February, 2024.



Inaugurated model of Leopard in ZSI/CZRC.



Inaugurated model of Cheetah in CZRC.



Inaugurated model of sloth bear in CZRC.



Aside the assessment, Director inaugurated the Statue of Dr. Thomas Nelson Annandale in CZRC office.



Released the Bulletin titled "Prakriti"



Ms. Nameeta Prasad, Joint Secretary, MoEFCC, Govt. of India visited ZSI Kolkata on 16th February, 2024. A meeting has been convened under the chairpersonship of Joint Secretary, MoEFCC at ZSI Hqs. through hybrid mode to discuss the red listing of species by ZSI and BSI. Dr. Yash Veer Bhatnagar, Country Representative, IUCN and Dr. Ashiho Asosii Mao, Director, BSI were also presented in the meeting.

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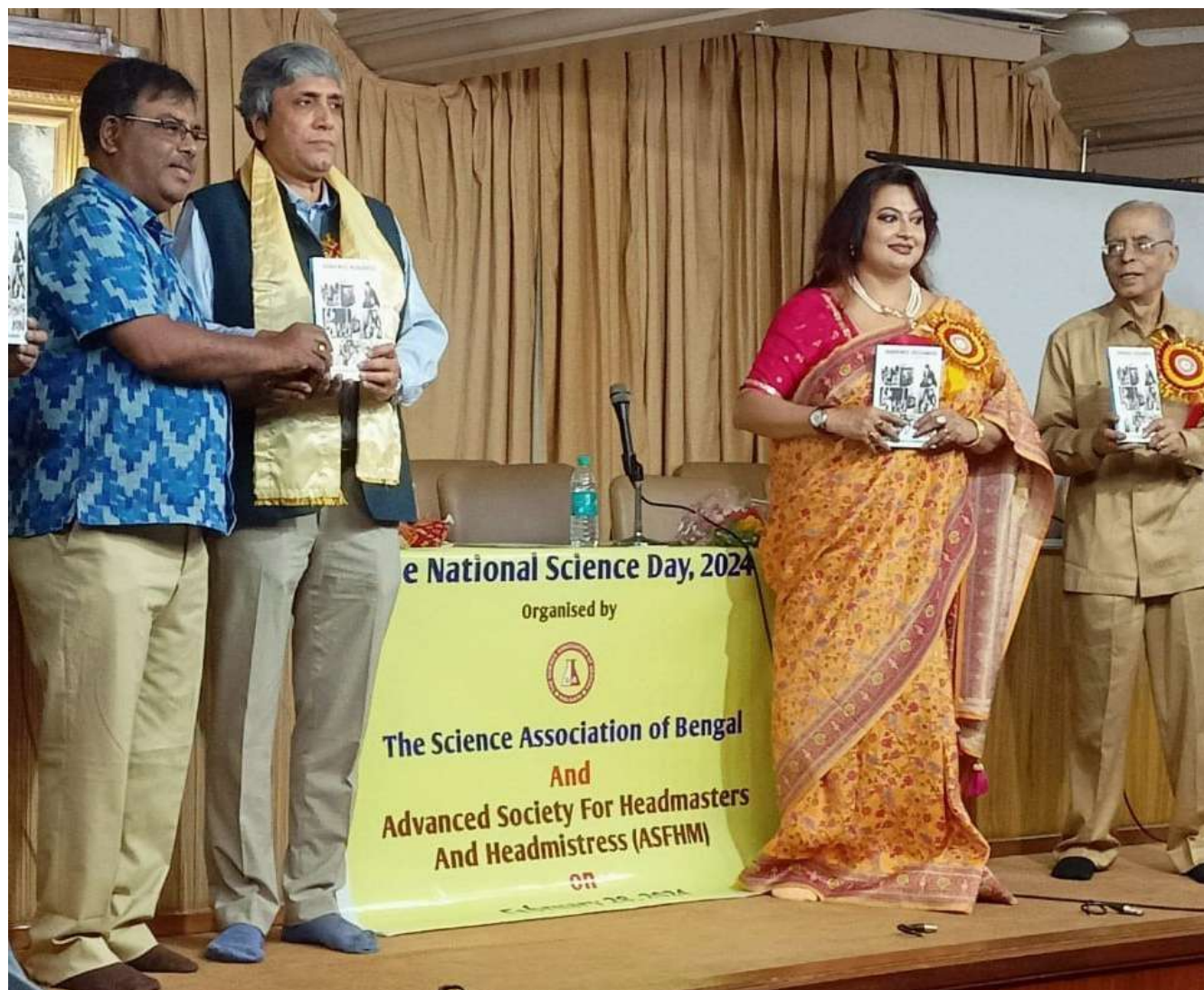
Smt. Urmila Harit, Director, Rajbhasha (Department of Official language) visited ZSI Hq on 20.02.2024 for the Inspection of official language of offices/autonomous bodies/undertakings under the control/subordinate of the Ministry of Environment, Forest and Climate Change.



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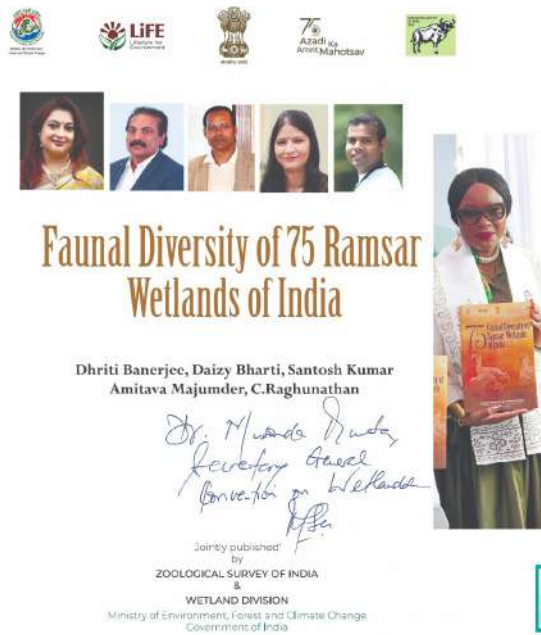
On February 24, 2024, Director chaired a Session on Satellite Symposium: Fish Genetic Resource and Conservation Fisheries and shared her experience in field of faunal diversity and conservation in the 13th Indian Fisheries and Aquaculture Forum (IFAF) Fostering Indian Fisheries and Aquaculture for attaining Sustainable Development Goals at Biswa Bangla Convention Centre, Kolkata organised by ICAR-National Bureau of Fish Genetic Resources, Lucknow.



Dr. Dhriti Banerjee was felicitated by the Acharya Jagadis Chandra Bose Memorial National Science Day Award, 2024 for her excellent contribution in Research and Development in society on the occasion of the Inaugural Session of 37th National Science Day Celebration on 28th February, 2024 organised by the Science Association of Bengal at Ramakrishna Mission Institute of Culture, Kolkata. She also delivered a key note address as Guest of Honour of the programme.



Dr. Santosh Kumar, Scientist-E, ZSI/HQ, Kolkata attended World Wetland Day at Sirpur Lake (Ramsar Site), Indore on 2nd February 2024 and presented ZSI publication to Dr. Musonda Mumba, Secretary General of the Convention on Wetlands.



24 Feb 2024
Indore, India

What an Amazing compilation
of LIFE in wetlands. These
sentient beings are special & rare
without the very life lines we
depend on. Thank you to the
Leadership & the Director at
ZSI for such an incredible work.

What an honour to receive a call
a treat on World Wetlands Day
2024: Wetlands & Human Wellbeing
- Life Watered.

Dr Miranda Dumbre, Secretary
Convention on Wetlands,
(Rambor Convention)

[illegible]

Santosh Kumar, Daizy Bharti, Antonietta La Terza, DS Suman, Kailash Chandra, Dhriti Banerjee*. 2024. Ecofriendly bacterivorous ciliate based device for sustainable management of water cleaning and sanitation. The Patent Office, Government of India. Patent granted on 6th February 2024.

ZSI has been granted the first patent for an eco-friendly device based on bacterivorous ciliates (Protists), aimed at sustainable water cleaning and sanitation management. This innovative concept was developed by Dr. Santosh Kumar, Scientist-E, and Dr. Daizy Bharti, PDF in the Protozoology Section at ZSI HQ, with the support from Dr. Antonietta La Terza (University of Camerino, Italy), Dr. DS Suman (Scientist-E, EBRC, ZSI), Dr. Kailash Chandra (Scientist G and Ex-DZSI), and Dr. Dhriti Banerjee* (Scientist-G and Director, ZSI). This technology has applications in various environments such as wetlands, drains, wastewater treatment plants, industrial wastewater, tree holes, small containers, stored water, pools, and fish tanks, aiming to reduce bacterial populations. *Form 13 is being processed.