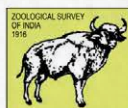


# ZSI E-News

Vol. 57 | October 2023 | Monthly E-Newsletter from Zoological Survey of India







## from the Director's Desk

I am delighted to release the November 2023 issue of ZSI E-News to the august readers to represent the glimpses of surveys, exploration and scientific outcomes, and the contribution of ZSI for the faunal documentation along with capacity building programme and awareness campaigns.

As part of the Swachhata Hi Seva (SHS), Special Campaign 3.0, the cleanliness drive programme was conducted with the participation of ZSI, Headquarters, Kolkata, and all the 16 Regional Centres on 1<sup>st</sup> October 2023 at 17 locations covering 14 States and Union Territories of the country. The campaign began with the Swachhata Pledge. The campaign sites include a Biosphere Reserve, Marine National Parks, a UNESCO Heritage Site, Ganga River, Krishna River, Wetland, and beaches to a stretch of 20 km and over 14 hectares including a market, bus terminus, tourist spots, parks, etc. Altogether 3862 participants from ZSI as well as the general public across the country performed the *Shramdaan* during the SHS. Approximately 3600 kg of garbage was accumulated and handed over to the local municipal/panchayat for disposal in a sustainable way. Mission-LiFE Selfie-points have also been placed in all the 17 campaign sites and 2535 photographs were taken. It is pertinent to mention that Hon'ble Union Minister of State, MoEFCC, Shri Ashwini Kumar Choubey led the Swachhwata Hi Seva (SHS) cleanliness drive at Ramrekha Ghat, Buxar, Ganga River, Bihar in which ZSI, GPRC, Patna participated.

The foundation stone laying Ceremony of the Eastern Himalayan Faunal Repository was organized at Arunachal Pradesh Regional Centre, Itanagar on 26<sup>th</sup> October 2023. Hon'ble Governor of Arunachal Pradesh Shri Lt. General Kaiwalya Trivikram Parnaik, PVSM, UYSM, YSM (Retd) was the chief guest of the ceremony. A Memorandum of Understanding (MoU) was signed between the Zoological Survey of India and ICAR- National Bureau of Fish Genetic Resources (NBFGR) for research, knowledge sharing, and capacity building on 6<sup>th</sup> October 2023 at Telibagh, Lucknow. One of the scientists of ZSI visited the Natural History Museum, London to study the coral type and museum specimen under the MoU between ZSI and NHM, London this month.

A total of 1334 species were identified during the month. Among them, a total of nine new species belonging to Fishes, Crustacea, Insecta, and Protozoa were described. One species of sea-spider (Chelicerata), 13 species of Lepidoptera, and one species of Hymenoptera were recorded as new records to Indian fauna. Five DNA barcodes belonging to three species were uploaded to the NCBI database.

I genuinely praise all the scientists and staff of ZSI for carrying out outstanding contributions through their publications in taxonomic studies.

Jai Hind

**Dr. Dhriti Banerjee**  
Director  
Director 5<sup>th</sup> November 2023  
Kolkata

Cover: Indian Roller,  
*Coracias benghalensis*  
(Linnaeus, 1758)  
Courtesy: FBRC,  
Hyderabad

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## HEADQUARTERS, KOLKATA

Surveys were conducted under the programme "Faunal Diversity of Wildlife Sanctuaries of West Bengal Phase: I (Bethuadahari WLS, Bibhutibhusan WLS, Ballavpur WLS, Raiganj WLS, Ramnabagan WLS) to Ballavpur WLS, Ramnabagan WLS, Kulik WLS", "Fauna of Anjaw district, Arunachal Pradesh", "Fauna of Deccan Peninsular Biogeographic Zone", "Biodiversity study for the proposed Burrow Pit Region in Arabian Sea with reference to development of Vadhavan Port, Palghar, Maharashtra", "Studies on Scleractinian Coral Type and Museum Specimens of Natural History Museum, London" and to Punjab, Jammu, and Himachal Pradesh. A total of 410 species of faunal communities including Porifera, Cnidaria, Earthworm, Leeches, Polychaete, Crustacea Echinodermata, Trematode, Nematode, Lepidoptera, Diptera, Ephemeroptera, Odonata, Chalcididae, Formicidae, Mollusca, Arachnida, Pisces, Aves and 9 species of paleozoological samples were identified during the month. Two new species of Arachnida and one new species of catfish were described as new to science, and one species of sea-spider and thirteen species of Lepidoptera were reported new to India for the first time. A total of 23 species of faunal communities including Echinodermata, Platyhelminthes, Nematodes, Lepidoptera, and Chalcididae were augmented to National Zoological Collections. Identification and advisory services were rendered to Bidhan Chandra Krishi Vishwavidyalaya, West Bengal, Cotton University, Assam, Uttar Banga Krishi Vishwavidyalaya, Thiruvalluvar University, Tamil Nadu, Bangabashi College, Kolkata, Govt. General Degree College, Singur, West Bengal, University of Jammu & Project FI ICMR-RMRC Dibrugarh and Patna University, Bihar.





## NORTH EASTERN REGIONAL CENTRE, SHILLONG, MEGHALAYA

A field survey was conducted under the project “A systematic study of the bat fauna of Mizoram State, North-Eastern India”. A total of 49 species of different faunal groups were identified during the month. An exhibition stall was set up at the State Convention Centre, Shillong during the valedictory function of Wildlife Week, 2023. Students and teachers from Maryam Ajmal Women’s College of Science and Technology, Hojai, Nagaon, Dibru College, Assam, and project fellows of NESFA, Shillong visited the centre during the month. Identification and advisory services were rendered to St. Peters College, Shillong. Various cleanliness and public awareness drives were organized in the office premises and public places as part of Mission LiFE and Swachhta 3.0 campaign.



Visiting students of Dibru College, Assam on 18<sup>th</sup> October 2023.



Exhibition stall at the State Convention Centre, Shillong during Wildlife Week 2023.



Training on amphibians to BVIEER students by Dr K.P. Dinesh

## WESTERN REGIONAL CENTRE, PUNE, MAHARASHTRA

A total of 115 species of faunal communities including Amphibia, Blattodea, Coleoptera, Crustacea, Diptera, Hemiptera, Hymenoptera, Lepidoptera, Mollusca, Odonata, and Pisces were identified during the month. A new species of Decapoda is described from Central Western Ghats. Identification and advisory services were rendered to the Department of Agricultural Entomology, College of Agriculture, Karnataka, and Professor Ramkrishna More Arts, Commerce & Science, Akurdi, Pune. ‘Swachhta hi Seva’ campaign under “Swachhta Campaign” 3.0. was organized near Pavana River, Ravet, and Sant Tukaram Bridge, Ravet on 1<sup>st</sup> October 2023, in the office campus for campus cleaning on 11<sup>th</sup> October 2023. The “Mera Desh Meri Mitti” event was conducted in the office campus on 12<sup>th</sup> October 2023.





Cleanliness drive under Swachhta Campaign 3.0 organized by CZRC at Interstate Bus Terminal, Jabalpur on 1<sup>st</sup> October 2023.

## CENTRAL ZONE REGIONAL CENTRE, JABALPUR, MADHYA PRADESH

One survey was conducted at Panna Biosphere Reserve to study the faunal diversity from 10<sup>th</sup> to 18<sup>th</sup> October 2023. A total of 106 species of faunal communities belonging to Orthoptera, Lepidoptera, Hemiptera, Mollusca, Pisces, and Amphibia were identified during the month. Swachata activity was organized by cleanliness drives from 2<sup>nd</sup> to 30<sup>th</sup> October 2023 under Swachhata Campaign 3.0. One-day lecture on “Wildlife Management” and one debate competition on “Importance of Swachata for our environment” were organized on 9<sup>th</sup> October 2023 on the occasion of Wildlife Week and Swachata Abhiyan. Officers and staff took the pledge on Anti-Corruption practice on 30<sup>th</sup> October 2023 on the occasion of Vigilance Awareness Week and on Unity practice on 31<sup>st</sup> October 2023 on the occasion of National Unity Day. Sh. Akhil Nair, Senior Zoological Assistant, provided field collection training to the newly joined scientific and technical staff of the centre on 4<sup>th</sup> October 2023.



Bengal Tigers (*Panthera tigris tigris*) observed at Panna Biosphere Reserve by the ZSI survey party.

## DESERT REGIONAL CENTRE, JODHPUR, RAJASTHAN



SHS (Swachhta Hi Sewa) cleanliness drive on 1<sup>st</sup> October, 2023 from 10:00 am to 11:00 am at Shabli Arita Devi Park

Latitude: 26.237572  
Longitude: 73.014571  
Elevation: 234.1415 m  
Accuracy: 5.9 m  
Azimuth: 171° (S)  
Pitch: -12.5° (1.24°)  
Time: 01-10-2023 09:27  
Note: Amrita Devi 4g

Latitude: 26.237493  
Longitude: 73.014571  
Elevation: 235.1419 m  
Accuracy: 5.7 m  
Azimuth: 171° (S)  
Pitch: -10.4°  
Time: 01-10-2023 12:04  
Note: Amrita Devi P Clean



SHS (Swachata Hi Sewa) cleanliness drive by DRC, Jodhpur at Amrita Devi Park

A total of 57 species of faunal communities belonging to Mollusca, Insecta, Arachnida, and Pisces were identified during the month. All the officials took the pledge on Vigilance Awareness Week 2023 with the theme "Say no to corruption; commit to the Nation" on 30<sup>th</sup> October 2023 at the center, and they participated in the SHS (Swachhta Hi Sewa) cleanliness drive on 1<sup>st</sup> October 2023.



*Anas poecilorhyncha* Forster, 1781 (Indian spotted billed duck)





Swachhata campaign

## SOUTHERN REGIONAL CENTRE, CHENNAI, TAMIL NADU

A survey was conducted in the Karnataka part of the Deccan Biogeographic Zone. A total of 73 species of faunal communities belonging to Hemiptera, Lepidoptera, Odonata, Psocoptera, Mollusca, Fishes, Amphibia, and Reptilia were identified during the month. Samples of Ixodid ticks were identified for JBAS College for Women, Chennai. As part of the Swachh Bharat campaign, Pattinipakkam Beach was cleaned and a month-long cleaning activity was observed in the office.



Nilgiri Pipit (*Anthus nilghiriensis*)



Nilgiri Sholakili (*Sholicola major*)

## HIGH ALTITUDE REGIONAL CENTRE, SOLAN, HIMACHAL PRADESH

A total of 61 species of faunal communities belonging to Insecta and Pisces were identified during the month. A two-day National Conference on Entomology was organized on 13<sup>th</sup> and 14<sup>th</sup> October, 2023. The event was graced by the presence of the Director of Zoological Survey of India, Kolkata, Dr. Dhriti Banerjee, as the chief guest of the event. As a part of the Swacchta Hi Sewa Campaign 3.0, the cleanliness drive of UNESCO World Heritage Site- the Kalka Shimla Railway Track at Solan was organized on 1<sup>st</sup> October 2023. Vigilance Awareness Week was organized, the pledge was taken and a Unity run was conducted. Identification and advisory rendered to Govt. Degree College, Dharampur, Mandi, HP.



National Conference on Entomology organized by ZSI, Solan on 13<sup>th</sup> and 14<sup>th</sup> October 2023





Swacchta Hi Sewa campaign organized at UNESCO World Heritage Site: railway track of Kalka-Shimla at Solan.

## ANDAMAN AND NICOBAR REGIONAL CENTRE, PORT BLAIR, ANDAMAN AND NICOBAR ISLANDS

Local field surveys were conducted in South Andaman: Sciscostris Bay, Chatham, Ross Island, North Bay, Rutland Island, Rifleman Island, Shoal Bay, Bimblitan, Ferrarguunj, Kalatang, Chidiyatappu to study the terrestrial and marine faunal diversity. A total of 199 species of faunal communities belonging to Coleoptera, Hemiptera, Lepidoptera, Mollusca, Echinodermata, Decapoda, and Aves were identified during the month. Mrs. Pallavai Sarkar, IAS, Secretary to Hon'ble Lt. Governor A & N Islands, Dr. Aruna Basu Sarcar, IFS (1983 Batch), Principal Chief Conservator of Forests (PCCF) (Retired), Department of Environment and Forests, Government of Tamil Nadu, Dr. Manoj Kumar Sarkar, IFS, Add. Principal Chief Conservator of Forests (Retired), Department of Environment and Forests, Government of Tamil Nadu, Dr. K. Sivakumar, Professor, Department of Ecology and Environmental Sciences, Pondicherry University Dr. K. Sivakumar, Associate Professor, CAS Marine Biology, Annamalai University visited the centre during the month. Mr. Farhan Jadwet and Mr. Ebrahim Jadwet, Chairman of Andaman Chamber of Commerce (Youth Wing) visited the centre on 21<sup>st</sup> October 2023 in connection the with discussion for a collaborative awareness programme on biodiversity conservation of A & N islands to be conducted for the local public of A & N Islands. An interactive meeting was organized with the Hon'ble Lt. Governor & Vice Chairman of the Island Development Agency on 13<sup>th</sup> October 2023. A coastal cleanup was organized as a part of Swachhata Hi Sewa (SHS) on 1<sup>st</sup> October 2023 at Corbyn's Cove Beach, South Andaman, about 250 Officials from A & N Administration, Schools, College, officials of ANRC, participated in the coastal cleanup. A one-day seminar was organized on Biodiversity conservation and Challenges for students of Tagore Government College of Education, Port Blair, on 27 October 2023. The integrity Pledge for Citizens and Integrity Pledge for organizations were taken by the Scientists, Scientific Staff, Project staff, and contractual staff on 30<sup>th</sup> October 2023 as a part of the celebration of Vigilance Awareness Week 2023.



Large – eared Ground Skink *Lipiniamacro tympana* Stoliczka 1873



*Fromia indica* Perrier 1869



*Acropora muricata* Linnaeus 1758





Swachhata Hi Seva Campaign

## SUNDERBAN REGIONAL CENTRE, CANNING, WEST BENGAL

One survey was undertaken to Daman for the development of Vadhavan Port, Palghar, Maharashtra. Local surveys were undertaken in the Matla River side, Sunderbans, and adjoining areas. A total of 115 species of faunal communities belonging to Mollusca, Crustacea, Echinodermata, and Pisces were identified during the month. Swachhata Hi Seva celebrated on 1<sup>st</sup> October 2023 in Dadu village with 140 participants from different schools. Office premises were cleaned during the month under the Swachhata Campaign 3.0 and Mission LiFE programs were organized on the 1<sup>st</sup> and 17<sup>th</sup> of October 2023.



Mission LiFE campaign



Whip Coral Goby fish



Five striped palm squirrel *Funambulus pennantii* Wroughton, 1905



Swachhata Hi Seva Campaign

## FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD, TELANGANA

A faunistic survey of River Godavari was conducted from 2<sup>nd</sup> to 22<sup>nd</sup> October 2023. A total of 87 species of faunal communities belonging to Coleoptera, Hemiptera, Rotifera, Crustacea, Mollusca and Pisces during the month. A total of 12 sequences have been submitted to NCBI.



Asian Green Bee-eater · *Merops orientalis* Latham, 1801



## WESTERN GHAT REGIONAL CENTRE, KOZHIKODE, KERALA

A local survey was conducted on the Kadalundi Vallikkunnu community reserve. A total of 112 species of faunal communities belonging to Testate amoebae, Coleoptera, Hemiptera, Hymenoptera, Dermaptera, Mantodea, Arachnida, and Crustacea were identified during the month. One species of Mutillidae and one species of Testate amoeba were described as new to science, one species of Pteromalidae was reported as new to India, two species were noted as new to Karnataka state and six species were recorded as new to Kerala state during the month. All the Officers, staff, and Research Scholars took the Integrity pledge as part of Vigilance Awareness Week on 31<sup>st</sup> October 2023. The center conducted an essay, quiz, and drawing competitions as part of the Wildlife Week celebration from 2<sup>nd</sup> to 8<sup>th</sup> October 2023 for school children of the nearby schools. All the Officers, staff, and Research Scholars participated in cleaning activities as part of Swachhata 3.0 on the 1<sup>st</sup>, 19<sup>th</sup>, and 26<sup>th</sup> of October 2023.



Swachhta Pakhwada



Celebration of Vigilance Awareness Week

Swachhta Hi Seva Campaign



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

A new species under the family Gobiidae was described from the Mahanadi River Basin. A total of 87 species of different faunal groups were identified during the month. Five DNA barcodes belonging to 3 species were uploaded to the NCBI database. The Swachhata Hi Seva Beach Cleanup campaign was conducted on 1<sup>st</sup> October 2023 at Gopalpur Sea Beach. Mahatma Gandhi Jayanti was celebrated on 2<sup>nd</sup> October 2023 and to practice his lifelong message of Non-Violence was taken as a pledge. A Lake Cleaning campaign of Ramsar Site Tampara Lake was organized as part of the Special Campaign 3.0 Programme on 6<sup>th</sup> October 2023. As part of the ongoing Special Campaign 3.0 Programme, a round of cleaning of office premises was done on 10<sup>th</sup> October 2023. On National Unity Day, a pledge was taken to follow the message of Sardar Vallabhbhai Patel of preserving Bharat's sovereignty & integrity.



Celebration of Gandhi Jayanti



# ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR, ARUNACHAL PRADESH

A survey was conducted under the project "Faunal Diversity of Anjaw District, Arunachal Pradesh". The foundation stone laying Ceremony of the Eastern Himalayan Faunal Repository was organized on 26<sup>th</sup> October 2023. In the event, His Excellency, Governor of Arunachal Pradesh, Shri K.T. Parnaik being the Chief Guest unveiled the foundation stone in the presence of Dr. Dhriti Banerjee, the Director of ZSI, Kolkata, Shri J. Kumar, IFS (PCCF & HoFF) and other dignitaries. The Launching-off of the Swachhata Campaign by Commissioner of IMC Shri. Likha Tejjii, APCS on 1<sup>st</sup> October 2023 was organized in the centre. Gandhi Jayanti was celebrated on 2<sup>nd</sup> October 2023 by cleaning the Office campus and residential complex under the theme Garbage Free India. Wildlife Week was also celebrated.



Inauguration of Foundation stone of Eastern Himalayan Faunal Repository Building at ZSI, APRC, Itanagar on 26<sup>th</sup> October 2023 by Hon'ble Governor, KT Parnaik & Dr.Dhriti Banerjee, DZSI.



Celebration of Wildlife Week 2023.



Swachhata Campaign at Ganga Lake on 1<sup>st</sup> October 2023 "Garbage Free India" performed by ZSI, APRC, Itanagar on 2<sup>nd</sup> October 2023.



## MARINE AQUARIUM AND REGIONAL CENTRE, DIGHA, WEST BENGAL

Two surveys were conducted on the Daman coast, Tamil Nadu and Pondicherry. A total of 77 species of faunal communities belonging to Polychaete, Mollusca, Nematoda, and Pisces were identified during the month. National Unity Day and Vigilance Awareness Week, 2023 were observed. Office campus along with the garden and residential staff quarter were cleaned and campus beautification was done as a part of Swachhata Hi Seva and Swachha Bharat Mission Special Campaign 3.0. A mass cleaning drive was organized along the Beach Market of Digha on 1<sup>st</sup> October 2023. The “SHRAM DAAN” event was organized and nearly 150 participants from various organizations participated in this mass cleaning campaign. A total of 21 educational institutions from Assam, West Bengal, and Odisha visited the Marine Aquarium during the month as part of an educational tour.



Swachhata Special Campaign 3.0, Swachhata Hi Seva on 1<sup>st</sup> October 2023.



*Lambis crocata* (Link, 1807)



Pledge taking session conducted on the occasion of Rashtriya Ekta Diwas 2023.

## NEW DISCOVERIES AND NEW RECORDS

### NEW SPECIES



*Quadrulella talukensis* Bindu, 2023



*Smicromyrme (Eremotilla) williamsi* Terine & Girish Kumar, 2023

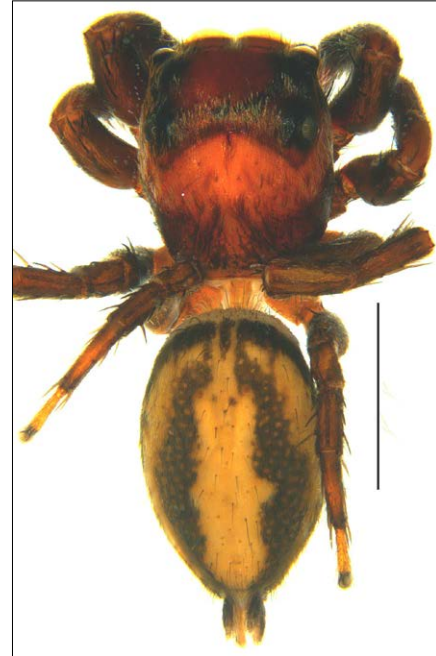


*Awaous motla* Seth, Roy, Sura, Avula, Mishra, Mohapatra, 2023



*Ghatiana sanguinolenta* Pati, Thackeray & Pawar, 2023



*Colopsus peppara* female*Colopsus peppara* male*Dendrolycosa sahyadriensis* female*Dendrolycosa sahyadriensis* male*Glyptothorax siangensis* Singh, Kosygin, Rath & Gurumayum, 2023

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  26. Sudhin, P. P., Sen, S. and Jäger, P., 2023. Taxonomic notes on the nursery-web spider genus *Dendrolycosa* Doleschall, 1859 (Araneae: Pisauridae) from India, with the description of a new species. *Zootaxa*, 5353(1): 67-74.
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## BOOK CHAPTERS

1. Hanima Raveendran, K.P., Girish Kumar, P. and Hegde, V.D., 2023. New records of tiphiid wasps (Hymenoptera: Vespoidea: Tiphidae) from Karnataka with an updated checklist. In: Mathew, S., Jisha, K. and Rekha, K. (Eds.), *Climate Change & Biodiversity*. Vimala College Publications, Thrissur, Kerala, India. Pp: 52-57.
2. Paunekar, S., Sharma, G and Nair, A. 2023. Moths Diversity (Insecta: Lepidoptera) in the different forest areas of Doon Valley, Uttarakhand. In: *Biodiversity Conservation and Its Application*. pp-12-38. (Published by Rathore Academic Research Publications New Delhi)
3. Saikia, B., Sinha B. and Nath, K. P., 2023. *Amphibians of Arunachal Pradesh: Checklist and recent discoveries from the Eastern Himalayas of India*. Zoological Survey of India, 30 pp.
4. Surya, K. S. and Sureshan, P. M. 2023. A new record of *Miscogasteriella burmanica* (Hedqvist) (Hymenoptera: Pteromalidae) from India. In: Mathew, S., Jisha, K. and Rekha, K. (Eds.), *Climate Change & Biodiversity*. Vimala College Publications, Thrissur, Kerala, India. pp. 46-51.

## POPULAR ARTICLES

1. Saikia, U. and Chaudhary, H.C., 2023. *Illegal wildlife trade: a global menace*. Shillong Times 1<sup>st</sup> October, 2023

## ABSTRACTS

1. Brar, J.K., Laskar, B.A., Sidhu, A.K. and Thakur, N., 2023. Taxonomic and molecular studies on Erebid moths of the mid hills of Himachal Pradesh. In: *National Conference on Entomology*, October 13-14, 2023, 29 p.
2. Chand, S. D., Saini, K. and Sidhu, A.K., 2023. Taxonomic studies and Habitat fragmentation of Insecta: Orthoptera from Shivalik, North-Western and Trans Himalaya region of India. In: *National Conference on Entomology*, October 13-14, 2023: 122p.

3. Chauhan, T., Sidhu, A.K., Laskar, B.A. and Thakur, N., 2023. Role of Molecular studies in Taxonomy of family Sphingidae- a case study in mid hills of Himachal Pradesh. In: *National Conference on Entomology*, October 13-14, 2023, 58p.
4. Haripriya, T.D., Sreeraj, C.R. and Limna Mol V.P., 2023. Malacofaunal diversity in the mangroves along the Kerala Coast. In: *Book of Abstracts: National Conference on Reviving Wetlands (Recent developments in Wetland Research)*, CWRDM, Kozhikode, Kerala, India, pp 30.
5. Hussna Nazar, Sreeraj, C.R. and Limna Mol V.P., 2023. Mangrove Associated Fishes: A putative link to the coastal fishery of Kerala. In: *Book of Abstracts: National Conference on Reviving Wetlands (Recent developments in Wetland Research)*, CWRDM, Kozhikode, Kerala, India, pp 78.
6. Kalawate, A.S. and Pathania, P.C., 2023. Micromoths: small wonder of nature and least studied group. In: *National Conference on Entomology*, October 13-14, 2023, 76p.
7. Kamal Saini, Deepak Rai Babbar & Balbinder Singh. 2023. Exploring the Species diversity of Insecta: Orthoptera from Cold Desert Biosphere Reserve (India). In: *National Conference on Entomology*, October 13-14, 2023, 121p.
8. Kaur, M., Kirti, J.S. and Sidhu, A.K., 2023. Taxonomic study and redescription of the genus *Cepora* Billberg, 1820 including its different subspecies and polymorphic forms (Lepidoptera: Pieridae) from India. In: *National Conference on Entomology*, October 13-14, 2023, 64p.
9. Laskar, B.A., Kumar, V., Sidhu, A.K., Brar, J.K. and Chauhan, T., 2023. Application of DNA data in entomological studies. In: *National Conference on Entomology*, October 13-14, 2023, 117p.
10. Sheikh, T. and Pathania, P.C., 2023. Heterocera Diversity in the Pir Panjal Range of the Kashmir Himalaya: Insights into Species Composition, Ecological Significance, and Conservation. In: *National Conference on Entomology*, October 13-14, 2023, 106p.



11. Sheikh, T. and Pathania, P.C., 2023. Rhopalocera of the Pir Panjal Range in the Kashmir Himalaya: Diversity, Distribution, and Conservation. In: 10<sup>th</sup> HSCA-International conference on Role of Science and Technology in Sustainable Development, October 13-14, 2023, 49p.
12. Sidhu, A.K. and Saini, K., 2023. Endemic and threatened insect diversity of Trans Himalaya. In: *National Conference on Entomology*, October 13-14, 2023, 124 p.
13. Sreelakshmi, S., Sreeraj, C.R. and Limna Mol V.P., 2023. Crustacea: The most diverse yet least studied mangrove fauna of Kerala. In: *Book of Abstracts: National Conference on Reviving Wetlands (Recent developments in Wetland Research)*, CWRDM, Kozhikode, Kerala, India, pp 85.
2. Dr. C. Raghunathan, Scientist-F, ZSI/HQ, Kolkata, organized the Swachhta Hi Seva under Special Campaign 3.0 on 1<sup>st</sup> October 2023 at the banks of Ganges River; attended the meeting with Joint Secretary, MoEFCC regarding CoP 28 Side Event proposal to be held at Dubai during 30<sup>th</sup> November to 12<sup>th</sup> December 2023 as well as GEF 8 proposal of ZSI on 3<sup>rd</sup> October 2023 at MoEFCC, New Delhi; attended meeting on capital works chaired by the Additional Secretary, MoEFCC on 4<sup>th</sup> October 2023; attended the MoU signing meeting with ZSI and NBFGR held at Lucknow on 6<sup>th</sup> October 2023 and discussed about the technical matters of the MoU; provided ZSI comments on Invasive Alien Species for Twenty-fifth meeting of the Subsidiary Body on Scientific, Technical and Technological Advice, scheduled to be held from 15 October to 19 October 2023 in Nairobi, Kenya and submitted to MoEFCC on 12<sup>th</sup> October 2023; submitted the ZSI material for Faunal Resources Chapter for INDIA 2024 – A reference annual as requested by Publication Division, Ministry of Information and Broadcasting for publication; attended the Chief Judicial Magistrate court at Port Blair on 19<sup>th</sup> October 2023 to serve as witness in wildlife crime case; attended the Foundation Stone Laying Ceremony for Eastern Himalayan Faunal Repository at ZSI, APRC, Itanagar on 26<sup>th</sup> October 2023 wherein Hon'ble Governor of Arunachal Pradesh, Lt. Gen. Kaiwalya Trivkram Parnaik, was the Chief Guest; delivered a lecture on Himalayan Ecosystem in Biodiversity Perspective during the Foundation Stone Laying Ceremony for Eastern Himalayan Faunal Repository at ZSI, APRC, Itanagar on 26<sup>th</sup> October 2023 wherein Hon'ble Governor of Arunachal Pradesh was the Chief Guest; provided comments on the subject Conservation of coastal ecosystem for C&AG Report to the Public Accounts Committee, Lok Sabha Secretariat has been submitted to the MoEFCC on 31<sup>st</sup> October 2023.

## MEETINGS ATTENDED

1. Dr. Dhriti Banerjee, Scientist – G, Director, ZSI, visited the office of ICAR-National Bureau of Fish Genetic Resources (ICAR-NBFGR) Telibagh, Lucknow in connection with a Memorandum of Understanding (MoU) which was signed on 6<sup>th</sup> October 2023 between Zoological Survey of India and ICAR- NBFGR for research, knowledge sharing and capacity building; attended the two days National Conference on Entomology-2023 as the Chief Guest from October 13<sup>th</sup> to 14<sup>th</sup> 2023 organized by ZSI/HARC, Solan at Hotel Pine Wood, Himachal Pradesh. During the event, the Director delivered a keynote address to inaugurate the proceedings and participated in the technical sessions. Dr. TN Anathakrishan Award 2023 conferred upon Director ZSI by the Association of Entomologists, Punjabi University, Patiala, during the Conference; attended the 137<sup>th</sup> meeting of the Governing Body of the National Council of Science Museums (NCSM) on 20<sup>th</sup> October 2023 at NCSM (Hqrs.), Kolkata; visited ZSI/APRC, Itanagar for the 'Foundation Stone-Laying Ceremony for Eastern Himalayan Repository and inauguration of DNA Lab of the centre on 26<sup>th</sup> October 2023.
3. Dr. Aparna Kalawate, Scientist-E, Dr. K.P. Dinesh, Scientist-E and Dr. S.S. Talmale Scientist-C, ZSI/WRC, Pune, attended a meeting on GeM procurement organised by Headquarter on 10<sup>th</sup> October 2023.

4. Dr. Avtar Kaur Sidhu, Scientist-E, ZSI/HARC, Solan, attended meeting regarding Special Campaign 3.0 for institutionalizing Swachhta and Minimizing pendency in Government offices- Meeting on 6<sup>th</sup> October, 10<sup>th</sup> October, 19<sup>th</sup> October, and 20<sup>th</sup> October 2023 organised by Joint Secretary, MoEF&CC, review meeting of Special Campaign 3.0 on 27<sup>th</sup> October 2023 under chairmanship of Sh. Tanmay, Additional Secretary, MoEF&CC and also attended Inquiry by one Man Committee under the Chairmanship of Deputy Director General of Forest, RO, MoEF&CC Govt. of India, Chandigarh on 12<sup>th</sup> October 2023.
5. Dr. Basudev Tripathy, Scientist-E, Dr. Aparna Kalawate, Scientist-E, Dr. K. P. Dinesh, Scientist-E, Mrs. Rita Deb, Assistant Zoologist and Dr. Vasanthakumar D., Assistant Zoologist, ZSI/WRC, Pune, attended a 'Special Swachhata Campign 3.0' meeting on virtual mode organized by the MoEF&CC on 6<sup>th</sup>, 10<sup>th</sup>, 12<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> October 2023.
6. Dr. Bindu L., Scientist-E, ZSI/WGRC, Kozhikode, attended the Swachhta 3.0 meeting conducted by the Ministry through virtual mode on 6<sup>th</sup> October and 19<sup>th</sup> October 2023.
7. Dr. C. Sivaperuman, Scientist-E, ZSI/ANRC, Port Blair, attended meeting under the chairmanship of Additional Director General of Forests (Wildlife) at MoEFCC, Gol on 16<sup>th</sup> October 2023 in connection with the one week / three days' workshop for the Indian Forest Service Officers; attended Viva Voce examination at PG and Research Department of Zoology, APA College of Arts and Culture, Palani as an external examiner on 31<sup>st</sup> October 2023; meeting with Principal Chief Conservator of Forests & Additional Principal Chief Conservator of Forests, Department of Environment and Forests, A & N Islands on 3<sup>rd</sup> October 2023 as a part of compulsory training course on coastal and marine biodiversity of island ecosystem for the Indian Forests Service Officers.
8. Dr. Dimos Khyrniam, Scientist – D, ZSI/NERC, Shillong, attended the Meghalaya State Wildlife Board meeting held on 4<sup>th</sup> October 2023 at the Secretariat, Shillong.
9. Dr. Navneet Singh, Scientist – E and Dr. Rahul Joshi, Scientist – D, ZSI/HQ, Kolkata, attended National Conference on Entomology at Solan, Himachal Pradesh from 13-14 October, 2023. Dr Navneet Singh chaired one session and Dr Rahul Joshi presented an invited talk.
10. Dr. P. S. Bhatnagar, Scientist –E and Dr. S. D. Paunikar, Scientist – E of ZSI/CZRC, Jabalpur, attended Virtual mode meeting with Additional Secretary, MoEFCC regarding review of Swachhata Campaign 3.0 on 6<sup>th</sup> October, 12<sup>th</sup> October, 19<sup>th</sup> October, and 20<sup>th</sup> October 2023.
11. Dr. S. Balakrishnan, Scientist – E, ZSI/MARC, Digha, attended and participated Webex meeting invitation: Meeting to discuss Preparatory Phase of Special Campaign 3.0 organised by ZSI, HQ, Kolkata on 13<sup>th</sup> October 2023; meeting for Special Campaign 3.0 for institutionalizing Swachhata and minimizing pendency in Government Offices organised by MoEFCC, New Delhi on 13<sup>th</sup> September 2023 and meeting of Standing Committee on Government e-Marketplace (SCoGeM) in respect of MoEFCC, New Delhi on 9<sup>th</sup> October 2023.
12. Dr. S. S. Jadhav, Scientist-E, ZSI/FBRC, Hyderabad, attended review meeting under the chairmanship of Shri. Tanmay Kumar, Additional Secretary, MOEFCC for institutionalizing Swachhata and Minimizing pendency in Government offices on 12<sup>th</sup> October 2023.
13. Dr. Sandeep Kushwaha, Scientist-C, ZSI/CZRC, Jabalpur, attended Jigyasa Proggamme conducted by MP CST at IIIT Jabalpur Madhya Pradesh from 3<sup>rd</sup> to 7<sup>th</sup> October 2023.
14. Dr. SD Gurumayum, Scientist – E & Dr. Temjenmongla, ZSI/APRC, Itanagar, attended a meeting on Special campaign 3.0 hosted by MOEF&CC on 6<sup>th</sup> and 10<sup>th</sup> October 2023.
15. Dr. SD Gurumayum, Scientist – E, ZSI/APRC, Itanagar, attended online meeting on signing MoU with NBFGR on 6<sup>th</sup> October 2023 hosted by ZSI and an online meeting on Special campaign 3.0 hosted by DZSI on 9<sup>th</sup> October 2023.
16. Dr. Souvik Sen, Scientist- D, ZSI/HQ, Kolkata, attended the MoU signing ceremony between ICAR-National Bureau of Fish



Genetic Resources (NBFGR) and Zoological Survey of India (ZSI) held at NBFGR, Lucknow on 6<sup>th</sup> October 2023 and attended the foundation stone laying ceremony of Eastern Himalayan Faunal Repository Building at ZSI-APRC, Itanagar on 26<sup>th</sup> October, 2023 and chaired a session in the 'National Conference on Entomology' held at ZSI, HARC, Solan (HP) from 12<sup>th</sup> to 15<sup>th</sup> October, 2023.

17. Dr. Sreeraj, C.R. Scientist-D, ZSI/WGRC, Kozhikode, participated in the National Conference on Reviving Wetlands (Recent developments in Wetland Research), CWRDM, Kozhikode, Kerala from 11<sup>th</sup> to 13<sup>th</sup> October 2023.
18. Dr. Tamal Mondal, Scientist-D, ZSI/HQ, Kolkata, attended a meeting on MoU signature and exchange in between Zoological Survey of India and ICAR-NBFGR on 6<sup>th</sup> October 2023 virtually; visited Natural History Museum to study the coral type specimens from 13<sup>th</sup> to 29<sup>th</sup> October 2023 and conducted meeting with Dr. Tim Littlewood, Director of Science; John Jackson, Head of Science Policy and Communication; Dr. Miranda Lowe, Principal Curator, (other deuterostome invertebrates); Jon Ablett, Curator (non-marine Gastropoda, Cephalopoda); Dr. Tom S. White, Curator (Bivalvia, Scaphopoda, Polyplacophora, small molluscan classes); Andreia Salvador, Curator (marine Gastropoda & Mollusca historical collections); Dr. Ken Johnson, Principal Investigator, Research on reef corals and coral reefs; Jill Darrell, Curator, Research on reef corals and coral reefs; and Dr. Lauren Hughes, Principal Curator in Charge, Invertebrates (non-insects) during the visit period at Natural History Museum, London; attended a meeting with Dr. Nadia Santodomingo, Departmental Lecturer in Palaeontology, Department of Earth Sciences, and Dr. Bryan Wilson, Researcher, Comparative Immunology and Infectious Disease Group, Oxford University on 20<sup>th</sup> October 2023 at Natural History Museum, London.
19. Dr. V. D. Hegde, Scientist-E, ZSI/WGRC, Kozhikode, attended the online meeting of 3.0 for Swachhata in Government Offices on

6<sup>th</sup> October, 12<sup>th</sup> October, and 19<sup>th</sup> October 2023 with the Ministry.

20. Miss. Rehnuma Sulthana, Assistant Zoologist, ZSI/FBRC, Hyderabad, attended Nodal Officers' meeting from time to time conducted by MOEFCC regarding Swachhata Campaign.
21. Shri Uday Kumar, Shri Sandeep Kumar, Ms. Thapasya K., and Ms. Purnima Kumari, Senior Zoological Assistants, ZSI/WRC, Pune, attended lecture delivered by Dr. S.S. Talmale, Dr. Md. Jafer Palot and Dr. K.P. Dinesh on "Collection, Preservation and Identification of Mammals", "Butterfly diversity of Western Ghats" and "Biodiversity, Biosystematics and Evolution" on 18<sup>th</sup> and 19<sup>th</sup> October 2023 respectively.
22. Supriya Nandi, Scientist-D and Debashree Dam, Scientist-B, ZSI/HQ, Kolkata, participated in the 18<sup>th</sup> meeting of the Central Geological Planning Board (C.G.P.B.) Committee-X, organised by Geological Survey of India on 10<sup>th</sup> October 2023 at GSI, 27-JL Nehru Road, Kolkata-700016.

## TRAININGS ORGANIZED

1. A one-week compulsory training course for the Indian Forest Service Officers (IFS) on "Coastal and Marine Biodiversity of Island Ecosystems" was organized by ZSI/ANRC, Port Blair from 9<sup>th</sup> to 13<sup>th</sup> October 2023.
2. One day training and lecture session on "Marine Faunal Diversity of India" and "Mission LiFE" concepts was conducted to the Asutosh College, Kolkata-Industrial Fish and Fisheries department students was organized by MARC, Digha on 9<sup>th</sup> October 2023.
3. One-day training on "Collection, Identification and Preservation of Marine Faunal Samples" was conducted for the graduation (Microbiology) students of Raja Narendra Lal Khan Women's College, Midnapore, West Bengal was organized by MARC, Digha on 10<sup>th</sup> October 2023.

## TRAININGS ATTENDED

1. Dr. Saipari Sailo, Scientist - C, Mrs. Pallabi Priyadarsini, Zoological Assistant, and Mr. Sourav Pal, Artist-I, ZSI/CZRC, Jabalpur, attended daily classes for six months course of Hindi typing training organized by Hindi teaching Scheme, Dept. of Official Language starting from 21<sup>st</sup> August, 2023.
2. Dr. S. Balakrishnan, Scientist - E, MARC, Digha, attended and participated training for ministries field units for event creation on Special Campaign 3.0 Swachhata Hi Seva (SHS) on 25<sup>th</sup> October 2023.
3. Dr. Aparna Kalawate, Scientist-E, ZSI/WRC, Pune, participated and presented a poster on "An environment cleaner: the secret earth boring beetles (Coleoptera: Bolboceratidae) of India" in an International Conference-Ento-2023 organised by RES, London, 5<sup>th</sup> to 7<sup>th</sup>, September, 2023.

## LECTURES DELIVERED

1. Dr. P.S. Bhatnagar, Scientist - E, ZSI/CZRC, Jabalpur, delivered a lecture on the topic 'Wild life conservation and management' to students of Centre for Medical Mycology Fungal Disease Diagnostic & Research Centre, Jabalpur.
2. Dr. Saipari Sailo, Scientist- D, ZSI/CZRC, Jabalpur, delivered presentation on Prevention of Sexual Harassment of Women at Workplace (PoSH) at Survey of India, Jabalpur on 25<sup>th</sup> October 2023.
3. Dr. C. Sivaperuman, Scientist-E, ZSI/ANRC, Port Blair, delivered a talk on Biodiversity of A & N Islands (in Tamil) in the online platform; Mind Your Mind on 25<sup>th</sup> October 2023; on an overview of Biodiversity of A & N Islands in the one-week compulsory training course for the Indian Forest Service Officers (IFS) on Coastal and Marine Biodiversity of Island Ecosystems held during 9<sup>th</sup> to 13<sup>th</sup> October 2023.
4. Dr. V.D. Hegde, Scientist-E, ZSI/WGRC, Kozhikode, delivered an invited lecture

to the M.Sc (Zoology) students of Kannur University at the Mananthawady campus on 5<sup>th</sup> October as Part of the Wildlife Week Celebration.

5. Dr. Sreeraj, C.R. Scientist-D, ZSI/WGRC, Kozhikode, delivered a lecture on the topic "Plastic pollution and marine life" to the MBA (Liberal Studies and Management) students from the Indian Institute of Management, Kozhikkode on 7<sup>th</sup> October 2023
6. Dr. P. Girish Kumar, Scientist-D, ZSI/WGRC, Kozhikode, delivered a lecture on Hymenoptera to the research scholars and postgraduate students of the Department of Zoology, Kannur University, Mananthavady Campus on 5<sup>th</sup> October 2023.
7. Dr. SD Gurumayum, Scientist - E, ZSI/APRC, Itanagar, delivered a speech on Introduction to ZSI and its role in conservation of Wild Life during the Wildlife week on 5<sup>th</sup> October 2023.
8. Dr. Sachin R. Patil, Scientist-B, ZSI/WRC, Pune, delivered a on "Spider Taxonomy and a Case Study" in a 'Workshop on Animal Awareness' organised by Bhartiya Jain Sanghata's Arts, Science and Commerce College, Wagholi, Pune on 7<sup>th</sup> October 2023; plenary lecture on "Conservation Implications of Avian Diversity" in the national conference on "Discovery of Flight: A National Conference for Enthusiatic Bird Wathers" organised by SSVP's L.K. Dr. P.R. Ghogrey Science College, Dhule, Maharashtra on 21<sup>st</sup> October 2023.
9. Dr. K.P. Dinesh, Scientist-E, ZSI/WRC, Pune, delivered a lecture with onsite training on "Collection, preservation and identification of amphibians" to the students of Wildlife Conservation Action Course at Bharati Vidyapeeth Institute of Environment Education and Research (BVIEER), Pune on 18<sup>th</sup> October 2023; delivered a lecture on "Biodiversity, Biosystematics and Evolution" to the M.Sc. Zoology students of the Savitribai Phule Pune University on 19<sup>th</sup> October 2023.
10. Dr. S.S. Talmale, Scientist-C, ZSI/WRC, Pune, delivered lecture on "Collection, Preservation and Identification of Mammals" to the M. Sc. Zoology students of Ahmednagar College,



Ahmednagar on 18<sup>th</sup> October 2023.

11. Dr. Md. Jafer Palot, Scientist-B, ZSI/WRC, Pune, delivered a lecture on the "Butterfly diversity of Western Ghats" to the M.Sc. Wildlife Conservation Action Programme students of the Institute of Environment Education and Research, Bharati Vidyapeeth University, Pune on 18<sup>th</sup> October 2023.
12. Dr. S.K. Pati, Assistant Zoologist, ZSI/WRC, Pune, delivered a lecture on "Zoological Names" to the visiting MSc students of the Savitribai Phule Pune University, Pune at the ZSI, WRC, Pune on 19<sup>th</sup> October 2023.
13. Mrs. Shabnam Ansari, Senior Zoological Assistant, ZSI/WRC, Pune, provided DNA barcoding orientation lecture to the B.Sc. and M.Sc. students of Savitribai Phule Pune University, Pune.

14. Dr. N. Marimuthu, Scientist – E, ZSI/HQ, Kolkata, delivered lecture on "Coral reef habitat and their Restoration strategies" [F. 217-3/2022-Tech (Visit Pt IV)/24954] to the PG Students, Department of Zoology, Fakir Mohan University, Vyasa Vihar, Balasore, Odissa on 4<sup>th</sup> October 2023 at General Non-Chordata Section, ZSI/HQ, Kolkata.
15. Dr. Pubali Mitra, Senior Zoological Assistant, ZSI/HQ, Kolkata, delivered a lecture as resource person on Research Methodology to UG students of South Calcutta Girls college on 16<sup>th</sup> October, 2023.

## PHOTO GALLERY







Memorandum of Understanding (MoU) was signed on 6<sup>th</sup> October 2023 between Zoological Survey of India and ICAR-National Bureau of Fish Genetic Resources (NBFGR) for research, knowledge sharing and capacity building. In this connection Director ZSI visited the office of ICAR-NBFGR, Telibagh, Lucknow



Celebration of Unity Day on 31<sup>st</sup> October, 2023.





Director ZSI attended the two days National Conference on Entomology-2023 as the Chief Guest from October 13<sup>th</sup> to 14<sup>th</sup> 2023 organized by ZSI Solan at Hotel Pine Wood, Barog, District Solan (Himachal Pradesh). Distinguished guests included Prof. (Dr.) Jagbir Singh, President of the Association of Entomologists as Guest of Honour.



Dr. TN Anathakrishan Award 2023 conferred upon Director ZSI by the Association of Entomologists Punjab University, Patiala during the Conference



Director ZSI visited APRC, ZSI, Itanagar for the 'Foundation Stone-Laying Ceremony for Eastern Himalayan Repository and inauguration of DNA Lab' of the centre on 26<sup>th</sup> October 2023. Hon'ble Governor of Arunachal Pradesh Shri Lt. General Kaiwalya Trivikram Parnaik, PVSM, UYSM, YSM (Retd) was the chief guest of the ceremony. This event is a pivotal moment in the history of APRC and will serve as a testament to the institution's commitment to scientific research and conservation efforts in the Eastern Himalayan region.





Snake bite Awareness program at Maddox Square during Durga puja 2023 as part of Mission LiFE Campaign to share their insights, exchange knowledge, and explore proactive measures to prevent snakebite-related fatalities.