



सत्यमेव जयते



Ministry of Environment,  
Forest and Climate Change



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### Cover

Black-faced Laughing Thrush  
*Garrulax affinis* Blyth, 1843  
[Photo: ZSI Headquarters]©

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Zoological Survey of India

# ZSI E-NEWS

I am glad to present the March 2021 issue of E News to the readers. Four books viz., Deep Sea Faunal Diversity in India, Current Status on Faunal Diversity In Telangana, Faunal Diversity of Bhoj Wetland, Bhopal, Madhya Pradesh, India (A Ramsar Site), Wetland Ecosystem Series and Status of Avifaunal Diversity in Bird Sanctuary of India were published during the month. Regional Museum of ZSI was inaugurated at Freshwater Biology Regional Centre on 25<sup>th</sup> March 2021. Foundation Stone laid for the

Visiting Scientists Hostel at ZSI Residential Quarters on 12<sup>th</sup> March 2021 at ANRC, Port Blair; also the Molecular Systematics Laboratory at ANRC was inaugurated on the same day. At EBRC, Gopalpur on Sea, Odisha, DNA and Molecular Systematic Laboratory and Centre for Sea Turtle in the name of Dr. C.S. Kar, one of the Pioneer sea turtle researchers was inaugurated on 5<sup>th</sup> March, 2021. During the inaugural session of the Workshop, a MoU between the Zoological Survey of India and Khallikote University was also signed. 15253 specimens containing 1788 species from Protozoa to Mammalia were identified, while 46 species +3 ssp were augmented to the National Zoological Collections. At the same time, 8 new species, from Reptilia, Insecta and Crustacea were described during the month along with the report of an Echinoderm and four Lepidoptera as new record to India. As a part of publication, in addition to 4 books 28 papers in SCI and NAAS rated journals were published. DNA barcoding of 146 specimens done during the month. I congratulate all the officers and staff of ZSI for the remarkable achievement during the month.

Jai Hind.

**Dr. KAILASH CHANDRA**  
Director

April 5, 2021  
Kolkata

# HEADQUARTERS, KOLKATA

Tagging of Sea turtle by Dr. Kailash Chandra, Director ZSI at Rushikulya



Field survey undertaken along the West Bengal and Odisha coast, Singalila National Park and Bibhutibhushan Wildlife Sanctuary. Four new species: *Tritodynamia bengalensis* n. sp., (Crustacea), *Zeuxevania hubeni* Kazmi and Rameshkumar (Hymenoptera), *Aberrasine pangsau* Singh, Kirti & Bisht, 2021 (Lepidoptera) and a new species of *Oneilliella* (Thysanoptera) were described and Echinodermata *Bohadschia atra* Massin, Rasolofonirina, Conand & Samyn, 1999 recorded for the first time from India. 27 species and 3 subspecies from Nematelminthes (6), Platyhelminthes (2), Lepidoptera (8 +3 subspecies), Hemiptera (2), Trichoptera (5) and Hymenoptera (4) have been augmented to the National Zoological Collections. Identification services rendered on birds to Forest range officer, Howrah II, Range, Wildlife Crime Control Cell and Data Management Unit,

Wildlife, Kolkata; for Alipore Zoo with reference to Watgunge Police Station; Indian grey mongoose (*Herpestes edwardsi*) for Judicial Magistrate No. 1 Coimbatore, Tamilnadu; identified Hemiptera specimens for Scott Christian College, Nagercoil, Division of Entomology, Faculty of Agriculture, Wadura; Sher-e-Kashmir University of Agricultural Sciences and Technology, Kashmir and Uttarbanga Krishi Vidyalyay, Coochbihar. Identified Isoptera

specimens for Tea Research Association, Nagrakata, Jalpaiguri, West Bengal. 14 sequences (04 species of ticks) 3 sequences of Diptera, 3 spp. of mammals generated and uploaded in NCBI. Scientists evaluated Ph.D thesis on Coleoptera received from Kerala Agricultural University, Trichur and reviewed manuscript for in house journal. Two students have been awarded Ph.D degree by University of Calcutta. Two researchers from Department of Zoology,

Gauhati University, Assam visited Freshwater Fish Section of ZSI, Kolkata from 18.03.2021 to 19.03.2021 to examine type and other specimens available in the National Zoological Collections.

## NORTH EASTERN REGIONAL CENTRE, SHILLONG, MEGHALAYA

Great Cormorant in non breeding plumage

A female common Merganser



Local survey conducted to the Govt. Fruit Garden, Shillong, East Khasi Hills Dist., Meghalaya. Identified 663 examples under 124 spp. containing Lepidoptera 68 spp., Coleoptera 11 spp., Crustacea 2 spp., Pisces 26 spp., Amphibia 10 spp., Reptilia 3 spp. and Mammalia 4 spp. Identification services rendered to WRC, Pune on Coleoptera and to Bodoland University, Assam on fishes.

## WESTERN REGIONAL CENTRE, PUNE, MAHARASHTRA

During the month 537 specimens containing 246 species from survey and backlog collections have been identified by this centre. The identified specimens include Amphibia, Coleoptera, Odonata, Lepidoptera and Decapoda. Two new species of freshwater crabs were described. Celebrated the International Women's Day on 8<sup>th</sup> March 2021 by conducting a National Webinar on "Role of women scientists in combating COVID-19".

## CENTRAL ZONE REGIONAL CENTRE, JABALPUR, MADHYA PRADESH

Lepidoptera (moths) 23 species, Scorpionida 04 species, Amphibia 05 species and Mollusca 08 species were identified and registered during the period under report. Scientists of the centre described *Sitana sushili* Deepak *et al.* a new Agamid Reptile. Identification and advisory service rendered to Dept. of Entomology, Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur on Moths. Reviewed one manuscript for PLOS Neglected Tropical Diseases.



# DESERT REGIONAL CENTRE, JODHPUR, RAJASTHAN

Cursorius coromandelicus  
(Gmelin, 1789)



Agriculture University, Jodhpur at Krishi Vigyan Kendra (KVK), Gudamalani, Barmer-II, Rajasthan on 6th March, 2021 and established a stall for showcasing the animals and information pertaining to Farmers and the stall was awarded Third position in the exhibition and certificate presented by Hon'ble Union Minister of State for Agriculture and Farmer Welfare Shri Kailash Choudhary on the occasion. International Women's Day (IWD) 2021 was organized on 8th March, 2021.

A total of 812 examples containing 61 species (20 spp. of Lepidoptera, 2 spp., of Hemiptera, 04 spp., of Coleoptera, 22 spp. of Hymenoptera and 14 spp. of Pisces) were identified during the month. Scientists of the center participated in the Farmer's Fair (Kisan Mela) organized by Directorate of Extension Education,

Dr. Sanjeev Kumar, Scientist-E receiving Certificate from Hon'ble Union MoS for agriculture and Farmer welfare, Govt. of India



# NORTHERN REGIONAL CENTRE, DEHRADUN, UTTARAKHAND



Indian white-eye, *Zosterops palpebrosus* (Temminck, 1824)



Crimson sunbird, *Aethopyga siparaja* (Raffles, 1822)

Survey conducted to Durgapur, Paschim Bardhaman district, West Bengal and Midnapore, Paschim Medinipur district, West Bengal from 07-03-2021 to 22-03-2021 for

the SERB funded project titled Microstructure, individual and sub-species variations of song in Indian Robin *Copsychus fulicatus* (Linn. 1766). Scientists of the centre

examined 229 examples and identified 77 species of different faunal groups (i.e. 7 spp. of Protozoa; 6 spp. of Nematoda; 9 spp. of Odonata; 32 spp. of Lepidoptera; 9 spp. of

Annelida; 4 spp. of Pisces and 10 spp. of Aves from Uttarakhand, Himachal Pradesh and Uttar Pradesh. Seventeen DNA barcode sequences belonging to Lepidoptera, Hemiptera and Blattodea have been generated and uploaded to NCBI.

# SOUTHERN REGIONAL CENTRE, CHENNAI, TAMIL NADU

.....  
Hooded  
Grasshopper

The Scientists of the centre identified 369 examples belonging to 64 species of Coleoptera, Odonata, Hemiptera, Mollusca, Psocodea, Fishes and Reptiles. Surveys were undertaken from 06<sup>th</sup> to 13<sup>th</sup> March 2021 to Rajasthan to study phylogeography of Rhesus macaque and Black Buck. The Kerala



.....  
Robber fly

part of Nilgiri Biosphere Reserve was surveyed under LTEO project from 16<sup>nd</sup> to 26<sup>th</sup> March , 2021. Forty students of Ethiraj College for Women and New College, Chennai visited the centre on 12.02.2021 and were briefed about the collection, preservation, and identification of zoological specimens and activities of SRC, Chennai. Reviewed article for the *Journal of Threatened Taxa* and *Current Science* and One Ph.D Thesis evaluated for RTM University, Nagpur.

# GANGETIC PLAINS REGIONAL CENTRE, PATNA, BIHAR



.....  
Common Shell duck *Tadorna  
tadorna* (Linnaeus, 1758)



.....  
*Gavialis gangeticus* (Gmelin,  
1789) in Kosi River.

Kosi Dolphin Census Survey conducted for 10 days from 12-22 March 2021 from Birpur Barrage to Ganga and Kosi confluence at Kursela, Bihar. Identified and Registered 175 examples under 06 species in Mollusca and 195 examples representing 50 species of Lepidoptera.

# HIGH ALTITUDE REGIONAL CENTRE, SOLAN, HIMACHAL PRADESH



Little Cormorant  
*Phalacrocorax niger*  
(Vieillot, 1817)

Scientists of the Centre identified 51 species, out of which 27 species belongs to Lepidoptera; 09 species of EPT complex; 02 species belong to Orthoptera; 07 Species of Hymenoptera; 03 species of group Amphibia; 03 Species of Reptilia by examining 227 specimens. Two research papers on Lepidoptera have been reviewed for national Journal and advisory information about migratory birds and Pong Dam Wetland were provided to Science Reporter. The International Women Day was celebrated in the centre.

Smt. Kamlesh Chandel, LLB, Chief guest giving her opinion on women empowerment



# MARINE BIOLOGY REGIONAL CENTRE, CHENNAI, TAMIL NADU

131 specimens containing 48 species from Testate Amoebae 18 species, Marine Sponges 06 species, Crab 02 species, Mollusca 05 species, Echinodermata 01 species, Pisces 16 species have been identified during the month and one DNA Barcode generated. Identification and advisory services rendered to NIRT, Chetpet Chennai

# ANDAMAN AND NICOBAR REGIONAL CENTRE, PORT BLAIR

Two surveys were conducted to Great Nicobar Island from 24<sup>th</sup> to 31<sup>st</sup> March 2021 to study the Status, distribution patterns and

Inauguration of DNA laboratory



habitat modeling of Nicobar Megapode *Megapodius nicobariensis* Blyth, 1846: six days local surveys were conducted to Havelock, Mount Harriet National Park, Chidiyatappu Biological Park, BSI Botanical Garden, North Bay, South Andaman to assess the terrestrial and marine faunal diversity from 14<sup>th</sup> to 19<sup>th</sup> March 2021. Aerial survey has been conducted in South Andaman along with Station Flight Safety Officer, INS Urktosh, Indian Navy on 23<sup>rd</sup> March 2021. A total

of 505 species comprised of 29 spp. of Fishes; 3 spp. of Sea anemones; 88 spp. of Mollusca; 35 spp. of Decapoda; 215 spp. of Coral; 14 spp. of Echinoderms were identified from marine environment and 81 spp. of Lepidoptera; 1 sp. of Reptilia; 18 spp. of Arachnida; 2 spp. of Odonata; 11 spp. of Coleoptera; 2 spp. of Hymenoptera; 6 spp. of Hemiptera were identified from terrestrial environment. Dr. Kailash Chandra, Director laid Foundation Stone for the Visiting Scientists Hostel at ZSI Residential Quarters on 12<sup>th</sup> March 2021. Dr. Kailash Chandra, Director, ZSI, and Shri. Tarun Coomar, IFS, Principal Chief Conservator of Forests, A & N Islands



*Chromodoris elisabethina*  
Bergh 1877

inaugurated the Molecular Systematics Laboratory on 12<sup>th</sup> March 2021. Scientist of the centre evaluated Ph.D. Thesis entitled "Foraging ecology of selected birds in Kole wetlands of Thrissur, Kerala, India" to Cochin University of Science & Technology, Kochi.

# SUNDERBAN REGIONAL CENTRE, CANNING, WEST BENGAL

Scientists undertaken three local surveys to Pakhir island, Henry's island and Dabu on 27.02.2021, 02.03.2021 and 03.03.2021 respectively and samples of Fishes, Mollusca and Crustacea were collected. A total of 44 species were identified containing 15 species of Arthropoda and 27 species of Mollusca. 19 species were augmented during this month. One M.Sc Student completed her dissertation work on species assemblage in the mangrove root habitat of Sunderban, India.

# FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD, TELANGANA



Hon'ble Minister Shri Allola Indrakaran Reddy presenting the Current Status Of Faunal Diversity

The scientists, staff and research scholars of the centre examined 1316 specimens from Amrabad and Kawal Tiger Reserve, Himayatsagar, Rangareddy district, Wyra lake, Palair Lake, Ramappa lake, Telangana, Krishnaraj Sagar Reservoir, Mandya, Karnataka, Amravati and Visakhapatnam, Andhra Pradesh; Ahmadnagar and Satara districts, Maharashtra; Salem, Tamil Nadu and identified 12 species of aquatic coleoptera, 10 species of blattodea, 6 species



Director, Dr. Kailash Chandra, inaugurating the Regional Museum of Zoological Collections.

of Ostracoda and Branchiopoda, 16 species of Mollusca, 54 species of fishes and 18 species of butterflies during the month of March. Two books viz., *Current Status on Faunal Diversity in Telangana* and *Faunal Diversity of Bhoj Wetlands - A Ramsar Site* were released by Shri Allola Indrakaran Reddy Hon'ble Minister for Forest, Environment, Science and Technology, Endowments, Law, Government of Telangana in presence of Smt. R.Sobha IFS Principal Chief Conservator of Forests and Head of Forest Force, Government of Telangana on 25<sup>th</sup> March 2021. Regional Museum of Zoological Collections was inaugurated by Director, Dr. Kailash Chandra in presence of Shri Adhar Sinha IAS, Director General (EPTRI) and Special Chief Secretary, Government of Telangana on 25<sup>th</sup> March 2021.

# WESTERN GHATS REGIONAL CENTRE, KOZHIKODE, KERALA



*Asanada sukhensis*  
Jangi & Das

Field surveys (16.3.2021 to 24.3.2021) were undertaken in LTEO plots at Muthanga, Begur, Kottiyur and Aralam WLS, Kerala. Scientists of the Centre identified 62 species (Spider-16 spp., Hymenoptera-34 spp., Mantodea-07 spp, Reptile-05 spp.) from 334 specimens. 05 Identification and advisory service were rendered. The International Women's' day was celebrated at WGRC, ZSI, Calicut on 8<sup>th</sup> March 2021 following all COVID 19 guidelines.



*Ficedula nigrorufa*  
(Jerdon)

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

The DNA and Molecular Systematic Laboratory was inaugurated by Dr. Kailash Chandra, Director Zoological Survey of India on 5<sup>th</sup> March, 2021. A Centre for Sea Turtle in the name of Dr. C.S. Kar, one of the Pioneer sea turtle researchers of Odisha was also inaugurated by Dr. Kailash Chandra, Director Zoological Survey of India on 5<sup>th</sup> March, 2021. "SERB-DST Sponsored Training workshop on Population Estimation of Olive Ridley Turtle" was also conducted on 5<sup>th</sup> March, 2021 in which Prof. S.K. Dutta, Herpetologist, Dr. Basudev Tripathy, Zoological Survey of India, Dr. Satya Ranjan Behera, Odisha Biodiversity Board and Mr. Muralidharana, M., Dakshin Foundation, Bangalore had served as resource person and Dr. Kailash Chandra Director Zoological Survey of India had presided the workshop. During the inaugural session of the Workshop a MoU between the Zoological Survey of India and Khallikote University was signed between the Director Zoological Survey of India, Dr. Kailash Chandra and Vice Chancellor of the Khallikote University Prof. P.K. Mohanty. A total of 415 specimens were identified which includes lice, crabs, prawns and fishes. Five days local surveys of *Phthirapteran ectoparasites* infesting Common Poultry of Odisha along Ganjam and Gajapati district were carried out from which 14 lots of specimens were collected. Fifteen days of survey on Sea turtle tagging to different parts of Odisha coast was also conducted and a total of 1080 turtles were tagged onshore during this month. During this month Shri Tandra Adikanda Patro, Office Attendant (MTS) superannuated after more than 37 years of service at Estuarine Biology Regional Centre, Zoological Survey of India.



Inauguration of C.S.Kar centre for sea Turtle research



Inauguration of DNA and Molecular Systematic laboratory

# ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

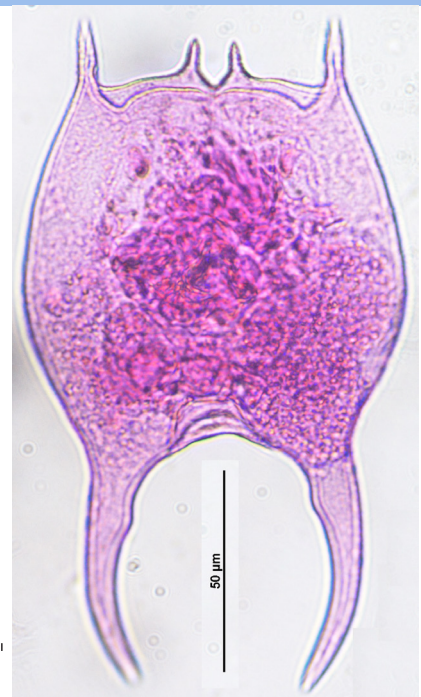
Local surveys were conducted to Bath Village and Lobby area, Nyorch village and Upper Magoring area of Itanagar WLS and Lower Chimpu, PapumPare district on 9<sup>th</sup>, 19<sup>th</sup> & 22<sup>nd</sup> March, 4 spp. of Cladocera, 05 spp. of Rotifera, 1 sp. of Amphibian, 1 sp. of Reptilia, 3spp. of Diplopoda, 8 spp.

*Hebomoia glaucippe* (Linnaeus)



of Mollusca and 39 spp. of Lepidoptera were identified during this month. Four advisory services were rendered by the scientists of this centre.

*Brachionus forficula* Wierzejski, 1891





# MARINE AQUARIUM AND REGIONAL CENTRE, DIGHA, WEST BENGAL



Scientists of the centre participated in a Mudflat survey to West Bengal and Odisha Coast on 18.03.2021 to 25.03.2021 and another survey for Studies on the Bryozoans in Indian Reefs from 24.02.2021 to 05.03.2021. Sample specimens of Mollusca, Polychaete, Barnacles, Brachiopods, Sponges, Sea anemone, Hermit crab, Fishes, Seapen, Crabs, Nudibranch, Bryozoa, Shrimps, Star fish, Ribbon worm and Horseshoe crab were collected. Scientists of this centre identified a total of 185 species containing Mollusca 151 spp., Cnidaria 12 spp., Polychaete 05 spp., Echinodermata 04 spp., Arthropoda 05 spp.,



Fishes 06 spp. and Brachiopoda 02 spp..  
Shri. Arun Sekhri, IAS, Secretary (Home), Government of Punjab visited to the Marine Aquarium on 19th March 2021. Scientists of the centre evaluated two Ph.D. thesis and one DST, SERB-POWER Grant projects and attended elections trainings.

Bed of *Timoclea* sp

*Laternula truncata*  
(Lamarck, 1818)

## NEW DISCOVERIES AND NEW RECORDS

### NEW SPECIES

*Sitana sushili*  
Deepak, et al. 2021



*Tritodynamia bengalensis* Trivedi,  
Mitra & Ng, 2021



*Potamiscus mima*  
Pati, 2021

*Potamiscus chizami*  
Pati, 2021



Zeuxevania hubeni Kazmi & Rameshkumar



Holotype

1

NE. India, Arunachal Pradesh, Shergaon  
27.1251N, 92.2556 E  
25.VI.2019  
Leg. Santosh Singh Bisht

Aberrasine pangsau N. Singh, Kirti & Bisht, 2021

## NEW RECORDS

Casminola seminigra (Hampson, 1896)



Evonima ronkaygabori Han & Hu, 2019.



Meganola suffusata (Wileman & West, 1929)



Nola euryzonata (Hampson, 1900)

# PUBLICATIONS

## Books

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## Popular Article

1. Banyal, H.S. Kumar, Sanjeev and Sharma, I. 2021. मत्स्य वर्ग-राजस्थान के जलीय संसाधनों की खाद्य श्रृंखला की एक महत्वपूर्ण कड़ी Published in Smarika-2021: Official Language Scientific Seminar- Role of science in building self-reliant India. Published: Rajbhasha Publication and Public Relation Section. Defence Laboratory, DRDO, Jodhpur. Pp. 18-19
2. Kumar, Sanjeev and Banyal, H.S. 2021. राजस्थान के वन्य प्राणियों के अन्वेषण, वर्गीकरण के संदर्भ में मरु प्रादेशिक केन्द्र, भारतीय प्राणी सर्वेक्षण, जोधपुर का योगदान. Published in Smarika-2021: Official Language Scientific Seminar- Role of science in building self-reliant India. Published: Rajbhasha Publication and Public Relation Section. Defence Laboratory, DRDO, Jodhpur. Pp. 20-21.

## Conference Organized

1. One day training workshop on Population estimation of Olive Ridley Turtle was organized on 5th March 2021 at the Estuarine Biology Regional Centre, ZSI, Gopalpur-on-Sea, as part of the DST-SERB-CRG-Scientific Social Responsibility.
2. National Webinar on "World Sparrow Day" organized by ENVIS Centre on Biodiversity at ZSI HQ on 20th March 2021
3. A training program was organized at GPRC, Patna on rescue and rehabilitation of birds, reptiles and dolphin in nature on 6th March 2021.
4. A National Webinar on "Role of women scientists in combating COVID-19" was organised by the Zoological Survey India, Western Regional Centre, Pune on occasion of the International Women's Day on 8th March 2021.

## Meetings Attended

1. Dr. Kailash Chandra, Director, Zoological survey of India, inaugurated the DST-SERB-CRC-Training Workshop on Population Estimation of Olive Ridley Turtle at Estuarine Biology Research Centre, ZSI, Gopalpur, Odisha from 4<sup>th</sup> March, 2021 to 5<sup>th</sup> March, 2021.
2. Dr. Kailash Chandra, Director, Zoological survey of India laid the foundation stone for Visiting Scientists Hostel in ZSI, Port Blair and inaugurated the Molecular Systematics Laboratory in ANRC, ZSI along with Shri Tarun Coomar, IFS, PCCF, Andaman & Nicobar Islands.
3. Dr. Kailash Chandra, Director, Zoological survey of India inaugurated the National Webinar and Painting Competition for kids on 12<sup>th</sup> March on World Sparrow Day at ZSI, HQ., Kolkata.
4. Dr. Kailash Chandra, Director, Zoological survey of India inaugurated the International Training Workshop on Ichthyotaxonomy via video conferencing on 23<sup>rd</sup> March, 2021.
5. Dr. Kailash Chandra, Director, Zoological survey of India released the two books namely "Current status of Faunal Diversity of Telangana" and "Faunal Diversity of Bhoj Wetland Bhopal, Madhya Pradesh" and also inaugurated Regional Museum of FBRC, ZSI, Hyderabad from 25<sup>th</sup> March, 2021 to 29<sup>th</sup> March, 2021.
6. Dr. Kailash Chandra, Director, Zoological survey of India chaired the Editorial and Publication Meeting for selling of books on 2<sup>nd</sup> March, 2021 at Bainsi Prasad Hall.
7. Dr. Kailash Chandra, Director, Zoological survey of India chaired the meeting with PCCF and Senior Officers of Forest Department of Govt. of West Bengal 8<sup>th</sup> March, 2021 to 9<sup>th</sup> March, 2021 at Bainsi Prasad Hall.
8. Dr. Kailash Chandra, Director, Zoological survey of India chaired the Monthly Scientific Consultative Meeting of ZSI HQs. and Regional Centres of ZSI for the month of March, 2021 via video conferencing on 31<sup>st</sup> March, 2021 at Bainsi Prasad Hall, ZSI, HQ, Kolkata.
9. Dr. C. Raghunathan attended the meeting with IOCL for the coral translocation study on 9th March 2021; Chaired the interview for recruitment of JRF on 17th March 2021; PBRs evaluation meeting organized by West Bengal Biodiversity Board on 22<sup>nd</sup> March 2021; XXXI meeting of the State Level Steering Committee for Sunderban Biosphere Reserve on 23<sup>rd</sup> March 2021.
10. Dr. P. M. Sureshan, Scientist-E attended the state level steering committee meeting for Nilgiri Biosphere Reserve and Agasthyamalai Biosphere Reserve on 26.3.2021 organized by Kerala State Forest and Wildlife Department through video conferencing.
11. Dr. V D Hegde, Sci-E attended the 22nd Governing Body meeting of Meghalaya Zoo Project Implementation Society, Shillong on 18th March, 2021; also attended an interview as an expert member of the interview Board for various positions in Meghalaya Forest Dept. on 19th March at Shillong.
12. Dr. Avtar kaur Sidhu, Scientist-E and Officer-in-Charge attended Online Training Programme on "Vigilance & Discipline" on 19th March and 20th March, 2021 organized by ITPR, New Delhi.
13. Dr. C. Sivaperuman, Scientist-E attended the Institutional Animal Ethics Committee meeting to review the ongoing Research work in Regional Medical Research Centre, ICMR, Port Blair on 9th March 2021; attended the Doctoral Committee meeting to review the ongoing Ph.D. Research work in the Department of Ocean Studies and Marine Biology, Pondicherry

University on 8th March 2021; attended the Human Ethical Committee meeting to review the ongoing Research work in Regional Medical Research Centre, ICMR, Port Blair on 9th March 2021.

14. Dr. Deepa Jaiswal, Scientist-E participated in Board meeting of Andhra Pradesh State Biodiversity Board on 24th March, 2021 and discussed about the preparation of PBR & Project proposal regarding faunal diversity of Protected Areas of Andhra Pradesh.
15. Dr. Gaurav Sharma Scientist-E had attended the six monthly research scholars progress evaluation Research Advisory Committee Meeting organized by Forest Protection Division, Forest Research Institute, Dehradun on 25th March, 2021, as an external member.
16. Smt. I J Kharkongor, Sci- E attended the 1st meeting of "State level PBR Quality Evaluation Monitoring Committee" on 22nd March, 2021 at Shillong.
17. Dr. Narender Sharma attended 1st meeting of the State Level People's Biodiversity Registers (PBRs) quality Evaluation Monitoring Committee on 11th March, 2021 at State Forest Research Institute, Van Vihar, Chimpu, Government of Arunachal Pradesh.
18. Dr. P. Girish Kumar, Scientist-C attended a virtual meeting conducted by Mahila Shakti Kendra, Ministry of Women and Child Development, Govt. of India on 22.03.2021.

## Lectures delivered

1. Dr. P. M. Sureshan, Scientist-E delivered a lecture on the topic "Role and functions of ZSI" in the Webinar cum virtual study tour on 08.3.2021 organized by PG and Research department of Zoology, Sree Narayana College, Pattambi, Kerala.

2. Dr. Sanjeev Kumar & Dr. H. S. Banyal, Scientist-E attended and presented research papers in Official Language Scientific Seminar on Role of science in building self-reliant India organized by Defence Laboratory, DRDO, Jodhpur on 15<sup>th</sup> -16<sup>th</sup> March 2021.
3. Dr. Sanjeev Kumar, Scientist-E delivered invited lecture on *Conservation of Wildlife from a common man's perspective* organized by Regional Institute of Education, Ajmer, Rajasthan under the Environmental Education - Theme Park on 23<sup>rd</sup> March, 2021 through virtual mode.
4. Dr. C. Sivaperuman, Scientist-E delivered a talk on Antarctica: A Fascinating journey through everlasting ice to the trainees of the Refresher course in Environmental Studies organized by UGC-Human Resource Development Centre, Madurai Kamaraj University, Madurai on 20<sup>th</sup> March 2021.
5. Dr. G. Maheswaran, Scientist-E delivered a lecture on World Sparrow Day on 20 March, 2021.
6. Dr. K. A. Subramanian, Scientist-E, delivered lecture on "Biodiversity and Conservation Challenges in the Western Ghats" on 10<sup>th</sup> March, 2021 at Entomology Research Institute, Loyola College, Chennai and on biodiversity conservation laws and IUCN threat assessment to the students of PG Diploma Course in Taxonomy, ZSI, Kolkata on 11<sup>th</sup> & 12<sup>th</sup> March, 2021.
7. Dr. Anil Kumar, Scientist-E presented an invited talk titled, "*Avifauna of India: Identification techniques, taxonomical advances and significance*" on 4th March 2021, through online mode in a National level Workshop titled, 'Fish and Avian Diversity: Identification and Conservation, 03-04 March, 2021' organised by Faculty Development Centre, Kurukshetra University, Kurukshetra, Haryana.
8. Dr. Anil Mohapatra, Scientist-E & Officer-in-Charge had online

presented "Faunal Diversity Profile of India: Fishes (Marine)" on 01.03.2021 for the students of Post Graduate Diploma in Integrative Animal Taxonomy, organized by Zoological Survey of India, Kolkata.

9. Dr. Anil Mohapatra, Scientist-E had online presented "Taxonomy of marine eels: with special reference to the Indian waters" in the International Training Workshop on Ichthyotaxonomy on 25<sup>th</sup>, March, 2021, organized by University of Kerala.
10. Dr. A. Rameshkumar, Scientist-C delivered a lecture on "Introduction on Sampling and Collection methods with reference to Entomological research" under the module 3 (Statistical applications in Biodiversity studies) for PG Diploma in Integrative Animal Taxonomy.
11. Imran Alam, has delivered a lecture on Bird Diversity Profile of India: an overview to PG Diploma student on 11<sup>th</sup> March 2021.
12. Dr L Kosygin Singh, Scientist-E delivered a lecturer on Freshwater Fishes for the students of the Post Graduate Diploma course of ZSI.
13. Dr. Rajmohana K, Scientist-E delivered an invited lecture on 'Parasitic Hymenoptera of India', on 3.3.2021, at the 6<sup>th</sup> National Conference on Biological Control, organised by NBAIR, Bengaluru; As Coordinator of ENVIS Centre, organised a National Webinar on World Sparrow Day, 20<sup>th</sup> March 2021 and also online painting competition for Kids of the age group 7-12 years.
14. Dr Gopal Sharma Scientist E delivered an invited lecture on 8<sup>th</sup> March 2021 at Sahibganj on Diversity of Ganga and its conservation under swachhata week organized by Sahibganj District administration.
15. Dr. K.P. Dinesh, Scientist-D provided webinar class on the "General aspects of Integrative Taxonomy" to the PGDC students of the

Zoological Survey of India, Kolkata on 26<sup>th</sup> February 2021; on the “Amphibian diversity in India” to the PGDC students of the Zoological Survey of India, Kolkata on 2<sup>nd</sup> March 2021.

**16.** Dr. Mukesh Thakur delivered a lecture in the Department of Life Sciences, SBSR, Sharda University, Noida, to celebrate World Wildlife Day. Lecture delivered on Genetic monitoring of threatened mammals in Indian Himalayan region on 03<sup>rd</sup> March 2021.

**17.** Dr. M.J. Palot, Scientist-B delivered an online talk on “Biodiversity around us” organized by the Aranyakam Foundation, Thrissur, Kerala for the school students on 3<sup>rd</sup> March 2021; delivered an online talk on “Faunal diversity of Kerala—An overview” in the webinar jointly organized by the Kerala Forests & Wildlife Department (Social Forestry & Extension Division, Kozhikode) and the NSS Unit of MES College, Ponnani on the occasion of the Wildlife Day on 3<sup>rd</sup> March 2021.

**18.** Dr. N. Marimuthu presented Chief-Guest Address, online entitled, “Role of Basic Sciences in Marine Biodiversity Assessment” to Government Arts and Science College, Sivakasi, Tamil Nadu during the National Science Day 2021 celebration on 01.03.2021. As a Team leader, conducted the module-3 (Statistical applications in the Biodiversity studies) of PG Diploma course on Integrated Animal Taxonomy in ZSI, Kolkata.

**19.** Dr. Pratyush P. Mohapatra, Scientist-D delivered an online talk on “Snakes (Reptilia)” for the PG Diploma on Integrative Animal Taxonomy, organized by the Zoological Survey of India, Hqs., Kolkata on 03.03.2021.

**20.** Dr. S.S. Talmale, Scientist-B delivered a lecture on “Taxonomy of Mammals” as a resource person to the students of B.Sc. and M.Sc. Zoology of the Padmashri Vikhe Patil College of Arts, Science & Commerce, Prawaranagar, Ahmednagar on 20<sup>th</sup> March 2021.

**21.** Dr. V M Sathish Kumar, Scientist-B delivered an invited lecture on “Cybertaxonomy: merits and demerits” on 05.03.2021 at a webinar hosted by the Sacred Heart College, Thevara Higher educational institution, Kochi, Kerala.