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## Headquarters, Kolkata

Extensive field surveys in Himachal Pradesh, North Bengal (Coochbehar and Jalpaiguri districts) and a survey in Sajnakhali Wildlife Sanctuary in West Bengal were conducted. During the month, the scientists of Headquarters identified, 1 species of Nematelminthes, 5 species of Collembola, 21 species of Hemiptera, 12 species of Hymenoptera, 4 species of Orthoptera, 10 species of Coleoptera, 13 species of Isoptera, 11 species of Arachnida, 3 species of Crustacea and 12 species of Mollusca from the States of Andhra Pradesh, Assam, Arunachal Pradesh, Chhattisgarh, Himachal Pradesh, Jharkhand, Jammu & Kashmir, Karnataka, Kerala, Maharashtra, Meghalaya, Mizoram, Nagaland, Uttar Pradesh, West Bengal, and Tamil Nadu (Kanyakumari Wildlife Sanctuary and south Eastern Ghats).

*Laimydorus istvani* Sen, Chatterjee & Manna, 2012 (Family: Dorylaimidae, Order: Dorylaimida: Nematoda) has been discovered from West Bengal, India, from the soil associated with guava orchard. Nine species of Eulophidae, viz., *Aprostocetus microcosmus* (Girault), *A. kuriani* (Husain & Khan), *A. vatiata* Narendran, *Neotrichoporoides arunima* Narendran, *N. beonus* Narendran, *N. doproides* Narendran, *Tetrastichus epilachnae* (Giard), *T. taprobanensis* Ranaweera and *T. tunicus* Narendran, 2 species of Eupelmidae, viz., *Eupelmus (Eupelmus) testaceiventris* (Motschulsky) and *Neanastatus cinctiventris* Girault and 4 species of Pteromalidae, viz., *Mesopolobus harithus* Sureshan & Narendran, *Sphegigaster anamudiensis* Sureshan & Narendran, *S. reticulata* Sureshan & Narendran and *S. stepicola* Boucek were recorded for the first time from Maharashtra State.

Twenty species of Chalcid wasps viz., *Aprostocetus microcosmus* (Girault), *Aprostocetus kuriani* (Husain & Khan), *Aprostocetus vatiata* Narendran, *Neotrichoporoides arunima*

Narendran, *Neotrichoporoides beonus* Narendran, *Neotrichoporoides doproides* Narendran, *Tetrastichus epilachnae* (Giard), *Tetrastichus taprobanensis* Ranaweera, *Tetrastichus tunicus* Narendran, *Elasmus viridiscutellatus* Verma & Hayat, *Eupelmus (Eupelmus) testaceiventris* (Motschulsky), *Neanastatus cinctiventris* Girault, *Chlorocytus amaravathicus* Narendran & Girish Kumar, *Colotrechnus melghaticus* Narendran & Girish Kumar, *Homoporus maharashtriensis* Narendran & Girish Kumar, *Mesopolobus harithus* Sureshan & Narendran, *Propicroscytus mirificus* (Girault), *Sphegigaster anamudiensis* Sureshan & Narendran, *Sphegigaster reticulata* Sureshan & Narendran, *Sphegigaster stepicola* Boucek were also recorded from Melghat Wildlife Sanctuary.

Six research papers and 5 books were published, 4 research papers were accepted and 7 research papers communicated.

The Holotype (female) of *Macrobrachium namkanensis* sp. nov., was deposited by R. K. Manna, Sr. Scientist, CIFRI, Barrackpore.

Identification and advisory services were rendered on 12 lots of specimens, received from different institutions and organizations besides six other enquiries from various Universities. Confiscated mollusca (seashell) received from the Regional Deputy Director of Wildlife Crime Control Bureau (NR), New Delhi was also identified and the identification report submitted. Besides, four species of gobioid fishes were identified for Mrs. Mithila Das, Lecturer in Zoology, S.N. College, Rajkanika, Odisha.

Shri S. S. Mishra, Scientist-B trained Dr. A.K. Jaiswar, Senior Scientist, C.I.F.E., Mumbai on fish taxonomy.

Dr. Basudev Tripathy, Scientist-C attended the Consultation cum stakeholders workshop for identification of research gaps in coastal and marine biodiversity conservation in the

Godavari estuarine ecosystem (EGREE), organized by the Wildlife Institute of India, Dehradun in collaboration with Andhra Pradesh Forest Department & UNDP, held at Kakinada on 8<sup>th</sup> May.

Mr. Sebastian Mathew, Programme Advisor, *International Collective* in Support of Fishworkers, 27 College Road, Chennai, visited the ZSI HQs, Kolkata on 24<sup>th</sup> May and he was provided with the requisite information sought on Marine Diversity. He was also provided with library facilities.

A one day Capacity Building Workshop for Frontline Staff of Wildlife Enforcement Departments (Coast Guard, Custom & Central Excise, W.B Forest Department, Intelligence Bureau, CID & Revenue Intelligence) on "Protected Mollusca of India", was organized by the Mollusca Section in collaboration with the Training and Extension Division of Zoological Survey of India, Kolkata on 18<sup>th</sup> May, 2012 in which participants from various enforcement departments were given hands on training on various aspects of protected mollusca of India.

The International Day for Biological Diversity was observed on 22<sup>nd</sup> May, 2012. On the occasion, a talk on 'Marine Biodiversity of India' was delivered by the Dr. Basudev Tripathi, Scientist-C, which was followed by a film show. Shri K.C. Gopi, Scientist-E and Officer-in-charge of Fish Division, attended a Seminar on 'Marine Biodiversity of India', conducted by the UP State Biodiversity Board at Lucknow on 22<sup>nd</sup> May and delivered the key note address on Marine Biodiversity of India.

Dr. Tan Koh Siang of Tropical Marine Science Institute, National University of Singapore visited Mollusca Section on 21<sup>st</sup> May to 26<sup>th</sup> May 2012. Dr. A. K. Jaiswar, Sr. Scientist, CIFE, Bombay, Dr. R. K. Manna, Sr. Scientist, Mr. C. M. Rosith, Scientist and Mr. Roy Choudhry, Technical Officer of CIFRI, Barrackpore, visited the Crustacea Section. Miss Swagata Mondal of

Zoology Department, Calcutta University visited the Nematelminthes Section. Dr. A.K. Jaiswar, Senior Scientist, C.I.F.E., Mumbai, Smt. Mithila Das, Lecturer in Zoology, S.N. College, Rajkanika, Kendrapara dist., Odisha and Dr. Lalramliana, Pachhuga Univewrsity College, Aizawl, Mizoram, visited the Fish division.

Dr. K. A. Subramanian Scientist-C represented the Long Term Ecological Monitoring Observatories meeting organized by MoEF, New Delhi and the Centre for Ecological Sciences, I.I.Sc., Bangalore on 28<sup>th</sup> and 29<sup>th</sup> May, 2012.

Dr. Kailash Chandra, Scientist-F attended the meeting on the 'Recommendations of Task Force for BSI / ZSI at MoEF, New Delhi, chaired by Dr Nandita Chatterjee, Additional Secretary, MoEF on 15<sup>th</sup> and 16<sup>th</sup> May, 2012. Dr. Animesh Bal, Scientist-F, accompanied Director, ZSI and visited MARC, Digha on 24<sup>th</sup> May, 2012. He also attended an administrative meeting along with Director, ZSI on 30<sup>th</sup> May, 2012 at MoEF, New Delhi.

Dr. K. Venkataraman, attended the meeting on "International Day for Biological Diversity" organized by the National Biodiversity Authority (NBA) at Chennai on 21<sup>st</sup> and 22<sup>nd</sup> May, 2012 and presented a paper. Books entitled "Guide to the Dangerous and Venomous Marine Animals of India" authored by Venkataraman K., Raghunathan, C., Sreeraj, C. R., Raghuraman, R.; "Marine Biodiversity in India" authored by Venkataraman, K., Raghunathan, C., Raghuraman, R. Sreeraj, C. R.; "Coral Identification Manual" authored by Venkataraman K., Ch. Satyanarayana, and "Marine Ecosystems and Marine Protected Areas of India" authored by Venkataraman K., Rajkumar Rajan, Ch. Satyanarayana, Raghunathan, C., Venkatraman, C., were released on the International Day for Biological Diversity at Chennai.

Dr. Nandita Chatterjee, I.A.S., Additional Secretary MoEF along with Mr. R. Mehta,

advisor (CS-II), Dr. J.R.B Alfred, Former Director, ZSI and Mr. Ashish Kumar, Deputy Director (CS-II), MoEF, (Special invitee), New Delhi, held 1<sup>st</sup> Programme Monitoring Committee meeting to review the progress for the first quarter of the current financial year on 19<sup>th</sup> May.

Dr. Nandita Chatterjee, Additional Secretary, Ministry of Environment & Forests (MoEF), Govt. of India, New Delhi, inaugurated the Molecular Systematics Division (Centre for DNA Taxonomy & Cytotaxonomy Lab) at ZSI, Kolkata on 19<sup>th</sup> May 2012. Dr. Nandita Chatterjee said that many fundamental changes are expected in Animal taxonomy in the near future with a combined approach of morphology & molecular biology techniques. With the inauguration of the Molecular Systematics Division, The Zoological Survey of India, Kolkata entered a new phase with facilities for DNA Barcoding and Integrated Animal Taxonomy (IAT) in Molecular Systematics Division. About 24 modern & sophisticated instruments like Real Time PCR, PCR, Deep freezers (-80° C, -20° C), Picodrop, spectrophotometer, refrigerated centrifuges, etc. have been installed with the aid of special grant from MoEF. This modern "Centre for DNA Taxonomy" will apply combined approaches of molecular biology and traditional systematics to foster a clear understanding of the faunal diversity of India ranging from Protozoa to Mammalia. Dr. K. Venkataraman, Director, Zoological Survey of India said that the modern facilities will ensure that the institute is at par with other institutes, worldwide, in this field. He added that inventorization and assessment of Indian faunal diversity is a huge task and the current tools & techniques employed so far alone are often inadequate for the task of accurate assessment of faunal wealth of India. Further, he explained that this lab will provide vast amounts of reproducible and robust genetic

data on animals, useful in all spheres of biological sciences and that the data generated will also support wildlife crime control for the implementation of Wildlife (Protection) Act, 1972. Mr. R. Mehta, advisor (CSII), Mr. Ashish Kumar, Deputy Director (CSII), MoEF, and Dr. J.R.B Alfred (Former Director ZSI), graced the occasion.

#### **Publications:**

1. P. Girish Kumar, T. C. Narendran and S. I. Kazmi, 2012. On a collection of chalcidoid wasps (Hymenoptera: Chalcidoidea) from Melghat Wildlife Sanctuary of Maharashtra, India. *Rec. zool. Surv. India*, 111 (Part-2): 29-38.
2. Murmu, A., Mazumdar, P. C., Talukdar, B. and Chaudhuri, S., 2011. A population survey of Rhesus Monkey & Hanuman langurs of Puri & Khurda districts, Orissa, India. *Rec. zool. Surv. India*, 3 (Part-1): 17-24.
3. Sen, D., Chatterjee, A. & Manna, B. 2012. A new and two known species of Dorylaimoidea (Nematoda) from West Bengal, India. *Zootaxa*, 3258: 46-57.
4. Tyagi, K. & Kumar, V. 2011. A New Record of Pest Species *Pseudodendrothrips Bhattii* Kudô (Thysanoptera: Thripidae: Dendrothripinae) from India *Indian Journal of Entomology*, 73 (4): 296-297.
5. Mishra, S.S. and Satapathy, S., 2012. Endemic and threatened fishes of Odisha, with suggestions for their sustenance and conservation. In Mohanty, A.K. and Mohanty, J. (eds.), Proceedings of the National Seminar on Challenges for Wild Life Conservation: Conflict to Co-existence (19<sup>th</sup> & 20<sup>th</sup> February 2011), Dept. of Zoology, Nayagarh Autonomous College, Nayagarh, Odisha: 78-94.
6. Venkataraman, K. 2012. Coastal and Marine Biodiversity of India, Marine Biodiversity-One Ocean-Many worlds of Life, International Day for Biological Diversity 2012, 1-21.

**Books:**

1. Venkataraman, K., Raghunathan, C., Sreeraj, C. R. and Raghuraman, R. *Guide to the Dangerous and Venomous Marine Animals of India*. Zoological Survey of India publication.
2. Venkataraman, K., Raghunathan, C., Raghuraman and R. Sreeraj, C. R. *Marine Biodiversity in India*. Zoological Survey of India publication.
3. K. Venkataraman and Ch. Satyanarayana *Coral Identification Manual* Zoological Survey of India publication.
4. K. Venkataraman, Rajkumar Rajan, Ch. Satyanarayana, Raghunathan, C., Venkataraman, C *Marine Ecosystems and Marine Protected Areas of India*. Zoological Survey of India publication.
5. Chattopadhyaya, A., Maithra, S., Yennavar, P., Ch. Sathyanarayana, and Venkataraman, K. 2012. *Pascimbanger sadharan Samudrik Prani*. Pp 1-64. (In Bengali).



Dr. Nandita Chatterjee, Addl. Secy., MoEF, Govt. of India, inaugurating the Molecular Systematics Division



Views of the Molecular Systematics Division



During the inaugural function of the Capacity Building Workshop on protected Mollusca for Frontline Staff of Wildlife Enforcement Departments of India, organized by ZSI, Kolkata



During the release of Books on International Day for Biological Diversity at Chennai [From left to right: Dr. Maria Joseph M. Mahalingam S. J., Vice-Principal, Loyola College, Mr. Braulio Ferreira de Souza Dias, Executive Secretary, Secretariat to the Convention on Biological Diversity, Dr. K. Venkataraman, Director, ZSI., Mr. M. F. Farooqui, Special Secretary, Ministry of Environment and Forests, Govt. of India and Dr. Balakrishna Pisupati, Chairman, National Biodiversity Authority]

## Books Released



### North Eastern Regional Centre, Shillong

During the month, 9 species of aquatic Hemiptera, 1 species of Coleoptera, 7 species of fishes and 1 species of Amphibia were identified from the backlog collections. Images and metadata of *Danio deyi* (1 Holotype & 2 Paratypes) and *Danio meghalayensis* (1 Holotype and 2 Paratypes) belonging to Pisces: Cypriniformes: Cyprinidae were digitized. The Centre observed the International Day for Biological Diversity 2012 on 22<sup>nd</sup> May, 2012 and organized an exhibition for students, teachers and general public for augmenting awareness on the importance of Biodiversity. Mrs. J. Lyngdoh, Scientist-C attended the 1<sup>st</sup> Regional meeting of State Boards of North East India, organized jointly by National Biodiversity Authority, Govt. of India and Dept. of Forests and Environment, Govt. of Meghalaya on 4<sup>th</sup> & 5<sup>th</sup> May at Pinewood Hotel, Shillong, Meghalaya. She also attended the General body meeting of the Meghalaya Zoo implementation society on 15<sup>th</sup> May at the Meghalaya main Secretariat, Shillong, conducted by the Dept. of Forests and Environment, Govt. of Meghalaya.



Students attending the International Day for Biological Diversity Celebration at NERC



The blind snake, *Typhlops diardi* Schlegel

### Arunachal Pradesh Regional Centre, Itanagar

A field survey was conducted at Ganga Lake and Poma areas of Papumpare district on 26<sup>th</sup> May and zooplankton samples as well as macro-invertebrate and fish samples were collected from five lentic bodies and 2 lotic systems. Dr. Gopinathan Maheswaran, Scientist-C attended a workshop on Strengthening Wildlife law enforcement and conservation in Arunachal Pradesh on 1<sup>st</sup> May, jointly organized by the State Forest Department and WWF-India (Assam Unit); he also attended a workshop on Homestay operation guidelines for Arunachal Pradesh Under GoI-UNDP CCF II project organized by the G. B Pant Institute of Himalayan

Environment & Development, North East Unit on 3<sup>rd</sup> May. During the month 2 scientific articles were published and two manuscripts reviewed.

#### Publications:

1. Sinha B. 2011. Formalizing informal innovations in agriculture: a case of traditional pest management. *Innovation-EMPI Journal of Interdisciplinary Perspectives*, 3 (2).
2. Kshitij A, Sinha B, Joshi K, Mandal K & Kumar V. 2011. India's Solar Energy Research: Mapping & Comparison with US and China. *Innovation-EMPI Journal of Interdisciplinary Perspectives*, 3 (2).



A view of Ganga Lake, Itanagar, Arunachal Pradesh

### Gangetic Plains Regional Centre, Patna

Sampling of benthic macro invertebrates was done in river Pun Pun near Patna to study the faunal diversity of the river. One research paper was published. 10 species of moths of the family Noctuidae (Lepidoptera) were identified. Dr. Navneet Singh, Scientist-C guided a research scholar of the Department of Zoology & Environmental studies, Punjabi University, Patiala on the taxonomic studies pertaining to 50 species of the family Arctiidae (Lepidoptera). Dr. Gopal Sharma, Scientist C & Officer in charge attended a seminar on 'Ethics in animal experience, statutory and technical requirements', organized by life sciences intelligentsia foundation (LIFO) - Centre, for

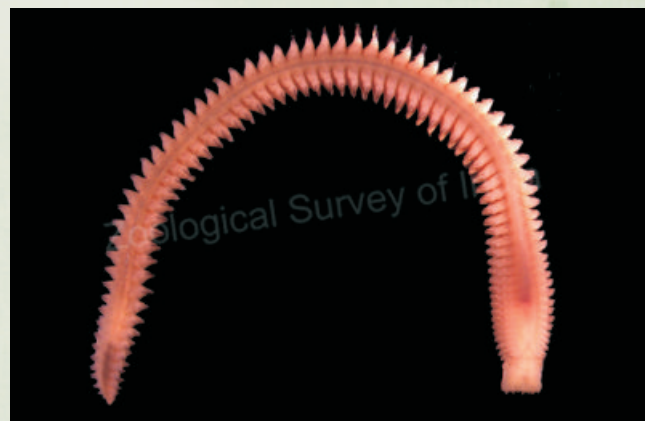
the purpose of control and supervision of experiments on animals welfare, held at Patna on 11<sup>th</sup> May. He also attended a workshop on "Excreta Matters: Patna's water and sewage problems" on 25<sup>th</sup> May, at Shatabdi Bhawan, Patna organized by Centre for Science and Environment, New Delhi.

#### Publication:

Hasko Nesemann, Gopal Sharma and Mohita Sardana. 2012. Aquatic macro benthic arthropod diversity of temporary and permanent wetlands in and around Patna with pictorial guide of aquatic bugs (Heteroptera: Nepomorpha). *Spectrum, Journal of Science & Society for sustainable development* 3(1-4):74-82.



Polychaeta, *Namalycastis indica*



Polychaeta, *Nephthys oligobranchia*

## Desert Regional Centre, Jodhpur

Identified and registered 9 species of fishes from River Chambal, Rajasthan. Distributional descriptions of 16 species of reptiles, 90 species of aves and 17 species of mammals from River Chambal, Rajasthan and 9 species of reptiles, 110 species of aves and 10 species of mammals from Kachchh Biosphere Reserve, Gujarat were prepared. A manuscript was reviewed for the Journal of Parasitic Diseases. Dr. Sanjeev Kumar, Scientist-C gave information on the fauna displayed in the museum of the Centre and delivered a lecture on Faunal Wealth of Rajasthan and Gujarat States and work done by ZSI, to the students of Central Academy School, Jodhpur on 9<sup>th</sup> May. Mr. B. N. Srivastava, Chairman and Dr. A. P. Singh, Member Secretary Gujarat Biodiversity Board, Gandhinagar visited the Centre on 8<sup>th</sup> May and held discussions with the scientists of the

Centre on rare and endangered animal species, red listed species and endemic species of Gujarat.

### Publication:

Sultana, R. and Bohra, P. 2012. Diversity and abundance of nematodes in sewage of Jodhpur. *Journal Threatened Taxa*, 4 (5):2614-2616.



*Xenentodon cancila* (Hamilton) from Chamabal River



*Nandus nandus* (Hamilton) from Chambal River

## High Altitude Regional Centre, Solan

Two local surveys were conducted in Chail Wildlife Sanctuary, Himachal Pradesh and representative faunal samples collected. Seventeen species of butterflies and 3 species of Orthoptera were identified besides observing 39 species of birds and 3 species of mammals. Songs and calls of 3 species of birds were recorded. Four species of earthworms were identified from Kalatop Khajjiar Wildlife Sanctuary, Himachal Pradesh. Besides, 7 species of Pisces from Haryana were identified. Participants of the refresher course of Academy

Staff College, Himachal Pradesh University, Shimla, visited the Centre on May 23<sup>rd</sup> and a lecture on "Climate change and Conservation of Biodiversity in Cold Deserts of Ladakh" was delivered to the participants. One research paper was published and a manuscript on Lepidoptera reviewed for a National Journal.

### Publication:

Saini, Kamal. Chaudhary, A. and Sharma, R.K. 2012. Effect of *Celastrus paniculatus* on trace elements of cerebellum in ageing albino rats. *Annals of Neurosciences*. 19(1): 21-24.



A fledgling of the Blak-throated tit



Cheer pheasant



Great tit



Indian Peafowl

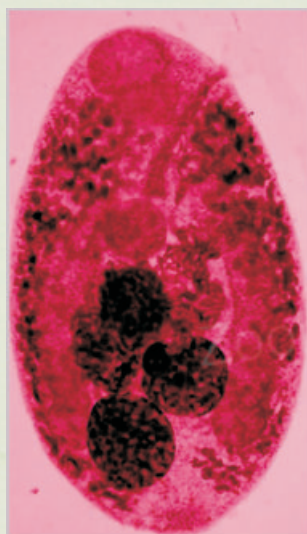
*Heliophorus sena**Gonepteryx rhamni*

### Northern Regional Centre, Dehra Dun

During the month 3 species of amphibia, 20 species of Acridoidea and 6 species of soil nematodes from Dehradun surveys, 15 species of grasshoppers and 20 species of butterflies from Punjab surveys and 5 species of soil nematodes from Haryana survey were identified. SEM studies from PGH of all body regions: head, tail, dorsal and ventral with details of distal, proximal and mid parts of PGHs were completed on *Lepus arabicus*, *Lepus nigricolis*, *Lepus hypidus*, *Ocotona m. macrotis*, *Ocotona royalei*, *Ocotona t. sikkimaria* and *Ocotona ladacensis*. Five species of Pisces were digitized and 48 entries of Pisces entered in the Vertebrate database. Five entries of Nematodes have been made in Invertebrate database. Identification service was rendered on four bird photographs received for identification. Four research papers were published. Prof. Sunil Kumar, Zoology department of DAV (P.G.) College, Dehra Dun and 15 local visitors, visited the Museum of NRC.

### Publications:

1. Rizvi, A. N., Bursey, C. R. & Bhutia, P. T. 2012. Three New species of Digenea (Batrachotrematidae) in *Nanorana minica* (Anura, Dicroglossidae) from Uttarakhand, India. *Acta Parasitologica* (Springer-Poland), 57: 154-159. DOI: 10.2478/s11686-012-0023-8.
2. Sharma N. 2011. Acridoidea (Orthoptera: Insecta) Diversity of Sur Sarovar Bird Sanctuary, Keetham, Agra (Uttar Pradesh, India). *Rec. zool. Surv. India*: 111(part-2): 23-28.
3. Sharma, N. 2011. Wing maculation and genitalic variation in *Ypthima inica* Hewitson (Lepidoptera: Satyridae) *Rec. zool. Surv. India*: 111(part-3): 31-34.
4. Sharma, N. 2011. Population fluctuation of Grasshopper fauna of Kakdwip, Sunderbans, West Bengal, *Rec. zool. Surv. India*: 111(part-3): 27-30.



*Batrachotrema korbaensis*  
Rizvi, Bursey & Bhutia - sp. nov.



*Opisthioparorchis dehradunensis*  
Rizvi, Bursey & Bhutia - sp. nov.



*Opisthioparorchis nanorane*  
Rizvi, Bursey & Bhutia - sp. nov.

### Marine Aquarium cum Regional Centre, Digha

During the month, 181 examples of live marine ornamental exhibits were collected for exhibition in aquarium galleries. The major attractions among the aquarium exhibits were Orange spotted grouper (*Epinephelus coioides*), a large size mud crab (*Scylla serrata*) and Clown fish (*Amphiprion clerki*). The aquarium received an average of 460 tourists per day. Twenty one species of fishes and 29 species of mollusks were identified. The fishes *Sufflamen chrysoptera* and *Epinephelus fasciatus* were recorded for the first time from the coastal waters of West Bengal. A group of 30 students visited the Marine Aquarium of the Centre during the Nature study camp-2012, organized by the West Bengal Biodiversity Board & Digha Science Centre in collaboration with Zoological Survey of India.



*Epinephelus fasciatus*



*Sufflamen chrysoptera*

### Central Zone Regional Centre, Jabalpur

Backlog collections of 13 species of Hemiptera, 6 species of Coleoptera (Cerambycidae) and 9 species of spiders (Araneae) and 11 species of Lepidoptera (Butterflies) were identified and registered from Singhori Wildlife Sanctuary, Madhya Pradesh. One research paper was published. A manuscript entitled, "Taxonomic

study on the insect fauna of Dalma Wildlife Sanctuary, Jharkhand w.s.r to Lepidoptera" was submitted for publication. Information on the role of ZSI activities has been imparted to 107 students of the Army Public School, Jabalpur during their Summer Camp visit to the Centre on 7<sup>th</sup> May.



*Acanthophorus serraticornis*  
Olivier



*Batocera rofomaculata*  
Thompson



*Prionomma atratum*  
Gmelin



*Xystocera globosa*  
Olivier

### Andaman and Nicobar Regional Centre, Port Blair

Marine and terrestrial ecosystems in Sir Hume Island, Neil Island, South Button Island and Havelock Island in South Andaman were surveyed from 20<sup>th</sup>-27<sup>th</sup> May. As a result of the field studies, 96 species of scleractinian corals, 6 species of soft corals, 24 species of echinoderms, 12 species of opisthobranchs, 18 species of gastropods, 8 species of brachyuran crabs and 13 species of fishes from marine habitat; 1 species of butterfly, 2 species of ants, 9 species of moths, 1 species of scorpion, 5 species of amphibians, 5 species of lizards and 4 species of snakes from the terrestrial habitat and 3 species of fishes from freshwater habitats have been identified. Among them 3 species of corals viz. *Montipora turtlensis* Veron and Wallace, 1984; *Montipora effusa* Dana, 1846; *Montipora crassituberculata* and 1 species of crab *Tetralia nigrolineata* Serene & Dat, 1957 were new records to Indian waters, while 1 species of fish *Chrysiptera parasema* (Fowler) was found new to Andaman and Nicobar Archipelago. Besides, a new species of scleractinian coral *Favites montocularis* sp. nov. has been described and a research paper on it submitted for publication. Thirty three specimens of corals, 9 specimens of moths, 1 specimen of butterfly and 1 specimen of scorpion have been registered in the National Zoological Collection. Project proposals on 'Faunal inventory of proposed blocks in Andaman Basin' for National Environmental Engineering Research Institute, CSIR, Nagpur

and 'Ecology and habitat modeling of wetland birds in tsunami inundated wetlands of South Andaman' for DST, New Delhi have been submitted. Shri P.T. Rajan, Senior Zoological Assistant, attended the first Interface meet for Synergetic harvest, Revitalizing Island Fisheries an interface meeting of officials from administration and research institutions, held at Central Agricultural Research Institute, Port Blair on 10<sup>th</sup> May. Dr. C. Raghunathan, Scientist-C and Officer-in-Charge participated in the SAARC Coastal Zone Management Workshop on 'Capacity building for Coral Reef Monitoring', held at Hikkaduwa, Sri Lanka from 21<sup>st</sup>-24<sup>th</sup> June; he also served as a member in Inter-media Publicity Co-ordination Committee, Doordarshan Kendra, Port Blair on 30<sup>th</sup> May.

#### Publications:

1. K. Venkataraman, C. Raghunathan, R. Raghuraman, C. R. Sreeraj, 2012. Coffee Table Book on Marine Biodiversity of India. Published by Zoological Survey of India, Kolkata.
2. K. Venkataraman, C. Raghunathan, C.R. Sreeraj, R. Raghuraman. A guide to Dangerous and Venomous Marine Animals of India. Published by Zoological Survey of India, Kolkata.
3. Venkataraman, K., C. Raghunathan and C. Sivaperuman 2012. Ecology of Faunal Communities on the Andaman and Nicobar

Islands. Springer-Verlag Berlin, Heidelberg. 340 p.

4. Tamal Mondal, C. Raghunathan and K. Venkataraman, 2012. An account of Faviid corals of Andaman and Nicobar Islands. *Research Journal of Science and Technology*, 4(2): 62-66.
5. K. A. Sujana, C. Sivaperuman and N. Anil Kumar, 2012. Lianas as a food source for Nilgiri Langur (*Trachypithecus johnii* Fischer, 1892) in forests of Wayanad, Western Ghats, India. *International Journal of Plant, Animal and Environmental Sciences*, 2(2): 239-243.
6. J. S. Yogesh Kumar and S. Geetha, 2012. Seasonal changes of hydrographic properties in seawater of coral reef islands, Gulf of Mannar, India. *International Journal of Plant, Animal and Environmental Sciences*, 2(2): 135-159.

7. R. Sornaraj, J.S. Yogesh Kumar, R. Balasubramanian, and S. Subburaman, 2012. Distribution of heavy metal pollution in Punnakayal coastal sediments, southeast coast of India. *Journal of Applied Geochemistry*.



Permanent monitoring plot of ZSI for Coral Reef



*Ducula bicolor* Scopoli (Pied Imperial Pigeon)



*Hypothymis azurea* Boddaert (Black-naped Monarch)



*Spilornis klossi* Richmond (Nicobar serpent Eagle)



*Conus miles* Linnaeus

## Marine Biology Regional Centre, Chennai

The Centre participated in a one day celebration cum exhibition in connection with International Day for Biodiversity 2012 - Marine Biodiversity-organized by the National Biodiversity Authority, Chennai. An extensive field survey was undertaken in Palk Bay region to reassess the population of sea cucumbers. Dr. C. Venkataraman, Scientist-C & Officer-in-Charge attended the Institutional Animal Ethics Committee (IAEC) meeting at Kilpauk Medical College, Chennai as CPCSEA nominee and identified confiscated shell items for the Station House Officer, Paharganj Police Station and Wildlife Officer, Department of Forests and Wildlife, Delhi. Scientists of the Centre identified one species each of Nemertea, Polychaeta, Ostracoda, Mollusca, Echinodermata, 2 species each of Crustacea and Rhizopoda, 8 species of Nematoda, 9 species of sea grass associated Foraminifera and 10 species of Pisces, out of the material collected from Palkbay and Gulf of Mannar Biosphere Reserve. During the month, 25 species were digitized and metadata compiled. Dr. Rajkumar Rajan Scientist-C attended the four days workshop on "Capacity building for Coral reef monitoring" organized by SAARC Coastal Zone Management at Sri Lanka. Identification service

was rendered on 7 species of freshwater rhizopods to M.Sc., Students from Kerala University. A manuscript was reviewed for an Indian journal. Junior research fellows of the Centre underwent Scuba diving training certified by PADI in Portbair, Andaman and Nicobar Islands from 30<sup>th</sup> April to 4<sup>th</sup> May 2012. Dr. C. Venkataraman and Dr. Rajkumar Rajan supervised the research projects of JRFs of the Centre. Nine hundred and five tourists visited the marine aquarium and museum during the month. One book and two research papers were published.

### Publications:

1. Bindu. L. 2012. Description of two new species of testacids (Protozoa: Rhizopoda) from Uttar Pradesh, India. *Uttar Pradesh J. Zoology*, 32 (1):141-143.
2. Venkataraman, K., Rajkumar Rajan, Ch. Satyanarayana, C. Raghunathan and C.Venkataraman. 2012. Marine Ecosystems and Marine Protected areas of India. Zoological Survey of India, Kolkata.
3. Venkataraman, C. 2012. Some observations on Stork and Heron behaviour at Arignar Anna Zoological Park in Chennai, southern



*Canthidermis maculata* (Bloch)



*Naso lituratus* (Forster)

### Southern Regional Centre, Chennai

An extensive field survey was undertaken from 9<sup>th</sup>-29<sup>th</sup> May in the Middle Eastern Ghats in Andhra Pradesh including Nellore, Mehabub Nagar and Krishna districts. During the surveys representative fauna pertaining to 11 faunal groups were collected. Identifications for the month include the following groups from southern & middle Eastern Ghats viz. Rotifera: 1 sp.; Cladocera: 2 spp.; Fishes: 7 spp. and

### Sunderban Regional Centre, Canning

During the month, 6 species Orthoptera and 1 species of crab were identified and registered.

### Freshwater Biology Regional Centre, Hyderabad

A faunal survey was conducted in Krishnaraja Sagar Reservoir, Karnataka from 21<sup>st</sup>-30<sup>th</sup> May and besides collecting representative faunal samples for taxonomic studies, the physico-chemical parameters were also recorded. Five species of fishes and 2 species of aquatic insects collected during the earlier surveys from Cumbum Lake in Andhra Pradesh were identified and added to the National Zoological collections.

In collaboration with the Botanical Survey of India (BSI), Hyderabad, the Centre celebrated the International Day for Biological Diversity on 22<sup>nd</sup> May, 2012 in a befitting manner and also conducted drawing competition for the students of Vijeta Vidyalayam, Hyderabad and

Lepidoptera: 3 spp. Four identification and advisory services were rendered. Seventy five students selected for the Children's Science Academy Awards by the Science City, Department of Higher Education, Government of Tamilnadu visited the Centre on 15<sup>th</sup> May and were given lecture on the role of Zoological Survey of India in taxonomic research and faunal conservation.

Over 30 School students and general public visited the Museum.

prizes for winners and participation certificates to the participants were distributed. Dr. Prasanna Kumar, Scientist-in-Charge, BSI, Dr. Yennawar Prasanna, Scientist-C, Dr. Deepa Jaiswal, Scientist-C and Dr. S.V.A Chandrasekhar, Scientist-B of the Centre delivered various lectures on the importance of Biodiversity.

Guidance and laboratory facilities were provided to a B.Tech student of J. B. Institute of Engineering and Technology, Hyderabad, for undertaking a mini project on two lakes viz. Durgan Chervu and Himayat Sagar.



During the celebrations on the International Day for Biological Diversity 2012

### Western Regional Centre, Pune

During the month 20 species of Lepidoptera, 3 species of aquatic Coleoptera, 21 species of freshwater fishes, 16 species of Hymenoptera, 10 species of Odonata and 9 species of fresh water crabs were identified. Fish specimens and fish photographs received from New Arts, Commerce & Science College, Shevgaon, Dist. Ahmednagar and Dhule and skin samples received from the Forest Dept. of Narayangaon, Kolhapur, Panchagani and Malegaon (Maharashtra) were identified. Dr. R. Bano, Scientist-C, attended a training on Molecular techniques for extraction and analysis of DNA of insects at Indian Agricultural Research Institute,

Pusa Campus, New Delhi from 7<sup>th</sup>-12<sup>th</sup> May.

#### Publications:

1. Ghatge, H.V., Jadhav, S. S., Sureshan, P. M. and Sharma, R.M. 2012. Updated Checklist of Indian Mantodea (Insecta). <http://www.zsi.gov.in/checklist/mantodea.pdf>
2. Mitra, Bulganin & Sharma, R.M. 2012. Checklist of Lesser Known Brachyceran families (Diptera). [http://www.zsi.gov.in/checklist/CHECKLIST\\_OF\\_LESSER%20KNOWN%20BRACHYCERAN\\_FAMILIES.pdf](http://www.zsi.gov.in/checklist/CHECKLIST_OF_LESSER%20KNOWN%20BRACHYCERAN_FAMILIES.pdf)



*Catharsius sagax* Quenstedt



*Phimenes flavopictum* (Blanchard)

### Estuarine Biology Regional Centre, Gopalpur-on-Sea

A field survey was conducted from 5<sup>th</sup>-7<sup>th</sup> May at Subhadhra Estuary, Ganjam District, Odisha to collect brackish water ornamental fishes. Six species of ornamental fishes of Subhadhra estuary and 4 species of molluscs of Pennara estuary were identified from the unidentified

collections of the Centre. Identification and advisory services were rendered to a research scholar of Brahmapur University, Odisha. A document on "Estuaries of India: Ecology, Biodiversity, Conservation and Management" was submitted for publication.



*Pugilina (Hemifusus) cochlidium* (Linn.)



*Scatophagus argus* (Linn.) in the aquarium at EBRC

## Western Ghat Regional Centre, Kozhikode (Calicut)

A new species of Pteromalidae (Hymenoptera: Insecta), *Cyrtoptyx wayanadensis*, was described from southern Western Ghats. Four species of Pteromalidae (Hymenoptera), 3 species of Reptilia, 5 species of Ceraphronoidea (Hymenoptera) and 1 species of Cynipoidea (Hymenoptera) and 3 species of Centipedes (Chilopoda) were identified. Besides, 11 species of Odonata and 5 species of Centipedes were identified from the collections received from SRC/ZSI, Chennai and WRC/ZSI, Pune respectively. One research paper was published, 2 were accepted and 3 papers submitted for publication. Three identification and advisory services on Odonata (Insecta) were rendered to a M. Phil student of Bharathidasan University, Tamil Nadu and a M.Sc student of Forestry College, Thrissur, Kerala. The manuscript of a book on Marine animals of Kerala Coast was reviewed. Dr. K. Rajmohana, Scientist-C delivered a lecture on 'Role of ZSI in Conserving the faunal diversity of the country' and Dr. Muhamed Jafer Palot, Asst. Zoologist delivered a lecture on 'Herpetofauna of Kerala' to the students of M. S. Swaminathan Research Foundation, Wayanad on 10<sup>th</sup> of the month. Dr. P. M. Sureshan, Scientist-C, supervised the research project of a JRF of the Centre. Dr. K. Rajmohana, Scientist-C, supervised the research projects of the two JRFs of the Centre and also those of two M. Sc. students from Govt. College, Madappally,

Kozhikode, attached to the Centre for their project work. C. Radhakrishnan, Scientist-F & Officer-in-Charge, visited ZSI, Kolkata from 14<sup>th</sup>-21<sup>st</sup> May and edited the Taxon articles received for COP-11 showcasing of ZSI; he also addressed the participants of the 'Capacity Building Workshop on Protected Mollusca', organized by ZSI, Kolkata for Frontline staff of Wildlife Enforcement Departments on 18<sup>th</sup> May and attended the PMC meeting held on 19<sup>th</sup> May at ZSI, Kolkata.

During the month, 335 visitors paid their visits to the museum.

### Publication:

P. M. Sureshan, 2012. The genus *Cyrtoptyx* Delucchi (Hymenoptera: Chalcidoidea: Pteromalidae) from India, with description of a new species from the southern Western Ghats of Kerala. *Journal of Threatened Taxa*. 4 (5): 2578-2581.



*Cyrtoptyx wayanadensis* Sureshan sp. nov.  
Pteromalidae: Hymenoptera



*Trimeresurus macrolepis* (Beddome) (Viperidae: Reptilia)



*Salea anamalayana* (Beddome) (Agamidae: Reptilia)

## ANIMAL OF THE MONTH

**WHITE-BELLIED SEA EAGLE***Haliaeetus leucogaster* (Gmelin, 1788)

[Text &amp; Photo: Muhamed Jafer Palot, WGRC/ZSI, Calicut]

The White-bellied Sea Eagle *Haliaeetus leucogaster* (Gmelin, 1788) is a large, conspicuous and handsome coastal bird of prey. The Eagle is one of the three species of fish eating *Haliaeetus* eagles that are found in India. Others are the White-tailed Eagle (*H. albicilla*) and Pallas's Fish - Eagle (*H. leucoryphus*). It is about 70-85cm in size with a wing span of over two meters. The female is larger than male, though sexes are similar in appearance. The adult is ashy brown above with head, neck and under parts pure white. In overhead flight the broad blackish border to the white underside of the wings, and the broad white tip to the wedge-shaped tail, are the diagnostic features.

The White-bellied Sea Eagle has a wide geographical distribution extending from India and Sri Lanka through South-East Asia in Philippines, New Guinea and Bismarck to Australia and Tasmania. In India it is chiefly confined to the sea coasts. In the west coast it is

generally not seen north of Mumbai, but has been recorded rarely in Gujarat coast. In the east coast it extends up to Bangladesh and is common in the Andaman and Nicobar Islands. White-bellied Sea Eagles mainly eat fishes and sea snakes, which they catch either in clear river water or in turbulent sea water. Breeding season in India varies locally between August and March or April. Nests are built 20-50m high on the largest and loftiest available trees, often Casuarina, Banyan tree, Mango tree and Devils tree near the seacoast. Where trees are not available, the species nests directly on sea cliffs, or on rocky outcrops on offshore islands. It lays up to two dull white eggs.

Due to increased human disturbance, over-fishing, unplanned developmental activities, pollution and lack of large trees along the coastal belts, the population of these eagles are reduced in many of its old ranges.

## CHECKLIST OF INDIAN FAUNA

### **Pteromalidae (Chalcidoidea: Hymenoptera: Insecta)**

<http://www.zsi.gov.in/checklist/Checklist%20Pteromalidae.pdf>

### **Lesser Known Brachyceran Families (Insecta: Diptera)**

[http://www.zsi.gov.in/checklist/CHECKLIST\\_OF\\_LESSER%20KNOWN%20BRACHYCERAN\\_FAMILIES.pdf](http://www.zsi.gov.in/checklist/CHECKLIST_OF_LESSER%20KNOWN%20BRACHYCERAN_FAMILIES.pdf)

### **Scorpionida**

<http://www.zsi.gov.in/checklist/SCORPIONIDA%20OF%20INDIA.pdf>

## **TAXONOMY EXPERT'S DATABASE**

[http://nbaindia.org/expert\\_db/search.php](http://nbaindia.org/expert_db/search.php)

## OUT OF THE BOX

### **Turtle nesting look up on Goa beaches**

[http://zeenews.india.com/news/eco-news/turtle-nesting-look-up-on-go-beaches\\_769670.html](http://zeenews.india.com/news/eco-news/turtle-nesting-look-up-on-go-beaches_769670.html)

## PAINTINGS FROM ZSI HERITAGE ALBUM

### **COMMON LANGUR NORTHERN PLAINS GRAY LANGUR**

*Semnopithecus entellus* (Dufresne, 1797)

