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ZSI e-NEWS

January 2015

The Monthly Electronic Newsletter of Zoological Survey of India

*ZSI in the 100th year of Service to the Nation
(1916 to 2015)*

FROM THE DIRECTOR'S DESK

As a part of the centenary celebrations, it has been proposed to organize a 'National Conference on Animal Taxonomy-Challenges and Prospects' by inviting eminent personalities and taxonomists in the field of animal taxonomy from 13-15 February, 2015. The aim of organizing this event is to build a network among taxonomists and institutions, besides capacity building to impart quality training in taxonomy to youngsters. This conference is aimed to fill the gap areas in animal taxonomy research and to suggest way forward for the future of faunal diversity in India. It has been established that several taxa in India are poorly understood mainly due to lack of expertise, hence, the need of the hour is to fill such gaps for the survival of future generations. Three sessions have been proposed to address issues like 'Challenges and prospects in animal taxonomy', 'Role of taxonomy in nation development' and finally to prepare a 'Road map for future taxonomic research in India'. Many eminent scientists from throughout India have already confirmed their participation and hope that the whole event

will attract attention of policy makers who in turn take steps to revive taxonomic research in India. Outcome of the conference is proposed to be submitted to the Honorable Prime Minister of India during the inauguration of centenary celebrations to be held in July, 2015 so that taxonomic studies can be strengthened to tackle the conservation issues. We have also planned many events as part of the centenary celebrations to be organized during 2015. As part of the modernization activities, work is in full swing and hope to have the renovated auditorium and conference room well before 13 February, 2015. It is also proposed to inaugurate the Baini Prasad Conference Hall in the first floor of the Headquarter office. I am thankful to our administrative Ministry for giving us administrative approvals and financial sanctions to renovate the whole office building at New Alipore besides giving approval to renovate various faunal galleries at Indian Museum to be thrown open for public after July, 2015.

Dr. K. Venkataraman
Director, Zoological Survey of India, Kolkata

Back issues of ZSI e-NEWS [visit: www.zsi.gov.in]

HEADQUARTERS, KOLKATA

During the month, extensive field surveys have been undertaken in the States of Maharashtra, North Bengal, *dooars* region of northern West Bengal for collection of Collembolan Fauna. Scientists of Headquarters office have identified 22 species of rhizopods, 30 species of protozoans collected from Assam; 15 species of marine crabs collected from Sundarbans Biosphere Reserve have been identified; 10 species of crabs collected from Mizoram and 5 species of prawns collected from Kerala have also been identified; 7 species of Platyhelminthes, 8 species of Collembola, 5 species of hemipterans all collected from Maharashtra, 2 species from West Bengal, 24 species from Chhattisgarh, 13 species of Hymenoptera, 19 species of Coleoptera, 12 species of Orthoptera, 5 species of Lepidoptera, 30 species of Fishes, 1 species of mammal have also been identified.

Crab *Phricotelphusa elegans* (de Man, 1898) is a new record to India. Similarly, a paper-wasp species *Ropalidia narendrani* Shareef, Kishore & Kumar, 2015 (Hymenoptera: Vespidae: Polistinae) has been recorded for the first time from southern Western Ghats.

The type specimens of THYSANOPTERA kept in the National Zoological Collections, have been published along with photographs as part of digitization activity. Identification and advisory services have been rendered on 26 lots of specimens received from different institutions and organizations. Shri Ankush M. Raut, Research Scholar, Department of Agri Entomology, BCKV, Mohanpur, Nadia, W.B has been provided with identification and advisory services by the Hemiptera Section, ZSI HQ office. Dr. Anil Dubey of the Forest Research Institute (FRI) of Dehradun visited

the CEL Section of ZSI HQ.

Dr. Gopinathan Maheswaran, Scientist-D & Officer-in-Charge and Mr. Imran Alam, J. Zool. Asst. of the Bird Section have received a packet containing few bird feathers from Dr. N. K. Jana, Associate Professor, Department of Zoology, Charuchandra College, Kolkata, for identification. The identification report has been sent to Dr. Jana 15 January, 2015 along with the feathers. The feathers have been identified as that of Jungle Owlet *Glaucidium radiatum*. Dr. Maheswaran, also has attended a workshop on Vultures in New Delhi on 28 January, 2015. The workshop was on "The Economics of Ecosystem and Biodiversity – India Initiative (TII), TII for Vultures" held at India International Centre, Conference room II, New.

Mr. Bhaskar Buragohain, Head of the Department, Department of Botany, Mariani College, Jorhat district, Assam has visited the Hymenoptera Section on 8 January, 2015 for the identification of pollinator hymenopterans. Dr. K. Venkataraman, Director, ZSI, attended ESA- Research Study meeting held at Anna University, Chennai from 2-5 January, 2015. Dr. Venkataraman has organized the Regional Council Meeting (RCM) at MARC, ZSI, Digha on 7 January, 2015. He also organized the DCM and FCS meetings at MoEF&CC, New Delhi from 14-17 January, 2015. He also organized the Programme Monitoring Committee (PMC) meeting (South Zone) held at Chennai and attended a meeting at MoEF&CC, New Delhi from 26-28 January, 2015.

Publications

- Mandal, G.P. (2014) First records of Collembola (Hexapoda) from Koderma

Wild Life Sanctuary, Jharkhand. *International Journal of Environment & Biodiversity* (NeBIO), 5 (6): 23-24.

- Barman, R.P., Das, A. and Mishra, S.S. (2014) On an abnormal specimen of *Lutjanus johnii* (Bloch, 1792) (Pisces: Perciformes: Lutjanidae) from West Bengal Coast, India. *J. Bombay Nat. Hist. Soc.* 111(1): 57-59.
- Prabakaran, K., Pal, R., and Chitra, J. (2015) Water quality and plankton studies on some freshwater habitats of Bangur, Lake town, Patipukur and Dum Dum. *Innovation in Technologies: Challenges of Basic Research* Editors: Ranjana Goswami et al. Narosa Publishing House, New Delhi, India, 96-100.
- Amsta, T., Chitra, J., and Malini, E. (2015) Assessment on the water quality and plankton status of Kossassthalaiyar river, Tamilnadu. *Innovation in Technologies: Challenges of Basic Research*. Editors:

Ranjana Goswami et al., Narosa Publishing House, New Delhi, India, 101-108.

- Katherbee, S., Chitra, J., and Malini, E. (2015) Studies on plankton diversity and water quality of Ambattur lake, Tamilnadu. *International Journal of Pure and Applied Zoology*. 3(1): 31-36.
- Shareef, K.P.M., Kishore, L., and Kumar, P. G. (2015) A new species of *Ropalidia* Guérin-Ménéville, 1831 (Hymenoptera: Vespidae: Polistinae) from southern Western Ghats, India. *Journal of Threatened Taxa*, 7(1): 6836-6838. <http://dx.doi.org/10.11609/JoTT.o3921.6836-8>.
- Kushwaha, R.K., Hegde, V.D., and Chandra, K. (2015) Ground Beetles (Coleoptera: Carabidae) from Chhattisgarh, India. *Zoo's print* XXX (1): 20-23.
- Devi, K., and Shah, S.K. (2014) "*Samudri Pushpa*" (Sea Anemone). In: Dweep Tarang: 14-15, Published by TOLIC, CIARI, Port Blair.



Drs. K. Venkataramn, Director, ZSI and Dr. Kailash Chandra, Scientist-F pay their respect to our National Flag and freedom fighters on the occasion of 66th Republic Day celebrations on 26 January, 2015



Dr. Kailash Chandra, Scientist-F, Dr. J.R.B. Alfred, Former Director, ZSI and Shri K.C. Gopi, Scientist-E along with Dr. K. Venkataraman, Director, ZSI and staff and family members of ZSI witnessing the cultural programmes being organized on the occasion of 66th Republic Day celebrations



Dr. K. Venkataraman during PAC meeting for East Zone held from 20-21 January, 2015 at HQ office felicitated Dr. J.R.B. Alfred, Former Director and Chairman PAC (East Zone) and Dr. A.K. Sanyal, Member, PAC East Zone

ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

Marine ecosystem of Little Andaman Island and South Brother Sanctuary and terrestrial ecosystem of Rangat, Mayabunder and Diglipur have been surveyed from 15-22 January, 2015 and from 11-21 January, 2015, respectively. Seven local surveys have been conducted in south Andaman at different dates to study the faunal communities. A total of 426 species comprised of 126 species of

scleractinian corals, 4 species of sea anemones, 7 species of soft corals, 15 species of crabs, 73 species of gastropods, 10 species of opisthobranchs, 7 species of sponges, 12 species of echinoderms, 4 species of polyclads, 8 species of ascidians, 33 species of fishes have been identified from the marine environments; while 36 species of butterflies, 3 species of dipterans, 2 species

hymenopterans, 1 species of hemiptera, 5 species of reptiles and 80 species of birds have been identified/observed from the terrestrial environments.

Among them, 1 species of sea anemone *Verrillactis paguri* (Verrill, 1869), 2 species of opisthobranchs *Cyerce pavonina* Bergh, 1888 and *Phestilla minor* Rudman, 1981, one species of ascidian *Ascidia conchilega* Muller, 1776 and 3 species of fishes *Bodianus dictyna* Gomon, 2006, *Opistognathus cyanospilotus* Smith-Vaniz, 2009 and *Cirripectes auritus* Carlson, 1981 are new records to the Indian waters. Furthermore, 236 specimens including 80 specimens of coral, 3 specimens of sea anemone, 13 specimens of opisthobranch, 91 specimens of mollusc, 13 specimens of ascidian, 3 specimens of sponge, 1 specimen of echinoderm, 15 specimens of crabs, 6 specimens of fishes, 3 specimens of diptera, 2 specimens of hymenoptera, 1 specimen of hemiptera, 2 specimen of reptile and 3 specimen of birds have been registered in the National Zoological Collections. During the month we have prepared a book titled 'Fascinating Seaslug & Flatworms of Indian Seas' and submitted to ZSI Headquarters for publication.

Project proposal on 'Rapid Environmental Impact Assessment' studies for construction of sea-retaining-cum security wall at eastern coastal perimeter at Air Force Station, Car Nicobar has been submitted to the Indian Air Force, Car Nicobar on request. Also confiscated specimen of Giant Clam has been identified for the Deputy Conservator of Forests, Wildlife Division of Department of Environment and Forests, Port Blair on

request. As required by Department of Environment and Forests, the pictures of protected marine and terrestrial animals have been provided.

Dr. C. Raghunathan, Scientist-D & Officer-in-Charge of the Centre has attended the O/Cs meeting and made a presentation on the action plan of ZSI/ANRC for the Centenary Celebrations of ZSI on 19 January, 2015; also attended the Programme Advisory Committee meeting at ZSI/SRC, Chennai and presented the annual progress report of ZSI/ANRC for 2014-15 on 27 January, 2015; served as a member in the Research Advisory Committee meeting held on 16 January, 2015 at Department of Environment and Forests, Port Blair. Dr. C. Sivaperuman, Scientist-D has attended IAEC meeting at RMRC, Port Blair on 10 January, 2015, PAC Sothern Zone review meeting at ZSI/SRC, Chennai on 27 January, 2015 and imparted training on Crocodile censuses techniques to the frontline staff to carry out the Crocodile census on 7-8 January, 2015 as per the request of DFO, Mayabunder Forests & Wildlife Division and Baratang Division. Mr. Kamla Devi, Scientist-B has attended TOLIC meeting at CIARI.

Publications

- Devi, K., and Kumaralingam, S. (2014) First Report of Whitetail Stingray (*Himantura granulata*) from Andaman Islands. *Journal of the Andaman Science Association*, 18 (1): 75-77.
- Devi, K., and Shah, S.K. (2014) Samudri pushp- Sea Anemone. In: *Dweep Tarang* (Magazine published by TOLIC, CIARI, Port Blair).



Ascidian *Phallusia arabica* Savigny 1816



Opisthobranch *Dendrodoris fumata* Ruppel Leuckart 1831



Sea anemone *Heteractis aurora* Quoy and Gaimard 1833



Opisthobranch *Dendrodoris nigra* Stimpson 1855



Opisthobranch *Pteraeolidia ianthina* Angas 1864



Opisthobranch *Berthellina delicata* Pease 1861

Opisthobranch *Jorunna funebris* Kelaart 1858Opisthobranch *Chromodoris coelemani* Rydman 1982

WESTERN GHAT REGIONAL CENTRE, KOZHIKODE (CALICUT)

During the month, an extensive survey to Thattekkad Bird Sanctuary has been conducted and representative faunal samples collected. Three new species viz. *Anisopteromalus indicus* sp.nov. (Hymenoptera: Pteromalidae), *Telenomus dilatus* sp. nov. (Hymenoptera: Platygasteridae) and a new record and new species of *Mischotetrastichus* Graham (Hymenoptera: Eulophidae) have been described and published. Besides, 2 species each of Mantodea, Scorpiones, 3 species of Chilopoda (Centipedes), 4 species of Dermaptera, 16 species of Odonata, 4 species of Platygasteridae (Hymenoptera) and 5 species of Lepidoptera have been identified. The study of Dermaptera includes a new record to Kerala. Five identification and advisory services have been rendered to various students and researchers. Dr. P. M. Sureshan, Scientist-D & Officer-in-Charge of the Centre has attended the conference at HQ, Kolkata on 19 January, 2015 to present the programmes of centenary celebrations.

Dr. Sureshan, and Dr. K. Rajmohana, Scientist-D of the Centre has attended Programme Advisory Committee (South Zone) meeting at SRC, ZSI, Chennai on 27 January, 2015 and Officer-in-Charge has presented the station's progress report. Dr. Md. Jafer Palot, Asstt. Zool. has delivered a lecture on "Herpetofaunal diversity of Western Ghats" at the 8th Refresher Course in Environmental Studies (Interdisciplinary) on 19 January, 2015 at UGC - Academic Staff College, University of Calicut. He also delivered another lecture on "Biodiversity of Kerala- an overview" in a two-day workshop for Ministerial and Frontline Forest staff on 'Nature awareness' at Aralam WLS on 23 January, 2015 being organised by Kerala Forests & Wildlife Department. Dr. Palot, also participated in the butterfly survey of Aralam WLS, Kannur district from 9-11 January, 2015 being organized by the Kerala Forests & Wildlife Department and Malabar Natural History Society, Kozhikode.

As part of the AICOPTAX Project on

Pteromalidae (Hymenoptera), one extensive and 6 local surveys have been conducted in the agro ecosystems of Calicut and Ernakulum districts and 27 examples of specimens collected. Five species have been identified from the collections received from Dr. M. Nasser, Associate Professor, University of Calicut. Descriptions on the four new species of *Dipara* (Pteromalidae) have been completed and the manuscript submitted for publication.

Dr. P. M. Sureshan, Scientist-D has supervised the research project of 4 research scholars and Dr. K. Rajmohana, Scientist-D has supervised the research projects of 5 research scholars of the Centre for their doctoral degrees. During the month, 550 visitors paid their visits to the museum.

Publications

- Gupta, A., and Sureshan, P.M. (2014) A new Pteromalid species of the genus *Anisopteromalus* Ruschka (Hymenoptera) from India. *Oriental Insects*: 48: 67-72.
- Emiliyamma, K.G., and Radhakrishnan, C. (2014) Additional records of Odonata (Insecta) from Parambikulam Wildlife

Sanctuary, Kerala, India. *Rec. zool. Surv. India*, 114(Part-3): 365-369.

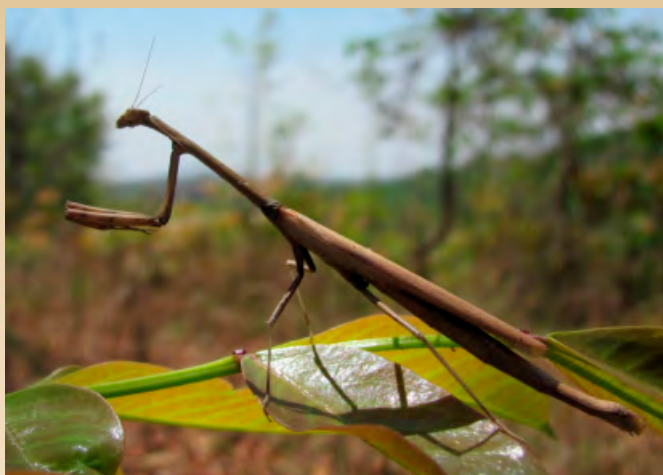
- Rajmohana, K., and Mary, A. (2014) *Telenomus dilatus* sp. nov. (Hymenoptera: Platygasteridae) - an egg parasitoid of swallowtail butterflies from south India. *Halteres* 5:73- 78.
- Narendran, T. C., Rajmohana, K. and Bijoy, C. (2014) New record of the genus *Mischotetrastichus* Graham (Hymenoptera: Eulophidae) with a new species from India. *Oriental insects*. 48(1-2): 55-66.
- Palot, M.J., Karuthedathu, D., Praveen, J., Prince, M., and Kunhikrishnan, E. (2014) First record of Red-necked Phalarope *Phalaropus lobatus* from Kerala, India. *J. Bombay Nat. Hist. soc.* 111(1): 46-47.
- Palot, M.J. (2015) *Uragangal: Chelikutta pambu* (Reptiles: Kerala Mud Snake, *Dieurostus dussumieri*). *Koodu- An environmental Magazine in Malayalam*. 2(9): 44.
- Palot, M.J. (2015) *Koovatha Kuruckanum Koozunna Kurunariyum* (All about changes in Wildlife wealth of Kerala) Mathrubhumi Newspaper – Vidya. Vol. 88.



Anisopteromlaeus calandrae (Howard) (Hymenoptera : Pteromalidae)



Anisopteromlaeus indicus Ankita Gupta & Sureshan



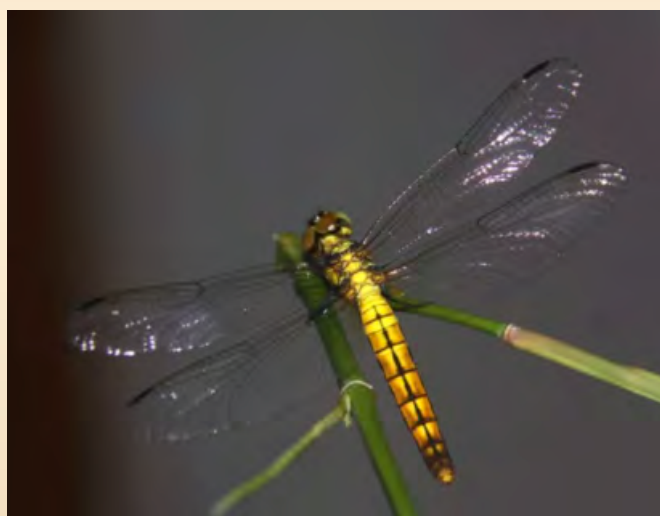
Cheddikulama straminea Giglio-Tos (Insecta: Mantodea)



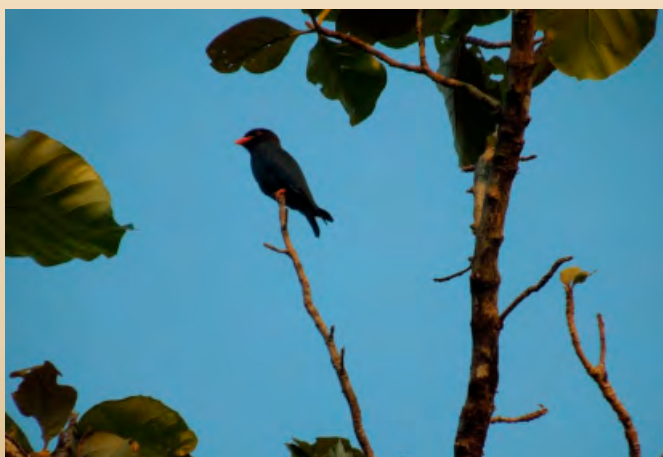
Cranopygia sternmanni
Srivastava
(Insecta:
Dermaptera)



Heterometrus keralaensis Tikader & Bastawade
(Arachnida: Scorpiones)



Lyriothemis tricolor (Insecta: Odonata)



Dollar bird, *Eurystomus orientalis* at Thattekkad bird
sanctuary, Kerala



Republic day celebrations 2015 at WGRC, Caicut

NORTHERN REGIONAL CENTRE, DEHRADUN

Two local surveys were undertaken: one to Rajaji NP (district Haridwar) for taxonomic studies of Acridoidea and another to Lakhwad (district Dehradun) for collection of butterflies for Molecular characterization. The Scientists of the Centre identified the following fauna during the month: 8 species of soil Nematodes, 5 species of Encyrtidae, 1 species of Acridoidea and 8 species of Pisces from Punjab; 5 species of Acridoidea, 4 species of soil Nematodes, 8 species of Pisces and one species of Amphibia from Sonanadi WLS, (Uttarakhand); 6 species of soil Nematodes from Govind WLS (Uttarakhand) and 4 species of soil Nematodes from Rajaji NP (Uttarakhand).

DNA has been extracted from 8 samples belonging to 5 species of butterflies and from 8 samples of 2 species of Lesser Cats. Amplicons of COI genes from 8 samples belonging to 5 species of butterflies, Cyt b genes from 6 samples belonging to 2 species of Lesser Cats. 12S rRNA and COI genes from 14 samples of 8 species of Squirrels has been obtained. Accession numbers of 6 COI genes of butterflies received from NCBI and 5 sequences of 12S rRNA of Squirrels have been submitted to NCBI.

Around, 100 permanent slides of nematodes

for morphological studies have been prepared from soil collected from Punjab, Sonanadi WLS and Dehradun surveys. Registered 35 examples of soil nematodes from Punjab and Sonanadi WLS surveys; 9 examples of Acridoidea from Punjab surveys, 138 examples of Pisces from Punjab and Sonanadi WLS surveys and 6 examples of Amphibia from Sonanadi WLS survey.

Ten database entries of nematodes and 20 entries of Pisces have been made in invertebrate and vertebrate datasheets, respectively. Digitization of 20 Amphibians made and their metadata entered. Around, 13 visitors visited the museum and library of NRC.

Publications

- Singh, K.A., Sharma, N. (2014) Present status of Arctiidae (Lepidoptera) from Dehradun District of Uttarakhand. *Prommalia* 2: 150-156.
- Sharma, V. and Dubey, A. (2015) Nematode fauna of Rajaji National Park, with first record of *Granonchulus subdecurrans* Coetzee, 1966 (Mononchida: Mylonchulidae) from India. *Agriculture, Forestry and Fisheries* 4(1): 1-6. doi: 10.11648/j.aff.20150401.11

MARINE AQUARIUM & REGIONAL CENTRE, DIGHA

During the month, around 201 examples of live marine ornamental exhibits have been collected for exhibition in aquarium galleries. The aquarium received an average of 1400 tourists per day. In total, 85 specimens have

been identified and which include 26 species of mollusks. One new species of free-living marine nematode *Rhynchonema dighaensis* Datta, Navarrete, Mohapatra, 2015, has been described in *Zootaxa*. The 29th Regional

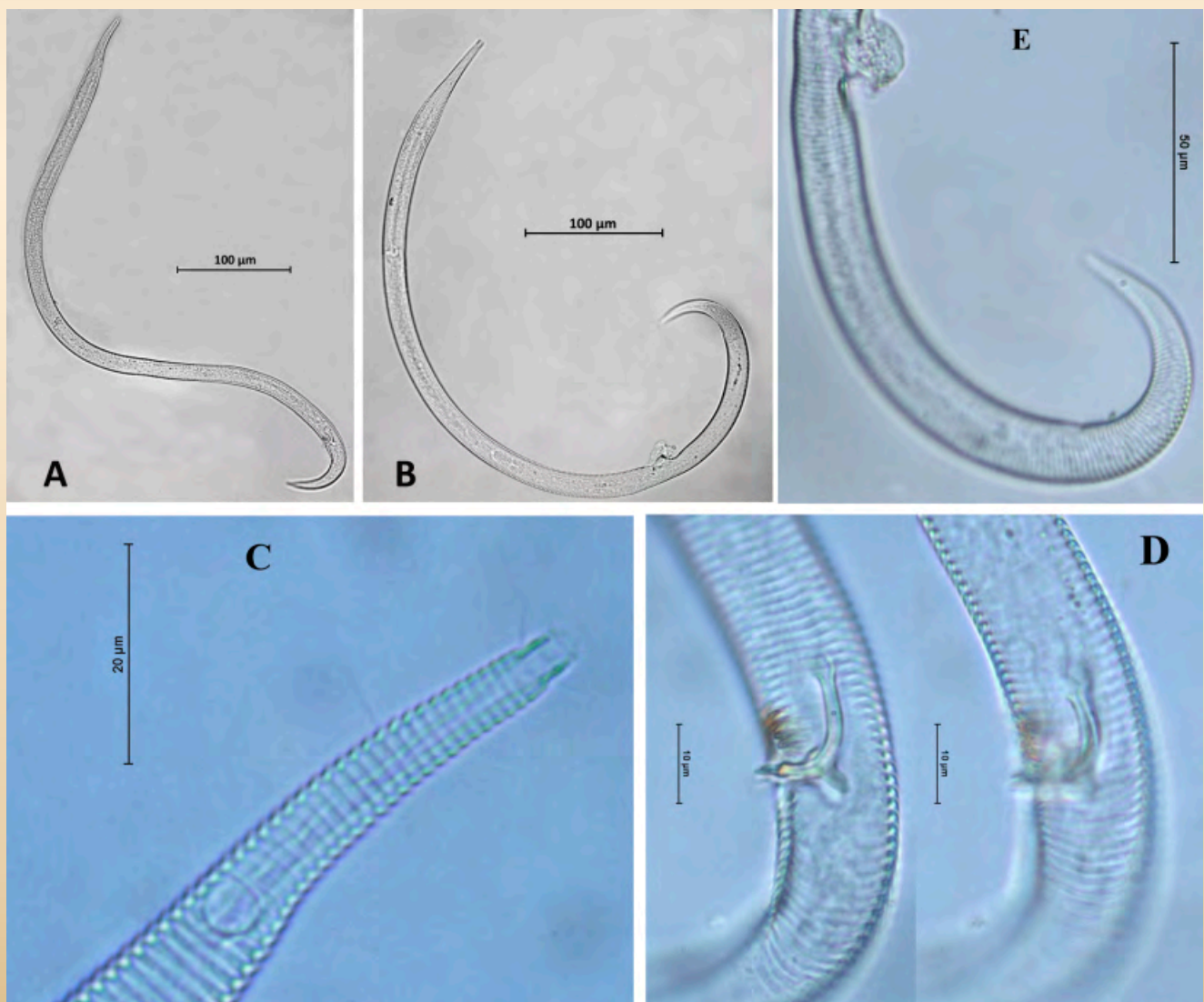
Council Meeting (RCM) has been held on 7 January, 2015 at the Centre. Dr. Anil Mohapatra, Scientist-D & Officer-in-Charge of the Centre has attended the BID evaluation committee meeting at IESWM, SPMU, ICZMP, Saltlake, Kolkata.

Publications

- Datta, T.K., Navarrete, A.D.J., Mohapatra, A. (2015) *Rhynchonema dighaensis* sp. nov. (Monhysterida: Xyalidae): a marine nematode from the Indian coast with an illustrated guide and modified key for species of *Rhynchonema* Cobb, 1920. *Zootaxa* 3905(3): 365-380.

<http://dx.doi.org/10.11646/zootaxa.3905.3.3>

- Mohapatra, A., Mohanty, S.K., and Mishra, S.S. (2015) Fish and shellfish fauna of Chilika lagoon : An updated checklist. In K. Venkataraman and C. Sivaperuman (Ed), *Marine Faunal Diversity in India: Taxonomy, Ecology & Conservation*, pp- 195-222. (Publisher: Elsevier).
- Yennawar, P., Mohapatra, A., Ray, D., and Tudu, P. (2015) Ithyofauna of Digha Coast, West Bengal. In K. Venkataraman and C. Sivaperuman (Ed), *Marine Faunal Diversity in India: Taxonomy, Ecology & Conservation*. pp- 235-248. (Publisher: Elsevier).



Rhynchonema dighaensis Datta, Navarrete, Mohapatra, 2015



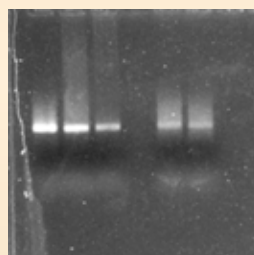
29th Regional Council Meeting



FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD

The scientists of the Centre have examined 434 specimens of freshwater benthic and zooplankton samples collected from different wetland bodies of Andhra Pradesh and identified as 8 species of gastropods viz. *Angulyagra microchaetophora*, *Bellamya dissimilis*, *Bellamya bengalensis* form *colairensis*, *Bellamya crassa*, *Pila globosa*, *Melenoides peddamunigalenis*, *Bellamya bengalensis* form *annandalei*, *Pila virens*; 2 species of bivalves viz. *Perreysia corrugate*, *Perreysia favidens* and 6 species of Ostracods viz. *Cyprinotus cingalensis*, *Stenocypris derputa*, *Stenocypris hislopi*, *Stenocypris simulans*, *Chrissia spinosa*, and *Cypris subglobosa*.

The DNA barcode laboratory of the Centre has isolated Genomic DNA from 3 species of insect viz. *Dineutus indicus*, *Hydaticus luczonicus*, *Hydaticus vittatus* and one species of fish *Etroplus maculatus* by using Nucleospin kit Method. NCBI Accession no. generated for three samples of insects viz. *Sternolophus rufipes*: KP406968 & KP406967, *Cybister tripunctatus*: KP406966.



PCR Image

Lane 1: PCR amplification of *Dineutus indicus*

Lane2: PCR amplification of *Hydaticus luczonicus*

Lane 3 : PCR amplification of *Hydaticus vittatus*

Lane 5: PCR amplification of *Etroplus maculatus*

Lane6: PCR amplification of *Etroplus maculatus*

As part of the digitization of the National Zoological Collections of the Centre, 10 species of mollusks viz. *Angulyagra microchaetophora* (Reg.No.1110), *Parreysia favidens* (Reg.No.1117), *Parreysia corrugate*(Reg.No.1116), *Pila virens* (Reg.No.1115 & 1120), *Pila globosa* (Reg.No.1114), *Bellamya dissimilis* (Reg.No.1111& 1121), *Bellamya crassa* (Reg.No.1113), *Bellamya bengalensis f.annandale*(Reg.No.1119), *Bellamya bengalensis f.colairensis* (Reg.No.1112), *Melanoides tuberculata* (Reg.No.1118), have been digitized. Dr. D.V. Rao, Scientist-D & Officer-in-Charge has attended a meeting of Centenary

Celebration held at HQ Office, Kolkata on 19 January, 2015. Dr. Rao, has attended the

PAC-South Zone meeting held at SRC, Chennai on 27 January, 2015.



Angulyagra microchaetophora



Pila virens



Bellamya bengalensis f. annandale



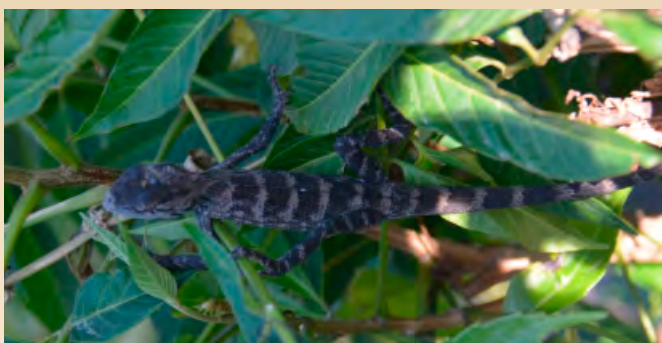
Bellamya crassa

ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

During the month, 58 examples of recently collected fishes have been studied and identified as belonging to 3 orders, 5 families, 8 genera and 8 species. The identified

specimens have been registered under 10 registration numbers and the data have been computerized and digitized. Twenty-one old reptilian collections have been photographed

and digitized as part of RFD. Dr. Bikramjit Sinha, Scientist-C & Officer-in Charge of the Centre attended the Centenary celebration meeting on 19 January, 2015 at ZSI, Kolkata. Dr. Bikramjit Sinha, Scientist-C & Officer-in Charge of the Centre attended in the PAC



Calotes sp.

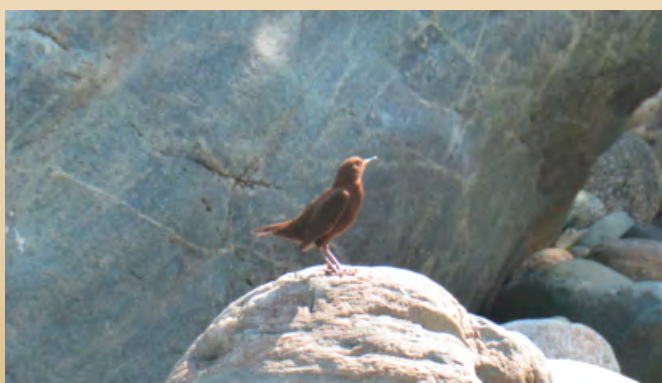
East Zone meeting at ZSI, Kolkata from 20-21 January, 2015. Dr. S. D. Gurumayum, Scientist-C of the Centre has undertaken a local survey to Chessa of Papum Pare district on 21 January, 2015.



Water sample collection from Hot Spring at Namti, Anjaw district



Celebration of Republic Day at APRC



Brown Dipper *Cinclus pallasii*



Yellow-throated Martin *Martes flavigula*

CENTRAL ZONE REGIONAL CENTRE, JABALPUR

During the month, scientists of the Centre have identified and registered 13 species of Lepidoptera (butterflies & moths) and 08 species of Odonata from Damoh, Gwalior, Narsingpur and Sagar districts of Madhya Pradesh. Teachers and students of Premwati College of Education, Jabalpur have visited museum on 28 January, 2015 and were informed of the activities of our Centre on the faunal resources of Madhya Pradesh and Chhattisgarh. Dr. S. Sambath, Scientist-D and Officer-in-Charge has attended a meeting at HQ office, Kolkata on the centenary celebration on 19 January, 2015; he also attended the departmental promotion committee meeting of Tropical Forest Research Institute, Jabalpur on 29 January, 2015 as one of the committee members. Officers and staffs of the Regional Centre have celebrated Republic day on 26 January, 2015. Scientists of the Centre reviewed 3 research papers for various Journals.

Publications

- Chandra, K., Biswas, B., and Kushwaha, S. (2014) Diversity of Pyrrhocoroidea (Hemiptera: Heteroptera) of Madhya Pradesh, India. *Munis Entomology &*

Zoology.10(1):169-171.

- Chandra, K., and Kushwaha, S. (2013) Diversity of Hemipteran Bugs of Kheoni Wildlife Sanctuary, Dewas, Madhya Pradesh, India. *Annals of entomology*. 31(2): 11-13.
- Chandra, K., and Kushwaha, S. (2015) *Taxonomic status of True Bugs (Insecta: Hemiptera) from Ralamandal Wildlife Sanctuary, Madhya Pradesh, India.*(Abstract) National Conference on "Innovative Ideas and Research in Life Sciences for Sustainable Development""IIRLSSD 15"16th and 17th January 2015.Organized byDepartment of ZoologyNowrosjeeWadia CollegePune. Pp-294.
- Talmale, S. S. (2014) Catalogue of Mammalia in the collection of the Zoological Survey of India, Western Regional Centre, Pune. *Rec. Zool. Surv. India, Occ. Paper No. 357* : 1-187. (Published by the Director, *Zool. Surv. India*, Kolkata.
- Talmale, S. S. (2014) Mammalia in Fauna of Radhanagari Wildlife Sanctuary, Maharashtra, *Conservation Area Series*, 52 : 5-16 (Published by the Director, *Zool. Surv. India*, Kolkata)



During Republic Day Celebration on 26.01.2015 at ZSI, CZRC, Jabalpur



Teachers and students of Premwati College of Education, Jabalpur during their visit to the office museum on 28 January, 2015.



Dr. S. Sambath, Scientist-D and Officer-in-Charge interacting with the students of Premwati College of Education, Jabalpur



Students observing various animal exhibits displayed in the office museum.

DESERT REGIONAL CENTRE, JODHPUR

During the month, we have identified and registered 5 species of ants and 19 species of fish from the jurisdiction area. Also digitized 49 specimens from National Zoological Collection for RFD. Under the research programme on State Fauna of Rajasthan - Gaps in Research, Dr. H. S. Banyal, Scientist-C has conducted a surveys in Jhalawar, Baran and Bhilwara districts of Rajasthan from 24 December, 2014 to 2 January, 2015. Around, 24 localities have been surveyed under the programme in aforesaid districts and 135 lots comprising of 890 examples of various faunal groups have been collected. Faunal assemblage collected during the survey is registered and the survey report submitted. Dr. Sanjeev Kumar, Scientist-D and Dr. H. S. Banyal, Scientist-C have conducted 3rd faunal survey from 27-31 January, 2015 under the EIA/EMP project on Fauna study in respect of Kapurdi-Jalipa Lignite Mines of Barmer District, Rajasthan.

Around, 27 localities have been surveyed and 10 lots comprising of 18 examples of different faunal groups collected. Six species of reptiles, 81 species of birds, including winter migrants and 10 species of mammals have been recorded from the entire study area of the EIA project. Dr. Sanjeev Kumar, has attended a meeting of State Board for Wildlife, Rajasthan at the office of the Chief Minister of Rajasthan on 8 January, 2015 at Jaipur. Dr. Kumar, also attended a meeting on 19th January, 2015 at ZSI, HQ, Kolkata related to centenary celebrations of ZSI and made a presentation on the programmes to be showcased during the centenary celebrations at Desert Regional Centre. Dr. Kumar, has delivered lectures on Wildlife of Rajasthan and man-animal conflict at Forest Training Center, State Forest Department (SFD), Rajasthan on 17 January, 2015 at Jodhpur. Staff of the Centre celebrated Republic Day at DRC, ZSI, Jodhpur campus on 26 January, 2015 and also organized the Republic Day ceremony programme.



Dr. Sanjeev Kumar, Scientist-D & Officer-in-charge hoisted National Flag on the occasion of Republic Day ceremony held at DRC, ZSI Jodhpur campus on 26th January, 2015



Channa punctata (Bloch, 1793)



Antelope cervicapra (Linnaeus, 1758)

GANGETIC PLAINS REGIONAL CENTRE, PATNA

During the month, scientists of the Centre have identified 14 species of Lepidoptera such as *Earia fabia* Stoll, *Earias chromataria* Walker, *Cretonotus transience* Walker, *Digama hearseyana* Moore, *Chalciope mygdon* Cramer, *Thyas coromata* (Fabricius), *Spodoptera litura* (Fabricius), *Trignodes hyppasia* (Cramer), *Ercheia cyllaria* (Cramer), *Achaea janata* Linnaeus, *Spodoptera litura* (Fabricius), *Leucania yu* (Guenée), *Ophiusa tirrhaca* Cramer and *Thysanoplusia orichalacea* (Fabricius). Dr Gopal Sharma, Scientist-D & Officer-in-Charge has attended the PAC meeting and given the presentation on the centenary celebration at ZSI, Kolkata from 19-21 January, 2015.

Publications

- Singh, J., Singh, N. & Joshi, R. (2014) A checklist of subfamily Arctiinae (Erebidae: Noctuoidea: Lepidoptera) from India. *Records of Zoological Survey of India, Occasional Paper no, 367*: 1-76 (Published by Director, Zoological Survey of India)
- Kirti, J.S., Singh, H. & Singh, N. (2014) New records of three species of Nolidae (Lepidoptera: Noctuoidea) from India. *International Journal of Fauna & Biological Studies* 1(6):131-134.
- Kirti, J.S., Singh, H. & Singh, N. (2014) Morphotaxonomy of two species of genus *Sarbanissa* Walker (Noctuidae: Lepidoptera). *Journal of Entomological Research*. 38 (4): 319-322.
- Kirti, J.S., Joshi, R. and Singh, N. (2014). A new species of genus *Teulisna* Walker (Lepidoptera: Erebidae: Arctiinae) from India. *Acta. zoological Cracoviencia* 57 (1-2): 11-19.

SUNDERBANS REGIONAL CENTRE, CANNING

One local tour has been conducted by Mrs. Supriya Nandy, Scientist-B and her team in different fish-landing Centres of Gosaba & Chotta Mollakhali of Sunderban and collected 47 faunal specimens, including 34 fishes, 4 Ray fishes, 4 Prawns, and 9 Crabs. Scientists of the Centre have identified and registered 20 specimens of different groups. Dr. D. Suresh Chand has participated in the ZSI centenary meeting held at HQ, Kolkata on 19 January, 2015 and PAC meeting for East Zone from 20-21 January, 2015. Mrs. Nandy has participated in a training programme on the functions of Officer-in-charge & DDO at Regional Training Centre, of Institute of Government Accounts & Finance of Ministry of Finance at

Kolkata from 12-14 January, 2015. The Centre also celebrated the 66th Republic Day on 26 January, 2015.



Rearing of grasshoppers in cages for biological studies

WESTERN REGIONAL CENTRE, PUNE

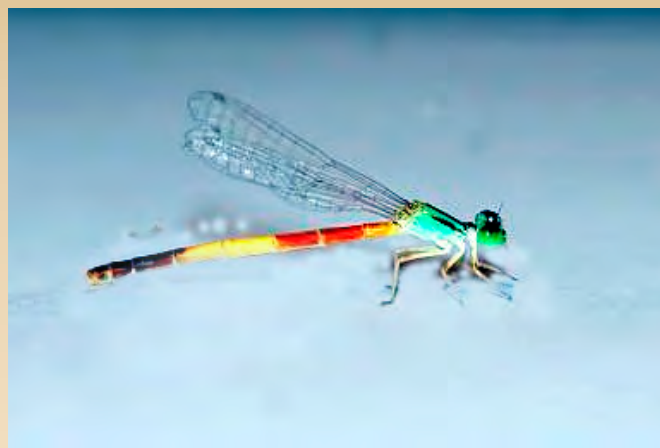
During the month, 7 species of Odonata, 07 species of Araneae, 02 species of Vespoids and 03 species of Amphibia have been identified. DNA has been extracted from 3 fish species. Identification and advisory services have been rendered by identifying Leopard (*Panthera pardus*) skin for Crime Branch, Thane City, Maharashtra; one skin, which was not that of Tiger (*Panthera tigris*) has been identified for the Police department, Ambarnath East, Maharashtra and one skin of Indian Monitor Lizard (*Varanus bengalensis*) has been identified for forest department, Pench National Park, Maharashtra.

Publications

- Pati, S.K., M.V. Rao and M. Balaji. (2014) Macrodeteriogens of wood at Visakhapatnam harbour, east coast of India. *Records of the Zoological Survey of India, Occasional Paper No. 356*: 1-44 (Published by the Director, Zoological Survey of India, Kolkata).
- Saha, P.D. and Gaikwad, S.M. (2015) Odonata assemblage at a small marshy land in Khadki (Pune city) - An assessment. *Journal of Entomology and Zoology Studies*, 39 (1): 53-64.



Macromia cingulata Rambur, 1842



Ischnura nursei (Morton, 1907)

NORTH EASTERN REGIONAL CENTRE, SHILLONG

During the month, 16 specimens of fishes have been identified into 6 species as *Schistura reticulofasciata* (Singh & Banarescu, 1981), *Pillaia indica* Yazdani, 1972, *Olyra longicaudata* McClelland, 1842, *Pseudolaguvia ribeiroi* Hora, 1921, *Glyptothorax trilineatus* Blyth, 1861 and *Badis badis* (Hamilton, 1822); 11 specimens of bats have been identified into 8 species as *Rhinolophus luctus*, Temminck, 1835, *Pipistrellus coromandra* (Gray, 1838), *Pipistrellus tenuis* (Temminck, 1840), *Saccolaimus saccolaimus* Temminck, 1838, *Megaderma lyra* E Geffroy, 1810, *Scotophilus kuhlii* Leach, 1821, *Scotophilus heathi* (Horsefield, 1831) and *Cynopterus sphinx* Vahl, 1797 from the backlog collections of the Centre.

Identification and advisory services have been rendered to the Department of Forests, wildlife division, Government of Meghalaya, Shillong on the identity of 21 species of fishes from 96 specimens as *Danio rerio* (Hamilton, 1822), *Danio dangila* (Hamilton, 1822), *Pethia shalynius* (Yazdani & Talukdar, 1975), *Puntius*

chola (Hamilton, 1822), *Pethia guganio* (Hamilton, 1822), *Cyprinus carpio* Linnaeus, 1758, *Salmophasia phulo* (Hamilton, 1822), *Balitora brucei* Gray, 1830, *Acanthocobitis botia* (Hamilton, 1822), *Lepidocephalichthys guntea* (Hamilton, 1822), *Lepidocephalichthys berdmorei* (Blyth, 1861), *Pangio pangia* (Hamilton, 1822), *Mystus cavasius* (Hamilton, 1822), *Olyra longicaudata* McClelland, 1842, *Xenentodon cancila* (Hamilton, 1822), *Parambassis ranga* (Hamilton, 1822), *Badis badis* (Hamilton, 1822), *Channa stewartii* (Playfair, 1867), *Channa gachua* (Hamilton, 1822), *Channa punctata* (Bloch, 1793) and *Tetraodon cutcutia* (Hamilton, 1822).

Images and metadata of 16 specimens of identified fishes and 11 specimens of identified bats have been digitized and databased.

Publications

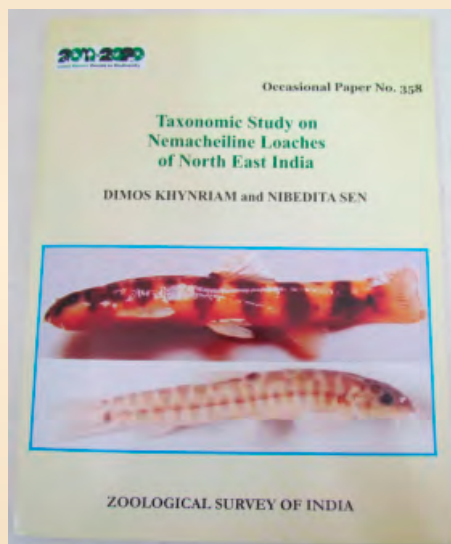
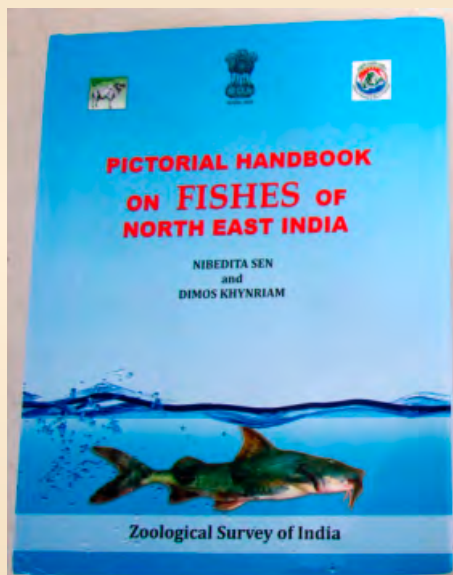
- Sen, N., and Khyndriam, D. (2014) *Pictorial Handbook on Fishes of North East India: 1-345*. Edited and published by Director,

Zoological Survey of India, Kolkata.

- Khyntiam, D., and Sen, N. (2014) Taxonomic study on Nemacheiline loaches of North East India. *Rec. zool. Surv. India, Occ. Paper No. 358*: 1-37. Edited and published by Director, Zoological Survey of India, Kolkata.
- Saikia, B., and Lyngdoh, J. (2014) Taxonomic study on Anuran Amphibians of North East India present in the unidentified collections of NERC/ZSI, Shillong. *Rec. zool. Surv. India, 114(Part-3)*: 433-442. Edited and published by Director, Zoological Survey of India, Kolkata.



Puffer fish, *Tetraodon cutcutia* (Hamilton, 1822)



Publications during the month

MARINE BIOLOGY REGIONAL CENTRE, CHENNAI

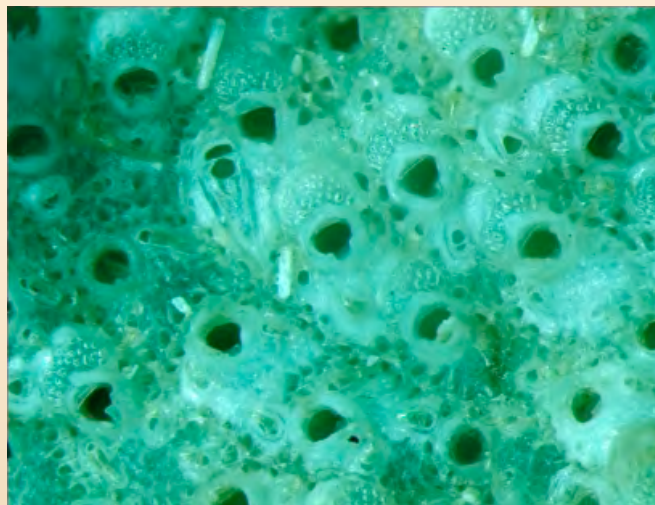
As part of the annual programme of research under the project 'Reef associated Bryozoans of Gulf of Mannar Marine Biosphere Reserve' a survey tour has been conducted from 5-13 January, 2015 by covering stations so far not visited in the Mandapam, Tuticorin and Keelakarai group of Islands of Gulf of

Mannar. A total of 31 stations have been covered so far in this study, resulting into a collection of 1746 Examples. Around 30 species of Bryozoans have so far been identified including collections from the latest survey. A field survey has been conducted on 'Studies on the free-living protozoan fauna of

estuaries in various coastal zones of Tamil Nadu' from 21-26 January, 2015 in different estuaries viz., Arasalar, Vettar, Cheruthur, Karaikkal, Vellar, Kollidam, Pazhaiyar, Marakkanam, Kaliveli covering Nagapatinam, Chidambaram and Villupuram districts. The research team collected a total of 108 water samples to study taxonomic inventory of protozoan species in these localities.

Publications

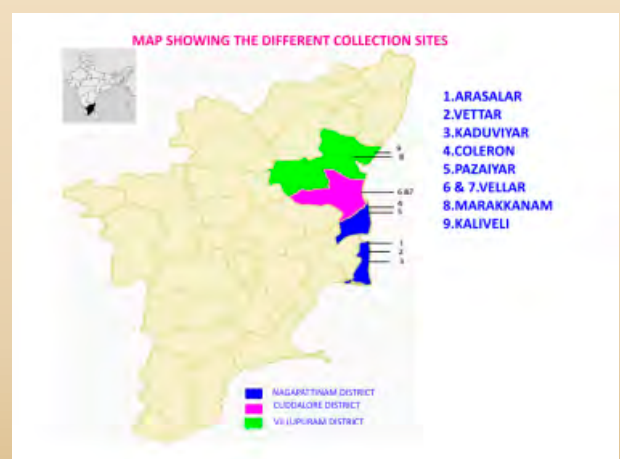
- Venkataraman, C., Padmanaban, P., and Sivaperuman, C. (2015) Seasonal abundance of Sea snakes on the Chennai Coast, Southern India. *In: K.Venkataraman and C. Sivaperuman (eds) Marine faunal diversity in India Taxonomy, Ecology and Conservation, Elsevier, USA. Pp249-259.*
- Sivaperuman, C., and C. Venkataraman. (2015) Coastal and Marine bird communities of India. *In: K.Venkataraman and C. Sivaperuman (eds) Marine faunal diversity in India, Taxonomy, Ecology and Conservation, Elsevier, USA. Pp261-281.*
- Paramasivam, K., Venkataraman, K., Venkataraman, C., Rajan, R.K. and Shrinivaasu, S. (2015) Diversity and distribution of sea grass associated macrofauna in Gulf of Mannar Biosphere Reserve, Southern India. *In: K.Venkataraman and C. Sivaperuman (eds) Marine faunal diversity in India Taxonomy, Ecology and Conservation, Elsevier, USA. Pp137-160.*



Smittina raigii
(Audouin,
1826) – one of
the Bryozoan
species
identified



Map showing stations so far covered under the study 'Reef associated Bryozoans of Gulf of Mannar'



Map showing collection sites under the survey tour 'Protozoan fauna of estuaries of Tamil Nadu'

HIGH ALTITUDE REGIONAL CENTRE, SOLAN

Faunistic identifications from the Centre for the month include 4 species of butterflies (out of 15 examples), 1 species of earthworm (out of 74 examples), 4 species of Orthoptera (out of 7 examples) and 3 species of Pisces (out of 4 examples) collected from Chail WLS, Solan; 1 species of Amphibia (out of 2 examples) from Cold desert of Spiti Valley, district Lahaul & Spiti, (HP); 3 species of Pisces (out of 4 examples) from Sukhna wetland, Chandigarh. Officer-in-Charge attended Punjab Wildlife Board meeting as member, chaired by the Hon'ble Chief Minister of Punjab on 17 January, 2015 at CMs residence, Chandigarh. Officer-in-Charge also attended a meeting at HQ, Zoological Survey of India, Kolkata related to centenary celebrations on 19 January, 2015 and presented a Power-point presentation related to various activities proposed to be held at HARC, ZSI, Solan in 2015-2016.

She sorted out 24 species of butterflies of Trans-Himalaya from NZC of Kolkata and get these photographed from photography section, Kolkata. The videos and photographs of Chail WLS, Pangri valley, Ladakh, Spiti valley, Kalatop WLS have been given to DZSI for further use in various centenary publications and documentaries. The photographs of recent and old surveys as well as the information for the directory regarding the retired/expired employees of the HARC

along with their photographs have been submitted to HQ in connection with Centenary celebrations. The photographs for LED frame of size 6"x 6" and 4"x 6" for modernization in Centre, Museum has been finalized. The poster on showcasing HARC, ZSI, activities since its inception has been prepared and submitted to HQ, ZSI, Kolkata. Assistant Zoologist of the Centre has attended the 7th National Conference on Recent advances in Chemical, Biological & Environmental Sciences on dated 30-31 January, 2015 at MM Modi College, Patiala & presented Paper titled on "Ecology and behavior of locust (*Locusta migratoria*) and its impact on livelihood in Cold desert Ladakh (J&K)".

A scientist of the Centre has submitted a monograph titled "Taxonomic revision and distribution of Family Lycaenidae (Papilionoidea: Lepidoptera) from Indian Himalaya" to the publication division, Kolkata for further processing. One scientist received and identified the 17 lots of earthworms from Dr. G.K. Sangha, Head of the Dept. of Zoology, Punjab Agricultural University, Ludhiana (Pb). Two scientists from the Centre have attended a demonstration programme on Aadhaar-enabled Biometric Attendance System (AEBAS) being organized by the NIC at Solan.

*Colias erate**Pieris brassicae*

ESTUARINE BIOLOGY REGIONAL CENTRE, GOPALPUR-ON-SEA

During the month, 5 specimens of mollusks belonging to 3 species under 3 genera and 3 families have been identified. These specimens have been collected during the Brahmani-Baitarani Estuarine Complex (Odisha) faunistic survey. Five museum specimens have been digitized. Fifteen college students have visited the National Zoological Collections kept at the Centre. Sri Arunendra

Mohapatra, Scientist-B of the Centre has attended a meeting at the HQ office, Kolkata on 19 January, 2015 and presented proposals of EBRC for ZSI's Centenary Celebration. He also attended the PAC (East Zone) meeting of ZSI on 20-21 January, 2015 and presented Centre's progress of research work in a meetings held at HQ office, Kolkata.



Hoisting of National Flag by Officer-in-Charge on Republic Day, 2015



Republic Day Celebration, 2015

*Bellamya dissimilis**Cerithidea cingulata**Pila globosa*

SOUTHERN REGIONAL CENTRE, CHENNAI

The Program Advisory Committee of ZSI, South Zone including Southern Regional Centre, Andaman and Nicobar Regional Centre, Western Ghats Regional Centre, Fresh

water Biology Research Centre and Marine Biology Research Centre has been conducted at our Centre on 27 January, 2015. Dr. R. Venkitesan, Scientist-D has identified 93

specimens of Mollusks as 16 species belonging to 11 genera under 6 families from the latest south Western Ghats survey. He also rendered identification services to Mr. Ponnusamy, Research Scholar, CIFE and also to Mr. Aravind Kumar, M.Sc student of Pachiyappas College Chennai on marine Gastropods and Bivalves.

Dr. Jayasree Thilak, Scientist-D has identified 20 specimens of Rotifers belonging to 8 species, 4 genera, 1 Order under 3 families; 25 specimens of Cladocerans belonging to 8 species 6 genera, 1 Order under 4 families and 3 examples of Ostracoda belonging to 1 species from the zooplankton collection from the different localities of Nilgiri district of south Western Ghats of Tamil Nadu. She also participated in the interactive training workshop on 'Methods of valuation of Ecosystem services' held at Madras Research Centre of Central Marine Fisheries Research Institute, Raja Annamalaipuram, Chennai from 5-9 January, 2015.

Dr. R. Babu, Scientist-C has identified 60 specimens of Odonates belonging to 11 species, 9 genera, under 2 families from the materials collected from Telangana (earlier united Andhra Pradesh). Dr. R. Aengals, Scientist-C has identified 5 Reptile specimens into 4 species under 3 genera belonging to 3

families collected from rainforest ecosystems of Tamil Nadu. Dr. S. Prabakaran, Scientist-C has identified 2 genera of Trichoptera from 12 specimens. He also identified 10 examples of Lepidoptera belonging to 10 species under 8 genera collected from KMTR survey.

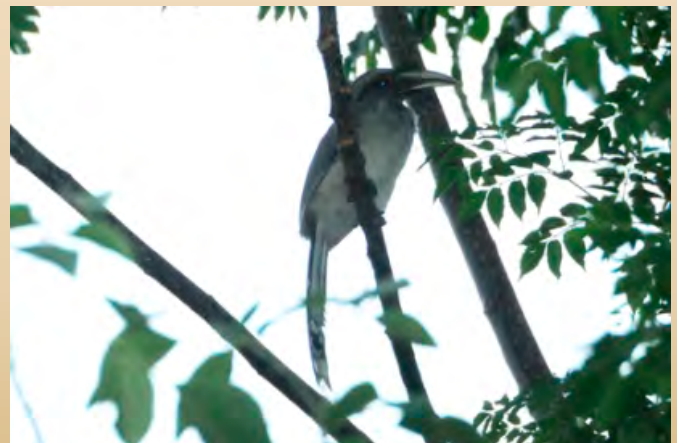
Shri D. Prabakar, Scientist-B has identified 61 specimens of Acridomorpha (grasshoppers) as 15 species under 14 genera, 8 sub-families and 2 families collected during the faunistic survey to south Eastern Ghats of Tamil Nadu and from the Western Ghats of Tamil Nadu. Dr. V. M. Sathish Kumar, Assistant Zoologist visited ZSI, HQ office Kolkata from 9-24 January, 2015 in connection the preparation of documentary on ZSI Centenary Celebrations. Dr. K. Ilango, Scientist-D & Officer-in-Charge has attended the Officers' meeting at the HQ office, ZSI, Kolkata on 19 January, 2015 in connection with the Centenary Celebration of ZSI and presented the proposal for conducting the national seminar and workshop at SRC, Chennai.

Publication

- Rajan S., Radhakrishnan, M., and Venkitesan, R. (2015) Studies on the Gastropod and Bivalves diversity of Molluscan organism in Chennai coast, Tamil Nadu, India. *International Journal on Environmental Sciences* 6 (1): 43-49.



Magpie Robin



Malabar Grey Hornbill

ANIMAL OF THE MONTH

Woolly Hare *Lepus oiostolus*

Woolly Hare *Lepus oiostolus* belongs to the Family Leporidae of Order Lagomorpha. *Lepus oiostolus* is a widespread species that occurs in high altitude cold deserts. There are no available data on population status but considered common in Ladakh and Himachal Pradesh in India. The geographic distribution of *Lepus oiostolus* includes western and central China, northern regions of Nepal and India. It can be found at elevations between 3,000 and 5,300 m



Text by Imran Alam and photo by G. Maheswaran

inhibiting upland grasslands of various types, montane meadows, shrub meadows, and alpine cold desert. We had a chance to photograph this species at Lahul Spiti Valley, Himachal Pradesh during our survey programme in July, 2014. However, there has been an overall decrease in quality and total area of habitat available to *Lepus oiostolus* resulting from destruction and grazing pressure.

OUT OF THE BOX

India's tiger census method flawed, says Oxford study

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Indias-tiger-census-method-flawed-says-Oxford-study/articleshow/46353339.cms>

Mercury dip stretches migratory season

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Mercury-dip-stretches-migratory-season/articleshow/46437621.cms>

Dry spell forces flamingoes to abandon thousands of eggs

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Dry-spell-forces-flamingoes-to-abandon-thousands-of-eggs/articleshow/46181444.cms>

Jackal research and translocation project launched

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Jackal-research-and-translocation-project-launched/articleshow/46077527.cms>

Javadekar seeks help from outside govt for animal welfare

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Javadekar-seeks-help-from-outside-govt-for-animal-welfare/articleshow/45891259.cms>