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February 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

Within two months of making his first visit to ZSI as Secretary of the Ministry of Environment, Forests and Climate Change, Shri Ashok Lavasa once again visited ZSI and this time as chief guest to declare open the curtain-raiser programme of ZSI prior to the proposed centenary celebrations starting from July, 2015. From 13-15 February, 2015 the ZSI has organized a 'National Conference on Animal Taxonomy-Challenges and Prospects' where in many dignitaries from other departments and universities have been invited to express their opinion about how animal taxonomy can be revived in India by addressing the gap-areas. Prior to the conference, the Shri Lavasa has released our centenary logo and declared open the curtain-raiser event. He also inaugurated the newly renovated Annandale Hall by unveiling the portraits of ZSI's founder Director Dr. Thomas Nelson Annandale and Carl Linnaeus. He also opened the collage made using the photos of all the scientists (present and past) who

contributed to the success of ZSI over a century now. Secretary also wished the ZSI best wishes by signing on the white board inscribed "I Love ZSI" in the first floor of Head Quarter building. Apart from the Secretary, Shri Hem Pande, Additional Secretary, MoEF&CC also graced the occasion by releasing few books published by the ZSI. Eminent personalities like Prof. P. L. Gautam, Former Chairman, National Biodiversity Authority (NBA) and Protection of Plant Variety and Farmers Rights Authority, and Prof. R. Sukumar, Centre for Ecological Sciences, Indian Institute of Science have given their plenary lectures apart from others who graced the event by giving their expert opinion on animal taxonomy. In nutshell the conference became a runaway hit and set stage for next huge event proposed to be held in July, 2015 wherein our Honorable Prime Minister is expected to visit ZSI to inaugurate the centenary celebrations.

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, Himachal Pradesh (Kinnaur, Kalpa, Spiti valley, Nako, Kaza), Duars region of northern West Bengal for collection of Collembolan fauna. Scientists of the Headquarters office have identified 14 species of Rhizopods belonging to 6 genera, 6 family, 2 order from the water, soil and moss samples of Assam and Himachal Pradesh; 1 species of trematode from Gujarat; 8 species of Platyhelminthes, 18 species of Collembola from Jharkhand; 10 species of collembola from northern West Bengal and Shola grassland of Western Ghats; 11 species of hemipterans from Maharashtra; 14 species from Chhattisgarh; and 4 species from West Bengal; 23 species of Hymenoptera, 3 species of Coleoptera, 7 species of Orthoptera, 6 species of Lepidoptera, 3 species of Chiroptera, 6 species of crabs from Kerala; 2 species of shrimps from Mizoram; 4 species of crabs from the Sunderbans; and 1 species of Rodentia from Andaman & Nicobar Islands.

Two species of crabs belonging to genus *Indochinamon* and *Potamiscus* new to science have been described. Crab *Phricotelphusa elegans* (de Man, 1898) is new record to India. *Ropalidia cyathiformis* (Fabricius, 1804) and *Ropalidia jacobsoni* (du Buysson, 1908) (Hymenoptera: Vespidae) are new records to West Bengal. Eleven species of wasps belonging to the family Vespidae (Insecta: Hymenoptera) have been recorded for the first time from Sunderbans Biosphere Reserve. The Zoological Survey of India has organized

a national seminar titled “*National Conference on Animal Taxonomy-Challenges and Prospects*” from 13-15 February, 2015 as curtain-raiser programme to the centenary celebrations to be held from 1 July, 2015 for one year. Dr. K. Venkataraman, Director, ZSI who spearheaded the task of organizing the event by inviting Shri Ashok Lavasa, IAS, Secretary, the Ministry of Environment, Forests and Climate Change, New Delhi along with Shri Hem Pande, IAS, Addl. Secretary, MoEF&CC, New Delhi as Chief Guest and Guest of Honour, respectively also invited delegates from various institutions. Many gave lectures on taxonomy and the challenges the country faces in terms of gap areas to be covered in animal taxonomy. Eminent scientists such as Dr. P.L. Gautam, Former Chairman, National Biodiversity Authority (NBA), Chennai and Dr. R. Sukumar, of the Centre for Ecological Sciences, Indian Institute of Science, Bangalore also gave plenary talks on 13 and 14 February, 2015. More than 25 dignitaries from other institutions and Universities participated in the three-day event. Many retired scientists of ZSI and BSI also participated and expressed their opinion on the challenges the animal taxonomy faces these days in India.

As part of the modernization activity of ZSI, the Annandale Hall in the first floor of New Alipore office has been renovated completely by the CPWD and the same was inaugurated by Shri Ashok Lavasa, Secretary, MoEF&CC, New Delhi in the presence of Shri Hem Pande, Addl. Secretary, MoEF&CC, New

Delhi. On the stage at the Annandale Hall, hand-painted portraits of Late Dr. Thomas Nelson Annandale and Late Dr. Linnaeus have been unveiled by the Secretary. These paintings were made by the artists of the ZSI. Identification and advisory have been rendered on 36 lots of specimens received from different institutions and organizations. Ms. Barnali Sarkar, Department of Zoology, Maulama Azad College, Mr. Anupam Chakraborty, Sub-inspector of Police (I.O), Special operation group C.I.D, West Bengal was furnished with an identification report of 4 (Four) photographs of Exhibits (A,B,C,& D) seized turtles *Lissemys punctata* (Lacepede, 1788). Deputy Conservator of Forest, Wildlife, Directorate of Forest, Bikash Bhavan, North Block, Third Floor, Salt Lake City, Kolkata has been furnished with an identification report of 4 specimens of live snakes and 6 bottles of preserved snake specimens.

Mr. Stuart Roberts, Centre for Agri-Environmental Research, U.K. and Dr. V.V. Belvadi, Scientist, GKVK, Bangalore visited the Hymenoptera Section for study of the bee collection on 23 February, 2015. Dr. Abraham Verghese, Director, NBAIR, Bangalore, Dr. K. Sreedevi, Senior Scientist, IARI, New Delhi and Dr. J. Poorani, Principal Scientist, NBAIR, Bangalore also visited Coleoptera Section.

Dr. Gaurav Sharma Scientist-D and Officer-in-Charge, Mammal and Osteology Section has examined the confiscated wildlife material received from the Divisional Forest Officer, Baikunthapur Division, Siliguri, West Bengal and identified it as parts of tusk belongs to *Elephas maximus* Linnaeus, 1758. Twenty-five

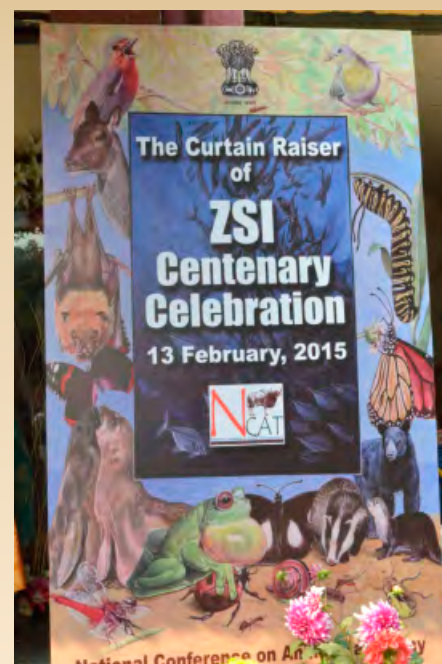
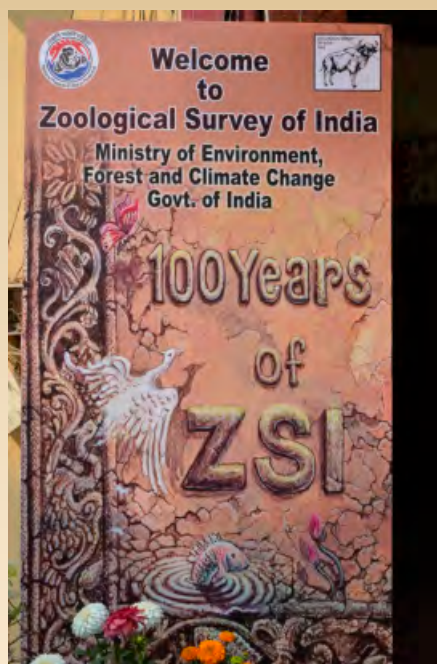
delegates who have come to participate in the "National Conference on Animal Taxonomy-Challenges and Prospects" also visited Mammals and Osteology Section on 14 February, 2015

Dr Kailash Chandra, Scientist-F has reviewed a manuscript on insects for the publication in the journal *Rec. zool. Surv. India* and another manuscript for the journal 'National Academy of Sciences, Biological Sciences'. Dr. Chandra, also actively involved in the 'National Conference on Animal Taxonomy – Prospects and Challenges' –a Curtain Raiser Programme to Centenary Celebrations of Zoological Survey of India held at HQ office, Kolkata from 13-15 February, 2015. Dr. P. Jasmine has attended a workshop on the transformation and resilience of the urban coast (TRUC) stakeholder consultation meeting at Kolkata, on 26 February, 2015 being organized by the National Centre for Sustainable Coastal zone Management (NCSCM).

Dr. K. Venkataraman, Director, ZSI has attended a meeting at MoEF&CC, New Delhi on 6 February, 2015 and again on 24 February, 2014. Dr. Venkataraman, also graced a seminar at Lokemata Rani Rashmoni Foundation, at Nimpith, 24 Parganas (S) on 19 February, 2015. He has attended a meeting at GOA in connection with scientific programme between 21 and 23 February, 2015. Dr. K. Venkataraman, Director, ZSI attended a meeting at National Centre for Sustainable Coastal Zone Management (NCSCM) under the MoEF&CC, New Delhi held at Salt Lake, Kolkata on 26 February, 2015.

Publications

- Basu, A., Jasmine, P., and Dey, J. (2015). Distribution of pteropods (Thecosomata and Gymnosomata) from the coastal waters of Orissa and Andhra Pradesh. *Biological Forum – An International Journal*, 7(1):419-425.
- Biswas, B., Hassan, M.E., Chandra, K., and Praveen, K. (2014) On an account of Coreoidea (Heperoptera : Hemiptera) from Chhattisgarh, India. *Rec. zool. Surv. India.* : 114 (Part -4) : 637-650.
- Bohra, P., Sharma, G., and Kumar, S. (2014) An Overview. In: Faunal Exploration of Sitamata Wildlife Sanctuary, Rajasthan. Conservation Area Series. Published by the Director, *Zool. Surv. India*, Kolkata. 54: 1-23.
- Chandra, K., Bhandari, R., and Kushwaha, S. (2015) Hemiptera Fauna of Ratapani Wildlife Sanctuary, Madhya Pradesh, India. *International Journal of Fauna and Biological Studies*. 2(2): 20-26.
- Annon. (2014) Faunal Exploration of Sitamata Wildlife Sanctuary, Rajasthan. Conservation Area Series. Published by the Director, *Zool. Surv. India*, Kolkata. 54: 1-158.
- Jasmine, P., and Bindu, L. (2015) First record of *Centropyxis delicatula* Penard, 1902 (Arcellinida: Rhizopoda) from India. *Journal on New Biological Reports*, 4(1):41-45.
- Kankane, P.L., Sharma, G., and Venkataraman, K. (2014) Status survey of some Mammals in Gujarat with special reference to Chinkara and Desert Cat. Published by the Director, *Zool. Surv. India*, Kolkata. 302pp.
- Mandal, G.P., & Suman, K.K. (2014) Collembola (Hexapoda) from Radhanagari Wild Life Sanctuary. *Zool. Surv. India*, Fauna of Radhanagari Wild Life Sanctuary, Conservation Area Series 52: 53-60.
- Mandal, G.P., and Suman, K.K. (2014) *Dicranocentrus cercifer* (Imms, 1912) Mari Mutt, 1979 (Collembola: Entomobryidae), New record from Jharkhand, India. *Rec. Zool. Surv. India* 114(3): 523-524
- Mandal, G. P., and Suman, K.K. (2014) Studies on diversity and distribution of soil micro-arthropod fauna w.s.r. to Collembola in Sajnakhali Wild life Sanctuary, South 24 pgs. District, West Bengal. *Rec. Zool. Surv. India*. 114(4):623-636.
- Mandal, G. P. (2014) A new record of Acrididae (Orthoptera) from Jharkhand, India. *Rec. Zool. Surv. India. Rec. Zool. Surv. India*. 114(4):603-606.
- Mandal, S.K. and G. P. Mandal. 2014. Checklist of Phasmida of India. www.zsi.gov.in.
- Girish Kumar, P., and Sharma, G. (2014) Taxonomic studies on vespids wasps (Hymenoptera: Vespoidea: Vespidae) of Sunderbans Biosphere Reserve, West Bengal, India Part 1. *Records of Zoological Survey of India* 114(Part-4): 563-580.
- Sharma, G., and Dhadeech, S.N. (2014) Insecta: Lepidoptera: Rhopalocera. In: Faunal Exploration of Sitamata Wildlife Sanctuary, Rajasthan. Conservation Area Series. Published by the Director, *Zool. Surv. India*, Kolkata. 54: 51-67.
- Sharma, G. (2014) Insecta: Odonata. In: Faunal Exploration of Sitamata Wildlife Sanctuary, Rajasthan. Conservation Area Series. Published by the Director, *Zool. Surv. India*, Kolkata. 54: 37-50.



Curtain Raiser Programme of Centenary Celebrations 2015-2016, 'National Conference on Animal Taxonomy – Prospects and Challenges'



Shri Ashok Lavasa, Secretary, MoEF&CC unveiled the collage having photos of all the staff of ZSI (past and present) in the ground floor during the National Conference on Animal Taxonomy held from 13-15 February, 2015



Shri Lavasa, writing his wishes on the white board 'I Love ZSI' on 13 February, 2015



Shri Lavasa inaugurated the newly renovated Annandale Hall at the first floor of HQ office, Kolkata



Shri Ashok Lavasa, Secretary, MoEF&CC along with Shri Hem Pande, Addln. Secretary, MoEF&CC, New Delhi and Prof. R. Sukumar, Indian Institute of Science, Bangalore on the die during inaugural programme of Curtain Raiser to Centenary Programme held on 13 February, 2015



Shri. Ashok Lavasa and Shri Hem Pane unveiled the portraits of Carl Linnaeus and Dr. Thomas Nelson Annandale at the newly renovated Annandale Hall of the ZSI



Shri. Ashok Lavasa felicitated an artist who drew the portraits of Dr. T.N. Annandale and Carl Linnaeus and he oversee the cultural programmes organised during the inaugural day



Dr. K. Venkataraman, Director welcomed Shri. Ashok Lavasa, Secretary, Dr. R. Sukumar, and Shri Hem Pande, Addl. Secretary, MoEF&CC during National Conference on Animal Taxonomy

ANDAMAN & NICOBAR REGIONAL CENTRE, PORT BLAIR

During the month, marine and terrestrial ecosystems of Rutland Island of Mahatma Gandhi Marine National Park and Burmanallah have been surveyed from 7-9 February, 2015; Rani Jhansi Marine National Park as well as other islands of Ritchie's Archipelago from 21-26 February, 2015 while 16 local surveys conducted in terrestrial ecosystem of South Andaman at different dates to study the faunal communities. A total

of 269 species comprised of 76 species of scleractinian corals, 2 species of sea anemones, 2 species of soft corals, 5 species of sponges, 74 species of molluscs, 6 species of echinoderms, 10 species of crabs, 6 species of ascidians and 23 species of fishes have been identified from marine environment while, 1 species of butterfly, 1 species of dragonfly, 1 species of diptera, 1 species of hymenoptera and 61 species of birds have been

identified/observed from terrestrial environment.

Among them, 2 species sea anemones *Diadumene leucolena* (Verrill, 1866) and *Nemanthus annamensis* Carlgren, 1943 are new record to Indian waters. Furthermore, 244 specimens including 80 specimens of scleractinian coral, 5 specimens of black coral, 4 specimens of copepod, 1 specimen of isopod, 1 specimen of opisthobranch, 2 specimens of sea anemone, 99 specimens of mollusc, 49 specimens of butterfly, 1 specimen of dragonfly, 1 specimen of diptera and 1 specimen of hymenoptera have been registered in the National Zoological Collections.

As per the request of Station House Officer, Police Station, Ograbraj, South Andaman confiscated bird specimens have been identified and report submitted. In addition, seized sea cucumbers have been identified for Range Officer, Wandoor, and gastropods and sea cucumbers for Range Officer, Garacharma, on request. REIA project proposal for the construction of integrated waste processing and engineered sanitary landfill facilities for municipal solid waste of Port Blair Municipal Council Town at Brookshabad has been submitted to Port Blair Municipal Council, and another two proposals for construction of rural road from Kalighat Jetty to Nischintapur including Bridge over Kalighat, and construction of Cement Concrete Dam at Khudirampur village at North Andaman have been submitted as per the request of Executive Engineer, APWD, Diglipur.

Dr. C. Raghunathan, Scientist-D & Officer-in-

Charge has attended the Curtain-raiser event held at HQ office, Kolkata as part of ZSI's centenary celebrations and '*National Conference on Animal Taxonomy- Challenges and Prospects*' held from 13-15 February, 2015 at, Kolkata. He also served as a rapporteur of a session on 'State-of-Art Fauna of India from Genes to Ecosystem'; also served as a doctoral committee member of Pondicherry University on 5th, 18th and 21st February, 2015; he also served as a Research Advisory Committee member in the Department of Environment and Forests, A&N Islands on 18 February, 2015; also attended a meeting with the Chairman and Members of 7th Pay Commission that has visited Port Blair to receive the memorandum from Central Govt. Employees of A&N Islands at Secretariat.

Dr. C. Sivaperuman, Scientist-D, imparted field training on bird identification to school students on 2 February, 2015 as requested by Divisional Forest Officer, Forest Extension & Publication Division; he also delivered a lecture on 'Combating desertification with special reference to avifauna of Island ecosystem' to the students of senior secondary school, Bathubasti on 13 February, 2015 and 'Avifauna of A&N Islands with special reference to Endemic and migratory birds' to the frontline staff of South Andaman Forest Division on 14 February, 2014. Dr. Sivaperuman, Mrs. Kamla Devi, Scientist-B and Mr. S. Rajesh Kumar, Senior Research Fellow, also attended the conference on introduced herbivores and their management in Andaman Islands on 21 & 22 February, 2015 at Mini Zoo, Port Blair. As per the request of Directorate of Tourism,

Mr. P.T. Rajan, Senior Zoological Assistant, made physical inspection of SCUBA diving equipment at dive centre in Havelock, South Andaman on 11 February, 2015 and he has delivered a lecture on issues of environmental degradation in the Environmental awareness programme being organized by the Govt. Senior Secondary School, Bhathubasti, Port Blair. Mr. S. Rajendra and Naveen Kumar Nigam, Ph.D. scholars have attended 'SCUBA Diving Certification Course (PADI)' at Dive India of Havelock from 22-25 February, 2015.

Publications

- Venkataraman, K., Raghunathan, C.,

Raghuraman, R., and Dixit, S. (2015) Fascinating Seaslugs and Flatworms of Indian Seas. 1-149. (Published by the Director, Zool. surv. India, Kolkata)

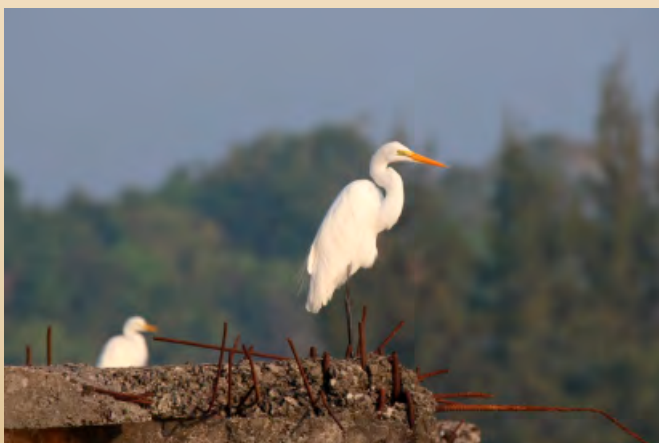
- Venkataraman, K., Sivaperuman, C., Subramaninan, K.A., Maheswaran, G. and Sharma, G. (2015) *Raptors of India*. 1-82. (Published by the Director, Zool. surv. India, Kolkata)
- Kumar, J.S.Y., Raghunathan, C., and Venkataraman, K. (2015) A report on some symbiotic shrimps (Crustacea: Decapoda) from the Andaman and Nicobar Islands, India. *Sch. Acad. J. Biosci.*, 3(1B): 113-119.



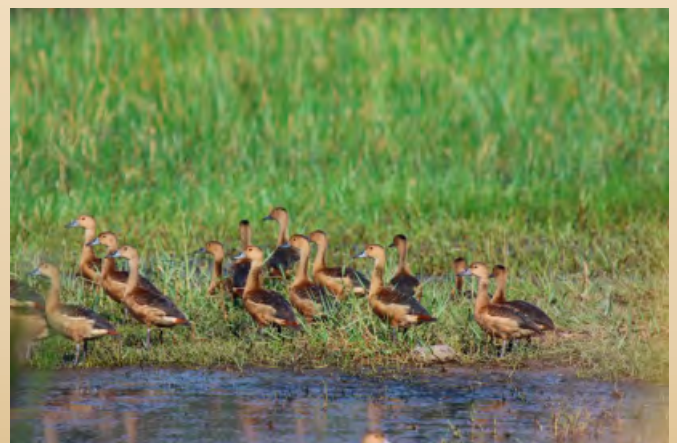
Echinoderm *Fromia monilis* (Perrier, 1869)



Eel *Heteroconger hassi* (Klausewitz & Eibl-Eibesfeldt, 1959)



Large Egret *Casmerodius albus* (Linnaeus, 1758)



Lesser Whistling-Duck *Dendrocygna javanica* (Horsfield, 1821)



Purple Moorhen *Porphyrio porphyrio poliocephalus*
(Latham, 1801)



Sea anemone *Nemanthus annamensis* Carlgren, 1943

WESTERN GHAT REGIONAL CENTRE, KOZHIKODE (CALICUT)

During the month, a new species of *Netomocera* Boucek (Hymenoptera: Chalcidoidea: Pteromalidae) from southern Western Ghats, Karnataka has been published. Another two new species of Hymenoptera: Platygastriidae have also been described as *Calotelea chitraka* sp. nov. and *Calotelea shyama* sp. nov. Besides these, 2 species of Mantodea (Insecta) 2 species of Scorpions, 6 species of Pteromalidae (Hymenoptera), 10 species of Odonata, 10 species of Platygastriidae (Hymenoptera) and 5 species of butterflies have also been identified. Eight identification and advisory services have been rendered to various students and researchers. The Centre has participated in the 2nd National Biodiversity Congress-2015, being organized by Kerala State Biodiversity Board from 24 February, 2015 to 2 March, 2015 at Thiruvananthapuram by arranging a stall at the Expo and exhibited faunal collections, photographs and write-ups on the fauna of Western Ghats. The stall got

consolation prize as best stall in the expo.

Dr. P. M. Sureshan, Scientist-D & Officer-in-Charge of the Centre has attended the "National Conference on Animal Taxonomy-Challenges and Prospects", held at HQ office, Kolkata from 13-15 February, 2015 as curtain-raiser event to ZSI's centenary celebrations to be held from July, 2015 for one year. The Centre has collaborated with Malabar Christian College, Calicut and T.C. Narendran Trust for Animal Taxonomy in organizing a national workshop on "Insect taxonomy on the identification of bees, wasps, bugs and beetles" from 27-28 February, 2015 at MCC, Calicut. All scientists and research scholars have participated in the workshop.

The Centre also organized a one-day workshop on 'Common birds of Kerala-need for their monitoring' on 11 February, 2015 jointly with Kerala Forests & Wildlife Department. Dr. Md. Jafer Palot, Asst. Zool. has delivered a talk on 'Common Birds of Kerala' in the workshop. Dr. K. Rajmohana,

Scientist- D, has delivered a lecture on invitation at Prof. Hunt Memorial Lecture in Zoology, at Malabar Christian College Calicut on 11 February, 2015 on the topic "Human Population". Dr. Md. Jafer Palot, Asstt. Zool. has participated in the bird and butterfly survey of Malabar WLS, Kozhikode from 13-15 February, 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 3 local surveys to agro ecosystems of Calicut and Quilon districts have been undertaken and 16 examples of specimens collected. Four species have been identified from the collections received from Dr. Md. Hayat, Aligarh Muslim University, UP for identification. Dr. P. M. Sureshan, Scientist-D has supervised the research project of five research scholars and Dr. K. Rajmohana, Scientist-D also has supervised the research projects of 5 research scholars of the Centre for their doctoral degrees. During the month, 551 visitors paid their visits to the museum.

Publications

- Sureshan, P.M. and Nikhil. K. (2015) A new species of *Netomocera* Boucek

(Hymenoptera: Chalcidoidea: Pteromalidae) from southern Western Ghats, Karnataka with a key to world species. *Journal of Threatened Taxa* 7(2):6903-6906.

- Sureshan, P.M. and Farsana, V.K.R. (2014) (published in Feb.15) Two new distributional and host records for *Spalangia* Latreille parasitizing *Drosophila* sp. on putrefied tender jack fruit (*Artocarpus heterophyllus*) from Kerala, India. *Journal of Biol. control*. 28 (2):57-61.
- Rajmohana, K. (2014) Ants, Bees and Wasps, A Taxonomic Account- in Changing Perspectives in Taxonomy and Systematics, Proceedings of the National seminar held on 8th Oct, 2013, organized by Dept. of Zoology, at Govt. College, Kodancherry, Calicut, pg, 15-22.
- Palot, M.J. (2015) *Nammude Vezhambalukal* (Our Hornbills). Kerala State Institute of Languages. Thiruvananthapuram. 62pages.(Malayalam Book)
- Palot, M.J. (2015) *Uragangal: Aattuvaya Pambu* (Reptiles: Dog-faced Water Snake, *Cerberus rynchops*). Koodu- An environmental Magazine in Malayalam. Vol.2 (10): 39



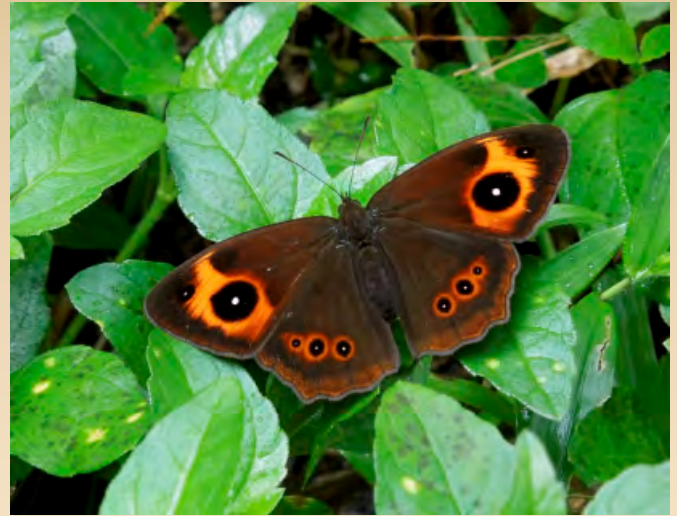
The stall set by WGRC, Calicut in the Expo of National Biodiversity Congress at Trivandrum, organized by Kerala State Biodiversity Board



Hydrobasileus corceus (Insecta: Odonata)



Papilio dravidarum Wood-Mason Endemic to Western Ghats



Mycalesis oculus (Marshall) Endemic to Western Ghats



Humbertiella similis Giglio-Toss
(Insecta: Mantodea)



Heterometrus kanaraensis Pocock
(Arachnida: Scorpiones)



Netomocera minuta Sureshan & Nikhil,
2015 (Hymenopter: Pteromalidae)

NORTHERN REGIONAL CENTRE, DEHRADUN

During the month, 1 local survey has been undertaken in Rajaji N.P. (district Haridwar) for taxonomic studies of Acridoidea and collected Acridoidea and Encyrtidae samples for taxonomic studies. The scientists of the Centre have identified the following fauna during the month: 6 species of soil nematodes,

2 species of Encyrtidae, 4 species of Acridoidea, 7 species of Lepidoptera and 15 species of Pisces from Punjab; 5 species of Lepidoptera from Sonanadi WLS, (Uttarakhand); 4 species of soil Nematodes from Govind WLS (Uttarakhand) and 7 species of soil nematodes from agro-

ecosystems of district Dehradun.

DNA has been extracted from 8 samples belonging to 2 species of Lesser Cats. Amplicons of COI genes from 6 samples belonging to 3 species of butterflies and 12SrRNA genes from 2 species of Lesser Cats. Also submitted 3 sequences of COI genes of *Heliophorus sena* and received their accession numbers and one accession numbers for 12SrRNA of *Prionailurus bengalensis* has been received from ncbi. Also 7 sequences of Cytb and 13 sequences of 12SrRNA genes of Squirrels have been submitted to NCBI.

Around, 70 permanent slides of nematodes for morphological studies have been prepared from soil collected from Punjab, Sonanadi WLS and Dehradun surveys. Also registered 44 examples of soil nematodes from Punjab and Dehradun surveys; 7 examples of Acridoidea from Punjab surveys, 1011 examples of Pisces from Punjab. Thirteen database entries of nematodes and 85 entries of Pisces have been made in invertebrate and vertebrate datasheets, respectively. Digitization of Amphibia with 20 entries and 60 images have been and their metadata entered.

Dr. S.I. Kazmi, Scientist-D, has delivered a lecture on basic concept of Entomology; Dr. Narender Sharma, Scientist-D, has delivered a lecture on collection, preservation and identification of Lepidopteran insects and Dr. Vinita Sharma, Scientist-D also delivered a lecture on collection, preservation and identification of soil nematodes to the Forest Range Officer Trainees, Uttarakhand Forestry

Training Academy, Haldwani (Uttarakhand) who visited our Centre 2 February, 2015.

Dr. A.N. Rizvi, Scientist-D has attended the “National Conference on Animal Taxonomy” from 13-15 February 2015 held at the Zoological Survey of India, Kolkata and also participated as rapporteur of a session titled “Challenges and Prospects in Animal Taxonomy”.

Dr. A.N. Rizvi, Scientist-D, Dr. Vinita Sharma, Scientist-D, Shri Parmod Kumar, Asstt. Zoologist and Shri M.K. Meena, Asstt. Zoologist have attended the inaugural function of 9th Uttarakhand State Science Congress held on 26 February, 2015 held at UCOST Campus, Dehradun. Dr. Vinita Sharma, has presented a paper “A preliminary report on nematode fauna at Rajaji National Park, Uttarakhand, India” in 9th USSTC at UCOST, Vigyan Dham, Dehradun on 27 February, 2015. Mr Pallab Maity, JRF working under Dr A. N. Rizvi has participated and presented a poster entitled “Helminth Parasite communities in Anuran Amphibia in Dehradun(Uttarakhand), India” in the 9th Uttarakhand State Science Congress held on 27 February, 2015 held at UCOST Campus, Dehradun. Around, 160 visitors visited our museum and library.

Publication

- Bahuguna, A. (2015) New species of Genus *Sitana* (Sauria: Agamidae) from Kalesar National Park and Wildlife Sanctuary, Haryana, North Western India, *International Journal of Advanced Research* 3(1): 526-535.

MARINE AQUARIUM & REGIONAL CENTRE, DIGHA

During the month, around 102 examples of live marine ornamental exhibits have been collected for exhibition in aquarium galleries. The aquarium received an average of 1200 tourists per day. In total, 64 specimens have been identified during the month which includes 17 species of mollusks and 15 crab species. Dr. Anil Mohapatra, Scientist-D and Officer-in-Charge of the Centre has participated in the 'National Conference on Animal Taxonomy- Challenges and Prospects', the curtain-raiser to ZSI centenary celebration from 13-15 February, 2015.



Etisus laevimanus



Matuta planipes



Metopograpsus frontalis

DESERT REGIONAL CENTRE, JODHPUR

During the month, scientific staff of the Centre has identified and registered 5 species of ants and 19 species of fish from the jurisdiction area. Also digitized 105 specimens from NZC for RFD. Under the research programme, 'Status Survey of *Ardeotis nigriceps* (Vigors, 1831) (Great Indian Bustard) in Grasslands of Rajasthan', Dr. Sanjeev

Kumar, Scientist-D and Officer-in-Charge has undertaken a survey for Great Indian Bustard in the grasslands of Pali, Jalore, Barmer and Bikaner districts from 18 February, 2015 to 1 March, 2015. Dr. Kumar, also has organized a programme on the occasion of World Wetlands Day-2015 at the Centre on 2 February, 2015 and delivered a lecture on the

importance of wetlands in India. All the officers and staff members participated in the programme. Dr. Kumar, has attended the curtain-raiser event held at HQ office, Kolkata from 13-15 February, 2015 as part of the year-long centenary celebrations and received the logo of centenary celebration from Shri Ashok Lavasa, IAS, Secretary, MoEF&CC, Govt. of India. Dr. Sanjeev Kumar, has also attended a 'National Conference on Animal Taxonomy – Challenges and Prospects' from 13-15 February, 2015 at ZSI, HQ, Kolkata and presented a poster on achievements of the Desert Regional Centre, ZSI, Jodhpur. Dr. H. S. Banyal, Scientist-C has provided scientific information on the fauna displayed in the museum of the Centre to the teachers and students of Govt. Sr., Sec., School, Sirohi,



Dr. Sanjeev Kumar, Scientist-D & Officer-in-charge providing scientific information on issues of wildlife to the students of Govt. Sr., Sec., School, Sirohi, Rajasthan on 18th February, 2015 at DRC, ZSI, Jodhpur

Rajasthan on 18 February, 2015, Vasusthali Vidyapeeth Sec., School, Salawas, Jodhpur & Shubh Prabhat High Sec. School, Pali, on 19th February, 2015. Dr. Banyal, has delivered a lecture and also provided scientific information on the fauna displayed in the museum of the Centre to trainee Forest Guards of Rajasthan State Forest Department on 19 February, 2015. Dr. Banyal, has attended and presented a research article in the Official Language Scientific Seminar held at Defence Laboratory, Jodhpur from 23-24 February, 2015. Dr. Sanjeev Kumar, has delivered an invited lecture in the national seminar on 'Current trends in environmental research' being organized by the Deptt. of Environmental Science, Maharaja Ganga Singh University, Bikaner on 28 February, 2015 at Bikaner, Rajasthan.



Dr. H. S. Banyal, Scientist-C providing scientific information to Forest Guards of Rajasthan State Forest Department on 19th February, 2015 at DRC, ZSI, Jodhpur

FRESHWATER BIOLOGY REGIONAL CENTRE, HYDERABAD

The scientists of the Centre have examined 184 specimens of freshwater benthic and zooplankton samples collected from different wetland bodies of Andhra Pradesh and

identified as 7 species of gastropods viz. *Pila virens*, *Pila theobaldi*, *Angulyagra microchaetophora*, *Bellamya dissimilis*, *Bellamya bengalensis* form *mandiensis*, *Indoplanorbis*

exustus, *Lymnea biacuminata* and 3 species of Ostracods viz. *Fabaeformiscanoda subacuta*, *Chrissia spinosa*, and *Cypris formosa*.

The DNA barcode laboratory of the Centre has isolated Genomic DNA from 3 species of insect viz. *Dineutus indicus*, *Hydaticus luczonicus* and *Hydaticus vittatus* using Agilent Technologies *Taq* DNA polymerase PCR Image



Lane 1: PCR amplification of *Dineutus indicus*

Lane 2: PCR amplification of *Hydaticus luczonicus*

Lane 3: PCR amplification of *Hydaticus vittatus*

As part of the digitization of the National Zoological Collections of the Centre, 7 species of mollusks viz. *Angulyagra microchaetophora*



*Angulyagra
microchaetophora*

(Reg. No.1133), *Pila virens* (Reg. No.1131), *Pila theobaldi* (Reg. No.1132), *Bellamya dissimilis* (Reg. No.1135), *Indoplanorbis exustus* (Reg. No.1136), *Lymnaea biacuminata* (Reg.No.1137), *Bellamya bengalensis* form *mandiensis* (Reg. No.1134), have been digitized.

Publications

- Karuthapandi, M., and Rao, D. V. (2014) A new record of *Fabaeformiscandona subacuta* (Yang, 1982) (Crustacea: Ostracoda: Candonidae) from India. *Rec. Zool. Surv. India*, 114 (Part-4): 701-706
- Dr. D.V. Rao, Scientist-D and Officer-in-Charge of the Centre has attended a 'National Conference on Animal Taxonomy-Challenges and Prospects' held at HQ, Zoological Survey of India during 13-15 February, 2015. Dr. Deepa Jaiswal, Scientist-D, Smt. Sk. Rehanuma Sulthana, Zool. Asst., Dr. Karutha Pandi, SRF participated in 'Science expo' being organized by the Ravindra Bharathi Matriculation School, Towlichoki, Hyderabad on 13-14 February, 2015.



Pila virens



Bellamya bengalensis form mandiensis



Bellamya dissimilis



Indoplanorbis exustus



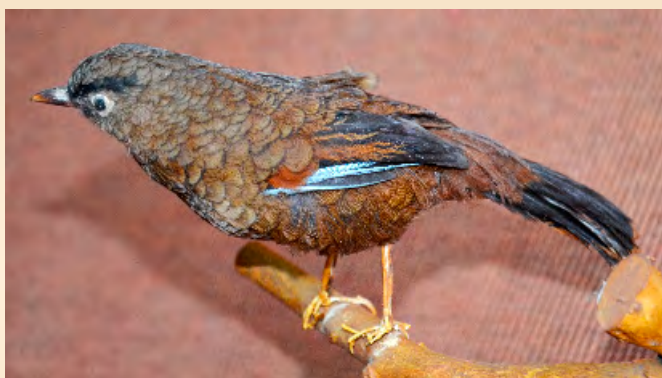
Lymnaea biacuminata

ARUNACHAL PRADESH REGIONAL CENTRE, ITANAGAR

During the month, 13 examples of recently collected fishes have been studied and identified as belonging to 2 orders, 3 families, 5 genera and 6 species. The identified

specimens have been registered under 8 registration numbers and the data have been computerized and digitized. Twenty-three nos. of old avian collection have been

photographed and digitized as part of RFD. Dr. S. D. Gurumayum, Scientist-C of the Centre has identified 40 examples of faunal species collected from local surveys. Dr. Bikramjit Sinha, Scientist-C & Officer-in-Charge of the Centre has participated in the 'National Conference on Animal Taxonomy-Challenges and Prospects, The Curtain Raiser to ZSI Centenary Celebration from 13-15 February, 2015 at ZSI, Kolkata. Dr. S. D. Gurumayum, Scientist-C of the Centre has



Garrulax squamatus

attended the 1st National Bioresources and Sustainable Development Summit-2015 being organised by Institute of Bioresources and Sustainable Development (IBSD), Department of Biotechnology, (DBT), Government of India at Imphal from 19-20 February, 2015 and made a poster presentation on the topic entitled "Taxonomy of some of the interesting lesser known animal resources use as food by Nyshi tribes of Itanagar".



Treron apicauda

CENTRAL ZONE REGIONAL CENTRE, JABALPUR

During the month, scientists of the Centre have identified and registered 11 species of Odonata, 5 species of Lepidoptera, 1 species of Hemiptera and 4 species of mammals collected from Damoh, Gwalior, Jabalpur, Narsingpur, Sagar and Umaria districts of Madhya Pradesh. Dr. S. Sambath, Scientist-D & Officer-in-Charge has attended the 'National Conference on Animal Taxonomy - Challenges and Prospects' at ZSI, HQ office, Kolkata from 13-

15 February, 2015. Shri Sandeep Kushwaha, Sr. Zoological Assistant has attended national conference on 'Environmental degradation and global health' being sponsored by the Madhya Pradesh Council of Science & Technology, Bhopal Bundelkhand Extended Region on 01 & 02 February, 2015.

Publications

- Chandra, K., and Kushwaha, S. (2015) Distribution and diversity of Hemiptera

fauna of Ratapani Wildlife Sanctuary, Madhya Pradesh, (Abstract) India National Seminar on Biodiversity and Conservation: Present Status and Future Perspective 12-13th February- 2015. Organized by Department of Zoology St. Xavier's College (Autonomous), Palayamkottai, Tamil Nadu, India. Pp.86.

- Chandra, K., and Kushwaha, S. (2015) Auchenorrhyncha (Insecta: Hemiptera) from Andaman and Nicobar Islands, India (Abstract). National Conference on Sponsored By In Association with 01 & 02 February, 2015 "Environmental Degradation and Global Health" &

Madhya Pradesh Council of Science & Technology, Bhopal Bundelkhand Extended Region Chapter, NASI, Allahabad 2nd Annual Session of Society of Life Sciences. Organized by Environment & Social Welfare Society Khajuraho-471606 Madhya Pradesh, India. pp.21

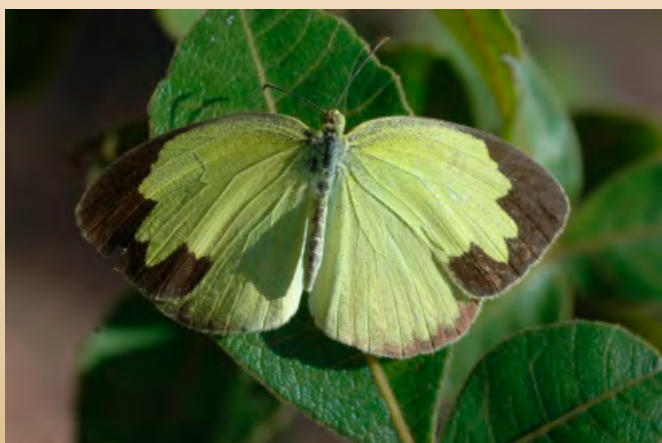
- Paunekar, S., Talmale, S. S., and Gupta, D. (2015) Food habits of Spotted Owlet *Athene brama* (Temminck, 1821) in the campus of Tropical Forest Research Institute, Jabalpur : an Ecological representation of Central India. *Ambient Science* 2(1) online <http://www.caves.res.in/journal/c.htm>



Abisara echerius (Stoll)



Athyma perius (Linnaeus)



Eurema hecabe (Linnaeus)



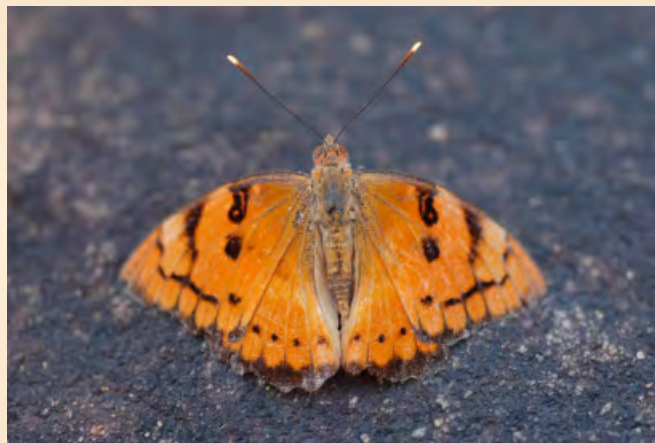
Junonia iphita (Cramer)



Junonia lemonias (Linnaeus)



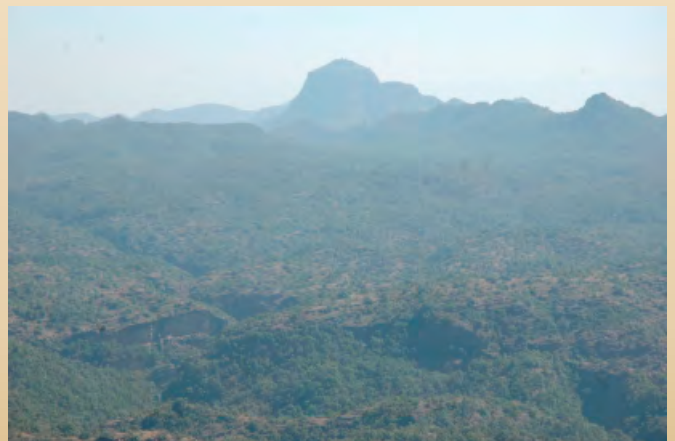
Neptis soma Moore



Symphaedra nais (Forster)



Aerial view of Pachmarhi Biosphere Reserve from Dhupgarh (highest peak of PBR)



View of Mahadev hill, Pachmarhi Biosphere Reserve from Dhupgarh

MARINE BIOLOGY REGIONAL CENTRE, CHENNAI

Under the project titled 'An inventorization of the corals and other associated marine resources of Malvan Marine Sanctuary' Dr. Rajkumar Rajan, Scientist-D of the Centre has participated as member in the field tour from 21-27 February, 2015, in Malvan, Maharashtra to identify areas of abundance of corals and associated fauna in Malvan coast and establishment of Permanent Monitoring Plots for long-term monitoring of the health of corals and associated fauna. Four 100 sq. m. plots have been demarcated as monitoring sites, and in each plot, two permanent line transects have been fixed for periodic recording of benthic cover data. A base-line record of benthic cover data has been made through LIT and photo-quadrat methods in the transect lines.

Two post-graduate students of Zoology from

Ethiraj College, Chennai, successfully completed their M.Sc. dissertation work during the month. The students worked on the National Zoological Collections of Marine Biology Centre. Ms. Vanishree has worked on the bivalves and identified 302 examples which yielded 26 species from the collections made from Tamil Nadu and Odisha coasts. Ms. Jayalakshmi has worked on Stomatopod examples and identified 83 examples, containing 18 species from the collections made from Tamil Nadu coast. The dissertations contained the descriptions of the species identified along with key characters.

Publication

- Sivaleela, G. (2014) Marine Sponges of Gulf of Mannar and Palk Bay. *Rec. zool. Surv. India* 114(part-4): 607-622.



Coral *Pleasiastrea versipora* (Lamarck, 1816) from the reef near Sindhudurg fort, Malvan



Fish species *Cephalopholis formosa* (Shaw, 1812) from the reef near Sindhudurg fort, Malvan

Stomatopod species
Harpiosquilla raphidea
(Fabricius, 1798) identified
from the NZC of MBRC

GANGETIC PLAINS REGIONAL CENTRE, PATNA

Dr. Gopal Sharma, Scientist-D & Officer-in-Charge, Dr. Navneet Singh, Scientist-D and Mr Lakhan Samad, UDC have attended TDS awareness programme on 19 February, 2015 held at Bihar State Chamber of Commerce which was organized by Income Tax Department Patna. Dr. Sharma has attended a meeting with Director, Ecology and Environment on Wetland review at Sanjay Gandhi Biological Park at Patna on 9 February, 2015. Dr. Sharma also has attended the curtain-raiser event of the centenary celebration at ZSI HQ office, Kolkata from 13-15 February, 2015. Dr. Sharma, has

delivered a lecture on 'Ensuring survival of Gangetic Dolphins' at Patna Women's College on 27 February, 2015. Dr. Navneet Singh, Scientist-D guided Mr. Devinder Singh, M. Phil student of Department of Zoology & Environmental Studies, Punjabi University, Patiala for compilation of his M. Phil thesis. Mr. Devinder visited ZSI, Patna from 06 December, 2014 to 24 February, 2015.

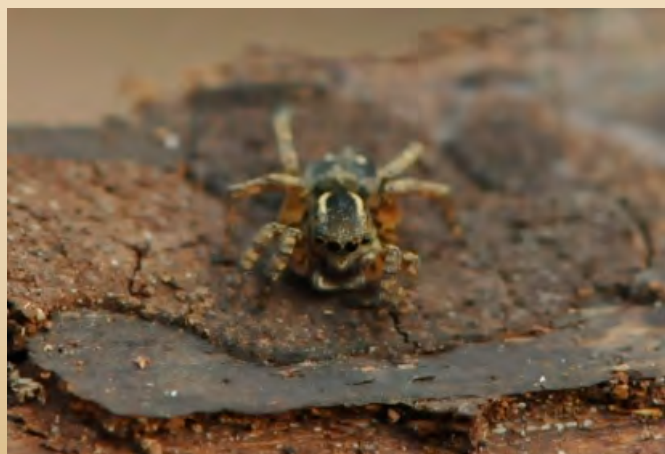
Publication

- Kirti, J.S., Singh, N. and Singh, H. (2014). Re-description of genus *Tycracona* Moore (Noctuidae: Lepidoptera) *Journal of Global Biosciences* 3(7): 1102-1104.

WESTERN REGIONAL CENTRE, PUNE

During the month, 12 species of Lepidoptera and 31 species of Odonata have been identified. Identification and Advisory services have been rendered on Araneae, Scorpionida, Solifugae, Collembola,

Cypriniformes, Gastropoda, Bivalvia and Decapoda. Advisory services also given to Maharashtra State Biodiversity Board for the projects.



Plexippus paykulli (Audouin)



Chamaeleo zeylanicus (Laurenti)

SUNDERBANS REGIONAL CENTRE, CANNING

One local tour has been conducted by Mrs. Supriya Nandy, Scientist-B and her team in different fish-landing Centres especially at Frazerganj and Kakdwip of Sunderban and collected 63 faunal examples which include 46 fishes, including 2 Ray and 2 Sharks, and 17 Prawns. Scientists of the Centre have identified and registered 20 specimens of different groups. Dr. D. Suresh Chand has participated in the 'National Conference on Animal Taxonomy-Challenges & Prospects' held at HQ office from 13-15 February, 2015 as part of the curtain-raiser programme to

ZSI's main centenary celebration to be held from July 2015.



Officer-in-Charge, Canning receives centenary logo from the Secretary, MoEF&CC on 13 February, 2015

NORTH EASTERN REGIONAL CENTRE, SHILLONG

During the month, 17 specimens of fishes have been identified into 5 species as *Schistura reticulofasciata* (Singh & Banareescu, 1981), *Pillaia indica* Yazdani, 1972, *Glyptothorax striatus* (McClelland, 1842) and *Badis badis* (Hamilton, 1822) and 16 specimens of amphibians were identified into 2 species as *Euphlyctis cyanophlyctis* (Schneider, 1799) and *Euphlyctis hexadactylus* (Lesson, 1834).

Images and metadata of 17 specimens of identified fishes have been digitized and databased. Mrs. J. Lyngdoh, Scientist-D and Officer-in-Charge has attended the 'National Conference on Animal Taxonomy – Challenges and Prospects' held at ZSI Headquarter Kolkata from 13-15 February, 2015. She also attended the meeting relating to Data-sharing organized by the Under

Secretary, Govt. of Meghalaya, Planning Department at the Conference room of Meghalaya Secretariat on 23 February, 2015. A two-days Hindi workshop has been attended by the staff of the Centre which was held at the Directorate General, Assam Rifles, Shillong from 24-25 February, 2015. Dr. S.R. Hajong, Assistant Professor, Department of Zoology, North Eastern Hill University, Shillong visited the Centre on 20, 23 and 24 February, 2015 to study the insect Types belonging to *Cicadidae*, *Mantispidae* and *Rapidioptera*. Dr. Manuel Ruedi, Curator of birds and mammals, Natural History Museum, Geneva visited the Centre on 27th February, 2015 to study the general collections of bats.



Dr. Manuel Reudi, Curator of birds and mammals, Natural History Museum, Geneva with Dr. Uttam Saikia during his visit to NERC/ZSI, Shillong

ESTUARINE BIOLOGY REGIONAL CENTRE, GOPALPUR-ON-SEA

During the month, 12 specimens of molluscs belonging to 5 species under 5 genera and 5 families have been identified. These specimens have been collected during the Brahmani-Baitarani estuarine complex (Odisha) faunistic survey. Twelve museum specimens have been digitized. Shri Arunendra Mohapatra, Scientist-B of the Centre has attended the “National Conference

on Animal Taxonomy- Challenges and Prospects” held at HQ office, Kolkata from 13-15 February, 2015. In a function organized by this Centre, mementos (received from HQ office) have been presented by Sri Arunendra Mohapatra, to six employees of this Centre in appreciation of their 30 years of dedicated service to the Zoological Survey of India.

HIGH ALTITUDE REGIONAL CENTRE, SOLAN

Faunistic identification from the Centre for the month includes 4 species of butterflies (out of 26 examples), 4 species of Orthoptera (out of 8 examples), 3 species of Pisces (out of 9 examples) and 1 species of Amphibia (out of 2 examples) from Chail WLS district Solan; 2 species of earthworm (out of 20 examples)

and 3 species of butterflies (out of 10 examples) from Cold Desert of Spiti Valley, district Lahaul and Spiti, (HP). The Officer-in-Charge of the Centre has participated in 'National Conference on Animal Taxonomy-Challenges and Prospects' at ZSI, HQ, Kolkata from 13-15 February, 2015 as part of the

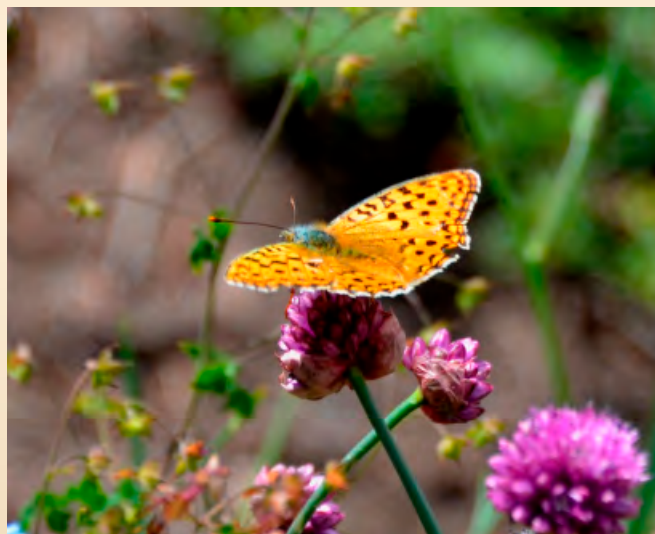
curtain-raiser event prior to centenary celebrations starting from July, 2015.

A scientist of the Centre has reviewed a paper on four Type species belonging to a Family Geometridae and send the report to the Editor, of the Journal of Entomological Research on 26 February, 2015. The survey programmes such as Ladakh, Himachal Pradesh under State Fauna series, Govind Sagar Wetland and Chandertal Lake as per the recommendations of the Screening Committee for APR 2015-16 has been prepared and submitted to HQ office, Kolkata. One scientist has participated as an expert on Zoology in

the “9th Uttarakhand State Science & Technology Congress 2014-15” held at Deharadun (Uttarakhand) from 26-28 February, 2015.

Publications

- Paliwal, R. (2014) Oligochaete diversity in Gobindsagar and Nangal Dam wetlands (H.P. & P.B.) India. *Rec. zool. Surv. India*, 114 (Part-4): 559-562.
- Shishodia, M.S., Thakur, S.K. and Saini, K. (2014) Insecta: Orthoptera of Chandigarh (UT) and surrounding area. *Records Zool. Surv. India* 114 (3):411-428



Argynnis addipe pallida



Samudr tapu near Chandertal lake



Snow pigeons

SOUTHERN REGIONAL CENTRE, CHENNAI

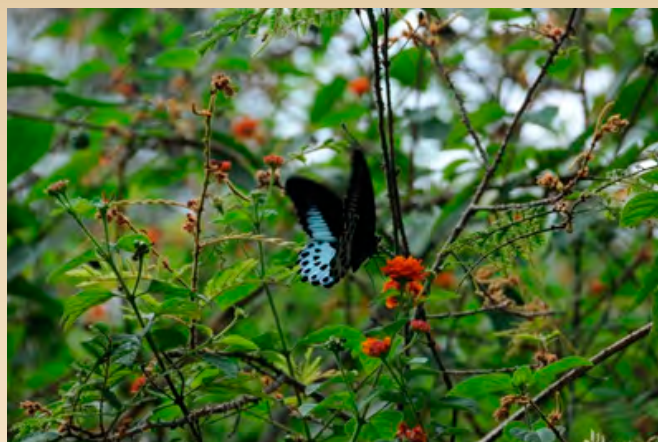
During the month, Dr. R. Venkitesan, Scientist-D has identified 87 specimens of land mollusks comprises of 20 species under 12 genera and 6 families from the existing National Zoological Collections of SRC, ZSI, Chennai and rendered identification services to Mr. Arvind Kumar II M.Sc, Pachaiyappas College Chennai on the identification 97 specimens of marine mollusks, (49 Gastropoda and 48 Bivalves collected from Kasimedu fishing harbor) and prepared M.Sc. dissertation. Also rendered advisory services to Mr. Ponnusamy, Research Scholar CIFE, Mumbai, for information on marine Bivalves. Dr. Jayasree Thilak, Scientist-D of the Centre has conducted three local surveys in and around Chennai (31-1-2015, 14-2-2015 and 15-2-2015) for the collection of Ostracoda specimens and collected 34 lots of zooplankton samples and identified 28 specimens of Rhizopods belonging to 7 species, 5 genera, 1 Order under 4 families; 9 specimens of Rotifers belonging to 8 species, 4 genera, 1 Order under 4 families; 66 specimens of Cladocerans belonging to 13 species, 8 genera, 2 Orders under 5 families and 85 specimens of Ostracods belonging to 11 species, 6 genera, 1 Order under 1 family from the zooplankton collected from the different localities of Chennai.

Dr. R. Babu, Scientist-D has identified 24 specimens of Odonates belonging to 14 species, 13 genera, under 5 families from the recent survey materials collected from the Kalakkad-Mundanthurai Tiger Reserve, Tamil Nadu. Dr. R. Aengals, Scientist-D has

identified 6 reptile specimens into 3 species under 2 genera belonging to 2 families collected from rainforest ecosystems of Tamil Nadu. He has been nominated to present the achievements of SRC as poster in the 'National Conference on Animal Taxonomy-Challenges and Prospects' (13-15 February, 2015 held at Kolkata), The curtain-raiser to ZSI centenary celebrations. Dr. S. Prabakaran, Scientist-D has identified 10 examples of Blattids belonging to 8 species, 7 genera under 4 Families from the collections of Kalakkad-Mundanthurai Tiger Reserve, Tamil Nadu and also identified 8 examples of Trichoptera belonging to the Family Hydropsychidae upto generic level.

Shri. D. Prabakar, Scientist-B has identified 35 specimens of Orthoptera collected from Kanchipuram district as 12 species/subspecies belonging to 9 Genera under 2 Sub-order, 3 Super-families, 3 families and 7 sub-families and also rendered the identification services on Orthoptera specimens to Shri. P. Prabhakaran, SRF, Entomology Division, UPASI TRF TRI, Valparai, Coimbatore on 9 specimens of Orthoptera belonging to 3 species under 2 suborders, 2 families, 2 subfamilies and 3 genera. Dr. K. Ilango, Scientist-E & Officer-in-Charge of the Centre has delivered an invited talk on the (i) 'Faunal Diversity of India' and (ii) Principles of Animal Taxonomy' to the graduate students of Advanced Zoology & Biotechnology, Women's Christian College Chennai on 04 February, 2015.

Some photographs of fauna taken at Western Ghats Survey, Tamil Nadu



Blue Mormon *Papilio polymnestor* Cramer



Damselfly *Ischnura aurora* feeding on another damselfly
Agriocnemis pygmaea



Red-whiskered Bulbul *Pycnonotus jocosus* (Linnaeus, 1758)



Guest lecture for the students of Advanced Zoology & Biotechnology, Women's Christian College, Chennai

ANIMAL OF THE MONTH**White-breasted Kingfisher** *Halcyon smyrnensis* (Linnaeus, 1758)

A large Kingfisher, mainly found in Asia, from Turkey in the west to the Philippines in the east. It has been reported from a few pockets of Europe as well. The most prominent morphological features on these birds are the bright orange-



Text and Photograph by Bhaskar Saikia, NERC, Shillong

red beak and the white patch on its throat and breast. Wings and tail are bright blue in colour. Sexes appear similar in this species. These birds are commonly seen in swamps, wetlands, river banks, ponds, agricultural

fields, etc. They feed on small reptiles, frogs, fish, earthworms, locusts, crickets, and other insects, etc. The population of species has been increasing as per the IUCN Red List and hence, this has been kept under 'Least Concern' status.

In Assam, this species can be seen in plenty especially in Majuli. The above photograph was taken during the December, 2014 survey tour to Majuli at Bhakat Chapori on the bank of River Brahmaputra.

OUT OF THE BOX**African jumbos may be extinct in 20 years**

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/African-jumbos-may-be-extinct-in-20-years/articleshow/46683549.cms>

Time running out for wild elephants: experts

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Time-running-out-for-wild-elephants-experts/articleshow/46664341.cms>

House sparrows flying away from cities

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/House-sparrows-flying-away-from-cities/articleshow/46635041.cms>

Pilibhit forest a safe haven for poachers

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Pilibhit-forest-a-safe-haven-for-poachers/articleshow/46503452.cms>