



# ZSI e-NEWS

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September 2013

## *ZSI in the 98<sup>th</sup> years of Service to the Nation (1916 to 2013)*

### From the Director's desk

During the month, ZSI scientists of HQ and Regional Centres have conducted surveys within and outside various protected areas to document the faunal diversity. This is for your information that apart from the assigned works as per our Annual Plan of Research work, ZSI scientists continue to help various Government agencies and private companies especially by carrying out Environmental Impact Assessment (EIA) studies. This month, a team of scientists from HQ office has initiated a study around the Nuclear Fuel Complex's expansion site at Rawathbhatta, Rajasthan only to submit a comprehensive conservation action plan around September 2014. Similarly, an EIA study has been initiated near Digha coast in West Bengal to find out proposed off shore floating LNG platform's possible effects on the local biodiversity. The ZSI's Andaman and Nicobar Regional Centre (ANRC) at Port Blair has organized a workshop on 'Value of Biodiversity in Islands Biosphere' in recognition of the Great Nicobar Biosphere Reserve (GNBR) in collaboration with UNESCO's World Biosphere Network and Man and Biosphere Programme and National Biodiversity Authority. A series of lectures have been delivered by the experts including the Chairman of the National Biodiversity Authority (NBA), Chennai on the theme for the participants who were mostly the local school students and their teachers.

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

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## Headquarters, Kolkata

Extensive field surveys have been undertaken in the States of Himachal Pradesh (in Kalatop WLS in Chamba district, Bandli WLS in Mandi district and Kais WLS in Kullu district), Maharashtra, Jharkhand, Chhattisgarh and West Bengal.

During the month, scientists of the HQ office have identified 4 species of Protozoa, 6 species of soil and plant parasitic Nematodes, 7 species of Crustacea, 5 species of Collembola, 19 species of Hemiptera, 9 species of Coleoptera, 20 species of Hymenoptera, 4 species of Orthoptera, 17 species of Mites, 30 species of Fishes and 2 species of Mammals from the Himachal Pradesh, Maharashtra, Odisha, Assam, Chhattisgarh, Uttar Pradesh, West Bengal and Andaman and Nicobar Islands.

*Longidorus elongates* (De Man, 1876) Thorne & Swanger, 1936 has been recorded for the first time from India.

*Longidorus himalayansis* (Khan, 1986) Jairajpuri & Ahmad, 1992 and *Enchodelus* (*Rotundus*) *parateres* Baqri & Jairajpuri, 1974 are new records for Himachal Pradesh; similarly, 2 species of Collembola under 2 genera of 2 families are new records for Arunachal Pradesh. The species/subspecies *Colpacampsomeris indica indica* (de Saussure), *Campsomeriella* (*Campsomeriella*) *collaris collaris* (Fabricius), *Megascolia* (*Regiscolia*) *azurea hindostana* (Micha), *Scolia* (*Discolia*) *bilunata* de Saussure and *Scolia* (*Discolia*) *cruenta* Klug (Hymenoptera: Scoliidae) have been reported for the first time from Barnawapara Wildlife Sanctuary, Chhattisgarh.

One Holotype and 3 Paratype specimens of *Schistura maculosa* sp. nov. have been deposited in the National Zoological Collection by Dr. Lalramliana of Pachhunga University College, Mizoram University.

During the month, identification and advisory services have been rendered on 26 lots of specimens, received from different institutions and organizations. In addition to

that, the scientists of HQ have extended identification and advisory services to a student from Vidyasagar College, Kolkata and identified 5 examples of *Macrobrachium lamarrei* (H. M. Edw, 1837) and one example of *Macrobrachium rosenbergii*, De Man, 1879; for Dr. (Mrs.) Patralekha Mukhopadhyay, Associate Professor, Zoology Department, Victoria College, Kolkata, two species of brachyuran crabs belonging to two genera and two families have been identified; similarly, scientists of HQ office identified Odonata samples received for Ramakrishna Mission Ashram, Narendrapur, West Bengal. Dr. Shesdev Patro, Scientist B from National Centre for Sustainable Coastal Management, MoEF, Anna University Campus, Chennai visited Protozoology Section.

Hindi Fortnight Programme has been organised by the Hindi Section of HQ office for implementation of Hindi as Rajbhasha in ZSI HQ office from 10-24 September, 2013 at ZSI (Headquarters), Kolkata. During the fortnight various competitions have been organized for Hindi and non-Hindi speaking staff of ZSI. On 24 September, 2013 at the end of the programme prizes and awards have been distributed to the participants by the Director, ZSI.

Dr. J. Chitra, Assistant Zoologist has attended a national seminar on "Natural resources and heritage conservation issues in India" at Paribesh Bhavan, Salt Lake, on 8 September, 2013 and presented a poster on the theme subject.

Dr. M. E. Hassan, Scientist-C has attended the 25<sup>th</sup> meeting of the West Bengal Biodiversity Board on 26 September, 2013 at the Department of Environment, Govt. of West Bengal, Poura Bhawan.

As per the Memorandum of Understanding (MoU) signed between the Director of ZSI and Chief Executive of Nuclear Fuel Complex (NFC), Hyderabad, a team of scientist from ZSI carried out biodiversity assessment

surveys in and around the proposed expansion site of NFC at Rawathbhatta in Chittourgarh district of Rajasthan. The team comprises of Drs. Gopinathan Maheswaran, Kosygin Singh, K.A. Subramanian, Basudev Tripathi and Gaurav Sharma visited the expansion site from 02-08 September, 2013 and recorded more than 100 species of birds besides 21 species of fresh water fishes and 26 species of butterflies. Apart from these, odonates and a few species of herpetofauna have also been recorded. The team also planning to make three more visits within the next ten months before submitting a detailed conservation action plan.

Dr. K. Venkataraman, Director, has attended a meeting of the Apex Committee on Research on Environment, AICOPTAX held at the Ministry of Environment and Forests, New Delhi from 4-6 September, 2013.

Dr. Venkataraman, has also attended a meeting organised by National Biodiversity Authority, Chennai on the Biodiversity Conservation through Biodiversity Monitoring. Also, he inaugurated a two-day workshop on 'Value of Biodiversity in Islands Biosphere' on 13 September, 2013 at ZSI's Andaman and Nicobar Regional Centre, Port Blair. On 27 September, 2013 he attended a meeting at the Zoological Society of Kolkata in the Ballygunj Science College, Kolkata. Dr Venkataraman has attended a meeting on InBIF Databse being organised by the Wildlife Institute of India (WII) in the Ministry of Environment and Forests on 30 September, 2013.

Drs. Basudev Tripathy, Gopinathan Maheswaran, Ch. Satyanarayana of HQ office and Anil Mohapatra, Scientist-C of MARC, Digha on 23 September 2013 to carried out a preliminary EIA studies for H-Energy- a company deals with off-shore LNG terminal to be come up at Digha Coast. H-Energy has approached ZSI to carry out studies related to biodiversity of the area and the possible effect of such facility on the local biodiversity.

Dr. Kailash Chandra, Scientist-F and Additional Director has undertaken a general faunistic survey to Maharashtra (Pune, Satara, Kolhapur and Sindhudurg) from 23-31 September, 2013 and collected examples of various groups of insects. Dr. Chandra and his team also carried out a general faunistic survey in Chhattisgarh from 18 September, 2013 to 5 October, 2013 and approximately 4000 examples of various groups of animals have been collected.

Dr. Gaurav Sharma, Scientist-C & Officer-in-Charge along with the staff of mammal Sections has identified the seized materials received from DFO, Baikunthpur Division of Rabindra Nagar, Siliguri. The confiscated wildlife article has been identified and confirmed as skin of Leopard *Panthera pardus* (Linnaeus, 1758); another consignment received from the Assistant Commissioner, Customs (P) Division, Araria has been identified and confirmed as fake horn of rhinoceros; another article received from Deputy Director, Wildlife Crime Control Bureau, Eastern Region, Kolkata has been identified and confirmed as part of last inner premolar tooth of upper jaw of Tiger *Panthera tigris*.

#### **Publications**

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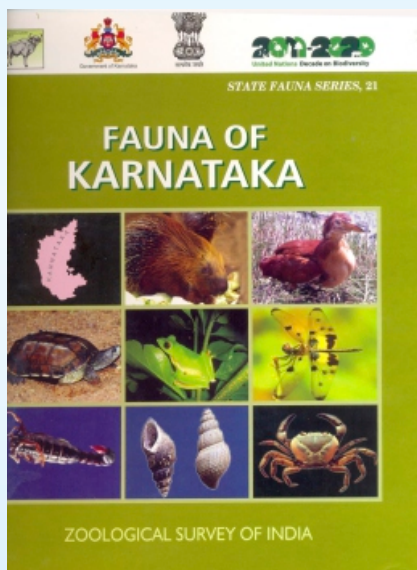
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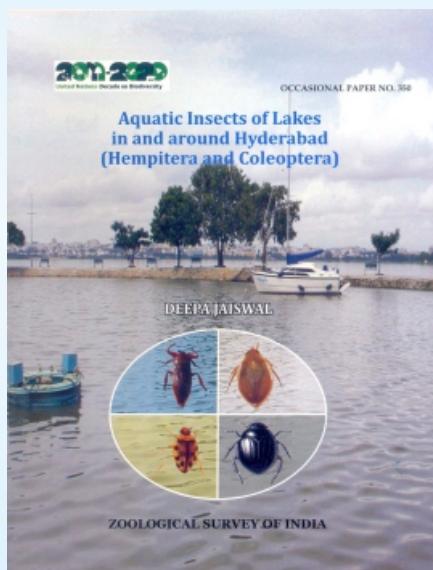
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Fauna of Karnataka



Aquatic Insects of lakes in and around Hyderabad



Zooarchaeological Study .....  
(Occ. Paper)



*A. thirumalaii*



*Campsomeriella (C.) collaris collaris* (Fabr.) Female



*Colpacampsomeris indica indica* (de Saussure) Female



*Megascolia (R.) azurea hindostana* (Micha) Female



*Scolia (D.) bilunata* de Saussure Female



*Scolia (D.) cruenta* Klug Female



Dr. Gaurav Sharma examined seized material Leopard skin received from DFO, Siliguri



Hindi week celebration



Prize distribution ceremony during Hindi week

## Andaman & Nicobar Regional Centre, Port Blair

During the month faunistic surveys have been conducted in North Bay, Mahatma Gandhi Marine National Park, Great Nicobar Biosphere Reserve and South Andaman from 3-4 September 2013; 5-9 September, 2013; 22-30 September 2013; 18 and 24 September, 2013, respectively, to assess the marine and terrestrial faunal communities. As a result of these surveys, a total of 327 species have been identified. Among them, 140 species of scleractinian corals, 2 species of sponges, 9 species of polyclads, 4 species of sea anemones, 7 species of opisthobranchs, 6 species of echinoderms, 57 species of gastropods, 2 species of bivalves, 2 species crustaceans, 3 species of ascidians and 30 species of fishes have been identified from marine habitat while, 3 species of mosquitoes, 3 species of butterflies, 3 species of odonates, 3 species of amphibians, 6 species of reptiles, and 49 species of birds have been identified/observed from terrestrial environments.

The polyclads *Pseudoceros scintillatus* Newman and Cannon, 1994; *Paraplanocera aligoglina* (Schmarda, 1859); *Boninia divae* Marcus and Marcus, 1968; *Pseudoceros monostichos* Newman and Cannon, 1994 recorded from the Great Nicobar Island are new additions to the Indian waters. A total of 105 specimens comprised of 82 specimens of gastropods, 4 specimens of sea anemones, 16 specimens of butterflies, 2 specimens of odonates and 1 specimen of diptera have been registered in the National Zoological Collections of ZSI.

Our Centre has organized a workshop on 'Value of Biodiversity in Islands Biosphere' on 13<sup>th</sup> and 14<sup>th</sup> September, 2013. Fifty-seven 57 higher secondary school students and 12 biology teachers have participated in the workshop that has been organized as a part of the celebrations in recognizing the Great Nicobar Biosphere Reserve (GNBR) under UNESCO sponsored World Biosphere Network and Man and Biosphere Programme.

Nineteen lectures pertaining to biodiversity of GNBR have been delivered by the eminent scientific personalities during the workshop. Two books entitled, *Glimpses of Great Nicobar Biosphere Reserve* and *Guide to Common Echinoderms of Andaman and Nicobar Islands*, six pamphlets viz. *Sponges of Great Nicobar Biosphere Reserve*, *Scleractinian corals of Great Nicobar Biosphere Reserve*, *Polyclads of Great Nicobar Biosphere Reserve*, *Opisthobranchs of Great Nicobar Biosphere Reserve*, *Molluscs of Great Nicobar Biosphere Reserve* and *Echinoderms of Great Nicobar Biosphere Reserve*, and 6 posters viz. *Ascidians of Great Nicobar Island*, *Sea anemones of Great Nicobar Island*, *Corals of Great Nicobar Island*, *Opisthobranchs of Great Nicobar Island*, *Characteristic fauna of Great Nicobar Island* and *Birds of Great Nicobar Island* have been released during the inaugural function of the workshop.

A manuscript for the World Ocean Assessment: Chapter 35 - Indian Ocean has been prepared and submitted to Director, ZSI. As requested by the Deputy Conservator of Forests, Department of Environment and Forests, A&N Administration, popular articles on corals, fishes, sea turtles, dugong, butterflies and birds have been prepared and submitted for the 59<sup>th</sup> Wildlife Week celebrations. A brief report on the 'Migratory shorebirds of Andaman and Nicobar Islands' has been provided to the Divisional Forest Officer, Mayabunder Division, North Andaman on request. Hindi Fortnight has been observed at the Centre from 17-30 September, 2013. A total of 35 post graduate students of Marine Biology from Pondicherry University visited the regional museum of the Centre on 3 September, 2013.

Dr. C. Raghunathan, Scientist-C and Officer-in-Charge has delivered a lecture on 'Faunal diversity of Andaman and Nicobar Islands with special reference to Great Nicobar Island' in the workshop on 'Value of Biodiversity in Islands Biosphere' on 14 September, 2013; he

also served as a doctoral committee member in Pondicherry University on 18 September, 2013; Dr. Raghunathan also served as Research Advisory Committee member at Department of Environment and Forests, A & N Administration on 27 September, 2013; he also evaluated a Ph.D. thesis on Biotechnology for Tamil University, Thanjavur, Tamil Nadu. Dr. C. Sivaperuman, Scientist-C has delivered a lecture on 'Avifauna of Andaman and Nicobar Islands with special reference to Great Nicobar Island' in the aforesaid ZSI workshop on 14 September, 2013 and also served as a doctoral committee member in Pondicherry University on 18 and 24 September, 2013. Mrs. Kamla Devi, Assistant Zoologist served as a member in the meeting for installation of crocodile proof net in beaches held at Department of Environment and Forests on 23 September, 2013.

### Publications

- Venkataraman, K., Raghunathan, C., C. Sivaperuman, R. Raghuraman and Mondal, T. (2013) Glimpses of Great Nicobar Biosphere Reserve (Published by the Director, Zoological Survey of India), 65p.
- Venkataraman, K., C. Sivaperuman and C. Raghunathan (eds.), (2013) Ecology and Conservation of Tropical Marine Faunal Communities. Springer-Verlag Berling Heidelberg, 483p.
- Raghunathan, C., Sadhukhan, K., Mondal, T., Sivaperuman, C., Venkataraman, K., (2013) A Guide to Common Echinoderms of Andaman and Nicobar Islands: 1-210, Published by the Director, Zoological Survey of India.
- Raghunathan, C., C.R. Sreeraj, R. Raghuraman and K. Venkataraman, (2013) Coral Reef Ecosystem of Andaman & Nicobar Islands - A Hotspot for Indian Marine Biodiversity, p.67-114. In: *Coastal Ecosystems of India* (Eds. K. Kathiresan and S. Ajmal Khan), ENVIS Publication Series 1/March 2013, CAS in Marine Biology, Faculty of Marine Sciences, Annamalai University, 169 p.
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- Raghunathan, C., K. Venkataraman, Ch. Satyanarayana and R. Rajkumar, (2013) An invasion of Snowflake coral *Carijoa riisei* (Duchassaing and Michelotti, 1860) in Indian seas: Threats to Coral Reef Ecosystem, p. 381- 394. In: *Ecology and Conservation of Tropical Marine Faunal Communities* (Eds. K. Venkataraman, C. Sivaperuman and C. Raghunathan), Springer-Verlag Berling Heidelberg, 483p.
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- Rajan, P.T. and C.R. Sreeraj, (2013) Fish fauna of Andaman and Nicobar Islands - a review, p.231-244. In: *Ecology and Conservation of Tropical Marine Faunal Communities* (Eds. K. Venkataraman, C. Sivaperuman and C. Raghunathan), Springer-Verlag Berling Heidelberg, 483p.
- Kumaralingam, S., C. Sivaperuman and C. Raghunathan, (2013) Diversity and

community structure of brachyuran crabs in North Andaman, p.171-182. In: *Ecology and Conservation of Tropical Marine Faunal Communities* (Eds. K. Venkataraman, C. Sivaperuman and C. Raghunathan), Springer-Verlag Berlin Heidelberg, 483p.

- Sreeraj, C.R., C. Sivaperuman and C. Raghunathan, (2013) Species diversity and abundance of Opisthobranch molluscs (Gastropoda: Opisthobranchia) in the coral reef environments of Andaman and Nicobar Islands, India, p.81-106. In: *Ecology*

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Coral *Acropora cytherea* Dana 1846



Coral *Favia lizardensis* Veron and Pichon 1977



Coral *Fungia klunzingeri*



Coral *Gardineroseris planulata*



Feather star *Cenometra bella* Hartlaub 1890



Polyclad *Pseudoceros scintillatus*



**Workshop on  
Value of Biodiversity in Island Biosphere Reserve**  
13<sup>th</sup> & 14<sup>th</sup> September, 2013

Organized by  
Zoological Survey of India, Ministry of Environment & Forests, Government of India



Releasing of booklet



Releasing of pamphlets



Releasing of poster by Dr. S.K. Srivastav, DG, FSI-MoEF



Handing over the certificates to the participant

## Western Ghat Regional Centre, Kozhikode (Calicut)

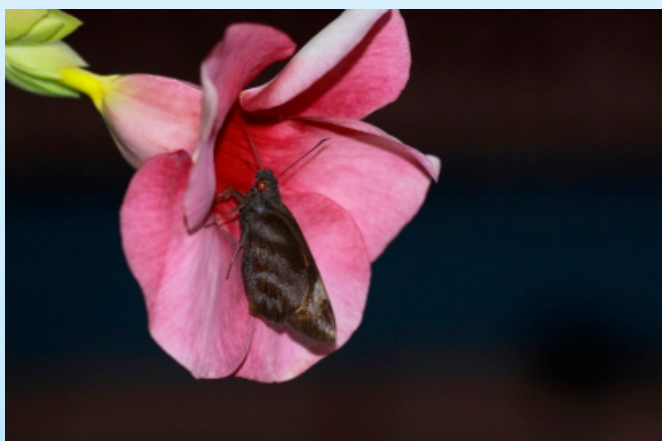
During the month, faunistic surveys have been undertaken to the southern Western Ghats ecosystems of Marayur Sandalwood Reserve Forests, Mannavan Shola National Park, Idukki district and Parambikulam Tiger Reserve, Palakkad district of Kerala from 3-13 September, 2013 and representative faunal samples collected. A species of *Gryon* (Platygastridae: Hymenoptera) has been identified as new to science and a manuscript based on the description of the species is under preparation. Taxonomic accounts on 20 species of Pteromalidae (Hymenoptera) from southern Western Ghats have been completed. The descriptions include two new species of *Coelopisthia indica* and *Notanisus indicus*.

Other taxonomic identifications include 4 species of Mantodea (Insecta), 6 species of Platygastridae (Hymenoptera) including a new genus and new species, 11 species of Odonata and 13 species of Lepidoptera (Insecta) from the Western Ghats. Four identification and advisory services have been rendered to the students and other researchers with regard to identification of various faunal groups and assistance towards M.Sc dissertation work. Hindi day has been celebrated on 27 September, 2013 and Prof. A. Achyuthan, Retired Professor and Head of the Department of Hindi, Calicut University, Kerala has spoken about the 'Importance of

Hindi'. All officers, staff and students have participated in the cultural activity organised to celebrate Hindi day. During the month, 98 visitors paid their visits to the museum.

### Publications

- Rajmohana K, Peter, A., and Narendran, T. C. (2013) First record of the male sex of the wide spread *Calliscelio elegans* (Perkins) (Hymenoptera: Platygastridae) along with some taxonomic notes on the species. *Biodiversity Data Journal* 1-13. (doi: [10.3897/BDJ.1.e983](https://doi.org/10.3897/BDJ.1.e983))
- Radhakrishnan, C., and Dinesh, K.P. (2013) A catalog of Amphibia in the collection of the Western Ghat Regional Centre, Zoological Survey of India, Calicut, Kerala. *ZSI, Occ. Paper* No.339.
- Palot, M.J. (2013) *Pashchima ghatta Samrakshanam- Jeevante Swaralayam* (About faunal diversity of Western Ghats). *Koodu- An environmental Magazine in Malayalam*. 05: 10-19.
- Palot, M.J. (2013). *Madayipara verum parayalla- Jala sambariyanu* (Hydrobiology of Madayipara- a laterite hillocks in north Kerala) *Eureka- An environmental Magazine in Malayalam*. 35(7): 20-23.
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Giant Red eye- *Gangara thyrsis* (Fabricius)



*Papilio dravidarum* Wood-Mason, - an endemic butterfly of Western Ghats



Common Red-eye : *Matapa aria* (Moore)



A uropeltid snake collected from Mannavanshola NP, Kerala



A sounder of Wild boar at Parambikulam Tiger Reserve, Kerala



*Psilanteris coriacea* Rajmohana (Hymenoptera : Platygasteridae)



Hindi day celebration at the Centre

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

During the month, an extensive faunal survey has been conducted at Narmada and Tapi Estuaries, Gujarat and 511 samples have been collected pertaining to different groups i.e. pisces, mollusks, arthropods and aquatic insects. Two local surveys have been

conducted one each at Rushikulya and Subhadra Estuary, Ganjam district to study the faunal composition of these places especially of pisces, mollusks, arthropods and aquatic insects including Isopod and Amphipod. Nearly, 336 samples of different

groups have been collected from 2 local surveys for taxonomic studies. 11exx of crabs have been studied under 3 species of crabs belonging to 3 genera and 3 families from 3<sup>rd</sup> Subhadra Estuary survey.

A total of five species of mollusks under four Families has been identified from 38 examples and 3 species of aquatic Hemiptera have been identified under 2 genus and 2 families from 10 examples of the collections made during Narmada and Tapi surveys. One species of Amhipod has been identified as belonging to one genus and one family from 20 examples of specimens collected from Bahuda Estuary,

Ganjam. During the month, 21 museum specimens have been digitized. About 67 visitors visited our National Zoological Collections during the month.

#### Publications

- Dash, S. (2013) Aquatic and Semiaquatic HEMIPTERA (Insecta) recorded at Northern Odisha estuaries. *Bugs R All* 20: 2-7.
- Gurumayum, S. D. and Goswami, U. C. (2013) Studies on Seasonal and topographical variations of periphyton in the rivers of Manipur. *J. Environ. Biol.* 34(3): 599-604.



Faunal collection at Tapi Estuary



*Monopterus* Sp.



*Notopterus notopterus* (Pallas)



A big catch from Tapi River, Surat



*Chanda nama* Hamilton



*Glossogobius giuris* (Hamilton)

### Sunderbans Regional Centre, Canning

During the month, 12 exs. of Orthoptera, belonging to 5 species under 2 families and 1 sp. of Lepidoptera from 1 ex. has been identified and registered by Dr. D. Suresh Chand, Scientist-C. Six exs. of Odonata belonging to 2 species under 2 genera have been identified by Ms. Supriya Nandy, Scientist-B. Ms. Nandy has participated in the national seminar on "Natural Resources and Heritage Conservation Issues in India", organized by Social, Environmental and Biological Association (SEBA) in Kolkata on 8 September, 2013.

Hindi day has been celebrated in our Centre. Invitees during Hindi day celebration include, Dr. Budheshwar Maji, Head & Principal Scientist from the Central Soil Salinity Research Institute (ICAR) RRL, Canning, Shri Biswajit Mahato, Sub-Divisional Police Officer of Canning, Smt. Sunita Thapa, Branch Manager from Axis Bank, Canning, and Shri

Kaushik Chatterjee from the Pay & Accounts Office, Kolkata participated in the Hindi Day Programme. Dr. D. Suresh Chand, Scientist-C and Officer-in-Charge has been invited as Chief Guest at CSSRI, (ICAR) RRL, Canning on 16<sup>th</sup> September, 2013 for Hindi day celebrations.



Hindi Day at SRC, Canning

### Northern Regional Centre, Dehradun

During the month, two extensive surveys have been undertaken one each to Sultanpur NP & Bird Sanctuary, Haryana (from 23-27 September, 2013) for general Faunal collection and Govind WLS, Uttarakhand (27-30 September, 2013) for collection of soil samples to study nematodes. One local survey has also been conducted in district Dehradun to collect butterflies for molecular studies.

The scientists of the Centre have identified the following fauna during the month: 4 species of Reptiles, 2 species of Amphibia and 13 species of Soil Nematodes from Punjab; 8 species of Soil Nematodes from Sultanpur, NP; 22 species of Butterflies and 9 species of Soil Nematodes from district Dehradun; 5 species of Soil Nematodes from Govind WLS and 6 species of Reptilia from Uttar Pradesh.

DNA has been extracted from 12 samples of five species of Lycaenid butterflies and 11 samples of two species of Lesser Cats. 700bp Amplicon of COI gene using universal primers has been obtained from six samples of 2 species of Family Nymphalidae and Cyt b amplicon obtained from two species of Lesser cats SEM analysis has been done for scale and medullary indices of PGH of *Felis sylvestris*, *Felis caracal* and *Pardofelis temminckii* (from dorsal, ventral, head and tail).

Permanent wax slides of 80 examples of soil nematodes have been prepared for morphological studies. During the month, we have registered 97 examples of Reptilia, 26 exs. of Amphibia and 55 exs. of Soil Nematodes. Also, 16 entries of nematodes and 1087 of Arthropoda have been made in

Invertebrate database. Twenty eight entries pertaining to Amphibia have been made and their metadata entered.

Hindi Pakhwara has been celebrated by organising a writing competition on 16 September, 2013 followed by a debate in Hindi on 20 September, 2013.

Dr. P. C. Tak, Scientist-D and Officer-in-Charge has been nominated to attend the National workshop-cum-discussion meeting on Himalayan Environment and Development- Issues and the Way Forward at GB Pant Institute of Himalayan Environment & Development, Almora on 8-9 September, 2013.

Dr. Archana Bahuguna, Scientist-C of the Centre has attended a meeting at Uttarakhand Biodiversity Board on 23 September, 2013 for evaluation of the work done by NGOs and Government organizations on People Biodiversity Register (PBR) of Uttarakhand and to discuss the final document on 'Uttarakhand Biodiversity Strategy and Action Plan'. Nine local students visited the museum and library of the Centre.

#### Publication

- Bahuguna, A. and Singh, A. (2013) A Review on the molecular study of the species of Family Sciuridae (Mammalia: Rodentia): *Biological Forum* 5(2): 37-46.

### Marine Aquarium & Regional Centre, Digha

During this month, around 238 examples of live marine ornamental exhibits have been collected for exhibition in aquarium galleries. Our aquariums received visitors at an average of 370 tourists per day. The major attractions among the tourists include Lion fishes, Bat fish and Hermit crabs. In total, 62 specimens have been identified including 33 species of fishes. Some of the identified specimens include *Echinorhinus brucus* (Bonnaterre, 1788) and *Xiphasia setifer* Swainson, 1839, which are new to West Bengal coast. A field survey has been conducted in the East coast of India for collection of ornamental fish fauna;

in total, 153 specimens have been collected from the survey. Dr. Anil Mohapatra, Scientist-C and Officer-in-Charge of the Centre has attended the review meeting of World Bank sponsored ICZM project at Kolkata.



*Xiphasia setifer* Swainson, 1839



*Echinorhinus brucus* (Bonnaterre, 1788)

## Freshwater Biology Regional Centre, Hyderabad

As part of the research programme on wetlands of Andhra Pradesh, one survey has been conducted for a period of 7 days from 23 September, 2013 to some major wetlands viz. Nagarjuna Sagar, Kolleru, Pakhal and in Sri Venkateshwara Sanctuary. A total of 42 lots of macrobenthic and plankton samples have been collected for further taxonomic studies.

Scientists of the Centre have examined 14 examples of molluscs from the collections made from various wetlands of Andhra Pradesh and identified 4 species of mollusks viz. *Lamellidens marginalis*, *Pila globosa*, *Bellamya bengalensis* and *Perreysia pachysoma*. Also, examined 30 specimens of aquatic insects and indentified as 3 species viz. *Ranatra filiformes*, *Diplonychus rusticus* and *Limnometra fluviatorum*.

The DNA barcode laboratory of the Centre has isolated DNA from one species of aquatic insect, *Ranatra filiformis* and fish *Channa gachua* by using Qiagen Kit Method with the Primers:

LCO5' GGTCAACAATCATAAAGATATTGG  
3' & HCO5'

TAAACTTCAGGGTGACCAAAAATCA3'



DNA Ladder 10kilo base pairs, Insect- Genomic DNA > 10 kilo base pairs from *Ranatra filiformis* and Fish- Genomic DNA > 10 kilo base pairs from *Channa gachua*.

As part of the digitisation of the freshwater

fauna, 26 specimens digitized pertaining to 10 species of fishes viz. *Chanda nama*, *Etroplus maculatus*, *Glossogobius giuris*, *Macrognathus pancalus*, *Myxus bleekeri*, *Myxus vittatus*, *Nandus nandus*, *Parambassis ranga*, *Puntius sophore*, *Xenentodon concila*; one species of amphibian, *Bufo melanostictus* and one species of reptile, *Ophisops jerdoni*.

Dr. D.V. Rao, Scientist-C and Officer-in-Charge has attended the 8<sup>th</sup> State Board for Wildlife meeting held on 16 September, 2013 being convened by the Hon'ble Chief Minister of Andhra Pradesh in the A.P Secretariat.

The Centre has celebrated the *Hindi Saptah* in a befitting manner. Elocution and dictation competitions in Hindi have been conducted for the staff members. On 20 September, 2013, Dr. Jayshankar Prasad Tiwari, Astd. Director, Rajbhasha Vibhag, Hyderabad graced the occasion as Chief Guest and gave away the prizes to the winners and consolation prizes to all the participants to encourage the use of Hindi in day-to-day official works.

### Publications

- Chatterjee, T., Kotov, A.A., Damme, K.V., Chandrasekhar, S.V.A., and Padhye, S. (2013). An annotated checklist of the Cladocera (Crustacea: Branchiopoda) from India. *Zootaxa* 3667(1): 01-89. (<http://dx.doi.org/10.11646/zootaxa.3667.1.1>)
- Chandrasekhar, S.V.A., Rao, C.A.N., and Jaiswal, D. (2013) Introduction and Limnology: Wyr Lake. Faunistic Studies and Limnological Studies on Wyr Lake. *Wetland Ecosystem Series* 16: 1-26.
- Chandrasekhar, S.V.A. (2013) Rotifera: Wyr Lake. Faunistic Studies and Limnological Studies on Wyr Lake. *Wetland Ecosystem Series* 16: 27-33.
- Chandrasekhar, S.V.A. (2013) Cladocera: Wyr Lake. Faunistic Studies and Limnological Studies on Wyr Lake. *Wetland Ecosystem Series* 16: 35-39.
- Jaiswal, D. (2013) Aquatic Insects

(Hemiptera & Coleoptera) Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16: 41-57

- Srinivasulu, B., and Jaiswal, D. (2013) Insecta: Odonata Faunistic and limnological studies on Wyra lake,

Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16: 59-68.

- Rao, C.A.N., Jaiswal, D. Hakeel, M., and Chandrasekar, S.V.A. (2013) Ichthyofauna: Faunistic and limnological studies on Wyra lake, Khammam district, Andhra Pradesh, *Wetland Ecosystem Series* 16: 97-116.



Hindi Saptha celebration at the Centre.



*Parreysia pachysoma*



*Parreysia bonneandi*



*Parreysia corrugata*

## Arunachal Pradesh Regional Centre, Itanagar

During the month, Dr. Bikramjit Sinha, Scientist-C and Officer-in-Charge has led a tour party and conducted a survey of West Kameng District, Arunachal Pradesh from 13-22 September, 2013. Fifteen water samples for zooplankton studies, 539 examples of fishes and representative examples of other faunal

groups have been collected. Apart from these, 11 butterfly species and 6 avian species have also been sighted during the tour.

In addition, 20 examples of moths, 10 examples of butterflies, 3 examples of dragonflies, 5 examples of beetles and 2 examples of spiders have been collected from

Itanagar Wildlife Sanctuary during the month. Also 6 species of birds, 12 species of butterflies and 1 species of spider have been identified during the month. During the month, a total of 249 old registered specimens

(162 insects and 87 fishes) have been photographed and digitized. Dr. B. Sinha has reviewed a manuscript for Proceedings of the National Academy of Sciences, India Section B: Biological Sciences.



Collection in Dunuk river, Thungri



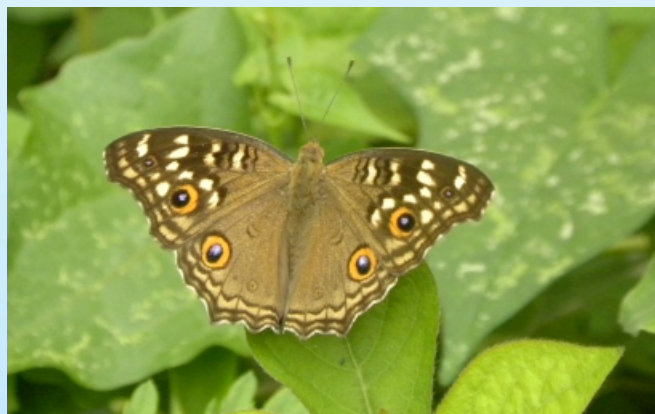
Common Hoopoe *Upupa epops*



*Heteropoda venatoria* Female



*Junonia atlites*



*Junonia lemonias*

## Central Zone Regional Centre, Jabalpur

During the month, 5 species of Odonata, 9 species of Lepidoptera (Moths) and 4 species of Pisces have been identified from the lot collected recently from Nauradehi Wildlife Sanctuary, Madhya Pradesh. Six species of Coleoptera (Scarabaeidae) and 7 species (Cassidinae), 4 species of Arachnida (Scorpionida) have been identified and registered.

During the month, bone samples belonging to five small mammal species (Rodentia and Soricomorpha) isolated from owl pellets have been identified. These bone samples have been received from one Dr. Varsha Zade, Associate Professor, Department of Zoology, Govt. Vidarbha Institute of Science & Humanities, Amravati, Maharashtra. Dr. S. Sambath, Scientist-C has attended a board of studies meeting at St. Alloys College, Jabalpur on 14 September, 2013. Dr. Sambath has reviewed a manuscript on Odonata for *Proceedings of the Zoological Society*. The Centre has celebrated Hindi Pakhwada and organized competitions on Shrutilekhan, Prashasnik Shabd Anuwad and Samanya Gyan. Certificates and Mementos have been given to the winners for progress of Hindi Rajbhasha.

### Publications

- Chandra, K., and Kushwaha, S. (2013) New

Distributional Records of Order Hemiptera of Kanger Valley National Park, District Jagdalpur, Chhattisgarh, India. *Bionotes* 15(3): 86-87.

- Chandra, K., and Kushwaha, S. (2013) Addition to True bugs (Insecta:Hemiptera) Fauna Of Pachmarhi Biosphere Reserve, Madhya Pradesh, India. *Annals of Forestry* 20(1): 250-254.
- Chandra, K., Kushwaha, S., Biswas, B., Mukherjee, P., and Bal, A. (2013) First Four New Records Of Acanthaspis Amyot And Serville, 1843 Family Reduviidae, From Chhattisgarh State, India, *PROMMALIA* 1: 93-97.
- Patil, S. R., Sambath, S. and Bhandari, R. (2013) Preliminary Study on Spider Fauna (Arachnida: Araneae) of Singhori Wildlife Sanctuary, District Raisen, Madhya Pradesh, India. *Bugs R All*, 20: 8-11.
- Tiple, A. D., Andrew, R. J., Subramanian, K. A. and Talmale, S. S. (2013) Odonata of Vidarbha region, maharashtra State, Central India. *Odonatologica* 42(3) : 237-245.
- Tiple, A., and Talmale, S. S. (2013) Occurrence of the Indian Tree Shrew *Anathana ellioti* (Waterhouse) (Mammalia: Scandentia) in Central India. *Tigerpaper* 40(2): 14-18.

### Hindi Pakhwada observed at Central Zone Regional Centre, Jabalpur, Madhya Pradesh



Certificate distribution\_Hindi pakhwada\_CZRC



Hindi pakhwada concluding programme\_CZRC



Samanya Gyan pratiyogita\_Hindi\_CZRC



Shrutilekhan pratiyogita\_Hindi\_CZRC

## Desert Regional Centre, Jodhpur

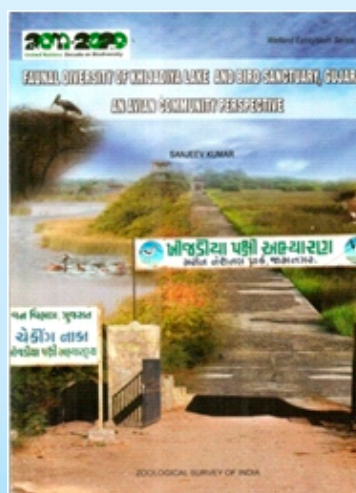
Scientists of the Centre have identified and registered 12 species of fishes from Rajasthan. During the month, scientists of the Centre also digitized 22 specimens for Research Framework Document and metadata entered. Mrs. Neena Tak, Assistant Zoologist has conducted a faunal survey of Pali, Rajsamand and Chittorgarh districts of Rajasthan from 6-15 September, 2013 under the State Fauna of Rajasthan. A total of 715 specimens of invertebrates and vertebrates have been collected. Drs. Sanjeev Kumar, Scientist-C and Officer-in-Charge and H.S. Banyal, Scientist-C have held a discussion meeting on 10 September, 2013 at the Centre with Shri. Rajeev Choudhary, Superintending Engineer, Narmada Canal Project, Sanchore Region, Rajasthan on their proposal regarding development of escape area of NCP, Sanchore as a wetland habitat as part of the creative management under environmental safe guard measures.

Dr. Sanjeev Kumar, has evaluated the progress of research work of a JRF working at the Department of Zoology, J.N.V. University, Jodhpur under the Rajiv Gandhi National Fellowship program of UGC on 12 September, 2013 for up gradation to SRF. A three-member team led by Dr. H. S. Banyal, Scientist-C has set up a ZSI stall in "Bharat Nirman Jan Suchna

Abhiyan" being organized by the Press Information Bureau (Ministry of I & B), Jodhpur at Luni, Jodhpur, Rajasthan from 13-15 September, 2013. Dr. Sanjeev Kumar, has participated as Special Guest in the "Farmers fair-cum-farm Innovation Day - 2013" organized by the Central Arid Zone Research Institute (CAZRI) at Jodhpur on 19 September, 2013 and participated in the dissemination of scientific information to farmers on conservation of faunal elements. Hindi Diwas and Hindi Week have been organized and celebrated with great enthusiasm from 16- 20 September, 2013 at the Centre. Hindi Workshop has been organized on 24 September, 2013.

### Publication

- Kumar, S. (2013) Faunal Diversity of Khijadiya Lake and Bird Sanctuary, Gujarat – An Avian Community Perspective. *Wetland Ecosystem Series 15: 1-193*. (Published by the Director, ZSI, Kolkata).





Survey team leader collecting fauna at Sumer, Pali, Rajasthan



Survey team members working in the field at Badi Sadari, Chittorgarh, Rajasthan



Scientists disseminating information during *Bharat Nirman Jan Suchna Abhiyan* at Luni, Jodhpur



Hindi Week celebrated from 16<sup>th</sup> -20<sup>th</sup> September, 2013 at the centre

## Marine Biology Regional Centre, Chennai

During the month, one deep sea faunal survey has been carried out by spending six hours in a trawl boat off Chennai coast and various specimens have been collected. Scientists of this Centre identified three species of Foraminiferas, ten species of Nematodes, seven species of Rhizopods, one species of Arthropoda, nine species of Mollusca, one species of Echinodermata and seven species of Pisces out of the materials collected from Palkbay and Gulf of Mannar Biosphere Reserve. Sixty-two species have been digitized and their metadata compiled.

Dr. Rajkumar Rajan Scientist-C has attended a workshop on "Indo-German research

cooperation in support of the management of coastal and marine biodiversity in India" being organized by MoEF-GIZ at New Delhi. Prof. Dr. Venugopalan Ittekkot, GIZ, Germany has visited various research facilities available in our Centre. Drs. C. Venkatraman Scientist-C and Officer-in-Charge and Rajkumar Rajan, have supervised the research projects of SRF's of the Centre. One advisory service has been rendered to Station House Officer, Rajender Nagar, New Delhi regarding confiscated coral specimens. During the month, 1,234 tourists have visited the marine aquarium and museum.

**Publications**

- Ranju, R., Bindu, L., and Jayaprakas, V. (2013) Two new reports of testate amoebae (Protozoa: Rhizopoda) of the genera *Cryptodifflugia* and *Difflugia* from India, *Journal on New Biological Reports* 2(2): 170-172.
- Sivaleela, G., and Venkataraman, K. (2013) Diversity and distribution of Polychaetes from Tamil Nadu Coast, India, In: K. Venkataraman, C. Sivaperuman and C. Raghunathan (eds.), *Ecology and Conservation of Tropical Marine Faunal Communities*, Springer-Verlag Berlin Heidelberg. 483p.
- Venkataraman, C., Venkataraman, K., Rajan, R., Shrinivaasu, S., Padmanaban, P., Paramasivam, K., and Sivaperuman, C. (2013) Diversity and Distribution of Echinoderms in Palk Bay and Gulf of Mannar Biosphere Reserve, Southern India, pp 197-212. In: K. Venkataraman, C. Sivaperuman and C. Raghunathan (eds.), *Ecology and Conservation of Tropical Marine Faunal Communities*, Springer-Verlag Berlin Heidelberg. 483p.



Prof. Dr. Venugopalan Ittekkot, GIZ, Germany during his visit to MBRC



Electric rays in marine aquarium



*Lutjanus sebae*



*Lutjanus fulvus*

## Gangetic Plains Regional Centre, Patna

Dr Gopal Sharma, Scientist-C and Officer-in-Charge has conducted a survey from 13-29, September, 2013 as part of the Annual Plan of Research work of Zoological Survey of India for documenting faunal aquatic diversity of Mollusca and Zooplankton of temporary and permanent water bodies in and around Valmiki Tiger Reserve, Kusheshwar Asthan, Saraiyaman Lake and Gogabill Pakshi Vihar (IBA Sites). A total of 477 examples have been collected.

During the month, identified 20 species of family Noctuidae (Lepidoptera) has been carried out by the scientists of the Centre: *Fodina stola* Guenee (7 exs.), *Artena dotata* (Fabricius) (1 exs.), *Aganais ficus* Fabricius (6 exs.), *Hypocala subsutara* Guenee (5 exs.), *Polytela gloriosae* (Fabricius) (3 exs.), *Asota caricae* (Fabricius) (5 exs.), *Trignodes hyppossia* (Cramer) (1 exs.), *Fodina cuneigera* (Butler) (4 exs.), *Parallelia arctotaenia* (Cramer) (2 exs.), *Spirama helicina* (Hubner) (2 exs.), *Aedia acronyctoides* (Guenee) (3 exs.), *Grammodes stolidia* Fabricius (1 exs.), *Anoba pectinata*

(Hampson) (5 exs.), *Fodina pallula* Guenee (1 exs.), *Parallelia stuposa* (Fabricius) (1 exs.), *Ophiusa disjungens* (Walker) (2 exs.), *Micraloa emittens* (Walker) (3 exs.), *Aloa lactinea* (Cramer) (1 exs.), *Paramsacta moorei* (Butler) (2 exs.), *Callyma costiplaga* Moore (1 exs.). Also identified 12 species of mollusca viz., *Bellamya bengalensis*, *Lymnaea accuminata*, *Corbicula striatella*, *Indoplanorbis exustus*, *Gyraulus convexiusculus*, *Lamellidens mainwaringi*, *Radiatula caerulea*, *Lymnaea acuminata*, *Radix luteola*, *Bellamya bengalensis*, *Inoplanorbis exustus*, *Melanoides tuberculatus*.

The Centre has observed Hindi Divas on 14 September, 2013.

### Publications

- Kirti, J.S., Joshi, R. and Singh, N. (2013) First record of the genus *Disasuridia* Fang (Lepidoptera: Erebidae: Arctiinae) from India with the description of a new species. *Tinea* 22(4): 269-271.
- Singh, N. and Singh, J. (2013) Review of the genus *Olepa* Watson (Lepidoptera: Erebidae: Arctiinae). *Tinea* 22(4): 272-277.



Dr. Naveen Singh presenting bouquet to Padmashree Ravindra Rajhans and Prof. Sheo Kumar at HINDI Diwas function organised on 13th Sep 2013



New Species *Disasuridia fangae* Kirti Joshi Singh 2013

## Western Regional Centre, Pune

A field survey has been undertaken to Nasik, Thane and Ahmadnagar districts of Western Ghats from 23-28 September, 2013 by Dr. P. S. Bhatnagar, Scientist-C. Similarly, Dr.

R. Bano, Scientist-C has conducted a survey from 3-9 September, 2013 in Satara and surrounding places for fish collection. During the month, 4 species of Coccinellidae,

6 species of Hymenoptera and 14 species of Pisces have been identified. Identification and advisory services have been rendered to Mrs. K.P. Jagtap, scientist, Intox Pvt. Ltd., Mulshi, Pune and Mrs. Sarika Mohite, Shivaji University, Kolhapur on fish identification.

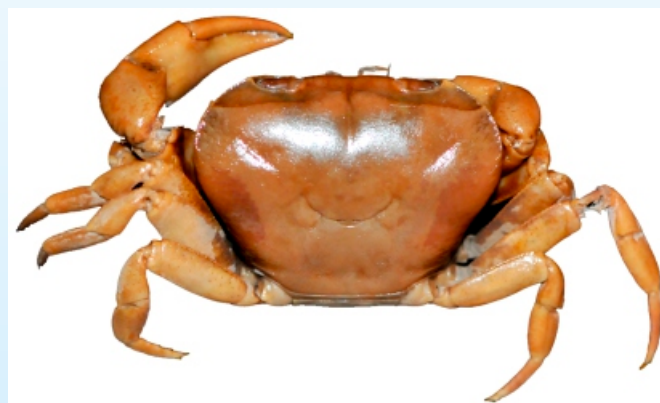
Besides, advisory services have also been rendered on a skin that was not (fake) that of *Panthera tigris* received from Police Department, Karveer, Kolhapur. Dr. P.S. Bhatnagar, Scientist-C and Officer-in-Charge has attended Nagar Rajbhasha Karyanvayan Samiti meeting at Pune on 6 September, 2013. Hindi Saptah has been celebrated on 14-21 September, 2013 and on 17 September, 2013 a one-day "Hindi Karyashala" has been organized. Various competitions have been held to encourage use of Hindi in office. One-day workshop has been conducted by Shri. Rajendra Verma, Director, Official language, Pune regarding the implementation of Unicode software in Hindi.

### Publications

- Pati, S.K., and Sharma, R.M. (2013) A new species of freshwater crab, *Travancoriana granulata* n. sp. (Brachyura: Gecarcinucidae) from the southern Western Ghats of India. *Zoosystematics and Evolution* 89 (2): 275-281.
- Pati, S.K., Rao, M.V., Swain, d., Vijay Kumar, P.P.N., and Sharma, R.M. (2013) Checklist of Marine Wood Borers of the Odisha Coast. *Bionotes* 15(3): 74-75.
- Pati, S.K., Rao, M.V., and Balaji, M. (2013) Improvement in environmental parameters of a highly polluted Indian harbour. *Indian Journal of Geo-Marine Sciences* 42(4): 487-497.
- Pati, S.K. and Sharma, R.M. (2013) On an apple snail, *Pomacea diffusa* Blume, 1957 from Maharashtra. *Ela Journal* 2(2): 2-3.
- Jadhav, M., and Mahabal, A. (2012) Sighting of albino Common Sand Boa *Gongylophis conicus* from Northern Western Ghats, Maharashtra, India. *J. Bombay Nat. Hist. Soc.*, 109 (3): 205-206.



*Eupterote fabia* Cramer



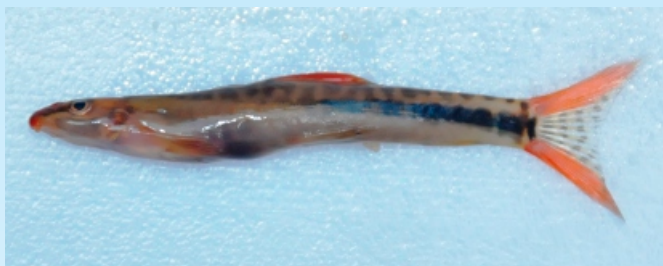
*Travancoriana granulata* Pati & Sharma, 2013 New Freshwater Crab from Eravikulam N.P. Idukki dist. Kerala



*Garra gotyla stenorhynchus* (Jerdon), endemic fish of Northern Western Ghats



*Schismatorhynchus nukta* (Sykes), endemic fish of Northern Western Ghats



*Nemacheilus anguilla* Annandale, endemic fish of Northern Western Ghats



*Parapsilorhynchus discophorus* Hora, endemic fish of Northern Western Ghats

### North Eastern Regional Centre, Shillong

During the month, one field survey to Nongkhylllem Wildlife Sanctuary, in Ri-Bhoi district of Meghalaya has been conducted between 9 and 13 September, 2013. Around, 151 specimens of Pisces, 4 specimens of prawns, 4 specimens of Amphibia, 17 specimens of Mollusca, 35 specimens of aquatic insects and 25 specimens of crabs have been collected. Around, 193 specimens of aquatic and semi-aquatic Hemiptera belonging to 19 species, 13 specimens of earthworms belonging to 9 species and 12 examples of Crustacea belonging to 4 species have been identified and registered.

Identification and advisory service has been rendered to the Meghalaya State Forest Department on the identity of 2 specimens of snake. A query has also been received from a senior journalist of Press Trust of India, Shillong on the identity of an exotic fish netted by local fishermen near Umiam lake, Ri-Bhoi district, Meghalaya. The catfish was

tentatively identified from the photograph provided by the PTI as *Pterygoplichthys multiradius* (Hancock, 1828) belonging to order Siluriformes under the family Loricariidae.

Metadata and images pertained to 807 specimens of pisces belonging to 26 species have been entered in the database.

Dr. Uttam Saikia, Senior Zoological Assistant has attended a national seminar on "Natural heritage and conservation issues in India" being organized by the Social Environmental and Biological Association (SEBA) on 8 September, 2013 in Kolkata and presented a paper titled "*The bat fauna of Meghalaya: Diversity and conservation issues*". Dr. Uttam Saikia has been awarded the second prize for best presentation on young scientist category.

A group of students and teachers from Gargaon College, Assam has visited the Centre on 30 September, 2013 as part of their academic curriculum.



A fish (*Tor* species) caught by local fishermen from river Umtrew near Nongkhylllem wildlife sanctuary.



An exotic fish netted by fishermen near Umiam lake, Ri-Bhoi district Meghalaya. Identified tentatively from the photograph as *Pterygoplichthys multiradius* (Hancock, 1828).

### High Altitude Regional Centre, Solan

The faunal identification from the Centre includes 04 species of butterflies (out of 10 examples) and 03 species of earthworms (out of 22 examples) collected from the Cold Desert of Spiti Valley, district Lahul & Spiti (HP); 03 species of Pisces (out of 13 examples); 03 species of Orthoptera (out of 5 examples); 02 species of butterflies (out of 10 examples) and 02 species of earthworms (out of 5 examples) from Chail WLS, district Solan, 96 examples referable to 38 species from Uttarakhand. Hemiptera, Diptera and Coleoptera collections from piti Valley survey have been sent to the respective experts at ZSI, HQ Kolkata for identification.

The Officer-in-Charge of the Centre has attended Jammu and Kashmir State Board for Wildlife Board meeting held at Srinagar from 16-19 September, 2013, as member and nominee of the Director Zoological Survey of India. A scientist of the Centre also has been registered as co-guide of a student for Ph.D. degree at Department of Zoology & Environmental Sciences, Punjabi University, Patiala on 12 September, 2013. Scientists of the

Centre have provided advisory the services to Dr. N. Shiva Kumar from Delhi regarding mammals of the Ladakh. Hindi Pakhwara has been celebrated in the Centre from 25-28 September, 2013 and the various competitions have been organized *viz.* noting and drafting, speech and essay writing. All the staff of the Centre have participated in these events. Two eminent professors have been invited to deliver lectures on Rajbhasha during the celebrations.

#### Publications

- Kumar, C., Rose, H.S., and Sidhu, A.K. (2013) Status and taxonomic notes on the genus *Anthene* from Indian Himalayas (Lepidoptera: Lycaenidae). *Journal of Insect Science* 25(4): 409-416.
- Sidhu, A.K. (2013) Observations on *Lasiommata menava* (Moore, 1865) (Lepidoptera: Nymphalidae: Satyrinae) and *Aglaia caschmiriensis* (Kollar, 1844) (Lepidoptera: Nymphalidae: Nymphalinae) attracted to light at Kalatop and Chail Wildlife Sanctuaries in Himachal Pradesh, India. *Bugs R All* (20): 17-19.
- Kumar, A. (2013). On the faunal diversity of

Arunachal Pradesh: Composition, threats and conservation issues, pp. 1-31. In *Animal Diversity, Natural History and Conservation*

Vol. 2, (eds. Gupta V. K. and Verma A. K.), Daya Publishing House, Astral Intl. Pvt. Ltd., New Delhi, pp. i-xiii+490.



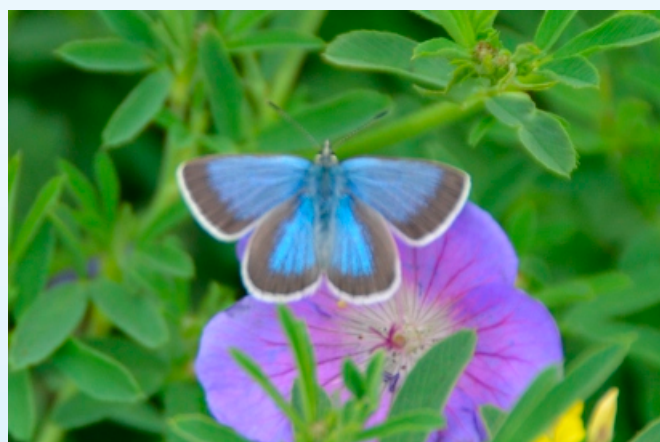
*Colias fieldii*



*Dodona durga*



*Polyommatus omphisa*



*Paraschistura montana* (McClelland)



Hindi Pakhwara

### Southern Regional Centre, Chennai

A faunal survey under the State Fauna of Andhra Pradesh has been conducted in Adilabad, Karimnagar, Nizamabad and Warangal districts of Andhra Pradesh from 4-24 September, 2013 under the leadership of Mr. D. Prabakar, Assistant Zoologist and the survey party has collected 3641 specimens belonging to 21 different types of faunal groups. Dr. R. Babu, Scientist-C has identified and registered 20 specimens of Odonates belonging to 9 species under 4 families from southern Western Ghats of Tamilnadu and registered 12 specimens of Coleoptera belonging to 5 species under one family. Dr. R. Aengals, Scientist-C, has identified 4 reptile specimens into 4 species under 4 genera belonging to 2 families collected from the Western Ghats of Tamil Nadu.

Dr. R. Venkitesan, Scientist-C has identified 16 species of freshwater and land gastropods under 6 genera of 4 families and a total of 414 examples of Mollusca specimens have been identified from the existing collection of NZC-SRC Chennai. Dr. Venkatesan has delivered a lecture at Foundation for Revitalisation of Local Health Traditions (FRLHT), Bangalore on 25 September, 2013. He also rendered one identification service to Mr. Ganesh of Loyola College. Dr. Jayasree Thilak, Scientist-C has identified 4 specimens of Rhizopoda belonging to 2 species, 2 genera, under 1 order and 2 families; 23 specimens of Rotifers

belonging to 9 species, 5 genera, 1 order, 4 families; 68 specimens of Cladocera belonging to 12 species, 8 genera, 2 orders, 5 families; 15 specimens of Ostracoda belonging to 5 species, 4 genera, 1 order, 1 family from the zooplankton samples collected from the different localities of Villupuram district of Tamil Nadu. She also rendered one identification service to Mr. Sumith Rose, Research Scholar, Dept. of Zoology, Loyola College, Chennai on fish specimens.

Dr. S. Prabakaran, Scientist-C has identified 25 examples of Blattides collected from southern Eastern Ghats of Tamil Nadu, belonging to 5 families, 7 genera and species. Dr K. Ilango, Scientist-D and Officer-in-Charge, has attended an executive committee meeting of Pallikarnai Marshland and as trustee of Chennai Snake Park on 21 September 2013.

#### Publications

- Thilak, J., and Chandra, K. (2013) Some observations on vultures in Veerangana Durgavati Wildlife Sanctuary, Distt. Damoh, M.P. *Bionotes* 15(3): 82.
- Prabakaran, S., Parandhaman, D., Sivasankaran, K., Chezian and Ignacimuthu, S. (2013) Diversity of butterfly fauna (Rhopalocera: Lepidoptera) from Yelagiri Hills, Tamilnadu, India. *Journal of Elixir Appl. Zoology* 62: 17896-17900.



Scientists & staff engaged in faunal survey in Jillela Reserve Forest Division, Karim Nagar district during Andhra Pradesh state faunal survey.

## ANIMAL OF THE MONTH

**Horseshoe Crab *Tachypleus gigas* (Muller 1785)**

Horseshoe crab *Tachypleus gigas* is known as 'living fossil' and it has a history spanning hundreds of millions of years and its ancestry dating back to roughly 455 million years during the Cambrian. Globally there are only four extant horseshoe crabs: *Limulus polyphemus* in North America, *Tachypleus tridentatus*; *Tachypleus gigas*; and *Carcinoscorpius rotundicauda* in south Asia. Two species of horseshoe crabs viz. *Tachypleus gigas* and *Carcinoscorpius rotundicauda* have been reported from the Indian coasts and they are known to inhabit and breed along the eastern coast of India. The West Bengal and Odisha coasts are reportedly the home of the largest population of horseshoe crabs. One of the largest concentrations of *Tachypleus gigas* is known from Canning and Digha in West Bengal



Text and photography by  
Basudev Tripathy,  
Zoological Survey of India,  
Kolkata

and Balaramgadi beach and Bhitarkanika Wildlife Sanctuary in Odisha. Once considered as 'trash fish' in India, the horseshoe crabs are now extensively been used in biomedical research, especially in ophthalmological research and manufacture of surgical sutures besides development of wound dressings for burn victims. Furthermore, the most importantly its blood component called *Limulus Amebocyte Lysate* (LAL) is indispensable for the detection of bacterial endotoxins in drugs and intravenous devices. Horseshoe crab *Tachypleus gigas* is included as a schedule IV species under the Wildlife (Protection) Act, 1972 and being considered by IUCN for inclusion as an Endangered Species due to decline in population and loss of habitat in their natural occurrence.

## OUT OF THE BOX

**Rare Jerdon's Courser egg discovered at University of Aberdeen**

<http://www.bbc.co.uk/news/uk-scotland-north-east-orkney-shetland-24445071>

**DNA analysis identifies endangered Indian bird egg**

<http://phys.org/news/2013-10-dna-analysis-endangered-indian-bird.html#jCp>

**Study shows alpine swift can stay aloft for 200 days**

<http://phys.org/news/2013-10-alpine-swift-aloft-days.html>

**Longer life for humans linked to further loss of endangered species**

<http://phys.org/news/2013-10-longer-life-humans-linked-loss.html>

**Expedition discovers 60 new species in Suriname**

<http://timesofindia.indiatimes.com/home/science/Expedition-discovers-60-new-species-in-Suriname/articleshow/24160769.cms>