



# *ZSI e-NEWS*

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*ZSI in the 96<sup>th</sup> year of Service to the Nation  
(1916 to 2011)*



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## Headquarters, Kolkata

Extensive field surveys were undertaken in the States of Arunachal Pradesh, Himachal Pradesh, Maharashtra, West Bengal, Odisha and also in Western Ghats. Besides, a local survey was conducted in the fish landing center of Canning, West Bengal and another survey to study the wetland Birds of Santragachi Jheel, Howrah, West Bengal, with the West Bengal Forest Department and amateur Bird Watchers of Kolkata.

During the month, Scientists of Headquarters identified, 4 species of Collembola, 1 species of Acarina, 30 species of Hemiptera, 35 species of Hymenoptera, 4 species of Odonata, 5 species of Orthoptera, 12 species of Crustacea, 22 species of Mollusca, 16 species of fresh water & marine fishes and 8 species of mammals from the states of Himachal Pradesh, Andaman & Nicobar Islands, Assam, Bihar, Jharkhand, Maharashtra, Manipur, Meghalaya, Nagaland, Odisha, Tripura, Uttarakhand, Uttar Pradesh, West Bengal, Sajnakhali W.L.S and Kanyakumari W.L.S, Tamil Nadu. A total of 11 species of fishes from Tamil Nadu coast and a freshwater Oligochaeta from Arunachal Pradesh were found to be new records to these states.

During the month under report, 2 research papers were published, 2 were accepted and 7 were communicated.

Holotypes and Paratypes of 3 species of Ephemeroptera *Platybaetis* sp., *Indobaetis* sp. and *Choroterpes* sp. were deposited at the National Zoological Collection by Dr. K. G. Sivaramakrishnan, Ambasamudram, Tirunelveli, Tamil Nadu.

Identification and advisory services were rendered on 8 lots of specimens, received from different Institutions and Organizations. In addition to that, identification and advisory services were also rendered on soil samples received from Mr. S. K. Singh, Dean, Faculty of Veterinary Sciences & Animal Husbandry,

Kanke, Ranchi; to Shri. Hemant Kumar Parida, Lecturer, Dept. of Zoology, VHJ Mahavidyalaya, Nikirai, Orissa and Dr. Sheela Roy, Associate professor, Dept. of Zoology, Vidyasagar College, Kolkata. A slide (paratype) of plankton specimen was received from Dr. Ranga Reddy, Andhra Pradesh; one lot of isopod specimens was received from NIO, Goa for identification. Identification services were extended to V. Unnikrishnan, Teacher Trainer, Sarva Siksha Abhyas, Urban Resource Centre, Thiruvananthapuram, Kerala and to Dr. Jharna Ray, Executive Director, S. N. Pradhan Centre for Neuro Sciences, University of Calcutta on fish samples.

Identified the confiscated antler of Barking Deer, *Muntiacus muntjak* and Horn of Serrow, *Naemorhedus sumatraensis* received from Deputy Field Director, Buxa Tiger Reserve (west) Division. Two samples of Antler received from Officer-in-charge, Kharibari P.S. Darjeeling, West Bengal was confirmed as of Hog Deer, *Axis porcinus*; Sample of scales received from Shri C. Behera, WCCB, E/R, Kolkata -20 was confirmed as that of Indian Pangolin, *Manis crassicaudata* Gray. Two pairs of antlers received from Deputy Field Director, BTR (West) Division, Alipurduar Court were examined and confirmed as the distorted cut pieces of antler of Sambar, *Cervus unicolor* Kerr.

Dr. Indraneil Das, Professor, Institute of Biodiversity and Environmental Conservation, University Malaysia, Sarawak, Malaysia & Member of IUCN/SSC Amphibian Specialist Group, visited Zoological Survey of India (HQ) and delivered a guest lecture on 'Integrative Biotic Inventories in the Tropics and Examples from Borneo' on 21<sup>st</sup> December, 2011.

Dr. B. R. Kaushal, Prof., & Head, Dr. H. C. Bhist, Associate Prof. and nine Post graduate students from Dept. of Zoology, D.S.B. Campus, Kumaun University, Nainital, Uttarakhand visited different Divisions/Sections of ZSI,

Headquarters. Ms. Laltanpuui, Research Scholar, Madras Christian College, Chennai, visited Miscellaneous Insect Order Section on 20<sup>th</sup> December and Ms. Nongmaithem Anganthoibi, Research Scholar, Dept. of Life Sciences, Manipur University, Manipur visited the Fish Division for their specimen identification work.

Ms. Paramita Basu, J.R.F., attended International Conference on Climate Change, Forest Resource, & Environment (ICCFRE), 2011 conducted from 9<sup>th</sup>-11<sup>th</sup> December, 2011 at Kerala University, Thiruvananthapuram.

Dr. Debabrata Sen, Sh. Suvajit Chakrabarti, Sr. Zool. Asst., Dr. V.V.Gantait, Zool. Asst. attended the National Symposium on Nematodes: A Challenge under changing climate and Agricultural practices held at the Indian Institute of Pulses Research, Kanpur from 8<sup>th</sup>-13<sup>th</sup> December.

Dr. Ch. Satyanarayana, Scientist-B, participated in a field survey at Andaman, in connection with the collaborative project on "Optical Characterisation of Corals" with Space Application Centre from 2<sup>nd</sup>-6<sup>th</sup> December; he also attended the Inaugural Function, Chaired a session and delivered a lecture entitled "Coral reefs, the paradises underwater and their chemistry with Humankind" in a National level Seminar on 'Exploration of Biological processes through Chemical Sciences', organized by the Zoology and Chemistry departments of Narasinha Dutt college on 7<sup>th</sup> December at Howrah and on invitation. Dr. Ch. Satyanarayana attended the Expert Consultation meet of BOBLME project on 29<sup>th</sup> December, at Grand Hotel Orchid Hall, Chennai, to comment on the final draft report prepared for submission to the concerned International body.

Shri B.N. Malhotra, Chief Engineer, CCU, Ministry of Environment and Forests, New Delhi visited ZSI (HQ) on 19<sup>th</sup> December to review the work being undertaken by the CCU

in ZSI and held discussions with Director, ZSI and Engineers from CPWD (Civil & Electrical), Kolkata.

Dr. J. K. De, Scientist-D attended the Research Advisory Committee meeting at the Wildlife Wing HQ, Forest Department, Vikas Bhawan, Salt Lake, Kolkata on 12<sup>th</sup> December for presentation of research findings of the project titled "Feasibility study regarding reintroduction of Pygmy Hog (*Percolus salvanus* Hodgson, 1847)" at Garumara National Park, Jalpaiguri, West Bengal. He also attended the 21<sup>st</sup> meeting of the West Bengal Biodiversity Board at Parivesh Bhawan, Salt Lake, on 16<sup>th</sup> of the month.

Dr. K. A. Subramanian, Scientist-C, visited the Western Ghat Regional Centre, ZSI, Kozhikode between 19<sup>th</sup> & 22<sup>nd</sup> December, 2011 to finalize the document on "Atlas of Endemic Amphibians of the Western Ghats".

Shri K. C. Gopi, Scientist-E, Shri S. S. Mishra, Scientist-B and Dr. Ch. Satyanarayana, Scientist-B attended & presented research papers at the "9<sup>th</sup> Fisheries Forum", organized by the Central Marine Fisheries Institution, Kochi held at Chennai from 19<sup>th</sup>-23<sup>rd</sup> December, 2011.

Dr. Animesh Bal, Scientist-F, attended the National level UGC sponsored Seminar on "Natural and Anthropogenic Hazards of Environment Their impact on Biodiversity its Conservation and Biotechnological Approach for its Remedies" held on 9<sup>th</sup> & 10<sup>th</sup> December, organized by Dept. of Zoology, Vidyasagar College, Kolkata in collaboration with ZSI, as a Nominated Delegate from ZSI. Dr. Ch. Satyanarayana, Scientist-B, also attended the Inaugural Function, Chaired a session, delivered a lecture entitled "The Glory and Gory of Coral Reefs-the Paradises Underwater and strategies for their conservation" in the above Seminar.

Dr. Animesh Bal, Scientist-F, as an In-Charge, accompanied Director, ZSI on his visit to the

Sunderban Regional Center, Canning, to observe progress of work regarding the shifting of the Centre to its new Office premises, which is scheduled to be inaugurated on 17<sup>th</sup> January, 2012.

Dr. K. Venkataraman, Director, ZSI, visited the Freshwater Biology Regional Centre (FBRC), Hyderabad (accompanied by C. Radhakrishnan, Scientist-F- In- Charge of the Centre) and the Southern Regional Centre, Chennai between 1<sup>st</sup> and 4<sup>th</sup> December, 2011. He attended and delivered a Keynote address in the National level UGC sponsored Seminar on "Natural and Anthropogenic Hazards of Environment their impact on Biodiversity its Conservation and Biotechnological Approach for its Remedies" on 9<sup>th</sup> December, organized by the Dept. of Zoology, Vidyasagar College, Kolkata, in collaboration with ZSI. Dr. Venkataraman attended the Research Advisory Committee meeting at the Wildlife Wing HQ, Forest Department, Vikas Bhawan, Salt Lake, Kolkata on 12<sup>th</sup> December and also attended Research

Advisory Committee meeting on 16<sup>th</sup> December at the Marine Bio-Resource Centre (MBRC), Jamnagar, Gujarat. He attended a Seminar on "Antarctic Expedition" organized by Maheshtala Students Welfare Society, Batanagar, Nungi, 24 Parganas (South) West Bengal on 26<sup>th</sup> December and attended the 65<sup>th</sup> Annual General Meeting of Zoological Society, Kolkata on 30<sup>th</sup> December, 2011 and delivered a Scientific Oration on "Scientific Diving".

Thirty five Books and 45 Periodicals/Journals were added to the library by the Library Section during the month.

#### **Publications:**

1. Gantait, V.V., Bhattacharya, T. & Chatterjee, A. 2011. Feeding guilds of nematodes in a banana plantation of West Bengal, India. *Indian Journal of Nematology*, 41 (1): 79-82.
2. Biswabroto Biswas and Bulganin Mitra. 2011. First report of *Metacanthus partenerus* and Family Berytidae (Hemiptera) from Eastern India. *Bionotes*, 13(4): 150.



*Lutjanus lutjanus*



*Pristipomoides filamentosus*



Spotted Forktail



Dr. Indraneil Das, Professor, University Malaysia, delivering lecture

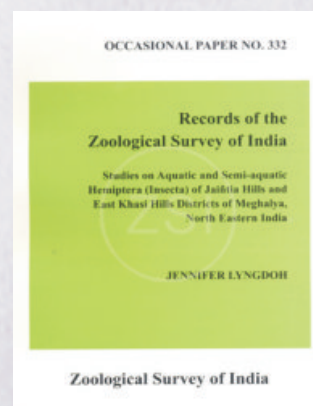
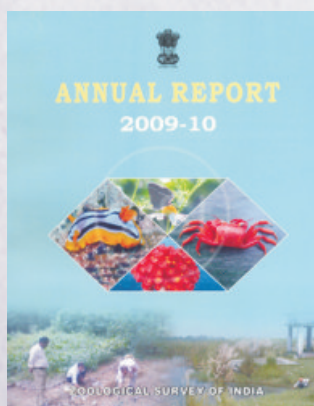
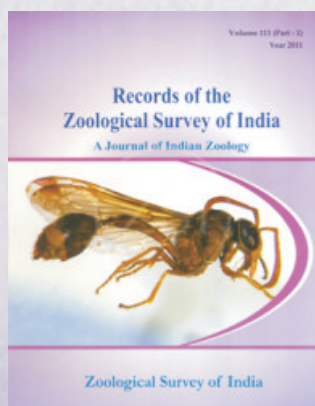
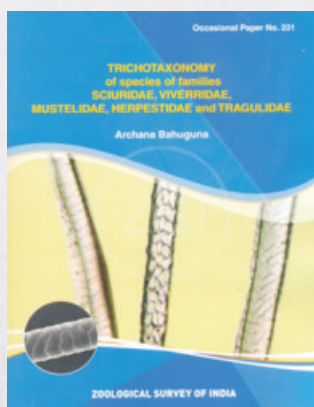
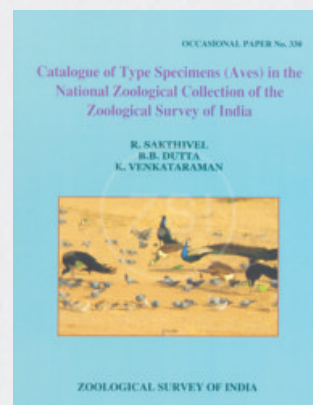
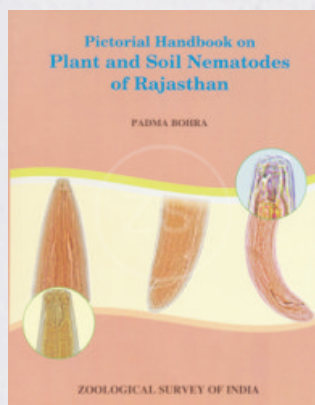


Dr. K. Venkataraman, Director, ZSI, felicitating Dr. Indraneil Das



Farewell meeting of Shri Swapan Das & Mrs. Arati Chowdury, organized by the Recreation Club, ZSI, on 29<sup>th</sup> December, 2011

## Books Published



## Northern Regional Centre, Dehra Dun

Two intensive surveys were conducted under the Programme "Fauna of Dehradun District" and representative fauna belonging to 10 faunal groups were collected, besides collecting 30 exs of helminth parasites from Amphibia and soil nematodes from soil samples. Out of the material collected during the survey in Punjab, 4 species of Reptilia and 29 species of Lepidoptera were identified. Fifteen metadata of nematodes and 30 of Lepidoptera were entered in the Invertebrate database, while, 15 species of Pisces have been digitized and metadata entered in the vertebrate database. Measurements and photography from the prepared slides of PGH of Travancore flying squirrels and from PGH of species of lagomorpha: *Ochotona ladacensis* (Gunther), *Ochotona m. macrotis* (Gunther), *Ochotona roylei* were completed and permanent wax slides of soil and vertebrate nematodes were prepared for morphological studies. Five research papers and a popular article in Hindi were published.

Shri P.T.Bhutia, Scientist-F and Officer-in-Charge, attended two school functions at Kendriya Vidhyalaya, OFD, Raipur, and Moravian Institute, Rajpur, Dehradun as Chief Guest.

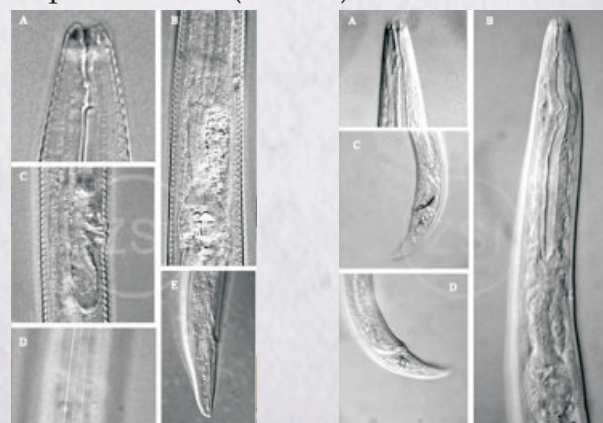
25 visitors visited the Museum and 20 students consulted the library at the Centre.

### Publications:

1. Bahuguna, A., Sahajpal, V., Goyal, S.P., Mukherjee, S.K. and Thakur, V. 2010. (Received in Dec'2011). Species identification from guard hair of selected Indian mammals: a reference guide, Wildlife Institute of India, Dehradun India: 1-434. Published by Wildlife Institute of India, Funded by DEFRA (Department for Environment, Food and Rural Affairs), Govt. of UK and TRAFFIC.
2. Bahuguna, A. 2011. Trichotaxonomy of species of the families Sciuridae, Viverridae, Mustelidae, Herpestidae & Tragulidae. *Rec. Zool. Surv. India*. Occ. Paper no 331:1-121+

plates (1a-49c) (Published by the Director, Zool Surv. India, Kolkata).

3. Rizvi, A.N. and P. T. Bhutia (2011) Helminth parasite community in *Euphlyctis cyanophlyctis* in Jhilmil Jheel Conservation Reserve, Haridwar (Uttarakhand). *Proceedings of the Zoological Society of India*, Special Issue on Parasitology, Vol. 1: 41-43.
4. Tak, P. C. and Sati, J. P. 2011. Status of Birds of Uttarakhand and Their Conservation, Pp. 25-28. In: "*Status of Indian Birds and Their Conservation*", Proceedings of the first International Conference on Indian Ornithology, Bhupathy, S., Prusty B.A.K., Kumara, H.N., Jayaraj, R.S.C., Quadros, G., and Pramod, P., (Eds.), SACON, Coimbatore, India, 19-23 November, 2011, 301 pp.
5. Tak, P. C. and Sati, J. P. 2011. Avifauna of Kalesar National Park and Wildlife Sanctuary, Haryana, Pp. 171-172. In: "*Status of Indian Birds and Their Conservation*", Proceedings of the first International Conference on Indian Ornithology, Bhupathy, S., Prusty B.A.K., Kumara, H.N., Jayaraj, R.S.C., Quadros, G., and Pramod, P., (Eds.), SACON, Coimbatore, India, 19-23 November, 2011, 301 pp.
6. Sati, JP, Bhutia, PT, and Tak PC. 2011. Bhartiya Prani Surveshan Vibhag, Uttar Keshtriya Parisar, Dehradun- Ek Avlokan. *Vigyan Paricharcha* (Uttarakhand Ke Vigyan Sansthan-3). Varsh-2 (Ank 1): 32-34. Popular Article (HINDI).



Female  
*Cephalobus pseudoparvus*

Male  
*Pseudacrobhelus eurystoma*

### High Altitude Regional Centre, Solan

During the month, 5 species of Rhopalocera (Lepidoptera), 3 species of Orthoptera and 2 species of Pisces were identified out of the material collected from the Chail Wildlife Sanctuary and the Kalatop-Khajjiar Wildlife Sanctuary. Dr. Avtar Kaur Sidhu, Scientist-C and Officer-in-Charge and Dr. Indu Sharma, Scientist-C, attended the Himachal Pradesh State Wildlife Board meeting held at HP Secretariat, Shimla on 16<sup>th</sup> December, 2011. Two enquiries pertaining to earthworms were attended by Dr R. Paliwal, Assistant Zoologist.

#### Publication:

Avtar Kaur Sidhu, Charn Kumar and H. S. Rose (2011). Taxonomic status and studies of three



*Acrida exaltata* Walker

high altitude butterflies *Polyommatus* Latreille, 1804 and a new record of *P. florenciae* (Tytler, 1926) from India. *TAPROBANICA*, 3 (2): 86-92.

### Desert Regional Centre, Jodhpur

A field survey was conducted to study the Vertebrate Faunal diversity of Chambal River, district Kota, Rajasthan from 29<sup>th</sup> November to 10<sup>th</sup> December, 2011. Four genera of nematodes, 3 species of Lepidoptera, 4 species of Odonata and 2 species of Pisces were identified from various environs of Rajasthan. Dr. Padma Bohra, Scientist-D and Officer-in-Charge, attended the meeting of State Representatives at CAZRI, Jodhpur, on 1<sup>st</sup> December, 2011. Dr. Gaurav Sharma, Scientist-C delivered an Extension lecture on "Faunal Diversity of India and Conservation of Biodiversity" to B.Sc. and M.Sc. students at Lachoo Memorial College of Science & Technology, Jodhpur on 9<sup>th</sup> December, 2011. He also imparted training to 30 M.Sc. students of Lachoo Memorial College,

Jodhpur on "Collection and Preservation of Insects" on 12<sup>th</sup> December, 2011. Besides, Dr. Gaurav Sharma participated in the "International Conference on Advances in Ecological Research" at Maharaja Ganga Singh University, Bikaner from 19<sup>th</sup>-21<sup>st</sup> December, and presented two papers. Under the supervision of Dr. Gaurav Sharma, four members participated in the "19<sup>th</sup> National Children Science Congress-2011", organized by DST, Govt. of Rajasthan, at Jaipur National University, Jaipur, from 27<sup>th</sup>-31<sup>st</sup> December, 2011.

#### Publication:

Sultana, R. and Bohra, P. 2011. Description of two new species of *Chronogaster* Cobb, 1913 from India. *Nematol. Medit.* 39: 179-185.

### Central Zone Regional Centre, Jabalpur

During the month, backlog collections of 7 species of Hemiptera, 3 species of Mantodea, 12 species of Coleoptera and 12 species of Araneae were identified and registered from Singhori Wildlife Sanctuary. Identification and advisory service was rendered to Mr. Prodip Sahoo,

Ph.D. student of Guwahati University, Assam, on the identity of 4 species of small mammals pertaining to Rodentia and Soricomorpha. One research paper was published and three were communicated during the month.

**Publication:**

Talmale, S. S. 2011. A preliminary list of

Odonata from the Singhori Wildlife Sanctuary, Madhya Pradesh. *Bionotes*, 13(4):159-160.



*Thomisus pooneus* Tikader



*Tetragnatha mandibulata* (Walckenaer)

### Gangetic Plains Regional Centre, Patna

A field survey was conducted in Dalma Wildlife Sanctuary, Hazaribagh National Park & Kodarma of Jharkhand State from 28<sup>th</sup> November-7<sup>th</sup> December 2011 and 35 species of the family Noctuidae (Lepidoptera) were collected for taxonomic studies. Besides, 14 species of Noctuidae (Lepidoptera) and 3 species of Leeches were also identified. Two research papers were published.

Dr. Gopal Sharma, Scientist-C and Officer-in-Charge delivered a lecture on "Wetlands in India" in the National Seminar on Natural Resources: Accounting and accountability, at

Ranchi (Jharkhand) on 17<sup>th</sup> of the month, organized by the School of Environmental education & Management, Sidarul, Ranchi. Over 55 students of different schools in Patna and 7 Teachers visited the museum.

**Publications:**

1. Singh, N & Singh, J (2011). Redescription of *Paraplastis hampsoni* Swinhoe (Lepidoptera: Arctiidae). *Tinea*, 21 (5):241-244.
2. Singh, N & Singh, J (2011). Resurrection of genus *Coleta* Roepke (Lepidoptera: Arctiidae). *Bionotes*, 13 (4): 157-158.

### Marine Aquarium cum Regional Centre, Digha

The aquarium received the record number of 2500 visitors per day during the last week of the month and an average of 1250 visitors per day during the entire month. Live marine ornamental exhibits were collected for display in the aquarium tanks. The major attractions among the aquarium exhibits during the month were the conger eel (*Muraenesox cinereus*), frogfish (*Antennarius hispidus*), Sea anemones (*Metridium* sp.) and Giant grouper (*Epinephelus lanceolatus*). Under the identification and digitization of collections, 460 specimens were

identified which included 24 species of fishes as well as 49 species of Mollusca. Four species of Mollusca and 6 species of fishes were identified. Dr. Prasanna Yennawar, Scientist-C and Officer-in-Charge participated in the 2<sup>nd</sup> Implementation and Supervision Mission team visit to Gujarat under the Integrated Coastal Zone Management Project of World Bank from 5<sup>th</sup>-9<sup>th</sup> December, 2011. Dr. Anil Mohapatra attended the committee meeting for the arrangement of the district level Science fair on 29<sup>th</sup> of the month at Digha Science Centre.

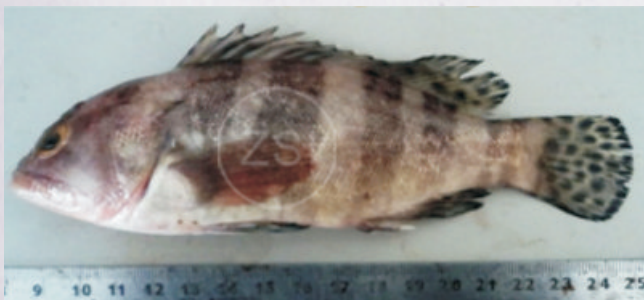
Advisory services were rendered to two groups of B.Sc. students from Durgapur Govt. College and Gurucharan College, Silchar, Assam, during their study excursion tour to the Aquarium. Three research papers were published.

**Publications:**

1. Venkataraman, K., Prasanna Yennawar, C. Venkataraman & Anil Mohapatra (2011). Conservation Initiatives of marine fauna through public aquarium. Presented during

9<sup>th</sup> Indian Fisheries Forum held at Chennai during 19-23 organized by CMFRI, Cochin.

2. Anil Mohapatra, S. K. Mohanty, Rajeeb K. Mohanty (2011). Juvenile abundance and post-larval incursion of mud crabs (*Scylla* spp.) in Chilika lagoon. *Indian Journal of Geo-Marine Sciences* 40(6): 834-840.
3. Anil Mohapatra, Rajeeb K. Mohanty, S.K. Mohanty, (2011). Performance evaluation of mud crab fishing gears in Chilika Lake. *Indian J. Fish.* 58(4): 133-138.



*Epinephelus sexfasciatus*



*Epinephelus radiatus*



*Myripristis botche*



*Sargocentron praslin*



*Zanclus cornatus*

### Sunderban Regional Centre, Canning

A field survey was conducted in and around Canning fish landing centre and the Dabu Mangrove area and representative fauna



*Penaeus monodon*

pertaining to fishes, prawns, crabs and gastropods collected for taxonomic study and documentation. Prawns and crabs belonging to two species were identified.



*Scylla serrata*

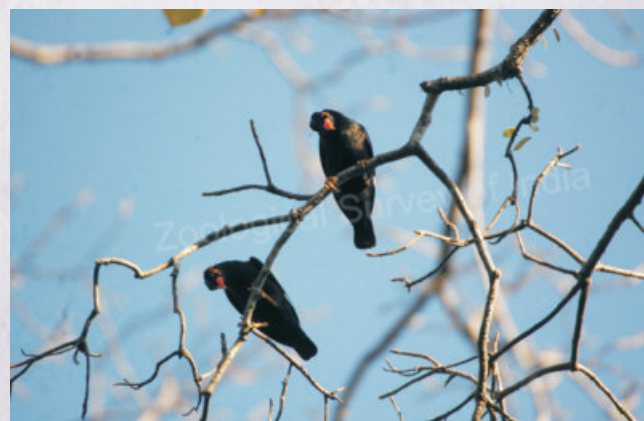
### Arunachal Pradesh Regional Centre, Itanagar

A field survey tour to study the bird communities of Pakke Tiger Reserve was conducted w.e.f. 23<sup>rd</sup> December 2011 and 120 species of birds were recorded. Some of the significant sightings include the Great Hornbill *Buceros bicornis*, Indian-pied Hornbill *Anthraceros albirostris*, Wreathed Hornbill *Aceros undulatus*, White Wagtail *Motacilla alba*, Rufous Sibia *Heterophasia capistrata*, Nepal Fulvetta *Alcippe nipalensis*, Rufous-vented Laughing thrush *Garrulax gularis*, Mountain Bulbul *Hypsopetes mcclllandii*, Sultan Tit *Melanochlora sultanea* and the Hill Myna *Gracula religiosa*. Some of the mammals recorded include the Asian elephant *Elephas maximus*,

Sambar Deer *Cervus unicolor*, Capped Langur *Trachypithecus pileatus*, Indian Muntjac *Muntiacus muntjak*, Small-clawed Otter *Amblonyx cinereus* and the Malayan Giant Squirrel *Ratufa bicolor*. Dr. Gopinathan Maheswaran, Scientist-C and Officer-in-Charge attended a one-day training workshop on the Indian Wildlife Conservation Issues for school teachers and students, organized by the DFO, Pakke Tiger Reserve, Seijosa on 26<sup>th</sup> December 2011 and as a resource person, delivered a talk on the conservation of birds and mammals of Arunachal Pradesh. Four scientists from Geological Survey of India, Itanagar unit visited the museum and library on 29<sup>th</sup> December 2011.



Greater Yellow-nape



Hill Myna



Wreathed Hornbill



Mountain Imperial Pigeon



Malayan Giant Squirrel



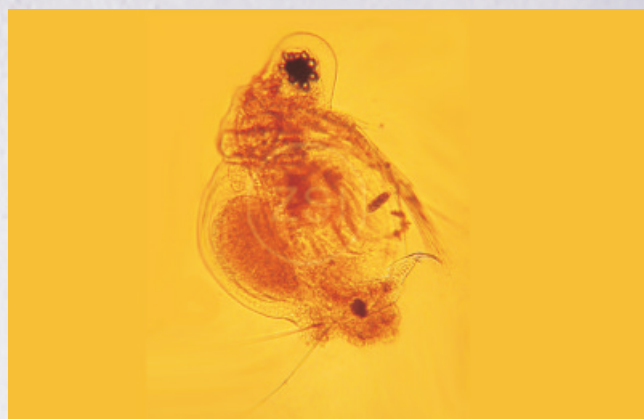
Small-clawed Otter

## Freshwater Biology Regional Centre, Hyderabad

During the month, 6 field surveys were undertaken to study the annual/seasonal variability of zooplankton community. Scientists of the Centre continued to pursue the taxonomic and hydrobiological studies on two major man-made lakes in Cumbum and Prakasam Districts of Andhra Pradesh and as well the Krishna Sagar, Mandya District, Karnataka, focusing on zooplankton identification. Ten species of Rotifera, nine species of freshwater Cladocera, 10 spp. of aquatic insects and 6 spp. of Ichthyofauna were identified. On the limnecological studies on urban and semi-urban lakes, Sladeczek Quotient Ratio, 1983, based upon numerical abundance of species of two rotiferan genera, *Brachionus* Pallas and *Trichocerca* Lamarck in Lake Ecosystem was computed for evaluation of lake's trophic conditions.

An advisory service was rendered to the PCCF and Chief Wildlife Warden (CWLW), Forest Department, Govt. of Andhra Pradesh, Hyderabad, on faunal diversity of various major animal groups in Andhra Pradesh.

Dr. S.Z. Siddiqi, Scientist-D and Officer-in-Charge, participated in the Familiarisation Seminar on COP-11& MOP-6, held jointly by the CBD, MoEF, GOI, NBA, Biodiversity Conservation and Andhra Pradesh State Board for Biodiversity, and the Forest Department, Govt. of Andhra Pradesh, Hyderabad on 14<sup>th</sup> December 2011. Dr. Deepa Jaiswal, Scientist-C participated in a workshop on 'Initiatives of DNA Barcoding' from 14<sup>th</sup>-18<sup>th</sup> of the month, conducted by Dr. Suresh Naik, CCDB, Canada, at Paul Hebert Center for DNA Barcoding studies, Aurangabad.

Cladocera, *Alona davidi punctata* (Daday)Cladocera, *Moinodaphnia macleayi* (King)

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

During the month 5 species of molluscs from the collection of the Pennera Estuary, Andhra Pradesh were identified. A total of 150 data entries were made in the in the Taxonomic Data-Base of the Estuarine Faunal holdings of the Centre and updated the list. Twenty one

specimens were digitized. Identification and advisory service was rendered to a Junior Research Fellow of the College of Fisheries, OUAT, Berhampur on 9 species of fishes. One student from Pondicherry University visited the Centre for library consultation.

*Tonna dolium* (Linn.)*Lutjanus johnii* (Bloch)

### North Eastern Regional Centre, Shillong

During the month, 4 species of Amphibia and 3 species of aquatic Hemiptera were identified from the backlog collection at the Centre. Provisional registration numbers were issued to Dr. K. K. Jha, Jawaharlal Nehru College, Pasighat, Arunachal Pradesh, on 13 species of fishes and 2 species of amphibians. Laboratory facilities and advisory services were rendered to Mr. Y. Lokeswar, Manipur University, who visited the Centre on 12<sup>th</sup> December, to study the type species of fishes. The final report on

Caecilian, *Ichthyophis alfredii* Mathew and Sen

“Taxonomic study on Nemacheiline loaches of North East India present in the collections of NERC/ZSI, Shillong” is being finalized for submission.

The images of 1 Holotype and 5 paratypes of *Ichthyophis alfredii* (Amphibia: Gymnophiona)

along with its original description and Meta data have been digitized and compiled during the month.

The software, *e-Granthalaya* was installed in the Library of the Centre and entries of library books initiated.

### Andaman and Nicobar Regional Centre, Port Blair

Marine ecosystem of Long Island, Middle Andaman and terrestrial ecosystem of Havelock Island have been surveyed during 10<sup>th</sup>-15<sup>th</sup> and 5<sup>th</sup>-13<sup>th</sup> December 2001 respectively, to assess their faunal communities. As a result of the surveys, 129 species of scleractinian corals, 10 species of gorgonids, 4 species of black corals, 2 species of ascidians, 12 species of echinoderms, 25 species of nudibranchs, 41 species of gastropods, 6 species of bivalves, 7 species of crabs, 3 species of shrimps and 17 species of fishes from marine ecosystem; 32 species of butterflies, 2 species of reptiles, 59 species of birds and 6 species of mammals were identified/observed from the terrestrial counterpart. Among them, the nudibranch *Ctratena peregrina* (Gemelin, 1791) was new to India, while the crabs *Xenocarcinus depressus* Miers, 1874; *Petrolisthes hastatus* Stimpson, 1858; *Petrolisthes lamarckii* (Leach, 1820) were new distributional records to Andaman and Nicobar Islands. Besides, 7 species of fishes from freshwater streams were also identified. Seventy five specimens of corals, 5 specimens of echinoderms and 20 specimens of freshwater fishes were registered in National Zoological Collection of the Centre. A manuscript on the Coral and its associated fauna in Rani Jhansi Marine National Park has been submitted for publication. Twenty chapters of the proposed book entitled, 'Ecology of faunal communities in Andaman and Nicobar Islands' have been edited and submitted to the publisher. Inputs have been provided to ZSI headquarters to include the gastropod *Nautilus pompilius* under Appendix-1 of CITES. Sanction has been

received from Indian Navy, Ministry of Defense, Government of India to conduct rapid EIA studies for the extension of runway at Campbell Bay and Sibpur. Seven species of sponges and seized material of gastropods have been identified for the National Institute of Ocean Technology, Port Blair and Police Department, Central Crime Station, Port Blair, on request. Dr. C. Sivaperuman, Scientist-C participated and presented a paper and as well co-chaired one technical session in the International Conference on Advances in Ecological Research held from 19<sup>th</sup>-21<sup>st</sup> December at Maharaja Ganga Singh University, Bikaner, Rajasthan. Dr. C. Raghunathan, Scientist-C & Officer-in-Charge, served as a member in the meeting on feasibility study of proposed Oceanarium held on 12<sup>th</sup> December 2011 at the Secretariat, chaired by the Chief Secretary, A&N Administration. Dr. C. Raghunathan also participated and presented papers in the Conference of 9<sup>th</sup> Indian Fisheries Forum held at Chennai during 19<sup>th</sup>-23<sup>rd</sup> December 2011.

#### Publications:

1. Tamal Mondal, C. Raghunathan and Ramakrishna, 2011. Addition of thirteen scleractinian corals as new record to Indian water from Rutland Island, Andamans. *Asian Journal of Experimental and Biological Sciences*, 2(3): 383-390.
2. Koushik Sadhukhan and C. Raghunathan, 2011. Diversity and distribution of Echinoderms in Rutland Island. *International Journal of Advanced Biological Research*, 1(1): 87-92.

3. Koushik Sadhukhan and C. Raghunathan, 2011. First report of two brittle star *Opiothela venusta* (Family: Ophiotrichidae) and *Dougaloplus echinatus* (Family: Amphiuridae) from Andaman and Nicobar Islands, India *World Journal of Zoology*, 6(4): 334-338.
4. C. Raghunathan and K. Venkataraman, 2011. Present status of Schedule-IV *Trochus niloticus* (Linnaeus, 1767) in the Andaman

and Nicobar Islands. *Proceedings of 9<sup>th</sup> Indian Fisheries Forum- Renaissance in Fisheries: Outlook and Strategies*, p.343.

5. C. Raghunathan, P.T. Rajan and K. Venkataraman, 2011. Diversity and distribution of fishes in Andaman and Nicobar Islands. *Proceedings of 9<sup>th</sup> Indian Fisheries Forum- Renaissance in Fisheries: Outlook and Strategies*, p.356.



Sea squirt, *Clavelina robusta* Kott



Coral, *Euphyllia ancora* Veron and Pichon



Coral, *Pectinia alcornonis* (Saville-Kent)



Coral, *Platygyra ryukyuensis* Yabe and Sugiyama



Nudibranch, *Cratena pennigera*



Nudibranch, *Risbecia pulchella*

## Western Regional Centre, Pune

During this month, 5 species of Collembola, 28 species of Mollusca, 4 species of Amphibia, 5 species of Reptilia, 18 species of Pisces and 4 species of Odonata were identified. Identification services were rendered to RFO, Indapur on birds, Dapoli Urban Bank Senior Science College, Dapoli, Ratnagiri District, on mangrove bivalves and the Department of Zoology, Government College of Arts, Science and Commerce, Sanquelim, Goa, on freshwater gastropods. A faunistic survey was conducted from 23<sup>rd</sup> November-2<sup>nd</sup> December, 2011. Shri S.P. Choubey, Director (Rajbhasa) of MoEF, New Delhi, visited the Centre from 27<sup>th</sup>-29<sup>th</sup> December 2011 for preparing and overseeing the work in connection with the ensuing inspection visit of the 3<sup>rd</sup> subcommittee of Parliament on Official Language. Dr. R. M.

Sharma, Scientist-D and Officer-in-Charge, delivered an invited lecture on "Insect Diversity in India" at Fergusson College, Pune on 8<sup>th</sup> December, under the UGC sponsored special lecture series. He also delivered an invited lecture on "Insects and Environment" for 'Jividha', an NGO, at Pune on 8<sup>th</sup> December 2011.

### Publications:

1. Pati, S.K. and R.M. Sharma. 2011. New record of a freshwater crab *Vanni travancorica* from Uttar Kannada district of Karnataka. *Bionotes*, 13 (4): 152.
2. Rao, M.V., S. K. Pati, D. Swain and R.M. Sharma. 2011. Marine Wood Borers. *Checklist of Indian Fauna, Zoological Survey of India*.  
<http://zsi.gov.in/checklist/Marine%20Wood%20borers.pdf>

## Erratum

The image of the dragonfly in WRC's section in the ZSI e-NEWS November 2011, page 12, is that of *Acisoma panorpoides* and not of *Diplacodes trivialis*. The error is regretted.



*Acisoma panorpoides*

## Southern Regional Centre, Chennai

The following faunal groups from Pallikarandai Marsh viz. Rotifera: 10 spp., Cladocera: 23 spp; freshwater testate amoebae: 19 spp; Insecta: Orthoptera: 5 spp; Odonata: 5 spp; Diptera: 6 spp., Gastropoda: 5 spp., and Reptilia: 15 spp., were identified during the month. One paper was published and four papers submitted for publication. Dr. K. Ilango, Scientist-D, attended

the 'National Consultation cum Workshop' on 'People's Biodiversity Register' organized by the National Biodiversity Authority on 22<sup>nd</sup> and 23<sup>rd</sup> December, 2011 at Bengaluru. For a collaborative project on 'Molecular Taxonomy of the sand fly', funded by ICMR, Dr. K. Ilango visited the Vector Control Research Centre (ICMR), Pondicherry and had discussions with

the scientists on 27<sup>th</sup> of the month. He was also appointed as the Regional Editor for (i) International Journal of Zoological Research, (ii) Journal of Entomology, (iii) Journal of Biological Sciences, (iv) Research Journal of Parasitology & (v) Asian Journal of Biological Sciences. Four identification services were rendered. Dr. V. M. Sathish Kumar, Sr. Zoological Assistant initiated the DNA barcoding work on Reptiles, Amphibians, Insects and Pisces. Six hundred pages of data recorded in the identified registers pertaining to Pisces, Amphibian, Reptilia and the Type Specimens of the Centre were digitised.

#### Publication:

J. Thilak. 2011. On a collection of zooplankton from the Singhori Wildlife Sanctuary, District Raisen, Madhya Pradesh. *Bionotes*. Vol. 13 (4): 144 - 145.



Molecular Systematics Lab at SRC/ZSI, Chennai

### Marine Biology Regional Centre, Chennai

During the month, 14 species of Protozoa, 5 species of sponges, 10 species of Crustacea, 2 species of Mollusca, 4 species of echinoderms and 9 species of marine fishes were identified out of the material collected from Palkbay and Gulf of Mannar Biosphere Reserve. Forty four identified species were digitized and metadata compiled. Fifty six species were introduced in the marine aquarium tank, collected from the waters of Chennai coast. Scientists of the Centre attended the 9<sup>th</sup> Indian Fisheries Forum, organized by the Central Marine Fisheries Research Institute (CMFRI), Kochi, at Chennai and Dr. C. Venkatraman, Scientist-C and

Officer-in-Charge presented a paper. He also attended the Institutional Animal Ethics Committee (IAEC) meeting at SRM college of pharmacy, Kattangulathur as a CPCSEA nominee and also served as member "Scientific committee", Chennai Science Festival and member for the selection committee, Tamil Nadu young women scientist award 2010 at Science city, Chennai. Eight species of confiscated molluscan shells were identified for Delhi police and Red Coral for Inspector General of Police, CID Forest cell, Bengaluru. Dr. C. Venkatraman, and Dr. Rajkumar Rajan, Scientist-C, supervised the research projects of



*Antennarius hispidus* (Bloch & Schneider)



*Heteromycteris oculus* (Alcock)

the JRF's of the Centre. Four hundred and ninety two students and tourists visited the marine aquarium, during the month.

#### Publication:

Bindu. L, 2011. *Testate amoebae of Bethuadahari Wildlife sanctuary, West Bengal (Protozoa: Rhizopoda)*, *Bionotes*, 13(4): 149-150.



*Ostracion cubicus* (Linnaeus)

### Western Ghat Regional Centre, Kozhikode (Calicut)

Three field surveys were conducted in Kotttooli wetlands and Peruvannamuzhy, Kozhikode district, Kerala and representative fauna collected. A survey team left for conducting the faunal survey of southern Western Ghats w.e.f. 27<sup>th</sup> of the month.

Descriptions of 159 species of Amphibia were compiled for the book on the Atlas of Endemic amphibians of Western Ghats. During the month, 5 species of Pteromalidae (Hymenoptera: Insecta) including a new species and 15 species of Odonata were identified. Four papers were published, 2 accepted and 2 submitted for publication. Phoresy of *Trissolcus* Ashmead (Hymenoptera: Platygasteridae) was reported for the first time from India. Taxonomic review of the Indian species of *Xenomerus* Walker (Hymenoptera: Platygasteridae) and a review of the Hymenopteran Egg parasitoids of Lepidoptera in India were done and the research papers on them accepted for publication. Besides, a taxonomic account on *Cyrtotypx* Delucchi (Hymenoptera: Pteromalidae) with the description of a new species from southern Western Ghats, Kerala, India was communicated. Identification service was rendered to the Zoology students of Govt. Arts and Science College, Calicut.

Dr. P. M. Sureshan, Scientist-C, supervised the research work of a JRF of the Centre. Dr. K. Rajmohana, Scientist-C, supervised the research work of two JRFs as well as that of two M. Sc. students from Govt. College, Madappally, Calicut, attached to the Centre for their project work.

During the month, 453 visitors paid their visits to the museum.

#### Publications:

1. Rajmohana K and Bijoy. C. 2011. First report of phoresy of *Trissolcus* Ashmead (Hymenoptera: Platygasteridae) from India. *Skaphion*, Platygasteroidea Planetary Biodiversity Inventory Project News letter, Vol. 5, No. 49-50, (05-12), 1-2.
2. Muhamed Jafer Palot and C. Radhakrishnan. 2011. Indian Edible Nest Swiftlet, *Aerodramus fusiphagus* (Hume). *ZSI- E-Newsletter*. Vol.3 (10), October 2011: 15-16.
3. Muhamed Jafer Palot. 2011. *Nammude Kadalaamakal* (Our Marine Turtles). *Eureka-Science Fortnightly for Children*. 16<sup>th</sup> December 2011: 4-8.
4. Muhamed Jafer Palot. 2011. *Puthiya Inam Thavalakale Kandethi* (New Discoveries of Frog Species). *Aranyam* (A Magazine of Kerala Forests & Wildlife Department), 25: 20-21.

**Insecta: Hymenoptera: Pteromalidae**



*Miscogasteriella jayasreeae* Sureshan & Narendran



*Uniclypea elongata* Sureshan

***New Addition to the Lab facilities at WGRC/ZSI, Calicut***



Leica DM 2000 microscope

**CHECK LIST OF FAUNA OF INDIA**

- ◆ Burrower bugs  
<http://www.zsi.gov.in/checklist/burrower%20bugs.pdf>
- ◆ Freshwater Crabs  
[http://www.zsi.gov.in/checklist/freshwater\\_crabs.pdf](http://www.zsi.gov.in/checklist/freshwater_crabs.pdf)

**ANIMAL OF THE MONTH****Bibron's Coral Snake**  
*Calliophis bibroni* (Jan, 1858)

[Text: C. Radhakrishnan. Photo: Muhamed Jafer Palot, Western Ghat Regional Centre, ZSI, Calicut]

The Bibron's coral snake, *Calliophis bibroni* (Jan, 1858) of the family Elapidae, is named after Gabriel Bibron, a French zoologist. It is a venomous snake, endemic to the Western Ghats (Karnataka, Kerala and Tamil Nadu). It has a cherry-red to dark purplish brown colour above and red beneath and with black crossbands. Its distribution has been described as fragmented. No information on its population exists. The species is found mainly in forests, usually in the loose humus, litter, sandy soil or under logs or debris. It is a nocturnal snake, seen in late evening and at times during day in the rainy season. It preys on other snakes or lizards. However, not much is known about its feeding behavior and venom toxicity. No fatalities or bites are recorded from this snake so far.

**Further reading:**

<http://www.iucnredlist.org/apps/redlist/details/177549/0>

<http://reptile-database.reptarium.cz/species?genus=Calliophis&species=bibroni>

## ZSI IN NEWS

**Exhibitor - Zoological Survey of India**

**दुनियाँ की सबसे छोटी माचिस**

अज्ञ विज्ञान केंद्रों के तीसरे दिन प्रदर्शनी में आई दुनियाँ की सबसे छोटी माचिस खासा आकर्षण का केंद्र रही। देश-विदेश की माचिसों के शोधार्थ अतिरिक्त परीक ने बताया कि उन्हें बचाने से ही कुछ अलग कर दिखाने का जल्बा था जिसकी वजह से यही यह मुकाम हासिल किया। जलपुर के रहने वाले श्री परीक 7 साल से विभिन्न तरह की माचिसों का संवर्धन कर रहे हैं, इस दुर्लभ स्टॉल में 10 मिलीमीटर लम्बी, 5 मिलीमीटर चौड़ी, 3 मिलीमीटर ऊँची दुनियाँ की सबसे छोटी माचिस देखने के लिए काफी लोग इकट्ठे हुए। धातुओं से बनी माचिस में लौटी की माचिस के अलावा 1967 के दौरान अमेरिका के कैलिफोर्निया की एक ऐसी माचिस थी जो जिसकी विधियों के प्रयोग के बाद उसमें गुणिमिटी कैलिफोर्निया का प्रोता फर्म निकलता था जिसको बचने के उपरान्त विश्वविद्यालय में टाईकन मित्र जा सकता था। इसके अतिरिक्त मैड्रो माचिस, लम्बा माचिस, स्टीडन की बनी बड़ी माचिस खासा आकर्षण का केंद्र थी।

**बाल वैज्ञानिकों ने खोजा समुद्र के जल को पीने योग्य बनाने का सबसे सरल व आसान तरीका**

जल के लिए एक और जहाँ पूरी दुनिया में महादुर्लभ दिखने जैसा महीन बन रहा है और जल-जल मिश्रित वाटर की बोतलें बेची जा रही हैं। वहीं बाल वैज्ञानिकों ने पूरी दुनिया में दो किताबें बेच में फैले समुद्र के दूधित जल को पीने योग्य बनाने के लिए सबसे सुगम और सरल तरीका इजाजत किया है। नैलसब है कि राजस्थान के अतिरिक्त पूरी दुनिया में बहुत से ऐसे क्षेत्र हैं जहाँ पीने योग्य जल का अभाव उत्पन्न है। ऐसी स्थिति में यह खोज मील का पत्थर साबित होगी है।

इसका श्रेय विज्ञान भेले में आये विज्ञान लेखी, शिव कुमार सोनी तथा विज्ञान प्रकाश को जाता है। जिन्होंने एक ऐसा मॉडल प्रस्तुत किया है, जिसमें काली लेब लगी वाली में दूधित जल डाला जाता है, उसके ऊपर एक बड़ी ट्रांसपेरेंट पन्नी के नीचे बड़ा कंटेनर लगा हुआ है। ट्रांसपेरेंट पन्नी के ऊपर गर्म पानी से जल वाष्पित होकर पीने योग्य शुद्ध जल नीचे कंटेनर में चला जाता है।

**RESULT OF BARC QUIZ**

The winners are invited to visit BARC. Expenses of this trip will be borne by BARC. The following students have won this coveted trip to BARC:

1. Mr. Bhavish K. Shrivastava, 11th Standard, St. Xavier's School, Mumbai, India
2. Mr. Anand Kumar, 10th Standard, Poo International School, Jaipur
3. Mr. Anand Mishra, 10th Standard, Poo International School, Jaipur
4. Mr. Anand Mishra, 10th Standard, DPS, Bhihi, Chhatgarh
5. Mr. Anand Shrivastava, 10th Standard, Central School, Poo Nagar, Chhatgarh
6. Mr. Anand Pandey, 10th Standard, St. V. International School, Jaipur, Rajasthan

**NPCIL QUIZ**

Nuclear Power Corporation, Rajasthan atomic power station has conducted the quiz to stimulate right sensibility towards nuclear energy. Sh. R.P. Saini, Senior Training Engineer NPCIL, added that familiarity of concepts used in production of electricity by Nuclear technology is vital for child scientists. It is essential to understand that electricity is part and parcel of everyday's life and Nuclear energy resources are the ultimate source available in nature to fulfill Electricity need of today & tomorrow. Presently NPCIL is operating 20 nuclear reactors in safe and environment friendly manner. 6 Nuclear plants are under construction stage.

The quiz winners are:

1. Anay Mishra, DPS, Bhihi, Chhatgarh
2. (i) Poo Sarawat, DAVAC Public School, Lakheri (ii) Alex Antony, Kendriya Vidyalaya, Kuttur, Kerala
3. Jai Chehani, St. Paul School, Bijnagar

**Zoological Survey of India**  
participation in  
**National Children's Science Congress-2011**  
organized by DST, Govt. of Rajasthan  
at Jaipur National University, Rajasthan  
from 27-31 December, 2011

National Children's Science Congress is a national programme being promoted by the National Council for Science & Technology Communication of the Department of Science & Technology, Govt. of India. It was started in the year 1993. NCSC had its modest beginning as an experiment in Gwalior, Madhya Pradesh in the early nineties and is continuing in the entire country with participation of around 7-8 lakh children every year in the age group of 10-17. This year the 19<sup>th</sup> NCSC is organized by DST, Govt. of Rajasthan at Jaipur National University, Jaipur, Rajasthan from 27<sup>th</sup>-31<sup>st</sup> Dec., 2011. The Hon'ble Governor Sh. Shivraj Patil and Sh. Ashok Gehlot, Chief Minister, Rajasthan inaugurated the 19<sup>th</sup> NCSC-2011, interacted with Child Scientists and visited Exhibition. Around 1,600 School Children's from all the States & Union territories are participating and presenting their projects. The organizers organized daily project presentation technical Session for Child Scientists, Quiz Competition, Video Conferencing, Face to Face programme with renowned Scientists, Tara Mandal Show, Sky watching, interaction with Scientists in Exhibition stall of different organizations and cultural programme.

A four members team under supervision of Dr. Gaurav Sharma, Scientist-C, ZSI, DRC, Jodhpur installed Zoological Survey of India stall in the Exhibition area of NCSC. School children's, delegates, Scientists, teachers and visitors visited and got the information on the issues of Wildlife, Ecosystems, Biodiversity and government efforts in the conservation of fauna.

## OUT OF THE BOX

## New Moth species sighted in Arunachal Pradesh

<http://www.newsreporter.in/new-moth-species-sighted-in-arunachal-pradesh>

## Spiders are farmers' friend: ICAR scientists

<http://ibnlive.in.com/generalnewsfeed/news/spiders-are-farmers-friend-icar-scientists/921923.html>

## Ravens use human-like hand gestures to communicate

<http://www.dailypioneer.com/pioneer-news/dont-miss-it/24300-ravens-use-human-like-hand-gestures-to-communicate-study.html>

## Inbreeding is key to bedbugs' success

[http://www.google.com/hostednews/afp/article/ALeqM5gl-30PdrznmeX1h\\_xbYIuXbfMU1w?docId=CNG.858b1c9b4e61e65eb7764010c93e843b.5e1](http://www.google.com/hostednews/afp/article/ALeqM5gl-30PdrznmeX1h_xbYIuXbfMU1w?docId=CNG.858b1c9b4e61e65eb7764010c93e843b.5e1)

PAINTINGS FROM ZSI HERITAGE ALBUM



**The Lynx**  
*Lynx lynx* Linnaeus, 1758