

# *ZSI e-NEWS*

The Monthly Electronic Newsletter of Zoological Survey of India

Volume - 03 :: Number - 06

June 2011



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## Headquarters, Kolkata

Extensive Faunal surveys were undertaken in the States of Himachal Pradesh and Uttarakhand and also in Darjeeling Hills and Sundarban areas of West Bengal. Local surveys were conducted in the wetland areas (Bortibeel) of North 24 Parganas and fish landing center of Canning, South 24 Parganas, West Bengal.

During the month, one species of nematode, *Dorylaimus bengalensis* Sen, Chatterjee & Manna was described as new to science.

Out of the material studied, one species of Coleoptera, *Nebria xanthacra* var. *nigricollis* Andrews is recorded for the first time from Uttar Pradesh. Three species of social wasps: *Polistes (Gyrostoma) tenebricosus* Lepeletier from Arunachal Pradesh, Mizoram and Nagaland; *Polistes (Gyrostoma) olivaceus* (De Geer) from Andhra Pradesh, Gujarat, Jharkhand, Nagaland and Orissa (this species is also a new record from Bangladesh and Pakistan); *Polistes (Gyrostoma) wattii* Cameron from Bihar, Haryana, Jammu & Kashmir, Jharkhand, Madhya Pradesh and Rajasthan are recorded for the first time.

Two species of Sea Anemones, *Edwardsia jonesii* and *Paracondylactis indicus* are new records from the coastal waters of Karnataka and one species of Echinodermata, *Leptopentacta javanicus* (Sluiter) (Echinodermata: Holothuroidea) is a new record from the West Coast of India. One species of Polychaeta, *Lumbrinereis pseudobificornis* Fauvel (Annelidae: Polychaeta) is reported for the first time from West Bengal. The tree frog (*Theloderma asper*) is found to be a new record to West Bengal State. This species is the second record of a canopy-dwelling frog from India. Two species of isopod Crustacea namely, *Alitropus typus* Milne Edwards, 1840 and *Nerocila madrasensis* Ramakrishna & Venkataramaniah, 1978 turned out to be new records to West Bengal and Orissa coast,

respectively. A species of fish, *Myripristis hexagona* (Lacepede, 1802) (Pisces: Holocentridae) has been found to be new record to Tamil Nadu coast.

During the month, the scientists of Headquarters identified, 3 species of Protozoa, 2 species of Pennatulacea (cnidaria), 1 species of Porifera, 8 species of Scleractinian Corals, 10 genera of nematodes, 5 species of Collembola, 25 species of Coleoptera, 9 species of Hemiptera, 1 species of Hymenoptera, 8 species of Isoptera, 6 species of Lepidoptera, 5 species of Odonata, 2 species of Orthoptera, 3 species of Earthworms, 11 species of spiders, 32 species of Mollusca and 13 species of Amphibia, from the States of Arunachal Pradesh, Assam, Himachal Pradesh, Jharkhand, Orissa, Tamil Nadu, Uttar Pradesh and West Bengal. Besides, 5 species of Reduviidae and Pentatomidae bugs from Kanyakumari Wildlife Sanctuary, Tamil Nadu were also identified. Apart from these, 300 locality records were Georeferenced for the programme on the Atlas of Western Ghats.

One hundred and forty six type specimens of Coleoptera were registered. Two specimens (Holotype & Paratype) of *Xenophrys* sp. collected from Assam and to be described as a new species to science was donated by Dr. S. D.



During the release of the ZSI publication "Animal Discoveries 2010" (View more at [http://zsi.gov.in/NB\\_Items/discovery/discovery2010.html](http://zsi.gov.in/NB_Items/discovery/discovery2010.html) and [http://zsi.gov.in/right\\_menu/Animal\\_disc/Animal%20Discovery%202010.pdf](http://zsi.gov.in/right_menu/Animal_disc/Animal%20Discovery%202010.pdf))



Biju, Delhi University, New Delhi to the Amphibia Section. Holotype of *Macrobrachium hooghliensis* was received from the Central Inland Fisheries Research Institute, Barrackpore, West Bengal.

Identification and advisory services were rendered on eleven lots of specimens, received from different organizations. Digital photographs of amphibians of Uttarakhand submitted by Dr. Karthikeyan Vasudevan, Scientist, Wildlife Institute of India, Dehradun, were identified.

One uncured Trophy of common Indian Hare received from the Divisional Forest officer, Cooch Behar Division, West Bengal for identification was confirmed as of Black napped Hare, *Lepus nigricollis* Cuvier. A sample of seized wildlife derivative stated to be Rhino-Horn received from the Divisional Forest Officer, Cooch Behar Division, West Bengal, was confirmed as a fake. Confiscated

specimens of *Gallus* sp. were identified for Wildlife Crime Control Bureau, Kolkata. Seized Seashells received from the Divisional Forest Officer, Noida, were identified and report submitted. A specimen of Seahorse received from the Divisional Forest Officer, Gautambudhha Nagar Forest Division, Noida, Uttar Pradesh was identified and report submitted.

During the month, nine research papers were published, twelve papers accepted and five papers submitted for publication.

Dr. K. Vijay Kumar, Director General, Fisheries Survey of India, Mumbai visited the different sections of Headquarters.

Shri Hem Pandey, Joint Secretary, Ministry of Environment & Forests, New Delhi and Participants of the workshop on "Strategies for digitization and mobilization of Natural History collection Data" visited different sections of Headquarters on 17<sup>th</sup> June, 2011.



During the Regional Training Workshop on "Strategies for Digitization and Mobilization of Natural History Collections Data"



"Exhibit of the Month" - Corals exhibited by ZSI at the Indian Museum, Kolkata on the occasion of the World Environment Day 2011



*Polistes (Gyrostoma) olivaceus**Polistes (Gyrostoma) wattii**Polistes (Gyrostoma) tenebricosus**Theloderma asper*, a canopy dwelling frog

Mr. S.R. Chandramouli, Research Scholar, Wildlife Institute of India, Dehra Dun visited the Amphibia section from 16<sup>th</sup> to 23<sup>rd</sup> June, to study the collections. Miss Swagata Mondal and Miss Payal Dutta Roy, Department of Zoology, Calcutta University, Kolkata, visited the Nematelminthes Section to study the specimens.

Sri K. C. Gopi, Scientist-E and Sri S. S. Mishra, Asstt. Zoologist attended the "Transboundary Diagnostic Analysis (TDA) Consultation Workshop for West Bengal" under the Bay of Bengal Large Marine Ecosystem (BoBLME) Project, organized by Fishery Survey of India at Kolkata on 9<sup>th</sup> June.

Twelve Scientists and scientific staff of the Headquarters were deputed to attend the Regional Training Workshop on "Strategies for Digitization and Mobilization of Natural History Collections Data" organized by GBIF, WII (nodal partner in India), ZSI, BSI and FRLHT held on 15<sup>th</sup>-17<sup>th</sup> June 2011, at Hotel Pan

Asia Continental, Kolkata.

Dr. K. A. Subramanian, Scientist-C, participated in screening of project proposals on birds for Department of Science and Technology at Delhi University, New Delhi.

Training & Extension Division of the Headquarters celebrated the "World Environment Day" on 7<sup>th</sup> June at Annandale Hall, New Alipore, Zoological Survey of India, Kolkata. Dr. A. K. Sanyal, Scientist-F presided over the function and Dr. Kailash Chandra, Scientist-F delivered a lecture on "Global Warming". During this occasion, five research scholars of ZSI Headquarters presented their research works in perspectives of our environment.

The Museum and Taxidermy Section, in collaboration with Indian Museum, Kolkata, displayed corals as the "Exhibit of the Month" at the Indian Museum, Kolkata on the occasion of the World Environment Day on 5<sup>th</sup> June 2011.

Dr. K. Venkataraman, Director, Zoological



Survey of India attended the following meetings/functions:

The DCM meeting on 3<sup>rd</sup> June at the Ministry of Environment & Forests, New Delhi; 'World Environment Day' celebration on 5<sup>th</sup> June at the Ministry of Environment & Forests, New Delhi; the Release of Book on "Animal Discoveries 2010" brought out by ZSI; inaugurated the DNA bar coding Laboratory and Microscope Facility at Southern Regional Centre, Chennai on 8<sup>th</sup> June; MAB committee meeting at Ministry of Environment & Forests, New Delhi on 23<sup>rd</sup> June; DPC meeting at the Ministry of Environment & Forests, New Delhi on 28<sup>th</sup> June; the Project meeting and the Selection Committee (as chairman) for the Recruitment of Research Associate and Junior Research Fellow in the State Forest Department of Chhattisgarh at Raipur, Chhattisgarh on 29<sup>th</sup> June, 2011.

#### **Publications:**

1. Girish Kumar, P. 2010. New distributional records of some species of the subgenus *Polistes* (*Gyrostoma*) Kirby (Hymenoptera: Vespidae) from various states of India and adjacent countries. *Rec. zool. Surv. India*, 110 (4):41-45.
2. Kushawaha, R.K. and Hegde, V.D. 2011. New record of the species *Nebria xanthacra* var. *nigricollis* Andrews from Uttar Pradesh. *Rec. zool. Surv. India*, 110 (4): 67-68.
3. Maramita Saha Sarkar, De, J. K. and

Chanchal Kumar Manna, 2011. Identification of dorsal guard hairs of five species of the family Cercopithecidae (Primates: Mammalia). *Current Science*, 100 (2):1725-1728.

4. Pattanayak, J.G. and Santanu Mitra, 2010. Sponges of Wetlands of West Bengal. *J. Environ. & Sociobiol.*:7(2):197-198.
5. Santanu Mitra and Pattanayak, J.G. 2010. First record of two species of Sea Anemones *Edwardsia Jonesii* and *Paracondylactis indicus* from Karnataka, India. *Rec. zool. Surv. India*, 110 (Part-4):77-79.
6. Santanu Mitra and Mousumi Roy, 2010. First record of *Lumbrinereis pseudobificornis* Fauvel (Annelidae: Polychaeta) from West Bengal, India. *Rec. zool. Surv. India*, 110 (Part 4):81-82.
7. Santanu Mitra, Chitra, J. and Pattanayak, J. G. 2010. New distributional record of *Leptopentacta javanicus* (Sluiter) (Echinodermata: Holothuroidea) in the West Coast of India. *Rec. zool. Surv. India*, 110 (Part-4):83-85.
8. Santanu Mitra and Pattanayak, J.G. 2010. A note on the freshwater Bryozoa of West Bengal Wetlands. *J. Environ. & Sociobiol.* : 7(2):199-200.
9. Sen, D., Chatterjee, A. and Manna, B. 2011. A new species of *Dorylaimus* Dujardin, 1845 (Nematoda: Dorylaimidae) from West Bengal, India. *Nematologia Mediterranea*, 39:3-8.

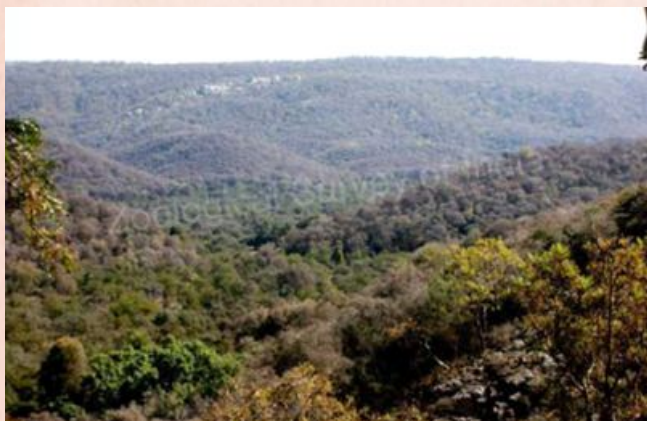
#### **Desert Regional Centre, Jodhpur**

During the month, 4 species of Odonata, 6 species of Lepidoptera, 2 species of Coleoptera and 3 species of Pisces were identified from various environs of Rajasthan. Identification service was rendered to the Rajasthan State Forest Department, Jodhpur on Mollusca, Pisces and Reptilia. One research paper was published. Ten species of Lepidoptera and Odonata were digitized. 329 entries of

identified fauna were posted in the faunal Database of the Centre. Dr. Sanjeev Kumar, Scientist-C delivered lectures to the participants of the 66<sup>th</sup> Mahila Forest Guard Training Batch from the Desert Forest Training Centre, Rajasthan State Forest Department, Jodhpur, on 3<sup>rd</sup> June and to the women participants of Giants International Group of Jodhana, Saheli under the awareness campaign



programme at Geeta Bhawan, Jodhpur on 10<sup>th</sup> June. Quarterly Rajbhasha Workshop was held at the Centre on 28<sup>th</sup> June. 252 entries were posted in the library database, employing the software, *e-granthalaya*. 184 visitors visited the Museum.



A view of Sariska Tiger Reserve

### Publication

Sundararaj, R. and Sharma, G. 2011. Parasitoids of Scales and Mealybugs (Coccoidea: Hemiptera) infesting Sandal (*Santalum album* Linnaeus) in South India. *Annals of Forestry- An International Journal of Forest Sciences*. 19(1):150-156.



A view of Aravalli Hills around Sariska Tiger Reserve



Sambar, *Cervus unicolor*



White-throated Kingfisher(*Halcyon smyrnensis*)

## Freshwater Biology Regional Centre, Hyderabad

Studies on the limnological/wetland faunal diversity of Cumbum Lake, Andhra Pradesh have been initiated. Out of the named collections, 4 species of freshwater Cladocera and 10 species of freshwater fishes were digitized. Regular monthly studies for detailed limnoecological profile of few urban/semi urban lakes included 4 field visits covering 2 raw-water reservoirs, 2 irrigation tanks, besides one 'managed' lake ecosystem. Six species of large sized cladocerans-the sidids (Sididae), moniids (Moinidae) and the bosminids (Bosminidae) were sorted and identified and drawings made. Final report writing on the limnological profile and faunal



*in situ* estimation of Secchi disc transparency, photic depth etc.,  
In a lake-ecosystem



inventory of major wetland groups in Kolleru Lake is in progress. One research paper has been submitted. As part of the studies on fish fauna of Budha-Balanga Estuaries, taxonomic descriptions of 15 species of estuarine fishes have been completed. A talk on 'Island Ecosystem and Fish Faunal Diversity' was delivered by Dr. D. V. Rao, Scientist-C, at Lotus National High School, Hyderabad.



*Anas poecilorhyncha*, in a eutrophic lake

### High Altitude Regional Centre, Solan

A field survey was conducted in Chail Wildlife Sanctuary on 28<sup>th</sup> June and representative samples of seven faunal groups collected. A paper was reviewed for an international journal. Identification and library services were rendered to Mr. Daljit Singh, Lecturer, Shahpur



Paradise flycatcher

Government College, Kangra.

A delegation of the Parliamentary Committee on Rajbhasha carried out inspection regarding the use of the official language by the Centre, on 15<sup>th</sup> June at Bilaspur.



Members of the Parliamentary Committee with the officials of HARC, during the meeting held at Bilaspur

### Marine Biology Regional Centre, Chennai

Three species of sea grass associated foraminiferans, 2 species of ostrocods, 14 species of crabs, 16 species of molluscs, 17 species of echinoderms and 8 species of marine fishes were identified and registered during the month, out of the material collected from Gulf of Mannar Marine Biosphere Reserve. Identification service was rendered on two species of Jelly fishes to research scholars of Anna University, Chennai. A manuscript for an international journal was reviewed and

comments offered. Two research papers were submitted for publication during the month. A checklist of Marine Mammals of India, finalized at the Centre is uploaded in the departmental website [www.zsi.gov.in](http://www.zsi.gov.in)

Dr. Rajkumar Rajan, Scientist-C participated in the Regional Training Workshop "Strategies for digitization and mobilization of Natural History Collection data", jointly organized by GBIF, ZSI, BSI & WII, at Kolkata, from 15<sup>th</sup> -17<sup>th</sup> June.



**Publication:**

P.Padmanaban and K. P. Dinesh, 2011. A Checklist of Marine Mammals of India. <http://zsi.gov.in/checklist/Marine%20mammals%20of%20India.pdf>



*Asropecten polycanthus*



*Carinosquilla multicarinata*

### Northern Regional Centre, Dehra Dun

A field survey was undertaken in the Jhilmil Jheel Conservation Reserve and representative fauna collected. 6 species of mammals and 34 species of birds were also observed during the survey. Besides, three intensive surveys were undertaken in Dehra Dun District and apart from collecting the representative fauna, 4 species of mammals and 20 species of birds were also observed. Out of the fauna collected from Haryana state, 6 species of soil nematodes were identified.

Dr. Archana Bahuguna, Scientist-C participated in the Regional Training Workshop "Strategies for digitization and mobilization of

Natural History Collection data", jointly organized by GBIF, ZSI, BSI & WII, at Kolkata, from 15<sup>th</sup> -17<sup>th</sup> June. During her tour to ZSI, Kolkata, she also collected hair samples of 11 lagomorph species for Trichotaxonomic studies.

Dr. John Taan, Head of 'Living Altas', Sydney, Australia, visited the Centre and interacted with the scientists.

**Publication:**

Sharma, Vinita, 2011. Nematode Diversity on *Acacia* spp. In India - an overview. *Annals of Forestry*, 19(1):169-172.



Dr. John Taan, Head of 'Living Altas', Sydney, Australia, with the scientists of NRC, at Dehradun



*Axis axis* at Jhilmil Jheel Conservation Reserve



## Marine Aquarium cum Regional Centre, Digha

The aquarium received an average of 240 visitors per day during the month. 128 examples of live marine ornamental exhibits were collected for exhibiting in the aquarium tanks. Efforts were taken to beautify the tanks and to exhibit several marine fauna. The new tanks with improved lighting arrangements, circulation heads and external filtration sump and a few more tanks with indigenous filtration sumps and CFL lights turned out to be attractive to visitors. One tank was prepared exclusively for sea snakes and was stocked with mangrove snakes. Other attractions among the exhibits were the Bengal sergeant (*Abudefduf bengalensis*), Tiger perch (*Terapon jarbua*), Sucker fish (*Echeneis naucrates*) and the Domino Damselfish (*Dascyllus trimaculatus*). The improved tank arrangements have resulted in almost zero mortality in the exhibits and the mangrove sea snakes stocked, gave birth to

eight juveniles.

Apart from the aquarium maintenance, representative examples of fishes were collected through local surveys for taxonomic studies and all were identified. Out of the collection made, Painted Sweet-lips (*Diagramma picta*), Blue-barred parrotfish (*Scarus ghobban*) and Pinecone soldier fish (*Myripristis murdjan*) turned out to be collected for the first time from Digha area. Advisory services were rendered to 2 schools and one hobbyist on aquarium maintenance. Dr. Prasanna Yennawar, Scientist-C & Officer-in-Charge of the Centre participated in a meeting with the World Bank consultants at the Institute of Environmental Studies & Wetland Management, Salt Lake, Kolkata on 6<sup>th</sup> June, for finalising the procurement plan for ongoing ICZM Project at the Centre. A research manuscript on seven new records of goat fishes (Family: Mullidae)

### Recently renovated Marine aquarium tanks at MARC/ZSI, Digha







Collecting live fauna

*Diagramma picta**Myripristis murdjan**Scarus ghobban*

A Mangrove snake

### North Eastern Regional Centre, Shillong

During the month, backlog collections of 8 species of amphibians, 3 species of reptiles and 3 species of aquatic Hemiptera were identified and registered. Identification service was rendered to the Jawaharlal Nehru College, Pasighat, Arunachal Pradesh, on 4 species of Pisces. A local field trip to survey the long horn beetles was conducted at Laitkor peak, Shillong on 22<sup>nd</sup> June.

Mrs. J. Lyngdoh, Scientist-C attended the Trainer Development Programme on Right to information (TDP-RTI) at ISTM, New Delhi, from 20<sup>th</sup>-24<sup>th</sup> June. Mrs. J. Lyngdoh, also attended the review meeting of Secretary, Environment & Forests, Government of India with chief secretaries of North eastern states at North East Development and Finance Corporation Ltd. (NEDFI), Guwahati on 30<sup>th</sup>



June. Mrs. I. J. Kharkongor, Scientist-C and Mr. A. Rana, Senior Zoological Assistant, attended the 1<sup>st</sup> meeting of Town official language implementation committee (TOLIC) at Assam Rifles, Laitkor, Shillong on 23<sup>rd</sup> June.

The staff of the Centre celebrated the World Environment Day on 3<sup>rd</sup> June, 2011 and organized a tree plantation programme within the office premises.



Tree plantation programme organized by the staff of NERC on the occasion of World Environment Day, 2011

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

A field survey was conducted in the Pennera Estuary, Nellore district, Andhra Pradesh and representative estuarine fauna comprising of molluscs, crustaceans and fishes were collected. Bivalve population was the most predominant among the molluscs. During the survey, commercial bivalve fishing in traditional methods for industry purpose were also seen in some parts of the estuary. Numerous dead marine bivalve species were seen on the river bed at Mudhivarthipalem about 9 km upstream from the river mouth, where the salinity drops

down to near freshwater level. Six species of fishes were identified from the collection of Chilika Lake, Odisha. Identification and advisory service was rendered to a research scholar of the Central Institute of Freshwater Aquaculture, Bhubaneswar.

Dr. L. Kosygin Singh, Scientist-C and Officer-in-Charge of the Centre attended the training on Trainers' Development Programme on Right to Information from 20<sup>th</sup>-24<sup>th</sup> June, at the Institute of Secretariat Training and Management, New Delhi.



A view of Pennera Estuary, Andhra Pradesh



Collecting molluscs from Pennera Estuary



### Central Zone Regional Centre, Jabalpur

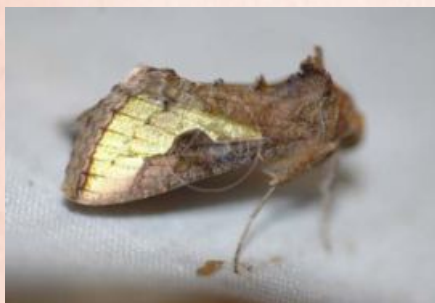
During the month, backlog collections of 16 species of Coleoptera, 30 species of Hemiptera, 8 species Lepidoptera (moths), 3 species of Mantodea, 14 species of Odonata (dragonflies) and 6 species of Mollusca were identified and registered from Singhori Wildlife Sanctuary, Madhya Pradesh. A checklist of valid Indian rodent taxa (Mammalia: Rodentia) was revised and uploaded in the departmental website, (view [http://zsi.gov.in/checklist/Valid\\_Indian\\_Rodents.pdf](http://zsi.gov.in/checklist/Valid_Indian_Rodents.pdf)). Two manuscripts on

Indian endemic species of Mammalia and Lepidoptera (Sphingidae, Zygaenidae) were prepared for submission. Undergraduate and Post-graduate students from Home Science College, Jabalpur visited the museum.

#### Publication:

M. S. Pradhan and S. S. Talmale. 2011. A checklist of valid Indian Rodent Taxa (Mammalia: Rodentia), updated till May 2011. [http://zsi.gov.in/checklist/Valid\\_Indian\\_Rodents.pdf](http://zsi.gov.in/checklist/Valid_Indian_Rodents.pdf)

### Moths of Singhori Wildlife Sanctuary, Madhya Pradesh



*Plusia orichalcea* Fabricius



*Hyposidra talaca* Walker



*Meganoton rufescens* (Butler)



*Achaea janata* Linnaeus



*Sameodes cancellalis* (Zeller)



*Diaphania indica* (Saunders)

### Andaman and Nicobar Regional Centre, Port Blair

Faunal surveys were conducted in the marine and terrestrial ecosystems of Saddle Peak National Park and its adjoining Seas, Little Andaman and South Andaman during 29<sup>th</sup> May-10<sup>th</sup> June. A total of 107 species of scleractinian corals, 10 species of echinoderms, 16 species of nudibranchs, 2 species of polyclads, 23 species of molluscs, 10 species of crabs, 3 species of marine fishes, 18 species of freshwater fishes, 46 species of butterflies were identified, and 49 species of birds were

observed. Among the species, the nudibranch *Thuridilla albopustulosa* Gosliner, 1995 and the polyclad *Pseudobiceros apricus* Newman and Cannon, 1994 were new additions to Indian waters. Besides, 75 specimens of corals, 2 specimens of echinoderms and 73 specimens of gorgonids were registered in the National Zoological Collection of the Centre while 40 specimens of insects were pinned. Ten species of air-craft killed birds were identified as per the request of the Commander, Station Flight



Safety Officer, INS Utkrosh, Port Blair. A project proposal on the 'Status of coral and its associated fauna in Rani Jhansi Marine National Park, A&N Islands' has been submitted to the MFF-IUCN for financial grant. Manuscripts on the 'Diversity and distribution of corals and its associated fauna in Great Nicobar Island' and 'Studies on the Inglis Island Sanctuary with special reference to molluscs, fishes and birds' have been submitted for publication. The revised version of the symposium volume on the 'Recent Advances in Biodiversity of India' containing 61 chapters has been compiled and submitted to ZSI headquarters for publication. Apart from those, 350 references pertaining to the Great Nicobar Biosphere Reserve were collated for the publication as a compendium. Dr. C. Raghunathan, Scientist-C & Officer-in-Charge attended the Working Group Meeting for 12<sup>th</sup> Five Year Plan for A&N Administration held at Dept. of Environment and Forest, Port Blair on 10<sup>th</sup> June; served as a Member in the Interview Committee constituted for the

selection of Field Officers in National Sample Survey Organization, Port Blair on 21<sup>st</sup> June and attended the Man and the Biosphere Committee Meeting at Ministry of Environment and Forests, New Delhi on 23<sup>rd</sup> June.

#### **Publications:**

1. Tamal Mondal, Raghunathan, C. and Ramakrishna, 2011. Occurrence of Seven Scleractinian Corals in Ritchie's Archipelago, Andaman Islands of India. *Proceedings of Zoological Society*, 64(1):57-61.
2. Tamal Mondal, Raghunathan, C. and Ramakrishna. 2011. New Record of Six Scleractinian Corals to Indian Water from Rani Jhansi Marine National Park, Andaman & Nicobar Archipelago. *International Journal of Science and Nature*, 2(2): 321-326.
3. Sivaperuman, C., 2011. Vertabrate diversity in the Thar Desert, India. 115-128. In: *Sand Dunes: Ecology, Geology and Conservation*, (Ed.) Cory D. Galvin, Nova Publishers, New York.



Emperor Angelfish,  
*Pomacanthus imperator*



Coral reef fish,  
*Heteropriacanthus cruentatus*



Sinuous cup coral,  
*Symphyllia valenciennesi*



Echinoderm,  
*Pontometra andersoni*



Echinoderm,  
*Comanthina nobilis*



Ascidian,  
*Atriolum robustum*



## Southern Regional Centre, Chennai

During the month, 5 species of Cladocera, 1 species of Ostracoda, 4 species of blattids, 2 species of membracids, 1 species of Cercopidae: Homoptera, 1 species of Reduviidae: Hemiptera, 10 species of fishes and 15 species of reptiles were identified from Southern Eastern Ghats. Two research papers were published. Two identification services were rendered which involved the identification of 15 species of fishes that included a new record of a tetraodontid fish from Muvattupuzha River, Kottayam District, Kerala. Further, one manuscript was refereed for an outside journal. The Biodiversity Day was celebrated on 6<sup>th</sup> June with participants from a rural school in Ambur. Oratorial competition was held and lectures and awareness programmes were arranged. The function was inaugurated by the Director, ZSI, Dr K. Venkataraman who also gave away the prizes to the winners. The Director, ZSI also inaugurated the Instrumentation Lab and the DNA Lab on 8<sup>th</sup> June 2011. The function was attended by C. Radhakrishnan, and G. Thirumalai, Addl. Directors, Western Ghats Regional Centre, Calicut and Headquarters, Kolkata, respectively. The scientists of the Centre participated in the meeting conducted

by the Director, ZSI in connection with the preparation of the Vision Document of ZSI.

Dr. K. Remadevi, Scientist- E and Officer in Charge attended the Board Meeting of the Trustees of the Chennai Snake Park on 25<sup>th</sup>.

### Publication:

1. J. Thilak. 2010. Some freeliving protozoa (Rhizopoda) from Veerangana Durgavati Wildlife Sanctuary, Damoh District, Madhya Pradesh, India. *Vaniki Sandesh*. Issue-4, P. 27-30.
2. R. Aengals, V.M. Sathish Kumar & Muhamed Jafer Palot. 2011. Updated Checklist of Indian Reptiles. <http://zsi.gov.in/checklist/Checklist%20of%20Indian%20Reptiles.pdf>



New record of *Tetraodon leopardus* from Muvattupuzha



During the inauguration of the DNA and microscopy laboratories at SRC/ZSI, Chennai



### Arunachal Pradesh Regional Centre, Itanagar

The Regional Training Workshop on "Strategies for digitization and mobilization of Natural History Collection data", jointly organized by GBIF, ZSI, BSI & WII at Kolkata, was attended by Dr. Gopinathan Maheswaran, Scientist-C and Officer-in-charge of the Centre, from 15<sup>th</sup>-17<sup>th</sup> June. Dr. G. Maheswaran also participated in the 'Review meeting of Secretary, MoEF with Secretaries of North-Eastern states' at Guwahati on 30th June, where in the Secretary MoEF insisted the forest department personnel of north-eastern states to consult ZSI and BSI apart from other scientific institutions before submitting any project proposals to the Centre seeking funds for various developmental activities in their respective states. 15 volumes (of the total 16) of the 'Hand Book of the Birds of the World' by

Lynx Edicions, Spain, were added to the library at the Centre. Dr. Anwarudhin Choudhuary, an eminent naturalist-cum-DC, North Lakhimpur of Assam visited the Centre. Over 25 school children visited the library and museum, during the month.



Survey team of APRC, crossing the Noa-Dehing River



White-vented Myna



Himalayan Striped Squirrel

### Gangetic Plains Regional Centre, Patna

A field survey was conducted in different localities of Bihar state. Representative faunal elements (approx. 51 species) of the family Noctuidae were collected. Out of the Zooplankton samples collected from the River Damodar in Jharkhand and West Bengal, 6 species of Rotifera and 2 species of Cladocera were identified. Two popular articles were submitted. Three research scholars of Magadh

University visited the Centre for Library consultation. The Official Language meeting and the Hindi Karyashala were organized on 30<sup>th</sup> June. The world environment day 2011 was celebrated. Thirty one school students and eight Postgraduate students visited the museum. A video on the Blackbuck (*Antelope cervicapra*) is uploaded in the departmental website (view <http://zsi.gov.in/video2.html>).



Northern pin tail, *Anas acuta*

Mud puddling of Butterflies

### Sunderban Regional Centre, Canning

One local survey was conducted in the Canning landing centre and Dabu and representative faunal sample collected. Seven species of fishes were identified and registered.



Prawn heads for sale in the Canning Fish Market



Abundance of gastropods (Cerithidae) in Matala River



Sorting various species of Fishes, Prawns and Crabs

### Western Regional Centre, Pune

During the month, 7 species of Acrididae, 1 species of aquatic Coleoptera, 4 species of Reptilia, 1 species of Amphibia, 20 species of Actinopterygii and 6 species of freshwater crabs were identified. Two chapters were

submitted on Aquatic Coleoptera and Pentatomidae (Hemiptera: Insecta) for the faunal document on Maharashtra (*State Fauna Series*) and three research papers were submitted for publication. A skin sample



received from the Maharashtra Forest Department, Kudal was identified as that of the Indian Muntjac (*Muntiacus muntjak*). Besides, 49 acridid grasshoppers received for identification from ISEC, Bengaluru, 74 fish specimens of Bhima River, Gulbarga District, Karnataka, received from Walchand College of Arts & Science, Solapur, 3 amphibian specimens of Solapur and 23 freshwater molluscs received from Deccan Gymkhana and ELA foundation, Pune were identified and identification service

rendered. Dr. R. M. Sharma, Scientist-D and Officer-in-Charge attended the High Level Monitoring Meeting (HLMC) for Eco-Sensitive Zone (ESZ) Mahabaleshwar, Panchgani, Maharashtra, on invitation and gave presentation on faunal Diversity of Northern Western Ghats and its conservation significance on 10<sup>th</sup> June. He also attended the State Wildlife Board Meeting at Mantralaya, Mumbai on 28<sup>th</sup> June.



Skin sample of Indian Muntjac



*Polypedates maculatus*



*Tessarotoma papillos*

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

A field survey was undertaken in Kozhikode district, Kerala. During the month, 2 species of Pteromalidae (Hymenoptera), 7 species of Odonata and 7 species of Centipedes (Chilopoda: scolopendro-morpha) were identified. Two new species, namely *Ischyroptyx biharensis* Sureshan, *Merismomorpha intermedia* Sureshan (Pteromalidae: Hymenoptera: Insecta) were described.

Five research papers and a popular article were published and an interactive identification system (IIS) for the common genera of Platygastriid egg parasitoids of Rice ecosystem in Kerala, India, developed at the Centre, has been uploaded in the departmental website. Besides, four research papers were submitted to various journals.

Three identification and advisory services were rendered to the students of Annamalai University, Tamil Nadu; Chittoor College, Palakkad, Kerala and refereed a research paper for a journal.

The World Environment Day was celebrated at the Centre in collaboration with 'SEED Mathrubhumi' on 6<sup>th</sup> June. During the celebrations, a Quiz competition for high school students from 17 schools of Kozhikode District was conducted based on the theme "Environment & Man". Dr. P. M. Sureshan, Scientist-C also delivered a talk on the theme.

Dr. Muhamed Jafer Palot, Asstt. Zoologist delivered lectures on "Biodiversity of Kerala" to the students of Govt. A. U. P. School, Karuvattur, Kozhikode on 16<sup>th</sup> June and to the students of Govt. U.P. School, Thiruvannur, Kozhikode on 29<sup>th</sup> June.

C. Radhakrishnan, Scientist-F and K. Rajmohana, Scientist-C, participated in the Regional Training Workshop "Strategies for digitization and mobilization of Natural History Collection data", jointly organized by GBIF, ZSI, BSI & WII at Kolkata, from 15<sup>th</sup> -17<sup>th</sup> June.

During the month, 162 visitors paid their visits to the museum.



**Publications:**

1. P. M. Sureshan, 2010. Taxonomic studies on a collection of Pteromalidae (Hymenoptera: Chalcidoidea) from Patna and nearby districts of Bihar with the description of two new species. *Rec. zool. Surv. India*: 110(4): 51-66(released in 2011).
2. Dinesh K. P, Radhakrishnan, C, Gururaja K.V. and Muhamed Jafer Palot. 2010. Range extension of *Raorchestes chromasynchsi* (Biju & Bossuyt) (Amphibia: Anura: Rhacophoridae) in Western Ghats, India. *Rec. zool. surv. India*: 110 (4):31-35 (released in 2011).
3. K. P. Dinesh, C. Radhakrishnan, K.V. Gururaja, K. Deuti and G. Bhatta. 2011. A Checklist of Amphibia of India. Updated till June 2011- Online Version.  
[http://zsi.gov.in/checklist/Amphibia\\_final.pdf](http://zsi.gov.in/checklist/Amphibia_final.pdf)
4. R. Aengals, V.M. Sathish Kumar & Muhamed Jafer Palot. 2011. Updated Checklist of Indian Reptiles.  
<http://zsi.gov.in/checklist/Checklist%20of%20Indian%20Reptiles.pdf>
5. Muhamed Jafer Palot and C. Radhakrishnan. 2011. International Year of Bats (In Malayalam Vernacular- *Vavvalukale ariyanayi oru antharashtra varsham*). *Eureka* (Science fortnightly for children; a publication of the Kerala Sastra Sahithya Parishad), 33 (2): 4-8.
6. Rajmohana, K., Bijoy, C and C. Radhakrishnan. 2011. Interactive Identification System (IIS) for the common genera of Platygastriid egg parasitoids of Rice ecosystem in Kerala (India).  
[http://zsi.gov.in/right\\_menu/IIS/index.html](http://zsi.gov.in/right_menu/IIS/index.html)

**New species Discoveries (Hymenoptera: Insecta)***Merismomorpha intermedia* Sureshan*Ischyroptyx biharensis* Sureshan

Dr. Muhamed Jafer Palot, Asstt. Zoologist delivering lecture on Biodiversity, during the visit of the students of Govt. A. U. P. School, Karuvattur, and Govt. U. P. School, Thiruvannur, Kozhikode, to the museum at WGRC, Calicut





During the World Environment Day 2011 celebrations at WGRC, Calicut  
(view more at <http://www.mbiseed.com/story1.php?id=14420>)

## ANIMAL OF THE MONTH

### Noble Feather Star

*Comanthina nobilis* (P. H. Carpenter, 1884)



[Text & Photo: Dr. C. Raghunathan, Andaman & Nicobar Regional Centre/ZS, Port Blair  
Photographed off Twin Island, North Andaman, Andaman Sea at a depth of 7 m.]

The noble feather star *Comanthina nobilis* (P.H. Carpenter, 1884) is an Echinoderm belonging to the class Crinoidea and family Coamsteridae. Crinoids flourished during the Paleozoic era, beginning in the Cambrian and increased in abundance to a climax in the Mississippian.

According to Moore, Lalicker and Fisher (1952), about 5000 species of crinoids have lived and died out in past geological ages. At present there are about 630 species of living crinoids, of which 550 are feather stars and the remaining are known as sea lilies. In India, the genus *Comanthina* is



represented by only two species namely, *Comanthina nobilis* and *Comanthina schlegeli*. Besides India, *Comanthina nobilis* is known to occur in Great Barrier Reef, Indonesia, Malaysia, New Caledonia, Philippines and Sri Lanka.

Externally *Comanthina nobilis* is in attractive colours including green, blue-green, black etc. Tips of the pinnules are yellow in colour. The mouth portion is located at the margin of the central disc. Arms are 50-140 in number without cirral ornamentation. This species is sexually dioecious, but not sexually dimorphic (male individuals do not look different anatomically than female individuals). Breeding extends for 1-2 months between January and October. Typically males spawn first, and this stimulates the discharge of eggs which are thus fertilized immediately upon extrusion. *Comanthina nobilis* is a ciliary mucoid suspension feeder and feeds on amphipods, copepods, diatoms, zooplankton, protozoans and detritus particles. When feeding, the arms and pinnules are held outstretched and

the podia stay erect. This species is mostly found both on dead and live corals (mainly on *Porites* sp.) at a depth range of 6m-40m.

#### Further Reading:

1. Messing, C.G., (1998) A revision of the Recent Indo-West Pacific comatulid genus *Comaster* Agassiz. Part 1: The type species of *Comaster* and *Phanogenia* Lovén (Echinodermata: Crinoidea: Comasteridae). *Invertebrate Taxonomy* 12: 191-209.
2. Carpenter, P.H., (1884) Report on the Crinoidea collected during the voyage of H.M.S. Challenger, during the years 1873-1876. Part I. The Stalked Crinoids. Report on the Scientific Results of the Voyage of H.M.S. Challenger, Zoology 11(32), xii + 442, 62 pls.
3. Clark, A.H., (1931) A monograph of the existing crinoids. 1(3) Superfamily Comasterida. *Bulletin of the United States National Museum* 82. viii + 816 pp., 82 pls.
4. <http://www.marinespecies.org>

## INTERACTIVE IDENTIFICATION SYSTEM

[http://zsi.gov.in/right\\_menu/IIS/index.html](http://zsi.gov.in/right_menu/IIS/index.html)

## VIDEO

Blackbuck

<http://zsi.gov.in/video2.html>

## CHECK LIST OF FAUNA OF INDIA

1. Marine Mammals of India

<http://zsi.gov.in/checklist/Marine%20mammals%20of%20India.pdf>

2. Updated Checklist of Indian Reptiles.

<http://zsi.gov.in/checklist/Checklist%20of%20Indian%20Reptiles.pdf>

3. Valid Indian Rodent Taxa- Updated till May, 2011

[http://zsi.gov.in/checklist/Valid\\_Indian\\_Rodents.pdf](http://zsi.gov.in/checklist/Valid_Indian_Rodents.pdf)

4. A Checklist of Amphibia of India. Updated till June 2011-Online Version.

[http://zsi.gov.in/checklist/Amphibia\\_final.pdf](http://zsi.gov.in/checklist/Amphibia_final.pdf)



## ZSI IN NEWS

### **ZSI Centre discovers 5 species of animals**

<http://www.thehindu.com/todays-paper/tp-national/tp-kerala/article2152576.ece>

### **Inter School Quiz Competition hosted by Zoological Survey of India, Calicut and Mathrubhumi to commemorate the World Environment Day 2011**

<http://www.mbiseed.com/story1.php?id=14420>

## OUT OF THE BOX

### **Good news for vultures: ban on diclofenac is working**

<http://www.deccanherald.com/content/160878/good-news-vultures-ban-diclofenac.html>

### **Mobile signals may be killing honeybees**

[http://zeenews.india.com/news/eco-news/mobile-signals-may-be-killing-honeybees\\_705937.html](http://zeenews.india.com/news/eco-news/mobile-signals-may-be-killing-honeybees_705937.html)

## PAINTINGS FROM ZSI HERITAGE ALBUM



### **Markhor**

*Capra falconeri* (Wagner, 1839)