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**Meeting of the Director, ZSI with His Excellency,
Sri M. K. Narayanan, Governor of West Bengal**



Dr. K. Venkataraman, Director, ZSI was invited by His Excellency, Sri M.K. Narayanan, Governor of West Bengal at Raj Bhavan, on 9th February, 2011.

Dr. Venkataraman apprised His Excellency on Zoological Survey of India, the premier scientific institute, wholly committed to explore the faunal wealth of our country and also on the kind and nature of zoological research carried out by the scientists of ZSI. Dr. Venkataraman welcomed His Excellency to visit ZSI to see the 250 year old National Designated Repository.

Dr. A. K. Sanyal, Scientist-F, briefed His Excellency about the varied diversity studies like the State Faunal Diversity, Ecosystem diversity, diversity of Protected Areas etc., conducted by ZSI and also elaborated on the participation of ZSI Scientists in the Antarctica Expeditions. Dr. Dhriti Banerjee, Scientist-C,

presented His Excellency with the book “*Urban Biodiversity of Kolkata*”, authored by Dr. Suchitra Ghosh and published by the Publication Division of ZSI. Mr. Rati Ram, Publication Production Officer, ZSI, handed over the departmental publications, the *Fauna of West Bengal*, *Pictorial Handbooks* and the *Antarctica Compendium* for the Raj Bhawan Library. As an extrapolation of the studies conducted by the SRC, Chennai at the Raj Bhawan, Chennai, Dr. Venkataraman requested for permission to conduct surveys for three seasons, at the Raj Bhawan campus, Kolkata, to bring out a publication on the fauna of the Raj Bhawan campus at Kolkata. His Excellency was pleased to acquiesce. The meeting concluded with sundry discussions over a cup of tea and the delegates thanked His Excellency for the invitation to Raj Bhawan.

Headquarters, Kolkata

Field surveys were undertaken in the states of Chhattisgarh, Orissa, Uttar Pradesh and West Bengal. Local surveys were carried out in and around the wetland areas (Bortibeel) of North 24 Parganas, West Bengal.

During the month, a species of nematode, *Xiphinema manosiae* Sen *et al.* sp. nov. (Dorylaimida: Xiphinematidae) has been described as new to science, besides identifying 9 species of protozoa, 1 species of Platyhelminthes, 1 genus of parasitic nematode, 5 species of Coleoptera, 4 species of Collembola, 6 species of Diptera, 25 species of Hemiptera, 3 species of Hymenoptera, 8 species of Isoptera, 5 species of Odonata, 4 species of Orthoptera, 35 species of spiders, 7 species of mites, 2 species of Crustacea, 17 species of Mollusca and 11 species of Amphibia from Andaman & Nicobar Islands, Arunachal Pradesh, Assam, Delhi, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Orissa, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal, and the Eastern Ghats.

Out of the material studied, a marine fish, *Torquigener brevipinnis* (Regan, 1903) was recorded for the first time from Indian coast. The hymenopteran (Vespididae) species *Phimenes flavopictum* (Blanchard) turned out to be the first report from Delhi, Jharkhand, Manipur, Mizoram, Nagaland and Tripura. The genus and species of Trematode, *Neopodoctyle indica* Dayal, and the Sacred Groves Bush Frog, *Raorchestes santisilvaticus* were found to be new records to Assam and Andhra Pradesh, respectively.

Nine research papers were published, 7 accepted for publication and 9 submitted.

Identification services were rendered on 9 lots of specimens, received from different organisations. 10 species of reduviid and pentatomid bugs of Kanniyakumari Wildlife Sanctuary, Tamil Nadu, were identified out of the collection received from Southern Regional Centre, Zoological Survey of India, Chennai.

Five students from Vivekananda College, Kolkata were imparted training on collection, preservation, identification and field habitats of spiders.

A group of 40 Graduate students along with three Professors from Department of Forestry, Kerala Agricultural University, Trichur visited different sections of the Headquarters on 25th February. Teachers from Department of Zoology, Lady Brabourne College, Kolkata, PG department of Zoology, Bidhannagar Govt. College, Salt Lake, Kolkata, Paity Mohan College, Uttarpara, West Bengal and two research scholars from Department of Zoology, Calcutta University also visited the different sections of Headquarters.

Dr. J. K. De, Scientist-D attended the workshop on "IUCN Red Listing Process" on 11th February, at New Delhi and also delivered a lecture on Antarctica on 11th February at Paribesh Mela organised by the Dum Dum Municipality. Dr. J. K. De also organised the seminar "Understanding Biodiversity: Assessment, Analysis and Conservation" from 25th-27th February, 2011 in collaboration with Moulana Azad College, Kolkata and Prakiti Samsad, Kolkata at Moulana Azad College.

Dr. Basudev Tripathy, Scientist-C compiled various information on the animal statistics and endangered fauna of India for the publication "Compendium on Statistics-India" being published by the Ministry of Statistics & Implementation, Government of India, New Delhi. Dr. Basudev Tripathy also participated in the National Seminar on "Climate Change and

Biodiversity", held at CYSD, Bhubaneswar, from 10th-11th February.

Shri A. Mohapatra, Assistant Zoologist participated in the International Seminar on "Darwin & Human Evolution", held at Asiatic Society, Kolkata from 10th-12th of the month.

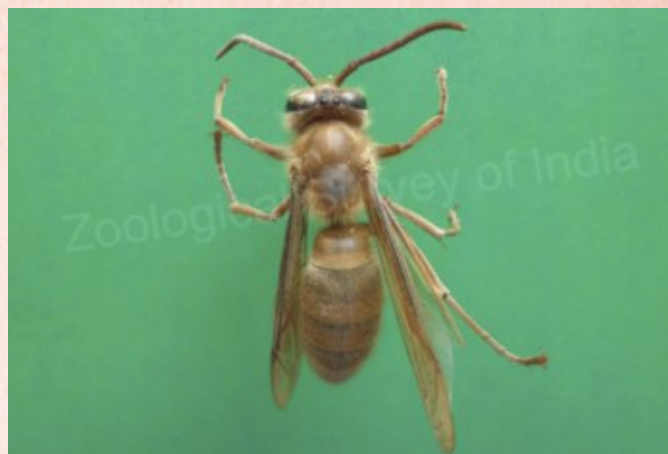
Dr. Debabrata Sen, Senior Zoological Assistant and Dr. Viswa Venkat Gantait, Zoological Assistant, attended the NAIP sponsored National Training Course on "Advanced Techniques for Exploiting the ENBI Complexes (Entomopathogenic Nematodes-Bacterial symbionts-Insect hosts) for Biomanagement of Insect Pests of Crops, from 10th-19th February, held at Nematology division, IARI, New Delhi.

Dr. Ch. Satyanarayana, Assistant Zoologist, delivered an invited lecture entitled "Present Status of Coral Reefs of India and Strategies for their Conservation" at the International Conference on "Biodiversity and Aquatic Toxicology" organized by Nagarjuna University at Vijayawada from 12th-14th February.

Sri S.S. Mishra, Asstt. Zoologist, attended and delivered a lecture on "Endangered and Threatened Fishes of Orissa, with suggestions for their Sustenance and Conservation" at National Seminar on "Challenges for Wildlife Conservation: Conflict to Co-existence" organized by Dept. of Zoology, Nayagarh Autonomous College, Nayagarh, Orissa, during 19th & 20th February, 2011.

Dr. G.P. Mandal, Scientist-C and Dr. Varadaraju, Scientist-B of Headquarters attended a "Workshop on Results-Framework Document (R.F.D)" held at Vigyan Bhawan, New Delhi on 22nd February.

Shri Sankar Talukdar, Assistant Zoologist received invitation and joined The Global Project on PBI (*Planetary Biodiversity Inventory*) related to the spider family Oonopidae, from ZSI as the only participant Investigator from India.



The nocturnal wasp, *Provespa barthelemyi*, reported for the first time from Arunachal Pradesh, Manipur, Mizoram, Nagaland, Tripura and West Bengal

Dr. A.K. Sanyal, Scientist-F delivered an invited lecture at National Workshop on "Understanding Biodiversity: Assessment, Analysis and Conservation" at Maulana Azad College, Kolkata on 26th February.

Dr. Basudev Tripathy, Scientist- C and Dr. G.P. Mandal, Scientist-C acted as demonstrators in a day long field Training at Narendrapur on basic techniques of "Assessment and Analysis of Biodiversity" to the participants of National Workshop, organized by Maulana Azad College, Kolkata, on 27th February.

Dr. K. Venkataraman, Director, Zoological Survey of India, accompanied by Dr. A.K. Sanyal, Scientist-F, Dr. G. Thirumalai, Scientist-F, Sri Ratiram Verma, PPO, Dr. Dhriti Banerjee, Scientist-C&HOO, Dr. Achintya Chattopadhyay, Asstt. Zoologist, Dr. Ch. Satyanarayana, Asstt. Zoologist, Sri Kumar Chattopadhyay, Jr. A.O and Dr. P. Girish Kumar, Jr. Zool. Asstt., attended a meeting with His Excellency Sri M.K. Narayanan, Governor of West Bengal at Raj Bhavan, Kolkata on 9th February, 2011.

Dr. K. Venkataraman, Director, Zoological Survey of India attended the following meetings:

1. IUCN Consultative Workshop at Indian Habitat Centre, New Delhi on 1st February

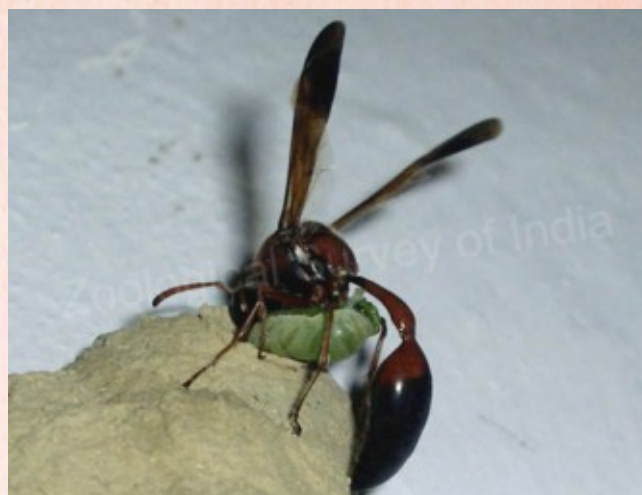
2. Seminar on AICOP on Biodiversity under the Chairmanship of Dr. Madav Gadgil at New Delhi on 4th February
3. West Bengal Biodiversity Board at Bikash Bhawan, Kolkata on 17th February
4. Inaugurated the National Workshop on "Understanding Biodiversity: Assessment, Analysis and Conservation" as Chief Guest at Maulana Azad College, Kolkata on 25th February, and also delivered a lecture
5. As Co-Chairman of Working Group Meeting to chalk out the plan for the proposed National Seminar on "Marine Biotechnology" at PRIST University, Thanjavur, on 26th February.
6. Delivered a lecture at PRIST University, Thanjavur on their Science Day Celebrations on 28th February.

Sri R. Mehta, Advisor (CS) and Sri Jiwan Dass, Director (CS), Ministry of Environment and Forests, New Delhi, visited different sections of ZSI Headquarters on 9th February.

Dr. V.V. Ramamurthy, Chairman, Research Advisory and Monitoring Committee for Zoological Survey of India visited different sections of Headquarters on 14th February.

Publications:

1. Venkataraman, K. 2011. Coral Reefs of India. In: David Hopley (ed.) *Encyclopedia of Modern Coral Reefs Structure, Form and Process*. Springer, Netherlands, pp. 267-274.
2. Venkataraman, K. 2011. Palluir perukkamum kadal vazh ueir valangal. *Education today (ariviyal chirapithal)*: 31-33 [in vernacular Tamil].
3. Biswas, S., Mishra, S.S., Satapathy, K.K. and Selvanayagam, M., 2010. *Discovery of Torquigener brevipinnis* (Regan, 1903) (Osteichthyes: Tetraodontidae) from the Indian coast. *Marine Biodiversity Records*, 3: e123 (1-4) (online).



The Potter wasp, *Delta dimidiatipenne*, provisioning cell with a caterpillar

4. Gantait, V.V., Bhattacharya, T. and Chatterjee, A. 2010. Seasonal fluctuation of dorylaimid population in a banana plantation of West Bengal, India. *Indian Journal of Nematology*, 40 (2): 184-188.
5. Girish Kumar, P. and Roy Mahato, A. K. 2011. Indian Honey bees. Electronic publication in ENVIS Website. <http://zsienviis.nic.in/month.htm>
6. Rajmohona, K. and Talukdar, S. 2010. A new species of *Psix* Kozlov & Le (Hymenoptera: Platygasteridae) from India. *Biosystematica*, 4(2): 57-62.
7. Sen, D., Chatterjee, A. and Manna, B. 2010. A new and known species of *Xiphinema* Cobb, 1913 (Dorylaimida: Xiphinematinae) from West Bengal, India with a key to the monopisthodelphic species of the genus *Nematologia Mediterranea*, 38: 187-193.
8. Sibananda Rath and Dev Roy M.K. 2010. Prawns (Crustacea: Decapoda). In: *Fauna of Vamsadhara and Nagavali Estuaries*, Andhra Pradesh. *Estuarine ecosystem series*, No. 6: 15-22.
9. Sibananda Rath and Dev Roy, M.K. 2010. Crabs (Crustacea: Decapoda: Brachyura). In: *Fauna of Vamsadhara and Nagavali Estuaries*, Andhra Pradesh. *Estuarine ecosystem series*, No. 6: 23-45.

Andaman and Nicobar Regional Centre, Port Blair

Surveys were conducted in Great Nicobar, Champion, Kamorta, Trinket and Katchal Islands in Nicobar group from 14th-23rd February to study the faunal communities in marine and terrestrial ecosystems. A total of 60 species of corals, 35 species of echinoderms, 49 species of gastropods, 23 species of bivalves, 37 species of nudibranchs, 3 species of polyclads, 5 species of crabs, 9 species of fishes, 27 species of phytoplankton and 37 species of zooplankton were identified from the marine habitat while 45 species of butterflies, 12 species of spiders 1 species of Amphibia, 2 species of reptiles, 57 species of birds and 2 species of mammals were recorded from the terrestrial ecosystem of Great

Nicobar Island. Apart from these, 23 species of fishes were identified from the unnamed collection of the Centre. Among the species identified, 11 species of nudibranchs, *Aldisa erwinkoehleri* Perrone, 2001; *Dermatobranchus semistriatus* Baba, 1949; *Glossodoris pallida* (Ruppel and Leuckart, 1828); *Okenia kendi* Gosliner, 2004; *Pectenodoris trilineata* (Adams and Reeve, 1850); *Phyllidia elegans* Berg, 1869; *Phyllidiopsis annae* Brunckhorst, 1993; *Tamda morosa* (Bergh, 1877); *Phyllidiopsis gemmata* Pruvot-Fol, 1957; *Phidiana indica* (Bergh, 1896) and *Hypselodoris nigrostriata* (Eliot, 1904), and 4 species of corals, *Cycloseris vaughani* (Boschma, 1923), *Leptoseris tubulifera* Vaughan, 1907;



Acropora gemmifera (Brook, 1892)



Montipora aequituberculata Bernard, 1897



Pocillopora meandrina Dana, 1846



Pocillopora verrucosa (Ellis and Solander, 1786)



Leptoria phrygia (Ellis and Solander, 1786)



Platygyra verweyi Wijsman-Best, 1976

Goniopora savignyi Dana, 1846 and *Goniopora pearsoni* Veron, 2000 are new distributional records to Indian waters. The Coral reef monitoring study conducted in Great Nicobar Island indicates that about 32-35% of the bleached corals are replenished. Besides, new recruitment of corals in selected localities in this island has been calculated at the density of 22-28 colonies /10m². A total of 19 species of corals, 10 species of gorgonids and 1 species of Aplysid were registered in the National Zoological Collection of the Centre. Manuscripts on diversity and abundance of Ascidians in Little Andaman, and Taxonomic keys for the identification of cultivable crabs of A&N Islands have been submitted for publication. Approval has been received from Dept. of Environment and Forests, A&N Administration for the preparation of Management Action Plan for Loha Barrack Wildlife Sanctuary. Two Junior Research Fellows of the Centre participated in the 'Blacklip Pearl Oyster Hatchery Training' organized by Central Marine Fisheries Research Institute at Port Blair during 1st and 2nd February. Dr. C. Raghunathan,

Scientist-C & Officer-in-Charge of the Centre served as a member in the meeting for 'Sectoral Action Plan for Green India Mission and Sustaining Island Ecosystem in connection with Climate Change Action Plan for A&N Islands', held at Dept. of Environment and Forests, A&N Administration on 1st February, and attended the meeting for the site selection of proposed Oceanarium in A&N Islands, chaired by the Chief Secretary, A&N Administration on 1st February.

Publications:

1. Tamal Mondal, C. Raghunathan, and Ramakrishna, 2010. New record of thirteen scleractinian corals in Indian waters from Middle and North Andaman. *Biosystematica*, 4(2):75-89.
2. Kumaralingam, S., V. Madhan Chakkaravarthy and C. Raghunathan, 2010. New records and range extension of three mangrove brachyuran crabs: *Chiromantes obtusifrons*, *Macrophthalmus japonicus* and *Thalamita coeruleipes* from Andaman and Nicobar Islands. *Biosystematica*, 4(2): 29-36.

North Eastern Regional Centre, Shillong

During the month, 7 species of Amphibia from Manipur and Meghalaya, 7 genera of ephemeropteran nymphs and 9 species of fishes from the backlog collection of the Centre's holdings were identified and registered.

Range extension of *Duttaphrynus nagalandensis* Mathew & Sen, (Amphibia: Anura: Bufonidae), was confirmed in Meghalaya after 2 examples of this species were identified from East and West Garo Hills districts of Meghalaya. This species was discovered from Wokha district, Nagaland earlier. Shri. K. Allia, Field Collector, superannuated from service after rendering his service in the department for 39 years and 2 months.



Duttaphrynus nagalandensis

Arunachal Pradesh Regional Centre, Itanagar

A research manuscript dealing with insects, fishes, birds, mammals and reptiles of Itanagar Wildlife Sanctuary has been compiled and finalised. The Centre received 22 identified species of amphibians from ZSI, WGRC, Calicut. The specimens were collected from Namdapha Tiger Reserve of Arunachal Pradesh. Twelve college and school students visited the museum and library during the month. Dr. Gopinathan Maheswaran, Scientist-C & Officer-in-Charge of the Centre attended a



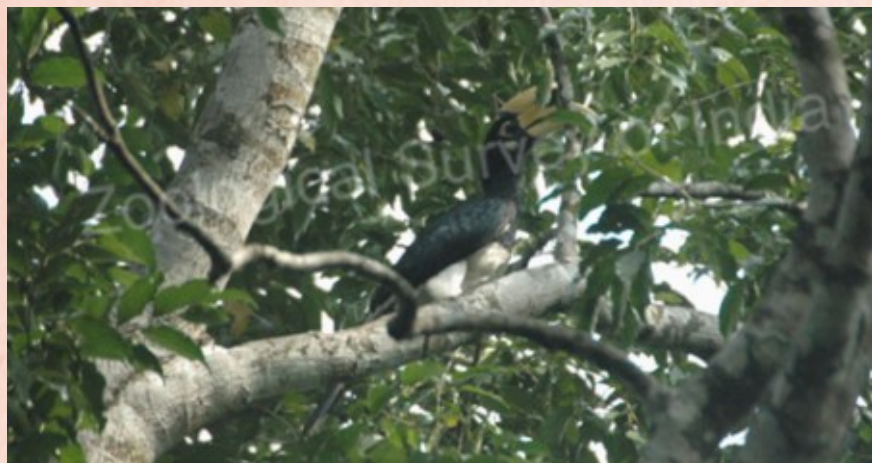
Great Hornbill



Crimson Sunbird (Female)



Wreathed Hornbill



Oriental Pied Hornbill

meeting of the Arunachal Pradesh Forest Research Committee for Wildlife Protected Areas on 11th February at the office of the PCCF, Itanagar wherein project proposals received from various research institutions, Universities and NGOs were assessed and report submitted to the PCCF, Arunachal Pradesh.

Sunderban Regional Centre, Canning

One local survey was conducted in Canning and Dabu and representative faunal samples comprising of fishes, crabs and gastropods were

*Boleophthalmus boddaerti* Val.

collected.

During the month, 7 species of fishes were identified and registered.

*Gazza minuta* Blotch

Gangetic Plains Regional Centre, Patna

A field survey was conducted in Jharkhand and West Bengal for the study of aquatic faunal diversity of River Damodar. Representative faunal samples including Mollusca, Fishes, Zooplankton and annelids were collected. The collection also included 4 different species of leeches under 2 genera. From the collected aquatic samples of River Damodar in Jharkhand and West Bengal, 9 species of Mollusca were identified. The final technical report of Current status of *Susu*, *Platanista gangetica gangetica*, in the entire stretch of River

Gandak was submitted for publication. Dr. Gopal Sharma, Scientist-C and Officer-in-Charge attended the National Seminar on management of wetland resources for sustainable fisheries development: current status and future challenges, organized by the Department of Zoology, B. D. College, Patna from 25th to 26th February, 2011. The District Forest Officer, Begusarai also invited Dr. Gopal Sharma as an ex-officio member of the State Wildlife Board, to visit the Kawar Lake for planning future strategies for the protection and development of Kawar Lake Bird sanctuary. Dr. Navneet Singh, Scientist-C and

Mr. Ramadhin Kumar, Zoological assistant attended the Hindi workshop, organized by NARAKAS on 2nd February at Income Tax Building, Patna. Two Research Scholars of



Black Winged Stilt, *Himantopus himantopus*

Zoology Department, Patna University, Patna visited the Centre for consultation of Library. Seven persons visited museum.



Red Wattled Lapwing, *Vanellus indicus*

Southern Regional Centre, Chennai

A faunistic survey tour to Southern Eastern Ghats was undertaken and representative fauna collected. 6 species of fishes, 2 species of sandflies, 2 species of blattids and 1 species of Crustacea were identified during the month. One identification service was rendered to a research scholar of SRM University.

Drs. K. Rema Devi, Scientist-E, K. Ilango, Scientist-D, R. Aengals, Scientist-C and V. M. Sathish Kumar, Sr. Zool. Asst., served as



Ph.D scholars of Loyola College during their visit to SRC

resource persons and delivered lectures and took practical classes on their respective fields of specialisation at the National Level Training cum Workshop on "Recent Trends in Animal Taxonomy and Systematics", conducted at the Loyola College, Chennai, from 23rd to 26th February. Four articles were published in the Training Manual. Dr. S. Prabakaran participated and presented a paper on 'Diversity of Cockroaches in India', at the National Seminar held at St. Joseph's College, Devagiri, Cailcut during 17-18th of the month. Dr Aengals, Scientist 'C' participated in the National Conference on the Conservation of Sacred groves to Protect Local Biodiversity, organised by C.P.R Environmental Education Centre, Chennai, on 12-14th February. Dr. Ilango was appointed as external examiner by the Bharathiar University to conduct PhD viva voce examination and adjudicated a thesis.

Publications:

1. Rema Devi. K. 2011. Identification of Fishes. In "Training Manual of Perspectives of Animal Taxonomy and Systematics. School of

Biodiversity and Environmental Monitoring
PG & Research Department of Advanced
Zoology and Biotechnology, Loyola College,
Chennai. Chapter 10: 198-219.

2. Aengals. R. 2011. Methodology for classification of Snakes. *Ibid.* Chapter 11: 219-233.

3. Sathish Kumar. V. M. 2011. DNA Bar Coding and Animal Taxonomy. *Ibid.* Chapter 13: 256-263.

4. Sathish Kumar. V. M. 2011. Basic concepts, Tools and Techniques for Biodiversity Conservation -A Genetic Approach. *Ibid.* Chapter 14: 264 -271.

Marine Biology Regional Centre, Chennai

A survey tour was undertaken to Palk Bay and Gulf of Mannar islands from 9th to 26th February with regard to Coral status survey in connection with the EIA of Sethu Samudram Shipping Canal Project. During the month, 3 species of marine sponges, 1 species of ostracod, 1 species of isopod, 4 species of sea snakes and 6 species of molluscs have been identified and registered. Water samples from Adyar Estuary were collected for chemical analysis and identification of sea grass associated protozoans and benthos.

Shri. Akmal Husain, Scientist-D attended National Symposium on Sacred Grove & Biodiversity Conservation at CPREEC at Chennai from 12th-14th February. Dr.G.Sivaleela, Assistant Zoologist delivered a talk on 'Marine sponges' & 'Soft corals' in

National level training cum workshop on recent trends on taxonomy held during 23-26th of the month, organized by Loyola College, Chennai; Dr.C.Venkatraman, Scientist-C attended the Institutional Animal Ethics Committee (IAEC) meeting at Kilpauk Medical College as a CPCSEA nominee. Scientists of the Centre also attended the training cum workshop on recent trends in Taxonomy and Systematics at Loyola College, Chennai.

202 students and 416 tourists visited the Marine Aquarium and museum.

Publications:

1. Sivaleela, G. 2011. Marine sponges: Classification and diversity. (In): *Training manual on Perspectives of Animal Taxonomy and Systematics*, Loyola College, Chennai, 86-102.
2. Sivaleela, G, P. Padmanaban, K. Suresh Kumar and N. Paramasivam. 2011. Diversity of alcyonarians in India, (In): *Training manual on Perspectives of Animal Taxonomy and Systematics*, Loyola College, Chennai, 103-11.
3. Venkatraman, C and V. Gokula. 2011. Avian classification. (In): *Training manual on Perspectives of Animal Taxonomy and Systematics*, Loyola College, Chennai, p235-256.



Pomacanthus imperator

Western Regional Centre, Pune

A faunistic survey in Phansad Wildlife Sanctuary, Maharashtra and a survey for Eco-behavioral studies of non-human primates in Solan, Himachal Pradesh were conducted. Scientists of the Centre identified 10 species of Mollusca, 1 species of Collembola, 2 species of pseudoscorpions, 3 species of Amphibia, 25 species of Odonata and 7 species of Orthoptera, collected from recent surveys.

Dr R.M. Sharma, Scientist-D & Officer-in-Charge attended conferences at Dayanand Science College, Latur and Arts Commerce and Science College, Pirangut, Pune and delivered lectures on "Insect Diversity in India". Dr R.M. Sharma, and Dr K.A. Subramanian (Scientist-C)



Spot Billed Duck, *Anas poecilorhyncha*

participated in the All India Co-ordinated project on Biodiversity-Western Ghats Biodiversity Database meeting held at Garware College, Pune. Dr R.M. Sharma participated in the expert committee meeting for selection of Research Associates/Senior Research Fellows at Shivaji University, Kholapur. Identification and advisory services were rendered to Maharashtra Forest and Police departments in identifying the skin, horn and antlers of Black Buck (*Antelope cervicapra*) and Sambar (*Rusa unicorn*). Shri S.P. Chaubey, Director, Official Language (Hindi), MoEF visited the Centre for inspection of progress in implementation of Official Language.



A flock of Indian Cormorant or Shag (*Phalacrocorax fuscicollis*)

Freshwater Biology Regional Centre, Hyderabad

Field visits were undertaken in Himayat and Osman Sagar, Shamshabad, Ranga Reddy District; Umda Sagar, Jallepally, Ranga Reddy District and Ameenpur, Patancheru, Medak District for Limnoecological evaluation of seasonal variations in the zooplankton community composition. Littoral samples of net zooplankton were collected for qualitative and quantitative studies, besides *in situ*

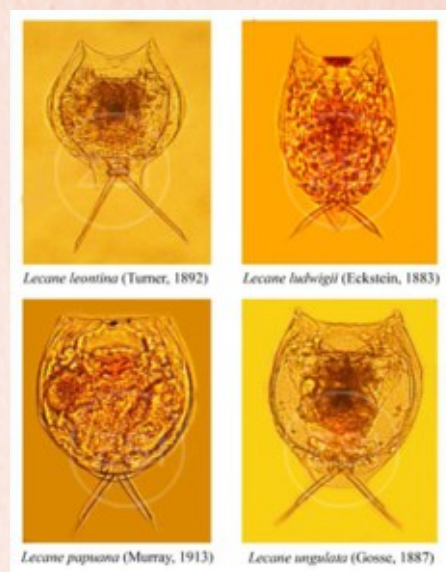
estimations of physical parameters. During the month, 4 species of estuarine fishes, 6 species of fresh water fishes, 6 species of aquatic Coleoptera and 9 species of zooplankton from Palair Lake, Khammam District and 9 species of Odonata from Kolleru Lake, West Godavari & Krishna Districts were identified.

Confirmatory taxonomic identification studies revealed 14 species of common ubiquitous

rotifer genus *Lecane* Nitzsch, 1827 (Lecanidae, Bartos, 1959), known for its high intraspecific variability, from temporary water habitat in and around Attapur, Rajendranagar, Hyderabad. One research paper has been published and a research manuscript on cyclomorphosis in *Daphnia lumholtzi* (Sars, 1885) finalised.

Publication:

Rao, C.A.N., Deepa J. and M. Hakeel. 2011. Comparative account on Ichthyofauna of Pocharam and Wyra lakes of Andhra Pradesh, India. *Journal of Threatened Taxa* 3(2): 1564-1566.



Common species of the Genus *Lecane*, Nitzsch in the freshwater lakes of Hyderabad

Northern Regional Centre, Dehra Dun

Two surveys were undertaken in Jhilmil Jheel Conservation area and Dehra Dun districts, and one survey in the district Haridwar for Ecological and molecular study of fresh water turtles. Apart from collecting the representative fauna for taxonomic studies, 12 species of mammals, 1 species of turtle and 37 species of birds were observed. In addition, parasites from Vertebrate hosts and nematodes from the soil samples were extracted. Photomicrography of 5 species of helminths of the Vertebrates has been completed. Five species of Butterflies collected from Dehra Dun and around, have been identified. Three research papers were published.



Banganga wetland, Haridwar, Uttarakhand

Dr.A.N.Rizvi, Scientist-C supervised the dissertation project work of two B.Sc students of the Doon Paramedical College, Dehra Dun on the topics, "Status of Swine flu in India" and "Status of Malaria in India", and provided guidance. Dr.Vinod Khanna, Ast. Zoologist offered suitable comments on the two research manuscripts received from an International Foreign Journal.

Publications:

1. Bahuguna, A. and Radhakrishnan. C. 2010. Comparative study of the characteristic feature of Primary Guard Hair of Malabar Civet, *Viverra megaspila civettina* Blyth, 1862 (Mammalia: Carnivora: Viverridae) with other species of Indian Viverrids. *Biosystematica*, 4(2): 19-28.
2. Khanna, V. 2011. Centipedes (Chilopoda: Scolopendromorpha) in Fauna of Ranthambore National Park, *Fauna of Conservation Area Ser.43, Zool.surv.India*, pp.61-66
3. Sati J.P. 2011. Current Status of Western Hoolock Gibbon *Hoolock hoolock* Harlan in west Garo Hill, Meghalaya, India. *J. Threatned Taxa.*, 3(2): 1520-1526.



Pangshura tecta (Gray)



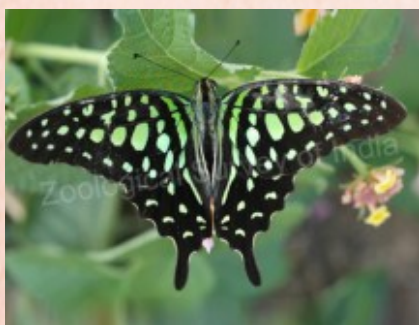
Pangshura tentoria circumdata (Gray)

Central Zone Regional Centre, Jabalpur

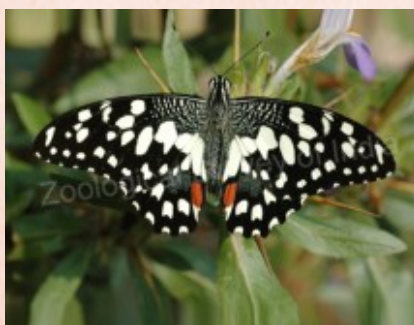
A faunistic survey of Veerangana Durgavati Wildlife Sanctuary was undertaken from 19th to 25th. During the month, 5 species of scarabaeid beetles from Tawang District, Arunachal Pradesh, 4 species of moths, 8 species of Scarabaeid beetles and 4 species of Mollusca (Gastropoda and Bivalvia) from Singhori Wildlife Sanctuary and 14 species of moths, 5 species of Scarabaeid beetles from Veerangana Durgavati Wildlife Sanctuary were identified and registered. Besides, the backlog collections of 9 species of aquatic Hemiptera, 7 species of moths (Lepidoptera) and 2 species of scarabaeid beetles were also identified.

Dr Kailash Chandra, Scientist-F, Dr S. Sambath, Scientist-C and other staff members of the Centre attended the National Seminar on "Progress in Life Sciences for Human Welfare" on 5th and 6th February, and presented 4 papers. During the Seminar, Dr Kailash Chandra also presented an invited Paper on "Biodiversity in India w.s.r. to Central India" and also chaired a session on Biotechnology. An identification and advisory service was rendered on Birds of Jabalpur. Dr Kailash Chandra attended the '26th MP Young Scientist Congress' as Judge for the evaluation of the papers presented on Zoology, which was held at the Jawaharlal Nehru Krishi Vishwa Vidyalaya, Krishi Nagar, Jabalpur on 28th February, 2011.

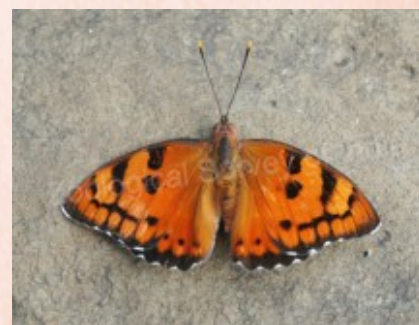
Butterflies of Singhori Wildlife sanctuary, Madhya Pradesh



The Tailed Jay,
Graphium agamemnon



The Lime Butterfly,
Papilio demoleus



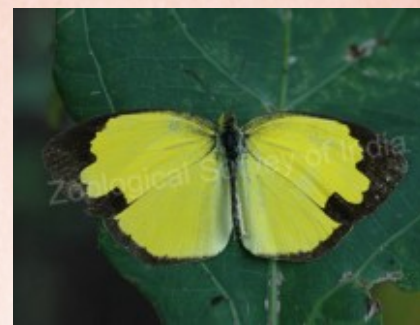
The Baronet, *Symphaedra nais*



The common Silverline,
Spindasis vulcanus



The common sailor, *Neptis hylas*



The Common Grass Yellow,
Eurema hecabe

Estuarine Biology Regional Centre, Gopalpur-on-Sea

A field visit was conducted at Chilika Lake, Orissa. Five species of crabs, 4 species of molluscs and 3 species of fishes were identified from the collection of Cauvery estuarine complex, Tamil Nadu. Seven species of Mosquitoes representing 6 genera namely, *Anopheles*, *Armegeres*, *Culex*, *Manasonia*, *Ochlerotatus* and *Uranotaenia* were also identified from Ganjam district of Orissa. A chapter on 'Fishes' for the faunal document on

Namdapha National Park and Tiger Reserve is under preparation. One research paper was published in a national journal and one paper submitted for publication. 47 visitors including school students paid their visits to the museum.

Publication:

Gurumayum, S.D., Sugunan, V.V. and Nandeesh, M.C. 2011. The Ema Market of Manipur and the women fish vendors. *Fishing Chimes*, 30(10&11): 72-75.



A view of artificial mouth of Chilika lagoon, Orissa



Students observing the collections of EBRC, ZSI

Desert Regional Centre, Jodhpur

A field survey of Aravalli Range was conducted from 1st to 10th February and another field survey was conducted at Sardar-samand Reservoir from 14th to 21st February. During the month, 3 species of Nematoda, 5 species of

Lepidoptera, 7 species of Odonata, 5 species of Coleoptera, 3 species of Pisces and 1 species of Reptilia were identified from various environs of Rajasthan. Four papers were published. Identification service was rendered to a Ph. D.

Scholar of Forest Protection Division, Arid Forest Research Institute (ICFRE), Jodhpur on Lepidoptera.

Dr. Gaurav Sharma, Scientist-C delivered a lecture on “Faunal diversity of Rajasthan and Gujarat and on conservation of Biodiversity” to 15 teachers and 326 school students of six schools from 22nd to 25th February. Mr. Manoj Kumar Meena, Jr. Zool. Asstt. and Ms. Shalini Vashistha, JRF participated in the “UGC sponsored National Conference on Various Dimensions in Zoological Sciences”, held at the Department of Zoology and Environmental Sciences, Lachoo Memorial College of Science and Technology, Jodhpur on 8th February. 374 visitors visited the Museum. 52 entries of identified fauna were made in the faunal Database of the Centre. 66 entries pertaining to the books in the Centre's library was made employing the software, *e-granthalaya*.

Publications:

1. Bohra, P. and Sultana, R. 2011. Diversity in Anterior feeding apparatuses in Rhabditid

Nematodes. In: *Advancement in Invertebrate Taxonomy and Biodiversity* (Ed. Gupta, R.) 560pp. Published by Agrobios (International), Jodhpur. pp.37-41.

2. Sharma, G. 2011. Status of Butterflies, their protection under Indian Wildlife (Protection) Act, 1972 and their conservation in India. In: *Advancement in Invertebrate Taxonomy and Biodiversity* (Ed. Gupta, R.) 560pp. Published by Agrobios (International), Jodhpur. pp.349-372.
3. Sharma, G. 2011. A review on the studies of Damselflies and Dragonflies (Odonata: Insecta) in the world. In: *Advancement in Invertebrate Taxonomy and Biodiversity* (Ed. Gupta, R.) 560pp. Published by Agrobios (International), Jodhpur. pp.373-416.
4. Sewak, R. and Sharma, G. 2011. Diversity of Dung Beetles (Coprinae: Scarabaeidae: Coleoptera) of Gujarat, India. In: *Advancement in Invertebrate Taxonomy and Biodiversity* (Ed. Gupta, R.) 560pp. Published by Agrobios (International), Jodhpur. pp. 317-348.



Darter or Snakebird,
Anhinga melanogaster



Eurasian Spoonbill,
Platalea leucorodia



Black-headed Ibis,
Threskiornis melanocephalus



Painted Stork, *Mycteria leucocephala*



Bar-headed Goose, *Anser indicus*



Grey Heron, *Ardea cinerea*

Purple Heron, *Ardea purpurea*Ruddy Shelduck, *Tadorna ferruginea*Common Coot, *Fulica atra*

High Altitude Regional Centre, Solan

A field study was carried out in Solan and its environs to study some aspects of ranging and feeding behaviour of Rhesus Macaques from 17th-24th February. The butterfly collection of Kalatop Wildlife Sanctuary was sorted out and 4 species were identified. One research paper was published. One research manuscript was

reviewed for a national journal.

Publication:

Sidhu, A. K. 2011. Changing biodiversity scenario in the Himalayan ecosystem: Mussoorie, Uttarakhand, India as revealed by study of blue butterflies (Lycaenidae). *Journal of Threatened taxa* 3(2): 1559-1563.

Steppe Eagle, *Aquila nipalensis*Rhesus Macaque, *Macaca mulatta*

Marine Aquarium cum Regional Centre, Digha

The aquarium received an average of 200 visitors per day during the month. Around 31 examples of live marine and freshwater ornamental exhibits were collected for exhibiting in aquarium galleries. The major attractions for visitors were the Common Octopus *Octopus vulgaris*, Surgeon fish *Acanthurus* sp., frogfish *Antennarius hispidus*

and the sailfin tang fish *Zebrasoma veliferum*. Through local surveys, representative samples of various faunal groups were collected. In total 53 specimens from the recent and old collections were identified which included 14 species from 8 families. Two manuscripts were communicated and one paper published during the month.

A group of 12 students along with their teaching staff from the Post-Graduate Department of Jaiprakash University, Chapra, Bihar visited the Centre under their study excursion tour.

Dr. K. Venkataraman, Director, Zoological Survey of India, Shri. R. Mehta, Advisor, MoEF, and Shri Jiwan Dass, Director, MoEF along with Additional Directors of ZSI, Drs. C.

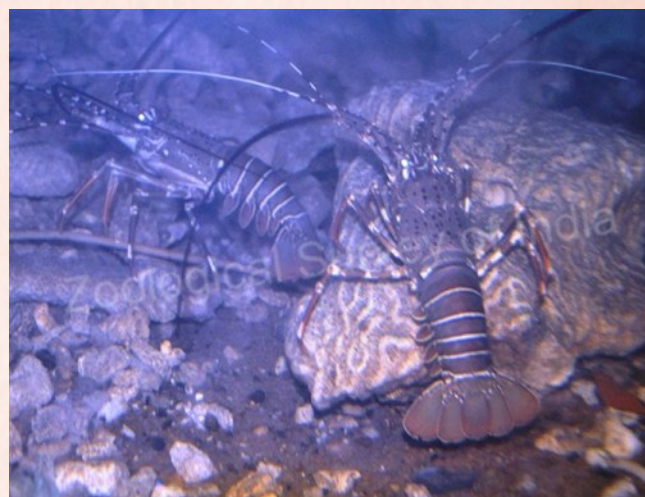
Radhakrishnan, Kailash Chandra and Animesh Bal, visited the Centre.

Publication:

PrasannaYennawar, Prasad Tudu, 2011. Mutualism of spider crab, *Doclia ovis* (Herbst, 1790) in Indian waters. *Current Science*, 100 (3): 281.



Octopus



Spiny lobsters



Antennarius hispidus



Sabae clown and carpet anemone

Western Ghat Regional Centre, Kozhikode (Calicut)

Field surveys were conducted in Malabar Wildlife Sanctuary, Kakkayam, Calicut on 1st February and at Kootalida, Calicut on 25th. During the month, 4 species of Pteromalidae (Hymenoptera: Insecta) and 3 species of centipedes (Scolopendridae: Chilopoda) were

identified. Besides, 3 species of Platygasteridae (Hymenoptera) from Maharashtra and 22 species of amphibians from Arunachal Pradesh were also identified.

5 research papers were published, including the description of a new species, *Psix robustus*

sp. nov. (Hymenoptera: Platygasteridae). Besides, 1 research paper has been accepted for publication and 4 papers communicated.

Seven identification & advisory services were rendered to teachers and students of local colleges. A research manuscript on the faunal diversity of a conservation area was reviewed and comments communicated.

Dr. K. Rajmohana, Scientist-C, delivered an invited lecture "A Tribute to the Living World" for the UGC sponsored Refresher Course at Academic Staff College, University of Calicut for College teachers, on 5th February. Dr. Muhamed Jafer Palot, Asst. Zoologist submitted a scientific report in connection with an inspection of an ecologically fragile Land at Thalappuzha, Wayanad on 18th February, to the Additional District Judge and Forest Tribunal for EFL cases, Additional District Court, Kozhikode. Dr. P. M. Sureshan, Scientist-C, delivered a lecture on "Zoogeography and faunal wealth of India" to the Degree and Postgraduate students of Malabar Christian College, Calicut on 21st. Dr. P.M.Sureshan, and Dr. K. Rajmohana, supervised the work of the two JRFs at the Centre on centipedes and Ceraphranoidea (Hymenoptera) of Southern western Ghats, respectively.

During the month, 719 visitors paid their visits to the museum.

Publications:

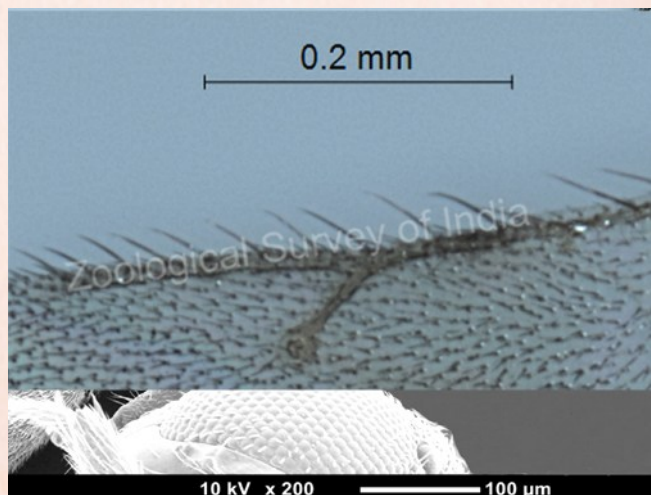
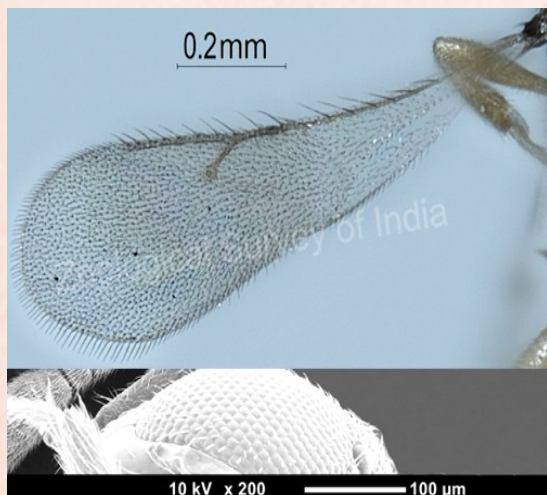
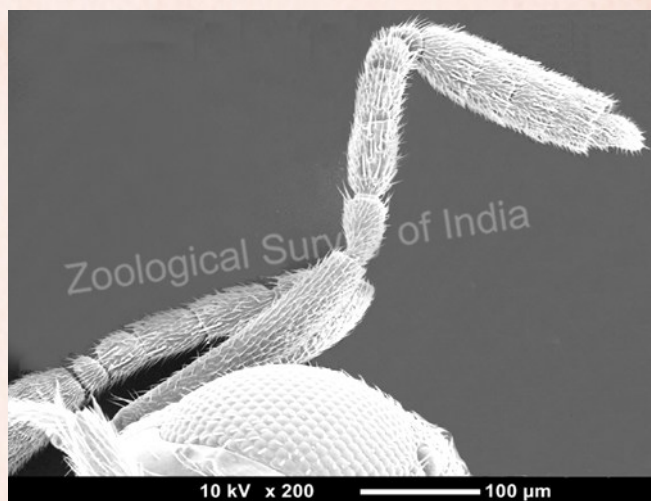
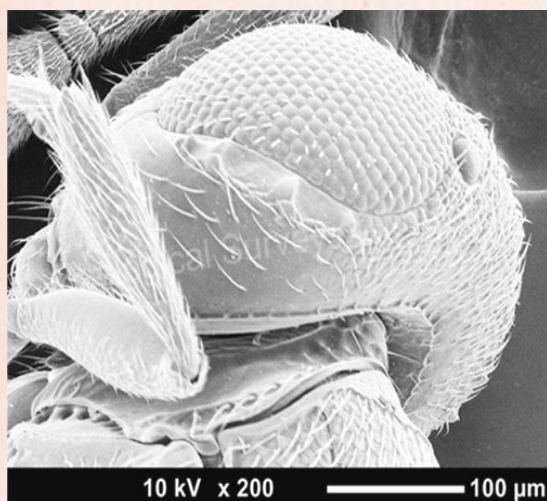
1. Bahuguna Archana and C. Radhakrishnan. 2010. Comparative study of the characteristic features of primary guard hair of Malabar civet, *Viverra megaspila civettina* Blyth, 1862, (Mammalia: Carnivora: Viverridae) with other Indian viverrids. *Biosystematica*, 4(2): 19-28.
2. Rajmohana, K and S. Talukdar. 2010. A new species of *Psix* Kozlov & Le (Hymenoptera: Platygasteridae) from India. *Biosystematica*: 4 (2): 57 – 62.
3. Rajmohana, K. 2010. First report and a redescription of *Duta serraticeps* (Priesner) (Hymenoptera: Platygasteridae) from India. *Biosystematica*: 4 (2): 51-55.
4. Rajmohana, K. 2011. A Checklist of Scelionidae (Hymenoptera: Platygasteridae) of India (updated version, 2011), Electronic publication.
<http://www.zsi.gov.in/checklist/Cchecklist%20of%20%20Indian%20Scelioninae.pdf>
5. P. Padmanabhan, C. Venkatraman, Muhamed Jafer Palot and C. Radhakrishnan. 2011. A Checklist of Sea snakes (Reptilia) of India.
<http://zsi.gov.in/checklist/India%20Sea%20Snake.pdf>

Psix robustus (Hymenoptera: Platygasteridae) sp. nov



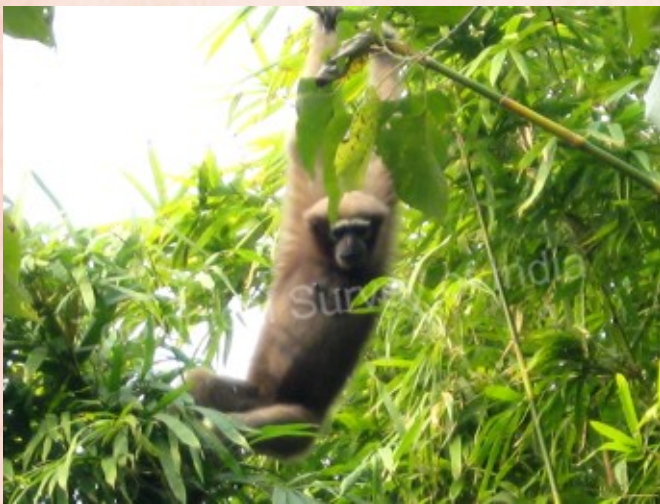
[Images captured in Leica M205A Stereomicroscope at WGRC/ZSI, Calicut]

Duta serraticeps, an Egyptian species recorded for the first time from India



[Images captured in JEOL-Neoscope Benchtop (JCM-5000) Scanning electron Microscope (SEM) and the Leica M205A Stereomicroscope at WGRC/ZSI, Calicut]

ANIMAL OF THE MONTH

Western Hoolock Gibbon*Hoolock hoolock* (Harlan, 1834)

[Text & Photo: North Eastern Regional Centre,
Zoological Survey of India, Shillong]

The western hoolock gibbon, *Hoolock hoolock* (Harlan, 1834), is the only ape found in India. The species is found in the North east India, Bangladesh and Myanmar. It might possibly occur in China also. They are diurnal and arboreal in habits. Adult male and female western hoolock gibbons are similar in size; however, they show sexual dimorphism. The adult males are black with a white brow, while the females are grey in colour. Infants have grey-white hair at birth, which turns black with age.

The species inhabits forests, particularly dense tropical evergreen rainforests, semi-evergreen forests, tropical mixed deciduous forests and bamboo plantations. In Meghalaya, where it is protected by the local people, this species come very close to human habitations. In the Hoolock Gibbon Reserve located at Selbagre, West Garo Hills, Meghalaya, there is a sacred grove which houses a group of Hoolock Gibbons. Locals there believe that if a gibbon is killed, a famine

or a curse would befall the entire village. Primarily the Gibbons feed upon fruits although flowers, leaves and shoots may also comprise their diet.

Western hoolock gibbons form monogamous pairs that may remain together for many years though not absolute. The female gives birth every 2-3 years to a single infant after a gestation period of 7 months. Like other gibbons, hoolocks are territorial. Each family group occupies a home range of about 14-55 hectares. The average group size ranges from 2.7 to 4. Territories are defended from intrusion by other members by loud morning songs and by chasing away the intruders from their territory.

Populations of the western hoolock gibbon are reported to have declined at a shocking pace over the years as a result of numerous human activities which have rendered it into an endangered species. The main threats are the combined effects of habitat loss, fragmentation, human interference and hunting. The animal is listed on Schedule I of the Indian Wildlife (Protection) Act of 1972. This species is also listed on CITES Appendix I.

Further reading:

<http://www.arkive.org/western-hoolock-gibbon/hoolock-hoolock/#text=All>

<http://www.gibbons.de/main2/08teachtext/facthoolock/hoolockfact.html>

<http://www.iucnredlist.org/apps/redlist/details/39876/0>

http://en.wikipedia.org/wiki/Western_Hoolock_Gibbon

ZSI IN NEWS

NEWS from NRC, DEHRADUN

New survey of fresh water turtles to be undertaken

<http://www.hindu.com/2011/02/28/stories/2011022853900500.htm>

News from WRC, Pune

ZSI survey records 374 faunal species in W Ghats

<http://timesofindia.indiatimes.com/city/pune/ZSI-survey-records-374-faunal-species-in-W-Ghats/articleshow/7497768.cms#ixzz1E0exXe18>

Latest On: 'Zoological Survey of India

'<http://timesofindia.indiatimes.com/topic/search?q=Zoological+Survey+of+India>

<http://expressbuzz.com/cities/chennai/take-good-care-of-aquarium-or-could-be-booked/252523.html>

PAINTINGS FROM ZSI HERITAGE ALBUM

Manipur Brow-antlered Deer (Sangai)

Rucervus eldii eldii (M'Clelland, 1842)

