

ZSI e-NEWS

The Monthly Electronic Newsletter of Zoological Survey of India

Volume - 03 :: Number - 09

September 2011

*ZSI in the 96th year of Service to the Nation
(1916 to 2011)*



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Headquarters, Kolkata

Extensive field surveys were undertaken in the States of Himachal Pradesh and Maharashtra. Seasonal Surveys to Sajnakhali Wildlife Sanctuary, under Sunderban Biosphere Reserve and local surveys in the fish landing center at Canning and wetland areas (Bortibeel) of North 24 Parganas, West Bengal were carried out.

During the month, Scientists of Headquarters identified, 5 genera of Protozoa, 5 species of earthworms, 3 species of Collembola, 20 species of Coleoptera, 15 species of Hemiptera, 11 species of Hymenoptera, 7 species of Isoptera, 10 species of Lepidoptera, 5 species of Odonata, 4 species of Orthoptera, 2 species of Crustacea, 35 species of spiders, 33 species of Mollusca, 32 species of Marine Fishes and 9 species of Amphibia from the States of Himachal Pradesh, Jharkhand, Maharashtra, Uttar Pradesh, southern Andhra Pradesh and West Bengal. Identification of the fauna during the month includes a new species of Bush Frog (*Raorchestes* sp.) from Sri Venkateswara Wildlife Sanctuary, a new record of *Euphlyctis mudigere* (Mudigere Skittering frog) from Horsley hills of Andhra Pradesh and the Elongated Tortoise (*Indotestudo elongata*) recorded for the first time from Tripura. A Type specimen, *Ichthyophis davidi* (Registration No: A 11327) from Belgaum district, Karnataka was deposited by Dr. K. P. Dinesh, Center for Ecological Sciences, Indian Institute of Sciences, Bangalore. Identification and advisory services were rendered on ten lots of specimens, received from different Institutions and Organizations. During the month, 5 research papers were published, 9 research papers were accepted and 5 papers communicated.

Mrs. Mithila Das, Lecturer in Zoology, S.N. College, Rajkanika, Dist. Kendrapara, Orissa visited the Marine Fish Section to identify her collection of gobioid fishes. Mr. Subhash Chandra Jena, Lecturer, Brahmani College, Kendrapara, Orissa visited Amphibia &

Protochordata Section of Headquarters.

Mammalian scales received from RDD, WCCB, Kolkata, were confirmed as having been derived from Indian Pangolin, *Manis crassicaudata* Gray. A portion of Tusk received from DFO, Jalpaiguri Division, West Bengal was confirmed as a distorted cut piece of Tusk of the Indian Elephant, *Elephas maximus* Linnaeus. In addition, the confiscated specimens of Sandfish Skinks (Reptiles) of the species *Scincus scincus* were also identified for the Customs Department, Customs House, Kolkata.

A team of 30 Forest Range Officers from Andhra Pradesh Forest Academy, Hyderabad, visited different sections of Headquarters on 14th September. Advisory services were rendered to them. Dr. V.V. Ramamurthy, Principal Scientist, Division of Entomology, IARI, New Delhi and Prof. Muralidharan, Head, Dept of Zoology, University of Delhi, visited different sections of Headquarters on 22nd.

Dr. Animesh Bal, Scientist-F, attended a meeting along with other senior Scientists headed by Director, ZSI, on 2nd September, to discuss about the revamping of the ZSI library with Sri Edwin, Chief Librarian CMFRI, Cochin. Dr. Animesh Bal also worked as one of the members of the Organizing committee for holding the ICZM Community Training Programme, funded by World Bank at MARC, Digha from 4th-12th. The programme was attended by Dr. Sudersan Ghosh Dastider, the Environment Minister of West Bengal (W.B.). Dr. J. K. Dey, Scientist-D, delivered a lecture on "Conservation of Dolphin in Digha Coast" in the said Community Training Programme on 7th September, 2011, at Digha.

Shri. Santanu Mitra, Zoological Assistant, participated in the Integrated Coastal Zone Management Programme as a field guide in Community Training held at Digha on 10th and 11th. A group of Scientists from Headquarters,

attended the National Seminar on “Traditional Knowledge and Social Practice Promoting Biodiversity Conservation”, organized by the Zoological Survey of India, Kolkata, in collaboration with the Social Environmental and Biological Association (SEBA), West Bengal Biodiversity Board (WBBB) and Ramakrishna Vivekananda Mission Institute of Advanced Science (RKVMIA). Dr. M. K. Dev Roy, Scientist B, participated and submitted a research paper entitled “Decapod of ethnomedicinal value”. Shri. Santanu Mitra, Zoological Assistant also participated and submitted a research paper entitled “Traditional fisheries of Molluscan Shells at Subarnarekha Estuary, Balasore, Orissa”. Dr. Nivedita Saha, Scientist-B, attended the UGC sponsored National Seminar on “Loss of Biodiversity and its Ethical Implication” held on 2nd & 3rd September, organized by the Vidyanagar College, 24 Paraganas(s), W. B. Dr. J. K. Dey, Scientist-D, delivered a lecture on “Glimpse of Antarctica” at the Ramakrishna Mission Vivekanand Centenary College, Rahara, 24 Paraganas North on 14th of the month. Dr. Kailash Chandra, Scientist-F, attended the Research Advisory and Monitoring Committee of Zoological Survey of India on 22nd September, 2011 and the National Seminar on Traditional Knowledge and Social Practices Promoting Biodiversity Conservation on 24th September, 2011 and chaired the first Technical Session of the Seminar at ZSI, HQs Kolkata.

Dr. Kailash Chandra, Scientist-F, attended the National Seminar on Biodiversity and Intangible Natural History on 28th September at Zoological Survey of India, Jodhpur and presented an invited talk on 'Natural History of Insects'. Dr. K. Venkataraman, Director, attended the UGC sponsored National Seminar on “Loss of Biodiversity and its Ethical Implication”, held on 2nd & 3rd September,

organized by Vidyanagar College, 24 Paraganas(s), W.B. He also attended inauguration ceremony and valedictory function of “Community Training Programme on Integrated Coastal Zone Management” held between 6th and 12th September, at MARC, ZSI, Digha. Dr. K. Venkataraman delivered the invited speech “Ecology & Environment” at the Tripura Science Congress on 8th September. Dr. K. Venkataraman inaugurated the National Seminar on “Traditional Knowledge and Social Practice Promoting Biodiversity Conservation” as President, Social Environmental and Biological Association (SEBA) and also gave Valedictory address on 24th September, at Headquarters, Kolkata and also at the National Seminar on “Biodiversity and Intangible National Heritage” on 28th September, at Jodhpur.

Publications:

1. Chandra, K. & Gupta, D. 2011. New record of two species of *Caccobius* from Madhya Pradesh (Coleoptera: Scarabaeidae). *Bionotes*. 31(3):117.
2. Subramanian, K.A., Francy Kakkassery and Manoj.V. Nair (2011). The Status and Distribution of Dragonflies and Damselflies (Odonata) of the Western Ghats: In-Molus, S., Smith, K.G., Daniel, B.A. and Darwall, W.R.T (Compilers). 2011. The Status and Distribution of Freshwater Biodiversity in the Western Ghats, India. Cambridge, UK and Glad, Switzerland: IUCN and Coimbatore, India: Zoo Outreach Organization. Pages 63-72.
3. Mandal, G.P. Checklist of Protura. www.zsi.gov.in
4. Mandal, G.P. Checklist of Diplura. www.zsi.gov.in
5. Deuti, K & Das, I. 2011. First Record of Elongated Tortoise (*Indotestudo elongata*) from Tripura. *Herpetological Review*. 42(3): 389.

During the National Seminar on “Traditional Knowledge and Social Practices Promoting Biodiversity Conservation”



Dr. K. Venkataraman, Director, ZSI
addressing the gathering



Prof. Ambarish Mukherjee, Burdwan University,
delivering lecture



Posters displayed



Director, ZSI distributing certificates to the participants

Desert Regional Centre, Jodhpur

Faunal exploration of Sitamata Wildlife Sanctuary and Lakes of Udaipur was conducted from 14th-20th September. Three species of Pisces, 8 spp. of Nematodes and 7 spp. of Odonata were identified from various environs of Rajasthan. *Hindi Day* and *Hindi Week* were celebrated at the Centre from 14th-20th September at DRC, ZSI, Jodhpur. The Centre in collaboration with National Museum of Natural History, MoEF, New Delhi, organized a National Seminar on “*Biodiversity and Intangible Natural Heritage*” and Exhibition on “*Biodiversity of Western India*” from 28th September to 2nd October, under the chairmanship of Dr. K. Venkataraman, Director, Zoological Survey of India, Kolkata. The exhibition on “*Biodiversity of*

Western India” was inaugurated by Prof. A. S. Faroda, Former Chairman, ASRB (IARI), New Delhi and Former Vice-Chancellor MPAUI, Udaipur, as Chief Guest of the seminar. Dr. Gaurav Sharma and Dr. Sanjeev Kumar attended the National Level Training Programme “*Biodiversity Conservation with a focus on Ecological Monitoring*”, organized by the Wildlife Institute of India, for Scientists and Technologists, from 5th- 9th of the month at Dehradun. 52 book entries were made in *e-granthalaya*.

Publication:

Sharma, G. 2011. Studies on the Reproductive behavior of *Pseudagrion rubriceps rubriceps* SELYS (Odonata: Arthropoda) at Pichhola Lake, Udaipur, Rajasthan, India. *Hexapoda*. 18(2): 150-154.

During the National Seminar on Biodiversity & Intangible Natural Heritage held on 28 September, 2011 at DRC/ZSI



Dr. K. Venkataraman, Director, ZSI,
addressing the audience as Chairman of the Seminar



Dr. Kailash Chandra, Scientist-F, ZSI, Kolkata,
speaking on the occasion



Release of the Abstract of Papers



Release of Posters

North Eastern Regional Centre, Shillong

A field survey was undertaken in East Khasi Hills district of Meghalaya from 6th-10th of the month, to study and make representative collection of the Cerambycidae (Coleoptera: Insecta). Besides, 3 local surveys in Mawlyngot area were conducted on 1st, 15th & 22nd September, to document the phenomenon of earthworm migration in the area. During the month, 8 species of amphibians, 9 species of fishes, 6 species of aquatic Hemiptera and 1 species of earthworm were identified. 2 paratypes of *Garra sp.* were received from Dr. Lalramliana, Asstt. Prof., Pachhunga University College, Aizwal, Mizoram.

Mrs. J. Lyngdoh, Scientist-C & Officer-in-Charge, attended the 2nd meeting of the governing body of the Meghalaya zoo project

implementation society on 9th September at the Office of the Chief Conservator of Forest (Wildlife), Shillong.

Mrs. I. J. Kharkongor, Scientist-C, attended the official gathering of the Town Official



During the field survey at Mawlyngot

Language Implementation Centre, at the Directorate General Assam Rifles, Laitkor, Shillong, on 23rd of the month.

The Hindi Diwas was celebrated at the Centre from 12th-14th September, 2011 and various competitions in Hindi were held among the staff.

Marine Aquarium cum Regional Centre, Digha

The Centre organized the first Community Training programme on ICZM under the Integrated Coastal Zone Management Project, sponsored by the World Bank, from 6th-12th September, 2011. The purpose of this training was to augment awareness on the conservation and sustainable use of marine biodiversity as well as the significance of coastal zone management in West Bengal for sustainable livelihood, food security and bio-happiness. The inauguration of the training took place on 6th September, 2011 which was presided over by Dr. K. Venkataraman, Director, Zoological Survey of India and Shri. Sudharshan Ghosh Dastidar, Hon'ble Minister of Environment, Govt. of West Bengal, adorned the chair of the Chief Guest. Six different leaflets on project objectives, aquarium information, ZSI information, etc. were also released during the programme. The participants of the training were members of local Gram Panchayats, primary stakeholders nominated by Fisheries Department, Forest Department as well as members of Beach Shops, Sea Shell Sellers, Digha Hoteliers and tourist guide Association. There were 18 technical presentations during the technical session by eminent resource persons. The training programme concluded with a feedback session & the valedictory function. Shri Akhil Giri, Hon'ble Member of Legislative Assembly, Ramnagar, adorned the

chair of the Chief Guest during this function.

The aquarium received an average of 185 tourists per day during this month. Around 601 examples of live marine ornamental exhibits and 38 freshwater exhibits were displayed in the aquarium. The major attractions among the aquarium exhibits were, Lion fish (*Pterois miles*), Tang fish (*Zebrasoma desjardinii*), Tentacle anemone, sweet leap (*Plectorhinchus orientalis*), Red-tailed butter-fly fish (*Chaetodon collare*) and long-fin banner fish (*Heniochus acuminatus*). The main emphasis was to improve stocking in the tanks and improvements in the tank facilities. The aquarium tanks were installed with fluorescent lightings of 20000K in all the tanks. In addition to this, a few tanks were also installed with protein skimmers, UG filtration sump & external sump filters. At the museum and interpretation centre, twenty numbers of LED display panels with representative marine fauna & thematic posters were also installed. Apart from aquarium maintenance, ornamental fishes were collected through local surveys and 54 specimens were identified which included 17 families, 25 genera and 26 species. Two queries received for identification and advisory services were attended. One manuscript on the Parrot fish *Scarus gobhan*, a new site record was communicated during the month.



Lionfish



Sea anemone with clownfish

During the first Community Training programme on ICZM at MARC/ZSI



Director, ZSI welcoming the audience



Release of leaflets



A view of the aquarium gallery



Certificate distribution

Northern Regional Centre, Dehra Dun

Four intensive faunal surveys were undertaken in Dehradun District and representative fauna belonging to 14 faunal groups collected. Besides, 40 exs. of helminth parasites from amphibians and soil nematodes from soil samples were also collected. Field observations were made on 11 species of birds and 5 species of mammals. During the month, 7 species of amphibians, 9 species of soil nematodes, 3 species of reptiles, 44 species of butterflies and 5 species of soil nematodes were identified out of the collections made from Dehradun, Jhilmil Jheel Conservation Reserve and Haryana. Permanent slides of medulla of species of *Ochotona macrotis* (Gunther), *Ochotona ladacensis* (Gunther), were prepared for trichotaxonomy. Four research papers were published and one communicated. A research paper received from the Journal of Ecology and the Natural

Environment, for comments was scrutinized and comments offered. Dr. Bahuguna, Scientist-C attended the meeting for PBR of Uttarakhand, organized by Uttarakhand Biodiversity Board, Dehradun on 22nd.

The Hindi fortnight was celebrated from 14th-30th September. Ten students visited the Museum of the Centre.

Publications:

1. Sharma, V. 2011. Terrestrial Nematodes from Rajasthan, India: III. Discolaiminae (Nematoda: Qudisianematidae). *J. Exp. Zool. India*. 14: 547-555
2. Sharma, V. 2011. Diversity of Terrestrial Nematodes in Uttarakhand. *J. Exp. Zool. India*. 14: 575-582
3. Bahuguna, A. and Bhutia P.T. 2010. (received late). Extension of the range & redescription

of *Lycodon jara* (Shaw) (Reptilia: Serpentes: Colubridae) *Rec. zool. Surv. India*: 110 (part 4): 37-39.

4. Bahuguna, A., Bhutia, P.T. and Joshi A.K.



the faunal survey at Branskhanda, Dehradun

2010. (received late). New distribution records of *Typhlops diardii* Schelgel, 1839 and *Sibynophis subpunctata* (Dum & Bibr.) in Haryana State. *Rec. zool. Surv. India*: 110 (part 4): 73-75.



Lasiommata schakra observed at Branskhanda

Marine Biology Regional Centre, Chennai

Scientists of the Centre identified 2 species of foraminiferans, 4 species of sea grass associated testate amoebae, 4 species of sponges and 9 species of fishes out of the materials collected from Gulf of Mannar Marine Biosphere Reserve. One research paper was submitted. Two advisory services were rendered. Dr. C. Venkatraman, Scientist-C & Officer-in-Charge attended the DST sponsored National level training programme for Scientists and Technologists in 'Biodiversity Conservation with focus on Ecological Monitoring' from 5th-9th September, organized by the Wildlife Institute

of India, Dehradun. Dr. Rajkumar Rajan Scientist-C attended the 'First Bi-National Stakeholder Consultation on sustaining the Gulf of Mannar Ecosystem and its Resources' from 5th-6th September, organized by the Bay of Bengal Programme at Rameswaram. Shri. P. Padmanaban, Zoological Assistant participated in the training programme on "Integrated Coastal Management", organized by MARC/ZSI, Digha, West Bengal. One hundred and thirty seven students and 231 tourists visited the marine aquarium during the month.



Trachinocephalus myops (Forster, 1801)



Calappa lophos (Herbst, 1785)

*Chelonodon patoca* (Hamilton, 1822)

Jellyfish

Southern Regional Centre, Chennai

Four local surveys were undertaken in Pallikaranai Marsh on 5th, 12th, 21st and 27th of the month and representative faunal samples collected. Identification for the month includes the following six groups from Southern Eastern Ghats viz. Protozoa: 12 species, Rotifera: 9 spp., Cladocera: 9 spp., Ostracoda: 1 sp., Lepidoptera: 3 spp. and Fishes: 7 spp. Two papers were published and one provisionally accepted. Two manuscripts were refereed for outside journals and 2 identification services were rendered. Dr. K. Rema Devi, Scientist-E and Officer-in-Charge served as a Resource Person for the Faculty Improvement Programme of the Madras University and she delivered two lectures on "Effect of Pollution on Fish and Fisheries" and "Climate Change and its Impact on the Fauna". Dr. Rema Devi also attended the meeting of the Board of Trustees of the Chennai Snake Park on 24th. Dr. K. Ilango, Scientist-D presented an invited paper, as plenary lecture, on the 'Climate Change on the Phlebotomine sand flies and Biting midges in relation to leishmaniasis and blue tongue virus in India' and chaired a session at 2nd International Congress on Global Warming on Biodiversity of Insects: Management and Conservation', organized by the Department of Zoology, Bharathiar University, Coimbatore. Dr. V. M. Sathish Kumar, Sr. Zoological Assistant briefed about the DNA Barcoding techniques to

M.Sc students from Presidency College, Chennai on 28th.

Publications:

1. Indra, T.J., Rema Devi, K. and Ilango, K. 2011. Fishes of River Pennar and its branches. *Rec.zool. Surv. India, Occ.Pap.* No. 329: 1-52.
2. Benziger, A; Philip, S; Raghavan, R; Anvar Ali, P.M; Sukumaran, M; Tharian, J.C; Dhanukar, N; Baby, F; Peter, R; Rema Devi, K; Radhakrishnan, K.V; Haniffa, M.A; Britz, R. & Antunes Agostinho. 2011. Unraveling a 146 years old Taxonomic Puzzle: Validation of Malabar Snake head, Species Status and its Relevance for Channid Systematics and Evolution. *PLOS ONE*, 6 (6): e 21272.



Pallikaranai Marsh

Freshwater Biology Regional Centre, Hyderabad

A field survey tour to Krishnaraja Sagar Reservoir, Mysore, was undertaken from 15th-24th September and representative samples of various faunal groups collected. Besides, faunal surveys were conducted in Safilguda, Secunderabad (a small sized lake), two large raw water reservoirs, 1 irrigation tank and 3 temporary fresh water habitats in Attapur, Hyderabad on 7th, 24th and 30th September, respectively. Water samples from different lakes and other water bodies surveyed were analyzed for 12 physicochemical parameters, besides inorganic plant nutrients. The numerical abundance and occurrence of different species of cladocera/rotifera have been correlated to physicochemical parameters and presence and absence of species used as *indicator* of trophic for evaluation of nutrient status of the pond. A year long study revealed a large number of cladoceran and rotiferan species including the ecologically interesting seasonal or cyclomorphic forms. 70 species of freshwater rotifers were recorded from

freshwater ponds/pools for the first time from Andhra Pradesh.⁴ advisory services were rendered.

Dr. Deepa Jaiswal, Scientist-C, presented a paper in the '*National Seminar on Biodiversity and Intangible Natural Heritage*', organized by NMNH, New Delhi and DRC/ZSI, Jodhpur, on 28th September and made a poster presentation entitled "Role of Aquatic Insects as Biomonitor".



Rotifera,
Keratella cochlearis Gosse



Cladocera,
Latonopsis australis Sars

Western Regional Centre, Pune

During the month, 5 species of Hymenoptera, 4 species of Odonata, 7 species of Orthoptera, 2 species of freshwater crabs and 25 species of Mollusca were identified. Identification services were rendered on Odonata (Insecta), Mollusca and Pisces to outside parties. Hindi Week was celebrated at the Centre from 14th-21st September. Students from Indus International School, Pune, M.Sc students and staff of S.G.M. College, Karad, and Yashwantrao Chavan Institute of Science, Satara visited the Centre and museum as part of their curriculum. Dr. R.M. Sharma, Scientist-D & Officer-in-Charge delivered a lecture on "Insect Identification, Natural History and Conservation issues" on 29th September at Pench National Park, during the Training Programme for Naturalists, organized by Madhya Pradesh Tourism

Development Corporation and Indian Institute of Forest Management, Bhopal. Two research papers were reviewed. Seven chapters on various invertebrate groups were contributed by the scientists of the Centre for the document on the State Fauna. Three research papers were published.

Publications:

1. Priyanka Dutta Saha, R.M.Sharma & Bulganin Mitra. 2011. A Preliminary note on the flies of Pune City, Maharashtra. *Bionotes*, 13 (3): 118.
2. Shrikant Jadhav, Mandar Paingankar and Neelesh Dahanukar. 2011. *Osteobrama bhimensis* (Cypriniformes: Cyprinidae) a junior synonym of *Osteobrama vigorsii*. *Journal of Threatened Taxa* 3 (9): 2078-2084.

3. Pati, S.K., M.V. Rao and M. Balaji. 2011. New record of *Modiolus auriculatus* (Modiolinae: Mytilidae: Bivalvia) from the north-eastern

coast of India. *Marine Biodiversity Records*, Vol. 4; e66: 1-3. Doi: 10.1017/S1755267211000716.



Osteobrama vigorsii



Body parts of *Panthera pardus* received from State Forest Department for identification



During the visit of Students to the Museum at the Centre

Sunderban Regional Centre, Canning

A field Survey was conducted in and around Sunderban from 17th-27th September, to study the diversity of Acrididoidea (Orthoptera). Apart from Acrididoidea, representative faunal elements of other groups were also collected. Another survey was conducted in the Fish landing centres of Canning on 29th and

representative fish, shrimps and crab specimens collected. 1 species of Crab and 1 sp. of shrimp were identified and registered.

From 1st to 15th September, 'Hindi Pakhwara' meet was organized at the Centre. On 14th September, 'Hindi Day' was also celebrated.

High Altitude Regional Centre, Solan

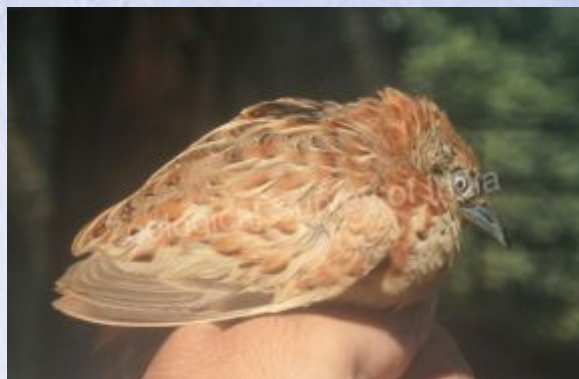
A field survey was conducted in Kalatop-Khajjiar Wildlife Sanctuary and representative faunal samples pertaining to 10 groups were collected. One research paper was published and one accepted during the month. Dr. A. K. Sidhu, Scientist-C and Officer-in-Charge attended the National training programme for

scientists and technologists in "Biodiversity Conservation with focus on Ecological Monitoring" sponsored by DST from 5th-9th September at the Wildlife Institute of India, Dehradun. Hindi Pakhwara was celebrated at the Centre from 14th-28th September and various programmes were organized among the staff

members. District Hindi and Cultural Officer, Solan, graced the occasion on the concluding day of the Pakhwara.

Publication:

Sidhu, A.K., Charan Kumar and H.S. Rose (2011) Taxonomic studies and status of high altitude genus of butterflies *Albulina* Tutt (Lepidoptera: Lycaenidae: Polyommatainae) from Indian Himalayas. *Environment and Ecology* 29(3A): 1283-1290.



A Small Buttonquail rescued in HARC/ZSI Campus

Andaman and Nicobar Regional Centre, Port Blair

A faunal survey was conducted from 7th-13th September in North Andaman Islands to assess the diversity and density of coral and its associated fauna. A total of 29 species of scleractinian corals, 19 species of echinoderms, 73 species of molluscs, 4 species of brachyuran crabs and 21 species of fishes were identified from the marine ecosystem, while 27 species of butterflies, 11 species of dragonflies, 1 species of reptile, 1 species of Amphibia and 2 species of mammals were identified/observed from the terrestrial environment of the area surveyed. Thirty specimens of corals were registered in the National Zoological Collection of the Centre. A book on the Echinoids of Andaman and Nicobar Islands has been submitted for publication. The final technical report on the projects, 'Survey and Monitoring the Health of Corals of India-NCRI' and 'Distribution and diversity of Corals and their associated faunal communities' were submitted to MoEF. Draft copy the Management Plan of Lohabarrack Crocodile Sanctuary, South Andaman (year 2012-21) has been submitted to the Department of Environment and Forests, A&N Islands for necessary action. An EIA study proposal on the construction of marine jetties for Indian Navy, Ministry of Defense has been submitted on request. As per the request of the Department of Environment and Forests, A & N Islands, feasibility study has been conducted for the proposed Biological Park in Port Blair town and

also necessary assistance provided for the control of Chital population in Ross Island. Apart from these, geographic distribution of three marine gastropods has been provided to the National Institute of Ocean Technology, Port Blair, on request. A project proposal on Ascidiars for Department of Environment and Forests, Port Blair was reviewed and comments offered. Dr. C. Sivaperuman, Scientist-C attended the training programme on 'Biodiversity Conservation with focus on Ecological Monitoring' from 5th-9th September at the Wildlife Institute of India, Dehra Dun. Mr. Tamal Mondal, JRF participated in the training, 'Recent Trends in Applied Ecology' under the UGC-NRCBS Programme organized by Madurai Kamaraj University from 25th August-8th September 2011, and Mr. C. R. Sreeraj, JRF attended training programme on 'Satellite Oceanography' held at ICMAM Project Directorate, Ministry of Earth Sciences, Chennai from 19th-23rd September 2011. Hindi Fortnight was observed at the Centre from 14th-28th of the month.

Publication:

1. Tamal Mondal, C. Raghunathan and Ramakrishna, 2011. New record of three scleractinian corals forms Avis Island, Andaman Archipelago. In: *Animal Diversity Natural History and Conservation* (Eds. V.K. Gupta and A.K. Verma) Vol.1, Chapter 15: 283-290. Daya Publishing House, New Dehi.

Holothurian, *Actinopyga mauritiana*Holothurian, *Euapta godeffroyi*Holothurian, *Holothuria atra*Holothurian, *Synapta maculata*

Arunachal Pradesh Regional Centre, Itanagar

A field survey was conducted in Pakke Tiger Reserve from 15th-24th September to study the bird communities of the Reserve. Eighty two species of birds were observed during the survey apart from various species of mammals. The survey was conducted during late-monsoon period to study the bird distribution and diversity within Pakke Tiger Reserve. Interestingly, many of the species which the survey party had observed during the earlier trip during winter were not observed or were not so commonly sighted. The significant birds species observed during the survey include Great Hornbill *Buceros bicornis*, Wreathed Hornbill *Aceros undulates*, Oriental Pied Hornbill *Anthracoceros albirostris*, Blue-bearded Bee-eater *Nyctornis athertoni*, Green-billed Malkoha *Phaenicophaeus tristis*, Striated Bulbul *Pycnonotus striatus* and Long-billed Wren Babbler *Rimator malacoptilus*. Certain mammals

recorded include the Asian elephant, Hoary-bellied Himalayan Squirrel *Callosciurus pygerythrus*, Malayan Giant Squirrel *Ratufa bicolor*, Capped Langur *Trachypithecus pileatus* and Indian Muntjac *Muntiacus muntjak*.

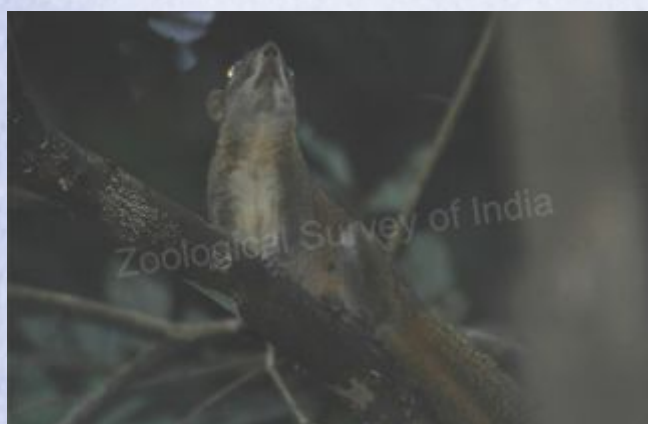
Twelve students visited the museum and library of the Centre during the month.



Asian Elephants



Indian Muntjack



Hoary-bellied Himalayan Squirrel



Great Hornbill

Gangetic Plains Regional Centre, Patna

A faunal survey of River Damodar in Jharkhand was conducted and representative faunal samples collected. Eleven species of the family Noctuidae (Lepidoptera) were identified out of the collections from Bihar.

Identification service was rendered on 60 species of Arctiidae (Lepidoptera) to a senior research fellow of the Department of Zoology and Environmental Sciences, Punjabi University, Patiala (Punjab). One research paper was submitted for publication.

The Dolphin Task Force Meeting held on 6th September 2011 at Sanjay Gandhi jaivik

Uddyan, Patna for preparation of action plan for conservation of Gangetic dolphin in Bihar was attended by Dr. Gopal Sharma, Scientist-C & Officer-in-Charge. Dr. Navneet Singh, Scientist C, attended the Subscriber Awareness Programme (SAPs) on September 23rd, organized by the Pension Fund Regulatory and Development Authority (PFRDA) to provide guidance about New Pension scheme (NPS) at Industry house, Sinha library road, Patna. The Hindi Pakhwara was celebrated at the Centre from 5th-16th of the month. 29 students visited the museum.

Central Zone Regional Centre, Jabalpur

During the month, 16 species of Hemiptera and 8 spp. of spiders and 10 spp. of moths (Lepidoptera) were identified and registered from the backlog collections from Veerangana Durgawati Wildlife Sanctuary, Madhya Pradesh. A faunistic survey was undertaken to Singhori Wildlife Sanctuary, Madhya Pradesh from 16th-28th September and collected representative faunal elements. Two research papers were communicated. Dr. S. Sambath, Scientist-C attended the training course on “Biodiversity Conservation with focus on Ecological Monitoring”, organized by the Wildlife Institute of India, at Dehra Dun from

5th-9th September. The “Hindi Pakhawada” was celebrated at the Centre.



Purthala-an undisturbed small island habitat (dominated by Spiders and Odonata) in Barna Dam at Singhori Wildlife Sanctuary, Madhya Pradesh

Some moths of Singhori Wildlife Sanctuary, Madhya Pradesh



Arctia ricini (Fabricius)



Eggs and freshly hatched larvae of *Arctia ricini*



Creatonotus lactineus (Cramer)



Creatonotus gangis (Linnaeus)



Estigmene biguttata (Walker)



Syntomis cyssea (Cramer)

Estuarine Biology Regional Centre, Gopalpur-on-Sea

During the month 25 species of molluscs from the collection of the Pennar Estuary, Andhra Pradesh and 15 species of *Anopheles* from the collection of mosquito fauna of Ganjam district, Odisha were identified. Three brackish water aquariums were set up in the Centre for keeping estuarine ornamental fishes. A research paper was reviewed and comments offered.

Identification and advisory service was rendered to a Research Scholar of Central Institute of Freshwater Aquaculture, Bhubaneswar.

Dr. L. Kosygin Singh inaugurated the District Level Science Exhibition as Chief Guest at the Saraswati Vidya Mandir, Ganjam district, Gopalpur-on-Sea, Odisha, on 11th September, 2011.



A tributary of Rushikulya River, Orissa



Brackish water aquariums setup at the Centre



Dr. L. Kosygin Singh delivering the inaugural speech, as chief guest, during the District Level Science Exhibition at the Saraswati Vidya Mandir, Gopalpur-on-Sea, Ganjam district, Odisha, on 11th September

Western Ghat Regional Centre, Kozhikode (Calicut)

In collaboration with scientists of other institutions, the scientists of the Centre described 12 new species of frogs of the genus *Nyctibatrachus*, endemic to Western Ghats, India, and published a monograph dealing with the taxonomic revision/review of the genus. Besides, 4 research papers and a popular article were published, and 7 research papers submitted for publishing, during the month.

Two new species of *Platygastridae* (Hymenoptera), 5 species of centipedes (Chilopoda: Scolopendromorpha) including apparently a new species, and 10 species of Odonata (Insecta) were identified. One identification and advisory service was rendered.

Dr. Muhamed Jafer Palot, Asstt. Zoologist

participated in the Pelagic Sea Bird survey conducted at the northern coast of Kerala organized by Kerala Birder and Malabar Natural history Society, Kozhikode, on 24th & 25th September 2011.

C. Radhakrishnan, Scientist-F & Officer-in-Charge attended the Research Advisory Monitoring Committee (RAMC) meeting of ZSI on 22nd September, at ZSI, Kolkata, as a special invitee.

Dr. P. M. Sureshan, Scientist-C, Dr. K. Rajmohana, Scientist-C, K. G. Emiliyamma, Scientist-C and Dr. Muhamed Jafer Palot, Asstt. Zoologist, attended the National workshop on 'Conservation of Biodiversity unsolved problems, their policy and individual responsibility', organized by the P.G. &

Research Dept. of Zoology, Malabar Christian College, Kozhikode, jointly with the Zoological Survey of India, Kozhikode and Prof. T.C. Narendran Trust for Animal Taxonomy, on 22nd & 23rd September.

Dr. K. Rajmohana, attended the National training programme for scientists and technologists in “Biodiversity Conservation with focus on Ecological Monitoring” sponsored by DST from 5th-9th September at the Wildlife Institute of India, Dehradun. She

New Discoveries

(New species of amphibians from Western Ghats)



Nyctibatrachus jog



Nyctibatrachus poocha



Nyctibatrachus grandis



Nyctibatrachus pillai



Nyctibatrachus shirdi



Nyctibatrachus gavi



Nyctibatrachus vrijeuni



Nyctibatrachus periyar



Nyctibatrachus acanthodermis



Nyctibatrachus danieli



Nyctibatrachus deveni



Nyctibatrachus indraneili

delivered an inhouse lecture before the staff of the Centre on the programme as well as on 'The WII experience', as a summary of Training programme attended by her. Dr. K. Rajmohana also delivered an invited talk on “Essentials of Biodiversity Science” at the Academic Staff College, University of Calicut, as a resource person in the orientation Course for College teachers organized by the UGC, on 24th.

Dr. P. M. Sureshan and Dr. Muhamed Jafer Palot, Asstt. Zoologist, delivered lectures on 'Biodiversity of Kerala' to the students of the special project, “Promotion of excellence among gifted students” of the District Education Department, Kozhikode on 6th September 2011 at WGRC/ZSI, Calicut.

Dr. P. M. Sureshan supervised the research project of a JRF of the Centre. Dr. K. Rajmohana supervised the research projects of the two JRFs of the Centre as well as two M. Sc. students from Kannur University, attached to the Centre for their project work.

A programme in connection with the “World Heart Day” with the theme 'One World, One Home and One Heart' was conducted at the Centre in association with 'Open Medicines' on September 29th. A talk on the topic 'Healthy Heart' was delivered by Dr. M. Balakrishnan, MD (Sr. Consultant Physician and Retd. Dy. Director of Health Services, Kerala), followed by an interactive session as well as a wellness check-up arranged on the day for the staff of the Centre.

During the month, 215 visitors paid their visits to the museum.

Publications

1. S. D. Biju, Ines Van Bocxlaer, Stephen Mahony, K. P. Dinesh, C. Radhakrishnan, Anil Zachariah, Varad Giri and Franky Bossuyt. 2011. A taxonomic review of the Night Frog genus *Nyctibatrachus* Boulenger, 1882 in the Western Ghats, India (Anura: Nyctibatrachidae) with description of twelve new species. *Zootaxa* (Monograph), 3029: 196.

2. Muhamed Jafer Palot & C. Radhakrishnan. 2011. Recent records of the Asian Giant Softshell Turtle *Pelochelys cantorii* (Gray) (Chelonia: Trionychidae) in northern Kerala, southern India. *Reptile Rap- Newsletter of the South Asian Reptile Network*, 13:1416.
3. Muhamed Jafer Palot & C. Radhakrishnan. 2011. An updated checklist of Reptiles of Kerala. *Malabar Trogon*, 9 (1&2): 24- 30.
4. Rajkumar K P, Ansil Basheer, Umesh P K, Gnanakumar M, Bijoy. C, Sandeep Das. 2011. Amphibian diversity of Government college campus, Chittur, Palakkad district, Kerala State. *Malabar Trogon*, 9 (1, 2):16-17.
5. Muhamed Jafer Palot. 2011. Animal of the month: The Kollegal Ground Gecko, *Geckoella collegalensis*. *ZSI e-news*, 3 (7): 18 19.

During the programme conducted at WGRC for “Promotion of excellence among gifted students” of the District Education Department, Kozhikode



Dr. P. M. Sureshan, Scientist-C delivering a lecture



Dr. Muhamed Jafer Palot, Asst. Zoologist delivering a lecture

ANIMAL OF THE MONTH

The Travancore tortoise *Indotestudo travancorica* (Boulenger, 1907)



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

The Travancore tortoise (*Indotestudo travancorica*) is a large tortoise species restricted

to the forests of Western Ghats, in the states of Kerala, Karnataka and Tamil Nadu, in India

and can be found at an elevation of 450-850 m. It grows up to 330 millimetres (13 inches) in length. It feeds on grasses, herbs, fruits, fungi, molluscs, insects and animal carcass. Its breeding season is between November and March. 1-5 eggs are laid in the shallow nest

made by the animal on the ground. The species is hunted and has become vulnerable (IUCN Red list) due to habitat destruction and fragmentation as well as forest fires. It is included under the Schedule IV in the Indian Wildlife (Protection) Act.

CHECK LIST OF FAUNA OF INDIA

1. Isopoda (Crustacea)

<http://zsi.gov.in/checklist/Checklist-%20Isopoda%20India.pdf>

2. Diplura (Insecta)

<http://zsi.gov.in/checklist/Diplura%20%28Insecta%29.pdf>

3. Protura (Insecta)

<http://zsi.gov.in/checklist/Protura%20%28Insecta%29.pdf>

4. Thysanura (Insecta)

<http://zsi.gov.in/checklist/Thysanura%20%28Insecta%29.pdf>

ZSI IN NEWS

Twelve new frog species found in Western Ghats

<http://www.thehindu.com/sci-tech/energy-and-environment/article2456205.ece>





OUT OF THE BOX

Two new species of fish found in Arunachal

<http://timesofindia.indiatimes.com/india/2-new-species-of-fish-found-in-Arunachal/articleshow/9962519.cms>

Great Indian Bustard on brink of extinction

<http://www.thehindu.com/sci-tech/energy-and-environment/article2085018.ece>

Cheetah to be reintroduced at Palpur-Kuno sanctuary

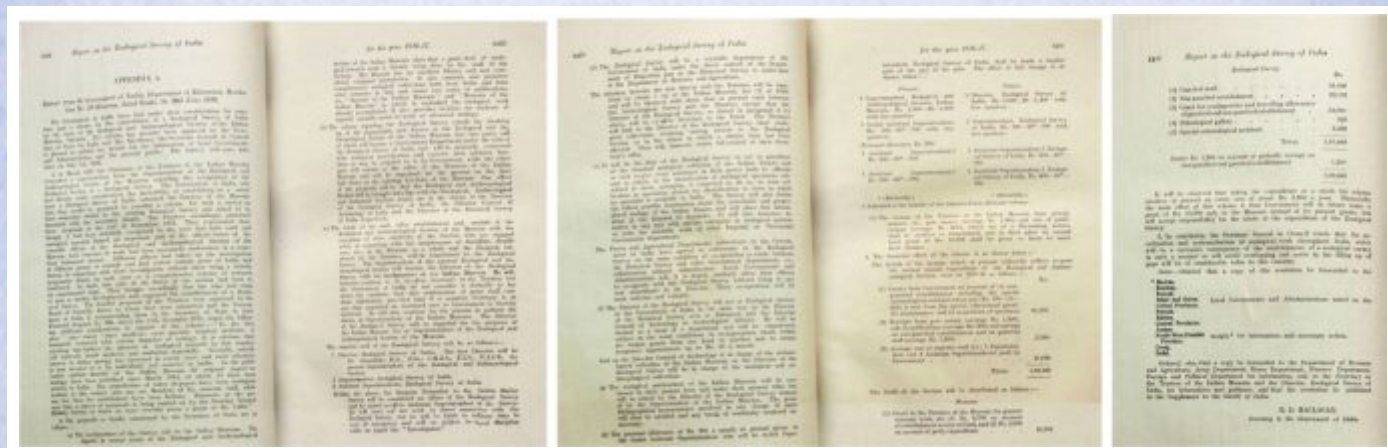
<http://www.thehindu.com/sci-tech/science/article2349948.ece>

PAINTINGS FROM ZSI HERITAGE ALBUM



Great Indian Bustard
Ardeotis nigriceps (Vigors, 1831)

Genesis of Zoological Survey of India - The Shimla Declaration



[Posted by: Dr.K.A.Subramanian, Zoological Survey of India, Kolkata]