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*ZSI in the 97th year of Service to the Nation
(1916 to 2012)*



Back issues of *ZSI e-NEWS*

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Headquarters, Kolkata

Extensive field surveys were conducted in Himachal Pradesh including protected areas (Simbalbara Wildlife Sanctuary, Kofri National Park, Majathal WLS and Chail WLS), Maharashtra (Karnala Bird Sanctuary, Karnala, Raigad), West Coast of India (Maharashtra and Gujarat) and West Bengal (North Bengal, Sajnakhali WLS and Diamond Harbour).

During the month, 3 species of Protozoa, 2 species of Platyhelminthes, 4 species of Collembola, 20 species of Hemiptera, 9 species of Hymenoptera, 30 species of Orthoptera, 8 species of Coleoptera, 4 species of Isoptera, 3 species of Crustacea, 43 species of Mollusca, 15 species of Fishes and 5 species of Mammals from the States of Arunachal Pradesh, Assam, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Maharashtra, Madhya Pradesh, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, Punjab and West Bengal were identified. Out of the material identified, seven species of Darkling Beetles (Coleoptera: Tenebrionidae) from Maharashtra, 6 species of Diptera from Uttarakhand and 8 species of Diptera from Arunachal Pradesh, turned out to be new records to these states. Besides, the species *Delta dimidiatipenne* (de Saussure) (Hymenoptera: Vespidae: Eumeninae) has been identified as a new record from Chhattisgarh, Himachal Pradesh, Jammu & Kashmir, Jharkhand and Rajasthan. Similarly, *Allocreadium mehrai* Gupta 1956 and *Opegaster* sp. (Platyhelminthes: Trematoda: Digenea) have been recorded for the first time from Himachal Pradesh.

Fourteen research papers were published, 12 accepted and 12 communicated. Seven research papers were reviewed for various journals and comments offered.

Identification and advisory services were rendered on 17 lots of specimens, received from different Institutions and Organizations.

Genomic DNA of two Diptera, *Bengalia bezzii*

and *Culicoides schultzei* and 14 Crab species were extracted using Macherey-Nagel NucleoSpin Tissue Kit. Polymerase Chain Reaction (PCR) was successfully performed with mtCOI (LCO-M13T & HCO-M13T) primers in Eppendorf Thermal Cycler. PCR products were purified using Macherey-Nagel PCR and Gel clean-up Kit. The purified PCR products were retained for sequencing.

One formalin-fixed seized material which was suspected to be of Wild Boar has been received from the Forest Department, Government of West Bengal, for species confirmation using DNA sequencing techniques. DNA of the sample was extracted from Skin, Muscle & Hair follicles. Further, PCR was performed with DNA from Skin, Muscle & Hair follicles separately with mammal specific Cyt-b primers to amplify about 480 bp fragments (figure 1). PCR-products were purified and made ready for sequencing and confirming the species identity.

The seized animal scales received from Shri C. Behera, Regional Deputy Director, Wildlife Crime Control Bureau, Eastern Region, Nizam Palace, Kolkata, were identified as the scales of Pangolin, *Manis crassicaudata* Gray.

The Library Section added 21 Books, 29 issues of Journals by purchase, 54 issues of Journals by exchange and 225 volumes in Bound form.

The first 'PROMALIA' seminar was organized on 3rd September, 2012 at Annandale Hall, ZSI, Kolkata. This occasion was graced by two renowned taxonomists, Prof. T. C. Narendran and Prof. Veena Tandon. They delivered lectures on various aspects of Taxonomy. Dr. K. Venkataraman, Director, ZSI, delivered the introductory remarks on the occasion.

Shri B.M.S. Rathore, Joint Secretary, MoEF, New Delhi & Dr. Ashish Kumar, Deputy Director, MoEF, visited the Mammals & Osteology Section on 4th September. Shri. S. Mahapatra, Under Secretary, MoEF, New Delhi

visited different Division / Section on 21st of the month.

Dr. Stephen Jackson, Associate Senior Lecturer, University of New South Wales, Sydney, Australia visited the Mammals & Osteology Section on 26th and 27th September.

Dr. Viswa Venkat Gantait, Zoological Assistant, attended the Pre-Antarctic snow/ice acclimatization training course for the 32nd Indian Scientific Expedition to Antarctica from 10th-26th September at Auli, Uttarakhand and delivered a lecture on "Floral and Faunal Community of Antarctica". Shri B. Mitra, Scientist-B, attended the 8th Heritage site and sacred grove meeting at West Bengal State Biodiversity Board, Kolkata on 28th September. Dr. Gaurav Sharma, Scientist-C, participated in the 4th Meeting of CITES Cell, held at MoEF, New Delhi, on 17th September. Shri K.C. Gopi, Scientist-E, attended the ICAR funded short term course on "World Trade Agreement and Indian Fisheries Paradigms - A Policy Outlook", organized by the CMFRI, Kochi, Kerala, from 17th-26th September.

The Research Advisory Monitoring Committee (RAMC) meeting Chaired by Dr. V. V. Ramamurthy, I.A.R.I., New Delhi was held at Headquarters on 4th September.

Dr. K. Venkataraman, Director, ZSI, attended the 6th meeting of the National Board for Wildlife, New Delhi, on 5th and 6th September. Dr. Venkataraman attended a Symposium at Annamalai University, Tamil Nadu, on 13th and 14th September.

He also attended the Annual Meeting of Wildlife Institute of India, Dehra Dun, on 17-18th September, a meeting at MoEF, New Delhi, on 21st September, in connection with CoP-11 Conference to be held at Hyderabad and as well the 70th CSIR Foundation Day Celebration at Bhavnagar, Gujarat, on 25th September, as Chief Guest.

The 'Hindi Pakhwara' (Hindi Fortnight) was observed from 7th-21st September.

Publications:

1. Chandra, K. and Gupta, D. 2012. Study of External male genitalia of ten species of Indian Dung Beetles (Coleoptera: Scarabaeidae: Scarabaeinae). *I.J.S.N.* Vol. 3(3): 635-638.
2. Chandra, K. and Gupta, D. 2012. Pleurostict scarabs (Coleoptera: Scarabaeidae): New distributional records in Arunachal Pradesh, north-east India. *Check-List* 8(5):889-893.
3. Chandra, K. Kushwaha, S., Biswas, B. Mukherjee, P. Bal., A. 2012. Eight new records of Genus *Acanthaspis* (Hemiptera: Reduviidae) from Madhya Pradesh, India. *World Journal of Zoology* (EGYPT). 7(3):226-231.
4. Mitra, B. 2011. On a collection of Insecta: Diptera: Muscidae from Uttarakhand. *Rec.Zool. Surv. India*. 111(2):67-74.
5. Sharma, R.M. and Mitra, B. 2012. A preliminary study on insect Pollinators of Temperate fruit crops in Himachal Pradesh, *Rec.Zool. Surv. India*. 111(3):103-110.
6. Mitra, B., Parui, P and Sharma, R.M. 2011. Insecta: Diptera, In: *Fauna of Madhya Pradesh (including Chattishgarh)*. *State Fauna Series.*, Zoological Survey of India, 15(3):167-202.
7. Mitra, B. and Parui, P. 2012. Flies collected in a Daphabum expedition, Arunachal Pradesh. *Bionotes*, 14(3):92.
8. Gupta, I.J. and Majumdar, M. 2012. Handbook on diversity in some of the Indian Butterflies (Insecta: Lepidoptera). Zoological Survey of India. Pp.1-324.
9. P. Girish Kumar (2012). On *Delta dimidiatipenne* (de Saussure, 1852) (Hymenoptera: Vespidae: Eumeninae) from India. *Journal of Environment and Sociobiology*, 9 (1): 43-49.
10. Thakare, V. G., Zade, V. S. and V. D. Hegde (2012) Darkling Beetles (Coleoptera:

Tenebrionidae) of Melghat Tiger Reserve, Central India, *Journal on New biological Records* 1(1): 29-32.

11. Chandra, K. Gupta, D., Uniyal, V.P., Bharadwaj, M. and Sanyal, A.K. 2012. Studies on Scarabaeid beetles of (Coleoptera) of Govind Wildlife Sanctuary, Garhwal, Uttarakhand, India. *Biological Forum- An International Journal*. 4(1): 49-55.
12. Chandra, K. and Gupta, D. 2012. Diversity and composition of dung beetles (Scarabaeidae: Scarabaeinae and Aphodiinae) assemblages in Singhori

Wildlife Sanctuary, Raisen, Madhya Pradesh (India). *Mun. Ento.Zool.* 7 (2): 812-827.

13. Thakare, V., Zade, V.S., and Chandra, K. 2012. New records of Scarabaeid beetles (Coleoptera: Scarabaeidae) from Melghat Tiger Reserve, Maharashtra. India. *Biological Forum- An International Journal*, 4(1): 6-10.
14. Chandra, K. and Kushwaha, S. 2012. Studies on Hemiptera Fauna of Barnawapara Wildlife Sanctuary, Chhattisgarh, India. *DCSI* vol. 7: 101-108.



Dr. K. Venkataraman, Director, ZSI, delivering the introductory remark and Prof. T. C. Narendran and Prof. Veena Tandon, Members of the RAMC delivering lectures during first 'PROMALIA' seminar at ZSI, Kolkata



Shri. B.M.S. Rathore, Jt. Secretary, MoEF, New Delhi, Visiting the Mammals & Osteology Section and the Library



During RAMC Meeting held on 4th September, 2012



During the visit of RAMC members to DNA Barcoding lab



During the 'Hindi Pakhwara' observed at ZSI, Kolkata



Dr. Stephen Jackson, Associate Senior Lecturer, University of New South Wales, Sydney, Australia,
During his study visit to the Mammal & Osteology Section at ZSI, Kolkata

Estuarine Biology Regional Centre, Gopalpur-on-Sea

The bivalve molluscs from Pennara estuary, Andhra Pradesh, were identified as belonging to 11 species. Besides, 10 species of mosquitoes were identified. Thirty museum specimens of fishes were digitized. One research paper was published.

Publication:

S.D Gurumayum and U.C Goswami, 2011. Sediment characteristics of Imphal, Thoubal and Khuga rivers of Manipur. *Envis Bull. Himalayan Ecology*. 19(28-32).



Malleus albus (Lamarck)

Western Regional Centre, Pune

Extensive field survey was undertaken in northern Western Ghats (Satara, Sangli and Kolhapur districts, Maharashtra). During the month, 4 species of Decapoda, 11 species of Odonata and 4 species of Vespoidea were identified. Two research papers were published and two communicated. Identification and advisory services were rendered on fish specimens received from R. R. Shinde Junior College, Hadapsar, Pune. Two seized animal skins received from the Police department, Kolhapur, Maharashtra, were identified as fake Tiger skins. Dr. R.M. Sharma, Scientist-D & Officer-in-Charge delivered an invited talk on "Zoological Survey of India and Indian Zoology" at Abasaheb Garware College, on 18th September. Dr S. S. Jadhav, Sr. Zool. Asst., visited SRC, Chennai, to study the Type Specimens of fishes. He also surveyed Nilgiri Hills, Tamil Nadu from 22nd September to 1st October, 2012.



Balitora laticauda Bhoite, Jadhav & Dahanukar, a new stone loach discovered from northern Western Ghats

The Under Graduate and Post Graduate students from Prof. Ramkrishna More Arts, Commerce & Science College, Akurdi, Pune and Sadguru Gadage Maharaj College, Karad, Satara, visited the museum at the Centre.

The 'Hindi Sapthah' (Hindi Week) was observed at the Centre from 14th-21st September.

Publication:

1. Pati, S.K., M.V. Rao, M. Balaji and D. Swain. 2012. Growth of wood borers in a polluted Indian harbour. *World Journal of Zoology*, 7 (3): 210-215.
2. Sunil Bhoite, Shrikant Jadhav and Neelesh Dahanukar. 2012. *Balitora laticauda*, a new species of stone loach (Teleostei: Cypriniformes: Balitoridae) from Krishna River Basin, Northern Western Ghats, India. *Journal of Threatened Taxa*, 4(11): 3038-3049.



During the 'Hindi Sapthah' observed at WRC, Pune

Freshwater Biology Regional Centre, Hyderabad

Field surveys were undertaken in Manjeera, Singur reservoirs, Medak Dist., Nizamsagar and Sriramsagar reservoirs, Nizamabad Dist., Andhra Pradesh, from 15th-18th September and in Mir Alam tank and Himayat Sagar, Hyderabad, on 26th September to collect zooplankton, aquatic insects and macro-

benthic fauna of the water bodies. Twelve species of freshwater fishes, 1 species of copepod, 9 species of molluscs, 3 species of rotifers, 2 species of Cladocera and 5 species of aquatic insects were identified.

The 'Hindi Sapthah' (Hindi week) was observed from 10th-14th September, 2012.



Manjeera reservoir



Nizamsagar reservoir

*Ompok malabaricus*, a common fish of Nizamsagar*Macrobrachium* sp., common in Nizamsagar

During the 'Hindi Sapthah' observed at FBRC, Hyderabad

Desert Regional Centre, Jodhpur

Identified and registered 10 species of nematodes, 2 species of fishes and 4 genera of ants from Rajasthan. A field survey was conducted in and around River Luni, near Jodhpur. The Centre participated in the "Kissan Mela" on 12th September at CAZRI, Jodhpur. A stall highlighting achievements and work done by the Centre was set up at the exhibition. Dr. H. S. Banyal, Scientist-C, delivered a lecture on the fauna displayed in the Centre's museum to a group of 52 students and 4 teachers. Mrs. Neena

Tak, Assistant Zoologist, provided scientific information to 3 naturalists from Rao Jodha Desert Rock Park, to a group of 32 forest guards and an Instructor from Rajasthan Forest Training Centre, Alwar. The 'Hindi Sapthah' (Hindi Week) was observed from 14th-20th of the month.

Publication:

Bohra, P. and Sultana, R. 2012. Nematodes of Thar Desert of Rajasthan. *Rec. zool. Surv. India, Occasional Paper No.334*. 1-95pp.plates 1-8.



During the 'Hindi Sapthah' observed at DRC, Jodhpur



DRC, Jodhpur stall at the "Kissan Mela"

High Altitude Regional Centre, Solan

During the month, 8 species of butterflies and 3 species of earthworm from Kalatop Khajjiar Wildlife Sanctuary, 1 species of Pisces and 1 species of earthworm from Spiti valley, 4 species of Orthoptera from Chail Wildlife Sanctuary, Himachal Pradesh, and 2 species of Pisces from NRC, ZSI, Dehradun collections were identified. Dr. A. K. Sidhu, Scientist-C & Officer-in-Charge and Dr. Indu Sharma, Scientist-C, attended the National Seminar on "Biodiversity, Green Economy and Sustainable

Mountain Development", at HP University, Shimla, on 22nd September. Dr. A. K. delivered an invited lecture on "Biodiversity of cold desert and their role in sustainable development" during the seminar. Dr. A. K. Sidhu and Dr. Indu Sharma attended the meeting of the Wildlife Board of Himachal Pradesh at Shimla on 28th September.

The 'Hindi Sapthah' (Hindi Week) was observed at the Centre from 26th September, 2012.



Grey Bush Chat, *Saxicola ferreus* (Gray)



Himalayan Bulbul, *Pycnonotus leucogenys* (Gray)



Common Kukri Snake, *Oligodon arnensis* (Shaw)

North Eastern Regional Centre, Shillong

A field survey was undertaken from 17th-21st September in Nongkhylllem wildlife sanctuary, Ri-Bhoi district, Meghalaya, and representative faunal samples collected. Thirteen species of fishes and 1 species of reptile were identified out of the specimens collected from the sanctuary. From the backlog collections, 4 species of Amphibia, 1 species of Coleoptera, 4 species of Reptilia, 2 species of Mammalia and 8 species of aquatic Hemiptera were identified. One hundred and eighteen records of identified fishes and 51 records of identified Ephemeroptera were databased. Images and metadata of 1 Holotype and 34 Paratypes of



A view of Nongkhylllem wildlife sanctuary

Nangra assamensis Sen and Biswas (Pisces: Siluriformes: Sisoridae) and 2 species of Mammalia, *Tupaia belangeri* (Wagnen) (Scandentia: Tupaiidae) and *Leopoldamys edwardsi* (Thomas) (Rodentia: Muridae), were digitized.

A research paper on the *Zoogeography of the Bat fauna of the western Himalaya* has been accepted for publication.

Mr. L. Ricky Meetei, Botanical Asst., Botanical Survey of India, Shillong, visited the library of the Centre.

The 'Hindi Diwas' (Hindi Day) 2012 was observed at the Centre on 27th September.



During the 'Hindi Diwas' observed at NERC, Shillong

Arunachal Pradesh Regional Centre, Itanagar

A field survey was undertaken in Lower Subansiri district, Arunachal Pradesh, from 4th-12th of the month and representative faunal samples including zooplankton were collected. Five species of fishes were identified. Images and metadata of 17 specimens of identified fishes in



Barilius vagra (Hamilton)

the National Zoological Collections were digitized. Two research scholars from the Department of Forestry, NERIST, Arunachal Pradesh, visited the Centre and deposited an amphibian specimen of *Rhacophorus suffry*, collected for the first time from Arunachal Pradesh.



Danio dangilla (Hamilton)

Andaman and Nicobar Regional Centre, Port Blair

Surveys were conducted in Rutland Island on 12th and 23rd September and in Great Nicobar Island on 20th and 21st September 2012. As a result of surveys, 57 species of corals, 6 species of echinoderms, 21 species of gastropods, 6 species of crabs and 13 species of fishes were identified from the marine habitats while 10 species of odonates, 13 species of reptiles, 72 species of birds and 1 species of mammal were identified/observed from the terrestrial habitat. Among the scleractinian corals, *Goniopora palmensis* Veron and Pichon and *Goniopora tenella* (Quelch) were recorded as new to Indian waters. Besides, 52 specimens of corals and 8 specimens of butterflies were registered in the National Zoological Collection. One live specimen of confiscated Water Monitor Lizard *Varanus salvator* (Schedule-1 under Wildlife Protection Act, 1972) was identified for the Crime Branch Police, Port Blair. A film of 22 minutes duration entitled, 'Life on Magical Emerald Island- documentary of Island Ecosystem in Andaman and Nicobar Islands' has been produced in collaboration with the Doordarshan Kendra, Port Blair, for showcasing at CoP-11. Apart from that, two posters depicting new records of corals to India have also been prepared for the CoP-11. The final Technical Report on 'Lead Institution-Great Nicobar Biosphere Reserve' has been prepared and submitted to the administrative Ministry. The project proposal to conduct rapid EIA studies for the construction of seawall in INS Kardip has been submitted to the Indian Navy, on request. As constituted by the Administrative Ministry, the Taskforce Committee for National Coral Reef Research Institute (NCRI) visited the Centre and assessed the research activities on 4th September 2012. Dr. C. Raghunathan, Scientist-C and Officer-in-Charge presented the 'Activities and achievements of NCRI' before the committee.

Mr. Koushik Sadhukhan, SRF, participated in

the 'National Training cum Workshop on DNA Barcoding of fish and marine life molecular analysis and bioinformatics approaches (Fishcode-2012)', held at Bharathidasan University, Thiruchirapalli, Tamil Nadu, from 12th-14th September. Mrs. Kamla Devi, Assistant Zoologist, attended the Core Committee meeting of the Environmental Education, held at Secretariat, A&N Administration on 18th of the month and served as a resource person for the 45th batch of Forest Trainees during their visit to the ANRC Museum on 29th September. Dr. C. Raghunathan attended the consultation meeting to conduct studies on Fish Aggregating Devices conducted at NIOT, Port Blair, on 7th September. He also served as a Ph.D. doctoral committee member at the Department of Marine Biology and Coastal Studies, Pondicherry University on 24th September, 2012 and attended the Fisheries Interface meeting held at the Central Agricultural Research Institute, Port Blair on 26th September. Dr. Raghunathan served as a member for Inter-Media Publicity Co-ordination Committee meeting, organized by the Doordarsan Kendra held at Police Headquarters, Port Blair, on 28th September.

The 'Hindi Pakhwara' (Hindi Fortnight)-2012' was observed from 14th-28th September, at the Centre.

Publications:

1. Tamal Mondal, C. Raghunathan and K. Venkataraman, 2012. Distributional record of five scleractinian corals from Andaman & Nicobar Islands. *IOSR Journal of Pharmacy*, 2(5): 38-43.
2. Raghunathan, C. and K. Venkataraman, 2012. Great Nicobar Biosphere Reserve, Nicobar Islands, India. In: *Compendium on Indian Biosphere Reserves Progression during two decades of conservation* (Eds. L.M.S. Palni, R.S. Rawal and R.K. Rai) Published by Ministry of Environment and Forests, Government of India, p.102-108.

Coral, *Acropora willisea* Veron and WallaceCoral, *Favites abdita* Ellis and SolanderCoral, *Acropora granulosa* Milne Edwards and HaimeCoral, *Physogyra lichtensteini* Milne Edwards and HaimeCoral, *Tubastraea coccinea* LessonCoral, *Fungia danai* (Milne Edwards & Haime)

Central Zone Regional Centre, Jabalpur

A faunistic survey was undertaken in the districts of Balaghat, Mandla and Seoni in Madhya Pradesh, from 1st-12th September and representative samples of various faunal groups collected. During the month, backlog collections of 8 species of Hemiptera, 4 species of Mollusca, 6 species of Odonata and 14 species of Lepidoptera from Betul, Chhindwara and Hoshangabad districts of Madhya Pradesh

were identified and registered. Identification and advisory service was rendered to the Regional Tiger Strike force, Jabalpur, on the identity of the live owl specimen, *Bubo bubo* (Linnaeus). Dr. S. Sambath, Scientist-C and Officer-in-Charge, attended the inaugural function of National Seminar on "Strategy for Restoration of Forest Bio-Diversity of Natural Forests and Plantations", organized by the State

Forest Research Institute, Jabalpur, Madhya Pradesh, on 24th September. One research paper was published and another finalized for submission. The 'Hindi Pakhwada' (Hindi Fortnight) was observed from 1st-15th of the month.

Gangetic Plains Regional Centre, Patna

During the month, 8 species of the family Noctuidae (Lepidoptera) and 5 species of aquatic organisms were identified. One research paper was published and one communicated. Dr. Gopal Sharma, Scientist C and Officer-in-Charge, delivered a lecture on Biodiversity of Eastern India at the Indian Council of Agricultural Research, Eastern Zone, Patna, on 25th September, during the 'Hindi Pakhwara' (Hindi Fortnight)-2012. Dr. Gopal Sharma, Scientist C was invited to judge the selected students from the different schools of Bihar for attending Cop11 at Hyderabad. Dr. Gopal Sharma attended a meeting with the Additional Principal Conservator of Forests, Govt. of Bihar on 5th September for organizing the 'Dolphin day' on 5th October 2012.

Marine Biology Regional Centre, Chennai

During the month, 3 species of echinoderms, 4 species of corals, 9 species of nematodes, 11 species of arthropods, 12 species of Pisces and 38 species of molluscs were identified, out of the material collected from Idaikazhinadu (Chennai), Palkbay and Gulf of Mannar Biosphere Reserve. Besides, 73 species were digitized and their metadata compiled. Dr. C. Venkatraman, Scientist-C & Officer-in-Charge, attended the preparatory meeting for CBD CoP11 side event on "Coastal & Marine Biodiversity: Threats, Challenges and Opportunities for Conservation" at the

Publication:

Patil, S. G. and Talmale, S. S. Land and Freshwater Mollusca: In Fauna of Madhya Pradesh (including Chhattisgarh), *State Fauna Series*, 15(part-3): 1-30 (Published by the Director, ZSI, Kolkata).

Prof. A. B Prasad Former Head, Department of Zoology, Patna University, Patna and Prof. (Mrs.) Anjana of Magadh Mahila College, Patna University, visited the Centre for consulting the library. Besides, 2 Students of Delhi Public School, Danapur, Patna, visited the Centre with their teachers.

Publication:

Singh, J., Singh, N., Sharma, K., Joshi, R. (2012) Morphotaxonomy of nine species of genus *Lyclene* Moore (Lepidoptera: Arctiidae: Lithosiinae) from India. *Proceedings of the National Academy of Sciences, India, Section B: Biological Sciences*, DOI 10.1007/s40011-012-0070-9.

National Centre for Sustainable Coastal Management, Anna University, Chennai. Dr. C. Venkatraman identified the confiscated shell items for the Station House Officer, Police Station, Kotwali, North Delhi, and Addl. Dy. Commissioner of Police, New Delhi Dt, New Delhi. Dr. Rajkumar Rajan, Scientist-C, identified the seized 'live rocks' for confirmation of its origin, on request from Dr. S. David Raj, Forest Range Officer, Head Quarters Range (WL), Chennai. Seven hundred and forty eight tourists visited the marine aquarium and museum at the Centre.



Balistoides viridescens (Bloch and Schneider)



Amphirion clarkia (Bennette), exhibiting parental care

Southern Regional Centre, Chennai

A survey team proceeded on a faunal survey tour of 17 days from 27th September, to Tiruchirapally and Villupuram districts of Tamil Nadu. The proofs of the faunal articles pertaining to the State Fauna Series: Karnataka, were forwarded to the respective authors for correction. Identification done on the different faunal groups from the Southern & Middle Eastern Ghats and Kalakkad Mundanthurai Tiger Reserve were, Odonata: 4 spp., Mollusca: 19 spp., Pisces: 14 spp. and Reptilia: 7 spp. Three papers were published and 1 communicated. Dr. K. Ilango, Scientist-D & Officer-in- Charge, attended the board meeting of the Chennai Snake Park on 22nd September, as a trustee. Dr V. M. Sathis Kumar, Sr. Zoological Assistant, delivered an invited lecture on "Cybertaxonomy and biodiversity documentation in India with special emphasis to DNA Barcoding and Molecular markers" in the National Level Training Cum Workshop on DNA Barcoding of Fish and Marine Life Molecular Analysis and Bioinformatics Approaches, FISHCODE-2012, Department of Marine Science, Bharathidasan University, Tiruchirappalli, Tamil Nadu, as an

advisory board member and resource person on 13th September.

Publications:

1. Kailash Chandra, Thilak. J & Avtar Kaur Sidhu 2011. Neuroptera. *Zool. Surv. India, Fauna of Madhya Pradesh (including Chhattisgarh), State Fauna Series*, 15 (Part -3): 151-165.
2. D. K. Harshey and Thilak. J. 2011. Freshwater ostracods (Arthropoda: Ctrustacea) *Zool. Surv. India, Fauna of Madhya Pradesh (including Chhattisgarh), State Fauna Series*, 15 (Part-3): 31-44.
3. V. M. Sathish Kumar. 2012. "Cybertaxonomy and biodiversity documentation in India with special emphasis to DNA Barcoding and Molecular markers" in the National Level Training Cum Workshop on DNA Barcoding of Fish and Marine Life Molecular Analysis and Bioinformatics Approaches, FISHCODE-2012-training manual, Department of Marine Science, Bharathidasan University, Tiruchirappalli 620 024, Tamil Nadu. Pp: 47-58.

Sunderban Regional Centre, Canning

Five species Orthoptera were identified and registered during the month. The 'Hindi Diwas' (Hindi Day) was observed at the Centre on 13th September 2012. On the occasion, Shri. Amit Sinha, Branch Manager of SBI, Canning, Dr. B. Maji, Principal Scientist & Head of Central Soil Salinity Research Institute, (ICAR), Canning and Shri. Biswajit Mahato, Sub-Divisional Police Officer, Canning spoke as the Chief Guest, the Guest of Honour and the Special Guest, respectively.



During the 'Hindi Diwas' observed at SRC, Canning

Marine Aquarium cum Regional Centre, Digha

The aquarium received an average of 550 tourists per day. During the month, 87 examples of live marine ornamental exhibits were collected for exhibiting in the aquarium galleries. The major attractions were the conger eels (*Muraenesox cinereus*), lion fish (*Pterois miles*) and Puffers (*Takifugu oblongus*). Twenty one species of fishes were identified during the month. The specimens identified include *Pseudotriacanthus strigilifer* (Cantor, 1849), *Decapterus macrosoma* Bleeker, 1851, *Cheilopogon*

suttoni (Whitley & Colefax, 1938), *Hippocampus trimaculatus* Leach, 1814, *Alepes melapnoptera* (Swainson, 1839) and *Alepes kleinni* (Bloch, 1793), recorded for the first time from the West Bengal coast. Four research manuscripts were communicated. Dr. Anil Mohapatra, Scientist-C and Officer-in-Charge, attended the workshop on "Training Need Assessment for ICZM" on 14th and 15th of the month, organized at KIIT School of Rural Management, KIIT University, Bhubaneswar.



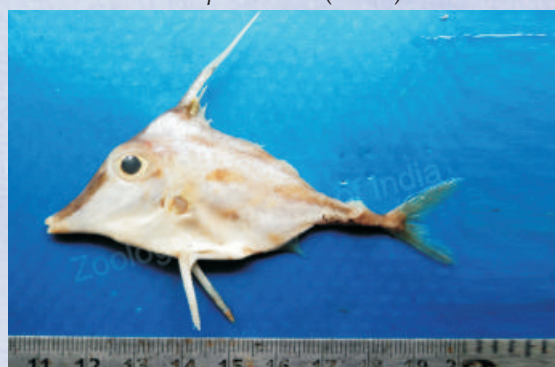
Cheilopogon suttoni (Whitley & Colefax)



Alepes kleinni (Bloch)



Alepes melapnoptera (Swainson)



Pseudotriacanthus strigilifer (Cantor)



Hippocampus trimaculatus Leach

Northern Regional Centre, Dehra Dun

Field surveys were conducted in Sultanpur Bird Sanctuary & National Park, Haryana and another in the Dehradun district, Uttarakhand and collected the representative fauna for taxonomic studies and molecular characterization. During the month, 9 species of Acridoidea, 3 species of soil nematodes and 3 species of helminths from Dehradun district and 4 species of soil nematodes from Govind W.L.S & N.P, Uttarakhand, were identified. Permanent slides of helminths and soil nematodes were prepared for morphological studies. Slides were prepared for cuticular pattern of the lesser cat, *Prionailurus viverrinus* (Fishing cat). DNA was extracted from the hair and skin of *Prionailurus viverrinus* and the standardization of DNA extraction of butterflies carried out. Five species of Pisces were digitized and the data of 10 species of soil nematodes entered in the Invertebrate database.

Two papers were published and one accepted for publication.

Shri P.T.Bhutia, Scientist-F and Officer-in-Charge, and Dr. Archana Bahuguna, Scientist-C, attended the Annual Research Seminar of the Wildlife Institute of India at Dehradun. Dr. Anjum N Rizvi, Scientist-C, evaluated a M. Phil dissertation submitted to the School of Biosciences and Biotechnology, BGSB, University, J&K.

Three faculty members and 24 students of Dolphin (PG) Institute of Biomedical and Natural Sciences, Manduwala, Dehradun, visited the Centre.

The 'Hindi Pakhwara' (Hindi Fortnight) was observed at the Centre.

Publications:

1. Bahuguna, A. 2012 New records of *Fejervarya nepalensis*, Nepal Cricket Frog, India, Uttarakhand and Haryana, *Herpetological Review* (USA) 43 (2): 298
2. Bahuguna, A. 2012 Molecular characterization of some species of freshwater turtles of Family Geoemydidae from India by using 12S rRNA gene, *Annals of Forestry*, 20(1): 145-152.



A view of the newly established Molecular Lab at NRC, Dehradun



During the 'Hindi Pakhwara' observed at NRC, Dehradun

Western Ghat Regional Centre, Kozhikode (Calicut)

Two new species of insect parasitoids of the families Stephanidae and Eurytomidae (Hymenoptera: Insecta), attacking the wood boring beetle *Clytocera chinospila* Gahan (Cerambycidae: Coleoptera: Insecta) from Chinnar Wildlife Sanctuary, Kerala, were described. The taxonomic revision of Oriental *Dipara* Walker (Pteromalidae: Chalcidoidea: Hymenoptera: Insecta) was completed along with descriptions of 6 new species from India. The morphological and molecular characterization studies of *Telenomus cuspis* sp. nov. (Platygastridae: Hymenoptera: Insecta), an egg parasitoid of the tea mosquito bug *Helopeltis* spp. (Miridae: Heteroptera: Insecta) from India has been completed and the bionomics of the species studied. The taxonomic studies conducted on the faunal samples obtained from the Chinnar Wildlife Sanctuary, Kerala, revealed the occurrence of a termite species for the first time from India. A note on its natural history was finalized for publication. Studies of the odonates (Insecta) revealed the occurrence of an odonate species for the first time from Southern India. Besides, 5 species of Hymenoptera (Pteromalidae: Hymenoptera: Insecta) were identified from the collections received from Dr. Sudhir Singh, Forest Research Institute, Dehradun; 3 species of centipedes (Chilopoda) including a new species; 7 species of Ceraphronoidea

(Hymenoptera: Insecta) and 1 species of Reptilia were identified. One article was published, a research document on Amphibia, dealing with data on 1872 identified specimens classified under 113 species, 26 genera and 11 families including 32 species of type specimens available in the faunal holdings of the Centre and a research paper on the additional records of Odonata (Insecta) from Parambikulam Wildlife Sanctuary, Kerala, were accepted and 5 research papers communicated. Dr. P. M. Sureshan, Scientist-C, delivered a lecture on the topic "Environmental issues in India" to the students of Chinmaya Vidyalaya Higher Secondary School, Calicut, on 19th September. Dr. P. M. Sureshan and Dr. K. Rajmohana, Scientist-C, attended the conference of Research guides under the University of Calicut organized by the Directorate of Research, University of Calicut, on 26th September. Dr. P. M. Sureshan supervised the research project of a JRF of the Centre. Dr. K. Rajmohana, supervised the research projects of two JRFs of the Centre as well as those of two M. Sc. students from Govt. College, Madappally, Kozhikode, Kerala, attached to the Centre for their project work.

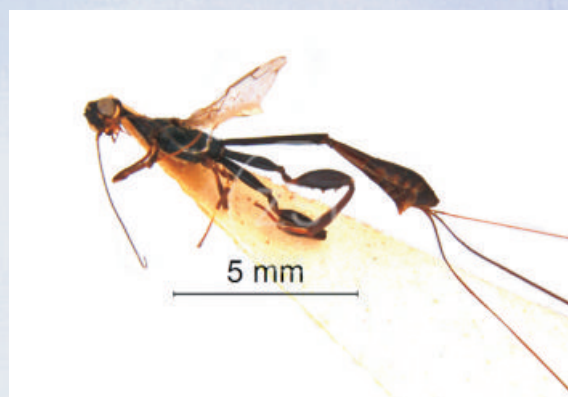
Ms. Dhanya Balan, SRF, attended the hands-on training workshop on Molecular Phylogeny and Cladistics Analysis at Dr. Praveen Karanth's Lab, CES, IISc, Bangalore, from 3rd-7th September.

Eight identification and advisory services were rendered and library facilities extended to two outside parties. Photography facilities was provided for taking descriptional photomicrographs of 20 species of spiders to Dr. Sebastian, Professor, Dept. Zoology, Sacred Heart College, Thevara, Kochi, Kerala, and to Mr. Vivek Philip, Wildlife Student, Veterinary University, Pookode, Wayanad, Kerala, for taking descriptional photomicrographs of 5 reptilian species.

Nine Type specimens of Annelida and 42 specimens of Pisces were deposited at the Centre by M. Magesh, Research Scholar, Dept. of Aquatic Biology and Fisheries, University of Kerala, Kariavattom Campus, Thiruvananthapuram, Kerala, and Shri. Mathew Plathottathil, Assistant Professor, Dept of Zoology, Government College, Chavara, Kollam, Kerala, respectively.



Anneckeida indica Sureshan & Narendran
Hymenoptera: Torymidae



Diastephanus wayanadensis Sureshan & Narendran
Hymenoptera: Stephanidae



Dr. J. M. Julka, former scientist of HARC/ZSI, Solan,
studying the Type Specimens of earthworms at
WGRC/ZSI, Calicut



The Biometric Attendance System
introduced in WGRC, Calicut

Dr. Kosygin Singh, Scientist-C & Dr. Subhrendu Sekhar Mishra, Scientist-B, from ZSI, Kolkata, visited the Centre on 16th September. Dr. J. M. Julka, former scientist, HARC/ZSI, Solan, visited the Centre on 20th September 2012, to study the Type Specimens of earthworms deposited at WGRC/ZSI, Calicut.

The 'Hindi Diwas' (Hindi Day) was observed at the Centre on 14th September.

During the month, 204 visitors paid their visits to the museum at the Centre.

Publication:

Muhammed Jafer Palot. 2012. Animal of the Month: The Indian Kangaroo Lizard *Otocryptis beddomei* Boulenger, 1885. *ZSI e-News*. 4 (8):8. August 2012.

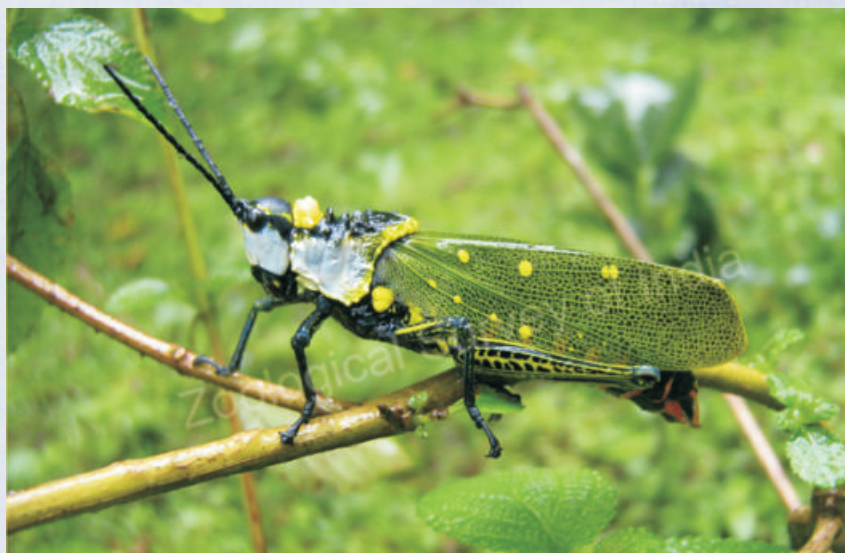


During the 'Hindi Diwas' observed at WGRC, Calicut, on 14th September 2012

ANIMAL OF THE MONTH

Spotted Grasshopper

Aularches miliaris (Fabricius, 1758)



[Text: Rajmohana, K.; Photo: Muhamed Jafer Palot, WGRC/ZSI, Calicut]

The Spotted grasshopper is of common occurrence in tropical Asia. It is a large and robust (body size: 50-70mm) species with yellow spots on brownish green wings. The species is polymorphic and gregarious and often called by different names like spotted grasshopper, spotted locust or coffee locust. At times of a massive outbreak, they inflict

significant damage to a wide variety of crops, like the coconut, arecanut, plantain, jack, tea, cacao and rubber. A serious outbreak, often results in rapid defoliation of the infested plants. They are also seen on trees like *Erythrina indica* and weeds like *Clerodendron* sp. *Macaranga* sp. and *Abutilon* sp. When disturbed or threatened, they release a white foamy, foul

smelling substance from behind the spiny plate on thorax, to ward off predators.

Eggs are laid in soil. Nymphs require about four to five months to reach the adult stage. The

lifecycle is completed in 13-15 months. Manipulation of the egg laying sites, by ploughing the soil around the trees, in areas of infestation, is suggested as a control measure.

CHECKLIST OF INDIAN FAUNA

Amphibia of India with IUCN Red list Status

http://zsi.gov.in/checklist/Amphibia_final.pdf

Drosophilidae (Diptera: Insecta)

<http://zsi.gov.in/checklist/Drosophilidae.pdf>

Diapriidae and Proctotrupidae (Hymenoptera: Insecta)

http://zsi.gov.in/checklist/Diapriidae%20and%20Proctotrupidae_Hymenoptera%20Insecta.pdf

OUT OF THE BOX

Captive breeding of endangered vulture species successful

<http://ibnlive.in.com/generalnewsfeed/news/captive-breeding-of-endangered-vulture-species-successful/1056026.html>

DNA could have existed long before life itself

<http://www.newscientist.com/article/mg21528795.500-dna-could-have-existed-long-before-life-itself.html>

PAINTINGS FROM ZSI HERITAGE ALBUM



Bengal Tiger *Panthera tigris tigris* Pocock, 1929

Compiled by C. Radhakrishnan, Scientist- F & Officer-in-Charge, ZSI, Calicut