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ZSI in the 98th years of Service to the Nation (1916 to 2013)

From the Director's desk

I am happy to share with you all my long cherished dream of reading all scientific papers written on Indian fauna by many stalwarts who once worked and published their research findings in ZSI publications, has become a reality now. We have almost completed the first phase of digitizing the entire volumes of ZSI's peer reviewed publications such as the Memoirs of ZSI, Occasional Papers and Records of the Zoological Survey of India and soon will bring out a DVD. Once completed, this monumental digital archive will be an important asset of each and every researcher who possesses this DVD. Soon, I will write to you more about the number of pages that we have digitised and the quantum of efforts that we invested using our tax payer's money. In March, we have organised a two-day workshop targeting various law enforcement departments that deal with identification of confiscated wildlife articles. During the workshop, the participants had been appraised of intricacies involved with identification and preservation of schedules mammals. This is because, we often encounter Indian mammal species in local as well as in international markets either alive or dead, mainly for their skin and other body parts as they have huge 'market' value.

Dr. K. Venkataraman
Director
Zoological Survey of India
Kolkata

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Headquarters, Kolkata

During the month, extensive field surveys have been undertaken in the States of Himachal Pradesh, Uttar Pradesh, Maharashtra, Assam and West Bengal. In addition to that, one survey has been undertaken to assess Ganga-Brahmaputra drainage in the Maldah and Murshidabad districts of West Bengal, and another for the exploration of Donimalai & Kumaraswamy NMDC Iron Ore Mines, District-Bellary, Karnataka.

During the month, scientists of headquarters identified, 2 species of Protozoa, 17 species of Hemiptera, 10 species of Coleoptera, 3 species of Hymenoptera, 3 species of Crustacea, 76 species of Fishes and 3 species of Mammals from the States of Andhra Pradesh, Assam, Chhattisgarh, Kerala, Tripura, Himachal Pradesh, Jharkhand, Rajasthan, Karnataka, Maharashtra, Manipur, Meghalaya, Odisha, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal. From West Bengal, some of the above mentioned species have been collected from Sajnakhali W.L.S., and Narendrapur Bird Sanctuary.

During March, one new species of the Genus *Euborellia* Burr, 1909 (Insecta: Dermaptera) has been described from Nainital district of Uttarakhand State. One genus, *Phalerimeris* Betrem and 3 species namely *Phalerimeris madurensis* (Betrem), *Scolia* (*Discolia*) *binotata* Fabricius and *Scolia* (*Discolia*) *cyanipennis* Fabricius (Hymenoptera: Scoliidae) are new records from the State of Maharashtra. One new record of *Scarites semirugosus* Chaudoir (Insecta: Coleoptera: Carabidae) has been made from Karnataka.

Opistognathus macrolepis Peters, 1866 (Perciformes: Opistognathidae) has been recorded for the first time from Indian coast (Kalpakkam, Tamil Nadu).

Two specimens at National Zoological Collections (NZC) have been designated as paratype of *Halieutaea alcocki* Ho *et al.* (yet to be published), by Dr. H.H. Ho from the already available specimens which were earlier identified as *Halieutaea stellata* (Vahl 1797).

During the month, 16 papers have been published and 11 research papers have been accepted. Identification and advisory services have been rendered on twenty lots of specimens, received from different institutions and organizations. In addition to this, identification and advisory services have also been rendered to Dr. Gautam Aditya, Deptt. of Zoology, University of Burdwan, Burdwan, West Bengal for the lot containing 9 examples of specimens belonging to 3 species and 3 genera. Secondly, to Dr. Pranab J. Pandya, Scientist, Gujarat Institute of Desert Ecology (GUIDE), Bhuj, our scientists have identified 7 species and 13 genera of Formicidae (Hymenoptera); Similarly, 21 specimens of fishes received from Dr. Jaya Kishor Seth, Assistant Professor, P.G. Dept. of Zoology, Berhampur University, Odisha have been identified and report sent. Furthermore, many lots of specimens have been received from the following persons: Dr. Chitta Ranjan Satpathi, Associate Professor, Department of Agricultural Entomology, Bidhan Chandra Krishi Viswavidyalaya, Mohanpur, West Bengal; from Dr. Kakali Bhadra, Assistant Professor, Department of Zoology, University of Kalyani, West Bengal; Dr. Meena Vankudre, Dept. of Zoology, Sinhgad College of Science, Ambegun, Pune.

During the month, we have organized a training Programme on 'Collection, Maintenance, and Identification of Zoological Specimens with Special Reference to the Scheduled Mammals' at Annandale Hall, ZSI, Headquarters from 6-8 March, 2013 mainly as capacity building workshop for the Frontline staffs of the Wildlife Law Enforcement Department and newly joined Zoological Assistants in ZSI, Headquarter office.

Received a confiscated wildlife article from the Range Officer, Basirhat Range, Sundarban Tiger Reserve, Kumirmari Gosaba, 24-Parganas (S) for its identification and accordingly it has been identified as the Chital (*Axis axis*). During the month, we have received

the samples of cooked deer meat from the Range Officer, Basirhat Range, Sundarban Tiger Reserve, 24-Parganas (S) for its identification and it has been identified as chital on the basis of hair sampling analysis with sample as the Chital (*Axis axis*). We have received one rows of mandible from Mr. Goutam Roy, Sub-Inspector of Police, Itahar Police Station, Utter Dinajpur, West Bengal for its identification and it has been identified as mandible of cow; also received a piece of skin along with 4 photographs from Mr. Samir Bose, Forest Ranger, Jhalda Range, Purulia Division, Purulia, West Bengal for its identification and it has been identified as skin belongs to juvenile Indian Wild Boar *Sus scrofa*.

Dr. K. Venkataraman, Director, ZSI has attended Executive Committee meeting at Zoological Society, Kolkata held on 7 March 2013. Dr. Venkataraman also attended the Departemental Committee Meeting (DCM) at Ministry of Environment & Forests, New Delhi on 15 March 2013. He also has participated in a seminar entitled 'Lecture series on current perspectives in zoological sciences' on 20 March 2013 at Department of Zoology, North Eastern Hill University (NEHU), Shillong. Dr. Venkataraman, also attended the Executive Committee meeting of the Zoological Society, Kolkata on 26 March 2013 and delivered presidential address.

Dr. Kailash Chandra, Scientist-F & Additional Director and Scientist-F has attended a three-day training workshop on 'Collection, Maintenance, and Identification of Zoological Specimens with reference to Scheduled Mammals' held at ZSI HQs, Kolkata from 6-8 March, 2013 and also delivered a lecture on 'Collection, Preservation and Identification of Insects' to the newly joined Zoological Assistants at ZSI HQ office.

Dr. Gopinathan Maheswaran, Scientist-C & Officer-in-Charge, Bird Section, has delivered a lecture on threatened mammals of India on 6th March 2013 during a training programme on 'Collection, maintenance and identification of zoological specimens with special reference to

the scheduled mammals' held at HQ office, Kolkata. Dr. Maheswaran, also has attended an 'Ecosystem Committee Meeting' to scrutinize project proposals received for funding through the Ministry of Environment & Forests (MoEF) on 14th & 15th March, 2013 at MoEF, New Delhi. During the month, Dr. Antonio Carlos Busoli, Entomologist UNESP-Brazil visited different Divisions/Sections of ZSI, Headquarter. One Dr. Hans Hsuan-Ching Ho, National Museum of Marine Biology & Aquarium, Taiwan visited the Fish Division.

Dr. Mahendiran Mylswamy, Scientist from Salim Ali Centre for Ornithology and Natural History, Coimbatore (SACON), visited the bird section on 6th, 21st, 22nd, 25th and 26th of March 2013 for referring water bird specimens.

Dr. Gaurav Sharma, Scientist-C has attended a meeting with Prof. S. B. Roy, Chairman, Indian Institute of Bio-Social Research and Development (IBRAD), Kolkata, prior to his visit to NMDC's proposed EIA study at Donimalai, District Bellary, Karnataka on 23 March, 2013. Dr. Sharma, also has delivered a lecture on "Mammals in the IUCN Red list of Threatened species/Schedules of Indian Wildlife (Protection) Act, 1972" during the 'Training Programme on Collection, Maintenance and Identification of Zoological Specimens with Special Reference to the Scheduled Mammals' to the participants from the West Bengal forest department, Wildlife Crime Control Bureau and ZSI staff on 6 March, 2013.

Dr. Gaurav Sharma, Scientist-C & Officer-in-Charge, Hindi Section under the Chairmanship of Dr. K. Venkataraman, Director, ZSI has coordinated a Hindi Quarterly & Annual Meeting on 28 March, 2013.

Dr. K. A. Subramanian, Dr. Gaurav Sharma, Dr. L. Kosygin Singh and Dr. Basudev Tripathy have conducted faunal studies for biodiversity management in iron ore mining sites of NMDC, Dhonimalai and Kumaraswamy, Bellary. Dr. Subramanian, has reviewed a project proposal for DST and identified Odonata specimens received from Ranchi University, Ranchi and Garware College Pune.

Publications

- Biswas, S., Mishra, S.S., Das, N.P.I., Satpathy, K.K., Nayak, L. and Selvanayagam, M. (2013) First record and range-extension of big scale jawfish, *Opistognathus macrolepis* (Perciformes: Opistognathidae), from Indian Ocean. *Marine Biodiversity Records*, 6:e8 (1-4). DOI: [10.1017/S1755267212001194](https://doi.org/10.1017/S1755267212001194).
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- Chandra, K. Gupta, D., Uniyal, V.P. Sanyal, A.K. and Bhargav, V. (2012) Four new records of Gerroidea (Hemiptera: Heteroptera) from Madhya Pradesh. *Rec. zool. Surv. India*, 112 (Part-1): 81-91.
- Chandra, K. and Gupta, D. (2013) Studies on Rhinoceros Beetles (Coleoptera Scarabaeidae- Dynastinae) from Madhya Pradesh, Central India. *Colemania* 34:1-9.
- Chitra, J. and Ramanibai, R. (2013) Ecological investigations on plankton community in Muttukadu backwaters, Tamil Nadu, pp. 271-286. *In: Estuaries of India: Biodiversity, Ecology, Conservation and Management* (eds. Rao, D.V., Kosygin, L. and Dash, S.). Nature Books India, Kolkata.
- Dev Roy, M. K. and Mitra, S. (2012) Notes on freshwater crabs of Odisha along with a new record from the state. *J. Nat. Hist.*, 8(2): 79-80.
- Dev Roy, M. K. and Andrath, S. (2012) On a small collection of prawns and shrimps (Penaeidae: Palaemonidae: Alpheidae) from Odisha mangroves. *J. Nat. Hist.*, 8(2): 81-85.
- Kazmi, S.I. and Kumar, P.G. (2012) Insecta: Hymenoptera: Chalcidoidea: Encyrtidae: Encyrtinae. *Zool. Surv. India, Fauna of Maharashtra, State Fauna Series*, 20 (Part-2): 587-604.
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- Kumar, P.G. and Kazmi, S.I. (2012) Insecta: Hymenoptera: Scoliidae. *Zool. Surv. India, Fauna of Maharashtra, State Fauna Series*, 20 (Part-2): 619-625.
- Kushwaha, R.K. and Hegde, V.D. (2012) New records of *Scarites semirugosus* Chaudoir (Insecta: Coleoptera: Carabidae) from Karnataka, *Rec. Zool. Surv. India* 112(Part-I):125-126.
- Lal, B. and Hegde, V.D. (2012) Description of a new species of the Genus *Euborellia* Burr, 1909 (Insecta : Dermaptera) from Nainital district of Uttarakhand State *Rec. Zool. Surv. India* 112(part-I):121-124.
- Mitra, T.R., Babu, R. and Subramanian, K.A. (2013) *Anax panybeus* Hagen, 1867: an addition to the Odonata (Aeshnidae) of India. *Journal of Threatened Taxa* 5(2): 3682-3683.
- Mitra, S., Chitra, J. and Pattanayak, J.G. (2013) Preliminary account on Macrozoobenthos of two tidal creek estuaries in East Midnapore, West Bengal, pp. 287-296. *In: Estuaries of India: Biodiversity, Ecology, Conservation and Management* (eds. Rao, D.V., Kosygin, L. and Dash, S.). Nature Books India, Kolkata.
- Murmu, A., Mazumdar, P.C. and Chaudhury, S. (2013) Vertebrate (Birds & Mammals) Faunal Composition of Hadgarh Wildlife Sanctuary, Orissa. *Occ. Paper, Zool. Surv. India*, No. 341: 1-56.
- Sanyal, A.K., Abesh K., Uniyal, V.P., Chandra, K. and Bhardwaj M. (2013) Diversity, distribution pattern and seasonal variation in moth assemblages along altitudinal gradient in Gangotri landscape area, Western Himalaya, Uttarakhand, India. *Journal of Threatened Taxa*, 5(2): 36463653.
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During training Programme on Collection, Maintenance, and Identification of Zoological Specimens with Special Reference to the Scheduled Mammals.



Membacids
(Hemiptera :
Homoptera)



*Physomerus
grossipes* (Fabr.)
(Hemiptera:
Heteroptera)



Collecting
insects
using
Malaise
Trap.



Macrolepis (Fish)



Scientist from ZSI meeting officials of NMDC and IBRAD on 23 March 2013 at Bellary, Karnataka



During Hindi Quarterly & Annual Meeting on 28th March, 2013.

Andaman & Nicobar Regional Centre, Port Blair

During the month, two surveys have been conducted in Great Nicobar Island and North Andaman from 1-10 and 20-29 March, 2013, respectively, to assess the faunal communities of marine and terrestrial ecosystems. A total of 243 species were identified during the surveys. Of which 88 species of corals, 1 species of polyclad, 12 species of echinoderms, 4 species of opisthobranch, 26 species gastropods, 7 species of crabs and 1 species of shrimp from marine habitats while 4 species of butterflies, 1 species of mosquito, 3 species of amphibians, 3 species of lizards, 1 species of snake, 93 species of birds and 1 species of bat have been identified/observed from terrestrial habitats. Among the specimens identified, polyclad *Pseudoceros cruentus* Newman and Cannon, 1996; 7 species of echinoderms, *Amphiura (Fellaria) heptacantha* (Mortensen, 1938), *Amphiura (Amphiura) bidentata* H.L. Clark, 1938, *Amphiura (Amphiura) crispa* Mortensen, 1940, *Amphiura (Amphiura) fasciata* Mortensen, 1940, *Amphiura (Ophiopelis) hexactis* (Mortensen, 1940), *Amphiura (Amphiura) luetkeni* Mortensen, 1940, and *Amphiura microsma* H.L. Clark, 1938 are new records to Indian waters, while a gastropod *Phenacovolva rosea* (A. Adams, 1854) is new to Andaman and Nicobar Islands. A total of 141 specimens comprising of 86 corals, 12

echinoderms, 27 molluscs and 12 butterflies have been registered in the National Zoological Collections of ZSI.

A report on 'Status survey of holothurians (sea cucumber) in the territorial waters of Andaman and Nicobar Islands' has been prepared and submitted to the Department of Environment and Forests, A & N Administration, and also to the Ministry of Environment and Forests, Govt. of India for necessary action. As required by ZSI headquarters, illustrative details on 69 species of new records (34 sp. of scleractinian corals, 8 sp. of antipatharians, 17 sp. of opisthobranchs and 10 sp. echinoderms) and 1 new species (bird) have been submitted for publication in *New Discoveries of India 2012*. Tissue samples of endemic animals of Andaman Dusky Leaf-nosed Bat *Hippoideros ater nicobarulae* (Miller, 1902); Andaman Emerald Dove *Chalcophaps indica maxima* (Hartert, 1931); Andaman Keelback Snake *Xenochrophis tytleri* (Blyth, 1863); Andaman Pit Viper *Trimeresurus andersoni* (Theobald, 1868); Andaman bent-toed gecko *Cyrtodactylus rubidus* (Blyth, 1861) have been deposited to ZSI headquarters for DNA studies. A report on the status of King Cobra, South Andaman Krait and Hawksbill Sea Turtle has been submitted to the Principal

Chief Conservator of Forests (WL), Andaman and Nicobar Administration on request. Survey of birds and butterflies along the 'Mangrove Walk' area in Yerata Mangrove has been conducted as requested by the Divisional Forest Officer, Middle Andaman. Dr. C. Raghunathan, Scientist-C & Officer-in-Charge refereed two manuscripts for *Records of Zoological Survey of India*. Dr. C. Raghunathan and Dr. C. Sivaperuman, Scientist-C served as members in the selection committee for the walk-in-interview conducted at ZSI, Port Blair on 5th March 2012 for the recruitment of JRF under sponsored project.

Publications

- Venkataraman, K., Raghunathan, C., Raghuraman, R., Sivaperuman, C., Sreeraj, C. R., Titus Immanuel and Kumar, J. S. Y. (2012) Scleractinia of Andaman and Nicobar Islands. (Published by the Director,

Zoological Survey of India, Kolkata), 304 p.

- Sreeraj, C.R., Sivaperuman, C. and Raghunathan, C. (2012) Addition to the opisthobranchiate (Opisthobranchia, Mollusca) fauna of Andaman and Nicobar Islands, India. *Galaxea, Journal of Coral Reef Studies* **14**:105-113.
- Mondal, T., Raghunathan, C. and Venkataraman, K. (2013) Bleaching: The Driving Force of Scleractinian New Recruitment at Little Andaman Island, Andaman and Nicobar Islands. *Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.* DOI [10.1007/s40011-013-0168-8](https://doi.org/10.1007/s40011-013-0168-8)
- Sreeraj, C.R. and Raghunathan, C. (2013). Pseudocerotid polyclads (Platyhelminthes, Turbellaria, Polycladida) from Andaman and Nicobar Islands, India. *Proceedings of the International Academy of Ecology and Environmental Sciences*. **3(1)**:36-41.



Polyclad *Tytthosoceros lizardensis*



Polyclad *Pseudobiceros bedfordi*



Hawksbill Turtle *Eretmochelys imbricata* Linnaeus 1766



Frog *Fejervarya limnocharis* Gravenhorst 1829

Frog *Duttaphrynus melanostictus* Schneider 1799Dusky Leaf-nosed Bat *Hippoideros ater nicobarulae* Miller

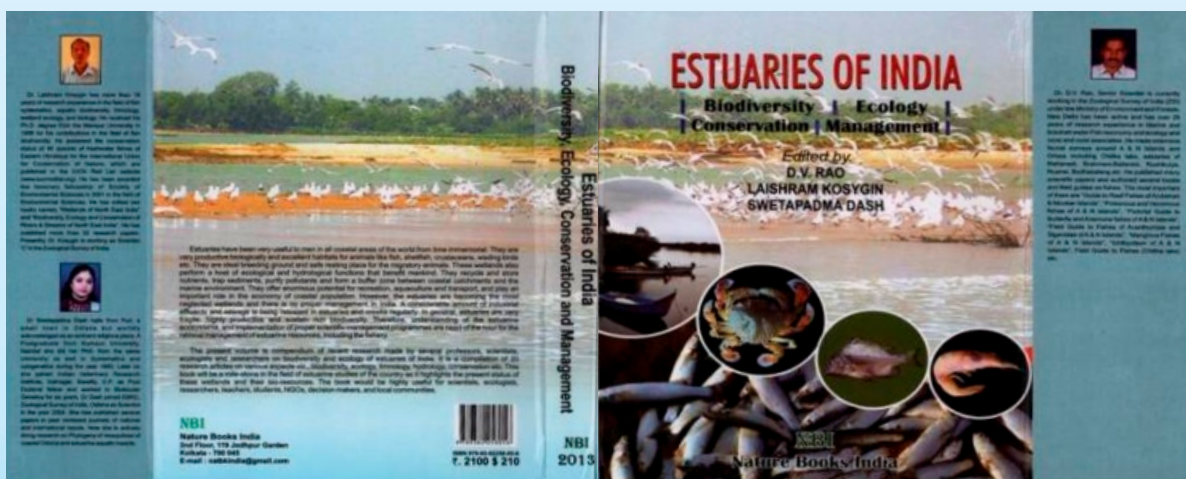
Estuarine Biology Regional Centre, Gopalpur-on-Sea

During the month, seven species of bivalve molluscs which belongs to 4 genera and 2 families were identified from collections of Malacofauna of Pennara Estuary, Nellore, AP. Also, during the month, twenty museum specimens of crabs have been digitized. About 30 visitors visited our National Zoological

Collections at the Centre.

Publication

- Rao D.V., Kosygin, L., and Dash, S. (2013) Estuaries of India: Ecology, Biodiversity, Conservation and Management, Nature Books India, Kolkata.

*Notopterus notopterus* Pallas*Parambassis* sps.

Book on Estuaries of India.

Western Ghat Regional Centre, Kozhikode (Calicut)

During the month, one new species of *Calliscelio ashmead* (Hymenoptera: Platygasteridae) and two new records, one on *Deiphobe incisa* Werner (Insecta: Mantodea) and another on the genus *Cochlischnogaster* Dong and Otsuka (Hymenoptera: Vespidae) have been published. Further, two new species, *Miscogasteriella* Girault (Hymenoptera: Pteromalidae) and Genus *Styloteleia* Kieffer (Platygastridae) have been described and submitted for publication. Other taxonomic identifications include 8 species of Pteromalidae (Hymenoptera); 8 species of Chalcididae (Hymenoptera); 4 species of Odonata (Insecta) and 4 species of Cynipoidea (Hymenoptera) from Western Ghats. During the month, 4 papers have been published and two were submitted for publication. Two identification and advisory services have been rendered.

A one-day workshop on "Wetlands and Waterfowls" has been organized by the Centre on 7 March, 2013 jointly with Kerala Forest Department. Around 30 students from various colleges of Calicut and Malappuram districts have participated. Dr. P.M. Sureshan, Scientist-C & Office r-in-Charge, has delivered a lecture on the "Importance of wetlands" during the workshop on 'Wetlands and waterfowls' organized in the Centre on 07 March, 2013.

Dr. Muhamed Jafer Palot, Asst. Zool. also delivered a talk on 'Shorebirds of Kerala' during a one-day workshop on "Wetlands and Waterfowls" at the auditorium of ZSI on 7th March 2013. A field trip was also arranged during the workshop and the participants have been taken to Kadalundi Community Reserve (Calicut Dt.) for observing wetland birds. Dr. Palot, Asst. Zool. has attended a one-day workshop on the preparation of management Plan for Kottiyur WLS on 8 March, 2013 being organized by the Periyar Tiger Conservation Foundation at Kottiyur WLS. He also participated in a one-day Workshop on 'Eco-

restoration of Degraded laterite Landscapes: Current Status and Future Scenario' at SEEK, Edat, Payyanur on 25 March, 2013 organized by the Kerala Forest Research Institute, Thrissur and lead a session on 'Faunal studies-habitat use and interactions'. Dr. Palot, also delivered another talk on "Marine coastal biodiversity of Kerala" at the one day Workshop on Marine Turtle Conservation at Koottayi kadappuram, Malappuram district organized by Kerala Forests & Wildlife Department and Kerala Sasthra Sahithya Parishath.

During the month, Dr. K. Rajmohana, Scientist-C has also delivered a lecture on "Little things that run the world: A tribute", on 11 March, 2013 at Academic Staff College, University of Calicut, for the orientation programme for college teachers, sponsored by the UGC. Synopses for Ph.D. registrations under the University of Calicut have been presented by two research scholars in the centre on 08 March 2013. During the month, 721 visitors paid their visits to the museum.

Publications

- Sureshan, P.M. and ambath, S. (2012) First record of *Deiphobe incisa* Werner, 1933 (Insecta: Mantodea) from Jharkhand, India and morphology of male genitalia. *Records of Zool. Surv. India*. **112(1)**:127-128.
- Kumar, P. G., Carpenter, J.M., and Sureshan, P.M. (2012) New record of the genus *Cochlischnogaster* Dong and Otsuka (Hymenoptera: Vespidae: Stenogastrinae) from the Indian subcontinent. *Records of Zool. Surv. India*. **112(1)**: 113-119.
- Rajmohana. K and Peter, A. (2012) A new species of *Calliscelio* Ashmead (Platygastridae: Hymenoptera: Insecta) from India: *Rec. Zool. Surv of India* **112(1)**: 75-79.
- Karuthedathu D., Palot, M.J., Praveen, J, Sreenivasan, P.P. and Uthaman, K.V. (2013) Streaked Shearwater *Calonectris leucomelas* from Kannur Coast. *Indian Birds* **8(2)**: 44-45.



Odopoda reticulata Sureshan (Hymenoptera : Torymidae)



Hydrobasileus croceus (Brauer) (Insecta : Odonata)



Cnemaspis wynadensis (Beddome) (Reptilia : Squamata)



Sphaenomorphus dussumieri Dumeril & Bibron (Reptilia : Squamata)



Participants of the workshop organized by the centre on 7.3.2013.



Gaur at Vazhachal Reserve forests. Kerala

Sunderbans Regional Centre, Canning

Four species of Orthoptera, 3 species of Lepidoptera, and 1 species of crab have been identified and registered. Mr. Satpatty, Additional Chief Engineer (Electrical), along with his team from West Bengal State

Electricity Distribution Corporation Limited, Kolkata, visited the office and museum, besides 12 School students with teachers visited the Museum of our office during the current month.

Central Zone Regional Centre, Jabalpur

During the month, one faunistic survey on Geometrid fauna of Madhya Pradesh has been undertaken from Madhav National Park of Madhya Pradesh. Fifteen species of butterflies, 7 species of moths (Lepidoptera), 5 species of mammals, 10 species of Hemiptera and 6 species of Scarabaeidae (Coleoptera) have been identified and registered from Madhya Pradesh. Identification and advisory services rendered to one Dr. P.B. Meshram, Scientist-F, Forest Entomology Division, Tropical Forest Research Institute, Jabalpur for identification of 32 specimens of Lepidopteran insects collected from Pachmarhi Biosphere Reserve revealed 12 species of butterflies and 13 species of moths.

Mr. Prakash T. Wankhedkar, Research Student, Department of Zoology, Pratap College, Amalner of Maharashtra visited our museum for identification of two species of Mollusca out of six specimens. The identification reports have been sent to respective institutes. Dr. S. Sambath, Scientist-C & Officer-in-Charge has attended the meeting of on IAEC (Institutional Animal Ethical Committee) of Regional Medical Research Centre for Tribals at Jabalpur on 4 March, 2013. He also attended the 39th Research Advisory Committee (RAC) meeting of the State Forest Research Institute, Jabalpur, Madhya Pradesh on 08 March, 2013.

Some Birds of Madhav National Park, Shivpuri, Madhya Pradesh



Anastomus oscitans - (Asian Openbill)



Anhinga melanogaster - (Darter)



Esacus recurvirostris - (Great thick-knee)



Galloperdix lunulata - (Painted spurfowl) (Female)



Galloperdix lunulata - (Painted spurfowl) (Male)



Halcyon capensis - (Stork-billed Kingfisher)



Platalea leucorodia - (Eurasian Spoonbill)

Northern Regional Centre, Dehradun

One faunistic survey has been undertaken to four districts of Punjab, namely Patiala, Sangrur, Muktsar and Bhatinda under the approved departmental programme of the Centre and representative faunas collected. All the collected materials have been entered in the Central Register of the Centre. Observations have also been made on the fauna of the area surveyed, besides collecting soil samples for the study of soil nematodes. During the month, 5 species of Acridoidea and 4 species of helminths from district Dehradun, 1 species of amphibia and 3 species soil nematodes from Sultanpur National Park and 7 species of nematodes from Govind WLS, three species of reptilia from Punjab and 2 species of Encyrtidae from Maharashtra have

been identified.

Twenty-five permanent wax slides of nematodes from Govind WLS & Sultanpur NP have been prepared for morphological studies. Soil samples brought from Punjab survey have been sieved and nematodes fixed and kept for processing.

During the month, 32 examples of amphibia and 19 examples of soil nematodes have been registered, while 20 entries (especially of soil nematodes) have been entered in our database. During the month, we have digitised 13 species of fishes and their metadata tagged.

Shri P.T. Bhutia, Scientist-F & Officer-in-Charge, and Dr. Archana Bahuguna, Scientist-C have attended a meeting on 21 March, 2013 on creation of new biodiversity committee by

Uttarakhand Biodiversity Board.

Dr Anjum N. Rizvi, Scientist-C has delivered a lecture on 'The role of nematodes in soil ecosystems' during an workshop on 'Awareness & capacity building on soil testing & Management' being organized by the Society of Pollution & Environmental Conservation (SPECS), Dehradun and Department of Science & Technology, New Delhi from 15-17 March, 2013 at Dehradun. Dr

Vinita Sharma, Scientist-C has attended a national conference on 'Advances in biosciences & health education' held at Barielly, Uttar Pradesh and presented a poster. For here poster presentation, she has been presented with the 3rd best poster presentation award. Sansad Salahkar Samiti for Rajbhasha from MoEF visited this Centre on 21 March, 2013. Twenty five students visited the Museum of NRC.



Meeting with members of Sansad Salahkar Samiti for Rajbhasha from MoEF in the Conference hall of NRC, ZSI, Dehradun.

Marine Aquarium & Regional Centre, Digha

A week-long programme on Integrated Coastal Zone Management has come to an end on 1 March 2013 and valedictory function organized to felicitate the participants. During the month, around 148 examples of live marine ornamental exhibits have been collected for exhibition in aquarium galleries. In total, 14 species of mollusks and 26 species of fishes have been identified during the month. Among the species, *Apogon quiketti* Gilchrist, 1903 is identified for first time from the Indian Coast. A seven-day survey has been conducted along the Odisha coast and a total of 926 specimens were collected from the survey, which includes 548 fishes, 358 mollusks, 3 echinoderms and 17 crabs. During the month, our aquarium received at an average, 650 tourists per day.

Publication

- Ray, D., Yennawar, P., and Mohapatra, A. (2013). First report of an Indo-Pacific sergeant fish *Abudefduf vaigensis* from Northern east coast of India. *BIONOTES* 15(1): 20.



Apogon quiketti



Fishlanding centre at Chilika.



Collection from fishing trawlers at Paradip.

Freshwater Biology Regional Centre, Hyderabad

During the month, we have examined 73 specimens of fishes collected from Krishnaraja Sagar Reservoir and identified as 15 species belonging to 6 families: *Mystus malabaricus* (Jerdon), *Mystus montanus* (Jerdon), *Mystus cavasius* (Ham.), *Mystus bleekeri* Day), *Oreochromis mossambicus* (Peters), *Oreochromis niloticus* (Linn.), *Mastacembellus armatus* (Lacepede), *Glossogobius giuris* (Ham.), *Puntius arulius* (Jerdon), *Puntius amphibius* (Val.), *Osteochilichthys thomassi* (Day), *Salmophasia clupeoides* (Bloch), *Salmophasia novacula* (Val.), *Amblypharyngodon mola* (Ham.), *Parambassis ranga* (Ham.). Also examined 53 examples of fishes collected from Cumbum Lake, Prakasam Dist., Andhra Pradesh and identified as 4 species belonging to one family: *Salmophasia clupeoides* (Bloch), *Puntius sophore* (Ham.), *Puntius dorsalis* (Jerdon) and *Amblypharyngodon microlepis* (Bleeker).

Collections made from freshwater bodies of Hyderabad have been examined and identified 11 species of aquatic insects: *Limnometra fluviatorum*, *Cybister tripunctatus*, *Berosus indicus*, *Guignotus flammulatus*, *Eretes stictus*, *Laccotrephus ruber*, *Hydrovatus confertus*, *Regimbartia attenuate*, *Orectochilus discifer*, *Lethocerus indicus*, *Sphaeridium dimidiatum*; 6 species of rotifers: *Lecane lunaris* (Ehrenberg), *Platyas quadrecornis* Ehrenberg, *Dipleuchlanis propatula* Gosse, *Brachionus urciolaris* Muller,

Cephalodella forficula Ehrenberg, *Conochiloides dossuarius* Hudson; 10 species of cladocera: *Daphnia lumholtzi* Sars, *Alona rectangula* Sars, *Alona davidi punctata* (Daday), *Dunhevedia crassa* King, *Ceriodaphnia cornuta* Sars, *Euryalona orientalis* (Daday), *Scapholeberis kingi* Sars, *Latonopsis australis* (Sars), *Moinodaphnia macleayi* (King), *Pseudochydorus globosus* (Baird); 2 genera of Ostracoda: *Dolerocypris* sp., *Eucypris* sp.; 10 genera of macrobenthic invertebrates: *Baetis* sp., *Ephemerella* sp., *Tipula* sp., *Leutera* sp., *Brachycentrum* sp., *Leptocella* sp., *Chironomus* sp., *Strictochironomus* sp., *Tubifex* sp. and *Hydrodroma* sp.

As part of the digitisation of the freshwater fauna, 35 specimens belonging to 19 species of fishes have been digitized. Dr. Prasanna Yennawar, Scientist-C of the Centre has delivered a lecture on 'Collection, preservation and identification of various faunal groups' in interactive meeting organized by Institute of Forest Biodiversity on 18 March, 2013. Smt. Sk. Rahnuma Sulthana, Zool. Asst. participated in basic training programme for working in Hindi on computer being conducted by the Rajbhasha Vibhag, Manage Office, Hyderabad from 18-22 March, 2013.

Publications

- Karuthapandi, M., Rao, D.V., Innocent, B. X., and Jaiswal D. (2013) Zooplankton diversity and trophic status of Safilguda tank,

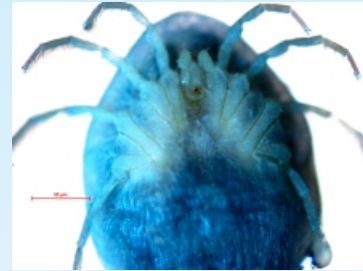
Hyderabad. *Int. J. Adv. Lif. Sci.*, **6(1)**: 44-50.

- Karuthapandi, M., Rao, D.V., Innocent, B. X., and Jaiswal D. (2013) *Cyclestheria hislopi* (Baird, 1859) from Bandam Kommu cheruvu, Medak District, Andhra Pradesh, India. *Int. J. Adv.. Lif. Sci.*, **6(1)**: 84-86.

- Ray, D., Yennawar, P. and Mohapatra, A. (2013) First report of Indo-Pacific sergeant fish: *Abudefduf vaigiensis* (Quoy & Gaimard 1825) from the northern east coast of India. *Bionotes* **15(1)**: 20.



Baetis sp.



Hydrodoma sp.



Lethocerus indicus



Sphaeridium dimidiatum



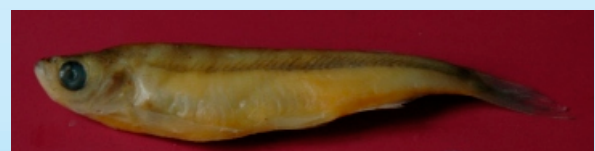
Parambassis ranga



Puntius sophore



Amblypharyngodon microlepis



Salmophasia novacula

Arunachal Pradesh Regional Centre, Itanagar

Dr. Bikramjit Sinha, Scientist-C & Officer-in-Charge of the Centre has undertaken a field survey from 15-21 March, 2013 in the Yazali area of Lower Subansiri district under the project entitled "*A study of Ichthofauna of Lower Subansiri district w.s.r. to River Ganga and paddy-cum-fish cultivation*". During the survey, a total of 434 examples of fishes have been collected. In addition, 148 examples of crustaceans, 53 examples of aquatic insects, 29 examples of amphibians and 07 water samples for zooplankton study have been collected. Further, 1 example of reptile, 04 examples birds and 07 examples of butterflies have also been recorded.

Dr. Bikramjit Sinha, Scientist-C & Officer-in-

Charge of the Centre has participated as resource person in the state level consultative workshop to finalize the draft guidelines on 'Promotion and Management of Community Conserved Areas' in Arunachal Pradesh organized by G. B. Pant Institute of Himalayan Environment & Development, North East Unit, Itanagar on 8 March, 2013 at Itanagar.

Dr. Sinha also attended a meeting of the State Forest Research Committee for Wildlife Protected Areas in the office chamber of the PCCF (WL & BD), Itanagar on 13 March, 2013 for technical evaluation of research proposals received from various organizations for granting research permission in PAs.

Desert Regional Centre, Jodhpur

A field survey to Kachchh Biosphere Reserve (KBR), Gujarat has been undertaken from 17-31 March, 2013. Vertebrate species belonging to reptilia, aves and mammals have been identified and recorded from the KBR. Forty-five locations within KBR have been surveyed in five districts namely Kachchh, Rajkot, Surendranagar, Patan, and Banaskantha. A total of 14 species of reptiles, 153 species of aves and 19 species of mammals have been recorded from the Kachchh Biosphere Reserve during the survey. Identified and registered 5 species of nematodes, 52 species of fish and 5 species of ants from the jurisdiction area.

During the month, we have digitized 19 specimens. Dr. Padma Bohra, Scientist-D & Officer-in-Charge, Dr. Sanjeev Kumar, Scientist-C and Dr. H. S. Banyal, Scientist-C have attended a national conference on 'Conservation of Desert Biodiversity' on 6 March, 2013 at Department of Zoology, J.N.V. University, Jodhpur. Dr. Sanjeev Kumar has delivered a lecture in the above mentioned National Conference. Dr. Padma Bohra, Dr. Kumar and Dr. Banyal also attended official

language seminar on 'New Dimensions of Defence Development' from 14-15 March, 2013 at Defence Laboratory (DRDO), Jodhpur.

Dr. Sanjeev Kumar, Scientist-C has presented a research paper entitled "Bharat ke raksha seemavrti shetro me vanyajeev sanraksharan-paripeksh avum taknik", in Official Language in aforementioned Seminar. Dr. Padma Bohra, Scientist-D, has participated and delivered a lecture on 'Intangible Natural Heritage with Focus on Desert' being organised by the



Dr. H.S. Banyal, Scientist-C and Mr. M .S. Chaudhary Jr. Hindi Translator DRC, ZSI, Jodhpur receiving memento from the organizers of the National Science Day Exhibition.

National Museum of Natural History, New Delhi & Rupayan Sansthan, Jodhpur at Jaisalmer from 19-21 March, 2013. Dr. H. S. Banyal, Scientist-C and staff of the Centre have participated in the National Science Day

Exhibition from 28 February 2013 to 4 March 2013 at Nawalgarh, Rajasthan and displayed zoological exhibits. A group of students and teachers of LD Vidyapeeth, Jodhpur visited our museum on 13 March 2013.

Marine Biology Regional Centre, Chennai

An extensive field survey has been conducted in Mandapam and its group of islands in Gulf of Mannar Marine Biosphere Reserve during this month and representative samples collected. Scientists of this Centre identified one species of Nemertea, 10 species of Nematodes, and 27 species of Molluscs out of the materials collected from Palkbay and Gulf of Mannar Biosphere Reserve. During this month, 91 species have been digitized and metadata

compiled. Dr. C. Venkatraman, Scientist- C & Officer-in-Charge supervised the research projects of SRF's of the centre. Around 660 tourists visited the marine aquarium and museum during the month.

Publication

- Bindu, L. (2013) New record of seagrass associated testate amoebae from Palkbay, Tamil Nadu (Protozoa: Rhizopoda). *Bionotes* **15(1)**: 12-13.



Baseodiscus hemprichii



Nudibranch *Bornella stellifer*



Nudibranch *Elysia ornate*



Nudibranch *Oxynoe viridis*

Gangetic Plains Regional Centre, Patna

During the month, we have identified 13 species of molluscs such as *Radiatulla keraudreni*, *Radiatullsa occata*, *Lamellidens cf. corrianus*, *Pisidium clakelum*, *Bellamy bengalensis*, *Thiara scabra*, *Thiara scabra*, *Melanoides tuberculata*, *Thiara lineate*, *Diagonistoma cerameopoma*, *Indoplanorbis exustus*, *Indoplanorbis exustus* and *Corbiculla striltella*.

Dr. Gopal Sharma, Scientist-C & Officer-in-Charge has participated in the Dolphin rescue and release operation in River Donk at Kishanganj of Bihar. Two female dolphins have been translocated from the River Donk to River Mahananda.

Publications

- Singh, J., Singh, N., Sharma, K. and Joshi, R. (2013) 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* **83(1)**: 31-46.
- Singh, N. and Singh, J. (2012). New records of two species of family Arctiidae (Lepidoptera) from Western Ghats of India. *Records of Zoological Survey of India*, **112(3)**: 1-3.
- Singh, N. (2012) Noctuid moth diversity of the Valmiki Tiger Reserve, Bihar. *Bionotes* **15(1)**: 21

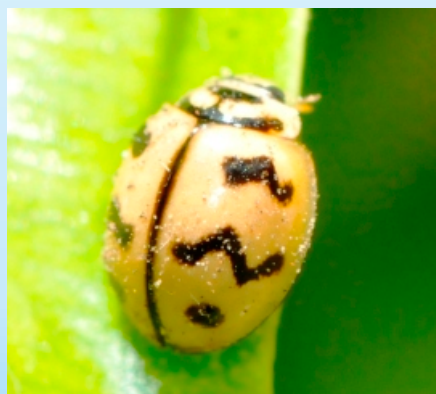
Western Regional Centre, Pune

An extensive field survey has been undertaken in Phansad Wildlife Sanctuary of Maharashtra from 1522 March, 2013. During March, 3 species of fresh water crabs, 2 species of collembola, 21 species of acrididae, 13 species of odonata, 4 species of coccinellidae, 13 species of hymenoptera and 10 species of fresh water fishes have been identified. Identification and advisory services have been rendered on fish specimens received from Dr. Veena Rambal, Head, Department of Zoology, Nowrosjee, Wadia College, Pune and photographs received through e-mail of a single Mollusc species from Mr. R.P. Borale, Associate Professor, Zoology Department, Z.B. Patil College, Dhule. Dr. R. M. Sharma, Scientist-D &

Officer-in-Charge has attended the selection committee meeting as Vice-Chancellor's Nominee at Department of Zoology, University of Pune on 16 March, 2013. Dr. S.K. Pati, Zoological Assistant made a visit to Crustace Section of HQ office, Kolkata from 4-13 March, 2013 and studied Type specimens of freshwater Crabs.

Publication

- Raghavan, R., Tharian, J., Ali, A., Jadhav, S. and Dahanukar, N. (2013) *Balitora jalpalli*, a new species of stone loach (Teleostei: Cypriniformes: Balitoridae) from Silent Valley, southern Western Ghats, India. *Journal of Threatened Taxa* **5(5)**: 3921-3934.



Cheilomenes sexmaculata
Fabricius



Male *Scolia fasciatopunctat*
a dunensis
Beterm 1928

North Eastern Regional Centre, Shillong

During the month, two field surveys have been conducted. One survey has been undertaken in West Khasi Hills district of Meghalaya from 48 March, 2013 to study and make representative collections of the aquatic and semi-aquatic insects. The other survey has been undertaken in Nongkhylllem Wildlife Sanctuary and its adjoining areas from 1115 March, 2013 to study and make representative collections of fishes. Eleven, species of aquatic and semi-aquatic Hemiptera, 11 species of fishes and 5 species of amphibians have been identified.

During the month, we have digitized around 6 mammals, 5 reptiles and 15 aves and their metadata tagged. Images and metadata of *Scotophilus heathii* (a bat) and *Trimeresurus popeiorum*, *Amphiesma xenura*, *Ptyas Korros*, *Boiga ochracea* & *Rhabdophis subminiatus* (five species of Reptiles) have been digitized. Identification and advisory service has been rendered to Mr. G.G. Syngai, Assistant Professor & Head, Department of Biochemistry, Lady Keane College, Shillong on 06 March 2013 regarding the identity of one species of fish.

Dr. K. Venkataraman, Director, Zoological Survey of India visited the Centre on 20 March 2013 and interacted with the staff of the Centre. School teachers and students from Shillong visited the museum of the Centre on 08 March

2013. Mrs. J. Lyngdoh, Scientist-C has attended the lecture series on Current Perspectives in Zoological Science organized by the department of Zoology, North Eastern Hill University on 20 March, 2013.

Publications

- Director (2013) Fauna of Nokrek Biosphere Reserve, (Meghalaya), Conservation Areas Series, 45:1-124, Plates I-XV (Edited and Published by the Director, Zool. Surv. India, Kolkata).
- Khynriam, D. and Sen, N. (2011). On a new species *Badis triocellus* (Pisces: Perciformes: Badidae) from North East India. *Records of the Zoological Survey of India*. **111(4)**: 65-72.



Dr. K. Venkataraman, Director, Zoological Survey of India, interacting with the staff of NERC/ZSI, Shillong during his visit on 20 March, 2013.



School teachers and students visited NERC/ZSI, Shillong.

High Altitude Regional Centre, Solan

During the month, scientific staff of the Centre has identified 6 species of butterflies (out of 14 examples) and 01 species of pisces collected from Kalatop Khajjiar Wildlife Sanctuary, Chamba, Himachal Pradesh and also identified 02 species of Orthoptera (out of 5 examples) from Chail WLS, Solan and 4 species of Pisces (out of 8 examples) collected from Beas river. Two scientists from the Centre have attended

the Himachal Pradesh State Biodiversity Board Workshop on “Biodiversity in H.P.-the Way Forward” from 22-23 March, 2013 at Shimla. Identification and advisory services have been to a research scholar from the Punjabi University, Patiala.

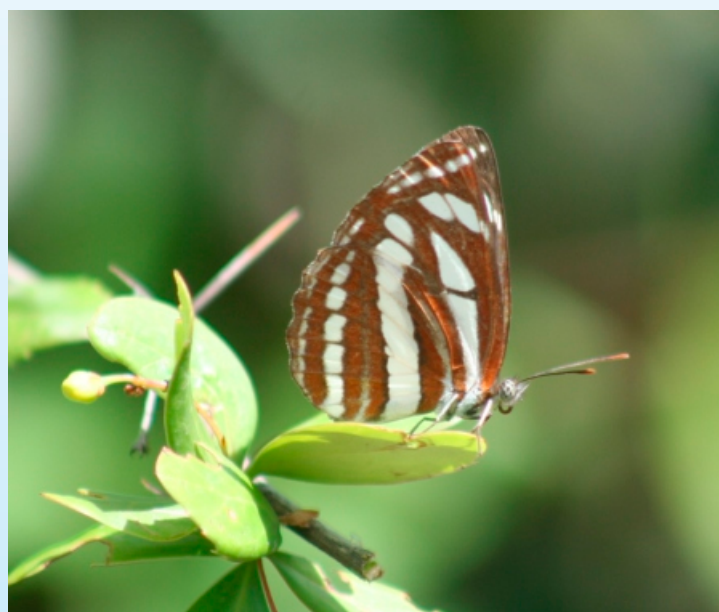
Around 40 undergraduate students of Multani Mal Modi College, Patiala visited our museum 04 March 2013.



Oriental White-eye (*Zosterops palpebrosus*)



Himalayan Bulbul (*Pycnonotus leucogenys*)



Neptis hylas from Chail Wildlife Sanctuary

Southern Regional Centre, Chennai

During March 2013, two faunal surveys have been undertaken one each to Nilgiri district in Tamil Nadu led by Dr. Jayasree Thilak, Scientist-C from 05-15 March, and another to Karnool, Kadappa, Ananthapur and Chithoor districts of Andhra Pradesh led by Dr. S. Prabakaran, Scientist-C from 13-28 March, 2013. These surveys resulted in collection of representative specimens of various faunal groups totalling 4575 exs. Identification of different faunal groups by scientists as follows: Diptera 15 exs. 1 spp. by Dr. K. Ilango, Scientist-D; Planktons: 50 exs. 28 spp. by Dr. Jayasree Thilak, Scientist-C; Odonata: 19 exs. 10 spp.; Coleoptera: 12 exs. 9 spp by Dr. R. Babu, Scientist-C; and Aquatic Hemiptera: 10 exs. 5 spp.; Aq. Coleoptera 1ex. 1 spp by Dr. S. Prabakaran, Scientist-C.

Shri. C. M. Sharma, Deputy Secretary, CS-II, MoEF, New Delhi visited our Centre on 28 March, 2013 and apprised of Centre's research programs and administrative activities. Dr. K. Ilango, Scientist-D & Officer-in-Charge has attended the 8th National Meeting of State

Biodiversity Boards organized by the National Biodiversity Board at Chennai on 15 March 2013 and the 22nd Annual General Body Meeting of the Salim Ali Centre for Ornithology and Natural History (SACON), Coimbatore held at Chennai on 28 March 2013. On 6 March, 2013, Dr V. M. Sathish Kumar, Sr. Zoological Assistant, as Chief Guest, delivered a lecture on 'Cyber taxonomy and biodiversity documentation in India with special emphasis to faunal diversity and DNA barcoding' at Department of Advanced Zoology & Biotechnology, Guru Nanak College, Velachery, Chennai.

Publications

- Babu, R. (2011) New distributional record of Coenagrionids (Odonata: Zygoptera : Coenagrionidae) from Himachal Pradesh, India. *Rec. zool. Surv. India*, **111(4)**: 73-77.
- Aengals, R. (2012) Studies on the Family Gekkonidae (Reptilia) from Karnataka and Tamil Nadu. *Rec. Zool. Surv. India*, **112(1)**: 103-112.



Anax panybeus

ANIMAL OF THE MONTH

**Potter Wasp***Delta conoideum* (Gmelin, 1790)

Potter wasps (or mason wasps) belong to the sub-family Eumeninae of the Family Vespidae. It is a widely distributed sub-family and includes about 3000 species under more than 150 genera. It is easily recognized by the following combination of characters: mesoscutum with a posterolateral projection known as parategula. The adults are small to large measuring c. 7-28 mm. All the known eumenine species are predators. Most of them are solitary mass provisioners, though some isolated species show primitive states of social behaviour and progressive provisioning. Adults feed on nectar. Copulation takes place in air or in the vegetation very close to cell construction site. The female wasp alone constructs the cell and takes 30 minutes to build a cell with 18-21 pellets of mud. The mother wasp constructs 1 to 5 cells in day depending upon the availability of prey caterpillars. After cell construction, the wasp gets paralyzed caterpillars such as *Eurema hecabe*, *Hyposidira successaria*, *Trache nitidula* from trees like *Delonix regia* and pack the cell after which it lays an egg. The egg hatches in a period of 22 to 25 days and the adults gnaw holes on the cell and emerges out in to the nearby vegetation. The cells of wasps get attacked by parasites like *Metoceus paradoxus* (Coleoptera: Rhipiphoridae) and *Stilbum cyanurum* var. *splendens* (Hymenoptera: Chrysididae).

(Photo & text by Dr. G. Srinivasan,
ZSI, HQ office, Kolkata)

OUT OF THE BOX

Study shows serious threat to coral reef colonies, mangrove forests in Palk Bay

<http://www.thehindu.com/news/national/tamil-nadu/study-shows-serious-threat-to-coral-reef-colonies-mangrove-forests-in-palk-bay/article4591919.ece?homepage=true>

Lizard species rediscovered after 135 years

<http://www.thehindu.com/sci-tech/energy-and-environment/lizard-species-rediscovered-after-135-years/article4550235.ece?homepage=true>

Can Indian geneticists revive Asiatic cheetah?

<http://timesofindia.indiatimes.com/home/environment/flora-fauna/Can-Indian-geneticists-revive-Asiatic-cheetah/articleshow/19207938.cms>

Two new genera of tree frogs found in Western Ghats

<http://www.thehindu.com/sci-tech/energy-and-environment/two-new-genera-of-tree-frogs-found-in-western-ghats/article4627930.ece?homepage=true>

Eco-friendly buildings turn bird killers

http://articles.timesofindia.indiatimes.com/2007-11-25/science/27972708_1_birds-ornithologist-daniel-klem-feathered-friends

Stone quarrying leads to rise in man-animal conflict

<http://www.thehindu.com/news/national/karnataka/stone-quarrying-leads-to-rise-in-mananimal-conflict/article4591615.ece>

Help required to end hunting massacre in Nagaland, India

<http://www.birdlife.org/community/2012/11/help-required-to-end-hunting-massacre-in-nagaland-india/>