

ZSI e-NEWS

The Monthly Electronic Newsletter of Zoological Survey of India

Volume - 04 :: Number - 1

January 2012

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



ZSI e-NEWS

Back issues of *ZSI e-NEWS*

[Visit www.zsi.gov.in/...]

Headquarters, Kolkata

Extensive field surveys were conducted in the States of Arunachal Pradesh, Himachal Pradesh, Maharashtra and West Bengal. In addition, wetland areas of Santragachi Jheel, Howrah, Sajnakhali Wildlife Sanctuary and river systems of Kerala were surveyed for faunal documentation. Local surveys were also carried out to study the protozoan diversity of the East Kolkata wetlands and the diversity of soil protozoa at the waste processing Plant of Kolkata Municipal Corporation.

During the month, the scientists of Headquarters identified, 5 species of Protozoa, 3 species of Collembola, 23 species of Hemiptera, 10 species of Hymenoptera, 7 species of Odonata, 3 species of Orthoptera, 4 species of Isoptera, 7 species of Crustacea, 10 species of Mollusca, 6 species of Amphibia and 1 species of Mammalia from the States of Andhra Pradesh, Assam, Arunachal Pradesh, Chhattisgarh, Delhi, Gujarat, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Maharashtra, Manipur, Meghalaya, Odisha, Tamil Nadu, Uttarakhand, Uttar Pradesh, West Bengal, Kanyakumari W.L.S (Tamil Nadu), South Eastern Ghat (Tamil Nadu), Sajnakhali W.L.S, and Narendrapur Bird Sanctuary (W. Bengal).

A Holotype and Paratype of *Plerogenoides sahransis* sp. nov. were deposited in the National Zoological Collections (NZC). Three paratype specimens of *Physoschistura chindwinensis* donated by Prof. W. Vishwanath, Manipur University, Manipur were also received at the NZC.

Three Phyla, namely, Ctenophora, Sipuncula and Echiura were collected for the first time from the mangroves of Orissa. The Mudigere Skittering frog *Euphlyctis mudigere*, fish *Dactyloptena papilio* Ogilby and *Gomphidia t-nigrum* Selys (Odonata: Anisoptera: Gomphidae) were identified for the first time from Andhra Pradesh, Tamil Nadu coast and

Himachal Pradesh respectively. The chalcid (Hymenoptera) genus *Horismenus* Walker has been identified for the first time from Asia. A new species of Bush Frog (*Raorchestes* sp.) was discovered from Andhra Pradesh.

Identification and advisory services were rendered on specimens and faunal images received from Dept. of Zoology, Cotton College, Guwahati, Assam; Bethune college, Fatima Mata National College, Kollam, Kerala; I.C.A.R., Andaman and Nicobar Islands; Bharathiar University, Coimbatore, Tamil Nadu and the West Bengal State Forest Department.

Dr. Karthikeyan Vasudevan, Scientist, Wildlife Institute of India, Dehradun and Prof. Dr. Sushil Kumar Dutta, P.G. Dept of Zoology, North Orissa University, Baripada, Odisha and Prof. Dr. Shashidhar Viraktamath, Department of Agricultural Entomology, University of Agricultural Sciences, Dharwad, Karnataka visited various sections of the Headquarters to study the faunal collections pertaining to their research fields.

Teachers and students from the Vidyasagar University; Women's College, Bhagbazar, Kolkata and the Halflong Govt. College, Halflong, Assam visited the various sections of Headquarters, during the month.

The first Programme Advisory Committee (PAC) Meeting (Eastern Zone) was conducted at Headquarters on 30th & 31st January, 2012. The PAC was chaired by Prof. Dr. D. Raychaudhuri, Kolkata University.

Dr. S. Sheela, Scientist-C delivered an invited lecture on "The role of Parasitic Hymenoptera in Nature" in a National Seminar on 'Environmental Science in relation to diversity, Ecology and Toxicity of Faunal Resources', organized by the East Calcutta Girl's College, Kolkata on 6th January and attended a National seminar on Science communication addressing Women's issues at the Birla Industrial and Technological Museum on 7th & 8th January,

organized by the National centre for Science Communications, Mumbai, National Council of Science Museums, Kolkata & Vigyan Prasar, New Delhi. Dr. K. Valarmathi, Scientist-C attended the Winter School on Aquatic Inland Resources and the programme 'Environmental Assessment through TRS and GIS application' at the Central Inland Fisheries Research Institute, Barrackpore from 10th-30th January. Dr. Kaushik Deuti and Dr. K.A. Subramanian participated in the Water bird Census in Santragachi Lake near Kolkata on 25th January, conducted in collaboration with the Wildlife Wing of the West Bengal Forest Department.

Dr. Animesh Bal, Scientist-F visited the Sunderban Regional Centre, Canning on 6th and subsequently on 16th January to supervise the inaugural arrangements of the new office premises of SRC, Canning, scheduled to be conducted on 17th January, 2012. Dr. Animesh Bal accompanied the Director, ZSI to Digha on 12th January, in connection with visit of the Hon'ble Chief Minister, Miss Mamata Banerjee & Shri Sanjay Mitra, Secretary to the Health Ministry, Govt. of West Bengal to the Marine Aquarium of ZSI at Digha.

Dr Kailash Chandra, Scientist-F delivered a lecture on "Six Months of Chhattisgarh (CAMPA) Project", at ZSI Headquarters, Kolkata, on 2nd January and also presented a paper entitled, 'Biodiversity of India, w. s. r. to Madhya Pradesh and Chhattisgarh', as a Resource Person and Guest of Honor, during the National Seminar on "Transfer of Technology for Sustainable Development & Environment Protection", organized by the Govt. College, Aron, Madhya Pradesh, on 21st January. Dr Kailash Chandra also attended the Screening Committee meeting for the evaluation of applications for the High Performance Award of ZSI on 11th January, the Office Council Meeting of ZSI, Kolkata on 25th January and the PAC Meeting on 30th & 31st January, as a member of the committee.

Dr. K. Venkataraman, Director, ZSI, visited SRC

and MBRC, Chennai from 6th-9th January and on 9th January attended the first PAC (South Zone) Meeting and the Annual General Meeting of the Wildlife Institute of India on 10th January, at Dehradun. On 15th January, Dr. K. Venkataraman placed a wreath on behalf of ZSI at the tomb of Sir William Jones on the 229th Foundation Day of the Asiatic Society, Kolkata. Dr. K. Venkataraman also attended the inaugural function of the new office premises of the Sunderban Regional Centre, Canning, on 17th January and as well inspected MARC, Digha on 18th January.

During the month, 14 research papers were published, 3 research papers were accepted and 7 research papers were communicated.

Publications:

1. Shuvajit Chakrabarti, Anindita Ghosh and Venkataraman, K. 2011. On a new Trematode parasite *Pleurogenoides sahransis* (Lecithodendriidae: Pleurogeninae) from *Rana cyanophlyctis* of Sahran, Himachal Pradesh, India. *J. Interacad*, 15(4): 610-615.
2. Dev Roy, M.K. 2011. Bopyrid isopod parasite diversity of Shell-fishes from India. *J. Environ. & Sociobiol.* : 8(2): 199-210.
3. Dev Roy, M.K, Pattanayak, J. G. and Mitra, S. 2011. First report of three phyla (Ctenophora: Echiura: Sipuncula) from mangroves of Orissa. *J. Environ. & Sociobiol.* : 8(2): 252.
4. S. Mitra and M. K. Dev Roy. 2011. On a new host record of *Alitropus typus* (Crustacea: Isopoda: Aegidae) and a new record from freshwater river system of West Bengal. *J. Environ. & Sociobiol.* : 8(2): 269-271.
5. Pati, S. K, Dev Roy, M. K. and Sharma, R. M. 2012. Freshwater crabs. zsi.gov.in/checklist/freshwater_crabs.pdf
6. K. J. Jayalakshmi, P. Jasmine, K. R. Muraleedharan, M. P. Prabhakaran, H. Habeebrehman, Josia Jacob, and C. T. Achuthankutty (2011). Aggregation of *Euphausia sibogae* during Summer Monsoon

along the Southwest Coast of India, *Journal of Marine Biology*. Vol-2011, Article ID 945734, doi:10.1155/2011/945734

7. T. C. Narendran, P. Girish Kumar and S. I. Kazmi (2011). A new record of the new world genus *Horismenus* Walker (Hymenoptera: Eulophidae: Entedoninae) from India with description of a new species. *Journal of Environment and Sociobiology*, 8 (2): 173-176.
8. Chandra, K., Salma Khan, Gupta, D. and Singh, S.P. 2011. Additional Records of Scarab Fauna (Coleoptera: Scarabaeidae) of Pachmarhi Biosphere Reserve, Madhya Pradesh, India. *National Journal of Life Sciences*. Vol.8(1). 65-68.
9. Gupta, S.K. and Chandra, K. 2011. Orthoptera of Van Vihar National Park, Madhya Pradesh (India), *Rec. zool. Surv. India*. vol. 111 (part-1): 71-76.
10. Chandra, K. and Gupta, S.K. 2011.

Orthoptera. Editor- Director, *Zool. Surv. India, Fauna of Madhya Pradesh (including Chhattisgarh), State Fauna Series*, 15(Part-3):105-150.

11. Chandra, K. Thilak, J., and Sidhu, A.K. 2011. Neuroptera. Editor- Director, *Zool. Surv. India, Fauna of Madhya Pradesh (including Chhattisgarh), State Fauna Series*, 15(Part-3):151-165.
12. Babu, R. (2011) Observation on Odonata behaviour during the nearly total Solar Eclipse of 22 July 2009 in India. *Notul. Odonatol.*, 7 (8): 69-70.
13. Babu, R. and Mitra, A. (2011) A record of *Gomphidia t-nigrum* Selys from Himachal Pradesh, India (Anisoptera: Gomphidae). *Notul. Odonatol.*, 7 (8): 75-76.
14. Saha, N. and Basak, J. 2011. Insecta: Isoptera. *Zool. Surv. India, Fauna of Madhya Pradesh (including Chhattisgarh, State Fauna Series*, 15 (Part-3): 85 104.



During the 2012 New Year celebrations at ZSI, Kolkata



150th Birth Anniversary of Swami Vivekananda celebrated at ZSI, Kolkata on 12th January, 2012



During the 63rd Republic Day observed on 26th January at ZSI, Kolkata



Dr. K. Rajmohana, Dr. C. Raghunathan & Dr. J. K. De received the High Performance Awards for Scientists of ZSI on 26th January 2012 at ZSI, Kolkata



During the PAC (East Zone) meeting held at ZSI, Kolkata on 30th & 31st January, 2012



Honouring the Governor of West Bengal



Placing wreath at the tomb of Sir Willam Jones on 15th January



Whistling Teals in Santragachi Lake, Howrah



Andaman and Nicobar Regional Centre, Port Blair

Dr. C. Raghunathan, Scientist-C & Officer-in-Charge of the Centre received one of the three High Performance Awards for Scientists, from Dr. K. Venkataraman, Director/ZSI on 26th January 2012 at ZSI Headquarters, Kolkata.

Marine ecosystem of Pongibalu and Rutland Island has been surveyed from 3rd-24th & 25th January respectively, to assess the faunal communities. As a result of the surveys, 106

species of scleractinian corals, 2 species of gorgonids, 1 species of black coral, 18 species of echinoderms, 40 species of opisthobranchs, 1 species of polyclad, 15 species of gastropods, 1 species of bivalve, 2 species of crabs, 2 species of shrimps and 5 species of fishes from marine ecosystem; 39 species of butterflies, 5 species of moths and 1 species of reptile from terrestrial counterpart were identified while 6 species of

fishes were identified from freshwater streams. Among the opisthobranchs, *Favorinus mirabilis* Baba, 1955; *Haplodoris estrelyado* Gosliner & Behrens, 1998; *Phyllidia polkadosta* Brunckhorst, 1993; *Phyllidiopsis monacha* (Yonow, 1986); *Robastra gracilis* (Bergh, 1877) and corals *Montipora samarensis* Nemenzo, 1967; *Anacropora forbesi* Ridley, 1884; *Seriatopora guttatus* Veron, 2000; *Psammacora nierstraszi* Horst, 1921 and *Rhizopsammia verrilli* van der Horst, 1922 were first records to India. A total of 186 specimens including 80 specimens of molluscs, 57 specimens of corals, 8 specimens of echinoderms, 2 specimens of crabs, 2 specimens of fishes, 36 specimens of butterflies and 1 specimen of reptile have been registered in the National Zoological Collection of ZSI. A manuscript on the new record of the scleractinian genus *Rhizopsammia* has been prepared and submitted for publication. Articles on the 'Fauna of protected areas of Andaman and Nicobar Islands', 'Fauna of mangrove ecosystem of India' and 'Faunal Diversity of Andaman and Nicobar Islands' have been prepared for CoP 11. Images of 4 species of holothurians were provided to the guidebook on commercial sea cucumber of the world being prepared by Food and Agricultural Organization (FAO), on their request. Galley proof of the forthcoming edition of the book 'Recent Advances in Biodiversity of India' containing 67 chapters has been corrected and submitted. A Project proposal entitled 'Towards developing and operational coral reef health monitoring model for coral health surveillance in India (Andaman and Nicobar Region)' has been prepared and submitted for funding under the Ministry of Earth Sciences. Mr. Tamal Mondal, Senior Research Fellow participated in the 'National workshop for undergraduate biology teachers', organized by the Department of Science and Technology, Government of India at MESAG College, Pune from 11th-14th

January. Dr. C. Raghunathan, Scientist-C & Officer-in-Charge attended the Programme Advisory Committee Meeting (South Zone) of ZSI held at SRC/ZSI, Chennai on 9th January and presented a new project proposal, progress of grant-in-aid projects and progress of J/SRFs. Dr. C. Raghunathan also served as a resource person and made a presentation on 'Coral Reef Ecosystem of Andaman and Nicobar Archipelago' in the capacity building training programme on coral reef and seagrass monitoring conducted for the Forest Department officials, organized by the National Institute of Ocean Technology, Port Blair from 18th-22nd January.

Publications:

1. Koushik Sadhukhan and C. Raghunathan, 2012. A study on diversity and distribution of reef associated echinoderm fauna in South Andaman. *Asian Journal of Experimental Biological Sciences*, 3(1):187-196.
2. Koushik Sadhukhan and C. Raghunathan, 2011. Diversity and abundance of scleractinian corals in Car Nicobar Island. *International Journal of Plant, Animal and Environmental Sciences*, 1(3):150-157.
3. Koushik Sadhukhan and C. Raghunathan, 2011. Diversity and distribution of scleractinian corals in Middle Andaman. *Journal of Environment and Sociobiology*, 8(2):183-190.
4. Sampath Senthil Kumar, Ajay Saxena and C. Sivaperuman, 2011. Captive breeding of the reticulated python *Python reticulatus* in Andaman and Nicobar Islands, India. *Herpetological Bulletin*, 117: 28-31.



Dr. C. Raghunathan, Scientist-C receiving the High Performance Award from the Director, ZSI



Seastar, *Nardoa galathae* (Lutken, 1865)



Sea cucumber, *Bohadschia graffei* (Semper, 1868)



Sea cucumber, *Thelenota ananas* (Jaeger)



Octocoral, *Viminella juncelloides* (Staisny)



Sea anemone, *Heteractis malu* (Haddon and Shackleton)



Nudibranch, *Phyllidia polkadotsa* Brunckhorst



Nudibranch, *Chromodoris magnifica* (Quoy and Gaimard)

Western Regional Centre, Pune

During the month, 3 species of fresh water crabs, 4 species of Odonata, 3 species of Orthoptera, 3 species of Hymenoptera, 18 species of fresh water molluscs and 12 species of fishes of Konkan region were identified. A faunistic survey was conducted in Phansad Wildlife Sanctuary from 4th-13th January and another survey in Radhanagari Wildlife Sanctuary, from 27th-29th January. Dr. R. M. Sharma, Scientist-D & Officer-in-Charge attended the inspection meeting of 3rd Subcommittee of Parliament on Official Language along with Dr. K. Venkataraman, Director, ZSI, Kolkata, C. Radhakrishnan,

Scientist-F & Officer-in-Charge, WGRC/ZSI, Calicut, Joint Secretary (MoEF) and Director (Rajbhasha), MoEF, New Delhi on 23rd January, 2012 at Le Meridien Hotel, Pune. Dr. K. Venkataraman, Director, ZSI and C. Radhakrishnan, Scientist-F and Officer-in-Charge, WGRC, Calicut inaugurated the DNA Finger Printing Laboratory at WRC, Pune on 22nd January, 2012. Dr S. S. Jadhav participated in the Government Publication Exhibition at YASHADA from 6th-8th January. Students of Ramakrishna More College, Pune and Balasaheb Desai College, Patan (Satara) visited the Museum and Library.



Dr. K. Venkataraman, Director ZSI & C. Radhakrishnan, Scientist-F inaugurating the DNA laboratory of WRC/ZSI, Pune



Puntius sahyadriensis Silas



Common Krait, *Bungarus caeruleus* (Schneider)



Freshwater Crab, *Globiellphusa pistorica* (Alcock)

Marine Biology Regional Centre, Chennai

The Status of sea cucumber was assessed through trawl boat and diving in Mandapam, Keezhakkarai and Tuticorin group of islands of Gulf of Mannar Biosphere Reserve. Scientists of

the Centre identified 5 species of sea grass associated foraminiferans and 3 species of rhizopods and 8 species of marine sponges, out of the material collected from Palkbay. During

the month, 16 identified species were digitized and metadata compiled. Dr. Rajkumar Rajan, Scientist-C attended a one day workshop on "Research and Conservation initiatives with focus on corals and associated species", organized by the Tamil Nadu Forest Department, at Mandapam. Dr. C. Venkatraman, Scientist-C & Officer-in-Charge and Dr. Rajkumar Rajan supervised the research programmes of the JRFs of the Centre. The Centre participated in the Chennai Science Festival 2012 organised by the Science City,



View of MBRC stall in Chennai Science Festival 2012

Chennai from 27th-30th January. Approximately 10,000 visitors paid their visits to the stall. Various marine animals and posters were displayed for an Expo organized by Rosary Matriculation Higher Secondary School, Santhome. During the month, 475 students and tourists visited the marine aquarium.

Publication:

Bindu. L. 2011. Reports of some testate amoebae (Rhizopoda: Protozoa) from Bharatkund, Faizabad, Uttar Pradesh, India, *J. Environ. & Sociobiol.* 8 (2): 257-262.



Southern Regional Centre, Chennai

A field survey was conducted in the Eastern Ghats of Andhra Pradesh from 3rd-15th January and representative samples of various faunal groups collected. Faunal identifications for the month include 7 spp. of insects and 9 spp. of Mollusca from the Pallikaranai Marsh.

The first draft on fauna of Pallikaranai Marsh comprising of 211 species has been submitted. One research paper was published during the month. Two identification services were rendered on fishes and molluscs. Dr. R.Venkitesan, Scientist-C revalidated and updated the scientific names of molluscan exhibits (281 species) present in the Egmore museum for a M.Phil student. Dr. K. Ilango, Scientist-D delivered two guest lectures (i) Diptera (true flies) of Public Health Importance, (ii) Phlebotomine sand flies (Diptera) in Biology & Medicine to the M.Sc.

students of Public Health Entomology in a programme organized by the Vector Control Research Centre (ICMR), Pondicherry on 24th January. Dr. V. M. Sathish Kumar, Sr. Zoological Assistant continued with the DNA Barcoding work of the Centre. He also explained the DNA Barcoding techniques to the visitors to the DNA Laboratory at the Centre. Dr. K. Rema Devi, Scientist- E and Officer-in-charge and Dr. K. Ilango, Scientist-D attended the 7th National Meeting of the State Biodiversity Board, organized by the National Biodiversity Authority on 27th January at Residency Towers, Chennai. Dr. K. Rema Devi also refereed 9 manuscripts for 3 journals.

The Centre organized the first Programme Advisory Committee (PAC) meeting (South Zone) of ZSI on 9th January, 2012. The PAC was chaired by Dr. T. C. Narendran, former

professor, Univeristy of Calicut, Kerala.

Publication:

V.M. Sathish Kumar, 2011. Taxonomy in India in the 21st century: Call for a digital revival.



During the PAC (South Zone) meeting held at ZSI, Chennai on 9th January, 2012

TAPROBANICA, ISSN 1800-427X. October, 2011. Vol. 03, No. 02: pp. 96-101. Taprobanica Private Limited, Jl. Kuricang 18 Gd.9 No.47, Ciputat 15412, Tangerang, Indonesia.



Northern Regional Centre, Dehra Dun

During the month, 4 species of soil nematodes from Dehradun district and 43 species of Lepidoptera from Punjab Survey were identified. Permanent slides of helminths were prepared for morphological studies. Digitization of 20 species of Pisces has been completed and metadata entered in the Vertebrate database, while 40 metadata of Lepidoptera and 20 of nematodes have been documented in the Invertebrates database. The Scientists of the Centre were involved in preparing write-ups for COP-11 ZSI showcasing on protected areas in Uttarakhand and Haryana, nematode taxa and on the activities of the Centre. An article on the Western Hoolock Gibbon was published and a research paper revised. 15 students consulted

the Library of the Centre. Dr. K. Venkataraman, Director, ZSI visited the Centre on 10th January.

Publication:

Sati, J.P. 2011. The Western Hoolock Gibbon: A Profile. *Envis Newsletter*. 17(1&2); 5-14.



Striped keelback, *Amphiesma stolatum* (Linn.)

High Altitude Regional Centre, Solan

During the month, 4 species of Rhopalocera from Kalatop-Khajjiar Wildlife Sanctuary, 3 species of Orthoptera from Chail WLS and 4 species of Pisces from NRC, ZSI, Dehra Dun collections were identified. Dr. A. K. Sidhu, Scientist-C & Officer-in-Charge attended the Annual General Meeting of the WII-Society



Notopterus notopterus (Pallas)

held at Paryavaran Bhawan, New Delhi on 31st January. Dr. A. K. Sidhu reviewed two research manuscripts on Lepidoptera, referred by National Journals. One research paper was published.

Desert Regional Centre, Jodhpur

A field survey was conducted to study the Vertebrate Diversity of Kachchh Biosphere Reserve, Gujarat, from 10th-21st January and 9 species of reptiles, 189 species of Aves and 10 species of mammals were identified from the Biosphere Reserve. Besides, 8 genera of nematodes, 14 species of Lepidoptera, 2 species of Pisces, 14 species of reptiles, 144 species of Aves and 12 species of mammals were identified from the environs of Chambal River, Rajasthan. Dr. Gaurav Sharma, Scientist-C delivered a lecture on the Faunal Diversity of Rajasthan and Gujarat to the students of Aligarh Muslim University, Aligarh during their visits to the museum and Nematology Laboratory of the Centre. Dr. Gaurav Sharma also presented a paper in the National Conference at L. M. College of Science & Technology. Dr. Sanjeev Kumar, Scientist-C delivered two lectures on Wetlands of India and their Importance and Wetland Fauna and its Ecology to Ph.D. students under their course work programme, organized by the Dept. of Zoology, J. N. V. University, Jodhpur and also delivered two lectures on Faunal diversity of Rajasthan and Man and Wildlife conflict in the 68th Forest Guard Refresher's Course organized by the Office of the DCF, Desert Forest Training



Asiatic Wild Ass, *Equus hemionus* Pallas

Publication:

Sharma, Indu and Mehta, H.S. (2011) Ichthyofauna and Eco-Status of Pong Dam Wetland-Ramsar Site (HP), India, *Environment & Ecology*, 29 (4A): 1960-1964.

Centre, Jodhpur. Dr. Sanjeev Kumar also acted as a judge in the II HSBC Jodhpur Bird Race on 29th January, organized by the Hong Kong and Shanghai Banking Corporation Limited (HSBC). Dr. H. S. Banyal Scientist-C delivered lectures on the fauna displayed in the Centre's museum to the students and trainees from Adarsh Nagar, Phaloudi, under the 'Doosra Dashak Bap Pariyojana' and to students and staff members of Adarsh Vidyamandir School. Sixty graduate students from Shri Pustikar SPSRRD Smriti Mahila Mahavidhyalaya, Jodhpur visited the museum.

Publications:

1. Bohra, P. 2011. Pictorial Handbook on Plant and Soil Nematodes of Rajasthan. Published by Director, Zoological Survey of India, Kolkata. 243pp. + 31 plates.
2. Kumar, Sanjeev 2011. Raptor Diversity (Falconiformes and Strigiformes) of Sardar-Samand Reservoir, Rajasthan, India - An Indicator of Wetland Ecosystem Health-Status of Indian Birds and their conservation. *Proceedings of the 1st International Conference on Indian Ornithology (ICIO) - 2011*, 19-23 Nov., 2011 Eds: Bhupthy, Prusty, Kumara, Jayaraj, Quadros & Pramod. Publ: Director, Sacon, Coimbatore. pp. 144-145.



Gharial, *Gavialis gangeticus* (Gmelin)

Central Zone Regional Centre, Jabalpur

The backlog collections of 11 species of Hemiptera, 12 species of Coleoptera, and 16 species of Lepidoptera, 3 species of Mollusca, 2 species of Araneae and 1 species of Uropygi collected from the Singhori Wildlife Sanctuary and Veerangana Durgawati Wildlife Sanctuary, Madhya Pradesh respectively were identified and registered. Identification and advisory service was rendered to Dr. Rajendra Tijare, Asst. Professor, Institute of Science,



Dr. S. Sambath, Scientist-C explaining the preservation techniques of Insects in Museum Maintenance

Nagpur, Maharashtra, on 9 species of Odonata. Dr. S. Sambath, Scientist-C & Officer-in-Charge and Dr. S. S. Talmale, Assistant Zoologist participated and delivered lectures in the two days' short term course on "Museum Maintenance", conducted in collaboration with the Centre by the Department of Zoology & Biotechnology, Govt. Model Science College, on 10th and 11th January. One research paper was published and one communicated.



Dr. S.S. Talmale, Asst. Zoologist explaining the techniques of Taxidermy & skeleton preparation of smaller mammals

Some moths of Veerangana Durgawati Wildlife Sanctuary, Madhya Pradesh



Acanthodelta janata (Linnaeus)



Ascotis selenaria Schiff.



Buzura suppressaria (Guenée)



Creatonotus lactineus (Cramer)



Eupterote undata Blanch



Miresa albipuncta (Herr.-Schaffer)

Gangetic Plains Regional Centre, Patna

During the month, 6 species of noctuid moths and 14 species of Mollusca were identified. A research document on the faunal diversity of Chauris of North Bihar was published under the Wetland ecosystem series, of ZSI. Twenty two students of different schools of Patna and Dr. Nirmal Tripathy, Assistant Professor of PG Dept of Zoology, Siddhu Kanu University, Dumka and Ms Rita Tripathy, research scholar, visited the Regional Centre for the identification of Mollusca and insect samples of

their collection. Dr. Gopal Sharma, Scientist-C & Officer-in-Charge attended the UGC sponsored National seminar on 'Biological measures towards total sanitation in rural and semi urban areas' from January 20th-21st, organized by the Department of Botany, Sri Arvind Mahila College, Kazipur, Patna. Dr. Gopal Sharma and Dr. Navneet Singh, Scientist-C attended NARAKAS meeting on 19th January.

Marine Aquarium cum Regional Centre, Digha

The aquarium at the Centre was the main attraction for the visitors during the *Beach Festival* which was organized by the Fisheries Development Corporation on Digha beach from 13th-16th of the month. In view of the *Beach Festival* and the *Ganga Mela*, 176 examples of live marine ornamental fauna were exhibited in the aquarium galleries. The major attractions among the aquarium exhibits during the month were lion fish (*Pterois miles*), Threadfin hawkfish (*Cirrhitichthys aprinus*) and the Blackspotted Morey (*Gymnothorax favagineus*). The aquarium received an average of 310 tourists per day. In total 354 specimens were identified during the month which included 34 species of fishes and 49 species of molluscs. Advisory services were provided for the identification of fish fauna of Digha coast during the *Ganga Mela* festival. Dr. Prasanna Yennawar, Scientist-C & Officer-in-Charge of

the Centre attended the valedictory function of the District Science Fair-2012, as Chief Guest, on 10th January at the Science Centre which was organized by Digha Science Centre & National Science Museum, Digha. The 63rd Republic Day was celebrated at the Centre on 26th January.



Pomacanthus semicirculatus



Plates quadrilineatus



Lethrinus lentjan

Sunderban Regional Centre, Canning

The new office premises of the Centre at No.1, Dighirpar, Canning Town, South 24 Parganas, Canning-743329, West Bengal, was inaugurated on 17th January. Two books were released by Shri. R. Mehta, Advisor, MoEF during the inaugural function. The books released were, 1. Catalogue of Eggs



The new office of SRC, Canning

(Aves) in the National Zoological Collection of the Zoological Survey of India. Occasional Paper No.325 by R. Sakthivel, B.B. Dutta, and A. K. Sanyal and 2. Catalogue of Type Specimens (Aves) in the National Zoological Collection of the Zoological Survey of India, Occasional Paper No.330 by R. Sakthivel, B.B. Dutta, and K Venkataraman. Dr. D. Suresh Chand, Scientist-C & Officer-in-Charge of the Centre gave a power point presentation on the Highlights of the Centre during the function.

During the month, a faunistic survey was conducted in and around the Canning fish landing centre and Dabu Mangrove area along the coast of Matla estuary and representative fauna was collected. Out of the collection, *Scylla serrata* (Forsk., 1755) and *Telescopium telescopium* (Linnaeus, 1758) specimens were identified. All the staff members of the Centre actively took part in the 63rd Republic Day Celebration on 26th January.



During the inaugural function of the new office premises of SRC, Canning



During the Republic day celebrations at SRC, Canning

Arunachal Pradesh Regional Centre, Itanagar

A field survey to study the Ichthyofauna of Zero and Yazali areas of Lower Subansiri district of Arunachal Pradesh was conducted from 16th-23rd January and representative faunal samples were collected. Dr. Gopinathan Maheswaran, Scientist-C & Officer-in-Charge and Dr.



Siro River, Ziro, Lower Subansiri District, A. P

Bikramjit Sinha, Scientist-C participated in the PAC (East Zone) meeting held at ZSI, Kolkata on 30th & 31st January and Dr. Bikramjit Sinha presented his new programme proposal. Dr. Sinha also reviewed a research manuscript for a national journal.



Ranga River near Ranganadi Dam, A.P

Freshwater Biology Regional Centre, Hyderabad

During the month, 5 short duration field surveys were undertaken in various freshwater habitats to study the seasonal variability in the zooplankton community and the physicochemical features of the waterbodies concerned and 20 zooplankton samples were collected. Three species of freshwater fishes, 3 spp. of Rotifera and 3 spp. of Cladocera were identified and digitised. The taxonomic studies conducted on the ubiquitous rotifer genus *Lecane* Nitzsch, 1827 revealed 33 species representatives in temporary waters, including 9 first records from the region (Andhra Pradesh). A report on the current taxonomic nomenclature, following revisionary studies on the group (Lecanidae) by Segers (1995) was prepared, since most Indian studies continue to be replete with old nomenclature. Another report on species of Lacanidae (Rotifera/Monogononta) from Andhra Pradesh, including the 9 distributional records mentioned above was written up. Shri A. Anand Kumar, Sr. Zoological Assistant Participated in the Winter School on 'Inland

Aquatic Resources and Environmental Impact Assessment through remote sensing and GIS', held at the Central Inland Capture Fisheries Research Institute (CICFRI, ICAR), Barrackpore, West Bengal, from 10th-30th January. Two advisory requests received were dispensed with.



Lecane unguitata (Fadeev, 1925)



Lecane lateralis Sharma, 1978

Estuarine Biology Regional Centre, Gopalpur-on-Sea

Out of the faunal collection made from the *Pennera* Estuary, Andhra Pradesh, 4 species of Mollusca were identified. A total of 100 faunal data were entered in the *Taxonomic Data-Base of the Centre* and updated the list up to 7295 entries. One research paper was submitted for publication. Dr. L. Kosygin Singh, Scientist-C & Officer-in-Charge delivered a lecture on the



Gerres filamentosus Cuvier

importance of Science in the valedictory function of the three day Science Exhibition, which was organized by the Ganapati Sabata Foundation, Bhubaneswar and sponsored by the NCSTC, Department of Technology, Govt. of India, at the D.A.V. Public School, Berhampur, Odisha on 11th January. Over 35 visitors paid their visits to the Centre's museum.



The Centre celebrated the 63rd Republic Day on 26th January

North Eastern Regional Centre, Shillong

During the month, 9 species of reptiles and 2 species of amphibians were identified. 289 examples of identified fish specimens were registered in the faunal database of the Centre and 14 entries of reptiles were computerized. The images of 1 Holotype and 14 paratypes of *Ichthyophis daribokensis* along with its original description and Meta data have been digitized during the month. A research paper titled "*Studies on Aquatic and Semi aquatic Hemiptera*



Mrs. Kriste Ericsson, Biologist and Illustrator from Minnesota, USA, with staff of NERC/ZSI, Shillong in the entomology section of the Centre

(*Insecta*) of Jaintia Hills and East Khasi Hills districts of Meghalaya, North East India" authored by J. Lyngdoh, has been published in the *Rec. zool. Surv. India* (Occ. Paper) No. 332. A report on "*Taxonomic study on Nemacheiline loaches of North East India present in the collections of NERC/ZSI, Shillong*" has been submitted.

Two paratypes of *Garra andrewi* and *Garra chhintuipuiensis* were deposited in the holdings of the Centre by Lalramliana, Asst. Prof., Pachunga University College, Aizawl, Mizoram.

Sixteen species of native ornamental fishes were identified for the Department of Ecology and Environmental Science, Assam University, Silchar. Laboratory facilities and advisory services were provided to Ms. R. G. Kamei, Research Scholar, Delhi University, Delhi, who visited the Centre from 10th-13th January, to study the type specimens of caecilian amphibians.

Mrs. J. Lyngdoh, Scientist-C and Officer-in-Charge, attended the Programme Advisory Committee (PAC) meeting (East Zone) at ZSI, Kolkata, on 30th and 31st January.

Mrs. Kriste Ericsson, Biologist and Illustrator, Minnesota, USA, visited the Centre on 23rd and 25th January.

Western Ghat Regional Centre, Kozhikode (Calicut)

Dr. K. Rajmohana, Scientist-C of the Centre received one of the three High Performance Awards of ZSI for Scientists, from Dr. K. Venkataraman, Director/ZSI on 26th January 2012 at ZSI Headquarters, Kolkata.

Shri. Bijoy. C, Junior Research Fellow of the Centre received the Best Poster presentation Award during the National Seminar on 'Biodiversity Conservation: Challenges and Prospects', organized by the Department of Zoology, Govt.College, Chittur, Palakkad, on the topic 'A review of orthopteran egg parasitoids in paddy fields of Wayanad and Palakkad' prepared by Bijoy. C and K. Rajmohana.

An extensive faunistic survey was conducted in the south Western Ghats of Palakkad, Malappuram and Thrissur districts of Kerala and collected representative samples of various faunal groups. Besides, 3 local surveys were carried out in the Kottooli wetlands, West Hill and Vellayil areas of Kozhikode district. Dr. Muhamed Jafer Palot, Asst. Zoologist, participated in the butterfly survey at Aralam Wildlife Sanctuary, Kannur district, Kerala, from 13th-15th January, organized by the Kerala Forests & Wildlife Department and Malabar Natural History Society, Kozhikode.

During the month, 4 species of Pteromalidae (Hymenoptera), 6 species of centipedes (Chilopoda) and 2 species of reptiles (Ophidia) were identified. The revisionary study of the genus *Dipara* Walker (Hymenoptera: Pteromalidae), including descriptions of 5 new species from India was completed. The Scientists of the Centre were also involved in preparing the write-ups for the COP-11, ZSI showcasing. Three identification & advisory services were rendered.

A research manuscript entitled, "A Catalogue of Amphibia in the collection of the Western Ghat Regional Centre, Zoological Survey of India, Calicut, Kerala", dealing with data of 1872 identified specimens of amphibians classified under 113 species, 26 genera and 11 families including 32 species of type specimens under 4 families and another research paper on a collection of mymarids (Hymenoptera) in rice ecosystem were communicated.

Dr. P. M. Sureshan, Scientist-C supervised the research work of a JRF of the Centre and Dr. K. Rajmohana supervised the work of 2 JRFs and also those of two M.Sc students from the Govt. College, Madappalli, Calicut, attached to the Centre for their Project Work.

Eleven Holotypes and 9 Paratypes of Crustacea (Prawns) were deposited in the faunal depository of the Centre by Dr. P. M. Pillai, Registrar, Central Agricultural University, Imphal, Manipur and Dr. V. Unnikrishnan, M.G.College, Thriruvananthapuram, Kerala.

C. Radhakrishnan, Scientist-F and Officer-in-Charge, reviewed three research papers and a faunal document comprising of 8 chapters.

C. Radhakrishnan, Scientist-F attended the Programme Advisory Committee (South Zone) meeting of ZSI, as the review committee member, at SRC/ZSI, Chennai on 9th January and also presented the progress report of the Research fellows of the Centre. He also visited the WRC, Pune from 21st to 24th January along with the Director/ZSI and attended the Parliamentary Committee meeting (Official Language) pertaining to WRC/ZSI, Pune.

K. C. Gopi, Scientist-E, Dr. Subrata Kar, Scientist-C and Munmun Chakrabarty, Junior Research Fellow from ZSI, Kolkata visited the

Centre for studying the Ichthyofaunal holdings of the Centre.

The research facilities at the Centre was further enhanced by installing the JETION Digital Scanner (JET-DBG003 A3 Professional Edition) in the research lab at the Centre.

A health awareness programme on Diabetes mellitus and the insulin injection techniques

was organized at the Centre in collaboration with “Open Medicines”, the Network of Healthcare Products and Drug Outlets in Kerala, on 25th January.

The Centre celebrated the 63rd Republic Day on 26th January 2012.

During the month, 1770 visitors paid their visits to the museum.



Dr. K. Rajmohana, Scientist-C receiving the High Performance Award from the Director, ZSI



Felicitating Dr. K. Rajmohana at WGRC for having received the High Performance Award of the Department



During the celebrations of the 63rd Republic Day in WGRC/ZSI, Calicut

New Addition to the Lab facilities at WGRC/ZSI, Calicut



JETION Digital Scanner (JET-DBG003 A3 Professional Edition)

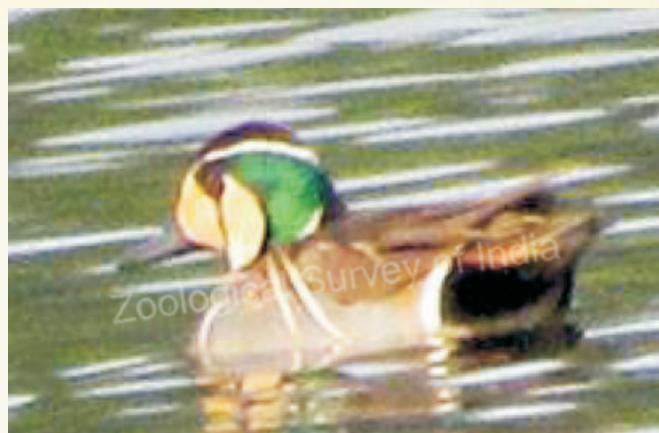
ANIMAL OF THE MONTH

Baikal Teal

Anas Formosa Georgi, 1775

The Baikal Teal, *Anas Formosa* Georgi, 1775, is an internationally threatened species of migratory duck according to the IUCN Red Data Book. It is threatened in all the eleven countries of Asia where it has been reported from, viz, Russia, Mongolia, China, Japan, North Korea, South Korea, Taiwan, Vietnam, India, Nepal and Pakistan. Although it was common in the early 20th Century, in recent years its numbers have declined and the present world population is estimated to be about 20,000.

It breeds in north-eastern Russia and Mongolia, preferring the marshes in the river basins of the Yana, Indigirka, Lena and Amur Rivers. It winters in the wetlands of Korea, China and Japan. The most important wintering site is the Taedong Lake in North Korea where since 1987 about 15,000 individuals have been observed each year. This site holds the world's largest known concentration of this species. It occasionally visits Taiwan and Vietnam and there are stray records from fresh-water lakes in northern India, Pakistan and Nepal. In India, it has been sighted only a few times in Assam and



[Text & Photo: K. A. Subramanian and Kaushik Deuti, ZSI, Kolkata]

West Bengal. In West Bengal it has been seen twice at Santiniketan (18.01.1993 & 06.02.2000), once at Tilpara barrage (04.01.1998) and twice at Santragachi (10.02.2006 & 25.01.2012). At Santragachi Lake near Kolkata it has been seen again this year after a lapse of six years.

The handsome male can be easily identified by its striking yellow and green head and grey and brown body. In comparison, the female has a duller head with a prominent white circular spot at the base of the bill and a plain rufous brown plumage. Their main food during winter

is rice grain and other crop seeds; so during this period they visit large flat expanses of rice fields for feeding at night and open areas of fresh-water for safe roosting during the daytime.

They depart northwards in March and reach their breeding grounds in April where they build nests in grass and sedge tussocks in marshy areas. They leave their breeding areas in late August-September and arrive in their wintering grounds in late October. Migration routes between the breeding and wintering grounds are not completely known. They travel quickly during migration, making use of different routes in autumn and spring along

river valleys with associated marshes and lakes. Large numbers make a brief stop-over at Lake Khanka in south-eastern Russia where about 5,000 individuals are seen.

The main cause for decline in their numbers is believed to be hunting as they are extremely gregarious and form large dense monospecific flocks. Their daily movements to and fro from the feeding grounds are very regular and their predictable movement patterns and habit of flying in large dense flocks makes them susceptible to shooting. At Lake Khanka in Russia, there is a three week hunting season at the time when the birds pass through.

ZSI IN NEWS

14 Telegrams Republic Day Special Supplement Thursday January 26, 2012

Role of ZSI on the studies of Molluscs in Andaman Sea

Geographically, the Andaman Sea is small and partially isolated portion of the northeastern Indian Ocean which lies enclosed between the coasts of Burma, Thailand and Malaysia on the east and the chain of the Andaman and Nicobar Islands and Sumatra on the west. It occupies an area of $6.02 \times 10^6 \text{ km}^2$ and has a volume of $6.6 \times 10^9 \text{ km}^3$ with an average depth of 1096 m. The major channels connecting Andaman Sea to Bay of Bengal are Pongos Channel, Ten Degree Channel and Great Channel. The Strait of Malacca maintains the connection of Pacific Ocean water, flowing through the South China Sea and the Bay of Bengal.

The Andaman and Nicobar Islands supports one of the richest coral formations in the Indo-Pacific region, reputed the Andaman Sea as a coral reef paradise. The Andaman Sea lies enclosed by Burma, Thailand and Malaysia on the east and the Andaman and Nicobar Islands on the west. The geographical position of A & N Islands makes it



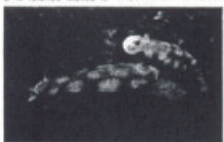
Helmet Shell *Cassia cornuta*

as shells. The number of species of molluscs recorded from various parts of the world varies from 80,000 to 1,50,000. In India 5070 species of mollusca have been recorded from freshwater (183 species), land (1487 species) as well as from marine habitats (3370 species) which include those occurring in coral reef ecosystem as well as other areas. The Andaman Sea is known to be rich in marine wealth and has attracted many research ships, viz. Challenger, Valdivia, Siboga, Galathea and Vitaz to this region during their international expeditions. The earliest

species of gastropods are reported from these islands by Zoological Survey of India. Among them 12 species of chitons reported from this archipelago are primitive gastropods. These animals are very common in the rocky intertidal areas of A & N Islands. There are about 350 bivalves reported from these islands. Bivalves are very much important for the shells collectors as well as the maniculture industry. They include the edible bivalves (Mussels and rock oysters) and the pearl oysters. The taxonomical reports by ZSI helps a lot for those who are doing pearl oyster culturing in Andaman as well as those to farm the mussels.

One of the economically important groups of mollusc endites the opisthobranchs. The group consists of squids, loligos and octopods. They are highly priced shell fishes which come in the markets of Andaman and Nicobar Islands. ZSI reported as far as 33 species of them from these islands. The most common and much studied group of mollusc is the gastropods. For any student, hobbyist and common man, the first thing comes in their mind is the gastropod shells when we speak about mollusc. Such is the popularity of the group among the community. There are more than 1200 species of gastropods reported from these islands. This group plays a major role in the economy of the people of Andaman and Nicobar Islands also. The studies by ZSI also reports 115 species of gastropods endemic to this archipelago. Among the gastropods, the opisthobranchs were the poorly represented group till 2009. Opisthobranchs are often casually called sea slugs. During the last three years continuous underwater surveys brought out as many as 200 species of opisthobranchs from these islands. Nudibranchs are shell-less marine

opisthobranch gastropod, which are noted for their often extraordinary colours and striking forms. Nudibranch means naked gills—mostly on the dorsal part of some species or along the side covered by a protective flap as these species tend to bury into sand or mud. They are very numerous in terms of species, and are often very attractive and noticeable, but there are a wide variety of other kinds of sea slugs, and these belong to several taxonomic groups that are not very closely related to nudibranchs. Nudibranchs is the largest group in opisthobranchia with more than 3500 described species. The surveys conducted by ZSI team during the last three years brought out more than 100 nudibranchs from these islands which enhanced the diversity of molluscan faunal communities in Indian waters. Apart from this, the status survey of few economically important molluscan species were carried out throughout these islands for the benefit of the fisher-folk. Surveys on abundance scheduled gastropod *Trochus nilotus* has been conducted in these islands and recommendations have been given to Government of India to delist the species from scheduled category as their wild population increased considerably. Presently the ZSI is undertaking surveys to assess the status of commercially important scheduled molluscs as well as sea cucumbers of these



Nudibranch *Rhinoceros paucicella*

different from the coral reefs of Indian peninsula. Corals and their associated fauna of these islands should be studied in comparison with the countries nearby rather than the diversity of Indian peninsula. The mangrove strands near the shoreline is also plays a major role in the fauna associated with the coral-reef. At many places rocky, sandy and muddy beaches occur between mangroves and coral reefs in the littoral region. The coral reefs of A & N Islands harbours 4140 species including mammals, reptiles, fishes, echinoderms, mollusca, crustaceans, polychaeta, sea anemones, tunicates, flat worms, sea weeds, sea grass, hydroids etc. Some of the reef associated animals of these islands are still remains unexplored.

The phylum Mollusca is very large comprising of thousands of species commonly known

molluscan study in Andaman Sea was carried out during the year 1971. Collections from these islands are also available in the cabinets of leading American Museums, Natural History Museum, London, Indian Museum, Kolkata and other European Museums. Andaman and Nicobar Islands have a rich molluscan diversity in different habitats such as mangroves, coral reefs, rocky coasts, sandy beaches, sea grass beds and also at greater depths in the sea. Shells play an important role in the economy of the islands. The artifacts made of the shells are in much demand and most of the tourists take them in memory of these islands. In the year 2009 scientists of Zoological Survey of India (ZSI) catalogued 1282 species of marine molluscs from these islands. As on the year 2011, a total of 1482

islands. The results on the molluscan surveys in these islands have been published as books, papers in various journals, pamphlets, for the utility of the researchers, policy makers and environmental managers. Besides, several specimens of molluscs are displayed in the Regional Museum of ZSI, Port Blair for public viewing. *

OUT OF THE BOX

Rare black-necked crane spotted in Arunachal Valley

<http://www.thehindu.com/sci-tech/energy-and-environment/article2780243.ece>

Alien sea worms that ride the current discovered

<http://www.discoveryon.info/2011/11/alien-sea-worms-that-ride-the-current-discovered.html>

Scientists claim mystery behind mass death of corals unravelled

http://articles.economictimes.indiatimes.com/2011-11-21/news/30424950_1_corals-symbiotic-algae-acropora

PAINTINGS FROM ZSI HERITAGE ALBUM



Pygmy hog

Porcula salvania Hodgson, 1847