

ZSI e-NEWS

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

From the Director's desk

Animal and plant taxonomists in the country are going to witness a major event wherein they can debate upon the recent developments in their respective fields and also showcase their ideas. I am happy to inform all the readers that the Ministry of Environment & Forests (MoEF) has finally given its consent to organise the International Taxonomic Congress from 4-6 December 2013 at New Delhi. The Zoological Survey of India along with the Botanical Survey of India and National Biodiversity Authority will be assisting the MoEF in organising this first taxonomic congress only to network the taxonomists in the country, to identify the gap areas in taxonomy and to build capacity among the scientists as well as to bring awareness among common public and especially among college and University students the importance of taxonomy. As you all know, the classical taxonomy, once ruled the entire planet in terms of naming the each and every living creatures (both plant and animal) is fast dwindling and continue to be considered as a non-lucrative field. As a result of this, we are left with only a very few good taxonomic institutions in the country with a handful of taxonomists. In order to revive and bring back the classical taxonomy in the country, the two premier taxonomic institutions have come forward to hold this event in India once in two years to identify the gaps and take effective steps to plug those gaps as they could have hampered the development of taxonomic science in the country.

Dr. K. Venkataraman
Director, Zoological Survey of India, Kolkata

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Headquarters, Kolkata

Extensive field surveys have been undertaken in the States of Himachal Pradesh, Maharashtra, Odisha (Eastern Ghats), Assam (for the collection of Moss Inhabiting Protozoans) and West Bengal (Sundarban Biosphere Reserve). In addition to that a few local surveys have also been undertaken to Indian Botanical Garden and Diamond Harbour.

During the month, scientists of the HQ have identified 9 species of Protozoa, 5 species of Collembola, 7 species of soil and plant parasitic nematodes, 2 species of Platyhelminthes, 12 species of Isoptera, 41 species of Hemiptera, 12 species of Coleoptera, 3 species of Hymenoptera, 2 species of Orthoptera, 4 species of Crustacea, 18 species of Fishes and 2 examples of Mammals from the States of Andhra Pradesh, Assam, Chhattisgarh, Delhi, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Manipur, Meghalaya, Mizoram, Odisha, Pondicherry, Rajasthan, Sikkim, Tamil Nadu, Tripura, Uttarakhand, Uttar Pradesh, West Bengal and Andaman & Nicobar Islands.

One new genus and two new species *Schistura paucireticulata* Lokeshwor, Vishwanath & Kosygin, 2013, *Awaouichthys menoni* Chatterjee & Mishra, 2013 have been discovered.

One new species of water bug *Velia mitrai* (Velidae: Hemiptera) from Neora Valley NP, West Bengal has been added to the science.

Identification and advisory services have been rendered on twenty three lots of specimens, received from different institutions and organizations. In addition to that, identification and advisory services have also been rendered by Fish Division for the lots received from Sri R. Hegde, Department of Psychopharmacology, NIMHANS, Bangalore, Karnataka for the identification of crab specimens; S. Mukhopadhyaya, Department of Zoology, Bidhan Nagar College. For them one example of Hydrophilidae and one example of Dytiscidae has been identified. Another lot

containing 2 examples of Coccinellidae and one example of Carculionidae has been identified.

Dr. K. Venkataraman, Director has acted as one of the panel members for recruiting scientists at National Centre for Sustainable Coastal Management, Chennai. Dr. Venkataraman, has also attended a meeting at Gangtok regarding an exciting project idea that would document Sikkim's Biodiversity and natural resources organised by Ashoka Trust for Research in Ecology and Environment (ATREE), at Annex building of Forest Secretariat, Deorali, Gangtok between 10 and 12 July, 2013. He also attended Departmental Council Meeting at the Ministry of Environment and Forests (MoEF), New Delhi from 24-26 July, 2013.

. Dr. Venkataraman, has also acted as one of the panel members during a discussion on "GAP Analysis on policy issue and awareness for implementation of ABS provisions with the BD Act" organised by West Bengal Biodiversity Board, Kolkata on 29 July, 2013 at the Sonnet Hotel, Kolkata.

Dr. Kailash Chandra, Additional Director and Scientist-F has reviewed one manuscript for possible publication in *Bug's R. All* and another manuscript for possible publication in the *Journal of Threatened Taxa*. Dr. Chandra, also has attended the Panel discussion on 'Gap Analysis on Policy Issues and Awareness for Implementation of ABS Provisions within the Biodiversity Act' organised by the WBBB, Kolkata on 29th July 2013 at Sonnet Hotel, Kolkata.

Dr. Gopinathan Maheswaran, Scientist-C & Officer-in-Charge has attended the 5th Meeting of the Advisory Committee for Ecosystem Research Programme at the Ministry of Environment & Forests, Government of India, New Delhi on 22 & 23 July, 2013 and scrutinised various proposals received by MoEF for possible funding apart from assessing the some on-going projects on sacred groves being funded by the MoEF. Dr. Maheswaran, also reviewed three project proposal for Ministry of

Environment & Forests, New Delhi.

During the month, Dr. Gaurav Sharma, Scientist-C along with the Mammals Section staff has examined wildlife materials received from the Divisional Forest Officer, Wildlife (HQ), Bikash Bhavan, Salt Lake City, Kolkata and Divisional Manager, Kalimpong Forest Division, WB Forest Development Corporation Limited, Kalimpong, Distt.-Darjeeling and identified the materials as horn of *Bos gaurus* C.H. Smith, 1827, and skull, lower jaws and pelvic girdle of sub-adult of Asian Elephant, *Elephas maximus* Linnaeus, 1758 (Mammalia: Proboscidea: Elephantidae), respectively.

On 24 July 2013, Dr. Gaurav Sharma, Scientist-C has examined wildlife material seized at Jalpaiguri Forest Division and identified it as tusk derived from Asian Elephant *Elephas maximus* Linnaeus, 1758 as per the directives of the Learned Chief Judicial Magistrate, Jalpaiguri and submitted his report to the DFO, Jalpaiguri Forest Division.

Training & Extension Division of HQ unit has organized a two-days training workshop on the "Application of Scanning Electron Microscopy in Animal Taxonomy" at ZSI Headquarters on 17 and 18 July, 2013 as part of capacity building for the staff of the Zoological Survey of India. On this occasion, Prof. R. Bhar, Head, Department of Instrumentation Science, Jadavpur University, Kolkata has been invited as the guest speaker. Dr. Kailash Chandra, Additional Director and Scientist-F has delivered an inaugural address Mr. Ankan Paria, Engineer from Carl Zeiss India provided all technical assistance to 23 staff participated in the training programme.

Miss. Swagata Mondal of Zoology Department, Calcutta University, Kolkata visited the Nematelminthes Section. Dr. V.V. Gantait delivered a lecture on the reminiscence of 32nd Indian Scientific Expedition to Antarctica to the Future Foundation School, Regent Park, Kolkata on 31st July, 2013.

On 5 July, 2013, Dr. Gaurav Sharma, Scientist-C has acted as an external examiner for Ph.D viva-voce for Mrs. Minatai B. Madankar's thesis

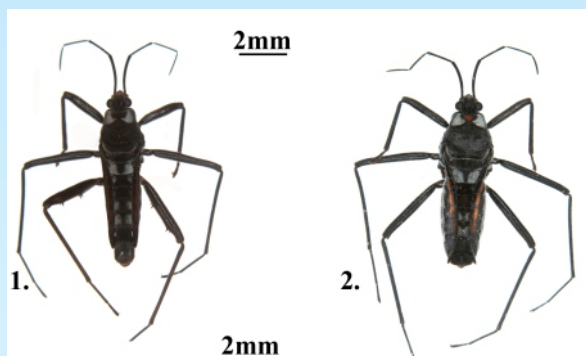
entitled "Eri Sericulture, (*Philosamia ricini*) in Vidarbha Climate: Biology, Rearing, Performance, Economic Characters, Disease Incidence and Management" being submitted to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Publications

- Lokeshwor, Y., Vishwanath, W. and Kosygin, L. 2013. *Schistura paucireticulata*, a new loach from Tuirial River, Mizoram, India (Teleostei: Nemacheilidae). *Zootaxa* 3683(5):581588.
- Chatterjee, T. K., and Mishra, S. S. 2013. A new genus and new species of Gobioid fish (Gobiidae: Gobionellinae) from Sunderbans, India. *Rec. zool. Surv. India*, 112 (4): 85-88.
- Basu, S., Subramanian, K.A. and Polhemus, D.A. 2013. A new species of *Velia* (Hemiptera: Heteroptera: Veliidae) from West Bengal, India. *Zootaxa*, 3693(3): 344350.
- Chandra, K. and Kushwaha, S. 2012. Additions to the True Bugs (Hemiptera) Fauna of Pachmarhi Biosphere Reserve, Madhya Pradesh, India. *Ann. For.*, 20(2): 250 - 254.
- Sambath, S. and Chandra, K. 2013. Moth diversity of Chhattisgarh State, India. *Indian Forester*, 139(7): 626-632.
- Sanyal, A. K., Uniyal, V. P. and Chandra, K. 2013. Life History of *Chionaema coccinae* recorded from Dehradun, Uttarakhand. India. *Indian Forester*, 139(7): 645-647.
- Kushwaha, R.K. and Hegde, V.D. 2013, "The Tribe Bembidiini Stephens 1827 (Carabidae: Coleoptera) from Uttar Pradesh State with six new records from the State and one new record from India". Pages 158-162 Published in Souvenir of National Seminar on "Water and Biodiversity." held on 22nd May 2013 at U.P. Biodiversity Board, Lucknow.



Awouichthys menoni sp. nov. Holotype



A new species of *Velia mitrai* (Hemiptera: Heteroptera: Veliidae) from West Bengal, India.



Metochus uniguttatus (Hemiptera: Heteroptera)



Dr. Gaurav Sharma examined Elephant tusk at Jalpaiguri Forest Division, West Bengal on 24 July, 2013

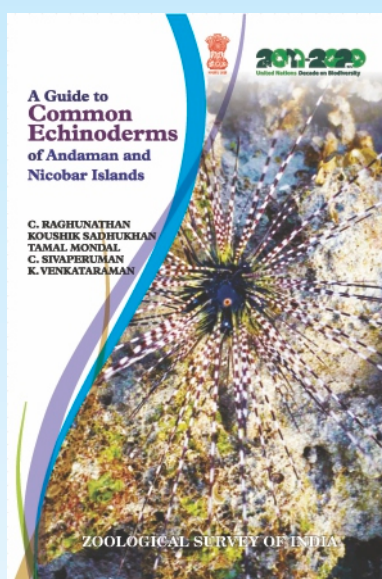
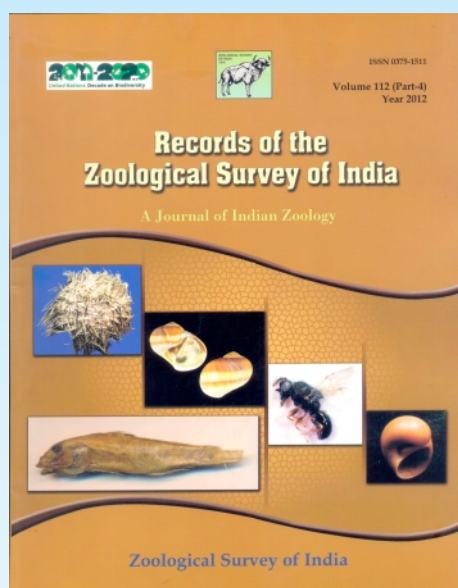


Sh. Sanjay S. Gahlout, DDG, NIC given presentation on updation of ZSI Website on 12-07-2013.

During two days training Workshop on “Application of Scanning Electron Microscopy (SEM) in Animal Taxonomy” at ZSI, HQ.



ZSI Publications



Andaman & Nicobar Regional Centre, Port Blair

Marine ecosystem of Curlew Island, Avis Island, Sound Island, Ray Island, Oliver Island and Orchid Island in Middle Andaman have been surveyed from 9-16 July, 2013; terrestrial ecosystem of Baratang in South Andaman and Rangat in Middle Andaman have been surveyed from 19-28 July, 2013 and Great Nicobar Island from 7-31 July, 2013 to assess the faunal communities. As a result of these surveys, a total of 462 species have been identified. Among them, 204 species of scleractinian corals, 6 species of gorgonids, 3 species of polyclads, 15 species of sea anemones, 10 species of opisthobranchs, 16 species of echinoderms, 60 species of gastropods, 9 species of crabs, 1 species of lobster and 26 species of fishes were identified from marine habitat while, 5 species of Dipteran insects, 8 species of amphibians, 6 species of lizards, 10 species of reptiles, 94 species of birds and 4 species of mammals were identified/observed from terrestrial environment.

Of which, five species of sea anemones, *Actinodendron glomeratum* Hadden, 1898, *Calliactis miriam* Hadden and Shackleton, 1893,

Anthopleura handi Dunn, 1978, *Phymanthus buitendijki* Pax, 1924 and *Telmatactis decora* (Hemprich and Ehrenberg in Ehrenberg, 1834) are new records to the Indian waters, while a lobster *Allogalathea elegans* (Adams and While, 1848) has been reported for the first time from Andaman and Nicobar Islands. During the month, a total 151 specimens comprised of 30 specimens of corals, 98 specimens of gastropods, 2 specimens of cephalopods, 8 specimens of opisthobranchs 1 specimen of platyhelminthes and 2 specimens of echinoderms and 5 specimens of insects have been registered in the National Zoological Collections of ZSI.

Work plan to study the diversity of echinoderms has been provided to Ms. Maryjune Cabiguin, M.S. Student of Xaviers University, Cagayan, Philippines. The faunal diversity of Andaman and Nicobar Islands has been explained to Dr. Fronstantin Mitto, Herpetologist, Zoological Institute, RAS, St. Petersburg, Russia during his visit to the Centre on 9 July, 2013. A list of publications of ZSI/ANRC and 90 reprints of publications pertaining to wildlife of A&N Islands has been

given to the Chief Conservator of Forests, Department of Environment and Forests, A & N Administration on request for the preparation of management plan.

A revised final technical report for the Lead Institution: Great Nicobar Biosphere Reserve has been submitted to the administrative Ministry. As required by the Department of Environment and Forests, A & N Administration, the details of total harvestable stock available and the position of the present standing stock of schedule-IV marine gastropod *Trochus niloticus* outside the Protected Areas in Andaman and Nicobar Islands have been provided for onward transmission to MoEF. Reply for the Lok Sabha questions pertaining to Coral Reefs of India have been submitted to ZSI HQ as required. The REIA proposal entitled 'Studies on the biotic components of proposed area for installation of Radar Stations at East Island, Little Andaman and Car Nicobar' has been submitted to the Commander, Indian Coast Guard (A&N), Headquarters, Port Blair on request. Dr. C. Sivaperuman, Scientist-C and Mr. P.T. Rajan, Sr. Zoological Assistant have delivered lectures on Crocodile Census Techniques and Faunal diversity of A&N Islands, respectively, on 13 and 14 July, 2013 to the Forest Guards at Forest Training Institute, Wimberligunj, Port Blair.

Dr. C. Raghunathan, Scientist-C & Officer-in-Charge reviewed a manuscript on Opisthobranchs for the *Journal of Threatened Taxa*, and a manuscript on Mangrove

brachyuran crab diversity for *International Journal of Biodiversity and Conservation* and comments offered on request. He has also submitted the evaluation report for the Ph.D. thesis on estuarine pollution received from Tamil University on request. Dr. C. Raghunathan attended the State Level Steering Committee meeting for Great Nicobar Biosphere Reserve held at Secretariat chaired by the Chief Secretary, A&N Administration on 15 July, 2013; served as a Doctoral Committee member for Ph.D. viva-voce examination in Department of Coastal Studies and Marine Biology, Pondicherry University on 2 July, 2013, interview committee member for the recruitment Jr. & Sr. Deckhands in Fishery Survey of India, Port Blair on 1 July, 2013, recruitment of JRF in Department of Disaster Management, Pondicherry University on 11 July, 2013, and recruitment of JRF in Department of Coastal Studies and Marine Biology, Pondicherry University on 19 July, 2013; attended the meeting of CGEWCC held at ZSI/ANRC on 26 July, 2013, Agri Business Camp held at CARI(ICAR), Port Blair on 27 July, 2013 and TOLIC meeting at CARI on 30 July, 2013.

Publication

- Raghunathan, C., Sadhukhan, K., Mondal, T., Sivaperuman, C., Venkataraman, K., 2013. A Guide to Common Echinoderms of Andaman and Nicobar Islands: 1210, (Published by the Director, Zool. Surv. India, Kolkata).



Sea star *Fromia monilis* Perrier 1869



Sea cucumber *Pearsonothuria graeffei* Semper 1868



Opisthobranch *Phidiana militaris* Alder and Hancock 1884



Opisthobranch *Halgerda stricklandi* Fahey and Gosliner 1999



Opisthobranch *Flabellina exoptata* Gosliner and Willan 1991



Opisthobranch *Mexichromis mariei* Crosse 1872



Coral *Tubastraea coccinea* Lesson 1829



Coral *Acropora chesterfieldensis* Veron and Wallace 1984

Freshwater Biology Regional Centre, Hyderabad

Scientists of the Centre have examined 98 examples of fish specimens from the earlier collections of Krishnaraja Sagar Reservoir, Karnataka and identified as 19 species under 12 genera belonging to 5 families viz. *Salmophasia phulo*, *Puntius conchoni*, *Puntius sophore*, *Puntius cauveri*, *Puntius sarana* subnasutus,

Puntius ticto, *Puntius parrah*, *Puntius melanostigma*, *Cirrhinus cirrhosus*, *Cirrhinus fulungee*, *Cyprinus carpio carpio*, *Garra mullia*, *Rasbora daniconius*, *Mystus malabaricus*, *Parambassis thomassi*, *Pseudambassis ranga*, *Chanda nama*, *Oreochromis mossambicus*, *Glossogobius giuris*. Also examined 5 examples

of fish specimens from the earlier collections of Cumbum Lake, A.P. and identified as 2 species under 2 genera belonging to 1 family viz. *Catla catla* and *Labeo rohita*.

During the month, plankton samples and aquatic insects of earlier collections made from lakes of Hyderabad have been analysed and identified as 1 species of Ostracod- *Chrissia hislopi* and one species of cladocera- *Alona rectangular*; 11 species of insects- viz. *Limnometra fluviatorum*, *Laccotrephus ruber*, *Lethocerus indicus*, *Cybister tripunctatus*, *Hydrochus binodosus*, *Guignotus flammulatus*, *Eretes stictus*, *Hydrovatus confertus*, *Regimbartia attenuate*, *Orectochilus discifer*, *Sphaeridium*,

dimidiatum. Also examined 55 examples of benthic molluscs collected from major wetlands of Andhra Pradesh and identified as 11 species viz. *Parreysia pachysoma*, *Lamellidens marginalis*, *Sphaerium indicum*, *Bellamya bengalensis* form *annandalei*, *Bellamya bengalensis* form *eburnean*, *Bellamya bengalensis* race *doliaris*, *Bellamya bengalensis* form *colairenis*, *Pila virens*, *Pila globosa*, *Melanoides peddamunigalensis*, *Melanoides tuberculata*.

As a part of the digitization of the freshwater fauna, 47 species belonging to 134 specimens pertaining to fishes and molluscs have been digitised.



Pila virens



Lamellidens marginalis



Parreysia pachysoma



Pila globosa



Bellamya bengalensis



Cyprinus carpio carpio



Puntius ticto

Arunachal Pradesh Regional Centre, Itanagar

During the month, 821 examples of fishes collected during the recent surveys have been studied and identified and are found to belong to 19 families, 35 genera and 51 species. In continuation of the rejuvenation of the museum collections, 98 registered old fish specimens have been photographed for digitization and permanent and modified labelling has been done. Mr. Leki Wangchu, M.Sc. student from Rajiv Gandhi University and Mr. Binjum Sora,

M.Sc. student from Annamali University besides a couple of dozen of school students from Itanagar visited the Centre during the month.

Publication

- Tamang L. 2013. *Garra magnidiscus*-a new species of cyprinid fish (Teleostei: Cypriniformes) from Arunachal Pradesh, northeastern India. *Ichthyological Exploration of Freshwaters* 24(1): 31-40.

Estuarine Biology Regional Centre, Gopalpur-on-Sea

During the month, two local surveys have been conducted one each to Bahuda and Subhadra estuary of Ganjam district and another tour to Rushikulya estuary, Ganjam district to study the crustacean fauna viz. Isopod and Amphipod. Fifty-four samples of fishes, mollusca, crustacea and insects from survey of Subhadra estuary and 81 samples pertaining to different faunal group have been collected during the survey of Bahuda estuary for taxonomic studies. Eight examples of crabs

studied from recent survey of Subhadra estuary and Narmada and Tapi estuaries. Five species of bivalve mollusca belonging to 4 genera and one family have been identified from 68 examples made from Pennera Estuary, Nellore, Andhra Pradesh. Twenty-one examples of mollusca collections from Nua Nai Estuary, Puri District have been identified as 9 species belonging to 8 genera and 6 families. Twenty museum specimens have been digitized.



▲ Fishing at Bahuda Estuary



▲ Collection from the fish catches from Bahuda Estuary



◀ Catch from Bahuda Estuary



▲ *Partunus sanguinolentus*



▲ *Terapon jarbua* (Forsskal)

Western Ghat Regional Centre, Kozhikode (Calicut)

During the month, descriptions about 1 new species and two new records of Pteromalid parasitoids of wood boring beetles (Hymenoptera) from southern Western Ghats have been published. Descriptions of another six new species and new records of parasitic Hymenoptera and first report on the discovery of a Tree hole-breeding dragonfly (Odonata: Anisoptera) from the Indian Subcontinent has been submitted for publication. Other identification works includes identification of 11 species of Pteromalidae (Hymenoptera), 4 species of Platygastriidae (Hymenoptera), 8 species of Chalcididae (Hymenoptera) and 4 species of Reptilia. Besides, 1074 exs. of Mollusca (50 species) and 200 exs. of Crabs (11 species) have been identified by Dr. S. K. Pathy, ZSI, Pune.

Six identification and advisory services rendered to various persons and organizations. Scientists of the Centre reviewed research papers and offered comments for the Journals of Threatened Taxa, Bombay Natural History Society, Zoo's Print, PROMMALIA and Records of Zool. Survey of India.

On 29 July, 2013, International Tiger Day 2013 has been celebrated in collaboration with Kerala Forest and Wildlife Department and Regional Science Centre and Planetarium, Kozhikode at Regional Science Centre, Calicut. Competitions of poster making for general public on the theme "Tiger conservation in

India" and painting competition for school students on the theme "Tiger our National Animal" have been conducted. Dr. P. M. Sureshan, Scientist-C & Officer-in-Charge, has delivered a lecture on the theme during the occasion.

Dr. Md. Jafer Palot, Astd. Zoologist delivered a lecture on 'Importance of Mangroves' to the journalism students of Kerala Press Academy, Kozhikode on 17 July, 2013 being organized by the Kerala Forests & Wildlife Dept. Dr. Palot also performed as a Judge in 'Inspire Science Exhibition' for School Students at Government Higher Secondary School, Payyoli, Kozhikode on 20 July, 2013 jointly organized by the Kerala State Education Department and Department of Science & Technology, New Delhi. A local survey tour to Kadalundi-Vallikkunnu Community Reserve has been conducted on 30 July, 2013. During the month, 344 visitors paid their visits to the museum.

Publications

- Sureshan, P.M., and Dhanya, B. 2013. A new species and new records of parasitoid wasps (Hymenoptera: Pteromalidae) of wood boring beetles from Southern western Ghats, Kerala, India. *Journal of Threatened Taxa* 5(11): 4537-4541.
- Palot, M.J. 2013. Urugangal. Cobra. (Reptiles: Snakes of Kerala: Cobra). *Koodu- An environmental Magazine in Malayalam*. Vol(3):40-41.



World Tiger day Celebration at Regional Science Centre and Planetarium Calicut.



Painting competition for students on World Tiger Day : 29.07.2013.



Poster Exhibition on the theme "Tiger conservation in India "



Merismomorpha tamilnadensis Sureshan et al, 2013.
(Hymenoptera : Pteromalidae)



Cleonymus kamijoi Sureshan & Dhanya, 2013
(Hymenoptera: Pteromalidae)



Prosaspicera validispina Kieffer (Hymenoptera: Figitidae)



Juvenile Masked Booby recovered at Calicut Coast



Double headed juvenile snake *Gongylophis conicus*
(Reptilia: Colubridae)



Travencoriana pollicaris (Malacostracha : Decapoda)



A view of Athirappally waterfalls, Kerala

Sunderbans Regional Centre, Canning

During the month, Dr. Suresh Chand, Scientist-C and Officer-in-Charge has identified 18 exs. of Orthoptera, belonging to 6 species under 2 family. Smt. Supriya Nandy, Scientist-B has identified 9 exs. of Odonata belonging to 3

species from 2 genera under 1 family. One quarterly meeting of Hindi Implementation Committee has been held in the office. During the month, 12 school students and teachers have visited the museum.

Northern Regional Centre, Dehradun

During the month, scientists of the Centre have identified fauna collected from the following regions: Punjab (3 species of Amphibia, 7 species of Coleoptera, 4 species of Lepidoptera, 4 species of Orthoptera and 7 species of nematodes); Sultanpur National Park, Haryana (one species of reptile and 6 species of nematodes); and Govind WLS, Uttarakhand (10 species of nematodes).

DNA has been extracted from three species of family Nymphalidae while amplification of COI gene with universal primers has been obtained from 5 species of family Pieridae. DNA has also been extracted from 4 samples of old skin of *Pardofelis marmorata* (Martin) and 200bp amplicons of Cyt b gene obtained from 16 samples. Ten sequences of 12S rDNA and Cyt b received for fishing cat and leopard cat.

Slides have been prepared for trichotaxonomy based on samples collected from 4 specimens of *Pardofelis marmorata* (Martin), for study of medulla and cuticular from dorsal, ventral, head and tail, while 80 permanent wax slides of

nematodes have been prepared from soil samples collected from Punjab, Sultanpur N.P. and Govind Wildlife Sanctuary for morphological studies.

During the month, we have registered 30 examples of Amphibia, 5 examples of Reptilia, 57 examples of soil nematodes, 20 examples of Acridiidae and 7 examples of Coleoptera. Ten database entries have been made for nematodes and 51 for Lepidoptera in Invertebrate data sheet. Digitization of 6 species of Amphibia with 30 entries made as metadata.

Two research papers have been reviewed by Dr. A.N. Rizvi, Scientist-C, for one departmental and one outside Journal. Advisory services have been rendered in terms of identifying Lepidoptera specimens by Mr. Parmod Kumar, Sr. Zool. Asstt. to the students of Doon Paramedical College and Dolphin (PG) Institute of Biomedical & Natural Sciences, Manduwala, Dehradun. During the month, 30 students have visited our museum.

Marine Aquarium & Regional Centre, Digha

During this month, around 128 examples of live marine ornamental exhibits have been collected for exhibition in aquarium galleries. During the month, at an average 570 tourists per day have visited our aquariums. The major attractions among the tourists are – tang fish and clown fishes. In total, 95 specimens have been identified and which include 55 species of fishes (80 specimens) and 10 species of crabs (15 specimens). The identified specimens include *Lutjanus decussatus* (Cuvier, 1828), which is new record to West Bengal coast and *Ostorhinchus fasciatus* (White, 1790), *Apogonichthyoides nigripinnis* (Cuvier, 1828) are new to Andhra Pradesh coast.



Tang fish (*Zebrasoma desjardinii*)



Ostorhinchus fasciatus



Lutjanus decussatus (Cuvier, 1828)



Clown fish and anemone



Apogonichthyoides nigripinnis

Central Zone Regional Centre, Jabalpur

During the month, 2 species of mammals (Soricomorpha and Rodentia), 4 species of coleoptera (Scarabaeidae), collected from Madhya Pradesh have been identified and registered. Dr. S. S. Talmale, Assistant Zoologist has conducted one faunistic survey of

Nauradehi Wildlife Sanctuary, Sagar, Damoh and Narsimhpur districts of Madhya Pradesh from 15-26 July, 2013. During the month, 475 school students of Stemfield International School, Jabalpur and 70 other visitors have visited our office-cum-museum.

Avian diversity of Nauradehi Wildlife Sanctuary, Madhya Pradesh



Lesser Whistling-Duck, *Dendrocygna javanica* (Horsfield)



Cotton Teal, *Nettapus coromandelianus* (Gmelin)



Common Moorhen, *Gallinula chloropus* (Linnaeus)



Red Collared-Dove, *Streptopelia tranquebarica* (Hermann)



Eurasian Collared-Dove, *Streptopelia decaocto* (Frivaldszky)



Spotted Owlet, *Athene brama* (Temminck)



Common Hoopoe, *Upupa epops* Linnaeus



Baya Weaver, *Ploceus philippinus* (Linnaeus)

Desert Regional Centre, Jodhpur

During the month, scientists of the Centre have identified and registered 3 species of ants and 6 species of fish from the jurisdiction area. Also, digitized 20 specimens kept in the National Zoological Collections for RFD. Field survey reports of the programme on vertebrate diversity of Chambal River and State Fauna of Rajasthan have been submitted. Dr. Sanjeev Kumar, Scientist-C and Officer-in-charge has attended XXI Prof. Daulat Singh Kothari Memorial Oration on 'Future War Unmanned: Technology Challenges' by Shri Avinash Chander, Scientific Advisor to Raksha Mantri, Secretary Defence R&D and DG, DRDO, New Delhi on 8 July, 2013 at Defence Lab, DRDO, Jodhpur.

Dr. Sanjeev Kumar, Scientist-C, Officer-in-Charge and Dr. H. S. Banyal, Scientist-C have attended Rajasthan Conclave organised by Desert Medicine Research Centre (DMRC), ICMR at DMRC, Jodhpur on 13 July, 2013. Dr. Sanjeev Kumar, Scientist-C has delivered a lecture on faunal diversity of Rajasthan to the students of pre-foundation and pre-medical division of Career Point Infosystems Ltd. Jodhpur on 16 and 17 July, 2013 during their visit to the Centre; whereas Dr. H. S. Banyal, Scientist-C and Mrs. Neena Tak, Assistant Zoologist have provided scientific information on the fauna displayed in the museum of the Centre to the students of aforementioned institute.

Marine Biology Regional Centre, Chennai

During the month, scientists of the Centre have identified one species each of Foraminifera and Echinodermata, 6 species of Rhizopod, 7 species of Arthropoda, 8 species Nematodes and 22 species of Mollusca out of several materials collected from the Palkbay and Gulf of Mannar Biosphere Reserve. Forty-five species have been digitized and their metadata compiled. Scientists of the centre have participated in Science Express Biodiversity Special a mobile exhibition that was inaugurated by Mrs. Jayanthi Natarajan, Honourable Minister for Environment and Forests (MoEF) at the Central Railway station, Chennai. Dr. G. Sivaleela, Scientist-B has conducted a field survey along the coast of Palk Bay and collected representative faunal samples.

Dr. C. Venkatraman Scientist-C & Officer-in-Charge has attended an Institutional Animal Ethics Committee (IAEC) meeting at Sri Ramachandra Medical University as external scientist, Stanley and Kilpauk Medical College as CPCSEA nominee nominated by the Animal Welfare Division, MoEF, New Delhi. Drs. C.

Venkatraman and Rajkumar Rajan, Scientist-C have supervised the research projects of SRF's of the centre. During the month around 468 tourists visited the marine aquarium and museum.

Publication

- Shrinivaasu, S, K., Venkataraman, K., Venkatraman, C., and Manikandan, B. 2013. *Pleurobranchus forskalii* (Ruppell & Leuckart, 1828) A New record for Indian coastal waters. *Global journal of Bio-science and Bio-technology* 2(3): 456-457.



Hydrophis spiralis



Littoraria undulata-á (Gray, 1839)



Pampus chinensis



Littoraria (Littoraria) kraussi
(Rosewater, 1970)

Gangetic Plains Regional Centre, Patna

During the month, scientists of the Centre have identified 7 species of leaches and 9 species of mollusca under the Class Hirudinea: *Alboglossiphonia pahariensis* 1exs. *Alboglossiphonia heteroclitae* 1ex. and Family Salifidae- *Salifa lateroculata* 1ex., *Barbronia weberi* 1ex, *Odontobdella krishna* 1ex, Family: Hirudinidae- *Asiaticobdella birmanica* 1ex, *Hirudinaria manillensis* 1ex, Class Bivalvia, Order Veneroida, Family Sphaeriidae: *Pisidium*

clarkeanum 2exs, *Pisidium nevilleianum* 1exs, Family Corbiculidae: *Corbicula striatella* 21exs. Order Unionoida Family Unionidae: *Lamellidens corrianu* 2exs. *Radiatula keraudren* 1ex. *Radiatula occata* 3exs., *Parreysia faviden* 4exs. Dr Navneet Singh, Scientist-C, has visited the Department of Zoology and Environmental Sciences, Punjabi University, Patiala (Punjab) for the study of Arctiid (Lepidoptera).

Western Regional Centre, Pune

One local tour of one day duration has been undertaken to collect fish specimens from the Bhimashankar Wildlife Sanctuary for DNA studies. During the month, 3 species of coccinillidae, 5 species of hymenoptera, 5 species of crustacean, 12 species of mollusca, 21 species of pisces and 24 species of reptilia have been identified. Identification and advisory services have been rendered on pisces received from Dr. D.S. Dabhade, Department of Zoology, R. A. Arts & S.R. Rath College,

Washim and freshwater crab specimens received from Miss. Seema Shrishailappa, Sakhare, At/P.O. Nool, Gadhinglaj Taluka, Kolhapur in Maharashtra.

Publication

- Pati, S.K., Rao, M.V., and Balaji, M. 2013. Marine wood borer communities of Visakhapatnam harbour, India: Spatiotemporal Patterns and Environmental Drivers. *International Journal of Research in Marine Sciences*, **2** (1):1325.

*Ropalidia fasciata* Fabr*Polistes stigma* Fabr*Delta conoideum*

North Eastern Regional Centre, Shillong

During the month, 4 species of amphibian, 2 species of fishes, 5 species of aquatic and semi-aquatic insects out of 105 examples and 11 species of earthworms have been identified.

Identification and advisory services have been rendered to the department of Zoology, Gauhati University, Assam on the identity of 2 species of bats *Taphozous longimanus* Hardwicke and *Myotis muricola* (Gray).

Digitization and metadata of five specimens of bats *Rousettus leschenaulti* (Desmarest) and two

specimens of snakes *Ptyas korros* (Schlegel) and *Amphiesma khasiense* (Boulenger) have been made during the month. The type specimens of amphibia and fishes present in the holdings of the Centre have been refilled with preservatives.

Two teachers, 3 students and 13 general public visited the Centre during the month.

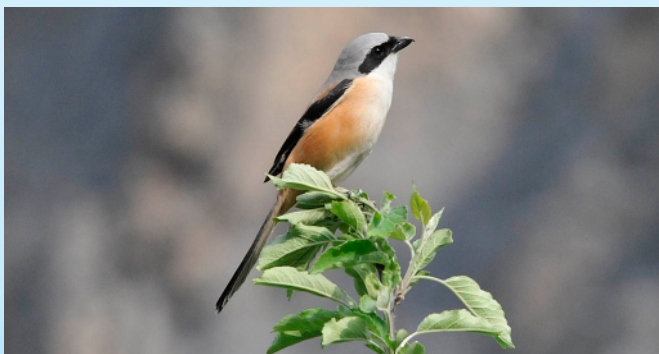
An introduced carp *Cyprinus carpio* Linnaeus, 1758.A skink *Sphenomorphus maculatus*.

A bat *Philetor* sp.An Emerald Dove *Chalcophaps indica indica*.

High Altitude Regional Centre, Solan

During the month, scientific staff of the Centre have identified 6 species of butterflies (out of 24 examples) collected from Kalatop Khajjiar Wildlife Sanctuary, Distt Chamba (HP); 02 species of Orthoptera (out of 4 examples) and; 02 species of Amphibia (out of 03 examples) collected from Chail WLS, and 02 species of earthworms (out of 32 examples) from Spiti Valley Cold Desert have been identified. A research team from the Centre has proceeded to the Cold desert of Spiti Valley and the Chandertal, Distt Lahul & Spiti on 23rd, July 2013 to conduct scientific surveys. One scientist

of the Centre has attended the Chandigath (UT) Wildlife Board Meeting with His Excellence Governor of Punjab on 18 July 2013. One of the scientists of Centre has reviewed and commented on a research paper on earthworm for a reputed Indian Journal. One of the scientists has rendered the advisory services in the form of identification of avian species through photographs (total 60 images) to Dr. Diljit Singh, Assistant Professor, Govt. College, Indora, Himachal Pradesh. Advisory services of Lepidoptera provided to the Miss. Deepika, Research Scholar of Punjabi University, Patiala.

Yellow-billed Chough (*Pyrrhocorax graculus*)Oriental Turtle Dove (*Streptopelia orientalis*)Long-tailed Shrike (*Lanius schach*)Horned Lark (*Eremophila alpestris*)

Eurasian Cuckoo (*Cuculus canorus*)Caracass of Blue Sheep (*Pseudois nayaur*)

Southern Regional Centre, Chennai

As per the approved annual research program of the Centre, a combined multiparty faunistic survey to the tropical rain forests of Western Ghats and other areas (as mentioned below) in Tamil Nadu has been conducted with following team composition: Dr. K. Ilango, Scientist-D and Officer-in-Charge and others to study taxonomy of Trichoptera; Dr S. Prabakaran, Scientist-C) for Plecoptera; Dr. R. Babu, Scientist-C for Odonates and Dr. R. Aengals, Scientist-C for Lizards. The team has also visited Sathyamangalam Tiger Reserve (Erode District), Mudumalai Tiger Reserve (Nilgiri District), Anaimalai Tiger Reserve (Tirpur District) and Reserve Forests in Nilgiri District and Kodaikanal division in Dindugal District from 08-26 July, 2013.

During these surveys, 2698 specimens belonging to 26 different faunal groups have been collected; 40 species of birds have been sighted and a few of them have been photographed. Many troops of Hanuman Langur and Bonnet Macaque, a few troops of Nilgiri Langur and Lion-tailed Macaque have been sighted. A herd of Bison, Chital, and a few Sambars, Elephants, Giant Squirrels, Wild

boars have been sighted among these a few have been photographed. Dr. Jayasree Thilak, Scientist-C has identified and registered 13 examples of Protozoa- Rhizopoda belonging to 3 species, 3 genera under 3 families; 37 examples of Rotifera belonging to 14 species, 8 genera, 2 orders and 6 families; 111 examples of Cladocera belonging to 16 species, 11 genera, 2 orders and 5 families; 44 examples of Ostracoda belonging to 9 species, 1 order, 4 genera, under 1 family; 57 examples of Pisces belonging to 9 species, 7 genera, 4 orders & 4 families. Dr. R. Babu, Scientist-C has identified and registered 15 specimens of Odonates belonging to 4 species under 2 families from Pallikaranai Marsh, Chennai. Dr. R. Venkitesan, Scientist-C has identified 128 examples of Molluscs belonging to 9 family, 11 genera and 17 species from the recent surveys made from southern Western Ghats and earlier collections present in the NZC. Dr. S. Prabakaran, Scientist-C has rendered identification and advisory services on Membracidae specimen received from the Indian Institute of Science Education and Research Thiruvananthapuram.

ANIMAL OF THE MONTH



Text by Imran Alam, Bird Section, HQ office, Zoological Survey of India, Kolkata. Photo by G. Maheswaran.

Black-necked Stork

Ephippiorhynchus asiaticus (Latham, 1790)

The Black-necked Stork *Ephippiorhynchus asiaticus* ranges from Pakistan across the Indian subcontinent to Indochina, south through Indonesia and New Guinea to Australia. It is now a rare visitor to Pakistan and Bangladesh, a widespread but now rare, local and declining resident in India, a rare resident to Nepal and Sri Lanka, and a scarce resident in Myanmar. In South-East Asia there have been catastrophic declines. The total South and South-East Asian population

has been estimated to be 1,000 individuals. In India, the Black-necked Stork is very widely but thinly distributed, with the north and north-west regions forming its main strongholds. Populations appear to be declining in most parts of India except the Gangetic plains of Uttar Pradesh and north-western India, especially Gujarat, where populations are stable or marginally increasing. In Assam large numbers have been reported in Kaziranga National Park, Manas, Orang and Pobitora Wildlife Sanctuaries. Elsewhere, Black-necked Storks are present in very low numbers. Fishing by local people was cited as the commonest threat to the species, with sedimentation affecting wetland quality being the second most important. The species is largely dependent on freshwater wetlands, but these are under great pressure from expanding human populations in India. In addition, the species suffers from collection of eggs in at least parts of its range (e.g. Assam), and hence would benefit from moving from Schedule IV to Schedule I of the Indian Wildlife (Protection) Act (1972).

OUT OF THE BOX

Dragonfly all set to be part of dengue-control measure in Tamil Nadu

<http://timesofindia.indiatimes.com/city/chennai/Dragonfly-all-set-to-be-part-of-dengue-control-measure-in-Tamil-Nadu/articleshow/21544401.cms>

Is dust pollution speeding up melting of Himalayan glaciers?

<http://timesofindia.indiatimes.com/home/environment/global-warming/Is-dust-pollution-speeding-up-melting-of-Himalayan-glaciers/articleshow/21619044.cms>

Conservation talks on Antarctica's living marine resources fail

<http://www.thehindu.com/sci-tech/energy-and-environment/conservation-talks-on-antarcticas-living-marine-resources-fail/article4999682.ece?homepage=true>

Why rabbits have white tails

<http://blogs.nature.com/news/2013/08/why-rabbits-have-white-tails.html>

Mean annual temperature in Himalayan region to rise by 2 degrees by 2030

<http://timesofindia.indiatimes.com/home/environment/global-warming/Mean-annual-temperature-in-Himalayan-region-to-rise-by-2-degrees-by-2030/articleshow/21625356.cms>