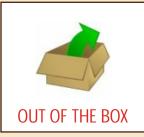


ZSI e-NE

The Monthly Electronic Newsletter of Zoological Survey of India













1. Siver-eared Mesia 2. Coorg Yellow Bush frog



3. Anil's bush frog



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IN THIS ISSUE

- Headquarters, Kolkata
- HARC, Solan
- SRC, Canning
- O SRC, Chennai
- MBRC, Chennai
- FBRC, Hyderabad
- WRC, Pune
- O DRC, Jodhpur
- O CZRC, Jabalpur
- NRC, Dehra Dun
- O GPRC, Patna
- NERC, Shillong
- MARC, Digha
- **▶** EBRC, Gopalpur-on-Sea
- ANRC, Port Blair
- WGRC, Kozhikode



Silver-eared Mesia

Check-list of fauna of India:

- 1. Ephemeroptera
- 2. Psychodidae: Diptera

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From the Director's Desk

I have great pleasure to present herewith the ZSI e-NEWS for the month of September, 2009. The events of this month provided some pride moments to cherish for the organization since it could receive many eminent dignitaries. Dr. Kasturirangan, Hon'ble Member of the Planning Commission, Dr. Indrani Chandrasekharan, Advisor, MoEF, and Dr. A. K. Verma, Advisor, Science and Technology, paid their maiden visit to ZSI, Kolkata, on 17th of Sept., 2009. The dignitaries were briefed of the programmes of the Survey and its past and present achievements. On this occasion, Dr. Kasturirangan inaugurated the Database Centre, and released four books published by ZSI. Prof. Madhav Gadgil, the Chairman, and the other members of the Task Force constituted to make recommendations to the Government for strengthening of Botanical and Zoological Surveys of India, made visits to ZSI's Desert Regional Centre (DRC) at Jodhpur, Rajasthan. Prof. Gadgil, during his visit to DRC, released two books published by the organization. Besides, on 11th September, Sri. C. Achalender Reddy, Secretary, Biodiversity Authority of India and a team of officials from different State Biodiversity Boards paid their visits to the ZSI Headquarters office and the galleries of the Indian Museum.

Other highlights of activities for the month include the discovery of a new species of frog, identification of a large number of materials seized by the enforcement authorities and release of two checklists of Indian fauna, viz., Ephemeroptera and Psychodidae. As in the previous months, ZSI and its Regional Centres have made commendable progress in the survey and identification works, for which the enormous effort put in by my colleagues and scientific personnel needs to be gratified.

Dr. Ramakrishna

Headquarters, Kolkata

Extensive field surveys were undertaken in Himachal Pradesh, Uttar Pradesh, Eastern Ghats of Andhra Pradesh and Orissa, as well as in the Bhibhuti Bhusan Wildlife Sanctuary (BB WLS), West Bengal, for exploration of the faunal resources. Local surveys were also carried out in areas in and around Kolkata for ecological studies. A new species of frog, Chilapata Rainpool frog, Minervarya chilapata, from Jalpaiguri district, West Bengal, was described and 6 species of Diptera were recorded for the first time from the state of Uttarakhand. Scientists of the Headquarters identified 6 species of free living Protozoa, 3 species of leeches, 3 species of earthworms, 3 species of crabs, 12 species of mites, 12 species of Lepidoptera, 18 species of Orthoptera, 10 species of Collembola, 10 species of Odonata, 6 species of Diptera, 29 species of Hymenoptera, 24 species of Hemiptera, 12 species of spiders, 67 species of molluscs, 7 species of Amphibia and 3 species of Reptilia from the States of Andhra Pradesh. Arunachal Pradesh, Himachal Pradesh, Jharkhand, Karnataka, Maharashtra, Orissa, Uttar Pradesh, and West Bengal and also from the BB WLS.

Ten research papers were published (listed below), three were accepted for publication and thirteen communicated.

Holotype and 13 Paratypes of the lizard, *Ptychozoon nicobarensis*, were deposited in the National Zoological Collection by the Indian Institute of Science, Bangalore. Holotype and Paratype of the trematode, *Spinometra dehradunensis* were also added to the National Zoological Collection.

Identification services were rendered on seventeen lots of specimens, received from different organizations for identification. A flat skin of leopard, *Panthera pardus* and a fake Rhino horn and also body parts of Cheetal deer, *Axix axis* were received as seized material for identification from the Deputy Field Director,

Buxa Tiger Reserve (West), Jalpaiguri and Divisional Forest Officer, Raipur Forest Division, Chhattisgarh, respectively. Apart from these, 10 examples of dried sea cucumbers, Actinopyga miliaris, tanned skins of Reticulated Python, Broghammerus reticulatus and Indian Rock Python, Python molurus were received from the Regional Deputy Director, Wildlife Crime Control Bureau (NR), Bikaner House, New Delhi as seized materials for identification. Besides, the semi digested bodies of two snakes, Naja kaouthia and Ophiophagus hannah (found in a dead tiger's stomach) were also received from the Conservator of Forests and Field Director. Sundarban Tiger Rerserve, West Bengal for identification.

Post-Graduate students of Bethune College, Kolkata, and research scholars form Calcutta University and Kalyani University, West Bengal visited the different sections of the Headquarters.

A scientist from Headquarters participated in "National Seminar on Response of Ecobiological Components to the Phenomenon of Global Warming", held at Kumaun University, Nainital from 26th-27th September and presented a research paper. Another scientist from Headquarters attended a Meeting concerned with the release of Jackals of Tollygunge Club, at Forest Directorate, Kolkata. A senior scientist of the Headquarters attended the meeting at West Bengal Biodiversity Board, Kolkata and also attended the "Annual Conference of Member Secretaries of State Biodiversity Board", held at Kolkata.

22 employees of the Headquarters were deputed to participate in Training on IT Awareness and E-Governance under the Information Technology Programme of the Administrative Ministry.

Shri. Nilkanth Ghosh, Statistical Advisor, MoEF, New Delhi, visited the ZSI-ENVIS CENTRE, on 10th September.

A team of officials representing different State Biodiversity Boards visited ZSI office and the galleries in the Indian Museum on 11th September, under the leadership of Sri C. Achalender Reddy, Secretary, Biodiversity Authority of India.

Dr. K. Kasturirangan, Honorable Member of the Planning Commission, Dr. Indrani Chandrasekharan, Advisor, MoEF and Dr. A. K. Verma, Advisor, Science and Technology, visited ZSI Headquarters on 17th of the month. On this occasion, Dr. K. Kasturirangan inaugurated the Database Centre and as well released four books brought out by the scientists of Headquarters and Regional Centres. The Members of the Planning Commission also visited the different sections.

Publications:

- 1. Banerjee, S., Sanyal, A. K. and Maitra, M.N. 2009. Abundance and group diversity of soil mite population in relation to four edaphic factors at Chintamani Abhayaranya, Narendrapur, South 24-Parganas, West Bengal. *Proc. zool. soc. Cal.*, 62 (1): 57-65.
- 2. Gantait, V.V., Chatterjee, A., Bhattacharya, T. and Sanyal, A. K. 2009. Trophic groups of soil and plant parasitic nematodes associated with banana plantations in Paschim Medinipur district of West Bengal, India. Abstract Internantional Conference on Recent Trends in Life Science Research, Vinoba Bhave University, Hazaribagh, Jharkhand, India.
- 3. Gowri, D., Biswas, R. K. and Raha, S. 2009. Checklist of the Blind snakes (Typhlopidae), Pythons and Boas (Boidae) of India. *Rec. zool. Surv. India*, 109 (1): 13-30.
- 4. Hegde, V. D., Roy, S. and Lal, B. 2009. First record of the Terai cricket frog, *Fejervarya teraiensis* (Dubois, 1984) from Uttar Pradesh. *Rec. zool. Surv. India*, 109 (1): 109-110.
- 5. Hegde, V. D., Roy, S. and Lal, B. 2009. Range extension of a tree frog *Polypedates taeniatus* (Boulenger, 1906). *Rec. zool. Surv. India*, 109 (1):111-112.

- 6. Mitra, B., Parui, P., Mukherjee, M. and Bhattachrya, K. 2009. New record of some dipteran insects from Uttarakhand. *Bionotes*, 11(3): 92.
- 7. Ohler, A., Deuti, K., Grosjean, S., Paul, S., Ayyaswamy, A. K., Ahmed, M. F. and Dutta, S. K. 2009. Small-sized dicroglossids from India, with the description of a new species from West Bengal, India. *Zootaxa*, 2209: 43-56.
- 8. Sastry, D.R.K. and Satyanarayana, Ch. 2009. On two species of Crinoidea, Echinodermata from Lakshadweep, Arabian Sea. *Rec. zool. Surv. India*, 109 (2): 23-26.
- 9. Sethy, P. G. S., Sahu, P. and Mishra, S. S. 2009. On the occurrence of two Balitorid fishes of the genus *Schistura* Mc Clelland from Simlipal Biosphere reserve, Orissa. *Rec. zool. Surv. India*, 108 (4): 37-40.
- 10. Shaji, C., Nimi, H. and Bindu, L. 2009. Water quality assessment of open wells in and around Chauara industrial area, Quilon, Kerala. *J. Environ. Biol.*, 30 (5): 701-704.



Dr. K. Kasturirangan, Member, Planning Commission, inaugurating the Database centre at ZSI, Kolkata



Dr. K. Kasturirangan releasing the latest publications of ZSI



Dr. K. Kasturirangan planting saplings in ZSI, Kolkata campus

Confiscated wildlife material received for identification



Tanned skins of Reticulated Python and Indian Rock Python

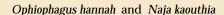


Fake Rhino Horn



A new species of frog, Minervarya chilapata from West Bengal Semi digested snakes found in a dead tiger's stomach







In this Issue

High Altitude Regional Centre, Solan

A research document on the Pong Dam Wetland, comprising of information on 638 species of various animal groups, has been submitted for publication. A scientist of the Centre visited FRI & BSI. Dehradun for the identification of moths and nectar food plants of butterflies. Two research papers on butterflies were accepted for publication in National Journals. Under the

Papilio polyctor, mud-puddling at Sadhupul (Lahul)

ongoing programmes on the fauna of Pangi valley and Churdhar Wildlife Sanctuary, 7 species of Rhopalocera, 2 species of Orthoptera and 1 species of Amphibia were identified. A faunistic survey was conducted from 31st August to 6th September at Pangi Valley (one of the remotest areas of Himachal Pradesh) and different animal groups of the area were studied.



Blister Beetle (Mylabris Sp.) from Udaipur (Lahul)

Sunderban Regional Centre, Canning

A faunistic survey was conducted in the Matla estuary from 12th-21st September to study the taxonomy and ecology of Brachyuran crabs of Sundarbans. The survey area included the coasts of Basanti, Gosaba, Pakhirala, Rangabelia, Dayapur, Sujobdey, Satjelia, Jhilla, Dobanki, Bidda and Jharkhali. Transect and quadrat

Estimating the crab diversity by quadrat method

methods were applied in muddy flats and mangrove areas to estimate the diversity of the on-shore brachyuran crabs, during the low tide. Representative samples of brachyuran crabs, anomuran crabs, gastropods and fishes were collected during the survey for further taxonomic studies.



Boat anchoring- a threat to mangroves

♠ In this Issue

Southern Regional Centre, Chennai

An article entitled 'Aquatic and semi-aquatic Heteroptera (Insecta) from the cold deserts of Ladakh' has been submitted for ZSI, ENVIS newsletter. This article reports the record of Gerris (Gerris) sahlbergi Distant from India, after its original description in 1879. Besides, the article also report *Monticorixa kesar* (Hutchinson) and Callicorixa gebleri (Fieber, 1848) at an altitude above 4380 meters above msl. During the month, 18 species of aquatic and semi-aquatic Heteroptera from Achanakmar-Amarkantak Biosphere Reserve, Madhya Pradesh and Chhattisgharh have been identified and a research paper on the findings is under finalisation. 6 species of Mollusca from Karnataka, 19 species of freshwater fishes from Kanyakumari Wildlife Sanctuary and 4 species of reptiles from Southern Eastern Ghats were also identified. A publication in 3 volumes on the "Fishes of the Coromandel Coast", coauthored by a senior scientist of the Centre has

been released by the Pichandikulam Bioresource Centre, Auroville, Tamilnadu. Two batches of staff members of the Centre attended the course, "Concept of IT and MS Office suite 2007", at the CMC Ltd., Chennai, during the month. Scientists of the Centre delivered lectures on taxonomy and the activities of Zoological Survey of India for a batch of 20 postgraduate students of the Loyola College, Chennai. A checklist of Psychodidae (Diptera: Insecta) of India, prepared by a scientist of the Centre, is hyperlinked with the departmental website www.zsi.gov.in.

Publications:

1. Karunamoorthy, K and Ilango, K. 2009. Larvicidal efficacy of *Cymbopogon citrates* (DC) Stapf. *Croton macrostachyus* Del. Against *Anopheles arabiensis* Patton (Diptera: Culicidae), the principal malaria vector. *European Review for Medical and Pharmacological Sciences*, 13:16-21.

2. Eric Ramanujam. M. and Krishnan. S., 2009. Fishes of the Coromandel Coast: from South Chennai (Santhome) to North Pondicherry (Kalapet); 3 Volumes [Pages: Vol .1. (199);

Vol.2 (191); Vol.3 with 49 Plates]. <u>Publ</u>: Pichandikulam Bioresource Centre, Auroville-605 101, Tamilnadu, India.



Marine Biology Regional Centre, Chennai

A survey party from the Centre proceeded on a field survey tour of 10 days duration with effect from 29th September to Gulf of Mannar Biosphere Reserve for the study of soft corals. 13 species of molluscs and 21 species of marine fishes were identified out of the material collected from the Gulf of Mannar Biosphere Reserve. Further, 19 species of freshwater fishes were identified for SRC/ZSI, Chennai. Two identification services were rendered involving

the identification of 8 freshwater fish species to 2 outsiders. 304 visitors including students and tourists paid their visits to the marine aquarium during the month. Post graduate students from the Loyola College, Chennai were trained on the methodology involved in the identification of sponges. Five staff members of MBRC attended the IT training course, "Concepts of IT and MS Office Suite 2007", conducted by CMC, Chennai, from 14th-18th September.

Freshwater Biology Regional Center, Hyderabad

In addition to the regular ongoing studies on fresh water faunae of perennial water bodies, observations and collections of invertebrate faunae from temporary fresh water ponds/ puddles were initiated following the onset of southwest monsoon in the region (Andhra Pradesh). One small temporary pond in a rock stone quarry revealed, among others, bloom of a population of south Indian fairy shrimps (Crustacea: Branchiopoda: Anostraca: Streptocephalidae: Streptocephalus sp.) in different stages of their 15 weeks' life span. Efforts are underway to collect/identify other temporary freshwater invertebrate groups from similar temporary

water habitats. In yet another ongoing ecological study on aquatic insects from a few polluted and non-polluted lakes in and around Hyderabad metropolitan area, taxonomic studies on aquatic Coleoptera (one of the commonly accepted ecological group of indicator species) was taken up. In all, 22 species of aquatic insects (12 spp. of aquatic bugs & 10 spp. of aquatic beetles) were identified and their distribution/abundance correlated to abiotic parameters. Further, 6 species of aquatic coleopterans and 10 species of freshwater fishes were identified from a raw water reservoir (Palair Lake, Khammam). The littoral periphytic macrophytes based faunae



The Common water-skater, Limnometra fluviorum



The Dragonfly, Ictinogomphus rapax (Rambur)

from Kolleru Lake continue to be the focus of inventorying in the studies on the wetland faunal inventory of Kolleru Lake. A detailed manuscript on "Fauna of Vamsadhara and Nagavali estuaries, Srikakulam, Andhra Pradesh", (an earlier done work), was submitted for publication. A scientist of the Centre



Fairy tail shrimp, Streptocephalus sp. (female)

delivered an invited talk 'Faunal diversity in freshwater ecosystems', in the symposium "WISE" (Women in science and entrepreneurship), organized by the Indian Women Scientist Association /CSIR at St. Pious P.G.College, Hyderabad, from 11th-12th September.



A population bloom of the fairy tail shrimp

♠ In this Issue

Western Regional Centre, Pune

A field survey for documenting the riverine fauna of Navsari, Dangs, Thane and Raighad districts was conducted from 7th-18th of September. 4 endemic species of Odonata, hitherto known to occur only in southern and central Western Ghats were reported for the first time from the northern Western Ghats. In addition to this, other invertebrate and vertebrate faunal elements were documented, including leopards

(Panthera pardus) and the elusive Lesser False Vampire Bat (Megaderma spasma) at Phansad Wildlife Sanctuary. 16 staff of the Centre participated in the computer training programme for E-governance organized by MoEF at CMC Ltd., Pune. A checklist of Ephemeroptera (Insecta) of India, prepared at the Centre, is hyperlinked with the departmental website www.zsi.gov.in.



Megaderma spasma colony at Phansad Wildlife Sancturay, Maharashtra



Leopards (*Panthera pardus*) at Phansad Wildlife Sancturay, Maharashtra

Desert Regional Centre, Jodhpur

A field survey was conducted from 21st-30th September in four districts of the Aravalli Range in Rajasthan and identified 12 species of Odonata, 28 species of Lepidoptera, 5 species of Reptiles, 127 species of Aves and 8 species of Mammals. Scientists of the Centre also identified 10 species of Nematoda, 9 species of Coleoptera and 7 species of Aves from various environs of Rajasthan. Besides, 3 species of Nematoda were identified out of the earlier collections from the forest areas of Gujarat. A research paper and 4 abstracts were submitted for presentation in CAZRI International Conference. Two books, "Faunal Resources of Tal Chhapar Wildlife Sanctuary, Rajasthan" and "Dung Beetles

(Insecta: Coleoptera: Scarabaeidae: Coprinae) of Thar Desert of Gujarat", authored by the scientists of the Centre were released on 11th September by Prof. Madhav Gadgil. Scientists of the Centre delivered lectures in a refresher course for foresters at the Desert Forest Training Centre, Jodhpur and in "UGC Refresher's Course in Zoology", at the Department of Zoology, Jai Narain Vyas University, Jodhpur. 46 entries of identified fauna were made in the faunal Database of the Centre. 72 entries pertaining to the books in the station's library were made employing the software, *e-granthalaya*. 87 visitors paid their visits to the museum.



Prof. Madhav Gadgil releasing 2 faunal documents



Sarus Crane at Sardar-Samand Reservoir

n this Issue

Central Zone Regional Centre, Jabalpur

A faunistic survey tour to Singhori Wildlife Sanctuary, Madhya Pradesh (M.P) was conducted from 3rd-18th September and collected representative zoological specimens of different groups for taxonomic studies. During the month, 24 species of moths were identified, of which 8 species constituted the first records from M.P. Besides, 7 species of butterflies from Veerangana Durgavati Wildlife Sanctuary, M.P were also identified. 2 research papers and one *Occasional Paper* submitted earlier for publication in departmental journal were revised in the light of referee's comments. A scientist of the Centre

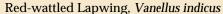
reviewed 4 research papers and a Ph.D. thesis, and offered comments/advisory services. 4 staff members of the Centre attended the MS Office 2007 training program conducted by CMC, New Delhi at TFRI, Jabalpur.

Publications:

- 1. Thilak, J. and Ojha, P. 2009. First record of a fish *Glyptothorax trilineatus* from Madhya Pradesh (Siluriformes: Sisoridae). *Bionotes*, <u>11</u> (3): 93.
- 2. Gupta, S.K. 2009. New records of some Grasshoppers and Crickets from Central India. *Bionotes*, <u>11</u> (3): 97-98.

Some Birds from Singhori Wildlife Sanctuary







Spotted owlet, Athene brama



In this Issue

Northern Regional Center, Dehra Dun

An intensive survey in Kalesar National Park (K.N.P), Haryana was undertaken and representative fauna collected. 36 species of birds were also sighted in K. N. P. Black crested bulbul, Pycnonotus melanicterus was recorded for the first time from the National Park, as also from the state. Two intensive surveys were undertaken to Haridwar for ecological and molecular study of fresh water Turtles. 5 species of butterflies and 3 species of reptiles from Haryana, as well as 2 species of reptiles from Haridwar were identified. 3 scientists from the Centre attended the National Seminar on Responses of Bioecological components to the Phenomenon of Global warming, held at the Zoology Department, Kumaon University, Nainital and presented papers. The presentation made by ZSI scientists received wide coverage through leading newspapers of the state (see the

section on ZSI IN NEWS). One presentation was adjudged and awarded as the best poster presentation. Five research papers referred by a foreign journal for review were offered suitable comments. A one day function, including written tests were held to celebrate the Hindi Pakhwara, in which scientists and staff of various cadres of the Centre participated. One senior scientist of the Centre attended the 'Track Meeting' at Wildlife Institute of India, Dehra Dun. The Librarian of the Centre attended a National Conference of CGLA "Library Vision 2020" and presented a paper on "Application of ICTs for Information and Management to help developmental process and Issues in 21st century. He also functioned as the editor of the proceedings of the Conference, published and released during the Conference.



In this Issue

Gangetic Plains Regional Centre, Patna

Field surveys were undertaken in Patna and Chapra districts of Bihar and representative faunal samples collected. 7 species of moths from Dalma Wildlife Sanctuary, 2 species of mantids from Jharkhand, 4 species of chalcids from Bihar and 4 species of fishes from River Subarnarekha were identified. A paper on new distributional records of Pteromalidae (Hymenoptera:

Chalcidoidea) from Ladakh has been communicated to the Journal of Threatened Taxa. Coimbatore. A research scholar from Patna University was rendered identification service on Zooplanktons. 2 staff members of the Centre attended the training on IT and office suite at CMC, Kolkata. Hindi fortnight was celebrated at the centre during the month.

Publication:

G. Sharma, A. K. Singh and Chowdhary, D. N. 2009. A new distributional record of Great Stone

Plover (*Esacus magnirostris recurvirostris*) from the island of River Gandak in Bihar, India (IBA-BR-IN-01). *Newsletter for bird watchers*, <u>49</u> (3): 40-42.



Oniticellobia longigastra (Hymenoptera: Pteromalidae) -first record from Bihar



Sperata seenghala, Giant river Cat fish from Ganga



North Eastern Regional Centre, Shillong

During the month, 7 species of Rotifera and 10 species of Cladocera from Deepor beel (a Ramsar site), Kamrup district, Assam, were identified and registered. Besides, 4 species of Rotifera and 5 species of Cladocera from Manipur were also identified and registered. Out of the material collected during the field survey in Nokrek Biosphere Reserve, Garo Hills, Meghalaya, 6 species of Amphibia were identified and registered. A field survey was conducted at

Deepor beel and qualitative and quantitative plankton samples were collected from six sampling sites. 3 manuscripts on Amphibia, including the description of a new species were resubmitted for publication after incorporating the necessary corrections based on the referee's comments. 3 staff members of the Centre attended the Computer training programme at the Indian Institute of Professional Studies, Shillong.



An orthopteran species found during a recent survey



Rhacophorus bipunctatus



Marine Aquarium cum Regional Centre, Digha

During the month, the aquarium at the Centre was visited by a large number of people. The number of visitors crossed the all time average and reached up to 820 individuals per day on weekends. Around 233 new examples of live animals were introduced for display in the aquarium tanks which were mainly collected locally. The major attractions among the displayed animals during the month were, Tiger Perch (Terapon jarbua), Sea Bass (Lates calcarifer), Spotted Butterfly fish (Scatophagus argus), Red tailed black shark (Epalzeo rhynchus bicolor), Silver Templar Barb (Barbonymus gonionotus), Long-nosed Stargazer (Ichthyscopus lebeck), Slender finless eel/pipe eel (Ophichthys anguiformis), Mudskipper (Periophthalmus sp.),



Red Crab, Ocypode sp.



Stargazer, Ichthyscopus lebeck

Starfish (Asterias sp.), Red crab (Ocypode sp.) and different varieties of prawns and common crabs. Apart from these, 37 examples were collected under the Annual Plan of Research work. The collection consisted of 9 species of fishes, 3 species of crabs and 1 species each of starfish & prawn. A scientist of the Centre participated in the workshop for Preparation of a faunal document for a World Bank funded project on 4th September at the West Bengal Pollution Control Board, Kolkata. One ministerial staff participated in IT training at Kolkata, organized by Ministry of Environment & Forests during 7th-11th September. Advisory services were also rendered to various groups of visitors who visited the aquarium.



Slender finless eel, Bophichthys anguiformis



Tiger Perch, Terapon jarbua

Estuarine Biology Regional Centre, Gopalpur-on-Sea

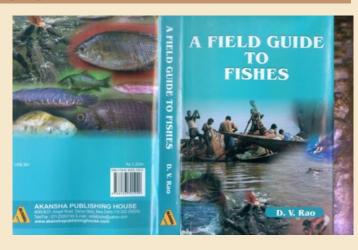
Taxonomic studies on the various faunal elements collected through field surveys resulted in the identification of 12 species of fishes and 2 species of aquatic insects from Brahmani-Baitarani Estuary, Orissa, 8 species of crabs and 6 species of prawns from Cauvery Estuary, Tamilnadu and 4 species of mosquitoes from Ganjam District, Orissa. A Field guide to the Fishes of Chilika Lake (a Ramsar Site) has been published.

Publication:

D.V. Rao, 2009. A Field Guide to Fishes (Chilika Lake, Orissa, East Coast of India), 251 pp. <u>Publ</u>: Akansha Publishing House, New Delhi.



Estuarine crab. Thalamita crenata





Mud burrower crab, Uca lactea



Andaman and Nicobar Regional Centre, Port Blair

Field surveys were conducted in Outram, South Button, Wilson and Nicolson Islands of Ritchie's Archipelago, Andaman Sea during from 15th-21st September. As a result of 70hrs undersea survey conducted in different localities of these islands, a total of 109 species of scleractinian corals, 102 species of reef fishes, 3 species of sponges, 15 species of echinoderms, 3 species of bivalves, 3 species of nudibranchs, 10 species of crabs, 3 species of alcyonacian corals, 4 species of polychaetes, 33 species of zooplankton and 19 species of phytoplankton were recorded. It is pertinent to mention that 20 species of scleractinian corals identified during the month turned out to be new additions to Indian Waters.

Apart from that, the live coral coverage in these islands was estimated and found to be 40 - 52%. 17 species of fishes and 19 species of corals have been registered and added to the National Zoological Collection. The faunal database of the Centre was updated with records of 112 species of sponges, 219 species of soft corals, 333 species of other corals, 425 species of echinoderms, 858 species of crustaceans, 1178 species of molluscs, 257 species of avifauna and 65 species of mammals.

As per the requirement of Special Secretary to Govt. of India, Ministry of Environment and Forests, a project proposal entitled 'Studies on Ecology, Diversity and Conservation of Mangroves and its Faunal Communities in Andaman and Nicobar Islands' has been submitted to the IUCN, India Country Office, New Delhi. Besides, the annual report on the 'Lead Institution for Great Nicobar Biosphere Reserve' has been submitted to the Ministry.

Scientist of the Centre presented the progress of research on Great Nicobar Biosphere Reserve in the meeting of the 'Indian National Man and Biosphere Reserve Committee' held at Pachmarchi, Madhya Pradesh from 24th-26th September, and the research activities and achievements of the National Coral Reef Research Institute of ZSI was presented in the meeting of 'National Committee on Mangroves and Coral Reefs', held at Andhra University, Vishakhapatnam, from 29th-30th September.

Scientists of the Centre attended the scientific interaction session with former Honourable President of India, Dr. A.P.J. Abdul Kalam during his visit to Port Blair on 3rd September. Hindi Fortnight was observed at the Centre from 1st-15th September and various competitions such as dictation, poem recitation, essay writing and elocution were conducted for the staff of the Centre.

A manuscript on post-tsunami status of corals and its associated fauna of Katchal and Teressa Islands has been accepted for the publication in *Nature Environment and Pollution Technology*.

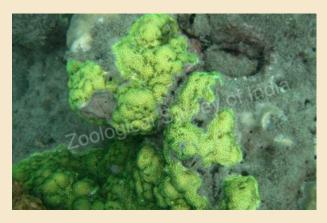
Publication:

Turner et al., 2009. Coral Reef Ecosystem of Andaman Islands-Remote Sensing and Rapid Site Assessment Survey. *Records of Zoological*

New Records of Corals from Indian waters



Acropora horrida (Dana, 1846)



Porites myrmidonensis Veron, 1985



Acropora russelli (Wallace, 1994)



Tubastraea daiphana Dana, 1846

Western Ghat Regional Centre, Kozhikode (Calicut)

During the month, 17 species of freshwater fishes, 9 species of Amphibia, 6 species of Platygastridae (Platygastroidea: Hymenoptera) and 2 species of Diapriidae (Proctotrupoidae: Hymenoptera) were identified. Besides, 5 species of Odonata received from NRC, ZSI, Dehradun were also identified. A scientist of the Centre participated in a survey of butterflies at Wayanad Wildlife Sanctuary from 18th-20th September, organized by the Kerala State Forest & Wildlife Department.

A 10-day training on the Taxonomy of Platygastridae (Platygastroidea: Hymenoptera) was rendered to a senior scientist of the National Bureau of Agriculturally Important Insects (formerly PDBC), Bangalore, on request.

2 research papers were reviewed and advisory services rendered. Advisory services were also rendered to the Zoology degree students of the Govt. Arts & Science College, Calicut on the breeding birds in Kozhikode District. Identification services were rendered to postgraduate students of Zoology, Farook

College, Calicut on a collection of Icthyofauna, and to the Kerala Forest Dept. officials (Tamarasserry range) on the identification of confiscated owl species.

A scientist of the Centre delivered an invited lecture on the topic 'Impact of Man on Biodiversity', during a Refresher Course organized for lecturers by the Academic Staff College, University of Calicut (sponsored by the UGC) on 19th and as well inaugurated the Annual Science Fair, at St. Joseph's Boy's Higher. Sec. School, Calicut, on 22nd September.

A research paper on a new larval food plant of the butterfly, *Tirumala limniace* Cramer has been accepted for publication.

During the month, 897 visitors paid their visits to the museum.

A video on King Cobra documented by the scientists of the Centre as well as call recordings of two species of frogs done by the same team are hyperlinked (http://www.zsi.gov.in..., http://www.zsi.gov.in...).

Four Endemic amphibians of Western Ghats



Philautus anili



Philautus tuberohumerus



Philautus glandulosus



Philautus ochlandrae

ANIMAL OF THE MONTH

Silver-eared Mesia, *Leiothrix argentauris* (Family: Sylviidae; Sub-family: Sylviinae)



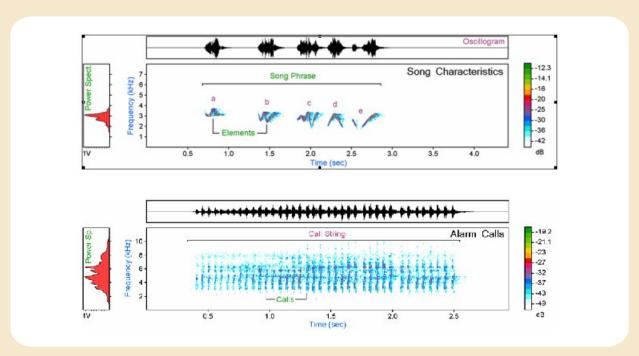
[Text and Photo: Anil Kumar, ZSI, Itanagar]

Silver-eared Mesia, *Leiothrix argentauris* is a fairly common, resident, oscine bird, distributed from the Eastern Himalaya in India to Western China, ranging south down through Indo-China to Malaysia and Sumatra.

They live in bushes on the edge of broadleaved forest, secondary growth, jungle and scrub at elevations of 500-2,000 m. It is an olive (dorsal side) and yellow (ventral side) coloured, sexually dimorphic and omnivorous bird, living in small flocks of 6 to 30 individuals. The crown is black with silver ear patches and vent, crimson coloured. The bill of both the male and female birds is yellow. The patches on the female's forehead, throat and breast area are duller than the male's. Breeding season is April to August. Three to four eggs are laid at a time. Both sexes participate in nest building, incubation and care of young ones. The incubation period is 12 to 13 days followed by a nestling period of about 12 days.

The Song of Silver-eared Mesia (access the section 'ANIMAL CALLS') is composed of phrases/ strophes preceded and followed by

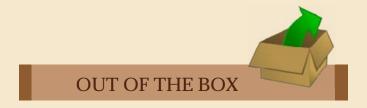
temporal gaps. In a song bout, the same song phrase is repeated in a stereotyped manner, mostly without any variations. However, sometimes minor structural variations in elements are observed. Incomplete phrases are also identified. Individuals use their own song phrases composed of frequency modulated elements having dissimilar structure, amplitude, temporal gap and duration. Mostly, the song phrases are composed of 4 to 6 elements. In a phrase, the gap between first and second elements is often higher than the elements that follow. Territorial conflicts are not seen among individuals. It seems that songs are used to maintain pair/ flock cohesiveness. The individuals of Silver-eared Mesia produce strings of fast, wide band and short duration signals when they encounter predators or during mobbing. These signals are composed of elements with a wide frequency range. Individuals produce these elements in groups of 2 to 122 elements.



Sonographs of Silver-eared Mesia

References:

- 1. Ali, S. and S.D. Ripley (1987). *Compact handbook of the birds of India and Pakistan*. New Delhi: Oxford University Press.
- 2. Marler, P. (1955). Characteristics of some animal calls. Nature 176: 6-8.
- 3. Kumar, A. (2003). Acoustic communication in birds: Differences in songs and calls, their production and biological significance. *Resonance*, <u>8</u>(6): 44-55.
- 4. Kumar, A. (2007). Characteristics and temporal organization of song and alarm calls in Silvereared Mesia, *Leiothrix argentauris* in Arunachal Pradesh, India. *Bulletin of Arunachal Forest Research*, 23 (1&2), pp. 62-70.



First amino acid found on a comet

An amino acid has been found on a comet for the first time. The discovery confirms that some of the building blocks of life were delivered to the early Earth from space.

For details, visit: http://www.biotechunte.net/press/catalog/4163/index.html



ZSI IN NEWS



Hogs to be reintroduced in forest

Log on to: http://www.hinduonnet.com/2009/09/19/stories/2009091951731800.htm



Reference to NRC/ZSI, Dehradun, in *Dainik Jagaran* news (28th September)



Malayala Manorama news (2nd September), on new discoveries of corals from Indian waters by ZSI

