

# ZSI e-NEWS

The Monthly Electronic Newsletter of Zoological Survey of India

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## ANIMAL OF THE MONTH



The Royle's Pika  
Himalayan Mouse hare

## Check-list of fauna of India:

1. Amphibia
2. Chilopoda:  
Scolopendromorpha
3. Trichoptera

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## VIDEO



1. Grey Tufted Langur
2. Star Tortoise



ZSI IN NEWS

NEW



OUT OF THE BOX

## From the Director's Desk

Identification of the backlog material of unnamed collections present in ZSI has paid fruitful results as the scientists of this Survey could register a large number of specimens, apart from identifying new species and reporting several taxa for the first time from various States of the country. The exhibits in the marine aquarium at MBRC, Chennai and MARC, Digha as well as in the museum at WGRC, Calicut received increasing number of visitors. The number of identification and advisory services rendered, including the identification of seized specimens of Schedule animals, also showed an ascending trend. This month we are providing access to three more checklists on Indian fauna viz. Amphibia, Chilopoda (Scolopendromorpha) and Trichoptera.

Dr. Ramakrishna

## Headquarters, Kolkata

Extensive Field surveys were undertaken in Himachal Pradesh and Uttar Pradesh for exploration of the faunal resources, and local surveys carried out in and around Kolkata for ecological studies. During the month, Scientists of Headquarters identified 8 species of Protozoa, 10 species of oribatid mites, 2 species of ixodid ticks, 12 species of termites, 6 species of Lepidoptera, 17 species of Coleoptera, 15 species of Orthoptera, 10 species of Collembola, 11 species of Odonata, 4 species of Hymenoptera, 16 species of Hemiptera and 18 species of Mollusca from the States of Himachal Pradesh, Jharkhand, Karnataka, Uttar Pradesh, Tamil Nadu and the States of North-East India and also

from BB Wildlife Sanctuary, Parmadan, West Bengal. Identification of faunal collections revealed a new species of the genus *Helicotylenchus* Steiner (Nematoda: Tylenchida: Hoplolaimidae) and 5 species of termites (Isoptera), collected for the first time from Uttar Pradesh and Jharkhand States besides 6 species of paper wasps (Hymenoptera) collected for the first time from the various states of North-East India. Two research papers were published, six accepted for publication and three sent for publication. 13 lots of specimens received from different organizations were identified and identification services rendered. One flat skin of Tiger, *Panthera tigris* (Linnaeus) and two flat



Skin of a Leopard received as seized material for identification

skins of Leopard, *Panthera pardus* (Linnaeus) were received as seized material for identification from the Assistant Commissioner of Customs, Kolkata; Sub-Inspector, M.F.C. Police Station, Kalyan, Maharashtra and Deputy Field Director, Buxa Tiger Reserve (West), Alipurduar, West Bengal respectively. A senior scientist, two research scholars and three students from West Bengal and one Principal scientist from Assam visited different sections for studying faunal specimens. A scientist from Headquarters participated in the Environment Impact Assessment studies organized by the Desert Regional Centre, Jodhpur to study the impact of Lignite Mining Blocks on faunal resources. A senior scientist delivered a lecture on Antarctic Expedition at Moulana Azad College, Kolkata and he attended the meeting at West Bengal Biodiversity Board, Kolkata. A Meeting on Jackal translocation from Tollygunge Golf Club, Kolkata to Bethuadahari Wildlife Sanctuary, West Bengal at the Forest Directorate, Kolkata were attended by the senior scientists of the headquarters. A Junior Administrative Officer participated in the

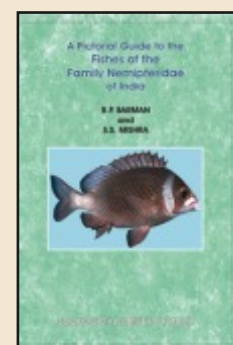
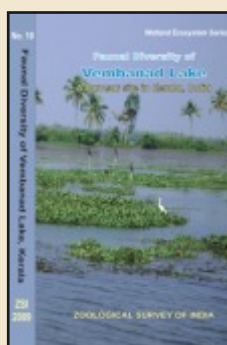
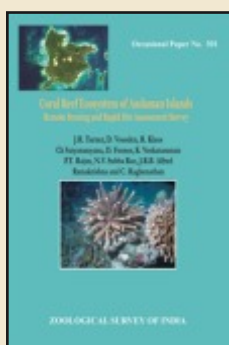
Technical Workshop on Purchase Policy and Procedures in Government Departments, Autonomous Organizations and PSU's organized by Centre for Training and Social Research, New Delhi, from 6<sup>th</sup>-8<sup>th</sup> August. During the month, 30 employees of Headquarters were deputed to participate in Training on IT Awareness and E-Governance under the Information Technology Programme of the Administrative Ministry.

#### Publications:

1. Mitra, B., Roy, K. Mukherjee, M. and Banerjee, D. 2007. A preliminary study on the insect diversity of two Protected Sanctuaries of North Gujarat, India. *Ann. Entomol.*, 25 (1-2): 35-50 (Published in August, 2009).
2. Banerjee, S. and Sanyal, A.K. 2009. Some features of soil micro arthropod population with special reference to Oribatid mites (Acari: Oribatei) in two different types of roadsides. *Environment & Ecology*, 27 (3): 1132-1138.

#### Books released:

1. A pictorial Guide to the Fishes of the family Nemipteridae
2. Faunal diversity of Vembanad Lake, a Ramsar site in Kerala, India
3. Coral reef ecosystem of Andaman Islands-remote sensing and rapid site assessment survey
4. Fauna of Bandhavgarh Tiger Reserve, Madhya Pradesh (see under CZRS, Jabalpur)
5. An annotated checklist of Amphibia of India with some insights into the pattern of species discoveries, distribution and endemism' (See under WGRC, Calicut) were published by the department.



## Marine Biology Regional Centre, Chennai

Due to certain technical reasons, the report of MBRC for the month of July could not be placed in the ZSI e-NEWS, 1 (7), 2009. The same is included here in addition to the report pertaining to the current month.

July, 2009:

Two field surveys were undertaken, one at the Pulicat Lake Bird Sanctuary (Andhra Pradesh part) and the other at the Adayar Estuary, Chennai, to study the impact of the solar eclipse on the avian fauna and meiofauna respectively. 4 species of sponges, 8 species of molluscs and 24 species of marine fishes were identified out of the material collected from the Gulf of Mannar Biosphere Reserve. Eleven manuscripts were reviewed and advisory services rendered. Two identification services were rendered involving the identification of 36 species of marine fishes, 5 species of shrimps and 2 species of crabs for a M.Phil student of Loyola College and 3 species of echinoderms for a project fellow of Bharathi

Women's College. 130 tourists and 119 students visited the marine aquarium during the month. Two research manuscripts (Coastal birds of Tamil Nadu & Meiofauna of Gulf of Mannar) were accepted for publication.

August, 2009:


4 species of sponges, 13 species of molluscs and 20 species of marine fishes were identified out of the material collected from the Gulf of Mannar Biosphere Reserve. The specimens were registered. Nine manuscripts were reviewed for 4 Indian journals. 3 identification services were rendered involving the identification of 52 species of fishes for DRC/ZSI, Jodhpur and two outsiders. A research paper on the fishes of river Pennar and its branches has been submitted for publication. As required by the MOEF, five staff members (First batch) of MBRC attended the IT training course "Concepts of IT and MS Office Suite 2007" conducted by CMC, Chennai, for 5 days from 17<sup>th</sup>-21<sup>st</sup> August. The centre provided specimens and charts on loan to Bharathi Mat. School, Guduvanchari, Chennai for the exhibition "MANIFEST-2009", held during 14<sup>th</sup>-16<sup>th</sup> August. 130 tourists and 312 students visited the marine aquarium during the month.

Publication:

Venkatraman, C and Padmanaban, P. 2009. Cochin-banded Sea snake, *Hydrophis ornatus* (Gray, 1842), a new record for Chennai Coast, East Coast of India (Reptilia: Serpentes: Hydrophiidae). *J. Sci. Trans Environ. Technov.* 3 (1): 48-49.



*Hydrophis ornatus*, a new record for the east coast of India

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## Southern Regional Centre, Chennai

Three species of cockroaches and 8 species of fishes were identified out of the material collected from the Kaniyakumari Wildlife Sanctuary. A research paper on the fishes of river Pennar and its branches was submitted for publication. Lectures were delivered by three scientists of the Centre on collection, preservation and identification of fauna and

basic principles of taxonomy to 200 students of Good Shepherd Matriculation Higher Secondary School, Chennai who visited the Centre. Staff members of the Centre attended the course, "Concept of IT and MS Office suite 2007", at CMC Ltd., Chennai, from 17<sup>th</sup>-21<sup>st</sup> August.

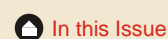




Students of Good Shepherd Matriculation Higher Secondary School, Chennai observing the faunal collection of SRC/ZSI

#### Publication:

Karunamoorthy, K., Ilango, K. and Endale, A. 2009. Ethnobotanical survey of knowledge and usage custom of traditional insect/mosquito repellent plants among the Ethiopian Oromo ethnic group. *Journal of Ethnopharmacology*, 125: 224-229.



## Freshwater Biology Regional Center, Hyderabad

A field visit to a man-made lake in Safilguda, Secunderabad was made on 21<sup>st</sup> of the month, for evaluating the hydro biological features of the lake and its aquatic faunal diversity. The lake receives treated sewage and other surface water inflows. Documentation of the digital photographic profile of the managed lake and its environs (habitat) and the lake's associated macro faunae (water fowl, herpetofauna, etc.), are in progress. As a part of the continuing hydro-biological studies on Kolleru Lake (a Ramsar site), West Godavari & Krishna districts

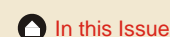
(area 90,000 ha/901km<sup>2</sup> at minimum flood level), the littoral macrophyte based periphytic faunae and also the small group of ecologically interesting neustonic faunae inhabiting the specialized habitat-neuston-air water interphase were taken up for studies/taxonomic documentation. The heterogeneous assemblage of micro-and macro faunae collected amidst littoral macrophytes comprised of predominantly insects, aquatic oligochaetes, flatworms and roundworms, besides spiders and malacofauna.



Grey heron, *Ardea cinerea*



The White breasted water hen, *Amaurornis phoenicurus*




## Western Regional Centre, Pune

Scientists of the Centre delivered lectures on “Freshwater Biodiversity of India” and “Biodiversity of Western Ghats” to postgraduate students of the Department of Environmental Sciences, Pune University. A Senior Zoological Assistant of the Centre attended the training programme on “Bat Taxonomy and Echolocation” at the School of Biological Sciences, Madurai Kamaraj University, Madurai from 10-14<sup>th</sup> August. Based on pellet studies, identification service was rendered on the mammalian species consumed as food by the Eurasian Eagle Owl (*Bubo bubo hemachalana*) at Nagzira Wildlife

Sanctuary, to the Director, Nisargvedh, Pune. 39 aquatic insect samples collected from the lakes in and around Bangalore were identified for the Wetland and Energy Research Group, Centre for Ecological Sciences, Indian Institute of Science, Bangalore.

### Publication:

Kailash Chandara and A. S. Mahabal (2009). Aves: In “Fauna of Pachmarhi Biosphere Reserve” - Published by Director, Zoological Survey of India, Kolkata.

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## Desert Regional Centre, Jodhpur

Three field surveys were conducted (Sardar-Samand Reservoir, Rajasthan from 3<sup>rd</sup> - 8<sup>th</sup>; 5 districts of Rajasthan from 18<sup>th</sup>-31<sup>st</sup>; Hadla Lignite Mine Area of Bikaner District from 26<sup>th</sup>-31<sup>st</sup>). 9 species of Reptiles, 87 species of Aves, 16

species of Mammals, 5 species of Odonata, 3 species of Coleoptera and 1 Genus of Orthoptera were identified out of the material collected from various environs of Rajasthan. Besides, 2 species of Hymenoptera and 5 species of Nematoda out



A view of Todgarh Rawali Wildlife Sanctuary



Chinkara (*Gazella bennettii*)



Black-crowned Night Heron (*Nycticorax nycticorax*)  
at Keoladeo National Park, Bharatpur




Pug mark of Leopard (*Panthera pardus*)  
at Kumbhalgarh Wildlife Sanctuary



of the earlier collections from Gujarat were also identified. A senior scientist of the Centre attended the training programme on “Environmental Issues related to Mining-Legal and Statutory” at the Engineering Staff College of India, Hyderabad from 19<sup>th</sup>-21<sup>st</sup>. A research paper on Nematoda has been submitted for publication. First corrected proof of 'Fauna of Nalsarovar Wetland, Gujarat' has been

submitted and the manuscript on 'Fauna of Ranthambhore National Park, Rajasthan' revised. 62 entries of identified fauna were made in the faunal database of the Centre. 114 entries pertaining to books procured were made in the library database, employing the software, *e-granthalaya*. 28 visitors paid their visits to the museum.

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## High Altitude Regional Centre, Solan

Under the faunal documentation programme of Pangri Valley and Churdhar Wildlife Sanctuary, 2 species of Bats, 1 species of Pisces, 5 species of Rhopalocera (butterflies) and 2 species of Orthoptera were identified. The collection of moths from Pangri and Churdhar has been processed for further studies. 2 research papers were published. 2 abstracts, one on fishes and other on butterflies have been accepted for oral presentation in the National Seminar on Global Warming to be held at Nainital. A scientist of the Centre reviewed a research paper on moths for a national journal and offered advisory service. Literature facility was provided to a research




*Aricia agestis* at Pangri Valley

student working on moths in Himachal Pradesh University, Shimla.

Publications:

1. H. S. Rose, Manbeer Kaur and Avtar Kaur Sidhu. 2009. The life history of the tawny coster, *Acraea terpsicore* (Linnaeus) (Lepidoptera: Nymphalidae: Acraeinae). *Ann. For.* 17(1): 108-112.
2. Avtar Kaur Sidhu, H. S. Mehta and K. Chandra. 2009. Appressed basking posture a prevalent method of behavioural thermoregulation adopted by butterflies of cold desert of Ladakh (India). *Association of Tropical Lepidoptera notes, USA*, June issue: 3-4.

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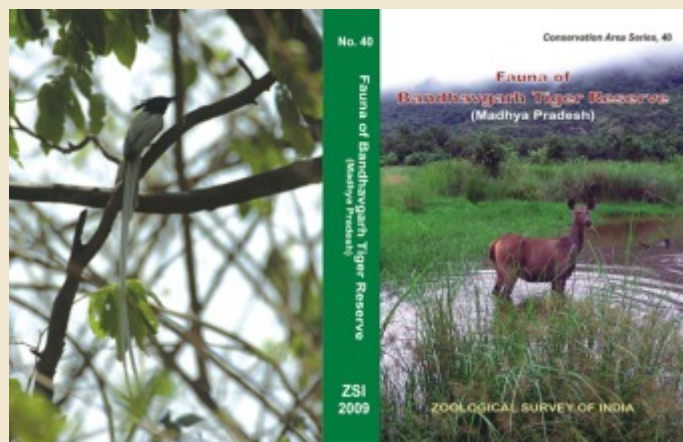
*Amolops formosus* at Churdhar Wildlife Sanctuary

## Central Zone Regional Centre, Jabalpur

A local tour to Veerangana Durgavati Wildlife Sanctuary, Damoh district, was undertaken on 24<sup>th</sup> August and representative samples of various faunal groups collected. 5 species of Ostracoda were identified. A research paper on the fishes of Veerangana Durgavati Wildlife

Sanctuary was submitted for publication. 11 chapters on various groups of animals were submitted for inclusion in the document on the Fauna of Achanakmar Amarkantak Biosphere Reserve, Chhattisgarh & Madhya Pradesh. A brief report of 'Impact of Solar Eclipse (July, 22<sup>nd</sup>

2009) on Fauna' was submitted to "Ajtak". Scientists of the Centre reviewed 6 scientific papers for the publication in different Journals and advisory services rendered. The officials of the Centre attended the M1, IT Training Programme at TFRI, Jabalpur from 17<sup>th</sup>-21<sup>st</sup> August. A scientist of the Centre attended the meeting of Board of Studies of Environment Science (M. Sc. & B.Sc.) at Government Science College, Jabalpur on 20<sup>th</sup> August. A checklist prepared on Trichoptera of India by the scientists of the Centre is hyperlinked with the departmental website [www.zsi.gov.in](http://www.zsi.gov.in).



Publication:

Fauna of Bandhavgarh Tiger Reserve, Madhya Pradesh. Conservation Area series, No. 40, ZSI.

### Some Birds of Veerangana Durgavati Wildlife Sanctuary



*Oriolus xanthomus* - Black-hooded Oriole




*Pitta brachyura* -Indian Pitta



*Zoothera citrina* - Orange-headed Thrush



*Eudynamys scolopacea* - Asian Koel

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### Northern Regional Center, Dehra Dun

An intensive field survey was conducted in the Kalesar Wildlife Sanctuary, Haryana and representative samples of 8 Faunal groups were collected, out of which 7 species of Lepidoptera, 3 species of Amphibia and 6 species of Reptilia were identified. Two intensive surveys were

undertaken in and around Dehradun, for the collection of Helminth parasites of Vertebrates of Doon valley and helminths collected from amphibian hosts. Proofs of the research papers on Lepidoptera, Nematoda, Pisces, Reptilia and Aves were checked for incorporation in the



document 'Fauna of Uttarakhand'. Four abstracts have been accepted for oral presentation in the National Seminar on 'Response of Eco-Biological Components to the phenomenon of Global Warming (Nsreg-2009)', to be held at Nainital in September, 2009. Two manuscripts, 'Current status of Hoolock Gibbon (*Hoolock hoolock* Harlan) in Garo hills, Meghalaya, Northeast, India' and 'First record of three species of Soil nematodes of the suborder Cephalobina from Ladakh Region (J& K), India' were submitted for publication in the *Journal of Threatened Taxa*. An Officer of the Centre attended a one day seminar on RTI at JNU Campus, New Delhi on 3<sup>rd</sup> August. An updated Checklist of the Scolopendrid Centipedes (Chilopoda: Scolopendromorpha) from India, prepared by a scientist of the Centre, is hyperlinked with the departmental website [www.zsi.gov.in](http://www.zsi.gov.in).

#### Publication:

Anjum Nasreen Rizvi (2009). *Diploscapter* sp. (Nematoda: Rhabditida) associated with termites: First report from India. *Annals of Forestry*, 17(1): 157-159.



*Ophisops elegans* Menetries from Menwali,  
Mahender Garh District, Haryana

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### Gangetic Plains Regional Centre, Patna

A local survey in Chapra district of Bihar was undertaken and representative faunal samples collected. Butterflies belonging to 13 species (Insecta : Lepidoptera) from Dalma Wildlife Sanctuary, Zooplanktons of 11 species from river Subernarekha (Jharkhand), chalcids (Insecta: Hymenoptera) of 4 species from Bihar and mantids (Insecta : Mantodea) of 3 species from Jharkhand were identified, out of which one species of Eucharitidae (Hymenoptera: Chalcidoidea) and one species of Mantodea turned out to be collected for the first time from the states of Bihar and Jharkhand respectively. A

research paper on pteromalid fauna of Karnataka (Insecta: Hymenoptera) has been submitted for the state fauna series on Karnataka. One paper on the Mantid fauna (Insecta: Mantodea) of Bihar & Jharkhand has been accepted for publication. A paper on Hymenoptera has been reviewed for the Records of ZSI and comments offered. Library facilities and identification services (on Insects) were extended to a research scholar of the Magadh University, Patna. A scientist of the station attended the RTI training at the Institute of Secretariat Training and Management, New Delhi.



*Schizaspidia brevifuniculata* Narendran (Female)  
[Insecta: Hymenoptera: Eucharitidae] -  
first record from Northern India (Bihar)



*Deiphobe incisa* Werner  
(Male) [Insecta: Mantodea]-  
first record from Jharkhand



Gangetic river dolphin,  
*Platanista gangetica gangetica*

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## Arunachal Pradesh Regional Centre, Itanagar

Fresh water fish samples collected from the D'Ering Wildlife Sanctuary, East Siang district were studied and 5 species of fishes were identified including an apparently new species, apart from identifying 3 species of fishes from Karsingsa. Based on these collections, a research paper titled "Collections of Fishes from D'Ering Wildlife Sanctuary" is being prepared which is

in final stage for submission. Representative samples of insects belonging to 4 orders were collected during a local survey conducted in and around Papumpare district and 8 species of grasshoppers were identified. The final Technical Report on the expedition to Antarctica (27<sup>th</sup> Indian Scientific Expedition), participated by a scientist of the Centre has been submitted.

### Some Fishes of Arunachal Pradesh




*Chaca chaca*



*Barilius bendelisis*



*Puntius conchonius*

 In this Issue

## North Eastern Regional Centre, Shillong

5 species of Rotifera, 4 species of Cladocera, 9 species of Amphibia and 29 species of Pisces from Nokrek Biosphere Reserve, Garo Hills, Meghalaya were identified and registered. Besides, 8 species of Rotifera and 12 species of Cladocera from Deepor beel, Kamrup district, Assam were also identified and registered. A faunistic survey tour was undertaken from 26<sup>th</sup> August-1<sup>st</sup> September in the East Khasi Hills district, Meghalaya. A short survey of two days duration was also conducted at Deepor beel

(a Ramsar site), Kamrup district, Assam. Water samples and qualitative and quantitative plankton samples were collected from six sampling sites. A research paper on a new species of *Badis* (Pisces: Perciformes: Badidae) from North East India, has been submitted after necessary corrections as per referee's comments. 3 staff of the Centre attended the Module M1 Training (concepts of IT and MS Office Suite 2007), at the Indian Institute of Professional studies, Shillong from 3<sup>rd</sup>-7<sup>th</sup> August.

### Publications:

1. Sharma, B.K. and Sharma, S. 2008. Faunal diversity of Cladocera (Crustacea: Branchiopoda) of Deepor beel, Assam (North-East India) A Ramsar-site. *J. Bombay Nat. Hist. Soc.*, 105(2):196-201.
2. Sharma, B.K. and Sharma, S. 2009. Microcrustacea (Crustacea: Branchiopoda) of Deepor Beel, Assam, India: richness, abundance and ecology. *Journal of Threatened Taxa*. 1(8):411-418.




A view of the Loktak Lake - the habitat of the rare and endangered Sangai, endemic to Manipur



*Ptyas korros*, photographed during the field survey in Manipur



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## Marine Aquarium cum Regional Centre, Digha

Fifty five new examples of live animals were introduced for display in the aquarium tanks which were mainly collected through local surveys. The major attractions among the displayed animals during the month were the Tiger Perch (*Terapon jarbua*), Sea Perch (*Lates calcarifer*), Spotted Butterfly fish (*Scatophagus argus*), Bat fish (*Platax* sp.) and varieties of sand eels and crabs. All the examples collected were processed for identification which consisted of 6 species of fishes, 2 species of sea snakes, 2 species of crabs and 1 species of spiny lobster. Scientists of the Centre participated in the deliberations with the World Bank consultants in connection




Giant seaperch



Yellow tailed blue damselfish

with ICZM project at the Institute of Environmental Studies and Wetland Management at Kolkata on 17<sup>th</sup> August. Also the scientist of the Centre participated in 'Seminar on the Terms of Reference for the Audits of Financial Statements of World Bank-financed Projects' which was organized by Ministry of Finance in Kolkata on 28<sup>th</sup>. Advisory services were rendered to various groups of visitors who visited the aquarium during the month. A research manuscript has been accepted for publication in the Journal of Bombay Natural History Society.


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## Estuarine Biology Regional Centre, Gopalpur-on-Sea

A field survey was conducted from 10<sup>th</sup>-17<sup>th</sup> August in the Cauvery Estuarine Complex to study the faunal diversity, ecology and distribution patterns in the estuarine system. Field observations and sampling from different branches of the system in Tamil Nadu and Karaikal: Pondicherry were made. Representative samples of Coelenterata, Echinodermata, Mollusca, Crustacea and Pisces were collected during the survey for taxonomic studies. 13


species of fishes and 4 species of Crustacea from Nuanai Estuary, Puri, Orissa; 4 species of crabs from Brahmani-Baitarani Estuary, Bhadrak Dist., Orissa and 12 species of crabs as well as 4 species of prawns from the Cauvery Estuary, Tamil Nadu have been studied and identified. A research paper on the mosquito diversity of Chilka Lake has been communicated to *Indian Journal of Medical Research*.

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## Sunderban Regional Centre, Canning

The brachyuran crabs collected from various surveys were sorted, season-wise, and labeled. Two species of brachyuran crabs (*Matuta planiceps* and *Ocypode ceratophthalmum*) and eight species of fishes were identified out of the material collected from Sunderbans. A faunistic survey was undertaken to Bakkahli, Bhagbatpur,

Patharprothima and Namkhana areas in Sunderbans from 13<sup>th</sup>-22<sup>nd</sup> August and representative faunal samples collected for further taxonomic study. Data on the catalogue of the named specimens of the Centre was updated to 1491 entries.

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## Andaman and Nicobar Regional Centre, Port Blair

Two local surveys were conducted at the marine and terrestrial ecosystems of Grub Island and Chidyatopu in Mahatma Gandhi Marine National Park, South Andaman on 29<sup>th</sup> August and Baratang Island, Middle Andaman on 30<sup>th</sup> August. A total of 41 species of scleractinian corals, 11 species of echinoderms, 5 species of Alcyonacian corals, 3 species of molluscs, 1 species of sponge, 115 species of fishes, 19 species of butterflies, 40 species of birds and 1 species of reptile were identified during the survey. Besides, surveys were conducted in Great Nicobar Island, North Andaman (Diglipur, Smith and Ross Islands, Ariel Bay and Lamia Bay), Ritchies Archipelago (Havelock, Inglis, Henry Lawrence and John Lawrence Islands) during the month. As a result of 66 hrs of diving operations made to carry out the undersea surveys in these places, 72 species of corals, 7 species of soft corals, 32 species of echinoderms, 4 species of sponges, 163 species of fishes, 19 species of nudibranchs, 10 species of gastropods, 3 species of polychaetes and 7

species of crabs were identified. In addition to marine faunal communities, 65 species of birds, 15 species of butterflies, 15 species of spiders and 2 species of mammals were also recorded from Great Nicobar Biosphere Reserve. Thorough literature consultation on these species, it is found that 27 species of scleractinian corals, 16 species of nudibranchs and 12 species of reef fishes recorded from these places are new to Indian waters. Manuscripts on new record of corals, nudibranchs and fishes have been prepared for publication in Records of ZSI. Database on the fishes and corals of Andaman & Nicobar Islands have been updated. 10 species of molluscs, 6 species of fishes, 22 species of corals and 30 species of crustaceans were registered in the National Zoological Collection of ZSI. 4 species of sponges have been identified for National Institute of Ocean Technology, Port Blair and information on the diversity of Sea pens (Coelenterata) in Indian waters has been provided to the Central Marine Fisheries Research Institute, Vishakapatnam on request.

As required by the United States Fish and Wildlife Service, Arlington, USA, the pertinent information on family Coralliidae in India for inclusion in Appendix II of CITES has been provided. A research proposal entitled 'Assessment of biophysical environment and status of coral reefs in selected reefs in Andaman and Nicobar Islands', received from the Ministry has been reviewed and the comments submitted. One of the Junior Research Fellows of the Centre received an award of *Junior Scientist of the Year-2009*, conferred by National Environmental Science Academy, New Delhi.



Reef fish, *Pterois miles* - new record to India


## New records to India



*Tubastraea faulkneri* - new record of coral to India



Nudibranch, *Hypselodoris bullocki* - new record to India

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## Western Ghat Regional Centre, Kozhikode (Calicut)

A field survey was undertaken from 4-12<sup>th</sup> August in selected areas of Western Ghats falling in Goa and Karnataka states for the studies on Amphibia and the representative samples collected. 4 species of Diapriidae and 8 species of Platygastriidae (Hymenoptera) collected from the Bhadra Wildlife Sanctuary, Karnataka were identified. A research paper reviewing the species diversity as well as host associations of Indian species of *Telenomus* Ashmead (Platygastriidae: Hymenoptera) has been written. 11 species of Odonata were identified out of the collection received from NRC, ZSI, Dehradun. 29 species of Amphibia were identified out of the unidentified collections of the Centre. Catalogued 26 species of fishes in the database of the identified collection maintained at the Centre. A research document on Amphibia

and a research paper on Odonata were published. Besides, one research paper has been accepted for publication and 2 research papers communicated. Scientists of the Centre delivered four lectures on the Invertebrate and Vertebrate diversity of Western Ghats, to two batches of graduate students of the Guruvayurappan College, Kozhikode, at WGRC on 11<sup>th</sup> and 18<sup>th</sup>. The 44<sup>th</sup> batch of Forest Trainees of Kerala Forest School visited the museum at the centre on their study tour to Calicut on 22<sup>nd</sup>. Two research papers on ichthyofaunal taxonomy were reviewed and comments offered. 23 identification & advisory services were rendered to Postgraduate students of Farook College, Kozhikode, on Butterflies and fishes. Additional specimen exhibits of fishes were arranged and set up in the museum of the Centre. During the



month, 1098 visitors paid their visits to the museum. An online checklist prepared on Amphibia of India is hyperlinked with the departmental website [www.zsi.gov.in](http://www.zsi.gov.in). Two videos (Grey Tufted Langur and Star Tortoise) documented at the Chinnar Wildlife Sanctuary, Kerala, by the scientists of the Centre are also hyperlinked with the website [www.zsi.gov.in](http://www.zsi.gov.in).

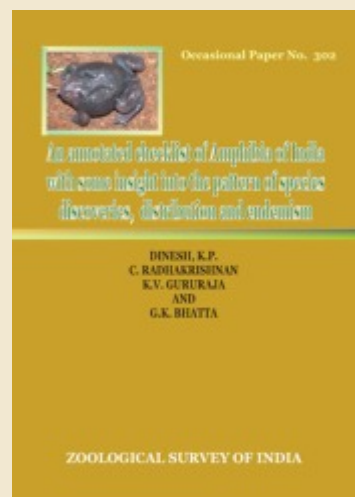
'Onam', the traditional festival of Kerala, was celebrated by the staff of the Centre by arranging a floral carpet (Pookkalam) on 31<sup>st</sup> August. A quiz competition on Onam was also organized for the staff on that day.

#### Publications:

1. K.G. Emiliyamma, 2009. Gynandromorphism in *Neurothemis tullia tullia* (Drury) and *Rhinocypha bisignata* (Selys) (Odonata: Insecta) from Kerala. *Records of the Zoological Survey of India*, 109 (Part-1): 73-75.
2. Dinesh, K.P., C. Radhakrishnan, K. V. Gururaja and G. Bhatta. 2009. An annotated checklist of Amphibia of India with some insights into the patterns of species discoveries, distribution and endemism. *Records of the Zoological Survey of India: Occasional Paper No. (302): 1-133pp.*



Graduate students of Guruvayurappan College attending lecture classes at WGRC, Calicut



The 44th batch of Forest Trainees of Kerala Forest School studying the Museum exhibits at WGRC, Calicut



Onam celebrations at WGRC, Calicut

## ANIMAL OF THE MONTH


The Royle's Pika / Himalayan Mouse hare (*Ochotona roylei*)

The Royle's Pika or Mouse hare (*Ochotona roylei*) is a flagship species of Garhwal Himalaya. It is a tail-less Himalayan rodent usually found from 2200 to 3500m above sea level. A short migration of the species has been observed during winter season from higher to lower elevations of the mountain region basically in search of food and for mating needs. The home range of the species recorded is about 1.5km<sup>2</sup> during favourable conditions and an average movement of 70m in a single day. Feeding behaviour of this Himalayan mammal is very exemplary and food generally

comprises of some medicinal plant species and dry grasses. The species is found in the Himalaya through Pakistan, northwestern India, Nepal and Tibet. The photograph of the animal presented here was taken by Mr. Nagarajan (son of Mr. P. Dhandapani, Rtd. Scientist, ZSI), at the Valley of Flowers (30°40'00"N latitude and 79°39' 03" E longitude) on the 5<sup>th</sup> of August 2009.

Reference:

<http://www.iucnredlist.org/details/41268/0>

 In this Issue



## ZSI in NEWS

The Daily  
TelegramsSaturday,  
August 15, 2009 **9**INDEPENDENCE  
DAY - 2009Special  
SupplementNo real change in  
history has ever  
been achieved by  
discussions  
- Subhash Chandra BoseZSI engaged in investigating faunal diversity of  
Andaman & Nicobar Islands

Andaman and Nicobar Regional Centre (ANRC)

of Zoological Survey of India (ZSI) came into being in Andaman & Nicobar Islands in April 1977 with the jurisdiction covering Andaman & Nicobar Islands and its coastal and off-shore waters. Since its inception, 46 major research projects have been completed under this station on several faunal groups of these islands. The studies on Taxonomy, Ecology and Zoogeography of protozoan parasites, freshwater molluscs, ants, gall-causing insects, meiofauna, edible crabs, amphibians, woodborers, cladocerans, mangrove fauna, ichthyofauna, soft corals, sponges, echinoderms, corals etc. The publications so far are: Research papers - 271 and Books - 13, which include fauna of conservation area series (on protected areas). These are published as occasional papers of ZSI and in a periodical *Records of Zoological Survey of India*. These publications can be referred to for information on fauna of these islands from ZSI's libraries in all of its regional stations, and could be purchased for one's self from the regional centre's offices.



This station holds 1,83,264 identified specimens belonging to at least 4308 species under the 'National Zoological Collection', of which most are displayed in its Museum for the viewing of students and general public. Identification and advisory services also are rendered to officials of the other departments, researchers and students.

At present there are 17 on-going projects run by scientists of this station in the marine and terrestrial ecosystems of these islands. Coral reefs and Mangroves are given special attention. Realizing the significance, Ministry of Environment and Forests established National Coral Reef Research Institute, under the aegis of ZSI to continuously monitor the health of coral reefs in Andaman and Nicobar Islands. This facility now functioning under this regional station has all the infrastructural facilities, like SCUBA gears, boats and other accessories to cope with a trained monitoring team. This task has been taken up by the ZSI's research team at this station. Extensive surveys have been carried out for status assessment of post-tsunami and earth-quake caused damages to coral reefs and the consequences of these calamities in the recuperation of the reefs have been monitored. The coral reefs along with the rich wealth of the forest resources protected as 99 Wild-life sanctuaries and 6 National Parks are nature's

bounty to the people of these islands. Recent surveys in the year 2009 revealed out 17 species of corals, 12 species of nudibranchs, 7 species of fishes and 3 species of gastropods recorded in Andaman & Nicobar waters are new to our country.

**Endemic Fauna :** Nature has endowed Andaman and Nicobar Islands with a unique and varied animal life both on land as well as in sea. Faunal distribution in these islands is influenced by fauna of both Indo-Chinese and Indo-Malayan regions. Large mammals are absent in both Andaman and Nicobar Islands. Geographic isolation of these islands has resulted in high degree of endemism. The surrounding seas are equally rich in marine biodiversity. Endemism is more pronounced in land animals.

**Mammals :** Out of 60 mammal species reported so far, 33 species are endemic. *Crocodylus khajulu* Thomas Andaman Island Spiny Shrew, *Crocodyrus andamanensis* Miller Miller's Andaman Spiny Shrew, *Crocodyrus nicobaricus* Miller Nicobar Spiny Shrew, *Crocodyrus jenkinsi* Chakraborty Jenkins's Andaman Spiny Shrew, *Tapia nicobarica nicobarica* (Zelebor) Nicobar Tree Shrew, *Tapia nicobarica rufa* Miller Nicobar Tree Shrew, *Pteropus melanotus satyris* Anderson Narcondam Small Flying Fox, *Pteropus melanotus melanotus* Blyth Car Nicobar Flying Fox, *Pteropus melanotus melanotus* Blyth Nicobar Flying Fox, *Cynopterus brachyotis scherzeri* Zelebor. Nicobar Lesser Shortnosed Fruit Bat, *Cynopterus brachyotis brachyotis* Dobson Andaman Lesser Shortnosed Fruit Bat, *Rhinolophus affinis crassus* Blyth Dobson's Horseshoe Bat, *Rhinolophus cognatus cognatus* Andersen South Andaman Horseshoe Bat, *Rhinolophus cognatus cognatus* Anderson North Andaman Horseshoe Bat, *Hipposideros cognatus cognatus* Anderson Little Nicobar Leafnosed Bat, *Hipposideros aternicobarsular* Miller Nicobar Leafnosed Bat, *Myotis dryas* Anderson Insular Mouseeared Bat, *Pipistrellus camertoni* Miller, *Macaca fascicularis umbrosa* Miller Nicobar Crab-eating Macaque, *Papua larvata tyleri* (Tyler) Andaman Masked Palm Civet, *Sus scrofa andamanensis* Blyth Andaman Wild Pig, *Sus scrofa nicobarica* Miller Nicobar Wild Pig, *Rattus rattus andamanensis* (Blyth), *Rattus rattus aridorsum* (Miller) House Rat, *Rattus rattus flebilis* (Miller), *Rattus rattus holchu* Chaturvedi, *Rattus palmorum* (Zelebor), *Rattus stolicus* (Miller), *Rattus tataricus* (Miller), *Rattus pulliventer* (Miller), *Rattus burrus* (Miller), *Rattus burrus* (Miller), *Rattus burrescens* (Miller). Common mammals found here are Andaman wild pig (*Sus scrofa andamanensis*), Crab-eating macaque (*Macaca fascicularis umbrosa*), Andaman masked palm civet (*Papua larvata tyleri*), Dugong (*Dugong dugon*), Dolphin (*Delphinus delphis*), Whale (*Balaenoptera musculus*), Spotted deer (*Axis axis*), Andaman spiny shrew (*Crocodyrus andamanensis*), Nicobar tree shrew (*Tapia nicobarica nicobarica*), Andaman horse-shoe bat (*Rhinolophus cognatus cognatus*), Lesser short-nosed bat (*Cynopterus brachyotis brachyotis*), elephant (*Elephas maximus*) etc.

(Contd on page 11)

## ZSI engaged in investigating.....

(Contd from page 9)

**Birds :** The rich avi-faunal diversity has always attracted ornithologists and bird watchers to these islands. As many as 270 species and sub species of birds are reported to inhabit these islands and of these 95 species and sub-species are endemic. Some important species are Andaman Teal (*Anas gibberifrons albogularis*), Megapode (*Megapodius nicobarensis*), Narcondam hornbill (*Rhyticeros narcondami*), Nicobar pigeon (*Caloenas nicobarica nicobarica*), Green Imperial Pigeon (*Ducula aenea*), Nicobar Parakeet (*Psittacula caniceps*), Crested serpent eagle (*Spilornis cheela*), White-bellied sea eagle (*Haliaeetus leucogaster*), Edible-nest swiftlet (*Collocalia esculenta*), Emerald dove (*Chalcophaps indica*) etc. **Reptiles :** There are 90 species of reptiles. Of these 23 species are endemic. *Cyrtodactylus rubidus* (Blyth) Curtailed Gecko, *Phelsuma andamanensis* (Blyth) Andaman Day Gecko, *Gonioccephalus subcristatus* (Blyth) Green Forest Lizard, *Calotes andamanensis* (Boulenger) Andaman Garden Lizard, *Calotes danieli* (Tiwari & Biswas) Tiwari's Garden Lizard, *Calotes mystaceus* Dum and Bibr Whitelipped Garden Lizard, *Dasia nicobarensis* (Biswas & Sanyal) Nicobar Tree Skink, *Dasia olivacea*

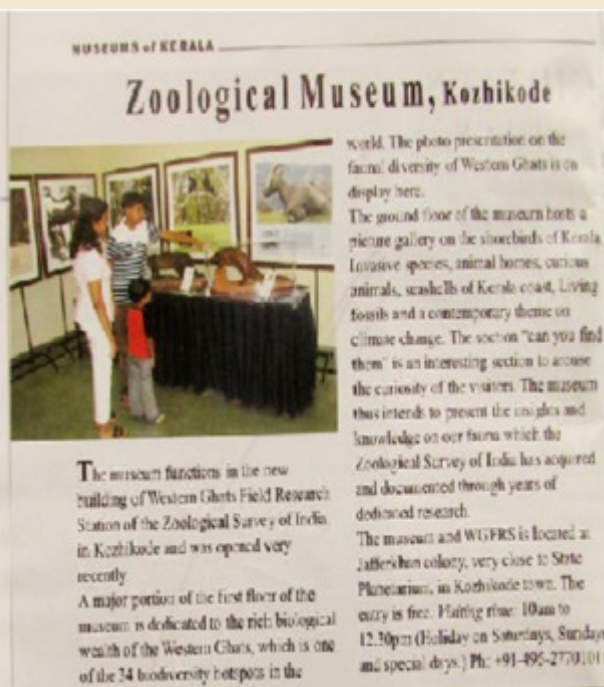
**Taxonomical Studies :** ZSI/ANRC has well established laboratories for the taxonomical studies of faunal communities of Andaman & Nicobar Islands. Besides, expertise is also available for the survey and monitoring of coral reefs and its associated faunal elements.


**Special Status :** National Coral Reef Research Institute (NCRI) is functioning under ZSI as a nodal institution for conducting coral reef research in Indian waters, as decided by Ministry of Environment and Forest, Govt. of India since 2001. Apart from that it also holds the Lead Institution- Great Nicobar Biosphere Reserve (GNBR) to coordinate the research programmes of GNBR being undertaken by various research institutes across the country as decided by Ministry of Environment and Forest, Govt. of India since 2000.

**Advisory Services :** Advisory services are being rendered for the identification of faunal communities, organizing national level symposium on biodiversity, disseminate the knowledge on the faunal resources of these Islands for the benefits of researchers, academicians, law enforcing agencies, conservators, management planners. Accordingly during March 2009, *National Symposium on Recent Advances in Biodiversity of Indian Subcontinent* has been organized by ZSI at Port Blair in which more than 100 scientists across the country presented their findings.

With these perspectives and approach ZSI is doing its best to disseminate the knowledge acquired to bring a sense of awareness of this biological wealth of these Islands, which need to be conserved for our generation's well being and also ours own. ●

## ZSI in NEWS




 In this Issue



## OUT OF THE BOX

## New Animal discoveries

- (1) A new species of lizard was discovered in the lush Western Ghats mountain range in the Indian state of Maharashtra.  
Story from BBC NEWS at  
[http://news.bbc.co.uk/go/pr/fr/-/2/hi/south\\_asia/8166904.stm](http://news.bbc.co.uk/go/pr/fr/-/2/hi/south_asia/8166904.stm)
- (2) A report on discoveries by various scientists and conservationists in Eastern Himalaya in the decade from 1998 - 2008 was released by World Wide Fund for Nature (WWF). The report cites 353 new species, of which at least 144 were discovered in India.  
Press release at  
<http://www.wwfindia.org/?3380/new-species-calls-for-greater-protection>  
Images of some of these species at  
[http://news.bbc.co.uk/earth/hi/earth\\_news/newsid\\_8189000/8189937.stm](http://news.bbc.co.uk/earth/hi/earth_news/newsid_8189000/8189937.stm)

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