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



ZSI e-NEWS

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Headquarters, Kolkata

Extensive field surveys in the States of Himachal Pradesh, Assam (Dibru Saikhowa National Park, Kazhiranga National Park, Garampani Wildlife Sanctuary, Pobitora Wildlife Sanctuary and Deepor beel), West Bengal (Bankura Sacred Groves and Sajnakhal W.L.S) and Chhattisgarh were conducted.

During the month, scientists of Headquarters identified, 6 species of Protozoa, 1 species of Platyhelminthes, 3 genera of Nematelminthes, 4 species of Collembola, 25 species of Hemiptera, 13 species of Hymenoptera, 4 species of Orthoptera, 11 species of Coleoptera, 10 species of Isoptera, 13 species of Arachnida, 7 species of Crustacea, 13 species of Mollusca, 15 species of Fishes, 9 species of Amphibia and 3 species of Mammalia from the States of Arunachal Pradesh, Assam, Delhi, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Meghalaya, Nagaland, Odisha, Sikkim, Tamil Nadu (Eastern Ghats), Tripura, Uttarakhand, Uttar Pradesh and West Bengal, including specimens from Nepal and Pakistan.

A new genus and 3 new species (*Coomansinemoides wasimi*, *Paraxonchium maximus*, & *Labronema neodiversum*) belonging to the order Dorylaimida (Nematoda) have been added as new to science. *Gerres macracanthus* Bleeker and *Acanthopagrus pacificus* Iwatsuku, have been recorded for the first time from Indian Ocean, Odisha coast. Eleven species of Eulophidae were recorded for the first time from West Bengal, besides 13 species of Eulophidae for the first time from Sunderbans Biosphere Reserve.

Seventeen research papers were published, six papers accepted and seven papers communicated.

Identification and advisory services were rendered on 14 lots of specimens, received from different institutions and organizations. In

addition, identification and advisory services were rendered to a research scholar from Guwahati University, Assam and an Associate Professor, Ecology Research unit, Dept. of Zoology, University of Calcutta. Mollusca samples received from the University of Calcutta and Central Pollution Control Board (Eastern Region), Kolkata, freshwater shrimps received from a Ph.D. Scholar, Bio-Technology Department, AVVM, Sri Pushpam College, Poondi, Thanjavur and the fish specimens received from P.S. GTV Enclave, Delhi were also identified. Miss. Swagata Mondal of Zoology Department, Calcutta University visited the Nematelminthes Section for identification of nematode specimens.

Library Section added 2 Books, 28 Indian journals and 23 foreign e-journals. The e-journals have been uploaded in the I.P. address of Z.S.I. Headquarters at Kolkata for consultation.

Dr. Viswa Venkat Gantait, Zoological Assistant, presented the Project on "Taxonomic and Ecological Studies on Nematodes of Schirmacher Oasis, East Antarctica" in the National Workshop on "Evaluation of Research Projects for Planning the XXXII Indian Scientific Expedition to Antarctica", held at NCAOR, Goa on 27th and 28th June. Dr. Varadaraju, Scientist-B attended the 14th Appreciation Course on Legislative Drafting, organised by the Ministry of Law and Justice, held at the Institute of Legislative Drafting and Research, Shastri Bhawan, New Delhi from 18th-29th June. Dr. Vikas Kumar, Scientist-C attended the DBT meeting on 7th June, pertaining to "Prioritization of Indian Insects for Genome Sequencing", at DBT New Delhi. He also attended the training on Genetic Analyzer (DNA Sequencer) at Invitrogen Bioservices India Pvt. Ltd., Gurgaon from 20th-22nd June. Under the supervision of Dr. Vikas Kumar, 2 M. Sc. students submitted their

M. Sc. thesis at Department of Zoology, West Bengal State University. Dr. K. A. Subramnian, Scientist-C, delivered a lecture on the "Natural History of Odonata" to post graduate students in a Taxonomy Orientation Workshop "Internship Training Programme for the Post Graduate Students", organized by Southern Regional Centre and Marine Biology Regional Centre, ZSI, Chennai, from 11th-15th June. Under his supervision, 3 students from West Bengal State University submitted their M.Sc. thesis.

Dr. Kailash Chandra, Scientist-F, undertook a field survey in Korba district under the 'Chhattisgarh CAMPA' project from 31st May-6th June.

Dr. K. Venkataraman, Director attended the World Environment Day celebrations at Van Vigyan Bhavan, New Delhi on 5th June, 2012, which was graced by the Hon'ble Environment Minister, Hon'ble Chief Minister of New Delhi, Secretary and Additional Secretary of MoEF, Secretary, DST and distinguished scientists. He attended a meeting for the Departmental Flexible Complementary Scheme at Board Room of Indian Forestry Research Institute, Dehra Dun and visited NRC/ZSI, Dehra Dun on 8th and 9th June, 2012. Dr. K. Venkataraman inaugurated the "Internship Training Programme for the Post Graduate Students" organized by the Southern Regional Centre and the Marine Biology Regional Centre, ZSI, Chennai from 11th to 15th June, 2012 and delivered a lecture on "Biodiversity of India" to the participants. Dr. K. Venkataraman attended the Convention on International Trade in Endangered Species (CITES) meeting at Ministry of Environment and Forests (MoEF), New Delhi from 18th-19th June and as well the review meeting to discuss Programme and key issues of ZSI at the Ministry of Environment and Forests (MoEF), New Delhi, on 26th June and the meeting at Gulf of Kachchh Marine National Park, Jamnagar, Gujarat on 30th June, 2012.

Publications:

1. Gokul, A and K. Venkataraman, 2012. Seasonal variations in the diversity of coral associated Brachyuran Crabs in Gulf of Mannar Marine Biosphere Reserve. *In* Marine Biodiversity present status and Prospects (Eds) P. Santhanam and P. Perumal. Narendra Publishing House, New Delhi, 111-118 p.
2. Raghunathan, C., C. Sivaperuman and K. Venkataraman, 2012. Status and Distribution of *Trochus niloticus* (Linnaeus 1767) in Andaman and Nicobar Islands *In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman, Springer, 85-102 p.*
3. Rajan, P. T., C. R. Sreeraj and K. Venkataraman. 2012. Diversity and abundance of Chondrichthian Fishes in Andaman and Nicobar Islands *In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman. Springer, 117-126 p.*
4. Sivaperuman, C and K. Venkataraman, 2012. Diversity of Butterflies in Ritchie's Archipelago, Andaman and Nicobar Islands. *In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman, Springer, 159-176 p.*
5. Raghunathan, C and K. Venkataraman, 2012. Diversity and Distribution of Corals and Their Associated Fauna of Jhansi Rani Marine National Park, Andaman and Nicobar Islands. *In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman, Springer, 177-208 p.*
6. C. Sivaperuman, Suresh Kumar Shah and K. Venkataraman, 2012. Diversity and Distribution of Odonates in Ritchie's

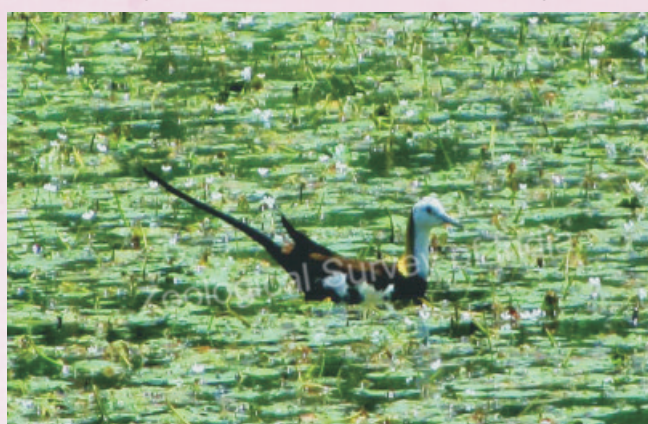
- Archipelago, Andaman and Nicobar Islands. In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman, Springer, 209-218 p.
7. Sivaperuman, C and K. Venkataraman, 2012. Abundance and Species Distribution of Bird Communities in Ritchie's Archipelago, Andaman and Nicobar Islands. In: Ecology of Faunal communities on the Andaman and Nicobar Islands. (Eds) K. Venkataraman, C. Raghunathan and C. Sivaperuman, Springer, 273-288 p.
 8. Chandra, K. and Gupta, D. 2012. Diversity and Relative Abundance of Pleurostict Scarabaeidae (Coleoptera) in Achanakmar-Amarkantak Biosphere Reserve, Central India, *World Journal of Zoology*, 7(2): 147-154.
 9. Sambath, S. and Chandra, K. 2012. Distribution and diversity of Noctuid Fauna of Veerangana Durgavati Wildlife Sanctuary, Damoh district, Madhya Pradesh. *Biological Forum*, 4(1): 17-21.
 10. Chandra, K, Khan, S. and Gupta, D. 2012. New Records to the Species Diversity of family Scarabaeidae and Hybosoridae (Coleoptera: Scarabaeoidea) of Jabalpur, Madhya Pradesh (India). *Academic Journal of Entomology*, 5(1): 28-36.
 11. Chandra, K. and Jehamalar, E. 2012. *Ochterus nicobarensis* sp. nov. from Great Nicobar Biosphere Reserve, Andaman and Nicobar Islands, India (Hemiptera: Hymenoptera: Ochteridae). *Acta Entomologica Musei Nationalis Pragae*, 52 (1), pp.23-28.
 12. Thakre, V., Zade, V, Chandra, K. and Gupta, D. 2012. Scarab beetles (Coleoptera: Scarabaeidae) of Melghat Tiger Reserve, Central India. *Academic Journal of Entomology*, 5(2): 73-80.
 13. Kailash Chandra, Sandeep Kushwaha, S. Sambath and B. Biswas. 2012. Distribution and Diversity of Hemipteran Fauna of Veerangana Durgavati Wildlife Sanctuary, Damoh, Madhya Pradesh (India). *Biological Forum*, 4(1): 1-8.
 14. Sharma, Gaurav. 2012. Studies on the faunal diversity and government efforts for conservation of Tigers at Sariska Tiger Reserve, Rajasthan. In: "Proceedings of National Conference on Prospects and Challenges in field of Applied Zoology" held at Lachoo Memorial College of Science & Technology, Jodhpur. Pp.43-48.
 15. Sundararaj, R. and Sharma, Gaurav. 2012. Species diversity of Coccinellids (Coleoptera: Coccinellidae) in selected provenances of Sandal (*Santalum album* Linn.) and their role in pest control. *Biological Forum*, 4(1): 13-16.
 16. Husain, A. and Sharma, Gaurav. 2012. Odonates of Arabian and Indian Deserts and their conservation status. *Biological Forum*, 4(1): 74-91.
 17. P. Girish Kumar, T. C. Narendran and S. I. Kazmi. 2012. On a collection of Eulophidae (Hymenoptera: Chalcidoidea) from Sunderbans Biosphere Reserve of West Bengal, India. *Records of Zoological Survey of India*, 111(Part-3): 9-19.



During the release of the book "Animal Discoveries 2011"
(Published by ZSI, Kolkata) on the World Environment Day at New Delhi



During the training on Genetic Analyzer at Invitrogen Bioservices India Pvt. Ltd., Gurgaon



Phasent tail Jacana, *Hydrophasianus chirurgus*



e-journals uploaded in the I.P. Address of Z.S.I. Headquarters



Bioluminescence of Planktonic ostracoda, *Cypridina dentate*

High Altitude Regional Centre, Solan

A faunistic survey in Kalatop-Khajjiar Wildlife Sanctuary, Himachal Pradesh was conducted from 12th-16th June and representative fauna pertaining to 13 taxa were sampled. Besides, 38 species of birds and 3 species of mammals were sighted and vocalisation of 6 species of birds digitized. Faunal identification of the Centre during the month included 5 species of earthworms from Kalatop-Khajjiar WLS, and 2

species of Orthoptera from Chail WLS, Himachal Pradesh. Further, 4 species of Pisces were identified from the NRC/ZSI, Dehradun collections. Identification service was rendered to a M.Phil student of Shoolini University, Solan. Two forest officials from Goa visited the Centre and information on the faunal wealth of Himachal Pradesh was provided to them.



Blue Whistling thrush



Collared owllet



Eurasian Jay

*Heliophorus sena*

Desert Regional Centre, Jodhpur

Identified and registered 5 species of nematodes (which include 2 new records from Rajasthan) and 10 species of fishes from Chambal River. Besides, 3 genera of ants were identified from Rajasthan. Distributional descriptions of 30 species of Aves from River Chambal area, Rajasthan and 40 species of Aves from Kachchh Biosphere Reserve, Gujarat were prepared. Dr. Sanjeev Kumar, Scientist-C delivered a lecture in Hindi under the awareness campaign programme organized by Aliens clubs International, Jodhpur Chapter at Geeta Bhawan, Jodhpur on 6th June. He also organized a quiz competition and distributed

15 prizes sponsored by the Centre, to the winners.



A view of Greater Rann of Kachchh,
Kachchh Biosphere reserve, Gujarat

Western Regional Centre, Pune

During the month 19 species of Lepidoptera, 3 species of Orthoptera, 12 species of Hymenoptera, 13 species of Odonata, 2 species of Collembola, 16 species of fishes, 3 species of Amphibia and 8 species of Reptilia were identified. Fish specimens received from Walchand College of Arts & Science, Solapur and A.C. S. College, Sangli for identification were identified. Skin samples received from Crime Branch, Pune and Police Department, Mumbai were identified. Dr. R. M. Sharma, Scientist-D & Officer-in-Charge attended the 6th State Wildlife Board Meeting at Mantralaya, Mumbai on 7th June. Dr. R. M. Sharma, Dr. S. S. Jadhav, Sr. Zool. Assistant and Dr. S. K. Pati, Zool. Assistant attended the 1st Stakeholders

Workshop of Maharashtra State Biodiversity Board at Bharathi Vidyapeeth, Pune on 9th June. Dr. R. Bano, Scientist-C underwent a training in operation of DNA analyzer and data analysis at Invitrogen Bioservices Pvt. Ltd. Udyog Vihar, Gurgaon, from 20th-22nd June, 2012.

Publications:

1. Sharma, R. M. and Bulganin Mitra. 2011. A preliminary study on insect pollinators of temperate fruit crops in Himachal Pradesh. *Rec. Zool. Surv. India*, 111(3):103-110.
2. Paunekar, Sanjay, Ashish Tiple, S.S. Jadhav and S.S. Talmale. 2012. Studies on Ichthyofaunal diversity of Gaur River, Jabalpur, Madhya Pradesh, Central India.

World Journal of Fish and Marine Sciences, 4 (4): 356-359.

3. Bastawade, D.B., Jadhav, S.S. and R.M. Sharma. 2012. Checklist of Indian Scorpionida (Arachnida) www.zsi.gov.in
4. Bano, R., Gupta, K. and R. M. Sharma. 2012.



Aplocheilichthys lineatus (Val.)

Pulse Beetles (Insecta: Coleoptera: Bruchidae). www.zsi.gov.in

5. Varshney, R. K. Jadhav, M. J. and R. M. Sharma. 2012. Scale Insects and Mealy Bugs (Insecta: Homoptera: Coccoidea) www.zsi.gov.in



Atractomorpha crenulata Fabricius

Andaman and Nicobar Regional Centre, Port Blair

Marine and terrestrial ecosystems in Great Nicobar Island and South Reef Island, Sound Island, Aves Island and Curlew Island in Middle Andaman were surveyed from 1st-7th and 22nd-27th June respectively. As a result of the surveys, 115 species of scleractinian corals, 9 species of soft corals, 21 species of echinoderms, 31 species of opisthobranchs, 1 species of polyclad, 1 species of nematode, 1 species of sipunculate, 35 species of gastropods, 10 species of crabs and 18 species of fishes from the marine habitats and 13 species of butterflies and 20 species of birds from the terrestrial habitats were identified. Besides, 68 specimens of corals, 17 specimens of sponges, 30 specimens of echinoderms, 41 specimens of opisthobranchs, 1 specimen of polyclad, 2 specimens of gastropods and 5 specimens of odonates have been registered in the National Zoological Collection of ZSI. Final manuscript of the annual programme entitled, 'Survey and faunal resources in the Dugong Sanctuary' has been submitted. Dr. C. Raghunathan, Scientist-C & Officer-in-Charge served as a member in the

'Interface Meeting on Island Livestock Development' and made a presentation on the role ZSI on Faunal Diversity Research in A&N Islands at CARI-ICAR, Port Blair on 12th June. He served as a member in the State Level Steering Committee for Great Nicobar Biosphere Reserve at the Secretariat, Port Blair, on 18th June and also served as a member in the Inter-Media Publicity Co-ordination Committee meeting organized by the Doordarsan Kendra, Port Blair, on 29th June.

Publications:

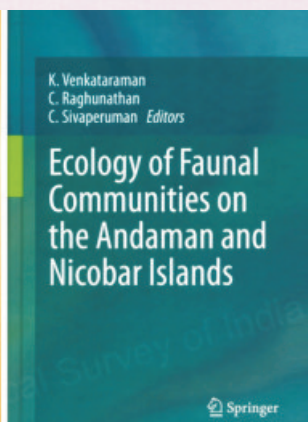
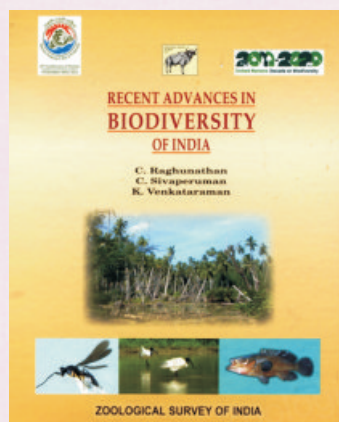
1. Raghunathan, C. Sivaperuman and K. Venkataraman, 2012. Diversity of coral and its associated fauna of Great Nicobar Island, Andaman and Nicobar Islands. In: *Recent Advances in Biodiversity of India* (Eds. C. Raghunathan, C. Sivaperuman and K. Venkataraman), Zoological Survey of India, Kolkata, 211-236p.
2. Raghunathan, C. and K. Venkataraman, 2012. Diversity and distribution of corals and their associated fauna of Rani Jhansi

- Marine National Park, Andaman and Nicobar Islands. In *Ecology of Faunal Communities on the Andaman and Nicobar Islands* (Eds., K. Venkataraman, C. Raghunathan and C. Sivaperuman), Springer-Verlag Berlin Heidelberg, 177-209p.
3. Raghunathan, C., C. Sivaperuman and K. Venkataraman, 2012. Status and distribution of *Trochus niloticus* (Linnaeus, 1767) in Andaman and Nicobar Islands. In: *Ecology of Faunal Communities on the Andaman and Nicobar Islands* (Eds. K. Venkataraman, C. Raghunathan and C. Sivaperuman), Springer-Verlag Berlin Heidelberg, 85-102p.
 4. Sivaperuman, C., 2012. Butterflies and birds of Chidiyatapu Biological Park, South Andaman. pp. 219-230. In: *Ecology of faunal communities on the Andaman and Nicobar Islands*. (Eds.) K. Venkataraman, C. Raghunathan and C. Sivaperuman. Springer-Verlag Berlin Heidelberg.
 5. Sivaperuman, C. and K. Venkataraman, 2012. Diversity of Butterflies in Ritchie's Archipelago, Andaman and Nicobar Islands. pp. 159-176. In: *Ecology of faunal communities on the Andaman and Nicobar Islands*. (Eds.) K. Venkataraman, C. Raghunathan and C. Sivaperuman. Springer-Verlag Berlin Heidelberg.
 6. Sivaperuman, C. and K. Venkataraman, 2012. Abundance and species distribution of bird communities in Ritchie's Archipelago, Andaman and Nicobar islands. pp. 273-288. In: *Ecology of faunal communities on the Andaman and Nicobar Islands*. (Eds.) K. Venkataraman, C. Raghunathan and C. Sivaperuman. Springer-Verlag Berlin Heidelberg.
 7. Sivaperuman, C. Suresh K. Shah and K. Venkataraman, 2012. Diversity and distribution of Odonates of Ritchie's Archipelago, Andaman and Nicobar Islands. pp. 209-218. In: *Ecology of faunal communities on the Andaman and Nicobar Islands*. (Eds.) K. Venkataraman, C. Raghunathan and C. Sivaperuman. Springer-Verlag Berlin Heidelberg.
 8. Sivaperuman, C., and E.A. Jayson 2012. Avifauna of Kole wetlands: Species diversity and abundance distribution patterns. pp. 145-158. In: *Biodiversity of Aquatic Resources* (Eds.) M. Rawat and S. Sookia. Daya Publishing House, New Delhi.
 9. Sivaperuman, C. and C. Raghunathan, 2012. Structure and Species Composition of Bird Community in Great Nicobar Biosphere Reserve, Andaman and Nicobar Islands. pp. 361-374. In: *Recent advances in Biodiversity of India*. (Eds.) C. Raghunathan, C. Sivaperuman and K. Venkataraman. Zoological Survey of India, Kolkata.
 10. Sivaperuman, C., 2012. Diversity of Wetlands Birds in the Thar Desert, India. pp. 409-417. In: *Recent advances in Biodiversity of India*. (Eds.) C. Raghunathan, C. Sivaperuman and K. Venkataraman. Zoological Survey of India, Kolkata.
 11. Sivaperuman, C. and E.A. Jayson, 2012. Population Fluctuations of Shorebirds in the Vembanad-Kole Ramsar Site, Southern India. 419-428. In: *Recent advances in Biodiversity of India*. (Eds.) C. Raghunathan, C. Sivaperuman and K. Venkataraman. Zoological Survey of India, Kolkata.
 12. Ramaswamy, G., K. Muthamizh Selvan and C. Sivaperuman 2012. Diversity and Species Abundance of Bird Communities in Different Habitats in the Southern Western Ghats. pp. 381-389. In: *Recent advances in Biodiversity of India*. (Eds.) C. Raghunathan, C. Sivaperuman and K. Venkataraman. Zoological Survey of India, Kolkata.
 13. Koushik Sadhukhan and C. Raghunathan. 2012. Community Structure of Scleractinian Corals in Nancowry Group of Nicobar Islands. *International Journal of Science and Nature*. Vol 3 (2): 388-394.

14. Yogesh Kumar, J.S., Raghunathan, C. and Venkataraman, K., 2012. Studies on new findings of Gorgoniidae from Ritchie's Archipelago Andaman and Nicobar Islands. *International Journal of Science and Nature*, 3(2):395-405.
15. Rajan, P.T., C.R. Sreeraj, and K. Venkataraman, 2012 Diversity and abundance of Chondrichthyan Fishes in Andaman and Nicobar Islands. In: Venkataraman, K.; Raghunathan, C.; Sivaperuman, C. (Eds.) *Ecology of Faunal Communities on the Andaman and Nicobar Islands*, 310 pp. Springer, pp 117-126.
16. Rajan, P.T. and C.R. Sreeraj, 2012. Structure of reef fish communities of seven islands of Andaman and Nicobar Islands, India. In: Venkataraman, K.; Raghunathan, C.; Sivaperuman, C. (Eds.) *Ecology of Faunal Communities on the Andaman and Nicobar Islands*, 310 pp. Springer, pp 127-147.
17. P.T. Rajan, T.S. Christopher Roy and C.R. Sreeraj, 2012. The contribution of coral reef fishes to Andaman fisheries production: Grouper fishery and its monitoring and implications for management. In: Raghunathan, C., Sivaperuman, C. and Venkataraman, K (Eds) *Recent Advances in Biodiversity of India*, 541 pp. ZSI, Kolkata. pp 285-295.

Books

1. Venkataraman, K., C. Raghunathan and C. Sivaperuman (Eds.) 2012. *Ecology of Faunal Communities on the Andaman and Nicobar Islands*, Springer-Verlag Berlin Heidelberg, 340p.
2. Raghunathan, C., C. Sivaperuman and K. Venkataraman (Eds.), 2012. *Recent Advances in Biodiversity of India*. Zoological Survey of India, Kolkata, 529p.



Books Published



Gorgonid, *Dicotella gemmacea* (Milne Edwards & Haime)



Gorgonid, *Melithaea caledonica* Grasshoff



Gorgonid, *Mopsella rubeola* (Wright & Studer)



Gorgonid, *Verrucella corona* (Grasshoff)

Gangetic Plains Regional Centre, Patna

A field survey tour to different localities of Bihar State was conducted from 20th-30th June and 25 species of the family Noctuidae (Lepidoptera: Insecta) were documented. Out of the samples of Zooplankton collected from River Damodar in Jharkhand and West Bengal, 5 species of Rotifera and 2 species of Cladocera were identified.

Identification and advisory services were rendered to a research scholar of the Department of Zoology & Environmental sciences, Punjabi University, Patiala, Punjab, on

30 species of the family Arctiidae (Lepidoptera).

During the Rajbhasha Karyanvayan Samithi meeting held on 29th June 2012, an official language Workshop on the topic 'Scientific departments & Hindi writing' was organized.

Several school students from local schools in Patna and 5 research students from Patna University visited the Museum and library at the Centre.

The World Environment Day was celebrated on 5th June, 2012.



Lymnaea accuminata



Melanoides tuberculatus

Arunachal Pradesh Regional Centre, Itanagar

A field survey in Lower Subansiri district, Arunachal Pradesh was undertaken from 18th-25th June and representative faunal samples collected for taxonomic studies. Dr. Bikramjit Sinha, Scientist-C & Officer-in-Charge attended the technical meeting of the research board at

the office of the PCCF, Arunachal Pradesh, on 28th June.

Publication:

Sinha B. 2012. Bioefficacy of *Eupatorium adenophorum* (Asteraceae) leaf extract against *Lipaphis erysimi* (Aphididae). *Pestology*, 36(5):36-41.

North Eastern Regional Centre, Shillong

A field survey was conducted in Nongkhylllem Wildlife Sanctuary and adjoining areas in Meghalaya from 18th- 22nd June to study the faunal diversity of the area. Nine species of fishes and 2 species of amphibians collected during the survey were identified. The remaining collections are being studied. Seven species of aquatic Hemiptera, 1 species of Mammalia (Rodentia: Muridae) and 4 species of Crustacea were identified from the backlog collections of the Centre. Images and metadata of *Puntius shalynius* (1 Holotype & 4 Paratypes) belonging to Pisces: Cyprinidae were digitized.

Preparation of the manuscripts on the '*Reptilian and Amphibian fauna of Loktak Lake and Keibul*

Lamjao National Park, Manipur', '*Taxonomic study of Cerambycidae in East Khasi Hills, Meghalaya*' and '*Taxonomic studies on the backlog collections of Ephemeroptera at NERC*' were attended to. One research paper was submitted for publication.

Shri B. Yadav, Research Officer (Implementation), Regional Implementation Office, Ministry of Home affairs, Department of Official Language, Guwahati, visited and inspected the progress on implementation of Hindi language in official work at the Centre on 30th of June.

The Centre observed the World Environment Day on 5th June, 2012.

Estuarine Biology Regional Centre, Gopalpur-on-Sea

A field survey was conducted on 27th June at Bahuda Estuary, Odisha, to collect brackish water ornamental fishes and other fauna. Five species of bivalve molluscs were identified from

the collection of Pennara estuary, Andhra Pradesh. About 25 visitors including a few graduate students paid their visits to the museum.



A view of Bahuda Estuary, Odisha



Trachinocephalus myops



Heteromycteris oculus

*Narke dipterygia**Stomopneustes variolaris*

Freshwater Biology Regional Centre, Hyderabad

A Faunistic survey was conducted in Cumbum Lake, Andhra Pradesh from 15th-20th June and representative faunal elements collected for taxonomic studies besides recording the physico-chemical parameters. Five species of fishes, 6 species of molluscs, 1 species of aquatic insect and 2 species rotifers were identified from the earlier collections made from the lakes of Hyderabad. Guidance and laboratory

facilities were provided to a B.Tech student of J. B. Institute of Engineering and Technology, Hyderabad, for undertaking a mini project associated with Lake Fauna. Dr. Deepa Jaiswal, Scientist-C underwent a training in operation of DNA analyzer and data analysis at Invitrogen Bioservices Pvt. Ltd. Udyog Vihar, Gurgaon, from 20th-22nd June, 2012.

*Ompok malabaricus* from Krishnaraja Sagar reservoir*Catla catla* from Krishnaraja Sagar reservoir

Northern Regional Centre, Dehra Dun

Field surveys were undertaken in Uttarkashi and Tehri Garhwal areas, Govind Wildlife Sanctuary & National Park and Dehradun district. The lycaenid butterflies collected from Dehradun district were subjected to molecular studies. Out of the material collected, 14 species of butterflies were identified from Punjab and 10 species of Acridoidea from Dehradun. Sixteen permanent wax slides were prepared

for studies on helminth parasites. Statistical analysis for trichotaxonomy of 4 species of Lagomorpha, namely, *Ocotona m. macrotis*, *Ocotona ladacensi*, *Lepus nigricolis* and *Lepus arabeus* were completed. Five species of Pisces were digitized and 57 entries pertaining to Pisces were incorporated in the Vertebrate database. Besides, 20 entries of Nematodes were incorporated in the Invertebrate database.

A JRF from Rohilkhand University (Bareilly, U.P.) and a SRF from TFRI (Jabalpur, M.P.) visited the Centre for identification of Fish and nematodes, respectively. Advisory services were provided to M.Sc students of Doon Paramedical College, Dehradun on the operation of SEM.

Dr. Archana Bahuguna, Scientist-C underwent a training in operation of DNA analyzer and data analysis at Invitrogen Bioservices Pvt. Ltd. Udyog Vihar, Gurgaon, from 20th-22nd June,

2012.

15 visitors paid their visits to the Museum at the Centre.

The World Environment Day was celebrated on 5th June.

Publication:

Sati, J. P. and Tak, P.C., 2012. On population of Non-Human Primates of Kalesar National Park and WLS., Yamuna Nagar, Haryana, India. *Cheetal*, 50 (1): 47-54.

Marine Aquarium cum Regional Centre, Digha

A survey on ornamental fauna was carried out along Odisha coast and ornamental fishes, molluscs and crustaceans were collected. Sixty two examples of live marine ornamental fauna were exhibited in the aquarium galleries. The major attractions among them were the bat fish (*Platax teira*), puffers (*Takifugu oblongus*) and sea anemones. Fifteen species of fishes and 32 species of molluscs were identified including *Engyprosopon mogkii* (Bleeker, 1854) which turned out to be the first record of the species

from Indian waters. Besides, the fishes *Epinephelus magniscuttis* Postel, Fourmanoir & Guézé, 1963 *Kyphosus vaigensis* (Quoy & Gaimard, 1825), *Gymnocranius elongatus* Senta, 1973, *Acanthurus xanthopterus* Valenciennes, 1835, identified during the month also turned out to be the first records of the species from coastal waters of West Bengal. The aquarium received an average of 362 tourists per day. Prof. Kumar B. Das, Vice-Chancellor of Fakir Mohan University, Odisha visited the Centre.



Acanthurus xanthoptera



Engyprosopon mogkii



Epinephelus magniscuttis

*Gymnocranius elongates**Kyphosus vaigiensis*

Central Zone Regional Centre, Jabalpur

The backlog collections of 9 species of Hemiptera, 6 species of Coleoptera (Scarabaeidae) and 7 species of moths from Veerangana Durgawati Wildlife Sanctuary, Madhya Pradesh and 8 species butterflies (Lepidoptera), 1 species of Mammalia: Rodentia (Muridae), 1 species of Chiroptera (Vespertilionidae) and 10 species of freshwater Mollusca from Singhori Wildlife Sanctuary, Madhya Pradesh, were identified and registered. Dr. S. Sambath, Scientist-C and Officer-in-Charge attended the 8th State Wildlife Board Meeting of Madhya Pradesh at Bhopal on

11th June. He also delivered an invited lecture on Insect Taxonomy to the participants of the Summer School Trainees on *Integrated Pest & Disease Management* organized by the Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur on 22nd June.

Publication:

Paunikar, Sanjay, Tiple, Ashish, Jadhav, S. and Talmale, S. S. 2012. Studies on Ichthyofaunal Diversity of Gour River, Jabalpur, Madhya Pradesh, Central India. *World Journal of Fish and Marine Sciences*, 4(4): 356-359.



During the visit of the participants of the Summer School from Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur, at CZRC/ZSI, Jabalpur



Sunderban Regional Centre, Canning

During the month 5 species of Orthoptera and 1 species of Crustacea were identified and registered. A meeting on the progressive use of Official language was conducted. The staff took

part in oral competition in leading topics. Twelve visitors paid their visits to the museum at the Centre.



A sectional view of the museum at the SRC/ZSI, Canning

Southern Regional Centre, Chennai

An Internship training program on animal taxonomy was organized at the Centre from 11th-15th June for Post Graduate students. Thirty five students from 6 major colleges including the Madras University participated. The program was inaugurated by Dr. K. Venkataraman, Director, ZSI and a series of lectures were delivered by the scientists of Southern Regional Centre and Marine Biology Regional Centre apart from invited specialists. A field visit to Edaikazhinadu Ecosystem in Choramandal Coast was also arranged and the participants were given certificates. Dr. K. Ilango, Scientist-D and Officer-in-Charge attended the Chennai Snake Park's Board meeting on 30th June as a trustee. Thirteen species of Mollusca from the existing collection of Porur Lake were identified. Identification and advisory services were rendered on Mollusca to Govt. Arts College, Kumbakonam;

Loyola College, Chennai; Vasavi College of Erode and to MBRC, Chennai. A survey party proceeded on a field survey to Andhra Pradesh. Dr V. M. Sathish Kumar underwent a training in operation of DNA analyzer and data analysis at Invitrogen Bioservices Pvt. Ltd. Udyog Vihar, Gurgaon, from 20th-22nd June, 2012.

Publications:

1. Ganesh, S. R. and Aengals, R. 2011. A Reappraisal of *Salea horsfieldii* Gray, 1845 (Reptilia: Agamidae) in the Palni Hills of the Western Ghats, Southern India. *Sauria* 33 (3): 53-56.
2. Sathish Kumar V.M. 2012. The conservation of Indian reptiles: an approach with molecular aspects, Newsletter of the South Asian Reptile Network (SARN) June. Pp. 2-8 <http://www.zoosprint.org/Newsletters/ReptileRap.htm>



During the Internship training program on animal taxonomy organized by SRC & MBRC/ZSI, Chennai

Marine Biology Regional Centre, Chennai

During the month, 25 species of Mollusca, 9 species of crustaceans, 5 species of sea grass associated foraminiferans, 4 species of nematodes, 3 species each of echinoderms and fishes and 1 species each of polychaete and rhizopod were identified out of the material collected from Palkbay and Gulf of Mannar Biosphere Reserve. Fifty one species were digitized and metadata compiled. Three research papers were published. Scientists of the Centre delivered talks on the "Taxonomy and diversity of Protozoa, Meiofauna, marine sponges, corals and shorebirds in an "Internship training programme for the PG students" organized by ZSI, Chennai. Dr. C. Venkataraman Scientist-C & Officer-in-Charge attended a meeting to finalize the periodic review- 2011 report of Gulf of Mannar Biosphere Reserve at Gulf of Mannar Biosphere Reserve Trust, Ramanathapuram. Identification services were rendered on 12 species of freshwater rhizopods to M.Sc., Students from Kerala University and on 9 species of Gastropods to Students of Madras University. Dr. C. Venkataraman and Dr. Rajkumar Rajan, scientist-C, supervised the research projects of JRF's of the Centre. The marine aquarium and museum was visited by 1012 tourists during the month.

Publications:

1. Rajkumar Rajan and Venkataraman Krishnamoorthy. 2012. Conservation measures and stakeholder conflicts: sustainability of resources in Gulf of Mannar biosphere reserve, Southeast India. . In: *Oceans, Coasts, Islands: Achieving the Aichi Biodiversity Targets*. Convention on Biological Diversity, Subsidiary Body on Scientific, Technical and Technological Advice. 16th Meeting, Montreal, 30 April to 5 May 2012, UNEP/CBD/SBSTTA/16/INF/39, 25 April 2012, pp 72-74.

<http://www.cbd.int/doc/meetings/sbstta/sbstta-16/information/sbstta-16-inf-39-en.pdf>

2. Venkataraman, C., and P. Padmanaban. 2012. Occurrence of Green *Noctiluca scintillans* blooms in coastal waters of Gulf of Mannar Biosphere Reserve, India. pp. 185-189. In: C. Raghunathan, C. Sivaperuman and K. Venkataraman (eds.). *Recent advances in biodiversity of India*. Zoological Survey of India, Kolkata.
3. Venkataraman, C., R. Nagarajan and K. Thiyagesan. 2012. Resource partitioning in nesting among waterbirds at Vedanthangal Bird Sancturay. Pp. 403-408. In: C. Raghunathan, C. Sivaperuman and K. Venkataraman (eds.). *Recent advances in biodiversity of India*. Zoological Survey of India, Kolkata.



Abudedefduf saxatilis (Linnaeus, 1758)



Anthenea pentagonula (Lamarck, 1816)

*Colochirus quadrangularis* Troschel, 1846*Discodoris boholiensis* Berg, 1877

Western Ghat Regional Centre, Kozhikode (Calicut)

A field survey was conducted at Peruvannamuzhi, Kozhikode district on 6th June. During the month, 15 species of Chalcididae (Hymenoptera), 5 species of Pteromalidae (Hymenoptera), 5 species of Ceraphronidea (Hymenoptera) including 4 new species, 5 species of Centipedes (Chilopoda) and 1 species of Reptilia were identified.

A research paper describing a few new taxa of Thoronini (Platygastridae: Hymenoptera), the egg parasitoids of aquatic Heteroptera, was published, the newly described taxa being, the genus *Narendraniola* Rajmohana, with type species. *N. flagellata*, 3 species of *Tiphodytes* Bradley and one under *Tanaodytes* Masner. Besides, a research paper on the first record of *Microgomphus souteri* Fraser (Odonata: Insecta) from Kerala was also published.

A research paper on a new genus and species of Scelioninae (Hymenoptera: Platygastridae) from India was accepted for publication. A paper based on the revision of Oriental *Dipara* Walker (Hymenoptera: Pteromalidae) dealing with 15 species including the descriptions of 6 new species from India was submitted for publication. Besides, another paper on the first record of the genus *Alloxysta* Forster (Hymenoptera: Cynipoidea: Figitidae: Charipinae) from India, with descriptions of

four new species was submitted for publication. The description of a new species of *Cleonymus* Latreille (Hymenoptera: Pteromalidae) collected from southern Western Ghats of Idukki district, Kerala was completed. A paper on phoretic Scelioninae (Platygastridae), along with description of a new species has been finalised for submission.

Five identification and advisory services were rendered. Identification and advisory service was also provided to the Forest Dept. officials, Kozhikode on confiscated specimens of the Indian Bull Frog (*Hoplobatrachus tigerinus*).

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

The 'Transit of Venus 2012 - event watch' was organized in collaboration with WGRC/ZSI by the Regional Science Centre & Planetarium, Calicut, on 6th June 2012. A live telecast of the event was also arranged on the day. The programme was attended by a large number of students and general public.

During the month, 79 visitors paid their visits to the museum.

Publications:

1. Rajmohana. K. 2012. Descriptions of new taxa in Thoronini (Scelioninae: Platygasteridae: Hymenoptera: Insecta) from India, Pp. 267-276 in C. Raghunathan, C. Sivaperuman and K. Venkataraman (eds.). *Recent advances in biodiversity of India*. Zoological Survey of India, Kolkata.
2. K. G. Emiliyamma, Muhamed Jafer Palot and C. Radhakrishnan, 2012. *Microgomphus souteri* Fraser, a new addition to the Odonata (Insecta) fauna of Kerala, Southern India. *Journal of Threatened Taxa*, 4 (6): 2667-2669.
3. Muhamed Jafer Palot. 2012. Chalazodes Bubble-nest Frog, *Raorchestes chalazodes* (Gunther, 1876). *ZSI e-News*, vol. 4 (4): 18.
4. Muhamed Jafer Palot. 2012. White bellied sea Eagle, *Haliaeetus leucogaster* (Gmelin, 1788). *ZSI e-News*, vol. 4 (5): 18.



Ceraphron manilae (Ashmead)
Ceraphronidae: Hymenoptera



Kumarella angulus Sureshan
(Pteromalidae: Hymenoptera)



Metastenus indicus Sureshan & Narendran
(Pteromalidae: Hymenoptera)



Solenura ania (Walker)
(Pteromalidae: Hymenoptera)



Tenodera aridifolia (Stal) (Mantidae: Mantodea)



During the 'Transit of Venus 2012 - event watch' organized in collaboration with WGRC/ZSI by the Regional Science Centre & Planetarium, Calicut, on 6th June 2012

ANIMAL OF THE MONTH

Large Crested Tern

Sterna bergii velox Cretzschmar, 1827



[Text & Photo: Muhamed Jafer Palot, WGRC/ZSI, Calicut]

The Large Crested Tern, *Sterna bergii* is one of the largest Tern species in our coast. The species is identified by its large yellowish bill with shaggy black cap separated from base of the bill by narrow white forehead. It differs from the similar looking Lesser Crested Tern, *Sterna bengalensis*, by its broader and drooping bill and large size. The species is exclusively marine and also frequents estuaries, beaches, tidal rivers and backwaters. These terns are gregarious in habit and often hunt with the flocks of Lesser Crested Tern. They feed mainly on fishes and

prawns by hovering and plunging. The species is resident to the seaboard of India, Pakistan, Bangladesh, Sri Lanka, Nepal and Maldives. It breeds in India on Vengurla rocks off Ratnagiri coast, Lakshadweep and in Sunderbans. It also breeds on the islands of the Red Sea and off the NE African coasts to Australia. The Indian subcontinent race *velox* is markedly darker than the geographically adjacent races (*thalassinus* and *cristatus*), and its status needs re-evaluation.

CHECKLIST OF INDIAN FAUNA

Pulse beetles (Insecta: Coleoptera: Bruchidae)

<http://www.zsi.gov.in/checklist/Checklist%20of%20Pulse%20Beetles.pdf>

Scale insects and mealy bugs (Insecta: Homoptera: Coccoidea)

http://www.zsi.gov.in/checklist/scale_insects_and_mealy%20bugs.pdf

OUT OF THE BOX

Oldest ever evidence of pollination discovered

http://www.ub.edu/web/ub/en/menu_eines/noticies/2012/05/053.html

Giant 'flea-like' insects may have plagued dinosaurs

<http://aninews.in/newsdetail9/story48860/giant-039-flea-like-039-insects-may-have-plagued-dinosaurs.html>

Antarctic Octopus Study Shows West Antarctic Ice Sheet May Have Collapsed 200,000 Years Ago

<http://www.sciencedaily.com/releases/2012/05/120509111453.htm>

PAINTINGS FROM ZSI HERITAGE ALBUM



Cheetah
Acinonyx jubatus (Schreber)