

**Invertebrate Conservation Activities in South Asia – ICINSA & SAsISG,
Zoo Outreach Organisation, Coimbatore, India, April 2011 – March 2012**



B.A. Daniel

Coordinator, Invertebrate Conservation and Information Network of South Asia
Chair, IUCN SSC South Asian Invertebrate Specialist Group SAsISG hosted by ZOO



Report of IUCN SSC South Asian Invertebrate SG SAsISG

Meeting of the IUCN SSC Invertebrate Conservation Sub-Committee ICSC, Abu Dhabi

The Invertebrate Conservation Sub-Committee ICSC meeting Chaired by Prof. Michael Samways was organized from 20-21 February before the Specialist Group Chairs' meeting at Abu Dhabi. All SG chairs gave a general report on the progress of the ICSC and its SGs for the period 2011. BA Daniel, Chair of the SAsISG presented a report during the Sub-committee meeting.

Activities of South Asian Invertebrate SG

- Contributed for the assessment of Eastern Himalayas freshwater invertebrates: molluscs and Odonates.
- Contributed for the assessment of Western Ghats freshwater invertebrates: molluscs and Odonates.
- Represented Invertebrate Conservation Sub-Committee and SAsISG at the Global Entomology Congress, Thailand in February 2011.
- Membership for SAsISG from Bangladesh, Bhutan, Nepal, Pakistan, India and Sri Lanka.
- Liaised with other SGs in promoting the work of SAsISG.
- Designed education plans for invertebrate pollinator conservation.

Success stories

- 803 invertebrates (Odonates: 541; Molluscs 262) assessed.
- Generated funds for education and awareness of the threatened freshwater biodiversity of Western Ghats.
- Identified partners for future hands-on training programmes.
- Freshwater biodiversity network for south Asia.

Future activities

- Assess all butterflies of South Asia.
- Follow up conservation education activities of freshwater biodiversity of India for Odonates and Molluscs.
- Organise hands on training on pollinators and pollinator education.
- Strengthen sub network: Freshwater Invertebrates.
- Conference on freshwater invertebrates of South Asia.

**2nd IUCN SSC Chairs' Meeting, 23-27 February 2012,
Abu Dhabi, United Arab Emirates**

BA Daniel attended this meeting. The purpose of the meeting was to acquaint SSC leaders to with one another for better development of collaborations, partnerships with IUCN commissions' programmes and their staff; learning about new products and tools that would help complete plans for SSC's work in 2013-2016, which include developing major new global and regional initiatives; planning the 2015 World Species Congress as well as developing policies guidelines and standards; thank SSC Chairs for their hard work and to convey gratitude and recognition as SSC Chairs dedicate their time and expertise to SSC and to advancing species conservation efforts globally. This meeting helped to develop more contacts with other specialist groups and to develop more interaction.

Follow up of the SSC meetings:

Developing a web page for the SG.

The Butterfly specialist group agreed to give a pollinator training in association with the Xerces Society for Indian researchers.

Plans to have the next ICSC meeting in India in 2014.

Committed to assess butterflies and millipedes of South Asia. Received partial fund from MBZ Conservation Fund for butterfly assessments.

Identified funding source for invertebrate projects.

CEPF project

Daniel received funding support from CEPF for a project entitled: 'Involving Community, Stakeholders and Journalists for the Conservation of Freshwater Biodiversity and Reptiles of Western Ghats Through Education, Training and Follow up of the Assessment Projects'.

Project duration: 1.1.2012-30.6.2013

Project strategy and action:

1. Disseminate species information and the results of the CEPF projects on Freshwater and reptile species of the Western Ghats to a wider target audience viz., educators, local community, Forest department personnel, NGOs, policy makers, conservationists, journalists, fishers, state and central governments and other key stakeholders and decision makers; the outreach efforts will be mainly targeted towards community and decision makers.
2. Develop education materials involving species experts and utilizing the expertise of ZEN network members; Summary of project reports will be developed to reach out Policy and decision makers.
3. Printing a variety of education materials in English and select local languages targeting to reach out local community. The education materials will include education booklet, variety of masks, stickers, friendship bands, placards, headbands, education guidelines, colourful posters, banners etc.
4. Translate key educational products into local languages for multiple copies and distribution of education products to organise local education programmes by the focal points and the assistants targeting community level people.
5. Develop a guideline for education programmes in Western Ghats
6. Identify the stakeholders involved in education in Western Ghats
7. Identify around 10 educators (5 focal points and 5 assistants) from stakeholders and provide educators skills training and create a network of educators. Design and provide a target for education programmes for the trainees; trainees in turn organise local programmes targeting community level people.
8. Monitor Western Ghats educator network programmes – receive reports and documents. Reach out a wide range of communities through the educator network.
9. Create a network of environmental journalists and use media to reach out to the public. The trainees will be linked to the journalists so as to facilitate easy access for the trainees to report about their awareness programmes to the media.
10. Put efforts and guidance for the continued education activities in Western Ghats even after the project period.
11. Pursue implementation of conservation policies with the central and state governments.
12. Publish the packets and programmes in open access Zoo's Print magazine and upload onto the Western Ghats Portal. The trainees will be encouraged to send brief reports of their education programmes with some photos to publish in the ZOO's Print magazine. This mechanism is required to assess their programmes and also to document conservation awareness activities happening at different Western Ghats States.

Fresh water Biodiversity Western Ghats Report: Book Release

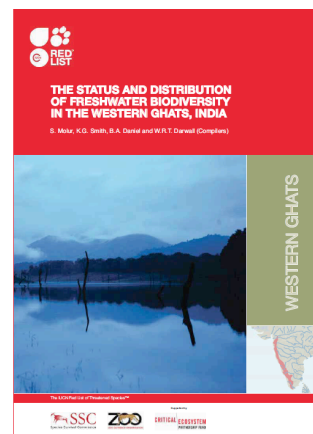
Molur, S., Smith, K.G., **Daniel, B.A.** and Darwall, W.R.T. (Compilers). 2011. *The Status and Distribution of Freshwater Biodiversity in the Western Ghats, India*. Cambridge, UK and Gland, Switzerland: IUCN, and Coimbatore, India: Zoo Outreach Organisation.

The report of the freshwater biodiversity assessment was released on the 23rd September along with press report.

Key Outcome of the report:

The Western Ghats hotspot, originally designated for its high diversity and endemism of plant species, is confirmed as a globally significant centre of diversity and endemism for freshwater species.

- The southern Western Ghats region with catchments including the Pamba, Meenachil, Muvattupuzha, Periyar, Karuvannur, Bharatapuzha, Chaliyar, Kuttyadi, and



Valappattanam (Kerala), Netravati, upper Kabini and Cauvery (Karnataka), upper Vaipar, Amaravati, Bhavani and Moyar (Tamil Nadu) has the highest richness (260–312 species) and endemism (103–129 species) of freshwater species.

- Although many protected areas are located within or near areas of the richest freshwater diversity, the southern Western Ghats region also experiences the highest level of threat to freshwater species.
- The highest numbers of threatened species (40 and 48 species within each sub-catchment) occur within the southern Western Ghats Hotspot in Kerala, Tamil Nadu and southern Karnataka.
- Overall species richness and numbers of threatened species decrease along a northerly gradient through the Western Ghats Hotspot and eastwards towards Andhra Pradesh.
- Close to 16% of the 1,146 freshwater taxa assessed are threatened with extinction, with a further 1.9% assessed as Near Threatened. No taxa were assessed as Extinct or Extinct in the Wild. Approximately one-tenth of species were assessed as Data Deficient (10.5%), with the two invertebrate groups contributing more to data deficiency (25.8% on average).
- The main threats impacting freshwater biodiversity in the Western Ghats include: a) pollution, with approximately 50% of fish, 20% of molluscs, and 21% of odonates threatened, and with urban and domestic pollution ranking as the worst threats followed by agricultural and industrial sources of pollution; b) biological resource use with 38% of fishes, 17% of molluscs, and 7% of odonates threatened by commercial fisheries and the aquarium trade; c) residential and commercial development with 14% of fishes, 11% odonates and aquatic plants, and 8% of molluscs threatened; d) dams and other natural system modifications, with 13% of fishes, 8% of molluscs, 4% of odonates and 3% of plants impacted; e) alien invasive species which, as understood currently, impact 22% of fishes; f) agriculture and aquaculture which impact 7% of odonates and 4% of plants; and g) energy production and mining which impact 6% of fishes, 5% of molluscs and 4% of plants overall.
- The northern Western Ghats region within Maharashtra has a lower documented freshwater diversity than the southern region. Although this trend supports the expected relationship between species richness and rainfall, the lower diversity is probably due to inadequate surveys in the freshwater ecosystems of the west flowing rivers of the northern Western Ghats.
- Catchments that qualify as potential Key Biodiversity Areas (KBAs) lie primarily in the southern Western Ghats. KBAs triggered by the highest numbers of fish, odonate and mollusc species include the Pamba, Manimala, Periyar, Bharatapuzha and Chaliyar rivers in the southern Western Ghats.
- Aquatic plants and fishes are the most heavily utilized freshwater groups in the Western Ghats. Twenty-eight percent of aquatic plants are harvested for medicinal purposes, and 14% and 13%, as food for people and animals, respectively. More than half (56%) of fish species are harvested for human consumption, and a growing percentage (37%) of species are captured for the aquarium trade. Eighteen percent of mollusc species are used as food for humans.

MOSI – Project: An international zoo and wildlife park initiative to monitor the effects of climate change on mosquito species range spread, activity periods and behaviour.

Project preparation: Sites were identified to fix traps for the mosquito surveillance project. Installation of traps will be done soon after the arrival of the traps.

ZOO's Climate Change Network – Species Future

Zoo Outreach Organisation (ZOO) representing the CBSG/WAZA Climate Change Task Force started a Climate Change Network (CCN) for South Asia, inviting members of our taxon and thematic networks to participate. ZOO and network members have been contributing, commenting upon and exchanging articles, announcements, correspondence, comments, educational tools etc., on a regular basis since 2009. As part of the network activities Education materials were developed and supplied to the CC network members and also to ZOO's Educator Network ZEN. The report of the education programmes conducted by the members can be seen at http://issuu.com/zoo-wild/docs/climate_change_education_reports?mode=window&pageNumber=1

'Bugs R All' – Newsletter March 2011; December 2011.

The Bi annual Newsletter of the ICINSA, 'Bugs R All' was published. No 17 in March 2011 and No 18 in December 2011. Link: <http://www.zoosprint.org/>

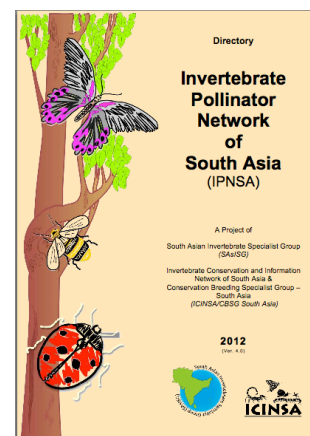
Directory Invertebrate Pollinator Network of South Asia (IPNSA) 2012 (Ver. 3.0)

A Project of South Asian Invertebrate Specialist Group (*SAsISG*), Invertebrate Conservation and Information Network of South Asia, Conservation Breeding Specialist Group – South Asia (*ICINSA/CBSG South Asia*) and Zoological Society of London

Revised version of the IPNSA directory was published.

Objectives of the directory

- To form a network of resource managers, stakeholders, and personnel who can provide information on pollination and pollinators.
- To collate and analyze published and unpublished information as well as traditional wisdom/unconventional sources of such information, in order to evaluate the magnitude and consequences of disruption of pollinator services.
- To use this analysis of secondary data on pollinators and pollination services and the pollinator network to engage in discourse with policy makers and civil society in order to effect a positive impact on pollinator conservation.
- To develop methods and impart training for rapid assessment of pollinators and impacts of their declining status.
- To create awareness at all levels.



Report by B.A. Daniel. Email: badaniel@zooreach.org