SACON NEWS
सॅकोन समाचार
Vol.8(2): November, 2011

In this issue


Pic: Manchi Shirish S.

Species Profile

Andaman Dark Serpent-Eagle (*Spilornis elgini*) is endemic to the Andaman Islands. This species has a moderately small range in which it is thought to be quite common. However the forests of the interior of the Andaman Islands are coming under increasing pressure from agriculture and development schemes. The species is likely to decline concurrently, it therefore is listed as near threatened with declining population according to the IUCN red data (2011). The species is listed in Apendix II of CITIES and in Schedule-I of Wildlfe (Protection) Act, 1972.

Declaration of 'Aghanashini Lion-tailed macaque Conservation Reserve'- A success story of SACON initiative

The forests of the Western Ghats are home to seven species of primates viz. Slender Loris *Loris lydekkerianus*, Bonnet Macaque *Macaca radiata*, Lion-tailed Macaque *M. silenus*, Southern Plains Gray Langur *Semnopithecus dussumieri*, Black-footed Gray Langur *S. hypoleucos*, Tufted- gray Langur *S. priam* and Nilgiri Langur *Trachypithecus johnii*. Slender Loris and Bonnet Macaque include two subspecies each viz. Mysore Slender Loris *L. l. lydekkerianus*, Malabar Slender Loris *L. l. malabaricus*, Dark-bellied Bonnet Macaque *M. r. radiata* and Pale-bellied Bonnet Macaque *M. r. diluta*. According to the IUCN Red list, the lion-tailed macaque is 'endangered', Black-footed Gray Langur and Nilgiri Langur are 'vulnerable', Malabar Slender Loris, Mysore Slender Loris and Tufted-gray Langur are 'near-threatened' and others are 'least concern' categories.

Lion-tailed Macaque (LTM), due to its limited occupancy and few surviving numbers have always been in the news catching the attention of conservationists and forest managers. LTM is endemic to a narrow strip of evergreen forests of the Western Ghats in the states of Kerala, Tamil Nadu and Karnataka. Geographically it is restricted to south of Aghanashini River in the central Western Ghats in the state of Karnataka to Agastyamalai hills in the southern Western Ghats in Kanyakumari and large and contiguous populations still exists in the wild. However, large extent of rain forests inhabited by lion-tailed macaque is yet to be surveyed. The largest known populations, which can be considered as viable populations exists in the forests of Sirsi-Honnavara in Canera Forest Circle, Kalakad-Mundanthurai Tiger Reserve, Kurdremukh National Park - Someshwara Wildlife Sanctuary and Silent Valley National Park. The existence of population of lion-tailed macaque with about six to ten groups in the forests of Sirsi-Honnavara was known from the earlier surveys by Dr Ullas Karanth and Dr H R Bhat. However, studies conducted in 2000 by author, revealed that there are about 650 lion-tailed macaques comprising 32 groups in the forests of Sirsi – Honnavara. The author conducted a detailed survey with the support of Mr. Vijay Mohan Raj, District Forest Officer and Mr K. Santhsoh, and later a long-term detailed study was initiated with the financial support from Karnataka Forest Department, Rufford Small Grants, Primate Action Fund (Conservation International), Primate Conservation Inc. Department of Science and Technology –Fast Track and CEPF-ATREE Small Grants. This study reconfirmed the results of our earlier survey of largest lion-tailed macaque population in this region, which formed the basis to identify the area as a potential conservation reserve for the lion-tailed macaque. A proposal was submitted to Principal Chief Conservator of Forests (Wildlife), Karnataka in 2008 and the same was presented to Western Ghats Task Force Committee also. It was considered as one of the priority issues by the Western Ghats Task Force Committee. In this regard boundary of the proposed reserve was demarcated by Mr. Balachandra Hegade and a new proposal was prepared once again, which was submitted to the State Government by Mr. Manoj Kumar, Deputy Conservator of Forests. Efforts were made to pursue with the state Wildlife

Honnavalli N. Kumara, *honnavallik@gmail.c*

Downsizing the Kolleru Wildlife Sanctuary

The Kolleru wetland is a Wildlife Sanctuary, a RAMSAR site and also as an Important Bird Area (IBA). In 1999, 308 km^2 of the Kolleru Lake falling below +5 feet above MSL contour line was declared as Kolleru Wildlife Sanctuary (KWS). Even after the declaration, ecologically not-so-benign activities and encroachments continued unabated in the area. During the last state assembly election reduction of the sanctuary boundary to +3 feet from +5 feet contour and distributing the land thus released to public became a popular election promise. Consequently, on 4th September 2008, the Andhra Pradesh Legislature unanimously passed a resolution "to request the National Board of Wildlife, Govt of India and the 'Central Empowered Committee' to recommend for reducing the boundary of Kolleru Wildlife Sanctuary from +5 feet contour to +3 feet contour to mitigate the problems of the farmers".

Realizing the ecological, legal, and socio-economic and livelihood related implications of the resolution, the MoEF, GoI constituted a committee to look into the issue. The committee collected necessary data or information from district administration, forest, revenue and fisheries departments, DRDA, APPCB as well as published and grey literature. Field visits were undertaken from 20 to 25 September 2010, interacting with various field officials from government departments, the public and the leaders to understand their views and perceptions.

Kolleru lake system represents one of the largest and oldest natural lacustrine systems in the country. The lake Kolleru and its surroundings have 148 rural settlements (50 in the lake-bed and 98 in the belt area). Primary occupation of people in the bed villages is fishing; agriculture being the second option. People in the belt villages have agriculture as primary occupation, followed by fishery related activities. Fishery in the area, during the last couple of decades had shifted to a more capital intensive corporate venture.

Fauna in and around the lake include various species of invertebrates, fishes, amphibians, reptiles, and mammals. About 63 species of fishes belonging to 29 families have been recorded from the lake. Of these, 44 are freshwater species. More than 200 species of birds have been reported with 100 species of birds reported as migratory birds coming from different parts of Eurasia (Palaearctic region). During the last couple of decades, the changing socio-economic and political milieu of the state in general and the region in particular brought enormous alteration to the lake area and consequent strains on this wetland ecosystem. Eutrophication and changes in flora and fauna has happened in Kolleru due to changes in land use pattern. Submersion of paddy fields in the belt villages of Kolleru has become frequent and wider. Consequently, upon judicial interventions, in 2006 "Operation Kolleru" was undertaken, to demolish illegal fish farms in the sanctuary area. Nevertheless, there are several reports that the fish tanks were reestablished and floods have continued.

While declaring the KWS covering a part of the lake falling below +5 feet contour, appropriate compensation for loss of land was not made and Resettlement and Rehabilitation issues were not satisfactorily addressed. Neither alternative sources of livelihood were developed nor was any socioeconomic development through community participation attempted. No attempt to disseminate correct message about the sanctuary and its socio-economic and environmental implications has been made. Nor a proper survey of the whole area focusing on its wetland / ecological characteristics, depth profile and re-confirmation of the so-called contours. Several issues related to the sanctuary notification remains to be addressed and settled.

The committee made extensive tour of the area and interacted with the stakeholders. The public meetings were very interactive with 2269 representations; however, while sitting through the whole proceedings developed a gut feeling that almost all of them appeared as stage managed by the leaders advocating a particular view point; reduce the boundary of the sanctuary. It was felt that alternative view points were censored and not allowed to be brought up to the committee.

Although human beings are highly dependent on ecosystem services, sufficient ecological understanding of the same is still wanting. A change is required to adequately value the vital services and to make provisions for payment for these ecological services (PES).

Looking at the issues confronting the KWS, the local inhabitants and the lake ecosystem it was concluded that reduction of the wildlife sanctuary area would worsen the situation in Kolleru. It was recommended that the area be

P.A. Azeez, *salimalicentre@gmail.com*

Transformation in the traditional food habit of ethnic communities in the Nicobar Islands

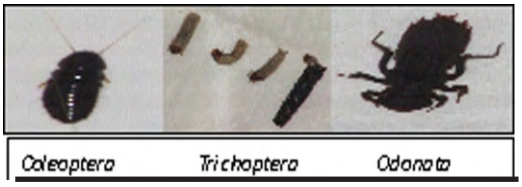
Cooking of *Pandanus* fruits. Pic.: Nehru P.

Until less than a decade before, the fruits of *Pandanus lerum* Jones ex Fontana var. a*ndamanensium* an endemic species served as a stable food for the ethnic communities (Nicobaris and Shompens) of Nicobar Islands. The pulp of the boiled fruits used to be extracted and eaten. The 2004 Indian Ocean tsunami wiped out all the pandanus bushes that existed along the Nicobar coast. Hence, there was a scarcity of pandanus fruits soon after the tsunami which made the coastal dwelling ethnic community (Nicobaris) to shift for the alternative food such as rice and dhal, provided by the local administration. Even though the pandanus vegetation has recovered, its fruits are least consumed now a days as they are very much adapted to the rice and dhal. However, on the other hand the forest dwelling community, the Shompens did not change their preference on pandanus fruits, as the fruits were available for consumption from their own plantations, which were not affected during tsunami.

P. Nehru & P. Balasubramanian; nehrumcc@gmail.com, balusacon@yahoo.com

Life in tree holes

On rain, life flourishes. Its collection in tree cervices makes one of the most productive ecosystems on earth, aquatic ecosystem. It scientifically named as Phytotelamata (plant held water). It acts as the clearly definable aquatic islands in terrestrial ecosystem, 'hanging aquaria' in forest canopy, minimal habitat in terms of space, time and resource. Thus, it fascinates naturalist and ecologist for its biodiversity and experimental values. Initial studies on Phytotelamata were started in Neotropical in the early 20th century. Very few studies are carried out in Indian scenario, especially in the Western Ghats. Recent studies on these habitats in Silent Valley National Park and New Amarambalam Reserve Forest of Nilagiri biosphere reserve expands knowledge about these habitats in tropical old-growth evergreen forests. The study comprehensively records occurrence of five aquatic insect orders such as Coleoptera, Trichoptera, Odonata, Heteroptera and Diptera in these habitats for their major part of the life cycle. In which prolific occurrence record of Trichoptera was first to its kind. Other than aquatic insects the study also records the occurrence of Gastropoda, Diplopoda, Brachyura, Nematoda, Arachnida, Oligochaeta, near threatened Microhylid frogs *Ramanella sp*., and Geckos *Cnemaspis sp*. in these habitats. The study instigates the importance of old growth tropical forests. Since it supports larger habitats subsidized by the occurrence of buttress root type trees in these forests. Study also warrants the current situation of minimal



Coleoptera Trichoptera Odonata

Typical Tree holes

Heteroptera Diptera

K.A. Nishad, *nishadhka@gmail.com*

Nagaland the land of dialects

While working in Nagaland on the project titled "Strengthening community conservation efforts in Nagaland: A program to impart technical support on biodiversity conservation and livelihood options to communities", I came across several interesting aspects about the culture and practices of the local community. Apart from the vast biological diversity the land is equally diverse in its language. Here I enumerate the probable reasons of their dialects that fascinated my attention.

All the major *Naga* tribes have their own language amounting to thirty different ones. However, they vary from village to village and even within one tribal area. The multiplicity of *Naga* languages is essentially because of poor communication between them as they lived in isolated villages with secluded lifestyle.

Naga languages in the Tibeto-Burman family is divided into three sub-groups; the western, central and eastern sub-groups. The western sub-group comprises Angami, Sema, Rengma and Chakhesang languages; the central sub-group includes Ao, Lotha and Phom languages; while the eastern sub-groups consist of Chang, Konyak, Yimchunger and Khaimengan languages.

It is interesting to find that some *Naga* tribes have borrowed Sanskrit words in their Assamese form. The tribal groups, who do not understand each other's language, converse in Naga-Assamese or Nagamese. It is a hybrid mixture of Assamese and *Naga* languages but serve as the lingua franca of the *Naga* people. Nagamese has no script. It does not follow any strict rules of grammar, and is easy to learn.

The languages of the Naga and their position in Tibeto–Burman:–

Despite it being more than 150 years since linguistic research first began on the so-called '*Naga*' languages of north-east India, a definitive genetic classification of these languages remains as tortuous to negotiate as the jumbled mountains in which they are spoken. Long-standing political tensions that began in the colonial era and continued into the post-independence period have rendered much of north-east India inaccessible to outsiders, until recently, with the result that there have been limited opportunities to build on the often patchy historical linguistic data hitherto available for comparative research. Given this historical backdrop, the sluggish advances in genetic classification are not so surprising. It is still the case that very few Tibeto-Burman languages of north-east India have been documented using modern methods of linguistic description, and all classifications – even the most recent – are still largely based on materials that were collected by amateurs more than half a century ago.

Aspiration contrasts in initial consonants often go unrecognized, glottal stop finals are ignored, and tonal contrasts, despite '*Naga*' languages having two to five tones, are usually absent or at best are inconsistently transcribed. In spite of these obstacles, recent research has made some significant progress in clarifying the

Arthi.T, *arthisnr@gmail.com*

Telineelapuram Bird Sanctuary - A paradise for Spot-billed Pelican and Painted Stork

Telineelapuram Bird Sanctuary (18°34'25" N & 84°15' 53.85" E) is located in Telineelapuram village, Srikakulam district of Andhra Pradesh, India located 65 kilometers away from Srikakulam town in Tekkali mandal. Telineelapuram is a small village with very dense tree cover (*Tamarindus indicus*, *Peltophorum pterocarpum*, *Prosopis juliflora* etc.) People live in harmony with a huge number of migratory birds without causing any disturbances. The locals consider the day auspicious when Painted Storks arrive. Telineelapuram is a major wintering ground for various migratory birds coming from far off regions such as Siberia, Russia, Malaysia, Hungary etc. and also for local migrants. It is an important breeding site especially for two Siberian migratory bird species namely Spot-billed Pelican and Painted Stork. Every year, during the winter season, thousands of Spot-billed Pelicans and Painted Storks visit this sanctuary. These birds build their nests on the trees in the village. The birds start arriving in the month of October and lay eggs and hatch their young here. The birds remain in the village for six to seven months and fly back to their homeland in the month of April or May along with their offspring. The Telineelapuram and the neighbouring Naupada swamps and Tekkali creek between Bhavanapadu, Meghavaram and Kakarapalle is a wonderful feeding ground for these migratory species.

In connection with the project on Wetlands of Srikakulam District, SACON team visited these areas during mid October 2011. It was observed that, all the birds found in the area prefer only the Tamarind tree (*Tamarindus indicus*) for their nesting. Possibly because of their heavy weight they preferred the hardwood Tamarind tree. Other trees such as Peltophorum pterocarpum and Prosopis juliflora are not used for nesting.

This area, declared as a biological heritage site by the Bio-diversity Board of Andhra Pradesh, deserves to be well protected and the habitat integrity maintained so as to presrve it as a preferred breeding site for migratory birds. It is also a suitable place for bird watchers, Ornithologists and nature lovers to observe the beauty of the birds, their nesting & feeding of young ones, during the winter season. In recent times, the sanctuary and its environs are being exposed to enormous pressures due to the increasing human population, industrialization and urbanization. The proposed 2640 MW Bhavanapadu Thermal Power Project in Kakrapalli village, near Telineelapuram at an area of 3500 acres, is one of the major causes of concern for these birds. In recent past, the activities associated with agriculture and urban land uses have brought about dramatic ecological changes which are affecting the arrival of birds to this sanctuary. According to local sources, the migratory movement was first recorded around 20 years ago and the estimated number of birds then exceeded 10,000. The number of migratory birds have since reduced drastically and in the recent estimates the number of 2000 birds.

M. Murugesan, *taxonmurugesh@gmail.com*

International Meetings

IUCN Regional Conference

I attended the IUCN regional conference held at Incheon, South Korea during 26th September to 29th September, 2011. Various issues concerning IUCN's activities and

P.A. Azeez, *salimalicentre@gmail.com*

International Conference and Training On Swiftlet Ranching

University Sultan Zainal Abidin (UniSZA), Malaysia organized an International Conference and Training On Swiftlet Ranching (ICOTOS 2011) at Kuala Terengganu, Malaysia, 17-19th July 2011. The theme of the conference was; Opportunities and Trends in Swiftlet Ranching. I was invited as an expert speaker to the conference, where I shared my experience from SACON's ongoing Edible-nest Swiftlet Conservation Programme in the Andaman and Nicobar Islands with around 120 conference participants (Scientists and Swiftlet

Manchi Shirish S., *ediblenest@gmail.com*

Meeting the Collaborators from Cardiff University, UK and Lisbon University, Portugal

In June this year, I visited my collaborators in Europe, Dr Michael Bruford from Cardiff University, UK and Dr Carlos Fernandes from Lisbon University, Portugal to continue a collaboration we started in 2007. Our research focuses on the link between ecology, evolution and genetic variation. How do current distribution patterns and genetic data inform us about the past history of species? Are sub-species that are identified through classical taxonomy using morphological characters, supported by genetic data? Phylogeography, or the study of genetic variation over space can help answer these.

We used the jungle cat and leopard cat as a model species since they are very widely distributed and have seemingly different geographic origins. While the jungle cat shares morphological traits with scrub dwelling African cats such as the caracal and serval, the leopard cat is so obviously Oriental and forest dwelling, with characters such as a long tail and a profusely patterned coat. Several subspecies have been described for the two felids based on coat patterns and colour, and various other body measurements.

In an earlier study that was restricted to Indian populations of the two species we found contrasting patterns of genetic variation where the jungle cat was extremely diverse with no structure in population (they are one big population within India), whereas the leopard cat was split into the Western Ghats population and the Himalayan/North-eastern/Eastern population. However, adding information from across global distributions can resolve ambiguities as well as unravel species histories, through correlations with historical/geological events.

We hope to trace the geographical location of evolutionary origin for the jungle cat, a species that looks like an African scrub dwelling cat but is distributed largely in Asia. We also hope to be able to time the entry of leopard cats into India and trace their subsequent histories, to be able to explain their current distributions within the country.

Since both species are listed in CITES we could not bring back any samples from outside the country without prior permits. The easier way out was to collect all samples in a laboratory that already has permits and conduct the work there. Samples were obtained from museums in Europe and USA and the analysis was conducted in Dr Bruford and Dr Fernandes's laboratories. We have collected 61 samples of jungle cats and 6 of leopard cats to date and have extracted DNA from all and have sequences for around 15 so far. Some of the sequences we obtained are from samples that are 150 years old! It's like reading a very old book that has been locked up over long years. And just like very old books these samples need to be treated with great care since historical/ancient DNA is often damaged and degraded. We had to conduct extractions in a special room that is UV radiated for 24 hours prior to

Shomita Mukherjee, *shomitam@gmail.com*

Invited talks

I was invited to inaugurate the Bioscience Association in Sri Krishna Arts and Science College, on 20th July 2011 and spoke on the need for integration of various sub-disciplines of biological sciences in environmental conservation.

On 6 August 2011 attended an environmental conservation awareness program organized by Living with Nature, Erode and delivered a lecture on the Role of birds in ecosystem maintenance for professionals.I participated in the fifth edition of the Glow Coimbatore series of Interface by the Hindu, Indian Chamber of Commerce and Industry and Siruthuli on August 9, 2011 and spoke on the role of pollinators and seed dispersers in ecosystem maintenance.

I inaugurated the Birds Project Exhibition organized by the students of GKD

P Balasubramanian, *balusacon@yahoo.com*

SACON inks MoU with IGNOU

Sálim Ali Centre for Ornithology and Natural History (SACON), Coimbatore entered into a Memorandum of Understanding with Indira Gandhi National Open University (IGNOU), New Delhi on 29 March 2011. The MoU envisages offering collaborative programme in the areas of Environmental Impact Assessment (EIA) and Management in distant mode. The programme will be offered at two levels, i.e. certificate (6 months) and Post Graduate diploma (12 months). The courses will be designed to cover various aspects related to EIA and Environmental Management with a view to provide the subject EIA its due academic credit.

The MoU was signed by Dr. PA Azeez, Director, SACON and Mr. US

National Wetland Inventory and Assessment workshop

Participated in the National Wetland Inventory and Assessment Workshop and release ceremony of National Wetland Atlas, at Space Application Centre, Ahmedabad, 21 May, 2011.

Training Workshop on Water conflicts

A five-day training workshop on "Understanding and resolving water conflicts in India" was organized by Forum for Policy Dialogue on Water Conflicts in India; Shristi and Odisha Water Forum, at Satapada, Odisha during 18-22 July 2011, to discuss and deliberate on various issues, dimensions and case studies on water conflicts resolution and multi-stakeholder initiative/process/dialogue as an option to resolve such conflicts. I participated in the training workshop

B. Anjan Kumar Prusty, *anjaneia@gmail.com, anjaneia@sacon.in*

Book Post

सलिम अली पक्षिविज्ञान एवं प्रकृति विज्ञान केन्द्र,
Sálim Ali Centre for Ornithology and Natural History
अनैकट्टी, कोयम्बटूर – 641108
Anaikatty (Post), Coimbatore – 641 108.
Tamil Nadu, INDIA.
Tele : +91 – 422-2657101,102,131 & 199
Fax : +91 – 422 – 2657088

To,

Published by Dr. P.A. Azeez, Director, Sálim Ali Centre for Ornithology and Natural History, Coim