

From the Director's Desk

This newsletter, October to December 2018 issue covers institutional events/ various activities of SACON and popular articles from research fellows for the third quarter of the financial year 2018-2019.



During the visit of Shri C.K. Mishra, IAS, Secretary, Ministry of Environment, Forest and Climate Change, Government of India to SACON on 28th December 2018, two new facilities were inaugurated on campus; 1) National Avian Forensic Laboratory, and 2) GIS and Remote Sensing Laboratory. The Secretary, MoEFCC also unveiled the Bust of Dr. Salim Ali in the office block. A book on 'Bibliography on Wildlife Studies in Andaman & Nicobar Islands and two technical reports of SACON viz 'A comprehensive study of the potential ecological impacts of windmill farms on wildlife with special emphasis to avifauna of Karnataka State' and 'A study on bird hazard and its mitigation measures required at the Multisector Special Economic Zones located near the Rajiv Gandhi International Airport, Hyderabad, Andhra Pradesh' were released by the Secretary, MoEFCC.

I wish all our faculty, staff, MSc students and research personnel a very happy and prosperous New Year 2019.

- Dr. K. Sankar

In this issue

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Visit of Shri C.K. Mishra, IAS, Secretary, Ministry of Environment, Forest and Climate Change (MoEFCC), Govt. of India to SACON

Shri. C.K. Mishra, IAS, Secretary to the Govt. of India, Ministry of Environment, Forest and Climate Change, New Delhi (Chairman – Governing Council, SACON) visited Sálim Ali Centre for Ornithology and Natural History (SACON) to chair the 71st meeting of the Governing Council held on 28th December, 2018.

On the occasion, Shri. C.K. Mishra, unveiled the Bust of Dr. Sálim Ali in the office block of SACON.

Shri. C.K. Mishra also released the following publications of SACON during his visit:

1. A Bibliography on Wildlife Studies in Andaman and Nicobar Islands – A joint publication of Sálim Ali Centre for Ornithology and Natural History (SACON) & Zoological Survey of India (ZSI), Kolkata.

Dr. P. M. Sureshan, Scientist-‘D’ Officer-in-Charge of the ZSI, Calicut represented ZSI during the release of the bibliography.
2. A comprehensive study of the potential ecological impact of windmill farms on wildlife with special emphasis to avifauna in Karnataka.
3. Study on bird hazard and its mitigation measures required at the Multisector Special Economic Zone located near Rajiv Gandhi International Airport, Hyderabad, Andhra Pradesh.

The Secretary, MoEFCC inaugurated the National Avian Forensic Laboratory, established by SACON with full financial support from the MoEFCC, at a cost of Rs. 8.00 Cr, with a set of objectives to

develop a state-of-art avian forensic laboratory with infrastructure for bird body part analysis and having a repository of tissue/ blood and feather reference materials to help identify avian species from their remains, and to facilitate Wildlife Crime Control Bureau, Ports Authority of India and other law enforcement agencies in controlling illegal bird trafficking. The Avian Forensic Laboratory is equipped with costly equipment viz. Horizontal and vertical gel electrophoresis, Centrifuge, Gel-Documentation system, Deep Freezer (-80°C), Biosafety Cabinet, Next Generation DNA Sequencer, Polymerase Chain Reaction (PCR) etc.

A GIS Laboratory, set up by SACON equipped with Work Station, Server, Q-GIS Software and Data Set (Topo sheets, satellite data and thematic layers) was also inaugurated by the Secretary, MoEFCC on the occasion. The main objective of setting up the GIS lab is to enhance the capacity and capability of researchers and other user groups at the Centre to facilitate better interpretation of their field data.



Release of book by Shri. C.K. Mishra, Secretary, MoEFCC



The Secretary, MoEFCC, unveiled the Bust of Dr. Sálim Ali in the office block of SACON



SACON Engineer explains the architecture of the National Avian Forensic Laboratory to the Secretary, MoEFCC



Inauguration of the National Avian Forensic Laboratory by the Secretary, MoEFCC



Visit to the National Avian Forensic Laboratory by the Secretary, MoEFCC

Visit of Officer Trainees from different Institutes to SACON

Forest Range Officer Trainees (40 trainees) of the Tamil Nadu Forest Academy, Coimbatore visited SACON on 1st November 2018 as part of their Induction Training to study the functioning and ongoing research activities of SACON.



A Batch consisting of 34 Officer Trainees of 2018 - 2020 State Forest Service Officer Trainees of Central Academy for State Forest Service, Coimbatore visited SACON on 14th November 2018 to study the research activities of SACON.

In-service Indian Forest Service Officers of various State Forest Departments (20 nos) undergoing a training programme at IGNFA, Dehra Dun, visited SACON on 27th November 2018 to study about Management of Bird-Human Conflicts in India, Environmental Contamination and its impact on Birds, Bird Census Technique and Role of Birds in Forestry and Afforestation.



A batch of 35 Range Forest Officers Trainees of Gujarat Forest Rangers College, Rajpipla, Narmada, Gujarat visited SACON on 30th November 2018, as part of South India tour, to understand the best practices in conserving forest and wildlife which would help them in their future field responsibilities.

A total of 92, IFS Probationers of Indira Gandhi National Forest Academy, Dehra Dun, in two batches, visited SACON, as part of their professional Skill Upgradation programme, during

12th and 20th December, 2018 to learn about the research activities of SACON.



World Wildlife Week 2018

Dr. P. Pramod

During the World Wildlife Week (3rd to 5th October 2018), SACON conducted three nature awareness camps in SACON premises. In total 118 students from three institutions, Avinashilingam University, Coimbatore, S.T. Hindu College, Nagercoil and K.G. Matriculation Higher Secondary School, Annur participated in the



camps. The students were taken for an exploration walk in Nature Trail and introduced to basic concepts of wildlife and ecology. After the nature walk, the interactive sessions had discussions and

debate on current environmental and conservation issues in India.

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Visit of Global Clean-up Congress team to SACON

Dr. P. Pramod

The University of Newcastle, CRC Care, Global Care of Australia and Tamil Nadu Agricultural University organised the Global Clean-up Congress 2018 in Coimbatore. On 24th October 2018, twenty-two international delegates from the Global Clean-up Congress visited SACON. Dr. Muralidharan delivered a lecture on Environmental Contamination in India, the current status and measures taken so far to mitigate it. This has led to a lively discussion on various methods followed in different countries of the world to mitigate the effects of environmental contamination. This was followed by a visit to ecotoxicology lab and a walk on the Nature trail of SACON.



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Green Skill Development Program

Dr. Goldin Quadros

The SACON ENVIS centre on “Wetlands including inland wetlands” conducted the Green Skill Development Program on “Bird identification and Basic Ornithology” from 26th November to 14th December 2018. Eleven individuals from Tamil Nadu, Kerala and Lakshadweep participated in the course. On 26th November, the program was inaugurated by Dr. K. Sankar, Director, SACON who briefed the participants about the MoEFCC ENVIS initiative to generate skilled individuals in the field of environment.



Visit to the GASS museum at IFGTB, Coimbatore

During the three weeks of the course SACON faculty, researchers and guest faculty took classes for the participants that covered topics such as the history and evolution of Ornithology, form and functions of birds, plumology, bird habitats, culture and beliefs about birds in the society, conservation measures, field study methods and use of technology like GPS, GIS, Mobile GIS and Computers. The Participants were also taken on field visits to forest, inland and coastal bird habitats across Tamil Nadu and also visited the GASS museum at IFGTB. In addition the participants got an opportunity to interact with

several birders and conservationists from Tamil Nadu while participating in the annual “Tamil birder Meet” held at Virrudhanagar. On 14th December 2018, Chief Conservator of Forest & Head Extension IFGTB Mr. Rajesh Gopalan, IFS was the chief guest during the valedictory who informed the gathering about the importance of GSDP and its relevance at the international level. He along with the Director SACON distributed the certificates to the participants skilled at Level V by the Skill Development Agency of India.



Dr. Goldin Quadros, interacting with students



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Participation in the workshop “Bioresource Database in Research and Education” held in Bengaluru

C. Divyapriya

A workshop on “Bioresource Database in Research and Education” was organized by Department of Biotechnology (DBT), an outreach programme of Indian Bioresource Information Network (IBIN), hosted at School of Ecology and Conservation, University of Agricultural Sciences (UAS), GKVK campus, Bengaluru on 10th and 11th December 2018. The programme is partnered with Indian Institute of Remote Sensing, Dehradun and UAS. This workshop covered topics such as use of IBIN databases, Data Mining, Species discovery, Earth observations of forests and its biodiversity, Data demonstration on Conservation and Bioprospecting for research and education, Use of IBIN database for rare plant conservation, Data demonstration on Niche modeling, and Crowdsourcing and para-taxonomic tools.

The workshop introduced the importance of data mining for rare and threatened species conservation with the help of niche modeling tools. The participants were from diverse group comprised of PG students, research fellows, PhD scholars and college professors. Ms. C. Divyapriya, Programme Fellow, National Ornithological Databank (NOD) Cell, SACON attended this two days’ workshop. Prof. K. Chandrasekara, the convener of the workshop opened the program with his welcome speech. Prof. K.N. Ganeshaiah took the participants through the IBIN databases such as ‘Jeeva Sampada’ (wealth of bioresources) - a compilation of plants, animals, marine and microbial resources, ‘Pathanga

Suchya’ offering image-based identification of 122 butterfly species, and an image-based identification database on Rare Endangered and Threatened (RET) plants of Western Ghats. A walk through on other databases such as ‘Vrikshayurveda’ – a traditional knowledge on medicinal plants, ‘Pakshi Sampada’, ‘Sasya Bharathi’ - taxonomic information and distribution on Indian birds and Indian plants, respectively were explained with importance of data mining on species discovery and bio-prospecting. Prof. Uma Shaanker’s talk on data mining had taken the participants a deep dive into the need and fun of discovering common patterns from the ‘big data’.



Speakers Dr. C. S. Jha, Group Director, National Remote Sensing Centre (NRSC), Hyderabad, Dr. Ravikanth and Mr. Bipin Thomas, ATREE, Bengaluru, Prof. R. Vasudeva, HOD, UAS-Dharwad, took the participants through the remote sensing, bio-prospecting, and data mining topics. The participants were given a brief handling on data and niche modeling.

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Sighting of a leucistic House crow, *Corvus splendens* in Theni, Tamil Nadu

Gayathri Venkatramanan and Maxim Rodrigues K

On my travel across the forest fringes of Tamil Nadu as a part of human-wildlife conflict study, I sighted a leucistic crow (10° 00'51.2" N & 77° 29' 20.7" E) in human-dominated area of Theni, Tamil Nadu on 29th November 2017. Abnormalities in House crows have been observed in other parts of India but are uncommon. The observed leucistic House crow had patches of white feathers and black eyes and legs. In the case of albinism, the abnormal individuals possess red eyes. Often such abnormal individuals are predated at earlier stages. The leucistic individual was found interacting with a conspecific house crow with normal plumage. Abnormalities among various taxa have been observed throughout the world, especially in the case of birds. Albinism and leucism have been recorded in several species of birds.



Sighting of Leucistic House crow in Theni

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Economic losses to cotton trees by Indian flying fox (*Pteropus giganteus*)

Gayathri Venkatramanan and Thanikodi M

Indian flying fox belonging to the family Pteropodidae is the largest species of bat in India. These colonial nocturnal mammals roost on trees in large numbers in daytime and are active during the night. During my study across the Meghamalai and Theni Forest Divisions, I have had across an interesting observation made by farmers cultivating white silk cotton trees in their farm lands. The white silk cotton or Kapok tree *Ceiba pentandra* is a deciduous tree commonly grown in villages around Tamil Nadu due to their economic importance.



Farmers tie white clothes on the tree top

Economic importance of the silk cotton trees are timber, medicine, and the seed floss is used in stuffing material in beds, cushions and jackets. The tree flowers from January to March. Since the flower opens at the night, the major pollinators are insects and bats. The locals cultivating the silk tree reported that the bats feed on the blooms and result in economic losses. To fend off the bats from

feeding on the blooms the farmers tie white clothes on the tree tops which is believed effective in minimizing losses. In Kodaikanal, few orchard cultivators reported that bats feed on the pears and plum fruits resulting in losses. Several studies show the economic importance of insectivorous bats in agriculture farms as they are major predators of nocturnal insect pests, however, it is unclear at the level economic losses occurred due to bats in cotton tree and orchard farms.



Pteropus giganteus on silk cotton tree

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Research collaboration with School of Natural Sciences, The Copperbelt University, Zambia

Dr. T. Ramesh

As part of the international research collaborative visit, Dr. T. Ramesh conducted a workshop on “Wildlife Population Monitoring techniques used in studying carnivores across the globe” to postgrad students and staff in the School of Natural Sciences,

The Copperbelt University, Zambia. As a follow up of this event, in consultation with Zambian counterpart,



Dr. Ramesh with Kafue National Park Authorities

Dr. Moses Chibesa, Associate Professor, School of Natural Sciences, The Copperbelt University and Zambian National Park Authority, we have identified potential areas where SACON and School of Natural Sciences, The Copperbelt University can possibly collaborate under certain thematic areas such as postgrad student exchange, submission of joint international proposals to funding agencies and providing input to National Park Authority of Zambia through exchange programmes etc.



Dr. Ramesh with students from Copperbelt University during the workshop

The discussion was largely based on developing proposals on biodiversity conservation issues which

are common between countries such as impact of change in land use practices on human-mammal conflict and bird migration studies between continents. Further, this collaborative discussion to become realistic in identifying the research gaps, we visited one of the largest National Parks in the world, Kafue National Park and its associated landscapes where currently some conservation work initiated by various agencies such as Zambian Carnivore Program, and Panthera, USA supported by North Carolina Zoo and Foundation of Segre are underway and interacted with representatives of respective



Figure 1 The riverine landscape at Kafue National Park

conservation organizations. The outcome of this visit would set a path to Dr. Ramesh in understanding common conservation issues such as law enforcement and human-large carnivore conflict w.r.t. African Continent Perspectives, which may help in developing and implementing mitigation measures for human-large mammal conflict in India. Dr. Ramesh's visit benefits both the countries academically in research networking and collaborations in various research arenas with continental collaborations.

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First sighting of White-capped Bunting (*Emberiza stewarti*) in

Vidarbha region of Maharashtra

Pallavi Arora

As a part of my field work in Maharashtra, I was in Amravati district during October 2018. During the field work, my friend, Shubham Giri, who assisted me in the field, used to tell me that Melghat Tiger Reserve (MTR) was the best hotspot for birding and how he had sighted many rare birds in just one year. After completing the survey of sampling grids for house sparrow around Amravati, we decided to go for birding in Melghat one day. It was around 88 km away from the city, and our thoughts of such a long tiresome road-trip on a scooter were quickly overshadowed by our excitement to see birds. We started on 2nd October, 2018 at 6.00 am and reached Melghat around 9.00 am. All our way to the core zone of the Park, we observed many beautiful birds like European and Indian Rollers, bee-eaters, doves, buntings, starlings, drongos, chats and francolins. During our travel, we observed an unfamiliar bird that could not be identified and hence stopped our vehicle to take its picture. Already excited to get a "lifer" in our list, we started capturing pictures and videos of the bird for future identification. Suddenly it disappeared into the scrub jungle, and could not be located again even after our intensive search. Later we could identify the bird from the picture that it was a bunting, though we were not sure of the species identification. So, we decided to take experts' help for identification and sent the video recordings to Mr. Shishir Shendokar in Akola. Next morning, I left for Nagpur for field work. The same evening, my phone beeped with a message from Mr. Shishir, "The bird has been confirmed as "White-capped Bunting" also known earlier as "Chestnut-breasted Bunting". In few seconds, it beeped again saying "Good News, it is the first sighting in the Vidarbha region and the news will be covered in local newspapers tomorrow."



©Shubham Giri

My happiness knew no bounds as it was my maiden experience to have reported a ‘first record’ of birds. The most fascinating thing to me about this bird was the way it flipped and whooshed its tail. The scientific name of the bird is *Emberiza stewarti*. It’s summer range is the montane regions of north-west and western Himalayas in India and Pakistan, while its winter range includes the Salt Range (of Pakistan), Nepal, Punjab-Haryana, Uttar Pradesh, Maharashtra and Gujarat. Its primary habitat is scrub-covered grasslands. We would like to thank Mr. Shishir for confirming the identification of the bird.

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Living with Harmony: A model of Altruism

Tejas Karmarkar

In continuation to my article in the previous issue, ‘A Critical Look at Human-Wildlife Conflict’, a year’s worth of experience gathered working with SACON, the Sarus Crane (my subject species) and the people living in my study area of Gujarat has given me more

insights on the subject which I would like to share here with you.



Vishal Mistry

Nature, with its limitless beauty, never ceases to surprise me. Sarus Crane, the species I am studying is mighty and as I observe it reveals new and interesting behaviours. To put it in the words of a photographer, the Sarus Crane is full of beauty with sharp and prominent colours and attractive body size.



Sarus Crane with juvenile in farm

But, while wildlife lovers are excitedly enjoying this relatively rare sight of beauty, what goes on in the minds of the local people for whom wildlife is a part of their day-to-day life?



The Sarus Crane is protected as a Schedule IV level species under the Wildlife (Protection) Act of India, 1972 and a large population of Sarus Cranes today, live outside protected areas, i.e. in agricultural lands



Crop damage by Sarus Crane while nesting

and village pastures – areas with no protection and with close proximity to human beings. This is where the question about the mindset and attitude of the local people living along with wildlife become important.

As part my project, I am required to monitor Sarus Crane nests. Generally, Sarus uses nearby vegetation material to build its nest. It is a wetland bird and its original natural habitats have more or less been fully converted to agricultural lands. In rainy season paddy is grown everywhere in parts of central Gujarat. The area supports Sarus Crane and they actively nest in these areas. I found that most of the nests were built in and around paddy fields with the use of paddy as a nest material. The quantity of nest material was dependent on position of the nests. While I see the paddy being used as nesting material as an adaptation of the Sarus, it is understandable for a farmer whose field was raided to view it as crop damage. As a part of the study I communicate with farmers regularly regarding their opinion towards the Sarus Crane and amazingly their responses were positive. They want to conserve Sarus and willing to overlook the damage caused to their crops and wish to continue to see Sarus in their fields. Whenever we loan our things to someone, we charge some interests but here, farmers give their entire agriculture land as well as crops to the Sarus completely free of charge!

It is my hope that more and more people follow the example of the villagers in Gujarat. In a country where human need and greed is fast encroaching upon wild lands, it is essential for humans to practice kindness and live in harmony with the wild animals that are increasingly and inevitably coming to live at our mercy.

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MSc Ornithology and Conservation Biology Wildlife Techniques Tour to Sariska Tiger Reserve

The MSc students of SACON underwent a training programme in Sariska Tiger Reserve, Rajasthan as part of their wildlife techniques tour from 2nd to 16th October 2018. The students were trained in various wildlife population monitoring techniques such as; line transect, point count, vehicle transect, vegetation sampling, radio telemetry, behavioural observations in waterholes, pellet count, camera trapping and assessment of health status of wild ungulates. The Director, Dr. K. Sankar and the faculty members, Drs. Jayapal, Ramesh and Krishnendu Mondal conducted the field training. The students also visited Haripura village, located inside the core area of the Tiger Reserve to study the socio-cultural status of locals. The students also learnt how the surveillance of thermal imaging cameras operated in the park and their use. During the trip, the student also had a useful discussion with Dr. G.S. Bhardwaj, Field Director, Sariska Tiger Reserve and learnt about various management issues of the park.



The Director and Faculty members with MSc students in Sariska



SACON MSc students tracking wildlife in Sariska

Editorial Board

Dr. T. Ramesh & Mr. R. Jayakumar

Views expressed in this newsletter are not necessarily those of the Editors or the Sálim Ali Centre for Ornithology and Natural History.

सालिम अली पक्षिविज्ञान एवं प्रकृतिविज्ञान केन्द्र

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