SACON News

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From the Director's Desk

This newsletter, July to September 2018 issue covers institutional events/ various



activities of SACON and popular articles from research fellows for the second quarter of the financial year 2018-2019.

The Post Graduate Course in 'Ornithology and Conservation Biology' has been started by SACON from July 2018 with funding support from MoEFCC. It is imperative to say that this Post Graduate Course in SACON is first of a kind in the world and all the faculty members and non-teaching staff are giving their best to make it a success.

The Annual Research Seminar (ARS) 2018 of SACON was conducted on 13th August 2018 followed by Research, Monitoring and Advisory Committee (RMAC) meeting on 14th August 2018. Five SACON's publications were released during the ARS and 23 presentations were made by faculty members and researchers elaborating outputs of different research projects of SACON, conducted all over the country.

Independence Day was celebrated with great enthusiasm in SACON including different sports activities in the campus. SACON also hosted the 'Southern Regional Workshop on Conservation and Management of Wetlands' on 6-7 September 2018, sponsored by MoEFCC.

I wish all SACONites to continue to raise the bar for best conservation practices in the country.

Dr. K. Sankar



Independence Day Celebration 2018

Independence Day was celebrated with great enthusiasm and respect at Sálim Ali Centre for Ornithology and Natural History (SACON) on 15th August 2018. The celebration started at 9:30 am with the hoisting of National Flag. To commemorate the sovereignty of our nation, Dr. K. Sankar, Director, SACON unfurled the Tricolour flag and all in unison sang the National Anthem to pay homage to the Nation. In his speech, Dr. K. Sankar, Director, SACON emphasized on hard work and honesty to maintain the sovereignty and integrity of our country. Sweets were distributed at the end of the speech.



After the formal function, the Independence Day was celebrated with different sports activities in the SACON campus. Volley ball matches were organized between research scholars and M.Sc. students/ faculty/ staff. Tugof-war was organized between M.Sc. students and research scholars. At the end, a table tennis tournament was organized for research scholars and students.



Annual Research Seminar 2018

The Annual Research Seminar 2018 of SACON was conducted on 13th August 2018 in Coimbatore, Tamil Nadu under the Chairmanship of Dr. Ramakrishna, Former Director, Zoological Survey of India and Research, Monitoring and Advisory Committee (RMAC) Chairman-SACON. Dr. K. Sankar, Director, SACON welcomed the gathering which was followed by Chairman's address. After a brief inaugural address by Dr. S.K. Niraj, Addl. PCCF, Tamil Nadu, the Chief Guest of the seminar, Dr. Mohit Gera, IFS, Director, Institute of Forest Genetics and Tree Breeding, Coimbatore gave his special address.

The seminar was attended by Members of RMAC of SACON, Forest Officials from different states, officials from the Airport Authority of India, scientists from various research organizations from Coimbatore, and faculty, researchers and post-graduate students of SACON.



Director, SACON addressing the gathering during inaugural session

During the inaugural session, following publications were released by SACON:

1. Spatio-temporal burrow use patterns by vertebrates in Keoladeo National Park, Bharatpur, Rajasthan; Final Report.

2. Conservation of the Andaman Serpent Eagle (Spilornis elgini) in the Andaman Islands – Phase – I; Final Report.



3. Impact of developmental projects like road widening on the bird population of Gulbarga city, Karnataka; Technical Report.

4. Supplementary Environmental Impact Assessment for the proposed High Level Bridge across Pulicat Lake, Tamil Nadu, with special focus on Birds; Technical Report.

- 5. CD on Bird Songs of SACON Campus.
- 6. SACON Newsletter & SACON ENVIS Newsletter.



During the ARS, a total of 23 presentations involving 15 researchers, 5 faculty and one INSPIRE Fellow, one INSPIRE Faculty and one DST Young Scientist were made. Topics of presentation made under each Technical Sessions are given below:

- I. Threatened Birds
- II. Human-Wildlife Interface
- III. Wildlife Conservation & Management
- IV. Wetlands

The technical sessions were chaired and co-chaired by eminent scientists/forest managers. The presentations under each technical session were followed by a discussion involving question and answers as well as suggestions for improvement. The seminar events included awarding of Best Presentation Awards and Best Photographic Award.

The following presenters were adjudged best presentations of the ARS – 2018.

- Mr. Kaushik Koli Junior Research Biologist.
- Ms. Swapna & Mr. Prateek Dey Junior Research Biologists.
- Ms. Amruta Dhamorikar & Ms. Dhanusha Kawalkar Junior Research Biologists.
- Ms. Pallavi Arora Junior Research Biologist.
- Ms. V. Bhagyasree Junior Research Biologist.



Best Presentation Award Winners

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Initiation of Post Graduate Course in 'Ornithology and Conservation Biology'

After crossing hurdles of the National level entrance examination, followed by interview and personality test, nine students from different states of India have joined SACON during July 2018 for the post-graduate course in "Ornithology and Conservation Biology" with scholarships. Six of them secured full scholarships from MoEFCC, while the remaining three received full scholarships from Wildlife Trust of India, Raptor Research and Conservation Foundation and WWF-India.



M.Sc. Students in their class room



M.Sc. Students in a field-trip to Sariska Tiger Reserve

Southern Regional Workshop on Conservation and Management of Wetlands

The Ministry of Environment, Forest and Climate Change, Govt. of India assigned a two-day regional workshop on "Conservation and Management of Wetlands" for Wetland Managers and Stakeholders of Southern States (Andhra Pradesh, Telangana, Tamil Nadu, Kerala, Karnataka and Puducherry) at the level of District Forest Officers/Assistant Conservator of Forest / Deputy Conservator of Forest to SACON. The workshop was organised in Coimbatore by SACON on o6th and o7th September, 2018.



A total of 35 participants comprising officers from the MoEFCC, five southern states and SACON wetland division participated in the workshop. The workshop was inaugurated by Mrs. Manju Pandey, Joint Secretary, Ministry of Environment, Forest and Climate Change, Govt of India. Mrs. Rita Khanna, Director, Ministry of Environment, Forest and Climate Change, Govt. of India introduced the workshop objectives. Dr. P. Balasubramanian, Senior Principal Scientist, SACON,



welcomed the dignitaries, resource persons and the participants.

The inaugural function was followed by technical sessions. Overall, there were five technical sessions in which the resource persons highlighted the need for wetland conservation and also policies related to wetland management. The technical session was followed by presentations by officials of the five states who gave an overview of the major wetlands of the respective state, major programs implemented so far, significant achievements, key issues and challenges and areas where support is required from MoEFCC. On the second day of the workshop, the participants were two field sites (Kulipalayam taken to and Moongilpalayam) in Tiruppur District, Tamil Nadu.

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Ant attack on Sunbird nest C. Divyapriya

On 12th September 2018, the day was going on fine, until the "chik...chik...cheek...chik", the rapid alarm tweets of Sunbird broke the silence from the SACON library garden. I peeped out through my window to find a dejected male Purple-rumped Sunbird (Leptocoma zeylonica) with an unalterable gaze at his nest.

Alas! His nest has been attacked by a group of red ants. He showed his displeasure and protested by giving continuous alarm calls. His female partner also joined to show her outrage through calls, but soon gave up. But, male continued his vocal disapproval as nothing else could be done to save their nest and the eggs. He would have never anticipated this attack. Their hanging nest is so advantageously positioned almost at the tip of Bougainvillea branch, with a small entrance facing my window. Absolutely no other birds could hover to reach the nest, nor could any snake crawl up to reach the thincurvy branch. I admired their clever choice of location. Both male and female were meticulous in building up their nest from the scratch.



Sunbird perched facing his nest

Several days of hard work has been ruined in no time by the red ants. His vocal protests went in vain with neither response nor any sort of redressal from the red ants. The ants' numbers increased within 6-8 minutes and conquered the nest. With images of his hard work flashing in his memory lane, the male perched diagonally below his nest with keen watch at the devouring ants. He mustered all his anger and agitation and went close to the ants and picked an ant and threw it away. He made several hovering attempts and caught few ants and threw them aside, however, the ants outnumbered enormously. At last the nest succumbs to the red ant infestation.

I initially admired at the sunbirds' choice of nest location, but nature had different opinion. I could only remember the lines of Henry Ford, "Failure is simply the opportunity to begin again", this time more intelligently. The male sunbird gave a call in response to the female partner and swiftly flew away from the scene. Perhaps Henry Ford words reverberated to his ears as well.

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The rising concern of human-large mammal conflict in Tamil Nadu

V. Gayathri, M. Thanikodi, T. Ramesh and Riddhika Kalle

Human and wildlife have coexisted since time immemorial although conflict prevailed. Over the past few years, human-animal conflict in Tamil Nadu has drastically increased due to loss of habitat, habitat fragmentation and increasing human population in the forest fringes. This is bringing concern and fear among the local people. Large mammals such as tiger (Panthera tigris), leopard (Panthera pardus), dhole (Cuon alpinus), elephant (Elephas maximus) and gaur (Bos gaurus) are often involve in conflict in Tamil Nadu (TN) as they are wide ranging species which require large patch of contiguous forests for foraging, finding mate and disperse to establish territory. Humans on other hand to sustain the ever-increasing human population have led to change in land use pattern by conversion of forested land to agriculture field and human settlements resulting in habitat loss and fragmentation. This inevitably leads to humans and large mammals interacting in the humanwildlife interface areas. In such cases, the conflict occurs in the form of economic losses such as crop damage, livestock depredation, property damage, loss of human lives and large mammals. Due to increased instances of conflict, people gradually develop negative attitudes towards wildlife and its conservation initiatives as the tolerance levels of the local communities reduce over a period. In retaliation affected local communities end up killing conflict animals which adds to the existing factors that are driving the large mammal population to decline. Mitigating human-large mammal conflict is thus a priority for large mammal conservation in India.

SACON's ongoing project on "human-large mammal conflict in the Western and Eastern Ghats part of Tamil Nadu" aims to assess the conflict status in Tamil Nadu for the past five years. As part of which, the researcher,

V. Gayathri travels across villages in the human wildlife interface areas from Kanyakumari to North Cauvery Wildlife Sanctuary, conducting questionnaire surveys to address the human wildlife conflict faced by local communities. So far, the researcher has completed survey in Kalakad-Mundanthurai Tiger Reserve (TR), Sathyamangalam TR, Mudumalai TR, Srivilliputhur Wildlife Sanctuary (WLS), Nellai WLS, Meghamalai WLS, Nilgris and Gudalur Forest Division, where she had the opportunity to meet people belonging to various communities. The rural communities are highly dependent on agriculture and livestock as source of revenue as the forest land provides forage for their livestock, water and fertile soil for cultivating crops. Crops such as paddy, banana, coconut, areca nut, sugarcane, groundnut, cotton, maize, ragi, tubers and vegetables are mostly cultivated in these areas. These palatable crops attract mammals such as elephant, gaur, chital, sambar and wild pigs resulting in crop damage. Sheer numbers of wild pigs are becoming nuisance to the people cultivating crops which is in increasing trend in the state. In several areas crops such as banana, paddy and sugarcane attract elephants and in other side people extensively cultivate them as they are high revenue yielding crops. In most cases crops are raided at the reaping stage and it creates havoc in the minds of the farmer who has invested so much of money and time for the expected yield.



Electric fencing to prevent crop damages by wild herbivores

People follow a range of mitigation measures to prevent crop damage from elephant proof trenches to green fences. Economically well-off farmers opt to trenching and electric fencing to protect their crop land whereas



farmers with meagre income opt to barbed wire fencing, fire and noise deterrents, human guarding and green fences. As a result, the economically poor farmers are possibly prone to high conflict by wild herbivores. During the survey, people told that they used high power torches and tractors to drive the elephant effectively. Few cases of people retaliating against the crop raiding animals by snaring and electrocution resulting in injury and death of elephants were also reported from the study area.

Livestock such as cow, buffalo, goat, sheep and poultry rearing are one of the major sources of income for the people in these areas. Majority of the people residing in the forest fringes illegally graze their livestock within the forests for fodder and water which become easy prey for the carnivores. Carnivores often depredate on these livestock. During the survey, people told that tiger and leopard targeted the pregnant cows as they are slow moving and form easy prey. Few reported chicken lifted by mongoose and small cats. Under most circumstances, the livestock are lifted when they are grazing in the forest and fringe habitats and in few cases leopard lifted livestock from the livestock holding areas.



Livestock herding within the Protected Area

The TN forest department provides compensation for crop damage and livestock depredation however people reported that the amount compensated is too meagre. The forest department mostly does not compensate crop damages by wild pigs and deer. The compensation amount of casualty was also reported to be meagre and when conflict animal kills a bread winner of the family, they are incapable to meet the ends with compensation provided.

The researcher had met various tribals communites such as Kani, Panniyar, Kota, Thoda, Sholagar, Kurumbas, Kattunayakas, Irulas during the field survey. The tribal communities unlike the settlers are largely depended on the forested areas for firewood, tubers, honey, grazing livestock and NTFP collection. The TN Forest Department employs the tribes by providing jobs as front line staff. The Kani tribes of Kalakad Mundanthurai TR cultivate crops, practice traditional herbal medicine and depend on the forests for collection of honey, tubers, medicinal herbs and fishing. Panniyars of Nellai WLS depend on the forests for firewood, grazing livestock and honey collection. The Kota and Toda tribes of Nilgiris collect firewood, honey and graze their sacred buffaloes in the forests. The Toda tribes are well known for their embroidery shawl known as puthukuli. Kurumbas of Nilgiris find revenue through employment in tea estate as labourers and livestock rearing. The Oorali and Sholagar tribes of Sathyamangalam TR cultivate crops such as maize and ragi and depend on the forest for collection of honey and forest produce. The Kurumbas, Kattunayakas of Mudumalai TR are employed as agriculture labours and depend on the forests for firewood and grazing livestock. The Irulas of Sathyamanglam and Mudumalai TR cultivate corn, maize, vegetables and groundnut. They depend on the forests for firewood, grazing livestock and collection of Hopefully the employment opportunities honey. provided by the forest department, better education, provision of LPGs, conservation awareness and other job creations gradually reduces the dependence of the tribal communities on forested ecosystems.



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A serendipitous sighting of the Neelakurinji (Strobilanthes kunthianus)

Gayathri Venkatramanan, Anoop V, Jeevith S and Thanikodi M

Last month, fortune in the form of field work took us to the Nilgiris. As it turns out, we were on schedule to witness nature's wonder which was unravelling within our reach. Wanting to see the wonder with our own two eyes, we went to Sholada village at Kalhatty slopes in the Nilgiris. As we made our way through the mist covered hills, the parting mist revealed the beauty that lay ahead on our path. Eager to take a closer look, we trekked a bit further and then suddenly stopped on our tracks at the sight of the serpent that lay in front of us basking in what little heat it could receive. As the Russel viper slowly slithered away and granted pass to the carpet of bluish purple that was beautifully sprawled across the mountain, our eyes took in time to enjoy the sight of the Neelakurinji flowers buzzing with bees and pollinating the flowers.



Neelakurinji flowers

Strobilanthes kunthianus (Nees) Anders. ex. Benth. an endemic to Peninsular India, widely known as Neelakurinji which belongs to the family Acanthaceae. This species which blossoms every twelve years, and prevails in montane grasslands and rock slopes at an altitude of 1400 to 2500 meters. The phenomenon wherein the Neelakurinji flowers blooms in groups, set seed and later dies off is known as supra-annual synchronization. The mass blooming of these flowers were celebrated by the local communities "Badugas" of the village in the presence of several officials including the District Collector Tmt. J. Innocent Divya. This year mass flowering of Neelakurinji were found in several locations of Nilgiris district including the Denad, Kilkotagiri and Kodanadu slopes at Kothagiri, Lamb's rock at Coonoor of Nilgiris North and laterally Eppanadu, Chinna Coonoor, Glenmorgan of Nilgiris South. The sighting of Neelakurinji from the Kodanadu view point overlooking the Thengumarahada valley was a spectacular sight, one of the most beautiful creations ever looked upon by man.



Mass flowering of Neelakurinji

Once widely, spread across the Nilgiris due to increased human expansion has lost much of grasslands as its habitat. There is an increased disturbance to the plants by humans. On several occasions, we witnessed both locals and tourists in Kalhatty plucking the Neelakurinji flowers as a souvenir. It is sad to see such wonder of nature is not effectively protected. The people due to lack of awareness and prohibition are impacting the mass blooming Neelakurinji flowers. Tourism can be regulated in these areas and protected for conserving the species in the locality.

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Field-trip on identification of mammal signs for M.Sc. students

T. Ramesh

The Sálim Ali Centre for Ornithology and Natural History (SACON) conducted "Field Training on Identification of Mammal Signs" as part of Mammalogy Course Module at Coimbatore Reserved Forest Division (CRFD), Tamil Nadu on 19th July 2018 for the newly joined M.Sc. Ornithology and Conservation Biology students. The purpose of the field visit was to train students in identification of mammal signs along Bhavani riverbed in the locality: Kudapatti - Eruthukalpudur area of Periyanaickenpalayam range of CRFD.



Dr. K. Sankar describing about different mammal signs to the students during the field-trip

During the "Field Training programme" Dr. K. Sankar, Director; Dr. T. Ramesh and Dr. Krishnendu Mondal, Faculty Members and Dr. Muthumperumal, SERB-Young Scientist, explained about various faunal and floral identification keys to the students. As part of this exercise, students were taken along the river bed for 4 km and then on 4 km elephant trail to demonstrate various indirect sign evidences of mammals. The team has done the survey with the help of Forest Guards and Anti-poaching Watchers from CRFD. The students have recorded various sign evidences of elephant, wild pig, chital, sambar, Indian bison, barking deer, common langur, cattle, goat, leopard, Indian smooth-coated otter, palm civets and mongoose during the survey.



M.Sc. students' group photograph with accompanying faculty members and CRFD staff

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Scavenging sloth bears V. Gayathri, M. Thanikodi, T. Ramesh and Riddhika Kalle

The past few months, Researcher, V. Gayathri was staying in beautiful small town, Masinagudi in Moyar valley surrounded by hills and located amidst the Mudumalai Tiger Reserve in Tamil Nadu. While conducting survey to the locals on Man-animal conflict in the locality, people reported of sloth bear scavenging the dumpsters at night in the village. Gayathri camped in a nearby house overnight to look for the curious visitor. After waiting for the entire night the silent incongruous visitor slowly made its way to the dumpster around 05.00 am in the morning. After fishing the dumpster for a while, the sloth bear slowly made its way back to the forest. Locals told that the sloth bear frequents the dumpster daily from 09.00 pm to 05.00 am. People who return from the work during the night often encounter the bear although no one has been harmed. In Nilgiris similar incidences of sloth bear scavenging in the dumpsters were also reported elsewhere. Recently a sloth bear cub was trapped in a gate while scavenging with the mother which was later rescued by the local



forest department staff and reunited with the mother. Sloth bears are moving into the human-dominated areas due to habitat loss and fragmentation and they frequent such dumping zones for the surplus availability of food, this can lead to incidences of human-wildlife conflict over a period of time. Furthermore, there are possibilities of the bear contracting disease and getting injured from the sharp objects thrown in the dumpster. Proper disposal of municipal waste and closed dumpster can be maintained by the local bodies to prevent the animals from scavenging the dumpsters.



Sloth bear scavenging in a dumpster at Masinagudi town

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Research, Monitoring and Advisory Committee (RMAC) meeting

On 14th August 2018, the Research, Monitoring and Advisory Council (RMAC) of SACON met in the campus board room and discussed about various ongoing research activities of SACON. RMAC also emphasized on the gap areas where ecological research intervention is needed and possibilities for SACON to step-in and address the issues.



RMAC meeting at SACON Board Room

Visit of Joint Secretary, MoEFCC to SACON

Mrs. Manju Pandey, Joint Secretary, MoEFCC visited SACON campus on 7th August 2018. She visited laboratories and academic buildings of SACON with great enthusiasm and discussed on SACON's potential to address different conservation hurdles in the country. She also praised the architectural beauty of SACON campus.



Mrs Manju Pandey, Joint Secretary, MoEFCC with SACON faculty members



Ms. A. Julffia Begam, Information Officer, ENVIS Cell, SACON won the first prize from Ministry of Environment, Forest and Climate Change for designing the logo for World Environment Day 2018.



The Ministry of Environment, Forest and Climate Change (MoEF & CC), Government of India, the Global Host for World Environment Day, 2018, had conducted a contest for design of Logo for World Environment Day, 2018 to catch the attention on the theme of the World Environment Day, i.e. **"Plastic Pollution"**. The broad concern was to highlight the major environmental stress caused due to littering and unsafe disposals.

The energy and enthusiasm of the contestants was at its best, as they presented their creative and innovative Logos which depicted socially relevant problems in a very cohesive manner.

The event witnessed an active participation from round the country with total of 332 entries. After a tough and rigorous round of screening 5 entries were finalized and displayed in the Technology Exhibition- "Sambandh" organized by Ministry at the back lawns of Vigyan Bhawan, New Delhi, from 02nd June, 2018 to 05th June, 2018.

Along with entries for the contest on MyGov platform, the first winner creative was posted on Ministry's website and found to be best among the all entries. We congratulate all winners.

Following is the list of winners:

Name

ID/ Mobile No.

Ms.Julffia Begam

Ministries outreach program other than My Gov



Rank & Prize

I – Prize



Visit of senior officials of **MoEFCC to SACON**

Dr. Rita Khanna, Director, MoEFCC and Shri Chandan Singh, Joint Director, MoEFCC visited SACON campus on 7^{th} August 2018. Both of them along with all the faculty members of SACON had a wonderful interactive session discussing ongoing projects of SACON and possibilities of taking up more projects addressing environmental pollution especially on wetlands.



Editorial Board Dr. Krishnendu Mondal, 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.

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Visit of Officer trainees/ Scientists from different Institutes to SACON



Officer Trainees from CASFOS, Coimbatore visited SACON



Scientists from Tamil Nadu Agricultural University visited SACON

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