

## **Bhoomithrasena club activities 2019-20**

**S.N.College, Kollam**

**Report of International Seminar**

### **International Seminar on Current status and challenges for Conservation and Sustainable use of Biodiversity (ISCCSB 2020) 22 to 24 January, 2020**

**Organized by**

**Bhoomithrasena Club**

**PG & Research Department of Zoology, Sree Narayana College, Kollam**

**Indian Science Congress association, Cochin Chapter, Kerala, India**

Biodiversity is the most complex feature of our planet and it is the most vital. Biodiversity has an intrinsic value worth protecting regardless of its value to humans. This focuses on the conservation of all species. Conservation of biodiversity is protection, upliftment and scientific management so as to maintain it at its threshold level and derive sustainable benefits for the present and future generation.

To address the “**Current Status and Challenges on Conservation and Sustainable Use of Biodiversity**”, we should go through the globe, so the PG and Research Department of Zoology and **Bhoomithrasena Club** of Sree Narayana College, Kollam and Indian Science Congress association, Cochin Chapter, Kerala, India organized a three day international seminar from 22nd to 24<sup>th</sup> of January 2020 at the G2 seminar hall of Sree Narayana College Kollam in association with Department of Aquatic Biology and Fisheries, University of Kerala, TVPM, and supported by **Directorate of Environment and Climate Change, Govt. of Kerala.**

This three day seminar brought together various researchers and eminent personalities all over the world which put light on the challenges and current status of biodiversity across the globe.

The inaugural session began with prayer at 10 am followed by the Welcome speech delivered by Dr. B. T. Sulekha, Head of PG and Research Department of Zoology. The function was presided by honourable Principal of our college Dr. R. Sunilkumar. He pointed out the importance of coexistence of human beings with nature, without causing harm.

The programme was inaugurated by Sri N. K.Premachandran, Honourable Member of Parliament by lighting the lamp. He emphasized that economic growth of a nation must be in parallel with the sustainable utilization of natural resources.

The inaugural session was followed by Dr. Marc David Abrams, Steimer Professor, The Pennsylvania State University, USA and Dr.Prakasam V.R, Professor, Department of Biology, Mekelle University, Mekelle, Ethiopia introducing themselves. Later on M.Sc.Zoology rank holders were honoured for their admirable achievements in the academic year of 2019.

Dr. R. Raveendran, Emeritus Professor and Special Officer, S.N Trust colleges and Dr.S.V Manoj IQAC coordinator S.N. college, extended their felicitations. Dr. S Sheeba, Asst. Prof, Dept. of Zoology, expressed her gratitude through vote of thanks which marked the end of the inaugural session.

We began the first session chaired by Dr. K V. Jayachandran, former Director of Research, KUFOS, Kochi and current Convener ISCA, Cochin Chapter at 10.20 am. He handed over the session to our keynote speaker Dr. Marc David Abrams, Steimer Professor, The Pennsylvania State University, U.S.A. He did a presentation on “**The Impacts of Historical Ecology and Global Change on Eastern US Forests**”. The presentation highlighted how the fire tolerant heliophytic plant species were replaced by fire sensitive, shade loving plants in the Eastern United States. He spoke about the positive feedback cycle which is termed as ‘mesophication’ and how the micro environmental conditions accelerated this process. The whole interactive session aimed at sharing his experience and knowledge in the field of forest ecology and conservation.

The next session was handled by Dr. Prakasam V.R, Professor, Dept. of Biology, Mekelle University, Ethiopia. The presentation pointed out the richness of the vertebrate species and the varied topographic and geographical features of Ethiopia. Dr. Prakasam successfully conveyed the importance of protecting the endemic species and listed out the major risk factors that endangered the wild life.

The following session was addressed by Dr. ZubairMedammal, Asst.Prof. Dept. of Zoology University of Calicut. He gave a very interesting talk on the topic, ‘**The Status and Conservation**

**of Raptors**'. He clearly gave the idea about the conservation strategies adopted by UAE government for protecting the falcons and stated the threats faced by them due to lead poisoning, shooting, electrocution, collision with wind energy turbines etc. The forenoon session of the day came to a close with the presentation of Dr.Zubair.

The afternoon session was chaired by Dr. Prakasam V.R, Professor, Dept. of Biology, Mekelle University, Tigray, Ethiopia by 1.50 pm.

He invited Dr.K.Kathiresan, Faculty of Marine Science, Annamalai University, Tamilnadu, for his talk on the topic, **Mangroves: Conservation and Sustainable Use**. He drew our attention towards the needs for protection of the mangroves by tapping the youth power of our country.

He suggested the unique idea that the mangroves are the only Blue Carbon forests that can provide a potential solution to the growing threat of climate changes. He concluded it by stating 'everything can be sacrificed for biodiversity; but biodiversity can't be sacrificed for anything.

We later witnessed a revelatory talk by Dr.V. Jayaprakash, Former Professor, AMITY University, centre for Marine Science and Technology, TVPM, on the topic 'Biodiversity of Indian Coral Reefs and Management Measures to Conserve'.

He revealed the current status and anthropogenic threats faced by Indian Corals and summoned up on the importance of conserving coral reefs.

Miss.Jyothilekshmi.K, M.Phil student, Department of Aquatic Biology and Fisheries, University of Kerala, who discussed about the research methodology for collecting aquatic insects by delivering an interesting talk on the '**Fascinating World of Aquatic Insects and their Importance in Biomonitoring Studies**'.

The first day of our seminar ended on a fruitful and promising note.

## **Second Day**

Second day of the seminar started at 9.40 am and was chaired by Dr.K.K.Appukkuttan, The Former, Principal scientist & Division Head, ICAR-CMFRI, Kochi.

The first paper of the session was presented by Dr.A.Bijukumar, Dean, Faculty of sciences, University of Kerala, on the topic “**Marine Biodiversity in India; Threats and Conservation Strategies**”.

He discussed about the strategies for strengthening blue economy and blue growth by promoting marine biodiversity conservation than exploitation and need for national policies to establish better linkage of research. He designated that new threats to biodiversity extinction are, change in consumption pattern, market force and over production. He has introduced new initiatives like ‘Shuchithwasagara’ and ocean policies to the audience.

Next session was handled by Dr. S Suresh Kumar, Director, SOST, KUFOS, Kochi, Kerala on the topic “**Biodiversity and conservation of wetlands**”.

His talk was an eye opening one for the protection of wetlands, one of the most ecologically sensitive and productive ecosystem, which provide vital ecosystem services and biodiversity values for human wellbeing. He pointed out that the major threats to the wetland over the world is similar and can be enlisted generally as an alteration of natural hydrological regimes, catchment degradation, pollution, invasive alien species, over harvesting of resources, unregulated tourism and finally climate change.

An informatory talk on “**Freshwater Biodiversity Conservation: Challenges and Opportunities**” was given by Dr. Rajeev Raghavan, Assistant Professor, KUFOS, Kochi, Kerala. He enlisted the major long term and short term irreversible threats faced by the fresh water ecosystems in India. He revealed that the minimum environment flow is restricted to 3% in South India and 37 % globally. He reinstated the importance of river restoration and the scope of e-DNA.

Dr. K. K. Appukkuttan wrapped up the morning session by sharing his expertise in the field of aquatic biology and fisheries and reviewed the paper presentations. He urged the young researchers to go out and see what is happening in the field.

The afternoon session started at 1:45 pm and was chaired by Dr.R.Bindhu, Rtd. Prof and Research Supervisor, Dept. of Zoology, S N college Kollam. Dr.Francy K Kakkassery, Associate professor, and HOD, Dept of. Zoology, St.Thomas College, Thrissur, Kerala delivered a very interesting topic entitled '**An Introduction to Odonates in Kerala**'.

The presentation helped to familiarize with the common Odonates and enabled us to differentiate between dragonflies and damselflies. He elaborated the classification, morphology, life cycle, reproduction and habitat of Odonates. He also suggested that Odonates can be explored as an excellent bioindicators and at the same time it can be used as a control measure for mosquitoes.

'**Butterflies of Kerala- an introduction**' by Dr.Kalesh Sadasivam, Travancore Natural History Society, Tvm helped the students to familiarize with the butterflies and encouraged them to take up challenging aspects of butterfly ecology as topics of research. He summarized the basics of butterfly identification and shared his 20 years of field experience.

14 research papers were presented in the 5th session, and the panel of experts were Dr. R Bindhu, Rtd.Prof and Research Supervisor, Dept.of Zoology, S N college, Kollam, Dr. B T Sulekha, Asst Prof and HOD Dept. of Zoology, S N College Kollam and Dr.Ratheesh Asst. Prof Dept of Botany, S N College Kollam.

### **Third day**

Today, the last day of the Seminar started at 9:40 am. Eight research papers were presented and the panel of experts were Dr. K. K.Appukkuttan, Former Principal Scientist and Division Head, ICAR- CMFRI, Kochi, Dr S Sekaran, Asst. Prof, Dept.of Botany,S N College for Women, Kollam and Dr G Madhusoodanan Pillai, Director, Sredha Scientific Charitable Society, Thiruvananthapuram, Kerala, India.

The seventh session was chaired by Dr K KAppukkuttan, The Former Principal Scientist and Division Head, ICAR- CMFRI, Kochi.

The paper entitled, 'Dye yielding plants and the indigenous knowledge: Some observations', was delivered by Dr K Murugan, Former Principal, Govt.Arts College, Tvpm, and Research Officer, New Initiatives in Higher Education, Govt. of Kerala, India explained the vast biological potentialities of our dye yielding plants and their corresponding dyes.

The following session was addressed by Dr. Sudhikumar, A.V., Asst. Prof, Christ College, Irinjalakkuda on the topic 'An Introduction to the World of Spiders'. He introduced an amazing world of spiders and pointed out their importance as regulators of terrestrial arthropod populations.


A total of 63 participants were registered and engaged in the seminar.

The deliberations and fruitful discussions done in the three day seminar strongly recommended that the youngsters need to be motivated to get field level experience, which may further lead to in depths research in generating scientific knowledge for biodiversity conservation, restoration and maintenance of a functional ecosystem for the sake of future generation.



**First Announcement**

## International Seminar on CURRENT STATUS AND CHALLENGES FOR CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY (ISCSB 2020) 22 to 24 January, 2020



**Payments**

Category	Local	Foreign	Registration	Travel
Students (ISCBS)	500 INR	750 INR	50 USD	
Research Scholars	1000 INR	1500 INR	100 USD	
Faculty from Affiliated Institutions	2000 INR	2500 INR	200 USD	
Participation	100 INR	750 INR	100 USD	

**IMPORTANT DATES**  
10 January 2020: Last date for Abstract Submission  
15 January 2020: Last date for Full paper Submission  
20 January 2020: Last date for Registration

**Organized by:**  
S.N. College, Kollam, Kerala, India. Ph: 9819017116  
Ph No: 0474 2247792

**Co-organized by:**  
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Ph No: 0474 2247792

**Co-organizing Institutions:**  
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**Sponsored by:**  
PG & Research Department of Zoology and Invertebrates Club, Sree Narayana College, Kollam, Kerala, India

**Supported by:**  
Directorate of Environment and Climate Change, Government of Kerala

## CURRENT STATUS AND CHALLENGES FOR CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY (ISCSB 2020)

**BACK GROUND**

The variety of life on Earth, its biological diversity is commonly referred to as biodiversity. The number of species of plants, animals, and microorganisms, the enormous diversity of genes in plants, animals and coral reefs are all part of a biological diversity. Biodiversity is the variety of life forms and the ecological processes that sustain them. Biodiversity is essential for the development of strategies aimed to recognize the role of biodiversity in development. Biodiversity is essential for the development of strategies aimed to recognize the role of biodiversity in development. Biodiversity is essential for the development of strategies aimed to recognize the role of biodiversity in development.

**TECHNICAL THEMES**

- Terrestrial, Aquatic, Coastal and Marine Biodiversity
- Biodiversity
- Sustainable Development
- Global Warming and Climate Change
- Wild Life Conservation
- Inventory of plants and animals
- Plant-based Biodiversity Issues
- Plant Conservation and Challenges
- Biodiversity
- Environmental Pollution and Management

**IMPORTANCE OF THE SEMINAR**


To create data base and research capabilities on biological diversity and conservation biology which would be of great importance and utility at local, regional, national and international level for policy decisions, environmental sustainability and conservation.

**ABOUT SREE NARAYANA COLLEGE**

Sree Narayana College, Kollam is one of the oldest and the greatest centres of higher education in the whole state of Kerala. Affiliated to the University of Kerala, the college is managed by the Sree Narayana Trust, Kollam. Biology is one of the prominent disciplines of the college. The college was started in 1948 by Sree Narayana Guru and is one of the oldest and most respected institutions in Kerala. The college has a long and illustrious history of providing quality education to the students of Kerala. The college aims at achieving the high status of Sree Narayana Guru who believed in "Service to the welfare of all without any discrimination on the basis of caste, creed or religion".

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**Co-organizing Institutions:**  
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