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SRI LANKA NATURAL HISTORY SOCIETY *e- Newsletter - No 1 of 2021*

Editorial

A triumph of science ?

Although there seems to be a lot of frustration created by the Corona virus, we are actually currently witnessing a triumph of science.

Rapid gene sequencing and identification of the virus, recommendation of preventive measures to stop the spread (yes, this was indeed delayed !), development of vaccines in a matter of months and development of life saving treatment protocols.

It is indeed sad that science is suspect in many quarters of the public mind. Locally, reliance on unproven concoctions, paniyas (syrops), vows involving the breaking of pots etc has been resorted to at even the highest levels of government. Overseas, Donald Trump's faux pas are now legendary. Vaccines too are suspect in many quarters, even within the health sector.

Perhaps organizations such as the WHO need to be better prepared to provide reliable leadership in the event of emergencies such as this.

Members are encouraged to send in their snippets for publication in this newsletter to info@riscor.net

Chris Corea
Editor

DEJA VU - LOCK DOWN AGAIN !

Our last newsletter began with a reference to the month long lock down at the beginning of the Covid 19 pandemic in 2020. Now here we are, locked down once again – one year down the road ! When will this end ? Much speculation exists but only time will tell.

Meanwhile, our President Mr Srilal Motha is currently recovering from major surgery. We wish him well for a speedy return to good health.

UPCOMING LECTURE

Lizards of Sri Lanka

by Dr Kanishka Ukuwela

SLNHS
SRI LANKA NATURAL HISTORY SOCIETY
PUBLIC LECTURE 2021 #2

Thursday 10th June at 7.00 p.m.
virtual via Zoom

**“Lizards of Sri Lanka:
diversity, origins & natural history”**

by
Dr. Kanishka Ukuwela
Snr. Lecturer in Zoology
Rajarata University

Dr. Ukuwela is an evolutionary biologist interested in the diversity, evolution, and origins of herpetofauna in South Asia.

The Zoom link will be sent two days before the talk

EXCURSION TO HORAGOLLA NATIONAL PARK

A comprehensive report by Ninel Fernando is at : <http://slnhs.lk/docs/Horagolla%20report%20NF.pdf>



100TH ANNUAL GENERAL MEETING

The 100th Annual General Meeting of the Society was held via Zoom on 8th Feb 2021. Office bearers kindly consented to continue in office during another pandemic year – if there were no other nominations. There were no other nominations and office bearers continue in office as follows :

Patron	: Dr Malik Fernando
President	: Mr Srilal Motha
Vice President	: Ms Ninel Fernando
Secretary	Mr Asoka Siriwardena
Treasurer	: Ms Anouchka Wijenaikie
Exco Members	: Mr Chris Corea Mr Prasantha Jayasekera Prof Devaka Weerakoone Mr Lester Perera Mrs Padmini Seneviratne Dr Enoka Corea

Address by the in-coming President

The incoming President Lal Motha commenced his address by noting that this on-line AGM, the first of its kind in our history went smoothly and reminded that this occasion was also the 100th AGM in our history. He thanked all members who participated. Mention was made of the very little activity we had during the year as highlighted in the secretary's report. Reflecting on the core principle on which the Society was founded, namely to gather knowledge on natural history and to share this knowledge with the interested citizen.

In further fulfilment of this purpose a research grant project has been successfully launched. This grant will recognize and encourage quality research on subjects of interest to the Society. The outcome of such research grants would be valuable scientific work, enabling interesting presentations in the future. At a time when environmental destruction is taking place at an ever increasing scale this project would be all the more valuable.

He then invited members to join the Council for the sake of the future of the Society. He thanked the members of the present Council individually for their services - Asoka as secretary for keeping track of the activities and the documentation, Anouchka for her excellent role as Treasurer and latterly for hosting on-line meeting activity, Ninel for organizing the Society trips under stressful conditions, the former president Chris for his valuable advice on many matters in addition to maintaining our website, Prof Devaka for his valuable role in implementing the research grant project, other members of the Council for their assistance in numerous ways and most importantly Dr. Malik for inspiration and valuable guidance. Finally, he read out the titles of the very interesting research proposals received. He also emphasized the need to develop criteria for objective evaluation and finally selection of the award winners.

Dr Malik Fernando's presentation – Synopsis by Asoka Siriwardena

The keynote address was delivered by Dr. Malik Fernando the Society's Patron on the subject of Echinoderms in Sri Lanka-an illustrated talk. Reflected here is only the synopsis of a detailed talk. He started his talk by saying that there is very little available literature on the subject in the central and northern parts of the Indian Ocean. What has been studied is in the east and in the west towards Africa. There are Indian studies, but little is made available.



The material now presented he said is all naturalist work without any contacts with the centres of excellence. The presentation covered the range of species classified under Echinoderms and they included starfish, sea urchins, feather stars, brittle stars, and sea cucumbers. He then presented the varieties of starfish and sea urchins (star fish 49 species – Clarke and Rowe checklist. Sea urchins 77 species belonging to 48 genera) numerous feather stars and brittle stars, all illustrated and explained with colourful slides.

Sea urchins, he said were studied by Dr Sevvandi Jayakody, and dealt with under 2 publications. Basically, they are classed under regular and irregular sea urchins. Speaking of sea cucumbers, he said that they were commercially important, and exported to the Far East. Of their varieties the only protected species are the colourful ones. The different varieties were explained with slides.

The talk was followed by questions which were answered by the speaker. At the conclusion of the talk Chris proposed a vote of thanks to Dr. Malik for his fine presentation, which included stunningly beautiful visuals. Truly an inspiration to future naturalists.

RECENT LECTURE *Synopsis by Asoka Siriwardena*



Carnivorous Plants of Sri Lanka

Talk by Ravishka Jayasuriya

The Society had its first virtual public lecture for the year online via Zoom on 13 th May 2021. It was an illustrated talk by Ravishka Jayasuriya a naturalist at the Horizon Campus Malabe, on the subject of “Carnivorous Plants of Sri Lanka.” Despite being the first Zoom lecture with notices issued only to our members, the participation was excellent with over 50 attendees. A synopsis of the talk is as follows.

He commenced by displaying a wide variety of carnivorous plants and went on to explain why they were called carnivorous plants. They were plants which needed nitrogen and with evolution they had developed ingenious ways of tapping insects. They had evolved under several families and orders, and there are about 600 known species. In addition there are also hybrids now found in the market with demand for ornamental plants.

He explained the diversity found in Sri Lanka and mentioned plants endemic to Sri Lanka. He further stated that Sri Lanka had three genera from three different families of carnivorous plants. Among the notable documentation done on these plants he mentioned the work of Panlo Hermanno in the 17 th century, and the more recent, “Wild Flowers of Sri Lanka” with illustrations by Mrs Dorothy Fernando (who happens to be the mother of our Patron).

Explaining the habitats of these plants, they live in places where nitrogen, phosphorous, and potassium are scarce, with lots of water flows- rainforest undergrowth providing diverse habitats. Mention was made of the Knuckles range providing an interesting range.

He mentioning the ways these plants have evolved to trap insects along with their botanic names viz :
pitchers – meaning a pitfall trap (Nepanthes which is endemic to us),
adhesive glue (Drosera), and finally
bladders (Utricularia).

He identified different plants by name coming under each type. Also explaining how each of these trapping mechanisms work. He then described the different plants by the leaf shapes and the flower design with pictorial illustrations. There also he said are unidentified plants which are endemic or indigenous. Talking of uses these plants have, they are used for medicinal purposes (in indigenous medicine) and as ornamental plants (aqua-scaping). The lecture was very informative and highly appreciated by our members. It was followed by a lively discussion.

2021 SLNHS UNDERGRADUATE RESEARCH AWARDS

The brainchild of our Patron and spearheaded by our President, a project has been initiated to award research grants to University Students conducting research in the area of Natural History. Initially this grant will take the form of two annual cash awards of Rs 30,000 each to be granted to students of the University of Colombo – one in the field of Plant Sciences and one in Zoology.

The formulation of the project was guided by our Exco Member Prof Dewaka Weerakoon who is the Professor of Zoology at the University of Colombo.

A committee of the SLNHS consisting of Dr Malik Fernando, Lal Motha, Chris Corea and Prof Devaka Weerakone met on several occasions to consider and shortlist the ten applications that were received in response to our call for applications which was published at the University.

Our thanks are due to the Dean of the faculty of Science Prof Upul Sonnadara and the heads of the Departments of Plant Sciences (Prof Chandrika Nanayakkara) and Zoology & Environmental Science (Prof Deepthi Wickremasinghe) for their enthusiasm and guidance in this venture, calling for applicants, establishment of selection criteria etc.

The following submissions were short listed considering their Relevance to Natural History, Novelty, Innovation and Potential to generate new knowledge about Critical Habitats or Endangered Species;

Towards greening the University of Colombo : A.A.D.A.S. Vimukthi

Screening, identification, and evaluation of potential endophytic biocontrol agents against *Rhizoctonia solani* : N. A. H. S. M. Jayasinghe

DNA barcoding of lichen inhabiting fungi and phycobiont and probing for biologically active molecules from the mycobiont : W M V C Weerasinghe

Role of Genome and phenome in an incipient speciation event of the Kentish Plover (*Charadrius alexandrinus*) in Sri Lanka : D. U. Jude Janitha Niroshan.

Characterizing wild buffalo populations in Sri Lanka using morphology, morphometry, and genetic composition : V.P. Nilupa Anuradhi Premasiri

Evolutionary Affinities Within the Genus *Ratufa* Revealed Through Genetic and Morphometric Markers : Kavindya Pathirana

The above will make brief Power Point presentations to our evaluation panel so that the two awardees for the 2021 awards could be selected. Presentations for our members may also follow.

NOW UPDATED - DO VISIT www.docmalikfern.com

This site documents some of our Patron's numerous contributions to science. It is for those interested in animals and plants, underwater, off the coast of Sri Lanka. Do take a look – any feedback to muhudubella@gmail.com



SLNHS MEMBERS HONOURED

TWO ENDANGERED GECKOS NAMED AFTER JAGATH AND SAMANTHA

Ifham Nizam's article in the Island Newspaper 1st June 2021



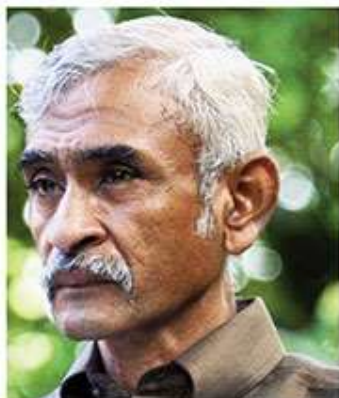
Two critically endangered geckos have been named after famous environmental lawyer Dr. Jagath Gunawardena and former Deputy Director of Sri Lanka Customs Samantha Gunasekara, for their major efforts and contributions to biodiversity conservation in Sri Lanka

Both were also recognised for their support, motivation, and encouragement to authors to accomplish their research and career goals.

Gunawardena's Day Gecko (*Cnemaspis gunawardanai*) newly discovered species is only found in two localities: Pilikuttuwa and Maligatenna in the Gampaha District. Gunasekara's Day Gecko (*Cnemaspis gunasekari*) only lives in Ritigala Forest, in the Anuradhapura District, which is a wet forest patch on an isolated mountain range in the north central dry zone..

With the discovery of these two new species, the total number of day-gecko species in Sri Lanka reaches 40. There are 38 species of tiny day-geckos living in Sri Lanka, and most of them are forest dwelling species. All of these species are endemic to the island.

A renowned team of herpetologists led by A.A. Thasun Amarasinghe from the University of Indonesia discovered the two species from Pilikuttuwa Forest – Gampaha and Ritigala Forest – Anuradhapura respectively. Both species are critically endangered and one of them at the brink of extinction, says Thasun Amarasinghe



Dr. Jagath



Samantha

Dr. Gunawardana's valuable contributions to popularising environmental law among the general public are highly commendable. Currently he is an advisor to many government institutions such as Central Environmental Authority (CEA), Department of Wildlife Conservation and Department of Forestry etc. Dr. Gunawardana is also a senior member and a former instructor of the Young Zoologists' Association (YZA) of Sri Lanka.

The new species found from Ritigala named to honour a leading environmental activist, conservationist, and former Deputy Director of Sri Lanka Customs (Government of Sri Lanka), Samantha Gunasekara, for his dedication and contributions to biodiversity conservation in Sri Lanka, as well as his generous friendship and support towards the authors.

His valuable contributions to the Sri Lanka Customs Department in controlling biodiversity trafficking, illegal pet trade, and biopiracy, as well as to popularizing conservation among the general public, are highly commendable. Mr. Gunasekara is also a senior member and a former president of the Young Zoologists' Association (YZA) of Sri Lanka.

The Research team consist of four leading herpetologists, A.A. Thasun Amarasinghe from University of Indonesia, Suranjan Karunaratna from Nature Explorations & Education Team of Sri Lanka Majintha Madawala from Victorian Herpetological Society of Australia, Ansem de Silva from Amphibia & Reptile Research Organization of Sri Lanka. "We first got the attention about these new geckos while we were examining specimens at the National Museum of Sri Lanka," says Thasun and Suranjan.

It seems the rupicolous (rock dwelling) species show higher speciation and diversity compared to the arboreal species, probably due to the isolation in and adaptation to isolated rocky habitats scattered in different bioclimatic zones in Sri Lanka, says Thasun. Supporting this hypothesis, among the currently known species of the day-geckos in Sri Lanka, only seven are fully arboreal, and the rest of 33 species are mainly rock-dwelling, adds Thasun.

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