

May, 2020
Volume 3
Issue 1

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Insects of Sri Lanka

Newsletter of Butterfly Conservation Society of Sri Lanka

KRUMITHURU

A meeting with a Butterfly
Red Pierrot

Dragonflies and Damselflies
Reproduction & Life Cycle

Conservation of Butterflies
Butterfly Gardening



Butterfly Conservation Society of Sri Lanka

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May, 2020 | Volume 3 | Issue 1

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Butterfly Conservation Society of Sri Lanka

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By : Sachini Rasadari

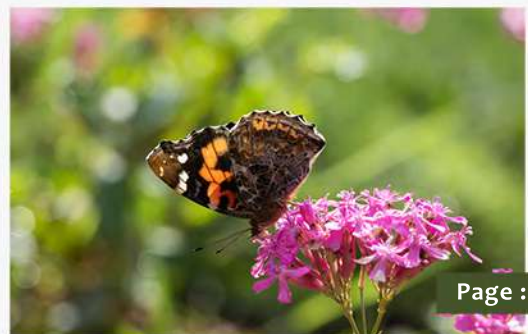
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ABOUT

B C S S L

Butterfly Conservation Society of Sri Lanka is a non-government, non-profit, volunteer organization that was established to create awareness and connection between insect fauna and humans, mainly specializing about Lepidoptera species of the island.

Since our initiation, we have been conducting various activities such as **Field Research, Field visits, Public Lectures, Awareness Programs, organizing Field workshops and producing Publications.** We have also been providing technical expertise on establishing and maintaining butterfly gardens in several locations throughout the country including the urban wetland parks in Colombo.



Through these activities, we are contributing to the nature conservation of Sri Lanka by collecting data important for the conservation of butterflies, building inter-relationship between scientists and amateurs working in the field, creating public awareness and assisting government and other parties in their conservation efforts.



The society consists of scientists, as well as enthusiasts who are spread around the country and throughout the world, spreading knowledge and awareness in conservation of Lepidoptera, other insect fauna and the flora groups related with their ecosystems.

Recently we have widened our scope by focusing on a wider scale of biodiversity with the main interest in butterflies and other insect life. Thus, we hope to contribute even widely to the nature and biodiversity conservation of Sri Lanka.

Editorial



World is in a lockdown... actually is it the world or is it only the human society that has been sent into a lock down, or more like a hiding? It almost looks as if mother nature has had enough of the traumatic experiences it endured due to the vile livelihoods of many different human cultures and societies. Regardless of the nationality or the geo location of these cultures or societies, their activities were based on their daily essentials such as aqua and agro cultures, construction of dwellings to facilitation in transportation, information technology and then to the health and wellbeing sector. And due to the scale of the requirement and the nature of the economic as well as the commercial aspects in today's civilisation, in order to produce not just the exact need of a person, but to fulfill the insatiate desire to consume as well as store more of everything, had driven the production to retrieve raw material, necessarily, in an unprecedented and unsustainable manner. These mindless resource harvesting had inevitably led to a collapse of the natural balance or the sustainability in living in this environment with a finite amount of every resource and human beings or the self-proclaimed, guardians of this planet solely bear the responsibility for this irresponsible vandalism, which includes who writes this editorial, me as well as the reader, you.

The menacing march for monstrous more and more of everything we, humans lay our eyes on, had come to an abrupt halt, or more like, had been put on hold by a mere creature which is so small that a human can't see it, smell it or touch and feel it. Yet, the new Coronavirus... we have named it as "Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2)"... wonder whether it knows its given name, it's sure to have a chuckle, if it is ever to be conscious of it... that gives us a disease called "Coronavirus disease (COVID-19)". This virus can't walk or fly or even float in air or water and is so slow yet so stealthy, it jumps from its carrier to another carrier and spreads using its host's actions. Once it finds its way to a livable space, it stays within the host quiet for up to two weeks or in some cases even up to three weeks and many of the hosts wouldn't even know that they got this tiny intruder is happily snuck in them and multiplying as well as jumping to other hosts without disrupting the lifestyle of the host. But, if the virus finds a host with a weaker immunity, then it pounces on it like a venomous snake and sends the host into a rage as if someone is punishing a kid for not living with standards and healthy.

This stealthy immobile beast has used the human ability in faster mobility in the wider world along with behaviours such as craving for congregation as well as assimilation that had resulted and largely responsible in the unsustainable consummation of aforementioned resources, and has now spread its presence almost all over the world where human populations are thriving and had managed to create a global pandemic. Now, this marauding beast has sent the all-conquering human into hiding, maybe for a shorter period of time, I am sure. Human is sure to bounce back, it won't lie low too long. We as the most conscious species to walk on this earth, had been through some horrendous challenges nature had thrown at us and been tested severely, but managed to come out a clear winner. This winning streak is the sole reason for the destructive trend that had settled among ourselves that we destroy our own life, our own home, and our own family.

Therefore, it is time to wake up to a certain reality that nature will find a way to heal itself if we continue to hurt and make it sick. And this nature's remedy may not necessarily favour our existence or our wellbeing. Right now, it is almost like a warning. We would be foolish to assume that nature had unleashed its utmost on us, therefore winning this challenge had given us a nod by nature to continue our favourite, old behaviour of over consumption. Merely slowing down ourselves for nearly two to three months, worldwide, in travelling and engaging in all sorts of productions other than vital, lifesaving necessities, such as organic food and medicines, had cleared our air we breathe, cleaned our water we drink and healed the ozone layer that had been damaged for decades.

So, imagine if we take this lesson much seriously, reduce our consumption to a minimum, be organic rather than create destructive polymers, burn less non renewables and use renewable energies, use less or no harmful chemical on other beings such as insects, use more natural and traditional methods of curing our ailments, stop the creation of modified and disfigured seeds and most of all protect our home instead of trying to develop technology to find another, somewhere beyond.

Imaduwa Priyadarshana
Editor - BCSSL

Message of the President

Dear Valuable Members,

We have been working with you for nearly seven years to conserve the butterflies in Sri Lanka and also the other small organisms that are ecologically important and are overlooked by many people. We intend to take the message of conservation to the public through nature-based activities, school education programmes, monthly lectures and workshops. Young students, children and adults are always rallying with us for this specific mission.

At different times in history, life on earth has become extinct for various natural causes. Today, the anthropogenic invasion is the result of continuous environmental degradation and one day, a weapon created by nature itself will eliminate all life on earth, including humans. We cannot avoid it. Yet, with a broad knowledge and understanding of the wide range of sensitive ecological relationships, we can reduce the rate of degradation of the planet by undertaking immediate actions.

The ecological balance of the earth is already collapsing as a result of the high-speed development that all the nations of the world are pursuing for the sake of luxurious physical comfort. And now, it is beating back against us. The majority of people who relish earning money do not have the mental capacity to enjoy nature. Yet, thousands of researchers and environmentalists around the world are fighting to stop this onslaught. Dian Fossey, who was protecting the endangered Gorillas in the Volcanoes National Park in Rwanda, Jairo Mora Sandoval, who was working to safeguard the Leather-back Sea Turtles in Costa Rica, and many of the known and unknown people, have already sacrificed their lives during this battle.

Think about your ordinary life. You are working hard, earning money by day and night, to give a good education for your children and to get a comfortable life, but not saving the environment. Mother nature is warning you! She has already locked us down into your houses. Without doubt, in the near future, people including your children will have to run with empty-hands to look for clean air to breathe, pure water to drink, to get away from the burning heat of the earth due to global warming and to escape the calamity of natural disasters. Our conservation effort is not for personal purposes, but to convince you that, on that day, the money or the power you have earned for your children, is worthless.

Therefore, feed your child not just with money, but with attitudes. Raise your child to become environmentally friendly and not to owe a debt to the earth. Keep in mind that, to achieve this, you should also have extremely positive attitudes. From an early age, the children, tired of the conventional education of the school, should be taught to observe the beauty of nature, to love the animals and plants. Make them believe that we cannot live without them. The Butterfly Conservation Society of Sri Lanka (BCSSL) is always ready to support you in this, by providing knowledge, assisting in environmental awareness programmes which will gradually lead to the wellbeing of the entire ecosystem including Butterflies. In this journey, we firmly believe that, "KRUMITHURU - කෘමිතුරු, the newsletter of BCSSL will be a precious colleague for you.

Happy Butterflying... !!!

Narmada Dangampola
President - BCSSL

ANNUAL GENERAL MEETING

The Annual General Meeting of the Butterfly Conservation Society of Sri Lanka for the year 2020 was held on 1st of February at the auditorium of the Meteorology department, Colombo 7. Prior to the AGM, a guest lecture was conducted by leading naturalist and biodiversity scientist Dr. Rohan Pethiyagoda, on "Biogeography of Sri Lanka: How Sri Lanka got its Animals and Plants". Dr. Pethiyagoda talked about the historical aspects and bio-geographic links in relation to the biodiversity of the island of Sri Lanka. Following the lecture, the AGM commenced with a briefing of the society's extensive work during 2019, presented by the past president. After the formal proceedings, new office bearers for the year of 2020 were appointed.



◀ BCSSL Committee for the year 2020

For the second consecutive year, Ms. Narmadha Dangampola¹ was appointed as the **President** and Ms. Ruwangika Gunawardana² was appointed as the **Secretary**. Filling in a position that was not occupied in the previous years, BCSSL co-founder and past President Mr. Himesh Dilruwan Jayasinghe was appointed as the Adviser for the year 2020.

The rest of the office bearers appointed for the upcoming year are as follows:

Executive positions:

- **Treasurer:** Ms. Dhammika Priyadarshanie
- **Editor:** Mr. Imaduwa Priyadarshana
- **Vice President:** Mr. Thisaru Guruge
- **Assistant Secretary:** Ms. Himidu Himansi
- **Assistant Treasurer:** Mr. Rukmal Ratnayake

Committee Members:

- | | |
|---------------------------------|---------------------------|
| • Mr. Amila Prasanna Sumanapala | • Ms. Pumudi Gardiyawasam |
| • Mr. Anesley Fernando | • Ms. Sachini Rasadari |
| • Mr. Chinthaka Wijesinghe | • Ms. Sewwandi Kuruppu |
| • Mr. Dushan Muthunayake | • Mr. Tharindu Ranasinghe |
| • Mr. Pasindu Shaneth | • Ms. Thilini Samarakoon |



By - Ruwangika Gunawardana
Secretary, BCSSL

Red Pierrot (*Talica nyseus nyseus*)



A Meeting with a 'Pirate'

Talica nyseus nyseus (Guérin- Méneville, 1843), "Red Pierrot" is one of the commonest and strikingly beautiful butterfly species found island wide belonging to the family of Lycaenidae. They fly year-round while showing a seasonal abundance after the first Inter-monsoon season. When considering their global distribution, Red Pierrots are restricted to the Indian Subcontinent and South-East Asia. Easily identified due to its striking color patterns, they could be seen flying leisurely within a half meter of the ground in habitats such as semi-arid plains, degraded patches, gardens, hill stations and forests where their food plant *Bryophyllum pinnatum* (අක්කපාන) is abundant. They could be easily attracted to home gardens by planting their food plant. According to the National Red List Category 2012 of Sri Lanka, the species conservation status is listed under the least concern. (MoE, 2012)



The butterfly has a wingspan of 28-35 mm but the female is slightly larger than the male and also has more rounded wings than the male. Other than that both sexes look similar. The upper side of the adult forewing is uniformly black except for a large orange portion of the lower edge of the hind wing. The patches on the underside are highly variable. On the underside, the forewing is white with black spots more toward the margin. Also, the forewing has a broad black outer margin with two rows of white patches on it. The margin of the hind wing has a wide band of orange with white spots. This orange color only goes up to vein 6 and the band continues in black up to the upper margin. The cilia of both wings are marked alternately in black and white. (Jayasinghe, 2015)



The early stage of the Red Pierrot is quite amazing and different when compared with other butterfly species. The female lays eggs on the underside of a *Bryophyllum pinnatum* leaf where it cannot be easily spotted by a predator. Since the *Bryophyllum pinnatum* leaves are thick, the caterpillar bores into the leaf after hatching which serves as a great protective mechanism. The caterpillar then spends the rest of its life living and feeding within blister mines, between the cuticles of the leaf. Occasionally it will move to another leaf when the edible parts of the leaf are finished. The caterpillar is light yellow in color with white hairs called 'setae' on the body and could be identified by searching the leaf for black pouches filled with the excreted matter of the caterpillar. The caterpillar will come out of the leaf at the time of the pupation and the pupa is formed under or on the leaf. The key characteristics of the pupa are the numerous black spots marked all over the yellow colored body.

Red Pierrots fly weakly and slowly settling down frequently but yet for a short while. Males can sometimes be found mud-puddling. Usually, they settle with a closed-wing position but sometimes in hazy sunshine, they bask with their wings held half open while rubbing its wings back and forth. Occasionally these butterflies settle in an open wing position to delight a photographer.

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Author - Vasura Jayaweera

Feeding plant of the Red Pierrot Larvae



There are 3 feeding plants of Red Pierrot larvae recorded in Sri Lanka and all belong to the family Crassulaceae. The family is also known as stonecrop family or pine family in the order of saxifragales.

(a) *Bryophyllum pinnatum* (Lam.) Oken

Common English name: Air Plant, Cathedral bells, Miracle leaf plant

Common Sinhala name: Akkapana

Habit: Perennial herb with simple or 3(-5)-foliate, fleshy leaves with purple crenate margins

Flowering: Large panicles with whorls of side branches with bell like pendulous flowers

Native distribution: Madagascar

General habitat: Open, rocky places in low country

Common Uses: Plant parts are used in traditional medicine

Landscape value : Cultivated as ornamental house plants, rock or succulent garden



Bryophyllum pinnatum ¹



Kalanchoe blossfeldiana ²

(b) *Kalanchoe blossfeldiana* Poelln.

Common English name: Flaming katy, Christmas kalanchoe

Habit: Evergreen perennial succulent herb with fleshy leaves with crenate margins

Flowering: Flowering heads with 4 petal flowers most commonly in scarlet red, orange, pink and many other shades

General habitat: Native to Madagascar and thrives well in well drained soils

Uses and landscape value: Commonly grown as an ornamental potted plant in both indoor and outdoor in Sri Lanka

(c) *Kalanchoe laciniata* (L.) DC.

Common English name : Christmas tree plants

Common Sinhala name : Akkapana

Habit : Short lived perennial or sometimes biennial. Stems are erect unbranched and fleshy in nature. Grows up to 120 cm tall when flowering

Flowering : Greenish yellow to light orange tubular flowers about 1.5 cm long

General habitat : Moist and dry environments

Common Uses : Use in traditional arylurvedic medicine to treat ulcers, boils, inflammations, diarrhea and much more

Landscape value : Cultivates for horticultural purposes due to decorativeness of the plant nature
Apart from above plants females have been recorded to lay eggs on the *Kalanchoe diagamontiana* Raym.-Hamet & H.Perrier, an exotic plant which the larvae refused to feed on and died.

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Author - Sachini Rasadari

Picture Credits - 1 - www.sl.butterflies.lk
2 - Himesh Jayasinghe

Dragonflies & Damselflies - Part II

Reproduction & Life Cycle



▲ Common Bluetail (*Ischnura senegalensis*) in wheel position ¹

Dragonflies and damselflies (Odonata) are insects with incomplete metamorphosis thus have three main life stages; egg, larva and the adult. Their life cycle is amphibious as the larva is exclusively aquatic but the adult is terrestrial/aerial.

Mate selection and mating

The reproductive behaviour of Odonata is a complex activity. Males often form territories in potential ovipositing sites and guard them from rival males while waiting for mature females to visit the site. Some large species of dragonflies patrol around the territory actively looking for mates. These territorial males behave aggressively towards other rival males and in large dragonflies, physical combat in the form of collision during flight, can be seen while many other species use non-contact displays. In Sri Lanka, such displays are commonly observed among the Gems (*Libellago* sp.) where males face each other and fly in a rhythmic pattern while moving back and forth judging each other's strength based on the flight pattern.



Aggressive display of Sri Lanka Ebony Gem (*Libellago corbeti*) males ²

▼ Tandem of Orange-faced Sprite (*Pseudagrion rubriceps ceylonicum*) ³



▲ Yellow Waxtail (*Ceriagrion cerinorubellum*) in wheel position ⁴

The male odonates recognize females of the same species based on visual signals. When they see a suitable female, the male grabs the female from its prothorax (in Zygoptera) or from the back of its head (in Anisoptera) using the usually elongated and complex male anal appendages. This position is called the tandem and they might remain in the position for a while. Later the female bends itself from below and makes contact between its genital opening, which is located on the ventral side of the 9th abdominal segment, and male's secondary genitalia. This position is referred to as the wheel or the heart position.



▲ Endophytic oviposition of Mountain Reedling (*Indolestes gracilis gracilis*)⁵

Oviposition

Once copulation is complete, the female starts ovipositing. Males might guard the female during this process by holding on to it, flying close to it, perching close to it or hovering over it. They chase away any other males that come close to the female during her oviposition to ensure that she lays the eggs fertilized by him. In some species males do not guard females during oviposition.

The damselflies and dragonflies in the family Aeshnidae, lay their eggs inside plant tissues using an ovipositor (Endophytic oviposition). Some damselflies lay eggs in plant material under water and they may stay submerged during this. The endemic Shining Gossamerwing (*Euphaea splendens*) almost always oviposits underwater. Dragonflies other than Aeshnids generally lay eggs on water outside plants (Exophytic oviposition). Some dragonflies including Sri Lanka's Yerbury's Elf (*Tetrathemis yerburii*) attach their eggs on to plants above water (Epiphytic oviposition).



Epiphytic oviposition of Yerbury's Elf (*Tetrathemis yerburii*)⁶

Non-contact guarding of Pink Skimmer (*Orthetrum pruinatum neglectum*)⁷



Larval Stage

Once the eggs are mature, first instar larvae emerge. These aquatic larvae can be found in many different aquatic microhabitat types depending on the species. All odonate larvae are exclusively predators. They hunt other aquatic invertebrates such as mosquito larvae and sometimes they even hunt tadpoles, small fish and larvae of their own species. Odonate larvae have a characteristically elongated labium which resembles a mask over their face, which they use to capture prey. It contains numerous hooks and teeth-like structures and the larvae project this forward in a flash and capture their prey.

◀ A larval stage of a clubtail (Gomphidae) dragonfly⁸

Emergence

Once the larval development is completed, the final instar comes out of the water and emerges as an adult. This process of emergence consists of many steps. When the fully developed final instar larva leaves the aquatic environment and positions itself for emergence, its exoskeleton begins to split from the thorax. Then, it draws its head and thorax out of the exoskeleton and fall backward. Later, it draws itself upwards, holds on to the surface using legs and start pulling its abdomen out of the larval exoskeleton. Finally it unfolds the abdomen and wings by pumping its body fluid. Once it is fully emerged, it remains there for a while until its wings are dried and thereafter flies away from the site of emergence. The discarded larval exoskeleton is known as an exuvia.



Emergence of Sri Lanka Wijaya's Scissortail (*Microgomphus wijaya*) (9-12 in sequence)

The emergence of odonates usually takes place before dawn or in the early morning hours in order to minimize being exposed to potential predators. After emergence, newly emerged individuals usually stay among vegetation away from water for safety until they are fully able and sexually mature. They develop proper adult colouration during this time and these immature stages with dull colouration and delicate bodies are known as the teneral. Teneral males are often similar to females in their colour patterns. Once the teneral are strong and ready for reproduction, they arrive at potential ovipositing sites in search of mates to continue the cycle of life.

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By - Amila Sumanapala

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2-12 - Amila Sumanapala

Conservation of Butterflies

Part I : An Introduction to Butterfly Gardening

The Importance, Major Threats and Conservation Approaches in protecting the Butterflies of Sri Lanka

Sri Lanka, also known as the 'Pearl of the Indian Ocean', is well-known for its rich biodiversity of fauna and flora. The tropical climate and the lush vegetation provide a favorable habitat for animals, including insects such as butterflies.

Butterflies are greatly important for a balanced ecosystem. They play a vital role in pollination and most of the life cycle stages including larvae, pupae and adults are high protein food sources found abundantly for other animals. The butterflies are also important in scientific research as an indicator species. With proper awareness, higher butterfly diversity can be used to improve the economy of the country directly by nature based tourism.



Some examples for Butterfly Gardens ¹

However, over the past decade, the human population has risen drastically. As a result, more and more harmful waste and chemicals are being discharged into the environment. Pesticides are chemicals used to control pests, including weeds. These are used mainly to protect agricultural farm-lands from pests and to control harmful creatures such as mosquitoes who spread vector-borne diseases. However, the intensive and extensive use of pesticides is a major concern. The butterfly populations are rapidly declining as a result of over-use of pesticides. Therefore, measures must be taken to protect these fascinating species for future generations.

These species can be protected mainly by sharing knowledge on these species to the public as most of them are unaware about the ecology and ethology of butterflies (i.e. their life cycle, Nectar plants, Larval Food Plants, special behaviors and Camouflaging Techniques etc.). More importantly, another way of supporting the survival of butterfly population is by encouraging people to have butterfly gardens especially in urban areas.



▲ Peacock Pansy (*Junonia almana*) ²

Eggs of the Common Mormon on *Murraya koenigii*. (Karapincha) ³



Introduction to Butterfly Gardening

What is Butterfly Gardening Concept?

The butterfly gardening concept is a way of growing their Nectar plants and Larval Food plants at the same place in order to attract butterflies and support them to complete their life cycle in your own space. For a real enthusiast, it's easy to build one in your own garden, But you require knowledge on butterflies, a space, and most importantly, the patience in your mind.

How to build your own Butterfly Garden?

Step 01 - Butterfly Species Identification

Conduct a preliminary survey and identify the butterfly species that already come to your garden and roam in the surrounding area. Photographs can be taken and could be identified by sharing them with experts or by using available field guides. (Eg: A Pocket Guide to the Butterflies of Sri Lanka)

Step 2 – Selecting a space

Most of the butterflies are sun-loving beauties while few of the species like to rest in dark, moist and shady areas. So, select a place which is rich in sunlight. Furthermore, study the conditions in the area such as existing plant species, different micro habitats, soil condition and water availability etc.

Step 3 – Selecting Nectar Plants (NPs)

Basically, nectar plants provide the nectar for adult butterflies. Most butterfly nectar plants are sun-loving plants. Prepare a list of Nectar Plants which contains nectar for the butterflies to feed on. Make sure not to remove the native vegetation unless it's necessary as they are the best performers in attracting butterflies.

Step 4 – Selecting Larval Food Plants (LFPs)

This is the most important step in order to support the butterfly population in your garden. The adult female butterfly lays eggs on specific plant varieties where its larvae could feed on. These plants are termed as Larval Food Plants. For each butterfly species, there will be one or more LFPs which are specific. Based on the data gathered during the preliminary survey, you could determine the particular LFPs of those butterfly species. Get the help of the experts and refer the field guides and text books on butterflies to prepare the list of LFPs.

Step 5 - Make your own plant nursery

Based on the lists of NPs and LFPs, select the most suitable plant species that suit to your garden depending of the available space and other factors such as sunlight, soil condition and water availability. Then you can start collecting seeds, saplings or grown plants and make a small plant nursery.

By - Ashan Karunananda

Picture Credits : 2, 3 - Ashan Karunananda

Background Photo - www.thespruce.com/how-to-make-a-butterfly-garden-4427931

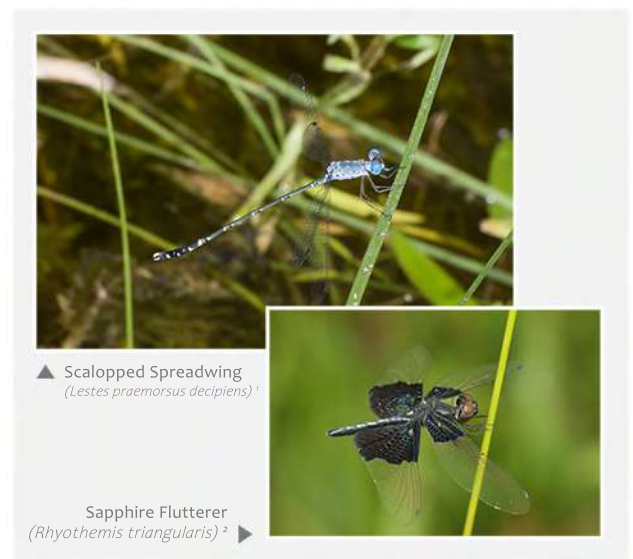
“Beautiful and graceful, varied and enchanting, small but approachable, butterflies lead you to the sunny side of life. And everyone deserves a little sunshine...”

Jeffrey Glassberg

TO THE SERENE DEPTHS OF A FOREST | A VISIT TO RAMMALE KANDA...

Penetrating the misty atmosphere of a hazy morning of the rainforest, there it came the far-carried call of a Crested Hawk Eagle, welcoming us to a world hidden to the busy city-dwellers. A flock of Layard's Parakeets passed us overhead over the gloomy waters of a reservoir surrounded by dense thickets of jungle. We are here paying a quick visit to the Hiyare Conservation Forest, on our way to a deep field expedition to Rammale Kanda forest; a place less known even to many naturalists.

Starting the four-day excursion (13th-16th July 2019), we departed from Colombo early in the morning on 13th. The days were rainy. But our vehicle was full with 14 excited team members. Our early morning drive brought us here at Hiyare by mid-morning. With warm greetings of the staff of the Wildlife Conservation Society of Galle, we set off for a walk along the banks of the pristine Hiyare reservoir. Our short walk granted us with 27 butterfly species including the endemics: Sri Lankan Paint Brush Swift and Sri Lankan Rose. Dancing over the reeds of the tank edge, around 12 dragonfly species busied themselves with their voracious hunts. A few to name... Scalloped Spreadwing, the endemic Metallic-backed Reedling, Blue-eyed Pondcruiser, Black-tipped Percher, Paddyfield and Pied Parasols, and the enchanting Sapphire Flutterer.



By noon, we left Hiyare heading towards Akuressa, from where we took our lunch and drove off for our destination. We kept steering up the twisting hilly roads till we reached the village, Handugala, where our homestay was, a warm place in a woodland. A babbling brook flowed around a kilometer down the road facilitating all our bathing and cleansing needs. Once the chilly water freshened ourselves up, we gathered for our night discussion where the team members shared their encounters and knowledge. As those who adore the amphibians and nocturnal life of woodlands ventured out for a night visit, the others made plans for the big day the day after.



Rammale Kanda forest Reserve is a lush 7000-acre rainforest and undoubtedly a veritable paradise for any keen naturalist, with its pristine beauty and wealth of flora and fauna.

Our target for the second day was to explore the forest trail that runs from Denihena leading up to the Kabaragala summit of Rammale Kanda from Eastern side. The sun shined pretty good, gifting us with around 50 butterfly species and many dragonfly species as we took the trail up to Kabaragala summit, located some 720 meters above sea level. We passed Angled and Common Castors, Yeomans and Lace Wings at the former part of the trail which was marginal to the tea estates. As we climbed, we could not help but gaze at the green carpet of southern lowlands which ran till it met the sea far away. Moving further up the trail, we observed the Great Eggfly, Baron, Black Prince, Tawny Rajah, the endemic Sri Lankan Tamil Bushbrown along with Medus Brown and Dark-Brand Bushbrown. The 'Nelu' plants at roadsides became a dense growth at some places and there we encountered the endemic Sri Lankan Black Flat with its pupa. The elegant Common Imperial, Apefly, Cornelian, Yamfly, the endemic Sri Lankan Milky Cerulean, Common Banded and Restricted Demons and Tropic Dart were already in our list as we were closing to the summit.



Common Snowflat (*Tagiades japaetus*)³



Common Sailor (*Neptis hylas*)⁴



Common Imperial (*Cheritra freja*)⁵

Just after the noon, we arrived in a patch of tea land through which we crawled into an almost mini-montane forest where stunted trees, shrubs, orchids and lichens were aplenty. Finally, we stood up on the rocky summit of Kabaragala. While we were having our packed lunch, a Crested Honey-buzzard joined us soaring over the breathtaking green canyon apparently looking for its lunch too. At the edge of the sky, dark clouds were gathering warning us with a possible thunderstorm. Therefore, we sped up climbing down: however the pace of the rain was far too quick and we all got soaked.

The next day – the third day's plan was to visit another side of the Rammale mountain. To reach its eastern slope, we drove through Warapitiya where we stopped at Kirama tank for a two hour-excursion. This short visit led us to observe almost 40 butterfly species and 14 dragonfly species. The shrubland at the tank bund was rich with blossoming plants creating a haven for Mimes, Emigrants, Migrants and many Pansies. It's worth mentioning the sightings of Baron, Apefly, Large Oakblue, Redspot, Dark and Common Ceruleans, Pea Blue, Lesser and Tiny Grass Blues. We departed from this mesmerizing place by the tank soon, as what lied ahead was even more enchanting.

By noon, we arrived at the foot of the Eastern slope of Rammale mountain where the winding road that runs to Rammale Kanda monastery begins. We passed creeks full of Gossamerwings and Flashwings and sneaked through the disturbed secondary forest where we encountered around 30 butterfly species and 15 dragonfly species. From the monastery premises, we entered the thick forest for a closer look and it was worth that. A hungry feeding flock played a symphony over us: Ashy-headed Laughing Thrushes babbled, Yellow-billed Babbler, Black-naped Monarch, Malabar Trogon, Velvet-fronted Nuthatch, Scarlet Minivet and Crested Drongo sang... A Chestnut-backed owlet cried from a grove... We almost stepped onto a Hump-nosed Pit Viper who was making itself home under the leaf litter.



▲ Hump-nosed Pit Viper



Asian Common Toad ►

Abundant under the canopy, there were small stagnant water pools - made alluring by the dragonfly wheels of love. In here, we further spotted Banded Peacock, Red Helen, Tree Nymph, Red Spot Duke, Black Prince plus Common and Water Snow Flats. On the way back, we did not forget to stop by the beautiful Rammale Falls which sat at the roadside. And we concluded our third day by a friendly tea boutique along with a warm cup of tea.

The last day rolled on with no one knowing. Saying our goodbyes to the lovely family that accommodated us, we set off to Deniyaya to enter the Sinharaja rainforest through Patna-Samangala entrance. Passing the busy morning feeding flocks, we kept walking along the forest trail where many orchids blossomed. Here we encountered an Aberrant Bushblue and a plenty of other butterfly species. Gazing at the countless enigmatic views of the forest, we reached a place where we finally should turn back: a forest creek by which we sat for our lunch, still focusing our lenses on those hard-to-tell-apart damselflies. The sunlight poured upon us through the canopy and wrapped us in its warm veil.

It was the end of four butterfly and dragonfly-full days. Throughout our visit, we could claim 85 butterfly species and 42 dragonfly species. By nightfall, we were already just a few hours away from our busy city life. Yet all of us knew that the reminiscence of the serene depths of Rammale could keep us alive till we get to breathe the wilderness air somewhere once again....

By - Gayomini Panagoda





Travelers Paradox

මිනිසුන් විවිධ කොට්ඨාස වලට බෙදී සිටීමට ප්‍රිය කරති. ඔබට ද, මට ද එය පොදු ය. විවිධත්වයක් නොමැති නම් ලෝකය කෙතරම් කම්මැලි තැනක් විය හැකි ද? ගැටළුව විවිධත්වය නොවේ. එසේ විවිධ කණ්ඩායම්, කොටස් වලට බෙදී, අනෙකුත් පහත් කිරීමයි. වෙන් කොට සැලකීමයි. මෙසේ බයියන් - ටොයියන්, උගන් - නූගන්, දුප්පත් - පොහොසත් ආදී වශයෙන් විවිධාකාර විෂයයන් ඔස්සේ, විවිධාකාර කාරණා ඔස්සේ බෙදී අනෙකා පහත් කොට සැලකීම ඉතා පිළිකුල් සහගත කරුණක් වූවත්, අපට මේවා අපේ දේවල් නොවේ!

එය එසේ වන විට, දැන් දැන් අපිට තව බෙදීමක් පෙනෙන්නට තිබේ. ඒ නම්, “බුද්ධිමත්, පරිසර ප්‍රේමී *Travelers* ලා” සහ “ගොඩේ, නූගන්, ඔලිමොට්ටල ශ්‍රී ලාංකිකයන්” ය. රස්තියාදුකාරයාගේ අද කතාව, ඉන් මුල් කොටස ගැන ය. තේරෙන සිංහලෙන් කිව්වොත් “සෝ කෝල්ඩ් ට්‍රැවලර්ස් ලා” ගැන ය.

DSLR කැමරා සහ Action කැමරා සුලබ වීමත්, ප්‍රධාන ධාරාවේ මාධ්‍යයන් අභිබවා සමාජ මාධ්‍යයන්ගේ නැගීමත් සමග, ලෝකයේ මෙන්ම ශ්‍රී ලංකාවේ ද, අපේ අන්තර්ගත නිර්මාපකයන් බිහිවනු අපි දැක්කෙමු. තැන තැන ඇවිදීමත්, ඒ ඒ ස්ථාන වල සුන්දරත්වය, වටිනාකම ගැන විස්තර ඇතුළත් වැඩසටහන් සම්පාදනය කරන්නන් ගේ නැගීමක් දැකිය හැකි විය. මේ හරහා අප රටේ නොදුටු තැන් ජනතාවට පෙන්වීමට, ඒවසේ වටිනාකම් හෙළි කිරීමට හැකියාවක් ලැබුණි.

ඉන් පසු එයට උදාවූයේ ඕනෑම ක්ෂේත්‍රයකට පොදු “විකුණාගෙන කෑමේ” අවධියයි. කැමරාවක් සහිත ඕනෑම ගොතෙක් වැඩ සටහන් සම්පාදකයෙකු වූ අතර, යු ටියුබ් ගිණුමක් තිබෙන ඕනෑම කෙනෙකු, නාලිකා හිමිකාරයෙකු විය. ඒ හරහා ආදායම් උපයන අයුරු පෙනුණු පසු, හැම කෙනෙකුට ම Travel Vlog එකක් කිරීමට අවැසි විය. ඉන් නොනැවතුණු උදවිය, කුඩා කණ්ඩායම් මේ ස්ථාන නැරඹීම සඳහා කැටුව යන “සංචාරක මග පෙන්වීමේ සේවා” ආරම්භ කළ හ.

රමණිය කන්දක්, සුන්දර දිය ඇල්ලක් ගැන ඇස කණ වැකුණු වහාම ඒවා සංචාරක ගමනාන්ත හෙවත් travel destination ලෙස නම් කරමින්, කුඩා කණ්ඩායම් ඒවායේ කැටුව යෑමට ගමන් සංවිධානය කරමින්, ඔවුන් ආදායම් මාර්ග සාදා ගත් හ. සිදුවීම ට නියමිත වූ පරිදි ම, මෙය පාලනයෙන් ගිලිහී ගියේ ය. යන යන තැන් විනාශ කරමින්, ලාභය ම පමණක් අරමුණු කරගත් සංචාරක මග පෙන්වන්නන්ගේ ක්‍රියාකාරකම් නිසා විනාශයට යන ස්ථාන රැක ගැනීම ට සමහර ස්ථාන වලට ඇතුළු වීම පාලනය කිරීමට පවා සිදු විය.

ඉන් පසු එළඹුණේ විවේචනයේ සමයයි. තමන් වැනි බුද්ධිමතුන් පමණක් එවැනි ස්ථාන වලට ගියේ නම්, මෙවැනි විපතක් නොවන බවත්, “ලංකාවේ සිටින මෝඩයන්” තැනකට ගොස් හැසිරීමට නොදන්නා බවත් කියමින්, දැන් තමන්ට ද *travel* කිරීමට නොහැක්කේ ඒ මෝඩයන් නිසා බවත් කියමින් සමාජ මාධ්‍යයන්ගේ හඬා වැළපෙන්නන් මේ දිනවල ඕනෑ තරම් දැකිය හැක.

දැන් ඒ සඳහා ඔවුන් ට විකල්පයක් තිබේ. ඒ නම්, යන තැන් ගැන අනෙක් අයට සැගවීම යි! ඔවුන් සුපුරුදු පරිදි *travel* කරති. නමුත්, අනෙක් අයගෙන් සගවති. සගවන්නේ කෙසේ ද? යන තැන් වල පින්තූර උපාරුවෙන් සමාජ මාධ්‍ය වල පල කරමින්, “තැන නං අහන්න එපා” කියති.





Travelers Paradox....continued

“අපි නං ඇවිදිනවා, අපි තමා විරයෝ” කියන්නටත් උවමනා ය. නමුත්, “ලංකාවේ මෝඩයන්” ගෙන් ඒ ස්ථාන බේරා ගැනීමට, ඒ ස්ථාන සඟවා තැබීම ද කළ යුතු ය! මේ ලංකාවේ “travelers paradox” හෙවත්, “සංචාරය කරන්නන්ගේ පැරඩොක්සය” යි.

මේවා තමන්ගේ උච්ඡතාමාන්යය (superiority complex) තඩත්තු කිරීමේ උත්සාහයන් මිස වෙන කිසිවක් නොවේ. යන ස්ථාන සැගවීමට හැකි උවමනාවක් වේ නම්, පින්තූර කිසිවක් පළ නොකර සිටිය හැකි නොවේ ද? නැත, පින්තූර පළ නොකළ හොත් තමන්ගේ මාන්යය ආරක්ෂා කර ගත නොහැකි ය. ඔවුහු පැරඩොක්සයේ සිර වී සිටිති.

නමුත්, ඇත්තටම සිදුවිය යුත්තේ කුමක් ද?

පරිසරයේ වටිනාකමක් නොතේරෙන ජනතාවක් සිටි නම්, ඔවුන්ට ඒ වටිනාකම ගැන ඉගැන්වීම නොවේ ද? ඒ සඳහා වැඩ කටයුතු කිරීම නොවේ ද?

ජනතාව ගේ පාරිසරික දැනුවත්භාවය වැඩි කිරීමට සෑහෙන වැඩ කොටසක් කරන, ඒ සඳහා දිවා රෑ වෙහෙසෙන ක්‍රියාකාරීන් ඔහු තරම් ලංකාවේ සිටිති. ඒ ක්‍රියාකාරකම් සමහර විට යු ටියුබ් ගිණුමකට විඩියෝ එකක් පළ කිරීම හෝ මුහුණු පොතේ මිනිස්සුන්ට මෝඩයා යැයි බැනීමට වඩා සංකීර්ණ ය. අපහසු ය.

වඩා ලේසි පහසු මාර්ගය නම් “අපි නම් ඇවිදිනවා, උඹලා මෝඩ නිසා තැන ගැන කියන්නේ නෑ” කියා අත පිහිඳා ගැනීම ය. ලංකාවේ ඔහුම තැනක සංචාරය කිරීමේ පොල්මංකාරයන් තමන් යැයි ඔවුන්ට පැවසුවේ කවුරුත් ද? ලංකාවේ මෝඩයන් ඒ තැන විනාශ කරනවා යැයි පවසන්නන් ලංකාවේ පුරවැසියන් නොවේ ද?

අනෙක් අතට, ඔය “හොරෙන් කරන” සංචාර වලින් පාරිසරික හානියක් නොවන්නේ ද? ඔබ යන අඩි පාරවල් වල, කොතරම් ඔබ නොදන්නා ශාක, සත්ත්ව විශේෂ ඇති ද? ඔබ අතින් ඒවාට කොතරම් හානි වනවා ඇති ද? ලංකාවේ සතුන් යැයි හඳුනාගන්නේ අලි කොටි වලස්සු පමණක් වූ බොහෝ ‘travellers’ ලා, කුඩා සත්ත්ව, ශාක ප්‍රජාවන්ට කොතරම් හානියක් කරනවා ඇති ද? ඒ හානිය සිදුවන්නේ ඔබේ නොදැනුවත්කම නිසා නොවේ ද? අනෙක් මිනිසුන්ගෙන් ද හානි සිදු වන්නේ එවැනි ම නොදැනුවත්කම නිසා නොවේ ද?

එසේ නම්, ඔබ උපාරුවෙන් උදම් අනමින් කරන සංචාරයන් ගෙන් සිදුවන හානිය මඳක් හෝ සමනය කිරීමට සමාජයට යමක් ලබා දීම ඊට වඩා නොවටින්නේ ද? නොදැනුවත් සමාජය දැනුවත් කිරීම නොවටින්නේ ද?

මේ බුද්ධිමත් ඔබේ, මෝඩ මගේන් දෙදෙනාගේ ම රටයි. බුද්ධිමත් ඔබට මෙන්ම මෝඩ මට ද, මේ රටේ ඇවිදීමට, රටේ සුන්දරත්වය නැරඹීමට ඇති අයිතිය සමාන ය. ඒ සුන්දරත්වය සඟවාගෙන, වැදගත් කම් සඟවාගෙන සිටීමෙන් ඔබටත්, මටත්, පරිසරයටත් වන සහනක් නැත. ඉතින්, ඇත්තටම පරිසරය ගැන කැක්කුමක් ඇත්නම්, සමාජය දැනුවත් කිරීමේ සටනට එක් වෙමු. නොදන්නා දේවල් ඉගෙන ගමු. දන්නා දේවල් බෙදා ගනිමු. දැනුවත් සමාජයක් තුළින් පාරිසරික සංරක්ෂණය කරා යමු.

- රස්තියාදුකාරයා -



Past Events

Butterfly and Dragonfly Race 2019

6th April 2019 - at Seethawaka Wet Zone Botanic Gardens



The Butterfly and Dragonfly Race 2019 was concluded successfully with the participation of around 80 nature enthusiasts on 6th April 2019. The event was held this time for the fourth consecutive year, and was shifted to a new and more exciting venue this time - Seethawaka Wet Zone Botanic Gardens.

Team YBA from Young Biologists' Association grabbed the winning place while team Odonoptera was the runners-up. All the winners were awarded valuable prizes.

In addition to the competition, field sessions were conducted by renowned entomologist Dr. George van der Poorten and our own specialists Mr. Himesh Dilruwan Jayasinghe and Mr. Amila Prasanna Sumanapala.

Field visit to Anawilundawa

29 th September 2019

BCSSL conducted a one day field visit to Anawilundawa Wetland Sanctuary on 29 th September 2019. During the few hours spent there, the team observed around 30 species of butterflies, over 20 species of birds and many other critters.



World Children's Day Programme 2019 - "Wetlands for a Green Tomorrow"

5 th and 6 th October 2019 - at Beddagana Wetland Park



Butterfly Conservation Society of Sri Lanka took part in the World Children's Day Programme organized by Beddagana Wetland Park. The programme was conducted with the aim of educating the next generation on the importance of nature and wetlands, and consisted of lectures and field visits carried out each day targeting school children. BCSSL conducted sessions on 5 th and 6 th of October, on butterflies and wetland flora respectively.

Past Events

Student Workshop on Butterfly Identification and Ecology

9th to 12th November 2019 - at Kalthota and Duwili Ella



BCSSL conducted the second workshop on Butterfly Identification and Ecology in Kalthota - Duwili Ella area from 9th to 12th November, 2019. Mr. Himesh Dilruwan Jayasinghe and Mr. Sarath Sanjeewa were the key resource persons of this workshop which was done mainly targeting university students. 17 participants from different universities and institutions took part in the event.

The participants got to explore different habitats in different climatic zones, covering Rajawaka Forest Reserve, Duwili Ella trail in Kalthota, and Pokunutenna area bordering the Udawalawa National Park. Around 90 species of butterflies were observed throughout the workshop. The event was sponsored by Adventure Birding.

School Awareness Programme and Field Visit to Sinharaja Rain Forest

December 2019

BCSSL was the resource partner of the School Awareness Programme sponsored by Sri Lanka Tourism Development Authority.

An interactive lecture and an activity session were conducted to the kids on 22nd December, and a field visit was conducted on 25th December 2019. Nearly 50 Students representing a number of schools from Mathugama Area participated for this special programme.



Kids Program – "Grow with Nature" - 2020

18th January 2020, at Diyasaru Park, Thalawathugoda.



BCSSL conducted the "Grow with Nature" Kids Programme for the third time on 18th January 2020, at Diyasaru Park, Thalawathugoda. The event is organized annually in the aim of building up enthusiasm and creating awareness among younger generation on nature. Nearly 60 kids took part in the event, and they were involved in fun and interactive nature based activities, allowing them to learn about insects while exploring the wetland ecosystem.

Events to Come



Field workshop on Dragonflies of Sri Lanka will be organized by BCSSL this year. Dragonfly diversity and biogeography, Adult and larval taxonomy, Ecology and behaviours, Dragonfly conservation, Research and analytical methods, Dragonflies and climate change are the main areas to be covered during the workshop. The workshop will be conducted by national and international experts. Primary target groups will be University students and Amateur naturalists. Maximum number of 25 participants will get the opportunity to participate and the whole workshop is fully funded for the selected participants. Selection method of participants will be announced in the future along with the date and the venue.



Butterfly and Dragonfly Race will be organized by BCSSL this time also for the fifth consecutive year. This event aims to popularize wetlands around Colombo by promoting butterfly and dragonfly watching in them, to train nature enthusiasts in butterfly/dragonfly watching and identifying, and to increase public engagement and awareness in nature conservation. The date and the venue will be announced in the future.

How to Join BCSSL

Butterfly Conservation Society of Sri Lanka is open to anyone interested in butterflies and other insect fauna. BCSSL members can actively participate and share their abilities and knowledge during activities organized by the society such as monthly lectures, field visits, workshops and annual events. Join hands with us to help aware and create a world rich in butterflies and other fauna and flora for future generations to enjoy.

You could become a member of the BCSSL in several categories.

- * **General membership**
(anyone interested in joining BCSSL)
- * **School membership**
(school children from age (15 – 19)
- * **Overseas membership**
(non-Sri Lankan natives and foreigners)

Both General and Overseas categories have long term membership facility (membership extends up to 5 years)

BCSSL membership and details can be obtained

- Directly at the monthly lecture sessions and during all the events organized by BCSSL
- Via social media
(Facebook, Twitter, Instagram)
- By sending an email request to butterflycssl@gmail.com
- By visiting BCSSL website
<http://www.bcssl.lk/>

Invitation to **Contribute**

We would like to see more contributions of yours to be published in our newsletter,
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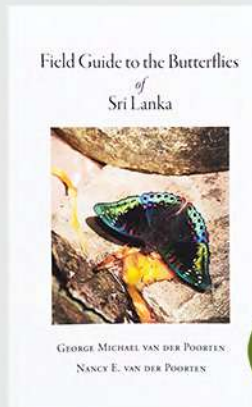


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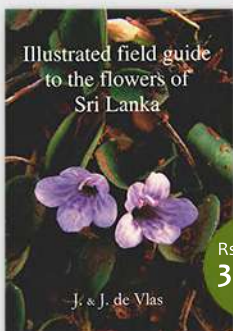
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