

A Pocket Guide to the Butterflies of Sri Lanka (First Edition)



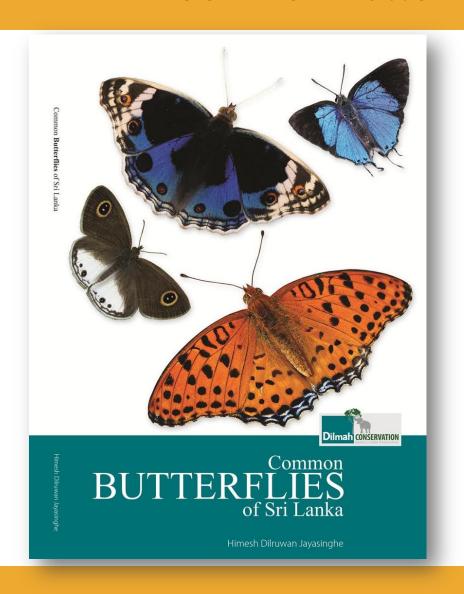
64 pages

1000 copies

Published in 2013 May



Common Butterflies of Sri Lanka



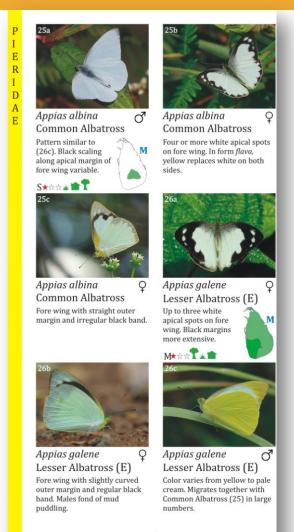
176 pages

Published in 2015 February, by Dilmah Conservation

Describes 100 species, with photographs of their LFPs.



Short comes of the first edition



Smaller picture size

Brief descriptions

Arrangement of photos

Repetition of names

Arrangement of icons / maps



A Pocket Guide to the Butterflies of Sri Lanka (Second Edition)



Founder and the first president of the Butterfly Conservation Society of Sri Lanka, Himesh was an irrigation engineer by profession and graduated from the University of Moratuwa. A nature lover

since his childhood, he founded the "Nature Team" of the University of Moratuwa, a gathering of nature loving students. Himesh has engaged in leading researches in the fields of butterflies, birds, fish and flowering plants and has published research papers in academic journals He is the author of the book "Common Butterflies of Sri. Lanka", published by Dilmah Conservation. Being one of the pioneers in the field of the butterflies. Himesh has been playing a major role in butterfly conservation of Sri Lanka.



arath Sanjeewa alanakshe

An adorer of nature from his childhood. Sarath graduated from the Iniversity of Sabaragamuwa n Environmental Sciences & Natural Resources Management and currently working as a science teacher

His desire to explore the natural world led him to find his position as a scientific researcher at Sri Lanka Wildlife Conservation Society and in many other research programs. His findings with his colleagues have been published in leading journals and presented in various symposiums. Sarath's skills in spotting the butterflies and larvae in the field have been very influential in finding many rare species and revealing unknown. aspects of the Lepidopteran life cycles



A graduate of the University of Sabaragamuwa in Environmental Sciences and Natural Resources Management, Chamitha was never apart from being in love with mother nature. Specially having a soft corner in his heart for these winged

beauties he has dedicated most of his time to unravel the mysteries of butterfly life. He has knowledge on plants as well as other faunal groups of the island. Though he has limited free time as a banker it has never been able to stop him from exploring the natural world as a researcher.



Larval food plants which were confirmed by rearing larvae on them within Sri Lanka are given for 215 species.

Distribution maps, habitat preferences and abundance are graphically presented for each species.



A Pocket Guide to the **Butterflies** www.bcssl.org , www.slbutterflies.com







Himesh Dilruwan Jayasinghe Sarath Sanjeewa Rajapakshe Chamitha De Alwis





Butterfly Conservation Society of Sri Lanka is the first organization founded in the country for conservation of moths and butterflies. Our vision is to protect the biodiversity and the balance of the natural environment through conservation of butterflies and moths. Conducting researches and collecting data on this faunal group, building the inter-relationship between the scientists and amateur people who study them, restoring and conserving the Eco-systems in which they survive, making awareness among people on these insects and conserving them through it, assisting the government sector in the conservation efforts, and encouraging the members to study them in depth are the main objectives of our mission.

www.bcssl.org



Special features of the new edition

Photos to depict sexual dimorphism and seasonal forms

Identification clues

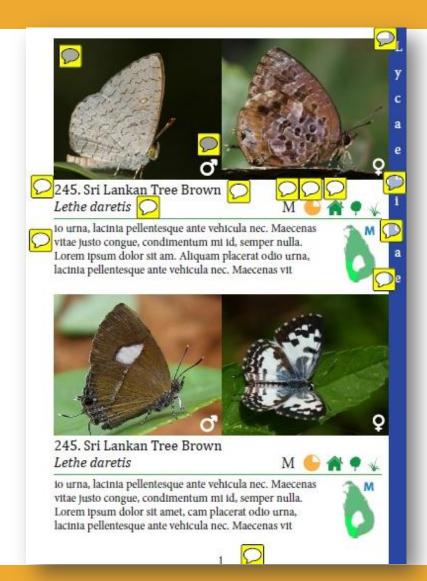
Latest information on distribution & abundance of butterflies

New information on behaviors

Information on LFPs



Initial format – 14 items on a single page





245. Sri Lankan Tree Brown (E) Lethe daretis

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam placerat odio urna, lacinia pellentesque ante vehicula nec. Maecenas vitae justo congue, condimentum mi id, semper nulla. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Aliquam placerat odio urna, lacinia pellentesque ante vehicula nec. Maecenas vitae justo congue, condimentum mi id, semper nulla. Lorem ipsum dolor sit amet, consectetur nec. Maecenas vitae justo congue, condimentum mi id, semper nulla.





INTRODUCTION

annual precipitation level of around 2500 mm. 'Arid Zones' are in the North Western and South Eastern corners which registers less than 1250 mm precipitation level annually. The area which receives precipitation up to 2500 mm is called 'Dry Zone'.

All the butterfly families that belongs to Super Family Papilionoidea exist in Sri Lanka except the family Hedyloidae. Among 247 butterfly species that inhabits Sri Lanka, 26 are endemic and 3 species have been introduced accidentally through ornamental plant trade, and now they are maintaining natural populations. Since Sri Lanka is separated from the Indian mainland by the sea, it is hard to think of regular migration of new species from other land masses.

Distribution of butterflies in the country is more or less concurrent with the varied topography and amount of rainfall, since the distribution of their larval food plants are determined by these environmental factors. Variations in Populations of butterflies within a year depends mainly on the rainfall pattern in each zone. The butterfly zones that can be identified within the island are as follows.

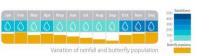


A Pocket Guide to the Butterflies of Sri Lanka



Intermediate zone

Intermediate zone has confluence characters of the wet and dry zone as well as hill country at the foot hills. It is the butterfly zone that the largest number of butterfly species can be seen, except the species that are habitat specific in other zones. Butterflies are numerous in this zone from the commencement of North Fast monsoon in late October arry November to June or July.

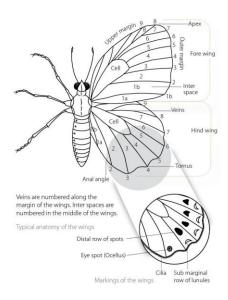


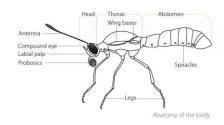
Knuckles Forest Reserve – This mountain range is river basin. Its habitats vary into a large extent within a close proximity. One of its main accesses is from Matale. Habitat around Rattota implies low country wet zone vegetation, and gradually changes to mountain forests towards the summit of the road at Riverstone. Then again it gradually changes in to dry forests at the other side of the mountain range up to Pallegama. Other entrance to the reserve via Kandy starts at Hunnasgiriya. It has wet zone forests as well as vast grasslands up to the summit of the road at Corbet's gap and it gradually changes into dry forests at the other slope towards Meemure. Cloud forests such as Kalupahana as well as dry forests beyond Meemure can be accessed by foot paths. More than 160 species of butterflies can be found in this range, and

A Pocket Guide to the Butterflies of Sri Lanka

INTRODUCTION

Butterfly Morphology





A Pocket Guide to the Butterflies of Sri Lanka

Things to consider when identifying butterflies

- Markings and patterns may be diffused in old individuals due to shedding of scales and cilia. Yellow color of the scales becomes dull when over exposed to sunlight.
- Shades of metallic colors can be vary according to the different viewing angles since the colors being generated due to the structural arrangement of the scales. i.e. Upper side colors of Lycaenids.





Same Silver Streaked Blue at different angles

- Butterflies may fold their fore wings into hind wings at rest. At that time, identification features at basal parts of fore wing under side may not be visible.
- Wing span, shape of the wing, color intensity and color pattern can vary within a certain range even in a single species. i.e. seasonal forms





Variations of color pattern of female Common Albatros

- Both upper and under side features should be observed for identify some Lycaenids and Hesperiids.
- Similar looking species may not be identified up to species level in the flight, i.e. Grass Yellows.
- Critical identification features may not be seen in worn out individuals. i.e. Area of tornal spot in Lycaenids are usually damaged due to predator attacks.

A Pocket Guide to the Butterflies of Sri Lanka

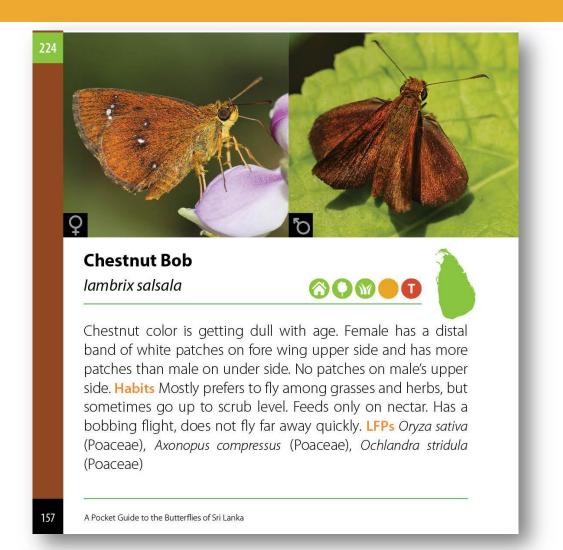


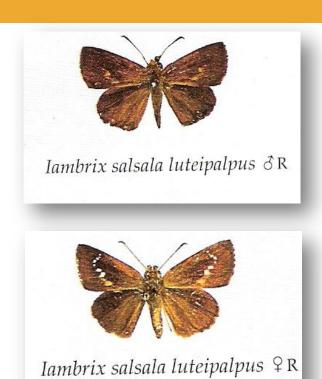
INTRODUCTION





CONTENT - Pictures





Actual posture of the wings and real colors of the body parts

CONTENT - Pictures



hind wing makes a diffused median band. Prominence of this band varies, but always prominent than in Rare Ace. Habits Feeds on wet soil, bird droppings and urine. While feeding, they bend their abdomen towards the food and excretes on it, to dissolve nutrients of the food, again. Flight is similar to Rare Ace. LFPs Bambusa vulgaris (Poaceae)

Behaviors



Usually doesn't loiter high up among trees, unless to lay eggs when it finds its lfp. LFPs Capparis moonii (Capparaceae).

Painted Sawtooth

Prioneris sita







A Pocket Guide to the Butterflies of Sri Lanka



CONTENT - Drawings

D

A

E



Sri Lankan Indigo Royal

Tajuria arida



Both sexes are very similar to Plains Blue R. in wing pattern and color on both sides, but has a much rounded fore wing outer margin. In both these species, female has an indistinct distal row of streaks on hind wing, but the male lacks the same. Color of the eye is not known. This butterfly has not been recorded since 1920's except for the wings of a dead individual at Soragune in 2005. LFPs Not yet recorded.



Banded Red Eye

Gangara lebadea







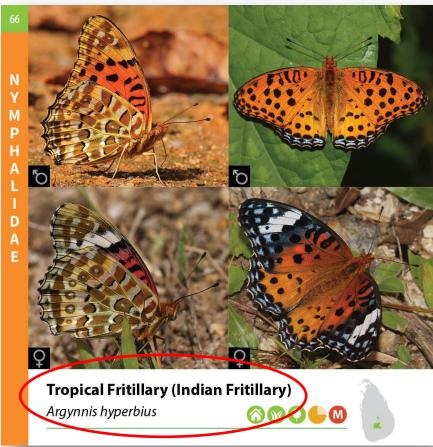
Red eyes and a very long proboscis as in the Giant RE. Pale, diffused scales on hind wing under side make a band, which continues up to fore wing apex. Patches on fore wing restricts to the female. Upper side is similar to under side, but lacks the pale scales. Habits Capable of sucking nectar on flowers that have long corolla tubes, as Giant RE. Especially attracts to these plants since the resource is inaccessible to many other nectar feeders, hence the competition is less. LFPs Not yet recorded.

A Pocket Guide to the Butterflies of Sri Lanka



CONTENT - Names







D

Ceylon Ace Halpe ceylonica



Lighter color on under side than Rare Ace. Yellowish scales on hind wing makes a diffused median band. Prominence of this band varies, but always prominent than in Rare Ace. Habits Feeds on wet soil, bird droppings and urine. While feeding, they bend their abdomen towards the food and excretes on it, to dissolve nutrients of the food, again. Flight is similar to Rare Ace. LFPs Bambusa vulgaris (Poaceae)



Lace Wing

Cethosia nietneri

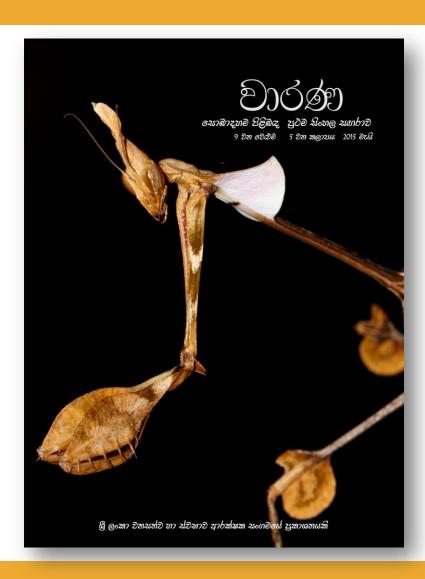




Wavy outer margins are enhanced by the lace pattern. A sub marginal orange band on under side. Pale markings are more extensive on under side than the upper side. Orange colored wing bases on male's upper side. Orange colored abdomen and brown eyes. Habits Flies from scrub level to tree level in a dragging like movement. Usually found solitary. Female lays eggs in clusters. LFPs Adenia hondala (Passifloraceae)



Sinhala Names



සිරිලක සමනලන් සඳහා නම් වැල හා සබැඳි වදුන්

තිමේෂ් දී,ල්රුවන් ජයසිංත ශූී ලංකා සමනල සංරක්ෂණ සංසදය

මෙම නම් වැල තනන අවදියේ දී, සිරිලක සමනලූන් සමනලූන් පිළිබඳව මව් බසින් ලියන්න යැයි අපගෙන් සඳහා සිංහළ නම් වැලක් කුමකට දැයි කිහිප මුලින්ම ඉල්ලූවේ මහැඳුරු සරත් කොටගම ය. ඒ ' ${
m A}$ දෙනෙකුම අසන්නට යෙදුණි. මම එහි අවැසියාව විදුහා pocket guide to the butterflies of Sri Lanka'

තුරු කළේ තාත්තා ය. මා පළමුවැටී පන්ති වල ඉගෙන කරන්න යැයි ඉල්ලීමක් කෙරුණි. ඒ වන විට පැවති නම් ගන්නා සමයේ, සතියකට වරක් පමණ කිරීබත්ගොඩ වැලේ බොහෝ සදොස් තැන් තිබූ නිසා එම පොතට පදික වෙළෙන්දෙකුගෙන් රුප කොළගක් අරන් දීම, සිංහල නම් ඇතුලත් නොකෙරුණු අතර එය කුමාණුකුල ඔහු පුරුද්දක් කරගෙන සිටියේ ය. එම රුප කොළයේ නම් වැලක් සැකසිම ඉක්මන් කිරීමට මහ පාදන ලදී. ඇති රූප එකිනෙක කපා පොතක අලවා, රූප කොළයේ යටි පැත්තේ සඳහන් නම රූපයට පහළින් අප රටේ සමනලන් වර්ග 246 ක් සිටිතත් ඔවන් පොතේ ලිවීම මගේ රාජකාරීය විය. දිනක් මට එකිනෙකා වෙන් කර හැදින්වීමට, පෙර පටන් පැවත සමනලූන්ගේ රුප කොළයක් ලැබුණි. අනෙක් කොළ එන සිංහල නම් නොවිනි. ඉංගුසියෙහි ද මෙම අඩුපාඩුව වලදී, මෙන්ම මම මෙහි ද පළමු රුපය කපා අලවා, තිබූ බව සිතිය හැක්කේ සමනශූන්ට නමි යෙදීමේදී, වති යට් පැත්තේ සඳහන් පරිදී "සමනලයා" යැයි වෙනත් සතුන්ගේ (කුරුල්ලන්, ක්ෂිරපායින් ආදීන් ගේ) ලිවෙමි. දෙවැනි රුපය ද කපා අලවා, එහි සඳහන් නම් හා පුද්ගල තනතුරු නාම ඒවාට ඇදා ගැනීමෙනි. 1 පරිදී "සමනලයා" යැයි ලිවෙමි. මෙලෙස, රූප එබැවින් මෙලෙස යම් බසකින් මලමනින්ම අළුතෙන් කොළයේ එකිනෙකට වෙනස් සමනලුන් කොතෙකුත් නම් යෙදීම ඉතා අපහසු කටයුත්තකි. නමුත් ලක්ෂ්මන් සිටිය ද ඒ සැමටම "සමනලයා" යන එකම වදන වීරතංග විසින් 2006 දී මෙම කටයන්තට මල පරන ලිවෙමි. අවුරුදු 25 කට ත් වඩා පැරණි මෙම සිදු වීම ලදී. එම නම් වැල තරමක් දුරට පිරිපහදු කර 2012 දැනටත් මගේ මතකයේ පවතින්නේ, එහි යම් කිසි අඩු රතු දත්ත වාර්තා පොතේ පළ කෙරුණි. එහෙත් මෙම පාඩුවක් තිබු බව දැනුනු බැවිනි.

සමනලුන් පිළිබඳව අප සමග පර්යේෂණ සිදු කරන පිළිබැඳියාව සරත් රාජපක්ෂ අපට හමු වන්නේ විශ්ව විදුනුල මෙම නම් වැල සැකසිමේ දී. "ලංකාවේ කුරුල්ලන් අවදියේ දී ය. ඔහු නිතරම පවසන කරුණක් වන්නේ, සඳහා කුමානුකූල නාමාවලිය (පෙරේරා ඩී. ජි. ඒ. සහ යොබා ද,හම කුමාණුකුලව අධ්යනය කිරීම පිළිබඳව "සිරීලක ගස්කොළන් අත්පොත (ඇෂ්ටන්, මාර්ක්. සහ ඉගෙනිමක් ලැබීමට අවස්ථාවක් ලැබුණු මුත්, සොබා තවත් අය, 2004)" සඳහා යොදා ගත් නම් වැල ද දහම ගැන දැඩි ඇල්මක් තිබුණු තමාට එවැනි පිටික්සන ලදී. වදුන් තැනීම සඳහා "සිංහළයෙන් ඉගෙනිමක් කුඩා කළ ලැබීමට අවස්ථාවක් නොලැබුණු සිප්යුරු වදුන් (ද සිල්වා, ඊලියන්. 2002)" හා බව ය." තමාගේ ම ගමේ පාසැල් ගුරුවරයෙකු වන "භාෂාවක භාවිතය හා විගුනය (දිසානායක, පේ. බි. ඔහු තවදුරටත් පවසන්නේ "සොබා ද, භම ගැන 2007)" ඇසුරු කර ගන්නා ලදී. "සිංහළයෙන් උනන්දවක් දක්වන සියන් පිරිසක් පාසැලේ සිටියත් සිප්යරු වදුන්" හි දක්වා ඇති පරිදි රජයෙන් සම්මත ඔවුන්ට ඒ පිළිබඳව කියා දීමට ඇති මුලික බාධාව කළ "පාරිභාෂික ශබ්ද මාලාවේ" ඇති සදොස් චචන වන්නේ ඉංගුිසිය තේරුම් ගැනීමට ඇති අපහසුතාවය සඳහා මෙම ලියමනේ දී හැකි තාක් දුරට අරුත් සහිත බවයි." ඔවුන්ට සමනලුන් පිළිබඳව කියා දීමට යාමේ දී වචන යොදා ගන්නා ලදී. මතු වන ගැටළුව වන්නේ ඒ සඳහා සුදුසු සිංහල වදුන් නොමැති වීමයි.

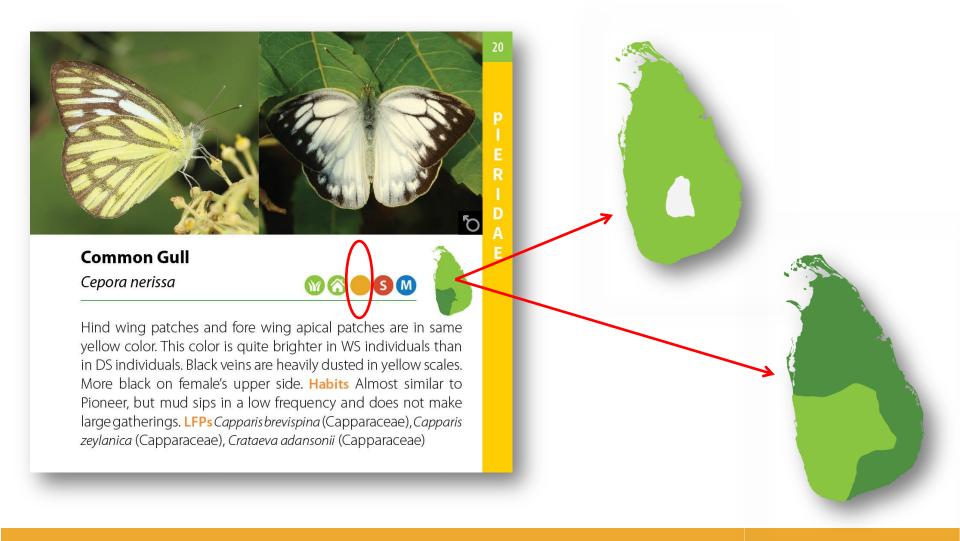
දැක්වීමට පහත සඳහන් කරුණු දෙක ඉදිරිපත් කරමි. පොත දොරට වැඩවූ දිනයේ දී ය. නැවත ද 'Common butterflies of Sri Lanka' පොත මා කුඩා කල සිටම සොඛා ද,හම ගැන උනන්ද වීමට ලිවීමේ දී, එහි සමනලුන්ගේ සිංහල නම් ඇතුලත්

නම් වැලේ ද, අඩුපාඩු රැසක් පවති යි.

"අප කොළඹ ආසන්නයේ සිටි බැවින්, කුඩා කළ සිටම කොටගම, සරත්. 1983)" ගුරු කොට ගත් අතර

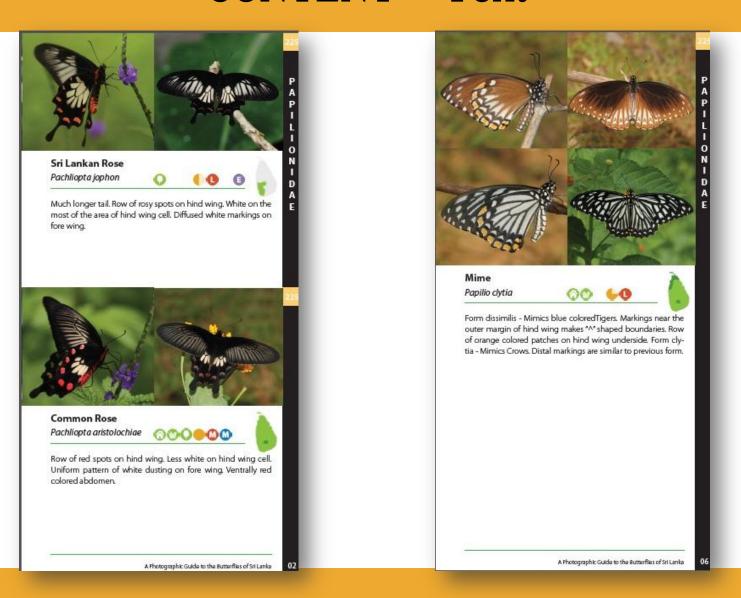


CONTENT – Icons and Maps





CONTENT - Text





CONTENT - Larval Food Plants



White Orange Tip

Ixias marianne



Enlarged orange apical patch in male and no black spots within. Black borders on all sides of this patch. Black marginal band on hind wing. Brown speckles at each cell and at distal band encircling variable white spots on underside, which are reduced in DSF. Habits Opens wings in early morning sun to bask. Female lays eggs on dead twigs of live plants. LFPs Capparis brevispina (Capparaceae), C. grandis, C. sepiaria



Common Tinsel

Catapaecilma major



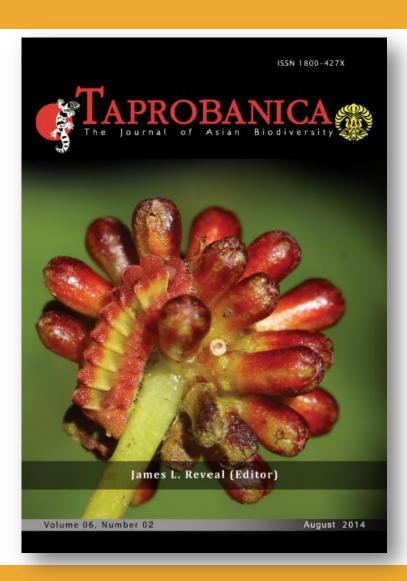
Hairy legs. Three tails on hind wing, with a longer middle one. Wavy fore wing outer margin. Shine of the silver markings on under side vary as copper, blue or green according to the angle of light. Darker background color on male's under side. Broad marginal bands on female's upper side and lacks the purplish hue. LFPs Bridelia retusa (Phyllanthaceae), Vitex altissima (Lamiaceae), Trema orientalis (Cannabaceae)



L Y C A E

N I D A

Larval Food Plants



MAJOR ARTICLE

TAPROBANICA, ISSN 1800-427X. August, 2014. Vol. 06, No. 02: pp. 110-131, pls. 12, 13.

© Research Center for Climate Change, University of Indonesia, Depok, Indonesia & Taprobanica Private Limited, Homagama, Sri Lanka http://www.sliol.info/index.php/tapro



A COMPILATION AND ANALYSIS OF FOOD PLANTS UTILIZATION OF SRI LANKAN BUTTERFLY LARVAE (PAPILIONOIDEA)

Section Editors: Jeffrey Miller & James L. Reveal

Submitted: 08 Dec. 2013, Accepted: 15 Mar. 2014

H. D. Jayasinghe^{1,2}, S. S. Rajapaksha¹, C. de Alwis¹

¹Butterfly Conservation Society of Sri Lanka, 762/A, Yatihena, Malwana, Sri Lanka ²E-mail: himesh.jayasinghel@gmail.com

Abstract

Larval food plants (LFPs) of Sri Lankan butterflies are poorly documented in the historical literature and there is a great need to identify LFPs in conservation perspectives. Therefore, the current study was designed and carried out during the past decade. A list of LFPs for 207 butterfly species (Super family Papilionoidea) of Sri Lanka is presented based on local studies and includes 785 plant-butterfly combinations and 480 plant species. Many of these combinations are reported for the first time in Sri Lanka. The impact of introducing new plants on the dynamics of abundance and distribution of butterflies, the possibility of butterflies being pests on crops, and observations of LFPs of rare butterfly species, are discussed. This information is crucial for the conservation management of the butterfly fauna in Sri Lanka.



Rarest species

D



Sri Lankan Clouded Silverline

Spindasis nubilus



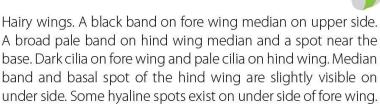
Dispersed red scales on lighter background of under side make it darker than of any other Silverline. Bands are 'brick red' colored. No outer marginal band on fore wing. Gray on female's upper side with a reddish brown appearance at the center of fore wing. Male is quite similar to Scarce Shot Silverine on upper side, but with a slightly different shade of blue. Bands on the abdomen consist of black scales frontally and red scales posterior. LFPs Not yet recorded.

A Pocket Guide to the Butterflies of Sri Lanka



African Marbled Skipper

Gomalia elma



Habits A very slow flying insect, which flies near to the ground.

LFPs Abutilon hirtum (Malavaceae)



New comers....



Tamil Oakblue

Arhopala bazaloides



A tail at hind wing, no spot above the tail. Distinct black spot at anal angle. White wash limits to the hind wing. Even on the hind wing, it is not prominent as in Ormiston's OB. Basal patches of hind wing not prominent against the surrounding. Markings on fore wing cell appear as thin white bands, but not as dark spots. Male is almost similar to Ormiston's OB on upper side. Female always has blue on upper side. Habits A canopy dweller. LFPs Vateria copallifera (Dipterocarpaceae)

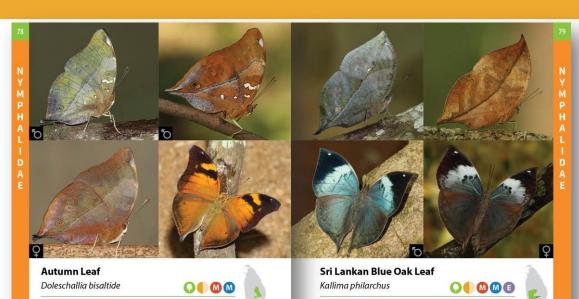
A Pocket Guide to the Butterflies of Sri Lanka

92





FINAL LAYOUT



Concave fore wing outer margin and elongated hind wing tornus enables to resemble a shape of a leaf in close winged position. An orange band at broad black apex on upper side. Hind wing is duller than the fore wing. Color of the under side varies from reddish brown to greenish gray. Thin median band is not curved at the ends, hence does not touches the fore wing apex and hind wing tornus. White patches on both wings towards the base of the male. Frontally pale labial palps and thorax, with pale legs.

Habits Usually holds wings in a closed posture since it provides a camouflaged view of a dead leaf. Attracts to tree sap and rotten fruits, but not found to feed on flowers. Female takes quite a long time to lay eggs, where it lays in clusters of 2 - 5 eggs on under side of leaves. Though the larvae are found in groups, adults are found singly. Prefers to fly in gloomy habitats, especially near streams unless in rainy season.

LFPs Pseuderanthemum latifolium (Acanthaceae), Asystasia chelonoides (Acanthaceae)

Concave fore wing outer margin and elongated hind wing tornus resembles a shape of a leaf when in closed wing position. It is further enhanced by the color pattern of under side. Pattern and color on this surface vary, very much among individuals. Median band is curved towards the ends, hence it touches the fore wing apex as well as the hind wing tornus, resembling the midrib of a leaf. Various patches throughout the wings resemble the fungus patches of a decaying leaf. Brilliant blue color on upper side is brighter in male. Brownish hind wings in female. Whitish dot near the fore wing apex in both sexes. Color of the body is similar to the wings.

Habits Male has the same 'mate seeking' habit which is described under Danaid Eggfly, and it always chooses stream edges within the forests for this behavior. Eagerly feeds on rotting fruits, tree sap and toddy, but not on nectar. Though it has been recorded in considerable numbers in migratory flight in the past, such a spectacle cannot be seen now.

LFPs Strobilanthes diandra (Acanthaceae), S. exserta, S. lupulina

Await for ...

The Butterfly Fauna Of Sri Lanka



George Michael van der Poorten Nancy E. van der Poorten of spots on the abdomen, while still others are completely devoid of all markings. For more details, see van der Poorten & van der Poorten (2013b). Conservation issues Loss of habitats through human encroachment and proliferation of invarive Prospin juliflora.

Striped Pierrot (Tarucas nara)



Fig. 4-6.0 Striped Herrot (Sinocon norq), a) male, uppersider (b) male, uppersider; c) male feeding on exculate from diese due long of Ziziphus Julylon, undersider; c) fermale, undersider; of fermale, undersider of sinocon warrant, dorsal view; (i) may being attended by ant; (j) - k) pups, brownish color variant, dorsal view; of when and dominal view; (i) - m) pups, grewnish color variant, dorsal view; of the fermale view; (i) - m) pups, grewnish color variant, dorsal view; and dominal view; (i) - m) pups, grewnish color variant, dorsal view; and dominal view; (i) - m) pups, grewnish color variant, dorsal view; and dominal view; (ii) - m) pups, grewnish color variant, dorsal view; and dominal view; (ii) - m) pups.

Wingspate 18-23 mm

- Description (Fig. 6-60): The ground color of the undenside of freshly emerged individuals is white to pale brownish-white. Unlike Butler's Spotted Pierros, the markings above the marginal apote on the undenside of the hindwing are joined at their ends to form a continuous line (Fig. 6-60n).
- Similar species: Butler's Spotted Pierrot—see above and that
- Status, distribution and habitate This species is common (10). In main flight season is from October to March though a few by off-season, it is strictly a nonthern species, being confined to the causeal thom seruls of the western coast from Mannar north to Pooteryn, and throughout the juffins pertinula though it is occasionally seen further inland. Threat mature IC.
- Adult behavior Its behavior is similar to that of Butler's Spotted Pierrot.

I Immuture stages The immuture stages are similar to those of Butler's Spotted Pierrot. The larvae are often attended by ante, but their presence is not required for the successful development of the larva. The mature pule green larva has a broad white dorsal line that has a narrow reddish-hown line within it which tapen posteriorly. The body is currend by namerous settac giving it a fazzy appearance. The pupp is pule hown-the-green and is motified black along the disrount, lateral margins and the wing hods to varying extents. The larvae feed on the tender or slightly matured leaves of Ziephur joyaba, its only known larval fixed plant. For more details, see was der Pootene & van der P



The Blues 151





Thank You...!

