BUTTERFLIES OF BENGALURU

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Research Wing

National Centre for Biological Sciences
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Front cover:
Sahyadri Birdwing (*Troides minos*). Image: Krushnamegh Kunte

Title page:
Common Banded Peacock (*Papilio crino*). Image: Rohit Girotra

Back cover:
Common Silverline (*Spindasis vulcanus*). Image: Nitin Ravikanthachari

Recommended Citation:
Kunte, K., and N. Ravikanthachari. 2020. *Butterflies of Bengaluru*. Karnataka Forest Department (Research Wing), National Centre for Biological Sciences, and Indian Foundation for Butterflies, Bengaluru, India. 196 pp.

This printing is produced by:
Indian Foundation for Butterflies
C-703, Alpine Pyramid Apts., Canara Bank Layout, Kodigehalli, Bengaluru 560097, India.
Phone number: +91 9483525925. Email: support@ifoundbutterflies.org.

Printed at Pragati Offset Pvt. Ltd., Hyderabad. www.pragati.com.

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Principal Chief Conservator of Forests
(Head of Forest Force)
ಸಂಜಯ್ ಮೋಹನ್, ಭಾ.ಅ.ಸೇ.
ಪ್ರಧಾನ ಮುಖ್ಯ ಅರಣ್ಯ ಸಂರಕ್ಷಣಾಧಿಕಾರಿ
(ಅರಣ್ಯ ಪಡೆ ಮುಖ್ಯಸ್ಥರು)

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FOREWORD

Karnataka is a biodiversity heaven. Its large landmass, spectacular rock formations of the Dakkhan plateau, tall Sahyadri mountains, and a long coastline encompass diverse habitats that host an astounding diversity of life, from endemic plants and endangered amphibians to beautiful butterflies. Few other states can boast such a rich natural heritage. Karnataka has made special efforts to preserve this heritage for future generations by setting aside vast stretches of protected areas across the state, most of them in key biodiversity hotspots. In this regard, the Sahyadri Birdwing (earlier known as the Southern Birdwing) was declared as the State Butterfly of Karnataka in 2016 to highlight the importance of butterfly conservation.

Apart from protecting nature and biodiversity, the Karnataka Forest Department has invested substantially in studying climate change and biodiversity through its own research campuses. It also actively facilitates basic as well as applied scientific research on biodiversity as a collaborative effort between the government and some of India's foremost research institutions. In addition, the state leads several outreach programmes so that its citizens know and care about the biodiversity around them and its importance in sustaining their own livelihoods. Our annual bird and butterfly festivals, which have been going on for several years, are very popular and well attended. All these efforts strive to build a healthy collaboration between government agencies, research institutions and well-informed citizenry to preserve the state's incredible natural heritage.

This book is a small but attractive outcome of these efforts. It richly illustrates all the 179 species of butterflies recorded in the state's Garden City, with information on hotspots for butterfly diversity. It offers extensive information on plants on which caterpillars feed, and flowers that support adult butterflies. The information and many of the beautiful images included in this book were gathered in various nature reserves protected by the Forest Department, and in collaboration with scientists from the National Centre for Biological Sciences (NCBS, Bengaluru) and amateur butterfly watchers from the Bengaluru Butterfly Club. I congratulate this collaborative group for initiating a broader survey of butterfly diversity not only in the city but also the state on the whole. This information will help the Forest Department to protect and improve existing butterfly habitats so that biodiversity may thrive not only in its protected reserves, but also in urban and suburban areas of the Garden City. And of course, this book will assist students of nature of all ages to identify and enjoy these colourful insects in their neighbourhoods and further afield.

This book is a part of work of a research project on butterflies funded by the Karnataka Forest Department. I express my sincere appreciations for my colleague Sri. Dilip Kumar Das, IFS, Additional Principal Chief Conservator of Forests (Research & Utilization), Bengaluru for his constant persuasion with the scientists of NCBS to bring this book in final form for the readers. I also extend my sincere thanks to Dr. Krushnamegh Kunte and Mr. Nitin Ravikanthachari of NCBS for writing and designing this book.

Date : 18th May, 2020.

(SANJAI MOHAN) IFS

Principal Chief Conservator of Forests,
(Head of Forest Force)
Karnataka Forest Department, Bengaluru.

PREFACE

It is with much pleasure and a sense of service that we offer this book to the ever-growing community of butterfly watchers. Between the two of us, we have over 40 years of experience in the field, having not only observed but also scientifically studied butterflies in our backyards as well in remote corners of the country. We have been helped along the way by many mentors, teachers, friends and colleagues in learning about butterflies. We must now pay this debt forward to our younger and/or less experienced members of the community. This book is one way to do so, with the hope that our observations from the Bengaluru area will help students and beginners to quickly learn about various aspects of the natural history of butterflies.

We sincerely thank the Research Wing, Karnataka Forest Department, for producing this book. Sri. Sanjai Mohan, IFS, Principal Chief Conservator of Forests, Head of Forest Force, has been an inexhaustible source of ideas and support to popularize butterflies and to bring their conservation issues in sharp focus; from designating the Sahyadri Birdwing as Karnataka's State Butterfly and initiating Butterfly Festivals in Bengaluru, to producing brochures and books as handy resources for enjoying butterflies, including this book. Sri. Dilip Kumar Das, IFS (Retired) former APCCF, Research & Utilization and Dr. Surya Deo Pathak, IFS, Additional Principal Chief Conservator of Forests, Research & Utilization, patiently and kindly oversaw the production and suggested many improvements. We also thank Sri. Manjunath Tambakad, IFS (Retired) former CCF (Research), Bengaluru and Sri. Goverdhan Singh M.J., Conservator of Forests, Research, Bengaluru (I/C) for executing the production.

The book would not have been possible without the steady support of the Bengaluru Butterfly Club and Indian Foundation for Butterflies. The members and contributors of these two groups have contributed tens of thousands of observations to the Butterflies of India website, which has made it possible to precisely map the occurrence of butterflies over space and time. This is critically important in understanding the biology of Indian butterflies as well as in their conservation. These contributions made it possible to include detailed range maps and graphs of seasonal occurrence in this book, which is a first for books on butterflies. Our special thanks go to: (a) people (listed on p. 189) who contributed their beautiful images to this book, (b) Viraj Nawge for preparing the butterfly range maps and graphs, and (c) Anuradha Joglekar for preparing the underlying map of India. Similar to the voluntary efforts of all these people, author royalties and other proceeds from this book will go to outreach and educational activities that focus on butterfly biology and conservation.

We hope that this book will help you enjoy butterflies not only in and around Bengaluru but also in other cities and towns. We welcome your comments on the book, and your contributions to the Butterflies of India website so that we continue to improve our understanding of the natural history and biology of Indian butterflies.

Date : 1st November, 2020

Dr. Krushnamegh Kunte
Nitin Ravikanthachari

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BUTTERFLIES OF BENGALURU

Bengaluru, popularly known as the Garden City, lies just north of the hill ranges that connect the Western Ghats with the Eastern Ghats, forming an important transition zone. It is composed of a myriad of habitats including deciduous forests, scrub and savannahs. Bengaluru supports a considerable diversity of butterflies as a result of these diverse habitats. So far, 179 species of butterflies have been recorded from the city and its surroundings, with a few more stragglers, some of which are rare and endangered. The Lilac Silverline (*Apharitis lilacinus*), which is legally protected in India under Schedule II of the Wildlife (Protection) Act, was rediscovered recently in Bengaluru after over 100 years. Southern India's largest as well as smallest butterfly species (the Sahyadri Birdwing (*Troides minos*) and Black-spotted Grass Jewel (*Freyeria putli*), respectively) are seen in the city. Karnataka Forest Department, Research Wing, took initiative to declare the Sahyadri Birdwing as the Karnataka State Butterfly in the year 2016 to highlight the importance of butterfly conservation.

Although Bengaluru is one of the fastest growing cities in India, it still has an incredible number of habitat patches with rich and fascinating biodiversity within an easy reach of city dwellers. Documenting and monitoring plants and animals around the city is of paramount importance in conserving this biodiversity even as the city grows. This field guide is designed to aid amateur and novice naturalists to enjoy, study and conserve these winged jewels in Bengaluru.

SCOPE OF THE BOOK AND HOW TO USE IT

This book is a concise pictorial guide to all the species of butterflies that occur in Bengaluru. The species section includes scientific names, and information on habitats, seasonal occurrence and prominent places where the species are seen in and around the city. Photographs are annotated with identification features that are highlighted with pointers, and identify **male (♂), female (♀) and seasonal forms (DSF=Dry Season Form; WSF=Wet Season Form; ISF=Intermediate Season Form)**. A detailed checklist of the plants on which butterfly caterpillars feed, along with a list of flowering plants that attract a wide variety of butterflies, are included. These lists will help readers enrich habitats in their backyards and neighborhood gardens where butterflies may thrive.

Connect with the Butterflies of India website and the associated mobile app (https://www.ifoundbutterflies.org) for further information on Butterflies of Bengaluru.

BUTTERFLY HOTSPOTS IN AND AROUND BENGALURU

This book provides a pictorial account of butterflies occurring in and around Bengaluru (within approx. 60 km radius of Bengaluru GPO). This large area has many natural, semi-natural and man-made habitats that are suitable for butterflies, but some of them are "butterfly hotspots", i.e., they have a remarkable diversity of butterflies. The following hotspots are particularly popular among butterfly-watchers:

1. Doresanipalya Forest Research Station: Also known as the Doresanipalya Lac Reserve Forest. Located in the heart of the city near the busy Bannerghatta main road, it is primarily a habitat with experimental plantation of forest species. It is known to host 126 species of butterflies including the Sahyadri Birdwing (Karnataka State Butterfly), Monkey Puzzle and Red Helen.

2. Bangalore University: The Gnana Bharati campus is a 840 acre habitat of scrub and dry deciduous forest, which is reasonably protected, with 125 butterfly species recorded so far, including a seasonally breeding population of the Sahyadri Birdwing. A part of the campus is open to public throughout the day.

3. Valley School: A private school located south of Bengaluru, adjacent to the Bannerghatta National Park. It is a mix of dry deciduous and scrub forest, with nearly a hundred species recorded so far. It is a restricted area, with some allowances.

4. IISc campus: Located in the centre of Bengaluru, it consists of largely non-native vegetation with small pockets of native plants, where 120 species have been recorded, including the Tamil Bushbrown. Prior permission is required to enter the campus.

5. GKVK Campus: One of the largest academic campuses in Bengaluru, it is home to the University of Agricultural Sciences, and the National Centre for Biological Sciences. Its vast area is interspersed with experimental agricultural fields and avenue trees. Approximately 110 species of butterflies have been recorded here so far. Parts of the campus are open to the public in designated hours.

6. Lalbagh Botanical Garden: One of the prominent tourist spots in the city, it consists of various habitats including patches of native and avenue trees. Approximately a hundred butterfly species have been recorded here. It is open to the public.

7. Hesaraghatta: Once the primary source of drinking water for Bengaluru, it is now one of the largest savannah-grasslands near Bengaluru. More than 100 butterfly species have been recorded here, including the only breeding population of the Lilac Silverline. The habitat is accessible on foot, although large parts of it are flooded during the monsoon. It is open to the public.

8. Savanadurga State Forest: This encompasses the second-largest monolith in Asia, and some of the most wonderful dry deciduous forests near Bengaluru. Nearly 130 butterfly species have been recorded so far. Huge swarms of butterflies, sometimes in their hundreds or even thousands, may be seen during the summer mudpuddling on dry stream-beds and puddles. Permission from the Forest Department is required to enter the area.

9. Camp GeeDee: This is a remarkable habitat adjacent to the Bannerghatta National Park, and owned privately by conservationist Mr. Vishnu. It consists predominantly of dry deciduous and scrub forests, with a beautiful rocky hillock with *Shorea* trees. More than 100 butterfly species have been recorded so far, including the Purple Leaf Blue and Large Guava Blue that are scarce elsewhere in Bengaluru. Prior permission is required before entering the premises, but nature-camping is allowed.

10. Makalidurga: A hill fort surrounded by dry deciduous forest. Nearly 110 butterfly species have been recorded so far, including the otherwise rare Spotted Angle and Alida Angle. It is open to the public, upon online payment of entrance fees.

11. Nandi Hills and Horagina Betta: This is a popular tourist destination. The hilly area is surrounded by moist forests, where approx. 70 butterfly species have been recorded so far, including a single record of the Malayan.

12. Devarayanadurga: A rocky hill situated near Doddaballapur, it is surrounded by dry deciduous and scrub forests. Approx. 80 butterfly species have been recorded so far. Large groups of Spot Swordtail and Whites and Yellows may be seen here mud-puddling during the summer. It is open to the public.

BENGALURU BUTTERFLY CLUB AND INDIAN FOUNDATION FOR BUTTERFLIES

The Bengaluru Butterfly Club (BBC) was founded in 2012 by Rohit Girotra, Ashok Sengupta, Haneesh K. M. and Nitin Ravikanthachari under the guidance of Dr. Krushnamegh Kunte from the National Centre for Biological Sciences (NCBS). BBC started as a citizen science group to watch, document and monitor butterflies to understand the distribution and population trends of butterflies in Bengaluru. It had less than a dozen members in 2012, but the membership has since risen to over 400 in 2020. The club is involved in weekly butterfly walks at Doresanipalya Forest Research Station, a campus of the Karnataka Forest Department, and other nearby butterfly hotspots. The group monitors butterfly activity throughout the year, and gathers other information on the biology of butterflies as well.

The BBC helps the Karnataka Forest Department in conducting outreach programmes, especially the annual Butterfly Festival that was initiated in 2016, and in preparing butterfly checklists for various natural habitats not only in the city but in other parts of the state as well. The BBC members contribute the information generated through these surveys to the database of Butterflies of India (https://www.ifoundbutterflies.org), which is a long-running citizen science project of Indian Foundation for Butterflies and National Centre for Biological Sciences. All this information is scientifically organized, mapped and publicly accessible to the broader society for enjoyment. This information is also available to various government agencies to help plan the city's growth and greeneries responsibly while maintaining good butterfly habitats and biodiversity in urban and suburban areas in Bengaluru and its environs.

Citizen scientists after a fortnightly butterfly count
at the Karnataka Forest Department's Doresanipalya Forest Research Station

INTRODUCTION TO BUTTERFLY FAMILIES

Swallowtails (Papilionidae) are some of the largest butterflies in the world. Some of them possess characteristic tails on the hindwings; hence, the family name. They have long legs and probosces, and large eyes. Many of them fly high in the trees, and travel long distances. They settle down frequently on flowers and continue to flutter their wings while feeding on nectar. Males usually gather in large numbers for mud-puddling in stream-beds. Roses and Birdwings are toxic to their predators. Some species are mimetic. Eggs are usually laid singly on the tender leaves of host plants. The eggs are large, smooth or warty, and oval in shape. The caterpillars are large, smooth, some of them with tubercles. They possess a forked, fleshy, foul-smelling organ called the *osmeterium*, which secretes volatile, distasteful chemicals to ward off predators. The osmeterium is located behind the head, normally retracted inside the body. Early caterpillar stages resemble bird droppings to escape predators. The pupae are large, variable in shape, and supported by silk girdles.

Adult showing the characteristic tail

Eggs of Swallowtails

Bird-dropping stage of *Papilio* (above), and tubercled larva of *Troides*

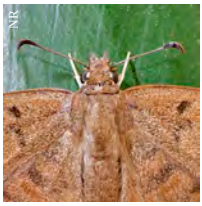
Osmeterium in *Papilio* (above) and *Pachliopta* (below)

Pupae

Hesperiidae, also known as Skippers due to their powerful, erratic flight pattern, usually possess hooked antennae. Some groups of Skippers rest with their wings spread flat, like moths. They are usually brown or pale yellow-orange in colour. Some of them are active only at dawn and dusk. They are small to medium-sized butterflies, but they have among the longest probosces in butterflies. Grasses and palms are used by many species as larval host plants. The eggs are usually round with or without ornamentation. Caterpillars are usually smooth, long, cylindrical, and unornamented. They construct silk-lined "cells" by folding and joining the leaves of their host plants. They usually stay inside their cells and venture out only to feed. Each species makes characteristic cells. The pupae are long and cylindrical, enclosed inside the cells.

Basking and resting postures

Long proboscis

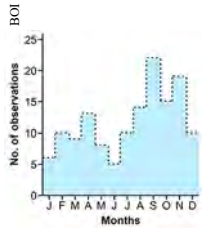


Hooked antennae and robust thorax

Cells made by caterpillars

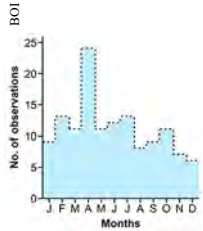
Pupa with a long proboscis

Tailed Jay — *Graphium agamemnon* (Linnaeus, 1758)



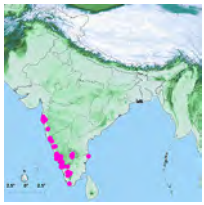
Wingspan: 70–90 mm
Habitat: Evergreen and semi-evergreen forests; now widely adapted to urban environments.
Status and Records from Bengaluru area: Very common throughout the city, especially in Bangalore University, Doresanipalya Forest Research Station and home gardens.
Larval Host Plants: *Annona muricata, Annona squamosa, Artabotrys hexapetalus, Polyalthia cerasoides, Polyalthia longifolia, Uvaria narum* (Annonaceae); *Magnolia champaca* (Magnoliaceae).

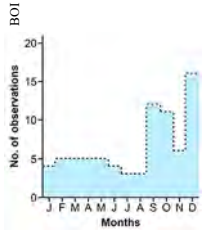
Common Jay — *Graphium doson* (C. & R. Felder, 1864)



Wingspan: 64–76 mm
Habitat: Evergreen and semi-evergreen forests; now widely adapted to urban environments.
Status and Records from Bengaluru area: Very common throughout the city, especially in Bengaluru University, Doresanipalya Forest Research Station and home gardens.
Larval Host Plants: *Annona squamosa, Artabotrys hexapetalus, Polyalthia longifolia* (Annonaceae); *Magnolia champaca, Magnolia liliifera* (Magnoliaceae).

Narrow-banded Bluebottle
Graphium teredon (C. & R. Felder, [1865])





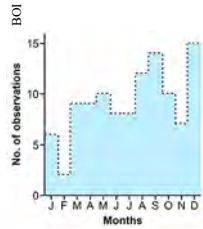
Wingspan: 64–78 mm
Habitat: Evergreen forests of the Western Ghats, where it is largely endemic, but sporadically occurs in nearby areas, including Bengaluru.
Status and Records from Bengaluru area: The species is rare in Bengaluru. Specific records are from Doresanipalya Forest Research Station, Hesaraghatta, and GKVK.
Larval Host Plants: *Alseodaphne semecarpifolia, Camphora officinalis, Cinnamomum camphora, Cinnamomum macrocarpum, Cinnamomum malabatrum, Cinnamomum micranthum, Cinnamomum verum, Litsea glutinosa, Persea macrantha, Persea odoratissima* (Lauraceae); *Magnolia doltsopa* (Magnoliaceae).

Tailed Jay (*Graphium agamemnon*)

Common Jay (*Graphium doson*)

Narrow-banded Bluebottle (G*raphium teredon*)

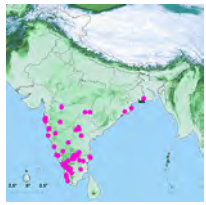
Common Rose — *Pachliopta aristolochiae* (Fabricius, 1775)

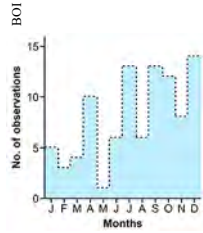


Wingspan: 80–92 mm
Habitat: Deciduous and thorn forests, farmlands, and urban areas.
Status and Records from Bengaluru area: The species is common throughout Bengaluru, especially in Bangalore University, GKVK, and Doresanipalya forest.
Larval Host Plants: *Aristolochia bracteolata, Aristolochia griffithii, Aristolochia indica, Aristolochia tagala, Thottea siliquosa* (Aristolochiaceae).

Crimson Rose — *Pachliopta hector* (Linnaeus, 1758)

WPA Schedule I

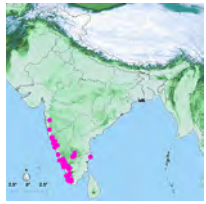


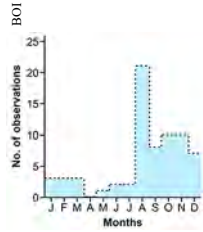


Wingspan: 86–94 mm
Habitat: Deciduous and thorn forests, farmlands, and urban areas.
Status and Records from Bengaluru area: Common throughout Bengaluru, especially in Bangalore University, GKVK, and Doresanipalya Forest Research Station.
Larval Host Plants: *Aristolochia bracteolata, Aristolochia griffithi, Aristolochia indica, Aristolochia tagala* (Aristolochiaceae).

Sahyadri Birdwing — *Troides minos* (Cramer, [1779])

Karnataka State Butterfly





Wingspan: 136–160 mm. Largest butterfly in southern India.
Habitat: Moist forests and horticultural areas.
Status and Records from Bengaluru area: Occurs sporadically throughout Bengaluru. Specific records from Bangalore University, GKVK, Doresanipalya forest, and Valley School.
Larval Host Plants: *Aristolochia griffithi, Aristolochia indica, Aristolochia tagala, Bragantia wallichii, Thottea siliquosa* (Aristolochiaceae).


Common Rose (*Pachliopta aristolochiae*)


Crimson Rose (*Pachliopta hector*)


Sahyadri Birdwing (*Troides minos*)

KK

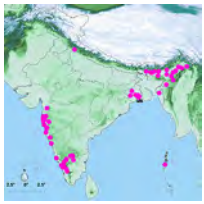
pupa

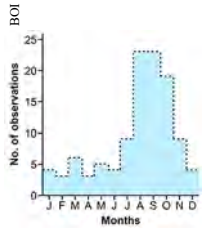
FK

Sahyadri Birdwing (*Troides minos*) is the largest butterfly in southern India, where it is endemic to the Malabar Coast, Western Ghats, and neighbouring areas. It is Karnataka's State Butterfly, donning the yellow-red colours of its flag.

♂

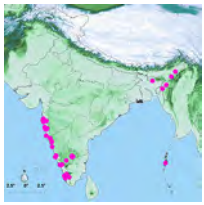
Common Branded Redeye — *Matapa aria* (Moore, [1866])

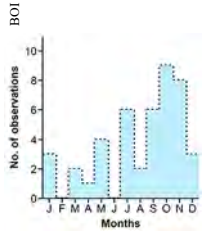




Wingspan: 40–44 mm
Habitat: Deciduous and bamboo forests.
Status and Records from Bengaluru area: The species is common in bamboo forests, especially in Bangalore University and Doresanipalya Forest Research Station.
Larval Host Plants: *Bambusa bambos, Bambusa vulgaris, Dendrocalamus strictus, Ochlandra scriptoria, Ochlandra talbotii, Ochlandra travancorica, Teinostachyum sp.* (Poaceae).

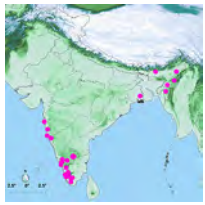
Giant Redeye — *Gangara thyrsis* (Fabricius, 1775)

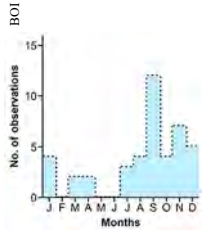




Wingspan: 64–74 mm
Habitat: Evergreen and semi-evergreen forests; now common in towns where its larval host plants are planted.
Status and Records from Bengaluru area: Common in forests, gardens and backyards wherever palms are planted, especially GKVK, IISc, Bangalore University, and Doresanipalya.
Larval Host Plants: *Borassus flabellifer, Calamus pseudofeanus, Calamus rotang, Calamus thwaitesii, Caryota urens, Chamaerops humilis, Cocos nucifera, Corypha umbraculifera, Licuala grandis, Phoenix acaulis* (Arecaceae)*; Cyperus alternifolius* (Cyperaceae).

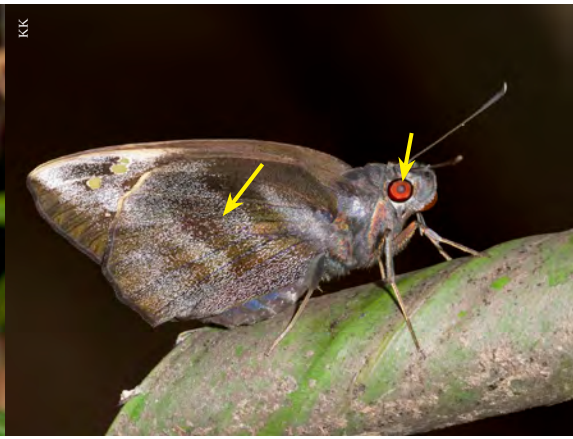
Rounded Palm-redeye — *Erionota torus* Evans, 1941





Wingspan: 72–80 mm
Habitat: Evergreen and semi-evergreen forests. Now established in banana-growing areas.
Status and Records from Bengaluru area: Occurs sporadically wherever banana plants are present, especially in Bangalore University, IISc, GKVK, and Doresanipalya.
Larval Host Plants: Usually *Musa x paradisiaca* (Musaceae). Rarely, *Cocos nucifera* (Arecaceae).

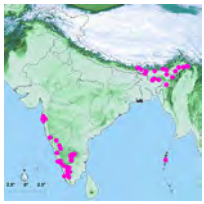
Common Branded Redeye (*Matapa aria*)

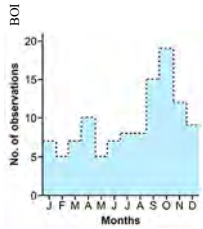


Giant Redeye (*Gangara thyrsis*)

Rounded Palm-redeye (*Erionota torus*)

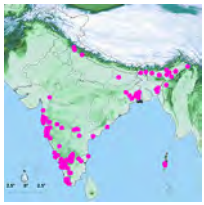
Great Orange-tip — *Hebomoia glaucippe* (Linnaeus, 1758)

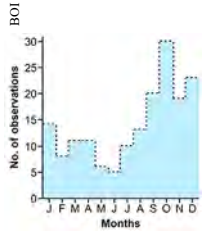




Wingspan: 76–82 mm
Habitat: Deciduous and evergreen forests.
Status and Records from Bengaluru area: Not uncommon, especially at Doresanipalya, GKVK, Bangalore University, Lalbagh, Valley School, Savanadurga, and Devarayanadurga.
Larval Host Plants: *Capparis cleghornii*, *Capparis moonii*, *Capparis sepiaria*, *Capparis spinosa*, *Capparis zeylanica*, *Crateva religiosa* (Capparaceae).

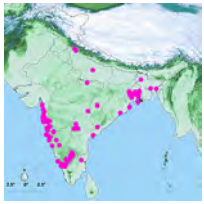
Psyche — *Leptosia nina* (Fabricius, 1793)

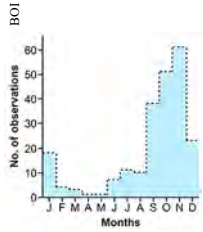




Wingspan: 34–40 mm
Habitat: Lightly shaded areas in semi-evergreen and deciduous forests, and urban woodlands.
Status and Records from Bengaluru area: Common throughout Bengaluru in shaded areas, especially in Doresanipalya, Bangalore University, IISc, Camp GeeDee, and Lalbagh.
Larval Host Plants: *Capparis baducca*, *Capparis spinosa*, *Capparis zeylanica*, *Crateva adansonii*, *Crateva religiosa* (Capparaceae); *Cleome rutidosperma*, *Cleome viscosa* (Cleomaceae).

Indian Wanderer — *Pareronia hippia* (Fabricius, 1787)





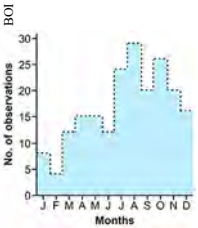
Wingspan: 58–68 mm
Habitat: Lightly wooded forests and urban woodlands.
Status and Records from Bengaluru area: Common in Bengaluru, especially in GKVK, IISc, Doresanipalya, Bangalore University, Valley School, Lalbagh, and Nandi Hills.
Larval Host Plants: *Capparis baducca*, *Capparis zeylanica* (Capparaceae).

Great Orange-tip (*Hebomoia glaucippe*)

Psyche (*Leptosia nina*)

Indian Wanderer (*Pareronia hippia*)

Yellow Orange-tip — *Ixias pyrene* (Linnaeus, 1764)

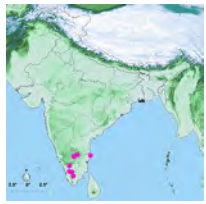


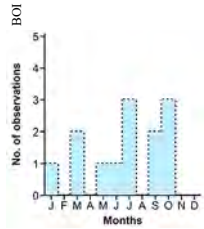
Wingspan: 44–52 mm
Habitat: Semi-evergreen, deciduous and wetter scrub forests.
Status and Records from Bengaluru area: Not uncommon in scrub and deciduous forests, especially at Savanadurga, Makalidurga, Devarayanadurga, and Camp GeeDee.
Larval Host Plants: *Capparis divaricata*, *Capparis sepiaria*, *Capparis zeylanica* (Capparaceae).

This is a highly variable species in which the extent and intensity of yellow, orange, black and white shows considerable variation across seasonal forms and individuals, especially in the female, as shown below. Hindwings have broad black borders in the wet season, and narrow or no black borders in the dry season.

Yellow Orange-tip (*Ixias pyrene*)

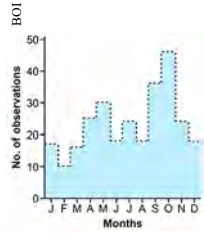
Lobed Beak — *Libythea laius* Trimen, 1879





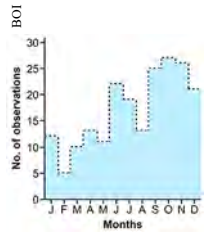
Wingspan: 44–48 mm
Habitat: Dry deciduous and scrub forests.
Status and Records from Bengaluru area: The species occurs sporadically throughout Bengaluru; specific records are from Valley School and Hulimavu Lake.
Larval Host Plants: *Celtis australis*, *Celtis tetrandra*, *Trema orientalis* (Cannabaceae).

Plain Tiger — *Danaus chrysippus* (Linnaeus, 1758)



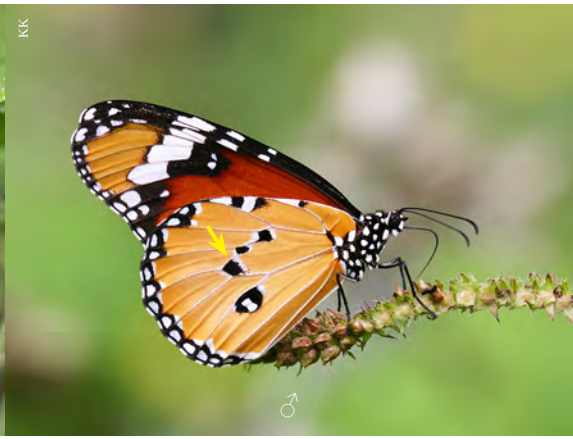
Wingspan: 66–74 mm
Habitat: Scrub forests, savannahs, agricultural landscapes and urban areas.
Status and Records from Bengaluru area: Common in Bengaluru in open spaces where its most commonly used host plants (*Calotropis* and *Asclepias*) grow. Large congregations may be seen at Bangalore University.
Larval Host Plants: *Asclepias curassavica*, *Calotropis gigantea*, *Calotropis procera*, *Caralluma adscendens*, *Cryptolepis dubia*, *Pergularia daemia* (Apocynaceae).

Striped Tiger — *Danaus genutia* (Cramer, [1779])



Wingspan: 74–86 mm
Habitat: Lightly wooded forests and urban woodlands.
Status and Records from Bengaluru area: Occurs throughout Bengaluru in open spaces, parks, scrub forests and home gardens, although not as commonly seen as the Plain Tiger.
Larval Host Plants: *Asclepias curassavica*, *Ceropegia fantastica*, *Ceropegia hirsuta*, *Ceropegia intermedia*, *Ceropegia lawii*, *Ceropegia vincifolia*, *Cynanchum callialatum*, *Cynanchum dalhousiae*, *Cynanchum liukiuense*, *Holostemma ada-kodien*, *Marsdenia floribunda*, *Marsdenia tinctoria*, *Marsdenia tomentosa*, *Raphistemma pulchellum*, *Tylophora flexuosa* (Apocynaceae).

Lobed Beak (*Libythea laius*)



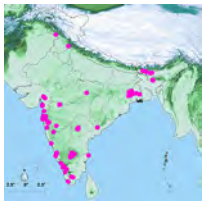
Plain Tiger (*Danaus chrysippus*)

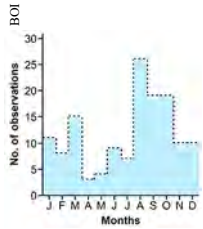
Striped Tiger (*Danaus genutia*)

KK

A female Plain Tiger (*Danaus chrysippus*) on its larval host plant, *Calotropis* (a milkweed), which has religious and cultural significance in India

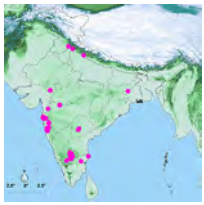
Black Rajah — *Charaxes solon* (Fabricius, 1793)

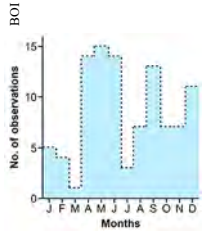




Wingspan: 54–60 mm
Habitat: Deciduous and scrub forests, and rural and urban woodlands.
Status and Records from Bengaluru area: Occurs sporadically throughout Bengaluru, especially in Doresanipalya, Bangalore University, Savanadurga, Valley School, and GKVK.
Larval Host Plants: *Dalbergia sissoo*, *Moullava spicata*, *Pithecellobium dulce*, *Tamarindus indica*, *Xylia xylocarpa* (Fabaceae).

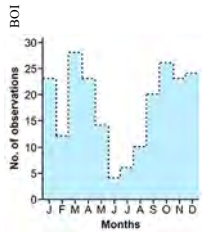
Anomalous Nawab — *Charaxes agrarius* Swinhoe, [1887]





Wingspan: 48–60 mm
Habitat: Deciduous and scrub forests, and rural and urban woodlands.
Status and Records from Bengaluru area: Seasonally common. Specific records are from Doresanipalya, Bangalore University, Valley School, Turahalli, Savanadurga, and GKVK.
Larval Host Plants: *Acacia caesia*, *Acacia nilotica* (Fabaceae).

Indian Nawab — *Charaxes bharata* C. & R. Felder, [1867]



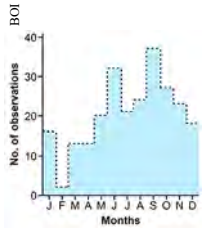
Wingspan: 52–62 mm
Habitat: Semi-evergreen and moist deciduous forests.
Status and Records from Bengaluru area: The species is rare in Bengaluru. Specific records are from Bangalore University, Savanadurga, and Turahalli.
Larval Host Plants: *Acacia caesia*, *Acacia catechu*, *Acacia chundra*, *Acacia pennata*, *Acacia polyacantha*, *Acacia torta*, *Adenanthera pavonina*, *Albizia julibrissin*, *Albizia lebbeck*, *Albizia corniculata*, *Caesalpinia bonduc*, *Caesalpinia mimosoides*, *Caesalpinia crista*, *Caesalpinia regia*, *Caesalpinia sappan*, *Delonix regia*, *Falcataria moluccana*, *Pithecellobium dulce* (Fabaceae); *Grewia sp.*, *Helicteres isora* (Malvaceae).


Black Rajah (*Charaxes solon*)


Anomalous Nawab (*Charaxes agrarius*)

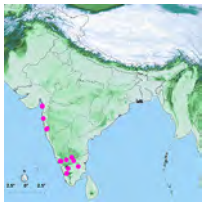

Indian Nawab (*Charaxes bharata*)

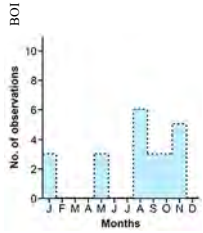
Common Silverline — *Spindasis vulcanus* (Fabricius, 1775)



Wingspan: 26–28 mm
Habitat: Dry deciduous and scrub forests, and rural areas.
Status and Records from Bengaluru area: Common in Bengaluru. Specific records are from Doresanipalya, Bangalore University, Camp GeeDee, Lalbagh, Valley School, and Makalidurga.
Larval Host Plants: *Carissa carandas* (Apocynanceae); *Cadaba fruticosa* (Capparaceae); *Dioscorea wallichii* (Dioscoreaceae); *Diospyros melanoxylon, Diospyros montana* (Ebenaceae); *Cassia fistula* (Fabaceae); *Clerodendrum indicum, Volkameria inermis* (Lamiaceae); *Woodfordia floribunda* (Lythraceae); *Ziziphus jujuba, Ziziphus rugosa* (Rhamnaceae); *Canthium coromandelicum* (Rubiaceae); *Allophylus cobbe* (Sapindaceae).

Plumbeous Silverline — *Spindasis schistacea* (Moore, [1881])

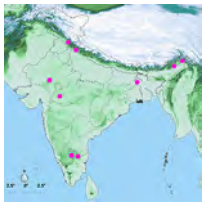


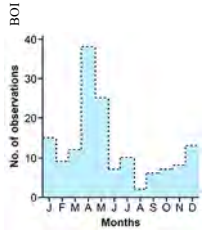


Wingspan: 24–28 mm
Habitat: Wide range of habitats from edges of evergreen forests to rural landscapes.
Status and Records from Bengaluru area: The species is rare in Bengaluru. Specific records are from Kengeri and Valley School.
Larval Host Plants: *Combretum indicum* (Combretaceae); *Acacia caesia, Acacia pennata* (Fabaceae); *Antidesma ghaesembilla* (Phyllanthaceae).

Lilac Silverline — *Apharitis lilacinus* (Moore, 1884)

WPA Schedule II





Wingspan: 32–36 mm
Habitat: Scrub forests and grasslands.
Status and Records from Bengaluru area: The species has so far been recorded only from Hesaraghatta. However, it is locally common and occurs throughout the year.
Larval Host Plants: Reported on *Acacia nilotica* (Fabaceae), but the association with *Crematogastor* ants is critical.

Common Silverline (*Spindasis vulcanus*)

Plumbeous Silverline (*Spindasis schistacea*)

Lilac Silverline (*Apharitis lilacinus*)

NR

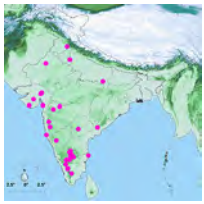
The Lilac Silverline (*Apharitis lilacinus*) is a very rare butterfly that is legally protected in India under Schedule II of the WildLife (Protection) Act, 1972. It had not been seen in India for nearly a hundred years. Then, unexpectedly, its breeding population was discovered at Hesaraghatta Lake—on the very outskirts of Bengaluru city—in December 2012 by Nitin Ravikanthachari, who was at the time a college student.

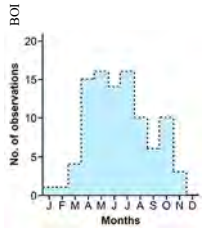
This is the only known stable population of this globally threatened species, with only a few sporadic sightings reported elsewhere in India. Therefore, its habitat at Hesaraghatta needs to be protected and maintained.

♂ DSF

♀ WSF

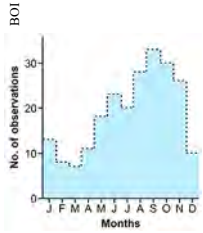
Small Cupid — *Chilades parrhasius* (Fabricius, 1793)





Wingspan: 24–28 mm
Habitat: Deciduous and scrub forests, and rural landscapes containing fields and grazing lands.
Status and Records from Bengaluru area: Common throughout Bengaluru. Specific records are from Bangalore University, Valley School, Turahalli, Hesaraghatta, Savanadurga, and Makalidurga.
Larval Host Plants: *Acacia nilotica, Dichrostachys cinerea* (Fabaceae).

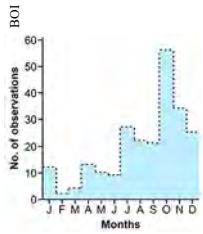
Lime Blue — *Chilades lajus* (Stoll, [1780])



Wingspan: 24–30 mm
Habitat: Semi-evergreen and deciduous forests, rural landscapes, and urban parks and gardens.
Status and Records from Bengaluru area: Common throughout Bengaluru, especially in Doresanipalya, Bangalore University, Lalbagh, and GKVK.
Larval Host Plants: *Atalantia buxifolia, Atalantia racemosa, Atalantia wightii, Chloroxylon swietenia, Citrus aurantifolia, Citrus limon, Citrus maxima, Citrus medica, Citrus sinensis, Glycosmis mauritiana, Naringi crenulata* (Rutaceae).

Gram Blue — *Euchrysops cnejus* (Fabricius, 1798)

WPA Schedule II



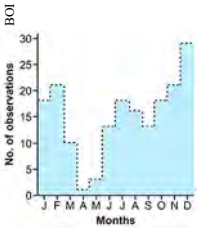
Wingspan: 18–26 mm
Habitat: Deciduous and scrub forests, and rural landscapes.
Status and Records from Bengaluru area: Common throughout Bengaluru, especially in Doresanipalya, Bangalore University, Lalbagh, GKVK, and Hesaraghatta.
Larval Host Plants: *Acacia caesia, Butea monosperma, Cajanus cajan, Canavalia ensiformis, Lablab purpureus, Paracalyx scariosus, Pisum sativum, Vigna radiata, Vigna trilobata, Vigna unguiculata* (Fabaceae).

Small Cupid (*Chilades parrhasius*)

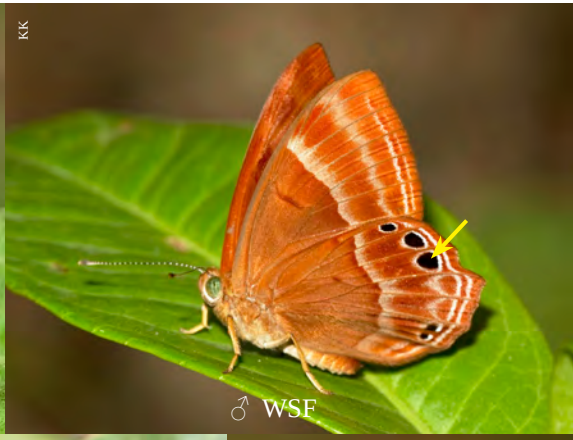
Lime Blue (*Chilades lajus*)

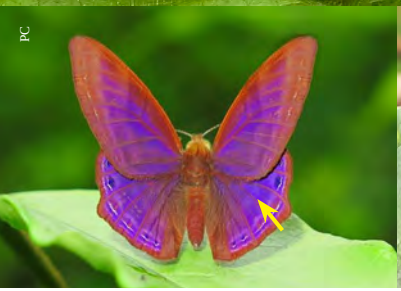
Gram Blue (*Euchrysops cnejus*)

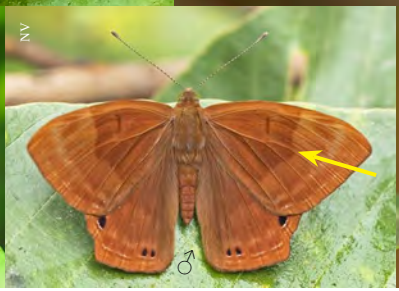
Double-banded Judy — *Abisara bifasciata* Moore, 1877



Wingspan: 34–48 mm
Habitat: Semi-evergreen and moist deciduous forests.
Status and Records from Bengaluru area: Occurs sporadically in wooded areas. Specific records are from Doresanipalya, Turahalli forest, Camp GeeDee, and Valley School.
Larval Host Plants: *Ardisia solanacea*, *Embelia tsjeriam-cottam*, *Maesa indica* (Primulaceae).







iridescence in freshly eclosed ♂

AN EVOLVING SPECIES LIST

Bengaluru already has a rich butterfly fauna, but it is not static. Habitats are changing all the time, and with changes in the climate and green cover, some butterfly species may become rare whereas some others which were not present earlier may establish populations in the city. At the same time, more people are becoming interested in watching butterflies. With more eyes on the ground, rarer butterfly species and those just passing through the city are more likely to be spotted.

As a result of these factors, the list of butterflies of Bengaluru has been expanding at a pace of 1–3 new species every year for the past several years. To help document the city's butterfly fauna, report your sightings on the Butterflies of India website and the associated mobile app for long-term reference of our community (https://www.ifoundbutterflies.org/submit-observations; QR code is on p. 1).

KK

Lilac Silverline (*Apharitis lilacinus*), rediscovered in Bengaluru after 100 years in 2012

KK

Orange-tailed Awl (*Bibasis sena*) was discovered in Bengaluru for the first time in 2020, on the last day this book was being readied for printing. It is a robust skipper (44–50 mm) that occurs in moist forests. It has so far been confirmed to occur only on the GKVK campus. Its caterpillars feed on *Combretum latifolium* (Combretaceae) and *Hiptage benghalensis* (Malpighiaceae), the latter planted in the Botanical Gardens of University of Agricultural Sciences, GKVK. The butterfly population may have been established by a passing gravid female when it discovered the plant in the Botanical Gardens. This is remarkable since the closest known population of this species is several hundred kilometres away.

caterpillar, and a close-up of its head

KK

KK

Little Tiger Pierrot (*Tarucus balkanica*; above)
and Alida Angle (*Caprona alida*; below), reported as new for Bengaluru in 2020

A SYSTEMATIC CHECKLIST OF BUTTERFLY SPECIES

Names and classification of butterfly species covered in this book, and the larval host plant records given under species pages, are based on Nitin et al. (2018, *Journal of Threatened Taxa*, 10:11495–11550), which are now continually updated on the Butterflies of India website (https://www.ifoundbutterflies.org).

Family Papilionidae (Swallowtail Butterflies)

Subfamily Papilioninae (Jays, Bluebottles, Swordtails, Mimes, Peacocks, Mormons, Roses, Birdwings, etc.)

1. *Graphium agamemnon* (Linnaeus, 1758) – Tailed Jay (p. 12)
2. *Graphium doson* (C. & R. Felder, 1864) – Common Jay (p. 12)
3. *Graphium nomius* (Esper, 1799) – Spot Swordtail (p. 14)
4. *Graphium teredon* (C. & R. Felder, [1865]) – Narrow-banded Bluebottle (p. 12)
5. *Papilio clytia* Linnaeus, 1758 – Common Mime (p. 14)
6. *Papilio crino* Fabricius, 1793 – Common Banded Peacock (p. 14)
7. *Papilio demoleus* Linnaeus, 1758 – Lime Swallowtail (p. 16)
8. *Papilio polymnestor* Cramer, [1775] – Blue Mormon (p. 16)
9. *Papilio helenus* Linnaeus, 1758 – Red Helen (p. 16)
10. *Papilio polytes* Linnaeus, 1758 – Common Mormon (p. 18)
11. *Pachliopta aristolochiae* (Fabricius, 1775) – Common Rose (p. 20)
12. *Pachliopta hector* (Linnaeus, 1758) – Crimson Rose (p. 20)
13. *Troides minos* (Cramer, [1779]) – Sahyadri Birdwing (p. 20)

Family Hesperiidae (Skippers)

Subfamily Coeliadinae (Awls, Awlets, etc.)

14. *Badamia exclamationis* (Fabricius, 1775) – Brown Awl (p. 24)
15. *Bibasis sena* (Moore, [1866]) – Orange-tailed Awl (p. 24, 152)
16. *Hasora chromus* (Cramer, [1780]) – Common Banded Awl (p. 24)

Subfamily Pyrginae (Flats, Angles, Grizzled Skipper, etc.)

17. *Celaenorrhinus ambareesa* (Moore, [1866]) – Dakkhan Spotted Flat(p. 24)
18. *Sarangesa dasahara* (Moore, [1866]) – Common Small Flat (p. 26)
19. *Sarangesa purendra* Moore, 1882 – Spotted Small Flat (p. 26)
20. *Coladenia indrani* (Moore, [1866]) – Tricolour Pied Flat (p. 26)
21. *Caprona ransonnettii* (R. Felder, 1868) – Golden Angle (p. 28)
22. *Caprona agama* (Moore, [1858]) – Spotted Angle (p. 28)
23. *Caprona alida* (de Nicéville, 1891) – Alida Angle (p. 28)
24. *Tagiades gana* (Moore, [1866]) – Suffused Snow Flat (p. 30)
25. *Tagiades japetus* (Stoll, [1781]) – Common Snow Flat (p. 30)
26. *Tagiades litigiosa* Möschler, 1878 – Water Snow Flat (p. 30)

154. *Leptotes plinius* (Fabricius, 1793) – Zebra Blue (p. 132)
155. *Chilades pandava* (Horsfield, [1829]) – Plains Cupid (p. 132)
156. *Chilades parrhasius* (Fabricius, 1793) – Small Cupid (p. 134)
157. *Chilades lajus* (Stoll, [1780]) – Lime Blue (p. 134)
158. *Euchrysops cnejus* (Fabricius, 1798) – Gram Blue (p. 134)
159. *Everes lacturnus* (Godart, [1824]) – Orange-crowned Cupid (p. 136)
160. *Catochrysops strabo* (Fabricius, 1793) – Forget-me-not (p. 136)
161. *Lampides boeticus* (Linnaeus, 1767) – Pea Blue (p. 136)
162. *Freyeria putli* (Kollar, [1844]) – Black-spotted Grass Jewel (p. 138)
163. *Freyeria trochylus* (Freyer, 1845) – Orange-spotted Grass Jewel (p. 138)
164. *Zizeeria karsandra* (Moore, 1865) – Dark Grass Blue (p. 138)
165. *Zizina otis* (Fabricius, 1787) – Lesser Grass Blue (p. 140)
166. *Zizula hylax* (Fabricius, 1775) – Tiny Grass Blue (p. 140)
167. *Pseudozizeeria maha* (Kollar, [1844]) – Pale Grass Blue (p. 140)
168. *Jamides bochus* (Stoll, [1782]) – Dark Cerulean (p. 142)
169. *Jamides celeno* (Cramer, [1775]) – Common Cerulean (p. 142)
170. *Prosotas nora* (C. Felder, 1860) – Common Lineblue (p. 142)
171. *Prosotas dubiosa* (Semper, [1879]) – Tailless Lineblue (p. 144)
172. *Prosotas noreia* (R. Felder, 1868) – White-tipped Lineblue (p. 144)
173. *Petrelaea dana* (de Nicéville, [1884]) – Dingy Lineblue (p. 144)
174. *Nacaduba kurava* (Moore, [1858]) – Transparent Six-Lineblue (p. 146)
175. *Anthene lycaenina* (R. Felder, 1868) – Pointed Ciliate Blue (p. 146)
176. *Azanus jesous* (Guérin-Méneville, 1849) – African Babul Blue (p. 148)
177. *Azanus ubaldus* (Stoll, [1782]) – Bright Babul Blue (p. 148)
178. *Azanus uranus* Butler, 1886 – Dull Babul Blue (p. 148)

Family Riodinidae (Metalmarks)

Subfamily Nemeobiinae (Judies)

179. *Abisara bifasciata* Moore, 1877 – Double-banded Judy (p. 150)

REVERSE PLANT-BUTTERFLY LIST FOR BENGAURU

Larval host plants of individual butterfly species are listed on the species pages. A reverse plant-butterfly checklist is given below so that butterfly species may easily be cross-referenced with larval host plants. This will also help readers who want to develop butterfly gardens or otherwise improve habitats for butterflies in urban parks and other heavily altered green spaces (focusing especially on the plants marked green). Names and classification of butterflies, and the larval host plant records given under species pages, are largely based on Nitin et al. (2018, *Journal of Threatened Taxa*, 10:11495–11550), which are now continually updated on the Butterflies of India website (https://www.ifoundbutterflies.org/larval-hosts). Plant names follow taxonomy given on World Flora Online (http://www.worldfloraonline.org/).

Acanthaceae

1. *Justicia sp.*: *Junonia hierta* (Yellow Pansy) (Nymphalidae).
2. *Acanthus sp.*: *Junonia almana* (Peacock Pansy), *Junonia orithya* (Blue Pansy) (Nymphalidae).
3. *Asystasia gangetica*: *Hypolimnas misippus* (Danaid Eggfly) (Nymphalidae).
4. *Asystasia lawiana*: *Hypolimnas misippus* (Danaid Eggfly) (Nymphalidae).
5. *Asystasia sp.*: *Junonia hierta* (Yellow Pansy) (Nymphalidae).
6. *Barleria cristata*: *Hypolimnas misippus* (Danaid Eggfly), *Junonia iphita* (Chocolate Pansy) (Nymphalidae).
7. *Barleria mysorensis*: *Junonia orithya* (Blue Pansy) (Nymphalidae).
8. *Barleria sp.*: *Junonia almana* (Peacock Pansy), *Junonia atlites* (Grey Pansy), *Junonia hierta* (Yellow Pansy), *Junonia lemonias* (Lemon Pansy) (Nymphalidae).
9. *Blepharis asperrima*: *Sarangesa dasahara* (Common Small Flat), *Sarangesa purendra* (Spotted Small Flat) (Hesperiidae).
10. *Eranthemum purpurascens*: *Celaenorrhinus ambareesa* (Dakkhan Spotted Flat) (Hesperiidae).
11. *Eranthemum roseum*: *Celaenorrhinus ambareesa* (Dakkhan Spotted Flat) (Hesperiidae).
12. *Eremomastax sp.*: *Junonia hierta* (Yellow Pansy) (Nymphalidae).
13. *Hygrophila auriculata*: *Zizula hylax* (Tiny Grass Blue) (Lycaenidae); *Junonia almana* (Peacock Pansy), *Junonia atlites* (Grey Pansy), *Junonia hierta* (Yellow Pansy), *Junonia iphita* (Chocolate Pansy), *Junonia lemonias* (Lemon Pansy), *Junonia orithya* (Blue Pansy) (Nymphalidae).
14. *Hygrophila costata*: *Junonia hierta* (Yellow Pansy), *Junonia lemonias* (Lemon Pansy), *Junonia almana* (Peacock Pansy), *Junonia atlites* (Grey Pansy) (Nymphalidae).
15. *Hygrophila ringens*: *Zizula hylax* (Tiny Grass Blue) (Lycaenidae).
16. *Justicia betonica*: *Hypolimnas misippus* (Danaid Eggfly) (Nymphalidae).
17. *Justicia micrantha*: *Junonia iphita* (Chocolate Pansy), *Junonia orithya* (Blue

478. *Aesculus indica*: *Deudorix epijarbas* (Cornelian) (Lycaenidae).
479. *Allophylus cobbe*: *Spindasis vulcanus* (Common Silverline) (Lycaenidae).
480. *Harpullia arborea*: *Deudorix epijarbas* (Cornelian) (Lycaenidae).
481. *Nephelium lappaceum*: *Rapala iarbus* (Common Red Flash), *Rapala manea* (Slate Flash) (Lycaenidae).
482. *Sapindus emarginatus*: *Deudorix epijarbas* (Cornelian) (Lycaenidae).
483. *Sapindus laurifolius*: *Deudorix epijarbas* (Cornelian), *Rapala varuna* (Indigo Flash) (Lycaenidae).
484. *Schleichera oleosa*: *Rapala iarbus* (Common Red Flash), *Rapala manea* (Slate Flash) (Lycaenidae).

Smilacaceae

485. *Smilax sp*.: *Tagiades litigiosa* (Water Snow Flat) (Hesperiidae).
486. *Smilax zeylanica*: *Kaniska canace* (Blue Admiral) (Nymphalidae).

Solanaceae

487. *Solanum torvum*: *Hypolimnas bolina* (Great Eggfly) (Nymphalidae).

Urticaceae

488. *Elatostema cuneatum*: *Hypolimnas bolina* (Great Eggfly) (Nymphalidae).
489. *Laportea interrupta*: *Hypolimnas bolina* (Great Eggfly) (Nymphalidae).
490. *Girardinia diversifolia*: *Vanessa indica* (Indian Red Admiral) (Nymphalidae).
491. *Urtica sp*.: *Vanessa indica* (Indian Red Admiral) (Nymphalidae).

Verbenaceae

492. *Lantana camara*: *Rapala manea* (Slate Flash) (Lycaenidae).

Zingiberaceae

493. *Curcuma aromatica*: *Udaspes folus* (Grass Demon) (Hesperiidae).
494. *Curcuma decipiens*: *Udaspes folus* (Grass Demon) (Hesperiidae).
495. *Curcuma longa*: *Udaspes folus* (Grass Demon) (Hesperiidae).
496. *Curcuma pseudomontana*: *Udaspes folus* (Grass Demon) (Hesperiidae).
497. *Elettaria cardamomum*: *Jamides celeno* (Common Cerulean) (Lycaenidae).
498. *Hedychium coronarium*: *Udaspes folus* (Grass Demon) (Hesperiidae).
499. *Zingiber officinale*: *Udaspes folus* (Grass Demon) (Hesperiidae).
500. *Zingiber zerumbet*: *Udaspes folus* (Grass Demon) (Hesperiidae).

Zygophyllaceae

501. *Tribulus terrestris*: *Zizina otis* (Lesser Grass Blue) (Lycaenidae).

NECTAR PLANTS OF BUTTERFLIES

Butterflies take nectar from a variety of plants. A majority of the plants used are native and they grow in the wild around Bengaluru. However, butterflies also feed on a large number of exotic plants introduced in and around urban areas. Some of the common nectar plants used by butterflies are listed below. Most of these are used as ornamental plants in home gardens and avenues, so they are easily found in urban areas.

1. Indigenous plants:

Herbs: *Heliotropium indicum*, *Leucas aspera*, *Plumbago zeylanica**, *Stachytarpheta indica*.


Indian heliotrope — *Heliotropium indicum*


Wild leadwort — *Plumbago zeylanica*

Shrubs, climbers and small trees: *Abutilon indicum*, *Eranthemum roseum*, *Grewia asiatica*, *Ixora coccinea**, *Jasminum grandiflorum**, *Leea indica**, *Mussaenda frondosa**, *Premna latifolia*, *Ziziphus spp*., *Artabotrys hexapetalus**, *Abrus precatorius**, *Ipomea spp**., *Alstonia scholaris*, *Anacardium occidentale**, *Mangifera indica**, *Murraya paniculata**, *Saraca indica**, *Terminalia arjuna**.


Indian mallow — *Abutilon indicum*


Jungle geranium — *Ixora coccinea*


Mango — *Mangifera indica*

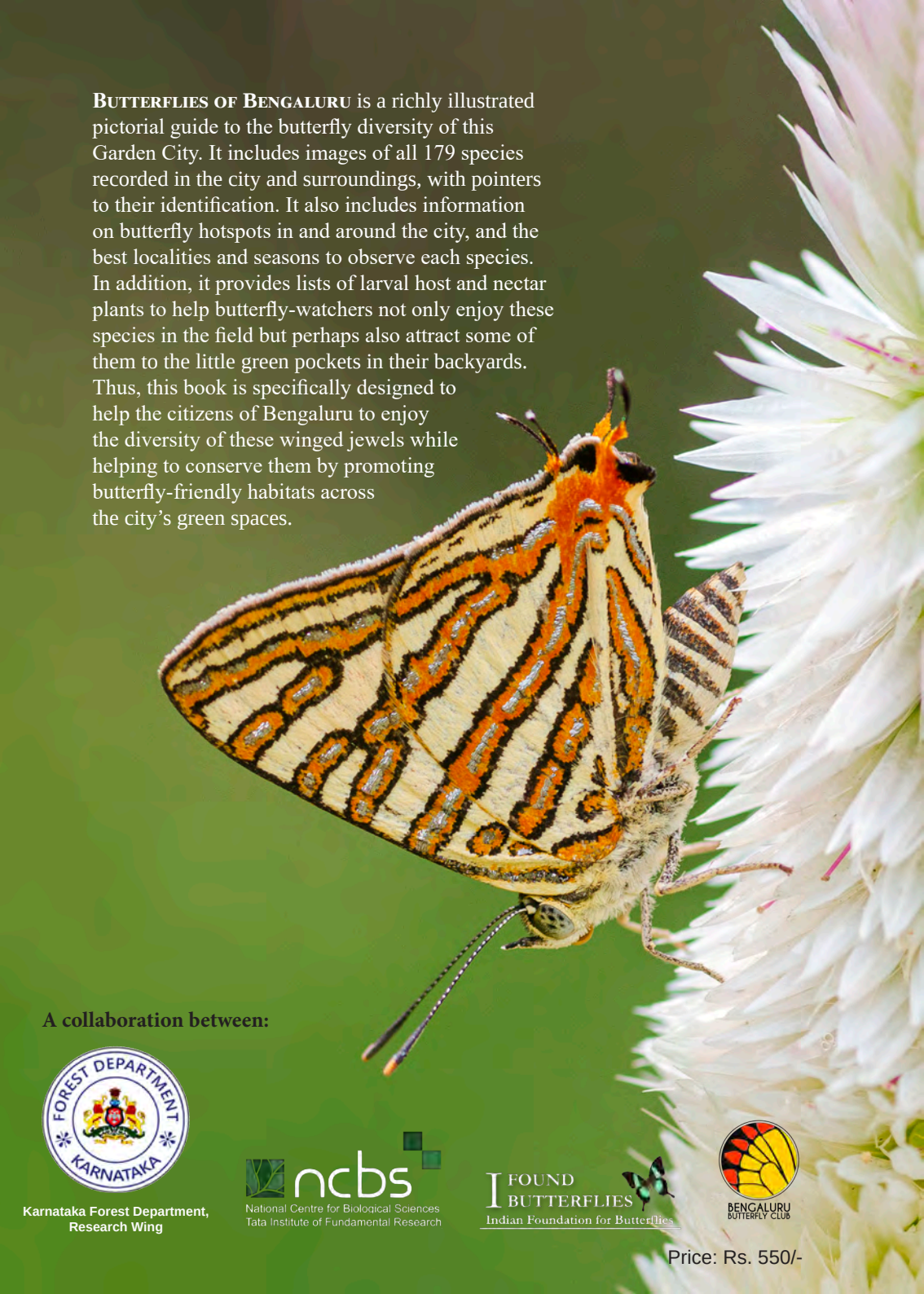

Ashoka tree — *Saraca asoca*

** commonly available in nurseries.*

ABOUT THE AUTHORS

Krushnamegh Kunte blended his passion for butterflies with profession by obtaining a PhD degree from the University of Texas at Austin and a Post-Doctoral Research Fellowship at Harvard University, USA, where he studied the evolution and genetics of wing colour patterns and mimicry in swallowtail butterflies. In 2012 he joined the faculty of the National Centre for Biological Sciences, Bengaluru, where he continues his long-term studies on the natural history, systematics, ecology, evolution, and genetics of butterflies. He spearheads the Biodiversity Atlas – India citizen science collaborative (http://bioatlasindia.org/), and functions as the Chief Editor of the Butterflies of India web platform (https://ifoundbutterflies.org/). He has authored five books on Indian butterflies and published over 70 research papers, including descriptions of new species and rediscoveries of rare, endemic and endangered species.

Nitin Ravikanthachari started observing butterflies from the time he was in high school, rediscovering a population of the Lilac Silverline (*Apharitis lilacinus*) butterfly in Bengaluru after a hundred years while he was still in college. He trained with Dr. Kunte for many years, studying the natural history, early stages and larval host plants of Indian butterflies. He is currently a PhD student at the University of South Carolina, USA, with research interests in evolution, genomics, population genetics, and citizen science, and a specialization in the evolution of butterfly–host plant interactions. He is a co-founder of the Bengaluru Butterfly Club, which aims to popularize butterflies in the city, and is also an editor of the Butterflies of India website. With Dr. Kunte he wrote a monograph on the larval host plants of the butterflies of the Western Ghats biodiversity hotspot. This is his first book.



Butterflies of Bengaluru is a richly illustrated pictorial guide to the butterfly diversity of this Garden City. It includes images of all 179 species recorded in the city and surroundings, with pointers to their identification. It also includes information on butterfly hotspots in and around the city, and the best localities and seasons to observe each species. In addition, it provides lists of larval host and nectar plants to help butterfly-watchers not only enjoy these species in the field but perhaps also attract some of them to the little green pockets in their backyards. Thus, this book is specifically designed to help the citizens of Bengaluru to enjoy the diversity of these winged jewels while helping to conserve them by promoting butterfly-friendly habitats across the city's green spaces.

A collaboration between:

Karnataka Forest Department, Research Wing

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