

A preliminary checklist of Papilionoidea fauna of Tehsil Bani, Jammu and Kashmir, India (Insecta: Lepidoptera)

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Abstract

Protected areas are pivotal in preserving biodiversity by providing a safe habitat and shielding wildlife from human-induced threats. Establishing additional protected sites like wildlife sanctuaries, biosphere reserves, and national parks significantly mitigates risks to various species, especially endemic and endangered species. Prior to effective management of these protected areas, a comprehensive understanding of regional fauna, particularly the endemic and endangered or vulnerable species and the elements that require preservation is imperative. In this context, an examination of Papilionoidea diversity was conducted in Tehsil Bani including newly established Bani Wildlife Sanctuary over five and a half years, spanning from March 2014 to September 2019. This study revealed a diverse species of fauna within this data-deficient wildlife sanctuary. A five- and half-year study revealed the occurrence of 219 species across six families that includes 26 species listed in the wildlife conservation status in India as per WLP, Act 1972 (Amendment 2022). These species were documented on 40 host plant families. The majority of these were documented on host plant families, Fabaceae (25), Poaceae (19 species) being the most prevalent, followed by Malvaceae (9), Rutaceae (8), Acanthaceae (7), Rhamnaceae (6), Brassicaceae (5), Cannabaceae (5), and Apocynaceae (5), and the additional 31 families hosting less than five species. However, information on host plants is available for 140 species (64%), but 79 species (36 %) were recorded without host plant information from Jammu & Kashmir. In addition to the host plant data, a complete bibliographic reference representing the previously published literature on the Papilionoidea fauna of Jammu & Kashmir has also been incorporated to enhance the comprehensiveness of the checklist.

Keywords: Insecta, Lepidoptera, Papilionoidea, checklist, Tehsil Bani, Bani Wildlife Sanctuary, Kathua, Jammu & Kashmir, India.

Una lista preliminar de la fauna de Papilionoidea del Tehsil Bani, Jammu y Cachemira, India (Insecta: Lepidoptera)

Resumen

Las zonas protegidas son fundamentales para preservar la biodiversidad, ya que proporcionan un hábitat seguro y protegen a la fauna de las amenazas inducidas por el hombre. El establecimiento de nuevos lugares protegidos, como santuarios de vida salvaje, reservas de la biosfera y parques nacionales, mitiga significativamente los riesgos para diversas especies, especialmente las endémicas y en peligro de extinción. Antes de proceder a una gestión eficaz de estas zonas protegidas, es imprescindible conocer a fondo la fauna regional, en particular las especies endémicas y en peligro o vulnerables y los elementos que requieren preservación. En este contexto, se llevó a cabo un examen de la diversidad de Papilionoidea en el Tehsil Bani, incluido el recién creado Santuario de Vida Silvestre de Bani, durante cinco años y medio, desde marzo de

2014 hasta septiembre de 2019. Este estudio reveló una diversa fauna de especies dentro de este santuario de vida silvestre carente de datos. Un estudio de cinco años y medio reveló la presencia de 219 especies de seis familias que incluyen 26 especies incluidas en el estado de conservación de la vida silvestre en la India según el WLP, Ley 1972 (Enmienda 2022). Estas especies se documentaron en 40 familias de plantas hospedadoras. La mayoría de ellas se documentaron en familias de plantas huésped, siendo Fabaceae (25), Poaceae (19 especies) las más prevalentes, seguidas de Malvaceae (9), Rutaceae (8), Acanthaceae (7), Rhamnaceae (6), Brassicaceae (5), Cannabaceae (5) y Apocynaceae (5) y las 31 familias adicionales albergan menos de cinco especies. Sin embargo, se dispone de información sobre plantas hospedadoras para 140 especies (64 %), pero 79 especies (36 %) se registraron sin información sobre plantas hospedadoras en Jammu y Cachemira. Además de los datos sobre plantas hospedadoras, también se ha incorporado una referencia bibliográfica completa que representa la literatura publicada anteriormente sobre la fauna de Papilionoidea de Jammu y Cachemira para aumentar la exhaustividad de la lista de control.

Palabras clave: Insecta, Lepidoptera, Papilionoidea, lista de comprobación, Tehsil Bani, Bani Wildlife Sanctuary, Kathua, Jammu & Kashmir, India.

Introduction

Lepidoptera constitute the second-largest insect order following Coleoptera and stand as one of the most species-rich insect order in India, including more than 1,379 extant described species (Varshney & Smetacek, 2015; Upadhaya et al. 2020; Das et al. 2023). This diversity of Papilionoidea in the country is reflected due to a significant number of global biodiversity hotspots. India, being one of the Mega-biodiverse countries is recognized as one of the top ten most biodiverse countries, constitute a significant number of global biodiversity hotspots (Myers et al. 2000; Balasubramanian, 2017; Singh, 2020). This diversity of Papilionoidea in the country is reflected due to a significant number of global biodiversity hotspots and the following complex factors: holometabolous life cycle, seasonal variations, and diverse range of ecological habitats. It plays a vital role in natural ecosystems, serving as significant pollinators and playing an essential role in the ecological food chain.

Within the Indian Himalaya, there exists a rich diversity of about 1,013 species. When considering subspecies, this diversity expands to encompass 1,249 members, spread across 343 genera and six families. Notably, the Papilionoidea diversity in the Indian Himalaya is significant, constituting a substantial 67% of the total Papilionoidea diversity known throughout the entire country. This underscores the critical role that the Himalayan region plays as a vital habitat, contributing significantly to India's overall biodiversity. In the Jammu and Kashmir Union Territory alone, the latest checklist documents a total of 308 species (Sheikh et al. 2021). Recent papers, such as those by Sheikh et al. (2021), Gupta & Sheikh (2021), Sheikh (2021), Khan & Sheikh (2022), Sheikh & Mishra, (2022), and Sheikh & Hassan (2023a, 2023b) have further added new additions to the Papilionoidea fauna of Jammu and Kashmir, India. As per the available literature on Jammu and Kashmir Rhopalocera fauna, the current total number of species in the Union Territory is 314.

The history of the study of Papilionoidea fauna in the region of Jammu and Kashmir (J&K) can be traced back to the mid-19th century. During that time, Austrian entomologist Vincenz Kollar played a significant role in exploring and describing many new taxa from the region. Kollar's work, published in 1844 and 1848, laid the foundation for the understanding of species in J&K. The British rule on the Indian subcontinent, spanning from 1857 to 1947, saw the active involvement of British entomologists in collecting and studying Papilionoidea in Kashmir. Notable contributors during this period include Lang (1868), Moore (1872, 1875), Holland (1896), and Tytler (1926). After the independence, there was no comprehensive studies on the Papilionoidea fauna from J&K for several decades. However, in the last decade, there has been a renewed interest and effort by local researchers and photographers to explore and document the Papilionoidea fauna in the region. Some of these researchers include Qureshi et al. (2013a, 2013b, 2014), Sharma & Sharma (2017, 2018a, 2018b, 2020), Sheikh (2018), and Sheikh & Parey (2019a, 2019b). These recent studies not only added to the known distribution of Papilionoidea in the Union Territory (UT) of J&K but also resulted in the publication of numerous new records for the region. The works of Sharma & Sharma (2017, 2018a, 2018b), Sheikh (2018), and Sheikh & Parey (2019a, 2019b) have contributed significantly to our understanding of the Papilionoidea diversity in Jammu and Kashmir. All misidentified literature has either been avoided or sorted out in the current study. We have made sure to include only those species in this checklist which are known to

be found in our study area. The aim of this research is to assemble an initial list of Rhopalocera species that could potentially exist within the recently established sanctuary.

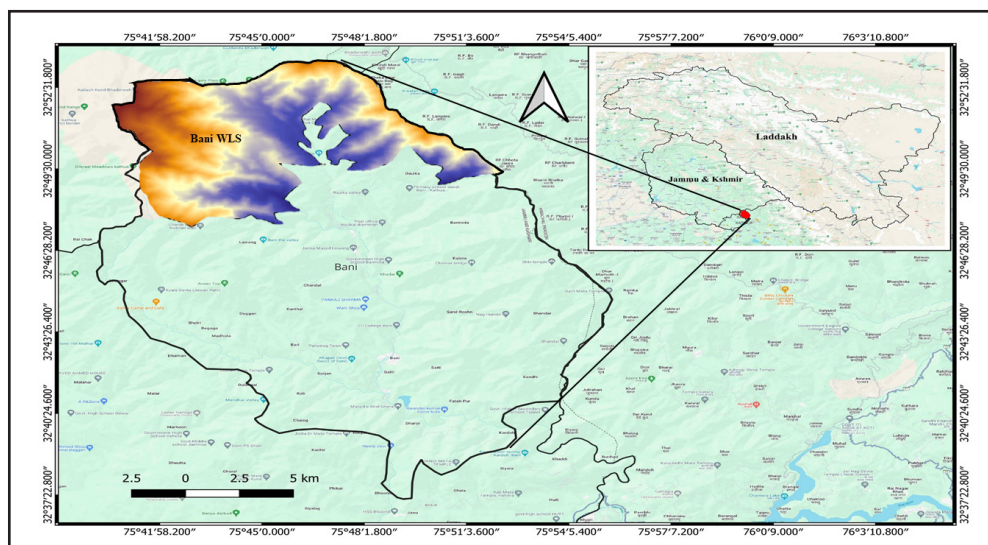
Materials and methods

More than 50 field trips were undertaken during 2014 to 2019 in different seasons to explore the Papilionoidea fauna of Tehsil Bani including Bani Wildlife Sanctuary, Jammu and Kashmir, India. No specimens were killed or collected during these visits; live species were photographed using a NIKON D 3400 Digital SLR camera. Gasse (2018) has been used as baseline work for this study, as he clearly defined the distributional ranges of the Papilionoidea which occur in the UT J&K. Additionally, Tshikolovets (2005) has also been used for understanding the Papilionoidea range in J&K. Furthermore, the current checklist on this species of Jammu and Kashmir (Sheikh et al. 2021) and other recent available literatures: Sheikh & Parey (2019a, b), Parey & Sheikh (2021), Gupta & Sheikh (2021), Singh & Sheikh (2021), Sheikh (2021), Sheikh & Gupta (2022), Khan & Sheikh (2022), Sheikh & Mishra (2022), Sheikh & Mishra (2023), and Sheikh & Hassan (2023a, b) on this species of the region is also consulted to check the distribution in Tehsil Bani. A representative photograph of 21 species in the fields are provided (Figures 2-4).

The following acronyms have been used in this paper are given below:

J&K	Jammu & Kashmir
UT	Union Territory
NP	National Park
BWLS	Bani Wildlife Sanctuary
BGSBU	Baba Ghulam Shah Badshah University
WLS	Wildlife Sanctuary
WPA	Wildlife Protection Act

Figure 1. Map of study area (original map based on QGis with OSM plug in).



Study area

The present study was carried out the Tehsil Bani including Bani Wildlife Sanctuary, Jammu and Kashmir, India (Figure 1). Bani is a small glacial valley nestled amidst towering mountains, situated at an

elevation of 4200 ft. The town of Bani thrives along the banks of the Sewa River. The climate in Bani exhibits characteristics of both temperate and polar climates, marked by harsh winters and moist summers. Covering a total geographical area of 689 hectares, the Bani tehsil is bordered by Kailash-Sarthaldhar to the north (the source of the Sewa River), Himachal Pradesh to the east, Banjal-Chaladhar to the south, and Dhar Mandi-Nooknal to the west. Meanwhile, BWLS is situated between the Chattergala Ridge and Sunbain Glaciers in the northern region, the Jammu and Kashmir and Himachal Pradesh to the northeast, Kunsun Da Naal to the southwest, and a spur originating from Kaplash Kund towards the south, extending up to Nukunwal in the west. This area is favourable to the preservation, propagation, and development of wildlife and its surrounding environment because of its abundant flora and fauna, noteworthy geomorphological features, and natural significance. The designated sanctuary covers an area of 99.6 km², situated at an elevation ranging from 1939 to 4293 meters (Farooq et al. 2021). Geographically, it spans from coordinates 32°78'16"N to 32°89'33"N and 75°68'92"E to 75°87'55"E. This area is dominated by major flora like *Pinus roxburghii* Sarg., *Cedrus deodara* (Roxb.) G. Don, *Senegalia catechu* (L.f.) P.J.H. Hurter & Mabb., *Ficus carica* L., *Juglans regia* L., *Robinia pseudoacacia* L., *Alnus nitida* (Spach) Endl., *Aegle marmelos* (L.) Corrêa, *Albizia lebbeck* (L.) Benth., *Ziziphus jujuba* Mill., *Azadirachta indica* A. Juss., *Bambusa bambos* (L.) Voss, *Carissa spinarum* L., *Dodonaea viscosa* Jacq., and *Lantana camara* L. There are 33 villages in Tehsil Bani, and all have rich and rare flora and ultimately that rare flora attracts rare fauna with it like butterflies, birds etc. Almost all these areas in this sanctuary receives snowfall and thus these areas are classified as temperate region.

Results

As a result of the present study, a preliminary checklist of 219 species under 127 genera in six families are provided in the Tehsil Bani including Bani Wildlife Sanctuary, Jammu & Kashmir, India: Nymphalidae (9 subfamilies, 46 genera, 86 species), Lycaenidae (4 subfamilies, 35 genera, 59 species), Hesperidae (4 subfamilies, 25 genera, 36 species), Papilionidae (2 subfamilies, 6 genera, 14 species), Pieridae (2 subfamilies, 11 genera, 21 species), and Riodinidae (1 subfamily, 1 genus, 3 species). Out of 219 species, 80 species are found in BWLS (Table 1).

Taxonomy

Family Hesperidae Latreille, 1809
Subfamily Coeliadinae Evans, 1937

Genus *Burara* Swinhoe, 1893

Burara oedipodea belesis (Mabille, 1876)

Distribution in Jammu & Kashmir: Jalandhar (Muradpur), Rajouri (Sharma & Sharma, 2020), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Hasora* Moore, [1881]

Hasora chromus (Cramer, [1780])

Distribution in Jammu & Kashmir: Jammu (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Badamia* Moore, [1881]

Badamia exclamatonis (Fabricius, 1775)

Distribution in Jammu & Kashmir: Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Choaspes* Moore, [1881]

Choaspes xanthopogon (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Kathua (Bani & BWLS) (present study).

Choaspes benjaminii japonicus Murray, 1875

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Kathua (Bani), (Sheikh & Hassan, 2023), Kathua (Bani & BWLS) (present study).

Subfamily Eudaminae Mabille, 1877

Genus *Lobocla* Moore, 1884

Lobocla liliana ignatius (Ploetz, 1882)

Distribution in Jammu & Kashmir: Kashmir (Swinhoe, 1912), Kathua (Bani & BWLS) (present study).

Subfamily Pyrginae Burmeister, 1878

Tribe Celaenorrhinini Swinhoe, 1912

Genus *Celaenorrhinus* Hübner, [1819]

Celaenorrhinus leucocera (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Ramban (Batote) (Kunte et al. 2024), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Celaenorrhinus munda (Moore, 1884)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Kathua (BANI) (present study).

Celaenorrhinus dhanada (Moore, 1865)

Distribution in Jammu & Kashmir: Ramban (Batote) (Kunte et al. 2024), Rajouri, Ramban, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Sarangesa* Moore, [1881]

Sarangesa dasahara (Moore, [1866])

Distribution in Jammu & Kashmir: Kathua (Jasrota) (Kunte et al. 2024), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Sarangesa purendra Moore, 1882

Distribution in Jammu & Kashmir: Kathua (Billawar) (Gupta & Sheikh, 2021), Kathua (BANI) (present study).

Genus *Pseudocoladenia* Shirozu & Saigusa, 1962

Pseudocoladenia fatih (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Ramban (Batote) (Kunte et al. 2024), Rajouri, Ramban, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Coladenia* Moore, [1881]

Coladenia indrani (Moore, [1866])

Distribution in Jammu & Kashmir: Kathua (Jasrota WLS) (Kunte et al. 2024), Rajouri, Ramban, Kathua

(Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Tagiadini Mabilie, 1878

Genus *Seseria* Matsumura, 1919

Seseria dohertyi Watson, 1893

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Kathua (Bani & BWLS) (present study).

Genus *Tagiades* Hübner, [1819]

Tagiades menaka (Moore, [1866])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Jammu (Chatha, Manda, Raika) (Sheikh, 2018), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tagiades cohaerens cynthia Evans, 1934

Distribution in Jammu & Kashmir: Doda (Bhaderwah) (Kunte et al. 2024), Kathua (BANI) (present study).

Genus *Odontoptilum* de Niceville, 1890

Odontoptilum angulata angulatum (Felder, 1862)

Distribution in Jammu & Kashmir: Jammu (Sunjwan) (Sheikh, 2022), Kathua (BANI) (present study).

Tribe Carcharodini Verity, 1940

Genus *Carcharodus* Hübner, [1819]

Carcharodus alceae gooraisa Evans, 1949

Distribution in Jammu & Kashmir: Kashmir (Goorais) (Evans, 1949), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Genus *Spialia* Swinhoe, [1912]

Spialia galba (Fabricius, 1793)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Jammu (Sunjwan), Rajouri (Chingus) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Pyrgini Burmeister, 1878

Genus *Pyrgus* Hübner, [1819]

Pyrgus cashmirensis Moore, 1874

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kathua (Bani & BWLS) (present study).

Subfamily Hesperinae Letreille, 1809

Tribe Aeromachini Tutt, 1906

Genus *Aeromachus* de Niceville, 1890

Aeromachus stigmatus (Moore, 1878)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Kathua (Bani & BWLS) (present study).

Genus *Actinor* Watson, 1893

Actinor radians (Moore, 1878)

Distribution in Jammu & Kashmir: J&K (Varshney & Smetacek, 2015), Kathua (Bani & BWLS) (present study).

Genus *Udaspes* Moore, [1881]

Udaspes folus (Cramer, [1775])

Distribution in Jammu & Kashmir: Rajouri (BGSBU) (Sheikh & Parey, 2019b), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Suastus* Moore, [1881]

Suastus gremius (Fabricius, 1798)

Distribution in Jammu & Kashmir: Jammu (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Taractrocerini Voss, 1952

Genus *Taractocera* Butler, [1870]

Taractocera maevius sagara (Moore, [1866])

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Taractocera dannia (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Kathua (BANI) (present study).

Genus *Potanthus* Scudder, 1872

Potanthus pseudomaesa clio (Evans, 1932)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Kathua (BANI) (present study).

Potanthus dara (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Mabille, 1909), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Baorini Doherty, 1886

Genus *Parnara* Moore, [1881]

Parnara guttatus mangala (Moore, [1866])

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Parnara bada (Moore, 1878)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Jammu (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Borbo* Evans, 1949

Borbo cinnara (Wallace, 1866)

Distribution in Jammu & Kashmir: Jammu (Samba, Manda, Raika) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Borbo bevani (Moore, 1878)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Pelopidas* Walker, 1870

Pelopidas mathias (Fabricius, 1798)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1949), Jammu (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Pelopidas sinensis (Mabille, 1877)

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Polytremis* Mabille, 1904

Polytremis discreta (Elwes & Edwards, 1897)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Kathua (BANI) (present study).

Polytremis eltola (Hewitson, 1869)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015), Jammu (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Family Papilionidae Latreille, [1802]
Subfamily Parnassiinae Swainson, 1840
Tribe Parnassiini Swainson, 1840

Genus *Parnassius* Latreille, 1804

Parnassius hardwickii Gray, 1831

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kashmir (Zojila Pass, Pir Panjal, Sham Chalsi) (Eisner, 1958), Kashmir (Zoji-La) (Sakai et al. 2002), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Subfamily Papilioninae Latreille, [1802]
Tribe Troidini Ford, 1944

Genus *Pachliopta* Reakirt, [1865]

Pachliopta aristolochiae (Fabricius, 1775)

Distribution in Jammu & Kashmir: Kathua (Bani) (Sheikh et al. 2021), Kathua (BANI) (present study).

Genus *Byasa* Moore, 1882

Byasa polyeuctes letincius (Fruhstorfer, 1908)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Doda (Bhaderwah) (Baidya & Karmakar, 2020), Ramban (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2021), Kathua (Bani & BWLS) (present study).

Byasa dasarada ravana (Moore, 1858)

Distribution in Jammu & Kashmir: Kashmir (Talbot, 1939), Kathua (Bani) (Kunte et al. 2024), Ramban (Sheikh et al. 2021), Jammu, Rajouri, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Tribe Papilionini Latreille, [1802]

Genus *Papilio* Linnaeus, 1758

Papilio polyctor Boisduval, 1836

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Samba, Udhampur (Ramnagar), Rajouri (Sheikh, 2018), Kathua (Bani), Udhampur (Mantalai) (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Papilio arcturus arius Rothschild, 1908

Distribution in Jammu & Kashmir: Kashmir (Evans, 1932), Rajouri, Poonch, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Papilio protenor euprotenor Fruhstorfer, 1908

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Doda, Kathua (Bani) (Karmakar, 2023), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2021), Kathua (BANI) (present study).

Papilio polytes romulus Cramer, [1775]

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kathua (Bani), Doda, Jammu (Raika), Doda (Bhaderwah), Kathua (Jasrota) (Sheikh, 2018), Jammu, Rajouri (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2021), Kathua (BANI) (present study).

Papilio demoleus Linnaeus, 1758

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kathua (Bani), Doda, Jammu (Raika) (Sheikh, 2018), Jasrota WLS, Kathua (Kunte et al. 2024), Jammu, Rajouri (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2021), Kathua (BANI) (present study).

Papilio machaon asiatica Menetries, 1855

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kashmir (Goorias valley) (South, 1902), Doda (Kunte et al. 2024), Rajouri (Sheikh et al. 2021), Udhampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Chilasa* Moore, 1881

Chilasa agestor govindra (Moore, 1864)

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1907), Kathua (Bani) (Sheikh & Mishra, 2023a), Kathua (Bani & BWLS) (present study).

Chilasa clytia (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Jammu (Sharma & Sharma, 2017b), Samba, Jammu (Manda, Raika), Kathua (Bani) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2021), Kathua (BANI) (present study).

Tribe Leptocircini Kirby, 1896

Genus *Graphium* Scopoli, 1777

Graphium cloanthus (Westwood, 1841)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kathua (Bani) (Kunte et al. 2024), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2021), Kathua (Bani & BWLS) (present study).

Graphium sarpedon sirkari Page & Treadaway, 2013

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Samba, Kathua (Jasrota, Bani, Billawar) (Sheikh, 2018), Jammu (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2021), Kathua (BANI) (present study).

Family Pieridae Swainson, [1820]
Subfamily Pierinae Swainson, [1820]
Tribe Pierini Swainson, [1820]

Genus *Aporia* Hübner, [1819]

Aporia agathon phryxe (Boisduval, [1836])

Distribution in Jammu & Kashmir: Kashmir (Evans, 1932), Kathua (Bani & BWLS) (present study).

Genus *Pieris* Schrank, 1801

Pieris brassicae nepalensis Gray, 1846

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kashmir (Northeast) (Tshikolovets, 2005), Srinagar (Dal Lake) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Pieris canidia indica Evans, 1926

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kashmir (Sonamarg) (Tshikolovets, 2005), Samba, Jammu (Manda, Raika), Doda (Bhaderwah), Kathua (Bani) (Sheikh, 2018), Anantnag (Pahalgam), Srinagar (Dal Lake) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Pieris rapae (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (South, 1902), Kashmir, Rajouri (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Pieris ajaka Moore, 1865

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Bandipora (Goorais valley) (South, 1902), Rajouri (BGSBU) Doda, Rajouri, Kashmir (Sheikh et al. 2021), Kathua (Bani & BWLS) (present study).

Genus *Pontia* Fabricius, 1807

Pontia daplidice moorei (Roeber, [1907])

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Moore, 1874; Holland, 1896; Rober, 1907; Antram, 1924; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kashmir (Goorais valley), Rajouri (South, 1902), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Ganderbal, Doda, Srinagar, Anantnag (Kunte

et al. 2024). Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Belenois* Hübner, [1819]

Belenois aurota (Fabricius, 1793)

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1907), Samba, Jammu (Chatha, Raika) (Sheikh, 2018), Doda (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Cepora* Billberg, 1820

Cepora nerissa phryne (Fabricius, 1775)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Rajouri (Akhnoor), Jammu (Manda, Chatha) (Sheikh, 2018), Jammu (Kunte et al. 2024), Jammu, Rajouri (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Delias* Hübner, [1819]

Delias sanaca (Moore, 1857)

Distribution in Jammu & Kashmir: Kashmir (Kehimkar, 2016), Ramban (Banihal pass) (Roberts, 2001), Kathua (Bani & BWLS) (present study).

Delias belladonna horsfieldi (Gray, 1831)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Anantnag (Amarnath) (Mitis, 1893), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Reasi (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Euchloeini Klots, 1930

Genus *Euchloe* Hübner, [1819]

Euchloe daphalis (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Bandipora (Goorais valley) (South, 1902), Kathua (Bani & BWLS) (present study).

Subfamily Coliadinae Swainson, [1821]

Genus *Catopsilia* Hübner, [1819]

Catopsilia pyranthe (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Jammu (Manda, Chatha, Raika) (Sheikh, 2018), Jammu, Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Catopsilia pomona (Fabricius, 1775)

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Samba, Jammu (Manda, Raika), Kathua (Sheikh, 2018), Doda (Kunte et al. 2024), Jammu, Rajouri (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Gonepteryx* Leach, [1815]

Gonepteryx nepalensis Doubleday, 1847

Distribution in Jammu & Kashmir: Kashmir (Holland, 1896), Kashmir (Goolmurg) (Lang, 1868), Doda (Kunte et al. 2024), Rajouri (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Gonepteryx mahaguru Gistel, 1857

Distribution in Jammu & Kashmir: Kashmir (Evans, 1927), Rajouri Kathua (Bani & BWLS) (present study).

Genus *Eurema* Hübner, [1819]

Eurema laeta (Boisduval, 1836)

Distribution in Jammu & Kashmir: Kashmir (Fruhstorfer, 1910c), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Eurema drona (Horsfield, 1829)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Rajouri (South, 1902), Rajouri, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Eurema hecabe (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Rajouri (Moore, 1906), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Doda (Kunte et al. 2024), Jammu (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Colias* Fabricius, 1807

Colias erate lativitta Moore, 1882

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Bandipora (Goorais valley) (South, 1902), Doda (Kunte et al. 2024), Rajouri (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Colias fieldii Menetries, 1855

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Ganderbal (Sonamarg-Srinagar Road) (Tshikolovets, 2005), Doda, Anantnag (Pahalgam), Baramula (Gulmarg) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Colias eogene C. & R. Felder, 1865

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1907, Gasse, 2018), Kishtwar (Gumri, Zoji-La pass vicinity) (Tshikolovets, 2005), Kathua (Bani & BWLS) (present study).

Family Lycaenidae Leach, [1815]
Subfamily Polyommatae Swainson, 1827
Tribe Polyommataini Swainson, 1827

Genus *Prosotas* Druce, 1891

Prosotas nora ardates (Moore, [1875])

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Poonch (Moore, 1875), Samba, Jammu (Manda, Mubarakmandi) (Sheikh, 2018), Jammu (Environmental Park Raika) (Kunte et al. 2024), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Catochrysops* Boisduval, 1832

Catochrysops strabo (Fabricius, 1793)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1923), Samba, Jammu (Manda) (Sheikh, 2018), Jammu (Environmental Park Raika), Doda (Bhaderwah) (Bhakre, 2020b), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Lampides* Hübner, [1819]

Lampides boeticus (Linnaeus, 1767)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), 3 km W. Zoji La pass (Tshikolovets, 2005), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Doda (Bhaderwah), Srinagar (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Leptotes* Scudder, 1876

Leptotes plinius (Fabricius, 1793)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909), Samba, Kathua (Bani) (Sheikh, 2018), Jammu (Environmental park Raika), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Zizeeria* Chapman, 1910

Zizeeria karsandra (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Anantnag (Pahalgam) (Kunte et al. 2024), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Pseudozizeeria* Beuret, 1955

Pseudozizeeria maha (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1890; Seitz, 1909; Varshney & Smetacek, 2015; Gasse, 2018), Samba, Jammu (Manda, Raika), Doda (Sheikh, 2018), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Zizina* Chapman 1910

Zizina otis indica (Murray, 1874)

Distribution in Jammu & Kashmir: Jammu (Sunjwan, Environmental park Raika), Rajouri (BGSBU) (Sheikh et al. 2021), Jammu, Rajouri (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Zizula* Chapman, 1910

Zizula hylax (Fabricius, 1775)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Smith, 1994), Jammu (Manda, Raika,

Chatha), Kathua (Jasrota), (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Tarucus* Moore, [1881]

Tarucus indica Evans, 1932

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; D'Abrera, 1993), Srinagar (Nishat gardens) (Gasse, 2018), Kathua (BANI) (present study).

Tarucus callinara Butler, 1886

Distribution in Jammu & Kashmir: Kashmir (Evans, 1955; Gasse, 2018; Basu et al. 2019), Kathua (BANI) (present study).

Tarucus venosus Moore, 1882

Distribution in Jammu & Kashmir: Kashmir (Evans, 1955; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018; Basu et al. 2019), Rajouri (South, 1902), Srinagar (Shankaracharya temple road), Rajouri (BGSBU) (Kunte et al. 2024), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tarucus hazara Evans, 1932

Distribution in Jammu & Kashmir: Kashmir (Evans, 1955; Varshney & Smetacek, 2015; Gasse, 2018; Basu et al. 2019), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Kathua (BANI) (present study).

Genus *Everes* Hübner, [1819]

Everes huegelii (Gistel, 1857)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1923; Evans, 1925; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Srinagar (Shankaracharya temple road), Anantnag (Pahalgam), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Everes lacturnus assamica Tytler, 1915

Distribution in Jammu & Kashmir: Rajouri (BGSBU) (Sheikh & Parey, 2019b), Jammu (Sunjwan) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Azanus* Moore, [1881]

Azanus ubaldus (Stoll, [1782])

Distribution in Jammu & Kashmir: Jammu (Sunjwan) (Sheikh et al. 2021), Rajouri, Jammu, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Azanus uranus Butler, 1886

Distribution in Jammu & Kashmir: Jammu (Sunjwan) (Sheikh et al. 2021), Rajouri, Jammu, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Celastrina* Tutt, 1906

Celastrina argiolus kollari (Westwood, [1852])

Distribution in Jammu & Kashmir: Kashmir (Kollar, 1844; Moore, 1874; de Niceville, 1890; Bingham, 1907; Varshney & Smetacek 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Celastrina gigas (Hemming, 1928)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek 2015; Kehimkar, 2016; Gasse, 2018), Kathua (BANI) (present study).

Celastrina huegelii (Moore, 1882)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Evans 1912; Wynterblyth, 1957; Varshney & Smetacek 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Acytolepis* Toxopeus, 1927

Acytolepis puspa gisca (Fruhstorfer, 1910)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Jammu (Environmental park Raika) (Kunte et al. 2024), Rajouri (Chingus) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Oreolyce* Toxopeus, 1927

Oreolyce vardhana (Moore, [1875])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Evans, 1927; Peile, 1937; Wynterblyth, 1957; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Genus *Euchrysops* Butler, 1900

Euchrysops cnejus (Fabricius, 1798)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909), Jammu (Environment park Raika) (Sheikh et al. 2021), Udampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Polyommatus* Latreille, 1804

Polyommatus pseuderos Moore, 1879

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Evans, 1925; Bollow, 1930; D'Abrera, 1993; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Anantnag (Pahalgam) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Polyommatus ariana Moore, 1865

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1890; Holland, 1896; Varshney & Smetacek, 2015; Gasse, 2018), Anantnag (Pahalgam), Bandipora (Gurais valley) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Genus *Aricia* Reichenbach, 1817

Aricia agestis nazira (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (de Niceville, 1890; Holland, 1896; Bingham, 1907; Swinhoe, 1910; Seitz, 1923; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Bandipora (Goorais valley), Rajouri (Dana) (South, 1902), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Srinagar (Dachigam N.P.)) (Qureshi et al. 2014), Srinagar (Shankaracharya temple road), Anantnag (Pahalgam), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Pamiria* Zhdanko, 1995

Pamiria omphisa (Moore, [1875])

Distribution in Jammu & Kashmir: Kashmir (Holland, 1896; Seitz, 1909; Evans, 1927; Kehimkar, 2016; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Pamiria galathea (Blanchard, [1844])

Distribution in Jammu & Kashmir: Kashmir (Blanchard, 1844; Holland, 1896; Swinhoe 1910; Evans, 1925; Mani, 1986; Smith, 1994), Baramulla (Goolmurg) (Lang, 1868), Kathua (BANI) (present study).

Genus *Freyeria* Courvoisier, 1920

Freyeria putli (Kollar, [1844])

Distribution in Jammu & Kashmir: Jammu (Chatha) (Sheikh et al. 2021), Rajouri, Jammu (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Luthrodes* Druce, 1895

Luthrodes pandava (Horsefield, [1828])

Distribution in Jammu & Kashmir: Kathua (Jasrota), Jammu (Kachi Chawni) (Sheikh, 2018), Jammu (Environmental park Raika) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Chilades* Moore, 1881

Chilades parrhasius (Fabricius, 1793)

Distribution in Jammu & Kashmir: Kathua (Bani) (Sheikh & Hassan, 2023), Kathua (BANI) (present study).

Chilades lajus (Stoll, [1780])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909), Samba, Jammu (Manda, Raika, Kachi Chawni) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Lycaeninae Leach, [1815]

Tribe Lycaenini Leach, [1815]

Genus *Lycaena* Fabricius, 1807

Lycaena panava (Westwood, 1852)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1890; Evans, 1932; Wynterblyth, 1957; D'Abrera, 1993; Varshney & Smetacek, 2015; Gasse, 2018), Kathua (Bani), (Sheikh & Gupta, 2022), (Bani & BWLS) (present study).

Lycaena phlaeas baralacha (Moore, 1884)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Holland, 1896; Evans, 1932; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Bandipor (Goorais valley) (Ford, 1924), Kishtwar (Gumri, Zoji La pass vicinity) (Tshikolovets, 2005), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Anantnag (Pahalgam), Baramulla (Gulmarg), Doda (Bhaderwah, Mathola) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Kathua, Doda, Kashmir Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Lycaena kasyapa (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1923; Peile, 1937; D'Abrera, 1993; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Ganderbal (Sonamarg) (Moore, 1874), Kishtwar (Gumri) (Zoji La pass vicinity) (Tshikolovets, 2005), Kishtwar (Paddar), Baramula (Gulmarg) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Genus *Heliophorus* Geyer, [1832] in Hübner

Heliophorus sena (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; D'Abrera, 1993; Gasse, 2018), Udhampur (Chenani), Srinagar (Shankaracharya temple road), Anantnag (Pahalgam), Doda (Bhaderwah), Kathua (Bani), Rajouri (BGSBU) (Kunte et al. 2024), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Heliophorus bakeri (Evans, 1927)

Distribution in Jammu & Kashmir: Kashmir (Swinhoe, 1911; D'Abrera, 1993; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Bandipora (Goorais valley) (Riley, 1929), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Heliophorus oda (Hewitson, 1865)

Distribution in Jammu & Kashmir: Kishtwar (Marwah) (Sharma & Sharma, 2018a), Kathua (Bani & BWLS) (present study).

Heliophorus moorei coruscans (Moore, 1882)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1932; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (Bani), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Aphnaeinae Distant, 1884

Genus *Cigaritis* Donzel, 1847

Cigaritis vulcanus (Fabricius, 1775)

Distribution in Jammu & Kashmir: Kashmir (Kollar, 1848), Jammu (Sunjwan, Environmental park Raika.) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Cigariis ictis (Hewitson, 1865)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Jammu (Environmental park Raika) (Sheikh & Parey, 2019a) Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Theclinae Swainson, [1830]

Tribe Theclini Swainson, [1830]

Genus *Chaetoprocta* de Niceville, 1890

Chaetoprocta odata (Hewitson, 1865)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Kehimkar, 2016; Gasse, 2018), Ganderbal (Sind valley, Mohanmarg), (Forster, 1980), Kishtwar (Paddar), Doda (Bhaderwah), Anantnag (Pahalgam) (Kunte et al. 2024), Rajouri, Kathua, Doda (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Euaspa* Moore, 1884

Euaspa milionia (Hewitson, [1869])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1926; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Euaspa ziha (Hewitson, 1865)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1926; Kehimkar, 2016), Kathua (BANI) (present study).

Genus *Esakiozephyrus* Shirozu & Yamamoto, 1956

Esakiozephyrus icana (Moore, [1875])

Distribution in Jammu & Kashmir: Doda (Sunbain) (Kunte et al. 2024), Kathua (BANI) (present study).

Genus *Chrysozephyrus* Shirozu & Yamamoto, 1956

Chrysozephyrus syla (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909), Varshney & Smetacek, 2015, Kehimkar, 2016, Gasse, 2018), Doda (Sunbain) (Kunte et al. 2024), Kathua (Sarthal, Bani), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Kathua, Doda (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Thermozephyrus* Inomata & Itagaki, 1986

Thermozephyrus ataxus (Westwood, 1851)

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Varshney & Smetacek, 2015; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Tribe Arhopalini Bingham, 1907

Genus *Arhopala* Boisduval, 1832

Arhopala atrax (Hewitson, 1862)

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015; Smetacek, 2018; Gasse, 2018), Kathua (BANI) (present study).

Arhopala amantes apella (Swinhoe, 1887)

Distribution in Jammu & Kashmir: Samba, Udampur (Ramnagar), Doda (Sheikh, 2018), Jammu (Mahamaya Forest), (Sheikh & Parey, 2019b), Kathua (BANI) (present study).

Arhopala rama (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1909; Evans, 1932; Peile, 1937; Wynterblyth, 1957; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (BANI) (present study).

Arhopala dodonea (Moore, [185])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1909; Peile, 1937; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Doda (Khelani) (Kumar, 2020), Kathua (BANI) (present study).

Arhopala ganesa (Moore, [1858])

Distribution in Jammu & Kashmir: Kashmir (de Niceville, 1890; Seitz, 1909; Swinhoe, 1911; D'Abrera, 1993; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (BANI) (present study).

Tribe Amblypodini Doherty, 1829

Genus *Iraota* Moore, [1881]

Iraota timoleon (Stoll, [1790])

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Jammu (Government Gandhi memorial science college) (Sharma & Sharma, 2018a), Rajouri (Bal Jarallan) (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Horagini Cowan, 1966

Genus *Horaga* Moore, 1881

Horaga onyx (Moore, 1858)

Distribution in Jammu & Kashmir: Samba, Mubarakmandi, Doda (Sheikh, 2018), Rajouri (Bhambla), Jammu (Environmental park Raika, Government Gandhi memorial science college) (Sharma & Sharma, 2018a) Jammu (University of Jammu, Kalidhar forest) (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Deudorigini Doherty, 1886

Genus *Deudorix* Hewitson, 1863

Deudorix epijarbas ancus Fruhstorfer, 1912

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; De Niceville, 1890; Varshney & Smetacek, 2015; Gasse, 2018), Rajouri, Kashmir (South, 1902), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Jammu (Kalidhar) (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Rapala* Moore, [1881]

Rapala manea schistacea (Moore, 1879)

Distribution in Jammu & Kashmir: Samba, Jammu (Manda, Raika) (Sheikh, 2018), Jammu (Environmental park Raika) (Kunte et al. 2024), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Rapala iarbus sorya (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1908c; Varshney & Smetacek, 2015; Gasse, 2018), Samba, Jammu (Manda), Doda (Sheikh, 2018), Jammu (Environmental park Raika), Udhampur (Manwal) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Udhampur, Jammu, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Rapala nissa (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1908c; Evans, 1932; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kashmir (South, 1902), Kupwara (Qureshi et al. 2013), Kathua (Bani & BWLS) (present study).

Rapala selira (Moore, 1874)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1908c; Swinhoe, 1911; Evans, 1927; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Udhampur, Rajouri, Poonch, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Tribe Eumaeini Doubleday, 1847

Genus *Satyrium* Scudder, 1876

Satyrium deria (Moore, 1865)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1890; Holland, 1896; Seitz, 1908c; D'Abrera, 1993; Varshney & Smetacek, 2015; Gasse, 2018), Kishtwar (Paddar) (Sondhi, 2020), Udampur, Rajouri, Poonch, Doda (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Family Riodinidae Grote, 1895
Subfamily Riodiniinae Grote, 1895
Tribe Hamearini Tutt, [1906]

Genus *Dodona* Hewitson, 1861

Dodona durga (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1886; Biggam, 1905; Seitz, 1908c; Antram, 1924; Evans, 1932; D'Abrera, 1993; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Udampur, Rajouri, Poonch, Doda, Kathua, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Dodona dipoea nostia Fruhstorfer, 1912

Distribution in Jammu & Kashmir: Kashmir (Fruhstorfer, 1914; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Dodona eugenes Bates, [1868]

Distribution in Jammu & Kashmir: Kashmir (Moore, 1901; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Doda (Khelani) (Kunte et al. 2024), Rajouri, Doda (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Family Nymphalidae Rafinesque, 1815
Subfamily Libytheinae Boisduval, [1833]

Genus *Libythea* Fabricius, 1807

Libythea lepita Moore, [1858]

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1908c; Evans, 1932; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Doda (Bhaderwah), Rajouri (BGSBU) (Kunte et al. 2024), Rajouri, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Libythea myrrha sanguinalis Fruhstorfer, 1898

Distribution in Jammu & Kashmir: Kashmir (Moore, 1901; Seitz, 1908c; Fruhstorfer, 1914; Gasse, 2018), Rajouri (Bal Jarallan) (Kunte et al. 2024), Rajouri, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Danainae Boisduval, [1833]
Tribe Danaini Boisduval, [1833]

Genus *Parantica* Moore, [1880]

Parantica aglea melanoidea Moore, 1883

Distribution in Jammu & Kashmir: Kashmir (Moore, 1890; Bingham, 1905; Evans, 1932; Talbot, 1947; Varshney & Smetacek, 2015; Gasse, 2018), Doda, Kathua (Jasrota WLS) (Kunte et al. 2024), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Parantica sita (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1905; Evans, 1932; Talbot, 1947; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (Sarthal village, Bani), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Tirumala* Moore, [1880]

Tirumala limniace exotica (Gmelin, 1790)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Holland, 1896; Seitz, 1907a; Gasse, 2018), Rajouri (South, 1902), Samba, Jammu (Manda, Raika) (Sheikh, 2018), (Ramnagar wildlife sanctuary), Kathua (Jasrota WLS) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Danaus* Kluk, 1780

Danaus genutia (Cramer, [1779])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; D'Abrera, 1990; Gasse, 2018), Samba, Jammu (Manda, Akhnoor) (Sheikh, 2018), Doda, (Raika Environmental Park), (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Danaus chrysippus (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Holland, 1896; Seitz, 1907a; D'Abrera, 1990; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Samba, (Manda, Raika, Akhnoor) (Sheikh, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribu Euploeini Moore, [1880]

Genus *Euploea* Fabricius, 1807

Euploea harata (Cramer, [1777])

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015; Gasse, 2018; Smetacek, 2018), Doda (Kunte et al. 2024), Jammu (Raika Environmental Park), Kathua (Sarthal village, Bani), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Euploea core (Cramer, [1780])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Jammu (Manda, Chatha, Raika) (Sheikh, 2018), Jammu (Kalidhar forest) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Satyrinae Boisduval, [1833]

Tribe Melanitini Reuter, 1896

Genus *Melanitis* Fabricius, 1807

Melanitis leda (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1907b; Gasse, 2018), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Melanitis phedima galkissa Fruhstorfer, 1911

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1932; Talbot, 1947; Varshney & Smetacek, 2015; Smetacek, 2018; Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Kathua (BANI) (present study).

Tribe Satyrini Boisduval, [1833]

Genus *Lethe* Hübner, [1819]

Lethe sidonis (Hewitson, 1863)

Distribution in Jammu & Kashmir: Rajouri (Budhal) (Sheikh et al. 2021), Rajouri Kathua (Parey & Sheikh, 2019), (Bani & BWLS) (present study).

Lethe harata Aurivillius, 1898

Distribution in Jammu & Kashmir: Kashmir (Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Sheikh & Parey, 2019a), Rajouri, Doda (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Lethe rohria Fabricius, 1787

Distribution in Jammu & Kashmir: Kashmir (Moore, 1891; Fruhstorfer, 1911; Evans, 1932; Peile, 1937; Talbot, 1947; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Samba, Jammu (Manda, Raika), Doda (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Lethe verma (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Seitz, 1907b; Fruhstorfer, 1911; Evans, 1927; Peile, 1937; Talbot, 1947; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018; Smetacek, 2018; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Kathua (BANI) (present study).

Genus *Lasiommata* Westwood, 1841

Lasiommata schakra (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1908a; Fruhstorfer, 1911; D'Abrera, 1990; Bozano, 1999; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Gulmarg (Hegner, 1978), Samba, Jammu (Manda, Akhnoor), Kathua (Bani), Doda (Bhaderwah) (Sheikh, 2018), Doda (Bhaderwah), Baramula (Gulmarg) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Kirinia* Moore, 1893

Kirinia eversmanni cashmirensis (Moore, 1874)

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1905; Seitz, 1908a; Evans, 1932; Talbot, 1947; D'Abrera, 1990; Bozano, 1999; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Baramulla (Goolmurg) (Moore, 1874), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Kupwara (Rajwar, Langate forest range) (Singh, 2016), Bandipora (Gurais), Anantnag (Pahalgam), Baramula (Gulmarg) (Venkatesh, 2020), Kathua (Bani & BWLS) (present study).

Genus *Mycalesis* Hübner, [1818]

Mycalesis perseus harata (Fabricius, 1798)

Distribution in Jammu & Kashmir: Jammu (Raika Environmental Park), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Ypthima* Hübner, [1818]

Ypthima nareda (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Marshall & de Niceville, 1883; Seitz, 1907b; Antram, 1924; Evans, 1932; Peile, 1937; Talbot, 1947; Wynterblyth, 1957; Mani, 1986; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Kathua, Doda (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Ypthima kasmira Moore, 1884

Distribution in Jammu & Kashmir: Kashmir (Moore, 1892; Bingham, 1905; Seitz, 1907b; Antram, 1924; Evans, 1932; Peile, 1937; Talbot, 1947; Smith, 1994; Varshney & Smetacek, 2015; Gasse, 2018), Rajouri, Kashmir (South, 1902), Doda (Bhaderwah) (misidentified as *Y. huebneri*) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Ypthima lisandra avanta Moore, [1875]

Distribution in Jammu & Kashmir: Kashmir (Marshall & de Niceville, 1883; Bingham, 1905; Seitz, 1907b; Fruhstorfer, 1911; Antram, 1924; Evans, 1932; Peile, 1937; Talbot, 1947; Wynterblyth, 1957; Mani, 1986; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Ypthima baldus (Fabricius, 1775)

Distribution in Jammu & Kashmir: Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Ypthima nikaea Moore, [1875]

Distribution in Jammu & Kashmir: Kashmir (Moore, 1892; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Doda (Bhaderwah, Khelani) (Kunte et al. 2024), Kathua (Bani), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Doda, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Ypthima sakra (Moore, 1857)

Distribution in Jammu & Kashmir: J&K (Varshney & Smetacek, 2015), Kathua (Bani) (Sheikh & Mishra, 2023b), Kathua (Bani & BWLS) (present study).

Ypthima hyagriva (Moore, 1857)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1932; Talbot, 1947; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Callerebia* Butler, 1867

Callerebia harata harat Moore, 1874

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Talbot, 1947; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Anantnag (Pahalgam), Doda (Bhaderwah), Baramula (Gulmarg) (Kunte et al. 2024), Kathua (Bani), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Callerebia scanda (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1905; Fruhstorfer, 1911; Antram, 1924; Evans, 1932; Peile, 1937; Talbot, 1947; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Callerebia annada caeca (Moore, [1858])

Distribution in Jammu & Kashmir: Kashmir (Bingham, 1905; Seitz, 1907b; Evans, 1932; Peile, 1937; Talbot, 1947; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Callerebia hybrida Butler, 1880

Distribution in Jammu & Kashmir: Mendhar, Poonch (Khan & Sheikh, 2022), Kathua (BANI) (present study).

Genus *Hyponephele* Muschamp, 1915

Hyponephele kashmirica Moore, 1892

Distribution in Jammu & Kashmir: Kashmir (Holland, 1896; Seitz, 1908^a; Fruhstorfer, 1911; Tytler, 1926^a; Evans, 1932; Peile, 1937; Talbot, 1947; Varshney & Smetacek, 2015; Gasse, 2018), Baramulla (Gulmur), Doda (Bhaderwah, Jora) (Moore, 1892), Kathua (Bani & BWLS) (present study).

Genus *Aulocera* Butler, 1867

Aulocera brahminus (Blanchard, 1853)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Fruhstorfer, 1911; Antram, 1924; Evans, 1932; Talbot, 1947; Wynterblyth, 1957; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Baramulla (Goolmurg) (Lang, 1868), Kishtwar (Zoji-La) (Vis & Coene, 1987), Kishtwar (3 km W. Zoji La pass, 5 km E. Gumri) (Tshikolovets, 2005), Baramula (Kunte et al. 2024), Kathua (BANI) (present study).

Aulocera padma (Kollar, 1844)

Distribution in Jammu & Kashmir: Kashmir (Fruhstorfer, 1911; Evans, 1932; Peile, 1937; Talbot, 1947; Smith, 1994; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Aulocera swaha garuna Fruhstorfer, 1911

Distribution in Jammu & Kashmir: Kashmir (Evans, 1927; Talbot 1947; Varshney & Smetacek, 2015), Kashmir, Bandipora (Goorais valley) (D'Abrera, 1990), Ganderbal (Sonamarg) (Tshikolovets, 2005), NE Kashmir (Gasse, 2018), Bandipora (Gurais), Baramula (Gulmarg) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Aulocera harata (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Seitz, 1908a; Fruhstorfer, 1911; Antram, 1924; D'Abrera, 1990; Kehimkar, 2016; Gasse, 2018), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Hipparchia* Fabricius, 1807

Hipparchia parisatis shiva (Le Cerf, 1913)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1892; Seitz, 1908a; Fruhstorfer, 1911; Evans, 1927; Peile, 1937; Talbot, 1947; Wynterblyth, 1957; D'Abrera, 1992; Smith, 1994; Varshney & Smetacek,

2015; Kehimkar, 2016; Gasse, 2018), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Subfamily Biblidinae Boisduval, 1833
Tribe Biblidini Boisduval, 1833

Genus *Ariadne* Horsfield, [1829]

Ariadne merione tapestrina (Moore, 1884)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1932; Peile, 1937; Varshney & Smetacek, 2015; Gasse, 2018), Samba, Jammu (Manda), Rajouri (Sheikh, 2018), Jammu (Raika Environmental Park), Poonch (Chinchwad) (Kunte et al. 2024), Rajouri, Poonch, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Heliconiinae Swainson, [1822]
Tribe Argynnini Swainson, [1833]

Genus *Argynnis* Fabricius, 1807

Argynnis hyperbius (Linnaeus, 1763)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Kathua (Bani), Doda (Thathri), Rajouri (BGSBU) (Kunte et al. 2024), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Argynnis childreni sakontala (Kollar, 1848)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1886; Bingham, 1905; Fruhstorfer, 1912; D'Abrera, 1992; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Doda (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Argynnis kamala (Moore, 1857)

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Moore, 1874; Bingham, 1905; Fruhstorfer 1912b; Antram, 1924; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Ganderbal (Sonamarg) (Tshikolovets, 2005), Baramulla (Gulmarg) (Kunte et al. 2024), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Argynnis jainadeva (Moore, 1864)

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Moore, 1874; South, 1902; Seitz, 1908b; Fruhstorfer, 1912; D'Abrera, 1992; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kishtwar (3 km S. Zoji La pass, 5 km E. Gumri) (Zoji La pass vicinity), Ganderbal (Sonamarg), 10 km road Sonamarg-Srinagar (Tshikolovets, 2005), Kathua (Bani & BWLS) (present study).

Genus *Issoria* Hübner, [1819]

Issoria issaea (Doherty, 1886)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1886; Seitz, 1908b; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), 5 km E. Gumri (Zoji La pass vicinity) (Tshikolovets, 2005), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Baramulla (Gulmarg), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Clossiana* Reuss, 1920

Clossiana jerdoni (Lang, 1868)

Distribution in Jammu & Kashmir: Kashmir (Holland, 1896; Bingham, 1905; Seitz, 1908b; Evans, 1932; Wynterblyth, 1957; Varshney & Smetacek, 2015; Gasse, 2018), Baramulla (Goolmurg), (Lang, 1868), Ganderbal (Soonamurg) (Moore, 1874, de Niceville, 1886), Zoji La (South, 1902), Kishtwar (Paddar) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Tribe Heliconiini Swainson, [1822]

Genus *Phalanta* Horsfield, [1829]

Phalanta phalantha (Drury, [1773])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Seitz, 1908b; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Samba, Jammu (Manda, Raika) (Sheikh, 2018), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Jammu, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Vagrans* Hemming, 1934

Vagrans egista hara (Kollar, [1844])

Distribution in Jammu & Kashmir: Samba (Mansar Lake) (Sharma & Sharma, 2018b), Udhampur (Manwal) (Kunte et al. 2024), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Nymphalini Rafinesque, 1815

Genus *Symbrenthia* Hübner, [1819]

Symbrenthia lilaea khasiana Moore, [1875]

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Samba, Jammu (Manda, Raika, Mubarakmandi), Kathua (Billawar) (Sheikh, 2018), Udhampur (Manwal), Jammu (Kalidhar) (Sharma & Sharma, 2018b), Jammu (Kalidhar Forest and Environmental park), Doda (Khelani) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Reasi, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Symbrenthia niphanda hysudra Moore, 1874

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1932; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Doda (Khelani) (Kunte et al. 2024), Kathua (BANI) (present study).

Symbrenthia brabira sivokana Moore, 1899

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1932; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Kathua (BANI) (present study).

Genus *Nymphalis* Kluk, 1780

Nymphalis xanthomelas ferveens (Stichel, [1908])

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Moore, 1874; Fruhstorfer, 1912; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (BGSBU) (Kunte et al. 2024), Rajouri, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Aglaia* Dalman, 1816

Aglais caschmirensis (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Moore, 1874; Ruhl, 1893; Bingham, 1905; Fruhstorfer, 1912; D'Abrera, 1992; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Zoji La (Vis & Coene, 1987; Hanus et al. 1988), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam) (Qureshi et al. 2014), Anantnag (Pahalgam), Srinagar, Doda (Bhaderwah), Shopian (Herman) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Udhampur, Reasi, Ramban, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Kaniska* Moore, 1899

Kaniska canace (Linnaeus, 1763)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Holland, 1896; Stichel, 1908; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Polygonia* Hübner, [1819]

Polygonia calbum harata Evans, 1932

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1886; Leech, 1892; Moore, 1899; Bingham, 1905; Stichel, 1908; Fruhstorfer, 1912; Evans, 1932; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Baramulla (Goolmurg) (Moore, 1872), Bandipora (Goorais valley) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Genus *Vanessa* Fabricius, 1807

Vanessa cardui (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Holland, 1896; Moore, 1899; Gasse, 2018), Zoji La (Hanus et al. 1988), Kupwara (Qureshi et al. 2013a), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Doda (Bhaderwah), Shopian (Herman) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Vanessa indica (Herbst, 1794)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1932; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Samba, Kathua (Billawar), Jammu (Raika) (Sheikh, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Tribe Junoniini Reuter, 1896

Genus *Junonia* Hübner, [1819]

Junonia hierta (Fabricius, 1798)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Samba, Jammu (Manda) (Sheikh, 2018), Jammu (Raika Environmental Park), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Junonia orithya swinhoi Butler, 1885

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Varshney & Smetacek, 2015; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Samba, Jammu (Manda) (Sheikh, 2018), Doda (Bhaderwah), Jammu (Raika Environmental Park), Jammu (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Junonia lemonias persicaria (Fruhstorfer, 1912)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Fruhstorfer, 1912; Evans, 1932; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Gasse, 2018), Samba, Jammu (Manda), Kathua (Jasrota, Bani) (Sheikh, 2018), Jammu (Raika Environmental Park) (Kunte et al. 2024), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Junonia harata (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Samba, Jammu (Manda, Raika), Kathua (Billawar) (Sheikh, 2018), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Junonia atlites (Linnaeus, 1763)

Distribution in Jammu & Kashmir: Kathua (Lakhanpur) (Kunte et al. 2024), Rajouri, Poonch, Jammu, Kathua (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Junonia iphita (Cramer, [1779])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Stichel, 1908; Fruhstorfer, 1912; Evans, 1932; Wynterblyth 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Samba, Jammu (Manda, Chatha) (Sheikh, 2018), Jammu (Raika Environmental Park, Kalidhar forest), (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Tribe Kallimini Doherty, 1886

Genus *Kallima* Doubleday, [1849]

Kallima inachus huegelii (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; de Niceville, 1886; Bingham, 1905; Stichel, 1908; Fruhstorfer, 1912; Evans, 1924; Peile, 1937; Wynterblyth, 1957; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Samba, Doda, Ramban (Sheikh, 2018), Jammu (Raika Environmental park), Ramban (Batote) (Kunte et al. 2024), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Hypolimnas* Hübner, [1819]

Hypolimnas misippus (Linnaeus, 1764)

Distribution in Jammu & Kashmir: Kashmir (Gasse, 2018), Kupwara (Qureshi et al. 2013a), Baramulla (Gulmarg) (Qureshi et al. 2013b), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Samba, Udampur (Ramnagar), Kathua (Sheikh, 2018), Jammu (Raika Environmental Park), Udampur (Manwal), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Hypolimnas bolinajacantha (Drury, 1773)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Cyrestinae Guenée, 1865

Tribe Cyrestini Guenée, 1865

Genus *Cyrestis* Boisduval, 1832

Cyrestis thyodamas ganescha (Kollar, 1848)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1924; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Samba, Udhampur (Ramnagar), Kathua (Bani) (Sheikh, 2018), Doda (Khelani), Udhampur (Chenani), Ramban (Batote), (Kunte et al. 2024), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Subfamily Limenitidinae Behr, 1864

Tribe Limenitidinae Behr, 1864

Genus *Neptis* Fabricius, 1807

Neptis harat astola Moore, 1872

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Evans, 1924; Peile, 1937; Varshney & Smetacek, 2015; Gasse, 2018), Srinagar (Dachigam N.P.) (Qureshi et al. 2014), Jammu (Sunjwan), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Neptis soma butleri Eliot, 1969

Distribution in Jammu & Kashmir: Kashmir (Kehimkar, 2016; Gasse, 2018), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Neptis nata yerburii Butler, 1886

Distribution in Jammu & Kashmir: Kashmir (Moore, 1898; Evans, 1924; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Gasse, 2018), Kathua (BANI) (present study).

Neptis harata Moore, 1872

Distribution in Jammu & Kashmir: Kashmir (Moore, 1898; South, 1902; Stichel, 1908; Fruhstorfer, 1912; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (BANI) (present study).

Neptis hara (Doubleday, [1848])

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Kathua (BANI) (present study).

Genus *Pantoporia* Hübner, [1819]

Pantoporia hordonia (Stoll, [1790])

Distribution in Jammu & Kashmir: Kathua (Jasrota WLS) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Athyma* Westwood, 1850

Athyma perius (Linnaeus, 1758)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Jammu (Surinsar Lake) (Sharma & Sharma, 2017b), Samba, Jammu (Manda), Doda (Sheikh, 2018), Jammu (Raika Environmental Park) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Jammu, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Athyma harata (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Stichel, 1908; Fruhstorfer, 1912; Evans, 1924; Peile, 1937; Wynterblyth, 1957; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Udhampur (Mantalai) (Kunte et al. 2024), Rajouri (BGSBU) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Limenitis* Fabricius, 1807

Limenitis ligyes Hewitson, 1864

Distribution in Jammu & Kashmir: Kashmir (Lang, 1868; Bingham, 1905; Fruhstorfer, 1912; Evans, 1924; Gasse, 2018), Bandipora (Goorais valley) (South, 1902), Kashmir (Pir Panjal) (Varshney & Smetacek, 2015), Kishtwar (Paddar) (Kunte et al. 2024), Kathua (Bani & BWLS) (present study).

Limenitis trivena Moore, 1864

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Stichel, 1908; Fruhstorfer, 1912; Antram, 1924; D'Abrera, 1993; Smith, 1994; Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Bhaderwah, Doda (Kunte et al. 2024), Rajouri, Doda (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Auzakia* Moore, [1898]

Auzakia danava (Moore, [1858])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Doda (Bhaderwah) (Sharma & Sharma, 2018b; Kunte et al. 2024), Rajouri, Doda (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Euthalia* Hübner, [1819]

Euthalia patala (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Varshney & Smetacek, 2015; Kehimkar, 2016; Gasse, 2018), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Tribe Pseudergolini Jordan, 1898

Genus *Pseudergolis* C. & R. Felder, [1867]

Pseudergolis wedah (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Stichel, 1908; Gasse, 2018), Samba, Jammu (Manda), Udhampur (Ramnagar) (Sheikh, 2018), Rajouri (Dalhori), Jammu (Kalidhar) (Sharma & Sharma, 2018b), Udhampur (Chenani) (Kunte et al. 2024), Rajouri, Poonch, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Stibochiona* Butler, [1869]

Stibochiona nicea (Gray, 1846)

Distribution in Jammu & Kashmir: Kashmir (Moore, 1896; Gasse, 2018), Kathua (Sarthal) (Singh & Sheikh, 2021), Kathua (Bani & BWLS) (present study).

Subfamily Apaturinae Boisduval, 1840

Tribe Apaturini Boisduval, 1840

Genus *Mimathyma* Moore, [1896]

Mimathyma ambica (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Fruhstorfer, 1912; Antram, 1924; Evans, 1932; Peile, 1937; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Rajouri, Reasi, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Mimathyma chitralensis (Evans, 1912)

Distribution in Jammu & Kashmir: Kashmir (Evans, 1927; Varshney & Smetacek, 2015; Smetacek, 2018), Kishtwar (Kunte et al. 2024), Rajouri, Reasi, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Genus *Dilipa* Moore, 1857

Dilipa morgiana (Westwood, [1851])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Fruhstorfer, 1912; Evans, 1927; Varshney & Smetacek, 2015; Kehimkar, 2016; Smetacek, 2018; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Genus *Sephisa* Moore, 1882

Sephisa dichroa (Kollar, [1844])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Stichel, 1908; Kehimkar, 2016; Gasse, 2018), Doda (Bhaderwah) (Kunte et al. 2024), Rajouri, Doda, Kathua (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Genus *Euripus* Doubleday, 1848

Euripus consimilis (Westwood, [1851])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874), Kathua (Bani & BWLS) (present study).

Genus *Hestina* Westwood, 1850

Hestina persimilis hara Butler, 1869

Distribution in Jammu & Kashmir: Kashmir (Fruhstorfer, 1912; Varshney & Smetacek, 2015; Gasse, 2018), Kathua (Bani & BWLS) (present study).

Tribe Charaxini Guenée, 1865

Genus *Charaxes* Ochseneheimer, 1816

Charaxes harata (C. & R. Felder, [1867])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Bingham, 1905; Stichel, 1908; Gasse, 2018), Jammu, (Raika Environmental Park, University of Jammu) (Kunte et al. 2024), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Charaxes agrarius (Swinhoe, [1887])

Distribution in Jammu & Kashmir: Samba (Uttarbehni), Jammu (University of Jammu) (Sharma & Sharma, 2017b), Kashmir (Gasse, 2018), Rajouri, Jammu, Udhampur, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (BANI) (present study).

Subfamily Acraeinae Boisduval, 1833

Tribe Acraeini Boisduval, 1833

Genus *Acraea* Fabricius, 1807

Acraea issoria (Hübner, [1819])

Distribution in Jammu & Kashmir: Kashmir (Moore, 1874; Gasse, 2018), Ramban (Batote) (Sharma & Sharma, 2018b), Rajouri (Budhal) (Sheikh et al. 2021), Rajouri, Poonch, Kathua, Doda, Kashmir (Parey & Sheikh, 2019), Kathua (Bani & BWLS) (present study).

Discussion

The exploration of Papilionoidea diversity within Tehsil Bani including Bani Wildlife Sanctuary unveils a captivating tapestry of 219 Papilionoidea species across six families. This comprehensive five-and-a-half-year study not only provides a meticulous account of the sanctuary's biodiversity but also emphasizes its pivotal role in safeguarding endangered and vulnerable species. A notable highlight is the identification of 26 species listed in the Wildlife Protection Act, 1972 (Amendment 2022) (Table 1), categorizing them into the distinguished schedules I and II. This legislative backdrop adds a layer of complexity to our understanding, prompting contemplation on the evolving legal frameworks and their implications for Papilionoidea conservation. The inclusion of bibliographic references enriches the checklist, augmenting our understanding of Jammu & Kashmir's Papilionoidea fauna. The prevalence of certain host plant families, particularly Fabaceae and Poaceae, underscores the intricate relationships between Papilionoidea and their habitats. However, the study reveals a critical gap, with 36% of species lacking host plant information, highlighting the imperative for continued research and documentation. This research not only expands our knowledge of Papilionoidea diversity but also transcends the scientific realm by delving into the legislative nuances that shape conservation efforts. The sanctuary's remarkable contribution, hosting 70% of the union territory's species, underscores its ecological significance. The border adjacency with Himachal Pradesh emerges as a key factor influencing biodiversity patterns, portraying the interconnected dance of ecosystems. In this paper authors have strategically incorporated visual representations of 21 species (Figures 2-3) out of the comprehensive list of 219 species presented in the checklist. The selection process focused on highlighting uncommon species that serve as representative examples in the context of S research. By featuring these specific species, we aimed to provide a nuanced and focused insight into the key findings of the study. These chosen species play a crucial role in illustrating the unique aspects and characteristics explored in the research paper. This deliberate selection allows readers to engage with visually impactful examples without being overwhelmed by the entirety of the checklist. Each species depicted in the photo plates contributes to the narrative, reinforcing the significance of the study's outcomes. In essence, the inclusion of these 21 species in Figures 2 and 3 serves as a visual distillation of the broader checklist, offering a concise yet comprehensive overview that aligns with the objectives and findings of the research. In essence, this study is more than a mere exploration of Papilionoidea; it is a testament to the delicate balance between legislation, biodiversity, and conservation imperatives. As we unravel the intricacies of Tehsil Bani including Bani Wildlife Sanctuary, we are compelled to recognize the urgency of our role as stewards of these fragile ecosystems, ensuring the sustained flourishing of Papilionoidea populations within protected areas.

Conclusion

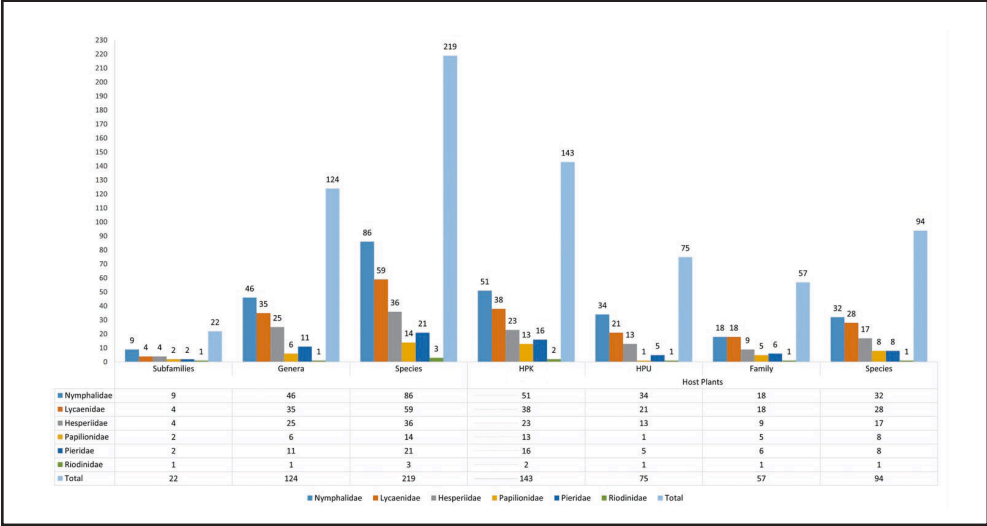
Exploring the diversity of Papilionoidea in this unique sanctuary not only expands our understanding of diverse species but also highlights the critical role that protected areas like Tehsil Bani including newly established Bani Wildlife Sanctuary play in conserving and sustaining delicate ecosystems. This study has the potential to provide more information regarding the status of known species in this region and to discuss the conservation efforts, ensuring the long-term survival of these intricate and enchanting creatures. Tehsil Bani stands as a living testament to the remarkable biodiversity of the Jammu and Kashmir Union Territory, particularly in its role as a haven for Pailionoidea. The significant number of Papilionoidea in the sanctuary is serves as a beacon of hope, highlighting the importance of preserving and cherishing such natural wonders for generations to come.

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Figure 5. Species diversity of families, subfamilies, genera, and species of Papilionoidea in the Tehsil Bani including Bani Wildlife Sanctuary, Jammu and Kashmir, India. HPK and HPU indicates the species with host plant data known, and host plant data known in Bani.



Conflict of Interest

The authors declare that they have no known financial interest or personal relationship that could have influence the work presented in this article.

References

Anonymous. (2022). *The Wildlife (Protection) Amendment Act, 2022*.
Antram, C. B. (1924). *Butterflies of India*. Calcutta & Simla, Thacker, Spink & co.
Balasubramanian, A. (2017). *Biodiversity profile of India*. Report submitted to Centre for Advanced Studies in Earth Science University of Mysore. Mysore 11.
Basu, D. N., Churi, P., Soman, A., Sengupta, A., Bhakare, M., Lokhande, S., Bhoite, S., Huertas, B., & Kunte, K. (2019). The genus *Tarucus* Moore, [1881] (Lepidoptera: Lycaenidae) in the Indian Subcontinent. *Tropical Lepidoptera Research*, 29(2), 87-110.
Bingham, C. T. (1905). Butterflies. (Nymphalidae, Nemeobidae). In *The Fauna of British India, including Ceylon and Burma*. Taylor and Francis. <https://doi.org/10.5962/bhl.title.100748>
Bingham, C. T. (1907). *Butterflies*. (Papilionidae, Pieridae, Lycaenidae, Hesperidae). In *The Fauna of British India, including Ceylon and Burma* (Vol. 2). Taylor and Francis.
Blanchard, C. E. (1841-1844). *Les Insectes dans le Voyage dans l'Inde par Victor*. Firmin Didot frères.
Bollow, C. (1930-1931). Lycaenidae: *Virachola*, *Polyommatus*, *Zizera*, *Chilades*, *Everes*, *Lycaena*, *Cyaniris*, *Taraca*. In A. Seitz. *Die Gross-Schmetterlinge der Erde. Die Palearktischen Tagfalter. Supplement* (Vol. 1). Alfred Kernen Verlag.

- Bozano, G. C. (1999). Satyridae. Part L. Subfamily Elymniinae, Tribe Lethini: *Lasiommata*, *Pararge*, *Lopinga* Kirinia, *Chonala*, *Tatinga*, *Rhaphicera*, *Ninguta*, *Neope*, *Lethe*, *Neorina*. In G. C. Bozano (Editor). *Guide to the Butterflies of the Palearctic Region*. Omnes Artes.
- D'Abrera, B. (1990). *Butterflies of the Holarctic region. Part I Papilionidae, Pieridae, Danaidae & Satyridae* (partim). Hill house.
- D'Abrera, B. (1992). *Butterflies of the Holarctic region. Part II Satyridae (concl.), Nymphalidae* (partim). Hill house.
- D'Abrera, B. (1993). *Butterflies of the Holarctic region. Part III Nymphalidae (concl.), Libytheidae, Riodinidae & Lycaenidae*. Hill house.
- Dar, A. A., Jamal, K., Shah, M. S., Ali, M., Sayed, S., Gaber, A., Kesba, H., & Salah, M. (2022a). Species richness, abundance, distributional pattern, and trait composition of butterfly assemblage change along an altitudinal gradient in the Gulmarg region of Jammu & Kashmir, India. Saudi. *Journal of Biological Sciences*, 29(4), 2262–2269. <https://doi.org/10.1016/j.sjbs.2021.11.066> PMID:35531189 PMCID:PMC9073030
- Dar, A. A., Shah, M. S., & Jamal, K. (2022b). Butterfly (Lepidoptera: Heterocera) Fauna of Bangus Valley, Jammu & Kashmir, India. *Entomological News*, 130(3), 308–317. <https://doi.org/10.3157/021.130.0311>
- de Niceville, L. (1886). Nymphalidae. Nymphalinae, Lemoniidae, Libythaenae, Nemeobiinae. In *The Butterflies of India, Burmah, and Ceylon. A descriptive handbook of all the known species of rhopaloceros Lepidoptera inhabiting that region, with notice of allied species occurring in the neighbouring countries along the border; with numerous illustrations*. Printed and published by the Calcutta central press.
- de Niceville, L. (1890). Lycaenidae. In *The Butterflies of India, Burmah, and Ceylon. A descriptive handbook of all the known species of rhopaloceros Lepidoptera inhabiting that region, with notice of allied species occurring in the neighbouring countries along the border; with numerous illustrations*. Printed and published by the Calcutta central press.
- Evans, W. H. (1912). A List of Indian Butterflies (continued). *Journal of the Bombay Natural History Society*, 21(3), 969–1008.
- Evans, W. H. (1924). The identification of Indian butterflies. Part V. *Journal of the Bombay Natural History Society*, 30(1), 72–96.
- Evans, W. H. (1925). The identification of Indian butterflies. Part VI. *Journal of the Bombay Natural History Society*, 30(2), 322–351.
- Evans, W. H. (1927). *The identification of Indian Butterflies*. Diocesan Press.
- Evans, W. H. (1932) *The identification of Indian Butterflies*. (Second edition revised) Journal of the Bombay Natural History Society.
- Evans, W. H. (1949). *A catalogue of the Hesperidae from Europe, Asia, and Australia in the British Museum (Natural History)*. The Trustees of the British Museum. <https://doi.org/10.5962/bhl.title.105941>
- Evans, W. H. (1955). A revision of the genus *Tarucus* (Lepidoptera: Lycaenidae) of Europe, North Africa, and Asia. *Entomologist*, 88, 179–187.
- Farooq, M., Rather, M. A., Sheikh, B. A., & Wagay, S. A. (2021). *Wildlife Protected Area Network Atlas of J&K*. Associated media.
- Ford, E. B. (1924). The geographical races of *Heodes phlaeas* L. *Transactions of the Entomological Society of London*, 71(3/4), 692–743. (1923)
- Forster, W. (1980). Einige neue Tagfalterformen aus Nepal (Lepidoptera: Rhopalocera). *Spixiana*, 3(1), 1–9.
- Fruhstorfer, H. (1910a). *Appias* Hbn.; *Gonepteryx* Leach; *Colias* F.; *Terias* Swains.; *Teraclous* Swains. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Fruhstorfer, H. (1911). *Ypthima* Hbn.; *Callerebia* Btlr.; *Coenonympha* Hbn. *Maniola* Schrank; *Karanasa* Moore; *Eumenis* Hbn.; *Aulocera* Btlr.; *Satyrus* Latr.; *Lethe* Hbn.; In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Fruhstorfer, H. (1912). *Melitaea* F.; *Boloria* Moore; *Argynnis* F.; *Precis* Hbn. *Vanessa* F.; *Polygonia* Hbn.; *Kallima* Dbl.; *Stibochiona* Btlr.; *Neptis* F.; *Limenitis* F.; *Euthalia* Hbn.; *Apatura* F. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Fruhstorfer, H. (1914). *Libythea* F.; *Abisara* Fldr. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Gasse, P. V. (2018). *Butterflies of the Indian Sub-Continent - Annotated Checklist*. http://www.biodiversityofindia.org/images/2/2c/Butterflies_of_India.pdf
- Gupta, S., & Sheikh, T. (2021). First Record of Spotted Small Flat *Sarangesa purendra* (Moore, 1882) (Lepidoptera: Hesperidae) from Union Territory of Jammu and Kashmir, India. *Revista Chilena de Entomologia*, 47(3), 545–548. <https://doi.org/10.35249/rche.47.3.21.11>
- Hanus, E., Hanus, J., & Manon, P. (1988). Notes de chasses au Ladakh et au Cachemire (Lepidoptera Rhopalocera).

- Alexanor*, 15(4), 195-211. (1997)
- Hegner, H. (1978). Entomologische eindrücke aus Kaschmir und Ladakh. *Nachrichten Entomologischer Verein Apollo*. Frankfurt/Mam. N. F., 3, 37-43.
- Holland, W. J. (1896). List of the Lepidoptera collected in Kashmir by Dr. W. L. Abbot. *Proceedings of the United States National Museum*, 18(1065), 275-279. <https://doi.org/10.5479/si.00963801.18-1065.275>
- Kehimkar, I. (2016). *BNHS Field Guides: Butterflies of India*. Bombay Natural History Society.
- Khan, N. A., & Sheikh, T. (2022). *Callerebia hybrida* Butler, 1880 (Lepidoptera, Nymphalidae) a new addition to the Butterflies of Union Territory of Jammu and Kashmir, India. *Indian Entomologist*, 3(2), 39-41.
- Kollar, V. (1844). Lepidoptera (Rhopalocera). In V. Kollar & L. Redtenbacher. Aufzählung und Beschreibung der von Freiherrn Carl v. Hugel auf seiner Reise durch Kaschmir und das Himalayagebirge gesammelten Insecten. In C. F. Hugel. Kaschmir und des Reichs der Siek. *Stuttgart, Hallberger'sche verlagshandlung*, 4(2), 393-564, 582-585.
- Kollar, V. (1848). Lepidoptera (Rhopalocera). In V. Kollar & L. Redtenbacher. Aufzählung und Beschreibung der von Freiherrn Carl v. Hugel auf seiner Reise durch Kaschmir und das Himalayagebirge gesammelten Insecten. In C. F. Hugel. Kaschmir und des Reichs der Siek. *Stuttgart, Hallberger'sche verlagshandlung*, 4(2), 397-398, 403-496.
- Kunte, K., Sondhi, S., & Roy, P. (2024). *Butterflies of India*, v. 4.21. Indian Foundation for Butterflies. <https://www.ifoundbutterflies.org>.
- Lang, A. M. (1868). Notes on Lepidoptera from "Goolmurg" in Cashmere. *Entomologist's Monthly Magazine*, 5, 33-37.
- Leech, J. H. (1892-1894). *Butterflies from China, Japan, and Corea*. Taylor & Francis. <https://doi.org/10.5962/bhl.title.86314>
- Mabille, P. (1909). Hesperidae. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die Palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg.
- Mani, M. S. (1986). Butterflies of the Himalaya. *Series Entomologica*, 36, x+181.
- Marshall, G. F. L., & de Niceville, L. (1883). Nymphalidae. Satyrinae, Elymniinae, Morphinae, Acraeinae. In *The Butterflies of India, Burmah, and Ceylon. A descriptive handbook of all the known species of rhopalocerosus Lepidoptera inhabiting that region, with notices of allied species occurring in the neighbouring countries along the border, with numerous illustrations*. Printed and published by the Calcutta central press CO. LD. <https://doi.org/10.5962/bhl.title.10618>
- Mitis, H. R. V. (1893). Revision des Pieriden. Genus *Delias*. *Deutsche entomologische Zeitschrift Iris*, 6(1), 97-144.
- Moore, F. (1872) Descriptions of New Indian Lepidoptera. *Proceedings of the Zoological Society of London*, 1872, 555-566.
- Moore, F. (1874). List of Diurnal Lepidoptera collected in Cashmere Territory by Capt. R. B. Reed, 12th Regt. with Descriptions of new Species. *Proceedings of the Zoological Society of London*, 1874(4), 264-274. <https://doi.org/10.1111/j.1096-3642.1874.tb02482.x>
- Moore, F. (1875). Descriptions of New Asiatic Lepidoptera. *Proceedings of the Zoological Society of London*, 1874(4), 565-579. <https://doi.org/10.1111/j.1096-3642.1874.tb02511.x>
- Moore, F. (1890-1892). Rhopalocera. Family Nymphalidae. Subfamilies Euploeinae and Satyrinae. *Lepidoptera Indica* (Vol. 1). Lovell Reeve & Co. <https://doi.org/10.5962/bhl.title.8763>
- Moore, F. (1899-1900). Rhopalocera. Family Nymphalidae. Sub-Family Nymphalinae (continued), Groups Limenitina, Nymphalina, and Argynnina. *Lepidoptera Indica* (Vol. 4). Lovell Reeve & Co.
- Moore, F. (1901-1903). Rhopalocera. Family Nymphalidae. Sub-Family Nymphalinae (continued), Groups Melitaeina and Eurytelina. Sub-Families Acraeinae, Pseudergolinae, Calinaginae, and Libytheinae. Family Riodinidae. Sub-Family Nemeobiinae. Family Papilionidae. Sub-Families Parnassiinae, Thaidinae, Leptocircinae, and Papilioninae. *Lepidoptera Indica* (Vol. 5). L. Reeve & Co.
- Moore, F. (1905-1909). Rhopalocera. Family Papilionoidea, Sub-family Pierinae. *Lepidoptera Indica* (Vol. 7). Lovell Reeve & Co.
- Myers, N., Mittermeier, R. A., Mittermeier, C. G., da Fonseca, G. A. B., & Kent, J. (2000). Biodiversity hotspots for conservation priorities. *Nature*, 403(6772), 853-858. <https://doi.org/10.1038/35002501> PMID:10706275
- Oberthür, C. H. (1891). *Lépidoptères du genre Parnassius. Etudes entomologiques* (Vol. 14) C. H. Oberthür print.
- Parey, S. H., & Sheikh, T. (2021). *Butterflies of Pirpanjal Range of Kashmir Himalaya*. Corvete Press.
- Peile, H. D. (1937). *A guide to collecting butterflies of India*. Staples presslimited.
- Qureshi, A. A., Bhagat, R. C., & Bhat, D. M. (2014). Diversity of butterflies (Lepidoptera: Papilionoidea and Hesperoidea) of Dachigam National Park, Jammu and Kashmir, India. *Journal of Threatened Taxa*, 6(1), 5389-5392. <https://doi.org/10.11609/JoTT.o2886.5389-92>

- Qureshi, A. A., Bhagat, R. C., & Pathania, P. C. (2013a). Rhopalocera Diversity (Lepidoptera) of District Kupwara from Jammu and Kashmir State (India). *Biological Forum*, 5(1), 100-106.
- Qureshi, A. A., Dar, R. A., Tahir, S. I., & Bhagat, R. C. (2013b). Butterfly-fauna of Gulmarg, Kashmir, J&K State. *IOSR Journal of Agriculture and Veterinary Sciences*, 2(5), 40-45. <https://doi.org/10.9790/2380-0254045>
- Riley, N. D. (1929). Revisional notes on the genus *Heliophorus* (Lycaenidae) with description of new forms. *Journal of Bombay Natural History Society*, 33(2), 384-402.
- Robert, J. (1907). Pieridae. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die Palaearktischen Tagfalter* (Vol. 1). Lehmann Verlag.
- Roberts, T. J. (2001). *The butterflies of Pakistan*. Oxford University Press.
- Rodgers, W. A., Panwar, H. S., & Mathur, V. B. (2000). *Wildlife Protected Area Network in India: A review*. Wildlife Institute of India.
- Ruhl, F. (1892-1893) (Tagfalter). *Die Palaearktischen Grossschmetterlinge und ihre Naturgeschichte*. E. Heyne.
- Sakai, S. (2015). New Butterflies from Hindu Kush, Kashmir, Ladakh and Tibet. *Pallarge*, 9, 1-27.
- Sakai, S., Inaoka, S., Aoki, T., Yamaguchi, S., & Watanabe, Y. (2002). *The Panassiology. The Parnassius butterflies. A study in evolution*. Kodansha. (In Japanese)
- Seitz, A. (1907a). Danaidae. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg. <https://doi.org/10.5962/bhl.title.149310>
- Seitz, A. (1907b). Satyridae: *Acrophthalmia*, *Ragadia*, *Mandarinia*, *Mycalesis*, *Lethe*, *Zophoessa*, *Rhaphicera*, *Melanitis*, *Neorina*, *Neope*, *Ypthima*, *Callerebia*. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg. <https://doi.org/10.5962/bhl.title.149310>
- Seitz, A. (1908a) Satyridae: *Oeneis*, *Satyrus*, *Callarge*, *Pararge*, *Aphantopus*, *Epinephele*, *Coenonympha*, *Triphysa*, *Paleonympha*. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg. <https://doi.org/10.5962/bhl.title.149310>
- Seitz, A. (1908b). Argynnidi, Heliconidi, Acraeidi. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg. <https://doi.org/10.5962/bhl.title.149310>
- Seitz, A. (1908c). Erycinidae, Lycaenidae. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg.
- Seitz, A. (1909) Lycaenidae. In A. Seitz. *Die Groß-Schmetterlinge der Erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg.
- Seitz, A. (1923). *Catochrysops* Bsd.; *Everes* Hbn.; *Lycaena* F.; *Chrysophanus* Hbn.; *Illerda* Dbl. In A. Seitz. *Die Große Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Seitz, A. (1926). *Apharitis* Riley; *Thecla* F.; *Euspa* Mr. In A. Seitz. *Die Große Schmetterlinge der Erde. Die Indo-Australische Tagfalter* (Vol. 9). Lehmann Vrlg.
- Sharma, S., & Sharma, N. (2018b). New Nymphalid butterfly records from Jammu and Kashmir. *Journal of Threatened Taxa*, 10(11), 12602-12606; <https://doi.org/10.11609/jott.3874.10.11.12602-12606>
- Sharma, S., & Sharma, N. (2020). On the rediscovery and new additions of Skippers (Lepidoptera: Papilionoidea: Hesperidae) from Jammu and Kashmir, India. *Revista Chilena de Entomologia*, 46(4), 591-599. <https://doi.org/10.35249/rche.46.4.20.05>
- Sharma, S., & Sharma, N. (2017). New butterfly records from the Jammu Shiwaliks in Jammu and Kashmir. *Journal of Threatened Taxa*, 9(10), 10856-10859. <https://doi.org/10.11609/jott.3180.9.10.10856-10859>
- Sharma, S., & Sharma, N. (2018a). New Lycaenid butterfly records from Jammu and Kashmir. *Journal of Threatened Taxa*, 10(7), 11984-11987. <https://doi.org/10.11609/jott.4046.10.7.11984-11987>
- Sheikh, T. (2018). *Butterflies of Environmental Park, Raika & Neighbourhood*. Department of Ecology Environment & Remote Sensing, Govt. of Jammu and Kashmir, Jammu.
- Sheikh, T., (2022). Addition of Chestnut Angle *Odontoptilum angulatum* (C. Felder, 1862) to the Butterfly Fauna of Union Territory of Jammu and Kashmir, India. *Life Sciences Leaflets*, 141, 7-11.
- Sheikh, T., & Mishra, S. (2022). First report of continental swift *Parnara ganga* (Evans, 1937) (Lepidoptera: Hesperidae) from Jammu and Kashmir Union Territory, India. *Munis Entomology & Zoology*, 17(suplement), 1683-1686.
- Sheikh, T., & Hassan, M. A. (2023a). Confirmation of the presence of *Hestina persimilis zella* Butler, 1869 from Union Territory of Jammu and Kashmir, India after 110 years (Lepidoptera: Nymphalidae). *SHILAP Revista de lepidopterología*, 51(202), 367-373. <https://doi.org/10.57065/shilap.471>

- Sheikh, T., & Mishra, S. (2023a). A note on the reconfirmation of tawny mime, *Papilio agestor* Gray, 1831 (Lepidoptera: Papilionoidea) from union territory of Jammu and Kashmir, India after 115 years. *Munis Entomology & Zoology*, 18(1), 629-633.
- Sheikh, T., & Mishra, S. (2023b). First photographic record of *Ypthima sakra* Moore, 1857-from Jammu and Kashmir Union territory, India (Lepidoptera: Nymphalidae). *SHILAP Revista de lepidopterologia*, 51(201), 55-58. <https://doi.org/10.57065/shilap.435>
- Sheikh, T., & Parey, S. H. (2019a). Six new records of Butterflies (Lepidoptera: Insecta) from Jammu and Rajouri Districts of Jammu and Kashmir Himalaya. *Journal of Wildlife Research*, 7(3), 42-46.
- Sheikh, T., & Parrey, S. H. (2019b). New records of butterflies (Lepidoptera: Insecta) from Jammu and Kashmir Himalaya. *Records of Zoological Survey of India*, 119(4), 463-473.
- Sheikh, T., Awan, M. A., & Parey, S. H. (2021). Checklist of Butterflies (Lepidoptera: Rhopalocera) of Union Territory Jammu and Kashmir, India. *Records of Zoological Survey of India* 121(1), 127-171.
- Sheikh, T. & Gupta, S. (2022) Rediscovery of white-bordered copper, *Lycaena panava* (Westwood, 1852) (Lepidoptera: Lycaenidae) from Union Territory of Jammu and Kashmir, India. *Life Sciences Leaflets*, 144 (2), 1-5.
- Sheikh, T., & Hassan, M. A. (2023b). Two new records of Rhopalocera from Union Territory of Jammu and Kashmir, India (Insecta: Lepidoptera). *SHILAP Revista de lepidopterologia*, 51(202), 259-262. <https://doi.org/10.57065/shilap.460>
- Singh, A. P. (2016). Notes on three species of Palaearctic Satyrinae (Lepidoptera: Nymphalidae) from northwestern Himalaya, India. *Journal of Threatened Taxa*, 8(9), 9208-9215. <http://dx.doi.org/10.11609/jott.2458.8.9.9208-9215>
- Singh, P., (2020). Floristic diversity of India: an overview. In G. S. Dar & A. A. Khuroo (Eds.). *Biodiversity of the Himalaya: Jammu and Kashmir State*. Springer. <https://doi.org/10.3390/d12060217>
- Singh, S., & Sheikh, T. (2021). Rediscovery of Popinjay, *Stibochiona nicea* (Gray, 1846) (Lepidoptera: Nymphalidae: Nymphalinae) from Union Territory of Jammu and Kashmir, India. *Revista Chilena de Entomología*, 47(3), 497-499. <https://doi.org/10.35249/rche.47.3.21.07>
- Smetacek, P. (2018). *A naturalist's guide to the Butterflies of India, Pakistan, Nepal, Bhutan, Bangladesh, and Sri Lanka*. John Beaufoy Publishing.
- Smith, C. (1994). *Butterflies of Nepal* (Revised Edition). Tecpress Service L. P.
- South, R. (1902). *Catalogue of the collection of Palaearctic butterflies formed by late John Henry Leech and presented to the trustees of the British Museum by his mother Mrs. Eliza Leech*. The Trustees of the British Museum.
- Stichel, H. (1908). Nymphalidae. In A. Seitz. *Die Groß-Schmetterlinge der erde. Die Großschmetterlinge des Palaearktischen Faunengebietes. Die Palaearktischen Tagfalter* (Vol. 1). Lehmann Vrlg.
- Swinhoe, C. (1909-1910). Rhopalocera. Family Lycaenidae. Sub-families Geryndinae, Lycaenopsinae and Eversinae. *Lepidoptera Indica* (Vol. 7). L. Reeve & Co.
- Swinhoe, C. (1910-1911). Rhopalocera. Family Lycaenidae. Sub-Families Lycaeninae, Plebeinae, Lampidinae, Chrysophaninae, Poritiinae, Amblypodinae, Curetinae, Liphyrinae, Ruralinae. *Lepidoptera Indica* (Vol. 8). Lovell Reeve & Co.
- Swinhoe, C. (1911-1912). Rhopalocera. Family Lycaenidae (Continued) Sub-families Horaginae, Deudorixinae, Hypolycaeninae, Zesiusinae, Aphnaeinae, Biduandinae, Cheritrinae, Loxurinae. Family Hesperidae. Subfamilies Ismeneinae, Achalarinae. *Lepidoptera Indica* (Vol. 9). Lovell Reeve & Co.
- Talbot, G. (1939). Butterflies (Papilionoidea, Pieridae). *The Fauna of British India including Ceylon and Burma* (Vol. 1). Today and Tomorrow's Printers and Publishers.
- Talbot, G. (1947). Butterflies (Danaidae, Satyridae, Amathusidae, Acraeidae). In *The Fauna of British India including Ceylon and Burma* (Vol. 2). Today and Tomorrow's Printers and Publishers.
- Tshikolovets, V. (2005). *The Butterflies of Ladakh*. Kyiv-Bruno Publ.
- Tytler, H. C. (1926) Notes on some new and interesting butterflies from India and Burma. Part 1. *Journal of the Bombay Natural History Society*, 31(2), 248-260.
- Upadhaya, R., Pertin, M., Smetacek P., & Saito M. (2020). Addition of a butterfly genus and species to the Indian fauna. *Bionotes*, 22(2), 34-35.
- Varshney, R. K., & Smetacek, P. (2015). *A Synoptic Catalogue of the Butterflies of India*. Butterfly Res. centre, Bhi. & Ind. Pub.
- Vis, R., & Coene, H. A. (1987). Lepidopterological investigation in Kashmir and Ladakh (India). *Nota lepidopterologica*, 10(1), 5-24.
- Wynter-Blyth, M. A. (1957). *Butterflies of the Indian Region*. Bombay Natural History Society.

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Figure 2. Representative field photographs of Papilionoidea in Bani. 1. *Celastrina gigas*. 2. *Heliophorus sena*. 3. *Heliophorus moorei*. 4. *Gonepteryx rhamni*. 5. *Acraea issoria*. 6. *Lethe verma*. 7. *Callerebia scanda*. 8. *Hestina persimilis*.

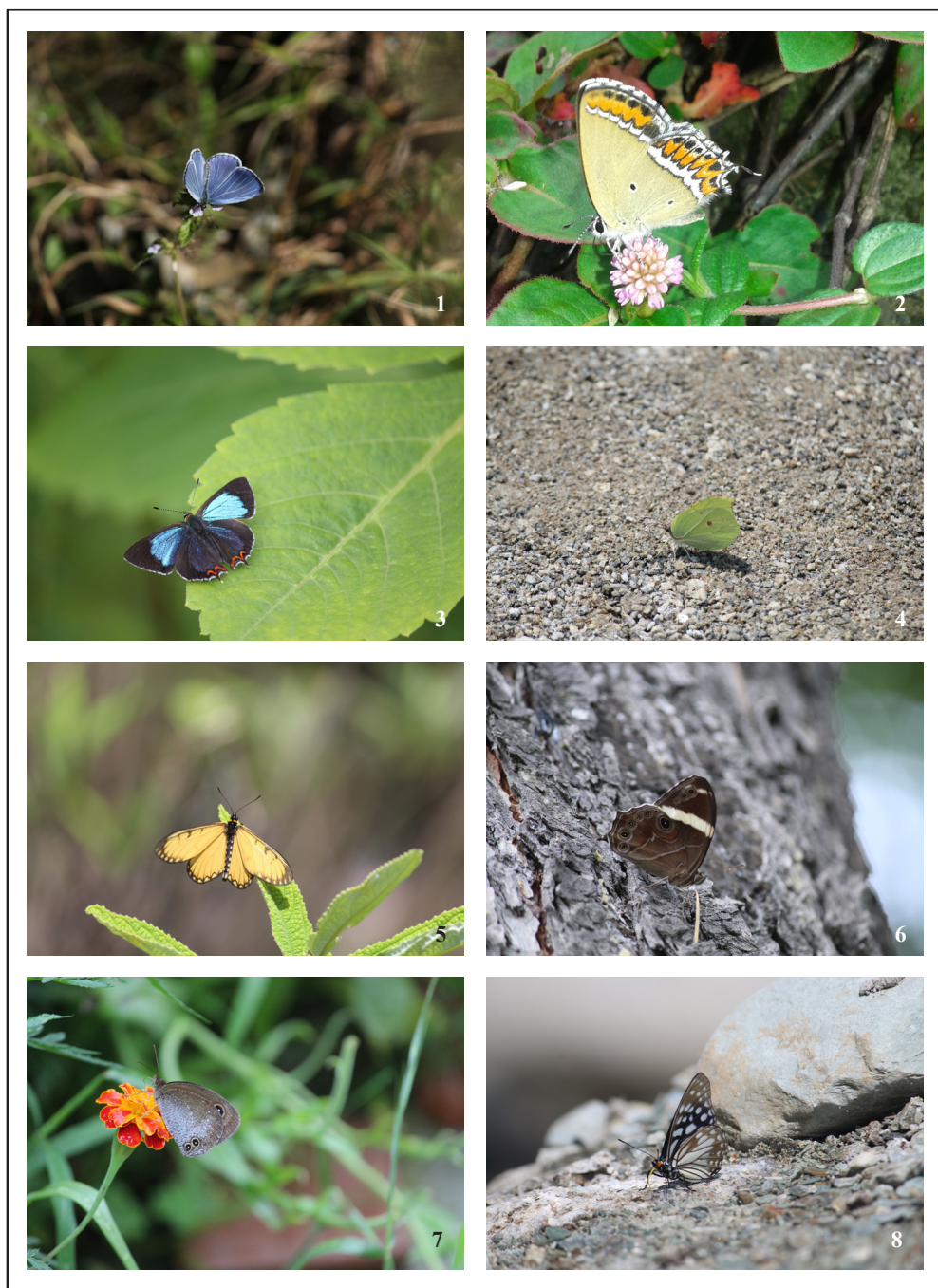


Figure 3. Representative field photographs of Papilionoidea in Bani. 9. *Pantoporia hordonia*. 10. *Sephisia dichroa*. 11. *Aglais caschmirensis*. 12. *Pseudergolis wedah*. 13. *Argynnis childreni*. 14. *Byasa polyeuctes*. 15. *Graphium sarpedon*. 16. *Graphium cloanthus*.



Figure 4. Representative field photographs of Papilionoidea in Bani. 17. *Papilio machaon*. 18. *Hasora chromus*. 19. *Spialia galba*. 20. *Pseudocoladenia faithi*. 21. *Polytremis eltola*.

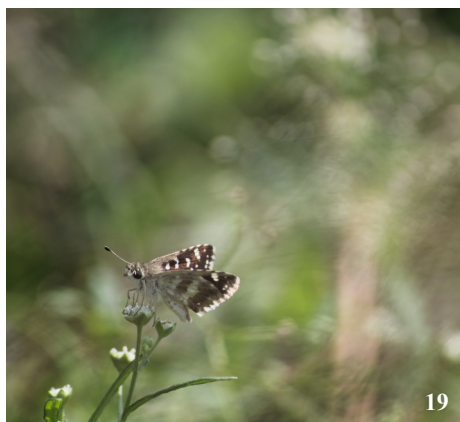


Table 1. Summary of families, subfamilies, genera, and species of Papilionoidea within Bani, including species host plants, conservation status and observed period.

Family	Subfamily	Papilionoidea		Host Plants		Conservation Status as per (Amendment 2022) WLP, Act 1972	Observed period in Thesil Bani
		Genus	Species	Scientific name	Family		
Hesperiidae	Coeliadinae	<i>Burara</i> Swinhoe, 1893	<i>Burara oedipodea</i>	<i>Hiptage</i> sp.	Malpighiaceae		April-Oct
		<i>Hasora</i> Moore, [1881]	<i>Hasora chromus</i>	<i>Toddalia asiatica</i>	Rutaceae		April-Nov
		<i>Badamia</i> Moore, [1881]	<i>Badamia exclamantis</i>	<i>Combretum latifolium</i>	Combretaceae, Malpighiaceae		April-June
	Eudaminae	<i>Chaospes</i> Moore, [1881]	<i>Chaospes xanthopogon</i>	<i>Hiptage</i> sp.	Sabiaceae		April-May
			<i>Chaospes benjamini</i>	<i>Meliosma</i> sp.	Sabiaceae		April-May
		<i>Lobelia</i> Moore, 1884	<i>Lobelia liliana</i>	Unknown			April-Oct
	Pyrginae		<i>Celaenorrhinus leucocera</i>	<i>Strobilanthes</i> sp.	Acanthaceae		Sept-Oct
			<i>Celaenorrhinus munda</i>	Unknown			Aug-Oct
			<i>Celaenorrhinus dhanada</i>	Unknown			April-Oct
	Pyrginae	<i>Sarangesa</i> Moore, [1881]	<i>Sarangesa dasahara</i>	<i>Lepidagahis</i> sp.	Acanthaceae		March-Nov
			<i>Sarangesa purendra</i>	<i>Blepharis</i> sp.	Acanthaceae		March- Sept
		<i>Pseudocoladenia</i> Shirozu & Saigusa, 1962	<i>Pseudocoladenia fatih</i>	Unknown			March- Nov
	Pyrginae		<i>Coladenia Moore</i> , [1881]	<i>Triumfetta rhomboidea</i>	Malvaceae		March- Nov
			<i>Seseria dohertyi</i>	Unknown			May-Oct
			<i>Tagiades menaka</i>	Unknown			March-Nov
	Pyrginae		<i>Tagiades cohaerens</i>	Unknown			May-Oct
			<i>Odontoptilum de Niceville</i> , 1890	<i>Urena lobata</i>	Malvaceae		March-Nov
			<i>Carcharodus Hübn.</i> , [1819]	<i>Alcea rosea</i>	Malvaceae		April-Aug
	Pyrginae		<i>Spialia galba</i>	<i>Alcea rosea, Sida</i> sp.	Malvaceae		March-Nov
			<i>Pyrgus Hübn.</i> , [1819]	Unknown			May- Aug
	Hesperinae	<i>Aeromachus</i> de Niveville, 1890	<i>Aeromachus stigmatus</i>	Unknown	Poaceae		May-June
		<i>Actinor Watson</i> , 1893	<i>Actinor radians</i>	Unknown			Sept-Oct
		<i>Udaspes</i> Moore, [1881]	<i>Udaspes folius</i>	<i>Oryza</i> sp.	Poaceae		Sept-Oct
	Hesperinae	<i>Stasus</i> Moore, [1881]	<i>Stasus gremius</i>	<i>Borassus</i> sp.	Araceae		May- June
			<i>Taractocera moevius</i>		Poaceae		June-Oct
		<i>Taractocera</i> Moore, 1865	<i>Taractocera dama</i>		Poaceae		May
	Hesperinae		<i>Potanthus pseudomacsa</i>	<i>Axonopus compressus</i>	Poaceae		Oct
		<i>Potanthus</i> Scudder, 1872	<i>Potanthus dara</i>	Unknown	Poaceae		Aug-Oct
			<i>Parnara guttata</i>	<i>Oryza sativa</i>	Poaceae		April-Oct
	Hesperinae	<i>Parnara</i> Moore, [1881]	<i>Parnara bada</i>	<i>Oryza sativa</i>	Poaceae		April-Nov
		<i>Borbo</i> Evans, 1949	<i>Borbo cinnara</i>	<i>Oryza sativa</i>	Poaceae		April-Nov
			<i>Borbo bevani</i>	<i>Saccharum</i> sp.	Poaceae		May-Oct
	Hesperinae		<i>Pelopidas mathias</i>	<i>Oryza sativa, Saccharum</i> sp.	Poaceae		April-Oct
		<i>Pelopidas</i> Walker, 1870	<i>Pelopidas sinensis</i>	Unknown			May-Oct
			<i>Polyremis discreta</i>	Unknown			May-Oct
	Hesperinae	<i>Polyremis</i> Mabille, 1904	<i>Polyremis elola</i>	Unknown			May-Oct

Parnassiinae	<i>Parnassius hardwickii</i>	Unknown	Aristolochiaceae	June-Sept
Papilionidae	<i>Pachliopta aristolochiae</i>	<i>Aristolochia panjabensis</i>	Aristolochiaceae	April-Aug
	<i>Byasa polyteutes</i>	<i>Aristolochia panjabensis</i>	Aristolochiaceae	April-June
	<i>Byasa dasarada</i>	<i>Aristolochia panjabensis</i>	Aristolochiaceae	April-June
	<i>Papilio polyctor</i>	<i>Zanthoxylum armatum</i>	Rutaceae	March-Nov
	<i>Papilio arcturus</i>		Rutaceae	May-Sept
	<i>Papilio protenor</i>	<i>Citrus limon</i> , <i>Citrus sp.</i>	Rutaceae	May-Oct
	<i>Papilio polytes</i>	<i>Citrus limon</i> , <i>Zanthoxylum armatum</i>	Rutaceae	March-Nov
	<i>Papilio demoleus</i>	<i>Citrus sp.</i> , <i>Ziziphus sp.</i>	Rutaceae, Rhamnaceae	March-Nov
	<i>Papilio machaon</i>	<i>Foeniculum vulgare</i>	Apiaceae	March-Nov
	<i>Chilasa agestor</i>	<i>Machilus sp.</i>	Lauraceae	April-June
Pierinae	<i>Chilasa clytia</i>	<i>Linsea sp.</i>	Lauraceae	April-June
	<i>Graphium cloanthus</i>	<i>Listea sp.</i>	Lauraceae, Rutaceae	April-Oct
	<i>Graphium sarpedon</i>		Lauraceae, Rutaceae	Aug-Oct
	<i>Aporia agathon</i>		Berberidaceae	April-Aug
	<i>Pieris brassicae</i>		Brassicaceae	Feb-Dec
	<i>Pieris canidia</i>		Brassicaceae	Feb-Dec
	<i>Pieris rapae</i>		Brassicaceae	Feb-Oct
	<i>Pieris ajaka</i>		Brassicaceae	March-Oct
	<i>Pontia fabricius</i> , 1807	<i>Lepidium virginicum</i>	Brassicaceae	Feb-Dec
	<i>Belenois aurata</i>	<i>Capparis sp.</i> , <i>Jasminum sp.</i>	Capparidaceae, Oleaceae	Feb-Nov
Pieridae	<i>Cepora nerissa</i>	<i>Capparis sp.</i>	Capparidaceae	March-Oct
	<i>Delias sanaca</i>	Unknown		April-Oct
	<i>Delias belladonna</i>	Unknown		April-Oct
	<i>Euchloe daphalis</i>	Unknown		April-June
	<i>Catopsilia pyranthe</i>	<i>Cassia fistula</i>	Fabaceae	Feb-Dec
	<i>Catopsilia pomona</i>	<i>Cassia fistula</i>	Fabaceae	Feb-Nov
	<i>Gonepteryx nepalensis</i>	<i>Rhamnus sp.</i>	Rhamnaceae	Feb-Nov
	<i>Gonepteryx madaguru</i>	Unknown		March-June
	<i>Eurena laeta</i>	<i>Cassia fistula</i>	Fabaceae	March-Oct
	<i>Eurena droma</i>		Fabaceae	March-Oct
Coliadinae	<i>Eurena hecabe</i>	<i>Cassia fistula</i>	Fabaceae	Feb-Nov
	<i>Colias erate</i>	<i>Vicia sativa</i>	Fabaceae	Feb-Nov
	<i>Colias fieldii</i>	<i>Trifolium repens</i>	Fabaceae	Feb-Nov
	<i>Colias eogene</i>	Unknown		May-Sept
	<i>Prosatia druce</i> , 1891	<i>Acacia sp.</i>	Fabaceae	March-Nov
	<i>Catochrysops boisduvali</i> , 1832	<i>Tephrosia purpurea</i>	Fabaceae	April-Oct
	<i>Lampides boeticus</i>	<i>Pisum sativum</i>	Fabaceae	Feb-Dec
	<i>Leptotes plinius</i>	<i>Plumbago zeylanica</i>	Plumbaginaceae	March-Nov
	<i>Zizeeria karsandra</i>	<i>Oxalis corniculata</i>	Oxalidaceae	Feb-Dec
	<i>Pseudocizeeria maia</i>	<i>Oxalis corniculata</i>	Oxalidaceae	Feb-Dec
Lycanidae	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			
	<i>Polyommatus</i>			

Lycanidae	<i>Zizina oitis</i>	<i>Zizina oitis</i>	<i>Amaranthus viridis</i>	Amaranthaceae		Feb-Dec
	<i>Zizula hylax</i>	<i>Zizula hylax</i>	<i>Vicia</i> sp.	Fabaceae		April-Nov
	<i>Tarucus indica</i>	<i>Tarucus indica</i>	<i>Ziziphus</i> sp.	Rhamnaceae		Feb-Nov
	<i>Tarucus callimera</i>	<i>Tarucus callimera</i>	<i>Ziziphus</i> sp.	Rhamnaceae	WLPA Sch II	April-Nov
	<i>Tarucus venosus</i>	<i>Tarucus venosus</i>	<i>Ziziphus</i> sp.	Rhamnaceae		April-Nov
	<i>Tarucus hazzara</i>	<i>Tarucus hazzara</i>	<i>Ziziphus</i> sp.	Rhamnaceae		April-Nov
	<i>Everes huegelii</i>	<i>Everes huegelii</i>	Unknown			April-Nov
	<i>Everes lacturnus</i>	<i>Everes lacturnus</i>	<i>Lotus corniculatus</i>	Fabaceae		April-Nov
	<i>Azonus ibaldus</i>	<i>Azonus ibaldus</i>	<i>Acacia nilotica</i>	Fabaceae		April-Nov
	<i>Azonus uramus</i>	<i>Azonus uramus</i>	<i>Acacia nilotica</i>	Fabaceae		April-Nov
	<i>Celastrina argiolus</i>	<i>Celastrina argiolus</i>	<i>Prinsepia utilis</i>	Rosaceae		Jan-Dec
	<i>Celastrina gigas</i>	<i>Celastrina gigas</i>	<i>Prinsepia utilis</i>	Rosaceae		Jan-Dec
	<i>Celastrina huegelii</i>	<i>Celastrina huegelii</i>	<i>Prinsepia utilis</i>	Rosaceae		Jan-Dec
	<i>Acyrtopsis toxopeus</i> , 1927	<i>Acyrtopsis puspa</i>	<i>Hiptage</i> sp.	Malpighiaceae		March-Oct
	<i>Oreolyce toxopeus</i> , 1927	<i>Oreolyce vardhana</i>	<i>Berberis lycium</i>	Berberidaceae		May-June
	<i>Euchrysops butleri</i> , 1900	<i>Euchrysops cnejus</i>	<i>Pisum sativum</i>	Fabaceae		April-Nov
	<i>Polyommatus pseuderos</i>	<i>Polyommatus pseuderos</i>	<i>Trifolium repens</i>	Fabaceae		April-Oct
	<i>Polyommatus ariana</i>	<i>Polyommatus ariana</i>	<i>Trifolium repens</i>	Fabaceae		April-Oct
	<i>Aricia agestis</i>	<i>Aricia agestis</i>	<i>Geranium nepaliensis</i>	Geraniaceae		April-Oct
	<i>Pamiria omphisa</i>	<i>Pamiria omphisa</i>	Unknown			April-Oct
	<i>Pamiria galathea</i>	<i>Pamiria galathea</i>	Unknown			April-Oct
	<i>Freyeria courvoisieri</i> , 1920	<i>Freyeria putli</i>	<i>Indigofera</i> sp.	Fabaceae		April-Sept
	<i>Lathrodes pandava</i>	<i>Lathrodes pandava</i>	<i>Acacia nilotica</i>	Fabaceae		April-Oct
	<i>Chilades parhasius</i>	<i>Chilades parhasius</i>	<i>Acacia nilotica</i>	Fabaceae		April-Oct
	<i>Chilades lajus</i>	<i>Chilades lajus</i>	<i>Citrus</i> sp.	Rutaceae		April-Oct
	<i>Lycæna panava</i>	<i>Lycæna panava</i>	<i>Rumex hastatus</i>	Polygonaceae		April-Oct
	<i>Lycæna phlaeas</i>	<i>Lycæna phlaeas</i>	<i>Rumex dentatus</i>	Polygonaceae		April-Nov
	<i>Lycæna kasyapa</i>	<i>Lycæna kasyapa</i>	Unknown			May-Sep
	<i>Heliothorus sena</i>	<i>Heliothorus sena</i>	<i>Rumex hastatus</i>	Polygonaceae		Jan-Dec
	<i>Heliothorus bakeri</i>	<i>Heliothorus bakeri</i>	Unknown			April-Sept
	<i>Heliothorus oda</i>	<i>Heliothorus oda</i>	Unknown			April-Sept
	<i>Heliothorus moorei</i>	<i>Heliothorus moorei</i>	Unknown			April-Nov
	<i>Cigaritis vulcanus</i>	<i>Cigaritis vulcanus</i>	Unknown			March-Nov
	<i>Cigaritis icris</i>	<i>Cigaritis icris</i>	<i>Senna</i> sp.	Fabaceae		March-Nov
	<i>Chaetoprocta de Niceville</i> , 1890	<i>Chaetoprocta odala</i>	<i>Juglans regia</i>	Juglandaceae		May-Sept
	<i>Euspa milonia</i>	<i>Euspa milonia</i>	Unknown			May-Sept
	<i>Euspa ziba</i>	<i>Euspa ziba</i>	Unknown			May-Sept
	<i>Esakiozeephyrus shirozu</i> & Yamamoto, 1956	<i>Esakiozeephyrus icana</i>	Unknown			May-Sept
	<i>Chrysozeephyrus shirozu</i> & Yamamoto, 1956	<i>Chrysozeephyrus syla</i>	Unknown			May-Sept
Lycanidae						
Aphnaeinae	<i>Cigaritis donzel</i> , 1847	<i>Cigaritis donzel</i> , 1847	<i>Cigaritis vulcanus</i>			March-Nov
	<i>Chaetoprocta de Niceville</i> , 1890	<i>Chaetoprocta odala</i>	<i>Juglans regia</i>	Juglandaceae		May-Sept
Theclinae	<i>Euspa moore</i> , 1884	<i>Euspa milonia</i>	Unknown			May-Sept
	<i>Esakiozeephyrus shirozu</i> & Yamamoto, 1956	<i>Esakiozeephyrus icana</i>	Unknown			May-Sept
	<i>Chrysozeephyrus shirozu</i> & Yamamoto, 1956	<i>Chrysozeephyrus syla</i>	Unknown			May-Sept

	<i>Thermozephyrus</i> Inomata & Itagaki, 1986	<i>Thermozephyrus ataus</i>	Unknown			WLPA Sch II	May-Sept
		<i>Arhopala atrax</i>	Unknown				May- Oct
		<i>Arhopala amanes</i>	<i>Lagerstroemia</i> sp., <i>Xylia</i> sp., <i>Shorea</i> sp.		Lythraceae, Fabaceae, Dipterocarpaceae		May- Oct
	<i>Arhopala</i> Boisduval, 1832		Unknown				May- Oct
		<i>Arhopala rama</i>	Unknown				May- Oct
		<i>Arhopala dodonaea</i>	Unknown				May- Oct
		<i>Arhopala ganesa</i>	Unknown				May- Oct
		<i>Iraota timoleon</i>	<i>Ficus carica</i>		Moraceae		April-Oct
		<i>Horaga onyx</i>	<i>Cortaria</i> sp.		Coriariaceae	WLPA Sch IIA	pril-Oct
		<i>Deudorix epiglarbus</i>	<i>Aesculus indica</i>		Sapindaceae		March-Nov
			<i>Urena lobata</i>		Malvaceae		March-Nov
		<i>Rapala manea</i>	Unknown				April-Oct
		<i>Rapala tarbus</i>	Unknown				April-Oct
		<i>Rapala missa</i>	Unknown				April-Nov
		<i>Rapala seltra</i>	Unknown				April-Oct
		<i>Satyrium Scudder</i> , 1876	Unknown				April-Oct
			<i>Myrsine semiserrata</i>		Myrsinaceae		March-Nov
		<i>Dodona durga</i>	Unknown			WLPA Sch II	April-Oct
		<i>Dodona dipoea</i>	Unknown				May-Sept
		<i>Dodona eugenes</i>	<i>Myrsine semiserrata</i>		Myrsinaceae		March-Nov
		<i>Libythea lepita</i>			Cannabaceae	WLPA Sch II	April-Nov
		<i>Libythea myrrha</i>					April-Nov
		<i>Parantica aglea</i>			Apocynaceae		April-Nov
		<i>Parantica sita</i>	Unknown				April-Oct
		<i>Tirumala limniace</i>			Apocynaceae		April-Oct
		<i>Danaus genutia</i>			Apocynaceae		April-Nov
		<i>Danaus chrysippus</i>			Apocynaceae		April-Nov
		<i>Euploea mulciber</i>	<i>Ficus carica</i>		Moraceae		March-Oct
		<i>Euploea core</i>	<i>Ficus</i> sp., <i>Carissa</i> sp.		Moraceae, Apocynaceae		April-Nov
		<i>Melanitis leda</i>	<i>Ficus</i> sp., <i>Carissa</i> sp.				April-Nov
		<i>Melanitis phedima</i>	<i>Zea mays</i> Poaceae		Poaceae		April-Nov
		<i>Lethe sidonis</i>	<i>Zea mays</i> , <i>Oryza sativa</i>				March-Nov
		<i>Lethe confusa</i>			Poaceae		March-Nov
		<i>Lethe rohria</i>			Poaceae		March-Nov
		<i>Lethe verma</i>			Poaceae		March-Nov
		<i>Lasiommata schakra</i>	Unknown				April-Nov
		<i>Kirinia eversmanni</i>	Unknown				April-Sept
		<i>Myscelotis persus</i>	<i>Oryza sativa</i>		Poaceae		March-Nov
		<i>Ypthima narela</i>	Unknown				March-Nov
		<i>Ypthima kasmitra</i>	Unknown				March-Nov
		<i>Ypthima lisandra</i>	Unknown				March-Nov
		<i>Ypthima baldus</i>	Unknown		Poaceae		April-Oct
		<i>Ypthima nikaea</i>	Unknown				March-Nov
		<i>Ypthima sakra</i>	Unknown				March-Nov
		<i>Ypthima hyagriva</i>	Unknown			WLPA Sch II	Aug-Sept

Satyridinae	<i>Callerebia</i> Butler, 1867	<i>Callerebia nirmala</i>	Unknown				April-Nov
		<i>Callerebia scanda</i>	Unknown			WLPA Sch II	April-Nov
		<i>Callerebia amada</i>	Unknown			WLPA Sch II	April-Nov
		<i>Callerebia hybrida</i>	Unknown				April-Nov
	<i>Hyponephele</i> Muschamp, 1915	<i>Hyponephele kashmirica</i>	Unknown				May, Sept
		<i>Aulocera brahmatus</i>	Unknown				March-Nov
		<i>Aulocera padma</i>	Unknown				March-Nov
		<i>Aulocera swaha</i>	Unknown				March-Nov
	<i>Hyparechia</i> Fabricius, 1807	<i>Aulocera saraswati</i>	Unknown				March-Nov
		<i>Hyparechia parvatis</i>	Unknown				March-Nov
Biblidinae	<i>Ariadne</i> Horsfield, [1829]	<i>Ariadne mertione</i>	<i>Tragia</i> sp.	Euphorbiaceae			March-Nov
		<i>Argynnis hyperbicus</i>	<i>Viola</i> sp.	Violaceae			April-Oct
		<i>Argynnis childreni</i>	Unknown				April-Oct
		<i>Argynnis kamala</i>	Unknown			WLPA Sch II	April-Oct
	<i>Isoria</i> Hübn., [1819]	<i>Argynnis jainadeva</i>	Unknown			WLPA Sch II	March-Nov
		<i>Isoria isacea</i>	<i>Viola</i> sp.	Violaceae			May-Sept
		<i>Classiana jerdoni</i>	Unknown				March-Nov
		<i>Phalanta phalantha</i>	<i>Flacourtia</i> sp., <i>Salix</i> sp.	Salicaceae			March-Nov
Nymphalidae	<i>Vagrans</i> Hemming, [1829]	<i>Vagrans egisia</i>	Unknown				April-Nov
		<i>Symbrenthia litaea</i>	<i>Debregeasia hypoleuca</i>	Urticaceae			April-Nov
		<i>Symbrenthia niphanda</i>	Unknown			WLPA Sch II	May-Oct
		<i>Symbrenthia brabira</i>	Unknown				May-Oct
	<i>Nymphalis</i> Kluk, 1780	<i>Nymphalis xanthomelas</i>	<i>Salix</i> sp.	Salicaceae			March-Oct
		<i>Aglais caschmirensis</i>	<i>Urtica dioica</i>	Urticaceae			March-Dec
		<i>Kaniska Moore</i> , [1899]	<i>Smilax</i> sp.	Smilacaceae			April-Oct
		<i>Polygonia Hübn.</i> , [1819]	Unknown			WLPA Sch II	April-Sept
Heliconiinae	<i>Vanessa</i> Fabricius, 1807	<i>Vanessa cardui</i>	<i>Cirsium arvense</i> , <i>Urtica dioica</i>	Asteraceae, Urticaceae			March-Dec
		<i>Vanessa indica</i>	<i>Girardinia heterophylla</i> , <i>Urtica dioica</i>	Urticaceae			March-Dec
		<i>Junonia hierta</i>	<i>Hygrophila</i> sp.	Acanthaceae			March-Dec
		<i>Junonia orithya</i>	<i>Lepidagathis</i> sp.	Acanthaceae			March-Dec
	<i>Junonia</i> Hübn., [1819]	<i>Junonia lemonias</i>	<i>Sida rhombifolia</i>	Malvaceae			March-Dec
		<i>Junonia almana</i>	<i>Oryza sativa</i> , <i>Pennisetum</i> sp.	Poaceae			March-Dec
		<i>Junonia allites</i>	<i>Barleria</i> sp., <i>Hygrophila</i> sp.	Acanthaceae			April - Sep
		<i>Junonia iphita</i>	<i>Strobilanthus</i> sp.	Acanthaceae			March-Dec
	<i>Kallima</i> Doubleday, [1849]	<i>Kallima inachus</i>	<i>Girardinia heterophylla</i>	Urticaceae			March-Nov
		<i>Hypolimnas misippus</i>	<i>Abelmoschus</i> sp., <i>Hibiscus</i> sp., <i>Sida</i> sp., <i>Portulaca</i> sp.	Malvaceae, Portulacaceae		WLAP Sch II	April-Oct
Cysteininae	<i>Hypolimnas</i> Hübn., [1819]	<i>Hypolimnas bolina</i>	<i>Alternanthera sessilis</i> , <i>Sida rhombifolia</i> , <i>Portulaca</i> sp.	Amaranthaceae, Malvaceae			April-Oct
		<i>Cyrestis Boisduval</i> , 1832	<i>Ficus carica</i>	Moraceae			April-Oct

Nymphalidae	Limentidinae	<i>Neptis suppho</i>	Unknown				April-Nov
		<i>Neptis soma</i>	Unknown			WLPA Sch II	April-Nov
		<i>Neptis nata</i>		Cannabaceae			April-Nov
		<i>Neptis mahendra</i>	Unknown				April-Oct
		<i>Neptis zaida</i>	Unknown			WLPA Sch II	April-June
		<i>Pantoporia hordonia</i>	<i>Acacia</i> sp.	Fabaceae			September
		<i>Athyna perius</i>		Phyllanthaceae			April-Oct
		<i>Athyna opalina</i>	Unknown				March-Nov
		<i>Limenitis ligyes</i>	Unknown				April-Sept
		<i>Limenitis trivena</i>	Unknown				April-Sept
	Apaturinae	<i>Aurakia danava</i>	Unknown			WLPA Sch II	November
		<i>Euthalia patala</i>	Unknown			WLPA Sch II	July
		<i>Pseudergolis wedah</i>	<i>Debrageasia hypoleuca</i>	Urticaceae			March-Nov
		<i>Silbochiona nicea</i>	<i>Boehmeria</i> sp.	Urticaceae			May
		<i>Minathyma ambica</i>	<i>Ulmus</i> sp.	Ulmaceae			Sept
		<i>Minathyma chitralensis</i>		Ulmaceae			Aug-Sept
		<i>Dilipa margiana</i>	Unknown			WLPA Sch I	May
		<i>Sephisa dichroa</i>	<i>Quercus</i> sp.	Fagaceae			Aug-Oct
		<i>Eurippus consimilis</i>		Cannabaceae			Aug-Oct
		<i>Hestina persimilis</i>	<i>Celtis</i> sp.	Cannabaceae		WLPA Sch II	Aug-Oct
Acraeinae		<i>Polyura athamas</i>	<i>Albizia</i> sp., <i>Grewia</i> sp.	Fabaceae, Malvaceae		WLPA Sch II	Aug-Oct
		<i>Polyura agraria</i>	<i>Acacia nilotica</i>	Fabaceae			Aug-Oct
		<i>Acraea issoria</i>	<i>Debrageasia hypoleuca</i> , <i>Rubus ellipticus</i>	Urticaceae, Rosaceae			Jan-Dec