

1. Brief overview of your taxa

- mentioning how diverse globally/northeast/Jeypore:

Northeast India is the most rich butterfly hotspot in the entire Oriental region. About 1000 species of butterflies have been recorded in this region. The Central Asian and Chinese division of the palaeartic region here meet the South Indian and Malayasian divisions of the oriental region. It also constitutes a portion of the Indo-Chinese subregion of the Oriental region. Hot and wet vegetation and hilly landscapes makes it favorable for the clump of many species in this region.

Jeypore is an excellent place for butterfly watching. About a month of survey in Jeypore resulted in sighting of 276 butterfly species. This was only because Jeypore is the meeting point of Eastern Himalayan biodiversity and Indo-Burman biodiversity. It is undoubtedly one of the fascinating place of Upper Assam.

- how many regional endemics, globally endangered species etc.

N. E. India is known for endemic and rare species like Peal's Palmfly, Cachar Mandarin Blue, Yellow-Crested Spangle, Plain Bushbrown, Pallid Forester. Many large Swallowtail species were like Kaiserihind, Bhutan Glory which were once found plenty in northeast, are now not sighted for long years as they were target in by the museum collectors across the world in the past, reducing their population to extreme rarity.

- ecological role in the forest (pollinators, dispersers etc)/for agriculture (pollinators, pests etc)/for humans (food, medicine, trade etc.), as environmental indicators (pollution, climate change etc.)

Butterflies are best pollinators of flowers next to honey bees. They collect nectar from flower to flower, which pollinate the flowers. Pollination of flowers results in fertilization of female pollen grain and ultimately seed and fruit formation. Butterflies are also used as pollution indicators in European countries. Butterfly parks are made and butterflies are reared in the parks in Cities. Butterflies are very sensitive to carbon dioxide. So, if butterflies die, than indicates that the place is polluted.

2. Your taxa in relation to Jeypore

- overall diversity in Jeypore :

276 species of butterflies were sighted in about 35 day's survey. These include some of the very rare species which were never photographed before.

the Jeypore 'specialities' either in terms of endemism, endangered status, rarity/rainforest habitat specialists.

Below is the list of some rare species reported from Jeypore RF. (Status of the butterfly was referred from Evans, 1932, the only standard guide book):

REDISCOVERY OF WHITE PUNCH:

Comment [K1]: Highlight in book.

White Punch *Dodona henrici longicaudata* (Very rare): There was no sighting of the species in India or Burma. It was digital photographed for the first time. This subspecies is treated very rare in Evans, 1932. Another subspecies *deodata* occurs in Burma.

NEW ADDITION TO THE BUTTERFLY FAUNA OF INDIA:

RANGE EXTENSION OF-

Andaman Yellow-banded Flat, *Celaenorrhinus andamanicus hanna* Evans 1949:

The subspecies *hanna* was described by Evans in 1949 from Burma.

Latter it was also recorded from Thailand. The species was photographed in Kothalguri of Jeypore RF. This is a new addition to the butterfly fauna of India.

NOTE ON SOME IMPORTANT SPECIES:

Pale Striped Dawnfly *Capilia zennara* (Very rare): The species has been reported from Sikkim, Assam in India. Occur till Thailand. This is the first digital photography of the species.

Blue Nawab *Polyura schreiberi assamensis*: (Very rare) The butterfly occurs in S. India is subspecies-*wardi*. In recent times, the butterfly has been sighted from Kerala, but there is no present sighting of the species from N.E. India.

Great Zebra *Graphium xenocles xenocles*: (Not rare) This Swallowtail butterfly is also not photographed presently. Subspecies *phrontis* is reported from Sikkim. Another subspecies *kephisos* is reported from Burma. But, there is no present photography of any of these three subspecies. Subspecies *xenocles* was found locally common in Jeypore. The restricted population living in Jeypore makes this place really special.

Great Mime *Chilasa paradoxa telearchus*: (Rare) Its common name is treated as Great Blue Mime in Evans, 1932. This is another rare Swallowtail butterfly photographed in Jeypore RF. The species is known to occur from Assam-Burma. Sighting of this species in Jeypore RF was really thrilling. Presently, other than Jeypore, it has been reported from Buxa Tiger Reserve, W. Bengal.

Malay Forest Bob *Scobura phidita* : (Rare) The butterfly occurs from North East India-Buram, Malay Peninsula and Sumatra, Borneo. Although other *Scobura* species has been sighted by many butterfly watchers in India, this butterfly remain unrecorded at present times. It was sighted twice in two locations during my survey. This is the first digital photography of the species.

Kohinoor *Amathuxidia amythaon*: (Rare) It's a huge butterfly with wing span of 110-130mm. It occurs from Sikkim-Arunachal Pradesh, Northeast in India. Otherwise it occurs also in Bhutan, Bangladesh, Myanmar. It is one of the thrilling butterflies of India. Present sighting of the species is from Namdapha, Arunachal Pradesh and Meghalaya.

Peal's Palmfly *Elymnias pealii* (Very rare): Endemic(Assam, Arunachal Pradesh). Although reported very rare by Evans, it is locally not rare. The species presently has been reported from Panbari(Kaziranga), Jokai of Assam and also from Namdapha, Arunachal Pradesh.

Striped Ringlet *Ragadia crisilda crito*(Rare): The species has been reported from Sikkim- Arunachal Pradesh. Another subspecies *crisilda* occurs in Cachar, Assam. The species is although reported rare, it looks a locally common species of Eastern Himalayas, especially in Arunachal Pradesh.

Blue Quaker *Pithecopis fulgens* (Rare): The species was first described from Assam. Other subspecies has recently been described from other parts of SE Asia. The species is similar to Forest Quaker, *P.corvus* from underside but from it in the upper side being blue with brown border in male whereas in the latter the upper side is brown.

Yellow-vein Lancer *Pyronaura margherita* (Very rare): The species was described from Margherita by Doherty. The species is reported from Upper Assam by Evans.

3. Your taxa in relation to the forest layers

- species living in the different layers (e.g. high canopy orchids, ground orchids; or canopy butterflies, forest floor specialists, stream specialists etc.). Please pick one or two of the most spectacular or unique (in terms of rarity or life history traits etc.) in each layer and write what is special about it occupying that particular niche. (e.g. high canopy hornbills and their nesting on the tallest, emergent Tetrameles trees; why - to avoid predation during the female's nesting?)

Swallowtails like Common Batwing, Common Birdwing, Great Windmill, Common Birdwing, Redbreast, Common Peacock, Paris Peacock were found flying really high in the rainforest of Jeypore. When summer came, most of them came down to puddle. It was the best time that I utilized for photographing them. Butterfly like Pale Wanderer wanders the high forest canopy of Jeypore and rarely comes down.

Great Arkduke is often encountered in forest floor. Yellow Sailer is often found puddling on the ground when one walks through the pathways that goes through Jeypore RF. Butterflies like Evening Browns, Bushbrowns, Threerings and Furrings were found to prefer the forest floor.

Butterflies like Peablue come to Jeypore in winter and again go back to W.Himalayas to summer.

White Dragontails is another thrilling butterfly of Northeast. In a day I found about 30 White Dragontails. Jeypore RF probably had the best population in northeast.

Constable, Green Comondore, Blue Admiral were found to prefer the hills streams in Jeypore. Hill Hedge Blue, Common Hedge Blues, Plain Hedge Blues , Pale Hedge Blues were found to prefer the hill streams of Jeypore in the Winter. When summer came, all the hill streams were filled with water and Hedge Blues also disappeared. Common Map is another beautiful butterfly of Jeypore found in the hill streams.

Evans, W.H. 1932. Identification of Indian butterflies. BNHS.