

and is one of the main constituents of the mangrove habitat. It grows gregariously in patches. A few caterpillars, collected during the present study were reared in captivity. TSM was known to inhabit moist forests and plains, often at low elevations and its occurrence in mangrove area provides a new marshy habitat for the species.

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## Butterfly Distribution Pattern in Goa

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Goa, with the land area of 3701 Sq.Km, lies between 15°48'00"N and 14°53'54"N and longitude 74°20'13" E and 73°40'33"E. To understand the role of anthropogenic activities on the distribution pattern of butterflies, a survey undertaken of the butterflies in isolated places like Charao islands, Brittona, Old Goa, etc., (location I) were compared with highly residential areas such as Teleigao, Bambolim, Colva and Verca (location II). The results are given in Table 1. The results revealed that, 52 species of butterflies exist in the study area. Higher density of common species of butterflies exist in the study area. Higher density of common species of butterflies such as blue mormon, common mormon, common emigrant, etc., were in human inhabited areas, while relatively rare species like Palmfly, Yellow jack sailor, Danaidfly, Great eggfly, Map butterfly, etc., in lesser density were observed in undisturbed areas. Further studies are needed to know whether in anthropogenically active areas, the species tries to improve their population size and in isolated areas whether they diversify into varied species, to achieve evolutionary success as suggested by Fiedler (1998).

### Reference

- Fiedler K. 1998. Geographical pattern in life history traits of lycaenid butterflies ecological and evolutionary implications-Zoology-(Analysis and complex systems) 100: 336-34

**Table 1 Butterfly Distribution in Goa**

Butterfly species	Inhabited area (Location I)	Isolated area (Location II)
Family : Papilionidae		
Common mormon ( <i>Papilio polytes polytes</i> ) (Linnaeus)	+	+
Blue mormon ( <i>Papilio polymnester</i> ) (Cramer)	+	

Crimson rose ( <i>Pachliopta hector</i> ) (Linnaeus)	+	+
Common rose ( <i>Pachliopta aristolochiae aristolochiae</i> ) (Fabricius)	+	+
Southern birdwing ( <i>Troides minus</i> ) (Cramer)	+	+
Tailed jay ( <i>Graphium agamemnon manides</i> ) (Felder & Felder) or + <i>Zatidas agamemnon</i> (Linnaeus)	+	-
Family : Pieridae		
Common emigrant ( <i>Catopsilia crocale</i> ) (Cramer)	+	+
Common grass yellow ( <i>Eurema hecabe simulata</i> (Moore) or <i>Terias hecabe</i> ) (Linnaeus)		
Common gull ( <i>Cepora nerissa nerissa</i> or <i>Huphina nerissa</i> ) (Fabricius)	+	+
Psyche ( <i>Leptosia nina nina</i> ) (Fabricius)		
Mottled emigrant ( <i>Catopsilia comona</i> ) (Linnaeus)		
Common wanderer ( <i>Pararonia valeria hippia</i> (Fabricius) or <i>Pararonia valeria</i> ) (Cramer)	+	+
Common Jizabel ( <i>Delias eucharis</i> ) (Drury)	+	+
Family : Danaidae		
Plain tiger ( <i>Danias chrysippus chrysippus</i> (Linnaeus) or <i>Danias chrysippus</i> ) (Linnaeus)	+	+
Stripes tiger ( <i>Danias genutia genutia</i> (Cramer) or <i>Danias plexippus</i> ) (Linnaeus)	+	+
Glassy blue tiger ( <i>Parantica aglea aglea</i> (Cramer) or <i>Danias aglea</i> ) (Cramer)	+	+
Blue tiger ( <i>Tirumala limniace exoticus</i> (Gmelin) or <i>Danias limniaca leopardus</i> ) (Butler)	+	+
Common crow ( <i>Euploea core core</i> ) (Cramer)	+	+
Dark blue tiger ( <i>Tirumala septentrionis dravidarum</i> (Fruhstrofer) or <i>Danias melissa</i> ) (Cramer)	+	+
Family : Satyridae		
Common palm fly ( <i>Elymnias hypermenstra caudata</i> Butler)	-	+
Bushbrown ( <i>Mycalesis subdita</i> ) (Fruhstrofer)	+	+
Common evening brown ( <i>Melanitis leda leda</i> (Drury) or <i>Melanitis leda ismene</i> ) (Cramer)	+	+
Family : Nymphalidae		
Common castor ( <i>Aridna merions merions</i> (Cramer) or <i>Ergolis merions</i> ) (Cramer)	+	+
Common leopard ( <i>Phalanta phalanta phalanta</i> (Drury) or <i>Atella phalantina</i> ) (Drury)	+	+
Common sargent ( <i>Athyma gerius gerius</i> (Linnaeus) or <i>Panthogonia gerius</i> ) (Linnaeus)	+	+
Commander ( <i>Moduza procris undifragus</i> (Fruhstrofer) or <i>Limentis procris</i> ) (Cramer)	-	+
Danaid eggfly ( <i>Hypolimnema misippus</i> ) (Linnaeus)	-	+
Great eggfly ( <i>Tanaecia lepidea miyana</i> (Drury) or <i>Euthalia lepidea</i> ) (Linnaeus)	-	+
Baron ( <i>Euthalia aconthe meridionalis</i> (Fruhstrofer) or <i>Euthalia garuda</i> (Moore)	+	+
Grey pansy ( <i>Pracis atites</i> ) (Linnaeus)	-	+

Peacock pansy ( <i>Praxis almana almana</i> ) (Linnaeus)	+	+
Lemon pansy ( <i>Praxis lemonias lemonias</i> ) (Linnaeus)	+	+
Tamil yeoman ( <i>Cirrochros thais thais</i> ) (Fabricius)		+
Black prince ( <i>Rohana garisatis</i> ) (Fabricius)	+	+
Black rajah ( <i>Charaxes sofen sofen</i> ) (Fabricius) or <i>Charaxes fabius</i> ) (Fabricius)		
Map butterfly ( <i>Cyrtastis thyodamas indica</i> ) (Evans)	-	+
Painted lady ( <i>Venessa cardui</i> ) (Fabricius)	+	+
Family : Lycaenidae		
Common pierrot ( <i>Castalius rosimon rosimon</i> ) (Fabricius)	+	+
Banded blue pierrot ( <i>Discolampa ethion vavasanus</i> ) (Fruhstorfer) or <i>Castalius ethion</i> ) (Doubleday & Hewitson)	+	+
Red pierrot ( <i>Talicauda nyssus nyssus</i> ) (Guerin-Meneville)	+	+
Common cerulean ( <i>Jamides celena selianus</i> ) (Fabricius) or <i>Jamides ceiena ceiena</i> ) (Cramer)	-	+
Common silverline ( <i>Soindasis vulcanus vulcanus</i> ) (Fabricius)	+	+
Monkey puzzle ( <i>Rathinda amor</i> ) (Fabricius)	+	+
Vamify ( <i>Loxura atymnus atymnus</i> ) (Cramer)	-	+
White branched royal ( <i>Ancema cotys</i> ) (Fabricius) or <i>Pratapa cotys</i> ) (Cramer)	-	+
Common gem ( <i>Portia hewitsoni hewitson</i> ) (Hewitson)	-	+
Cornelian ( <i>Daudorix epifarbus amatius</i> ) (Cramer)	-	+
Family : Hesperidae		
Malabar flat ( <i>Celaenorhinus ambareesa</i> ) (Moore)	+	+
Multi spotted flat ( <i>Celaenorhinus gulomaya gulomaya</i> ) (Kollar)	+	+

Location 1 : Human inhabited areas

Location 2 : Isolated places

## Potential Braconid Parasitoid on Ber White Hairy Caterpillar

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The white hairy caterpillar, *Thiacidas postica* Walker (Lymantriidae : Lepidoptera) is a serious defoliator of ber. The third instar of the white hairy caterpillar was observed to be parasitised by a solitary braconid endoparasitoid *Dolichogenidia hyposidrae* Wilkinson (Braconidae : Hymenoptera). This is considered as a potential parasitoid as 90% mortality was observed in reared caterpillars. The full grown parasitoid grubs emerged from the lateral side of the intersegmental layer and spun the cocoons immediately. The grub is creamy white in colour and spun yellowish white cocoon. From the pupa, adults emerged after 2 to 3 days. The adult is small and black with transparent wings.

The parasitoid has been identified by Zoological Survey of India. (ZSI), Calcutta.