CHAPTER: IV

OBSERVATIONS
Chapter IV
Observations

The present study recorded 91 butterfly species, belonging to family Papilionidae, Pieridae, Nymphalidae, Lycaenidae and Hesperiidae pertaining to 65 genera from North Maharashtra.

Some of butterfly species viz. Hebomoea glaucippe Linnaeus, Appias albina Boisduval and Curetis bulis Westwood were observed during study period but due to some unavoidable situations like unavailability of camera, net or manpower at that particular time it was not possible to photograph or to collect them. These species are also included in the present research work.

4.1 Family Papilionidae

Tailed hind wing is the peculiar characteristic of these butterflies, hence it is popularly known as Swallowtail. Hind wings have concave inner margin and only one anal vein. Forewing vein in 3a is free towards margin. This family includes the largest, the most attractive and the most endangered butterfly species. This is the smallest butterfly family in the world. Members of this family have similar general body forms, in spite of dissimilar habits and habitat.

Fig. 15. a. General morphology of Papilionidae
Fig. 15. b. General morphology of Papilionidae

The body is often marked with thin longitudinal lines, which are of contrasting colour to the body. Forewings are long and narrow or broad, but hind wings are almost invariably broad. They have all fully developed long and slender legs. Head is round, narrower than shoulders with long antennae, and eyes are black. They have coiled proboscis due small labial palpi. Abdomen is larger than thorax. Two sexes have similar markings with some subtle differences. The males may have fluffy scent scales in a fold on the hind wing. The females are usually larger. Except in Roses and Birdwings all the caterpillars of these family resembles bird dropping. This is a peculiar protective adaptation found in this family.

Fig. 15. c. ‘Bird dropping’ stage of Lime butterfly
India harbors 107 species with peninsular India accounting for 19 species (Kunt, 2007; Kehimkar 2008). Seven species are recorded from the North Maharashtra which belong to Subfamily – Parnassinae.

4.1.1 Common Rose (Plate No.1:1)

**Scientific name:** *Pachliopta aristolochiae* Fabricius

**Material Examined:** 12 Males and 16 Females, Nashik, Nandurbar, Jalgaon and Dhule District

**Wingspan:** 80-110 mm

**Wing Maculation:** There is large white area on the hind wings. A series of deep red or brownish-red spots are present on the outer margin of the hind wings.

**Description:** It is a black butterfly with crimson body. The sexes look similar.

**Habits:** When feeding from flowers Common Rose uses its long forewings for driving the body in flight and hind wings for balancing and steering. At this time the forewings are flapped continuously and the hind wings are moved a little to control body movement. The flight is slow but straight and long sustained. It flies usually 3-4 m above the ground when in search of nectar, or larval host plant, however while travelling long distance it flies 10-15 m above the ground level.

**Habitat:** It is found mainly in open, cultivated areas, scrub and deciduous forests. Very common visitor to garden flowers and often seen in most crowded cities.

**Season:** Common during and after the rains. Less frequent during winter and in hot summer.

**Host plants:** *Aristolochia bracteolata, A. indica, A. tagala, Thottea siliquosa.*
4.1.2 Crimson Rose (Plate No.1:2)

Scientific name: Pachliopta hector Linnaeus

Material Examined: 7 Males and 5 Females, Nashik, Jalgaon and Dhule District

Wingspan: 90-110 mm

Wing Maculation: Two broad white bands on the forewings. Tailed hind wings have bright crimson spots. Upper side and underside of wings are similar in marking.

Description: It is glossy, black butterfly with gaudy crimson body. Sexes are similar but female is somewhat dull with larger crimson crescents and spots on hind wing.

Habits: It has slow, fluttering and straight flight. It basks with its wings spread flat. While resting, the forewings are half-drawn between the hind wings. It has strong migratory habits.

Habitat: Very common near Godavari river. It occurs mainly in dry deciduous forests and thick scrub, but may also be found in disturb semi evergreen and evergreen forest.

Season: Common throughout the year. It is abundant from late monsoon to late winter i.e. November to December.

Host plants: Aristolochia bracteolate, A. indica, Thottea siliquosa.

4.1.3 Tailed Jay (Plate No.1:3)

Scientific name: Graphium Agamemnon Linnaeus

Material Examined: 18 Males and 8 Females, Nashik, Dhule and Jalgaon District

Wingspan: 85-100 mm.

Wing Maculation: Apple green spots and streaks on its wings

Description: This is black butterfly. The wings are more elongated and narrower than in other groups of Indian Swallowtails. The tails on the hind wings are longer in female. The male has a patch of scent scales consisting of an elongated tuft of hairs on the dorsal fold of the hind wings.
**Habit:** Its flight is straight and dashing. It is far more common in forest canopy than near the ground. This is an extremely restless butterfly, never tired of flying. When it feeds from flower, it barely touches it with its legs, take short sips of nectar and flies over to the next flower. It quivers its wings constantly while feeding. At rest, the wings are kept closed over the back, but the forewings are not drawn between the hind wings.

**Habitat:** Though often seen in urban areas, it is more common in its native evergreen and wet evergreen forests. Availability depends on the local available host plants

**Season:** It is active throughout the year, but more so in summer.

**Host plants:** Annona discolor, A. muricata, A. reticulate, A. squamosa, Cinnamomum macrocarpum, Michelia champaca, Miliusa tomentosum, Polyalthia longifolia.

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**4.1.4 Common Jay (Plate No.1:4)**

**Scientific name:** Graphium doson C & R Felder.

**Material Examined:** 8 Males and 13 Females, Nashik, Nandurbar and Dhule District

**Wingspan:** 70-80 mm.

**Wing Maculation:** Pale blue, semi-transparent central band that is formed by large spots. There is marginal series of smaller spots. The underside of the wings is brown, with markings similar to the upper side, but they are whitish.

**Description:** This is black butterfly with hind wing ends forming short tails. The sexes look alike.

**Habit:** It is active throughout the day, and constantly on move, so it is difficult to see it settled down. It has swift and straight flight. Its thorax is strong, so it rapidly beats its wings, not fully lowering them in each beat. While feeding from flowers, it keeps its wings vibrating, never fully settling on the flowers. At rest wings are closed over the back, but the hind wings do not cover the forewings.

**Habitat:** Common in moist deciduous semi-evergreen and evergreen forests. It particularly frequents forest streams and river.
Season: It is active throughout the year, but more so in summer.

Host plants: Annona lawii, Cinnamomum macrocarpum, Mangolia grandiflora, Michelia champaca, Miliusa tomentosum, Polyalthia longifolia.

4.1.5 Lime Butterfly (Plate No.1:5)

Scientific name: Papilio demoleus Linnaeus

Material Examined: 15 Males and 9 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 80-100 mm.

Wing Maculation: The wings are spotted with various shades of yellow. On the underside it has beautiful pattern of yellow, red and blue.

Description: It is medium sized swallowtail with black wings that turn brownish in old Male and Female. The abdomen is lemon yellow with longitudinal black lines. The male and female are similar. This butterfly lacks the characteristic tail of swallowtails.

Habit: In the morning it flies slowly, during hotter hours it flies rapidly. It flutters its wings for some after setting on the soil, but finally sits motionless provided it is left undisturbed. It prefers the flowers of tiny herbs to those of huge thickets, such as of Lantana. It is lured into gardens by flowers, in addition to cultivated Citrus plants on which its caterpillars feed. It is unusual in that it basks in very open places with its wings spread flat; other species would do so in the forest, in the shade close to small opening.

Habitat: It has more diverse habitat.

Season: It is active throughout the year, but more common in during monsoon and post-monsoon months.

4.1.6 Common Mormon (Plate No.1:6, 7 & 8)

Scientific name: *Papilio polytes* Linnaeus

Material Examined: 10 Males and 17 Females (*8 romulus* form & *9 stichius* form), Nashik, Dhule, Nandurbar District

Wingspan: 90-100 mm

Wing Maculation: A row of cream coloured spots across the hind wing.

Description: The male is jet black with row of creamy white spots along the central region of the hind wing. The margin of the forewing also has a series of smaller white spots. The female has three forms, the form cyrus resembles the male in colouration with some indistinct red spots on the hind wing, the form stichius and Romulus mimics the Common Rose and Crimson Rose, respectively, but have black bodies. The form stichius is a good mimic, but Romulus is dull in colour and therefore less impressive in general appearance then its model – the Crimson Rose. The male are smaller in size.

Habits: The female forms presents good example of mimicry of the Roses in colouration as well as in habit. They copy the slow fluttering flight of their model but do not fly as high up in the air as their models sometimes do. Moreover, they are less patient and, unlike their models, start flying faster and more erratically on the slightest disturbance. In spite of this they are convincing mimics and it is sometimes essential to check the colour of the body to distinguish between the species. The male flies in the usual manner of Black-bodied Swallowtails – zigzag but unidirectional and with moderate speed. Both the sexes fly long distance at a stretch and seem untiring, as they are never seen resting during the day after they finish basking. Both sexes bask in the sun with their wings spread flat against the substratum.

Habitat: It is found commonly around human habitation. It inhabits home gardens and other well wooded areas around habitations, deciduous forests, edges and openings in the semi-evergreen and evergreen forests.

Season: Most common in monsoon and immediate post-monsoon, but active throughout the year.
Host plants: Nectar sources are flowers of Lantana, Jatropha, Mussaenda and Ixora. Larval host plants are, Alalantia recemosa, Aegle marmelos, Citrus aurantifolia, C.grandis, C.limon, C.medica, C.sinensis, Glycosmis arborea, M. koenigii, Marraya paniculata.

4.1.7 Blue Mormon (Plate No.1:9)

Scientific name: Papilio polymnestor Cramer

Material Examined: 1 Male and 1 Female, Nashik District

Wingspan: 120-150 mm

Wing Maculation: Hind wing pale blue with black spots.

Description: This is a very large black butterfly with glistening pale blue markings. On the underside, it is completely black with a red spot at the base of its wings and a few pale markings. Sometimes in the females a red spot of comparable size and shape is also found at the base of the forewings on the underside. The thorax and abdomen are black.

Habits: It is often seen on forest paths and along streams. The male avoids shade and flies in sunny patches to look for nectar flowers which have long corolla tubes and large nectar reserves. Usually female prefers shade and dense forest cover. The Blue Mormon seldom flies higher than 5 m from the ground and its flight is rapid.

Habitat: It is common in forest that receives heavy rainfall, due to which evergreen vegetation is predominant. Also found in wooded urban areas.

Season: More common in late monsoon and immediately after it, though it occurs throughout the year.

Host plants: Atalantia recemosa, A. wightii, Glycosmis arborea, Paramigyna monophylla, Citrus grandis, C. limon.
4.2 Family Pieridae

The name ‘butterfly’ is derived from members of this family which are commonly known as Whites and Yellows.

![Fig. 16. a. Full grown caterpillar of Common Emigrant](image)

The caterpillars are dark leafy green with few or no markings and are of uniform girth from the second to the last segment. Their survival depends on camouflage therefore they rest during day to avoid exposure. The full grown caterpillar always sits on the upper side of leaves or twigs.

![Fig. 16. b. General morphology of Pieridae](image)
They have slightly broad forewing but the wing apex maybe narrow and pointed. The hind wings are round with two anal veins and occasionally toothed. The convex inner margin of the hind wings forms a channel around the abdomen which covers it completely; hence the abdomen is never seen in the field when the butterfly rests with its wing closed. When it settles the wings are always kept close over its back. Most of these butterflies bask in the sun with their wing close. All their six legs are perfect, functional and have distinct bifid pretarsal claws. They are found in all types of habitat, ranging from arid grass lands with short and spars vegetation to the thick, wet evergreen forest.

The labial palpi are short and close to the face, not very large or projecting as in blues and brush footed butterflies, or not as hairy as in Skippers. The compound eyes are pale yellow, faint bluish or greyish, spotted black. Thorax is of medium size and the abdomen is usually long and narrow, except in fast fliers such as the Great Orange Tip and Emigrants, which have a robust thorax and a relatively short abdomen. The males usually have distinct secondary sexual characters, such as hair pencils and brands on the wings, which are easily visible if the specimen is in one’s hand. The males are brighter and their markings narrower. The females are dull, heavily marked and usually larger in size.

There are 109 species recorded in India which include 35 species from Peninsular India (Kunt, 2007; Kehimkar 2008). From North Maharashtra 18 species are recorded which belong to two subfamilies as follows:
Subfamily Pierinae: it comprises the ‘Whites’. Most members are predominantly white but many are yellow as well. The Psyche, Jezebel, Gulls, Pioneer, Albatrosses, Cabbage white, Orange Tips, Arabs and Wanderers. Twelve species are recorded from study area.

Subfamily Coliadinae: The ‘Yellows’ contribute to this subfamily. They include Emigrants, Grass yellows. Six species are recorded from study area.

4.2.1 Common Emigrant (Plate No.2:9)

Scientific name: Catopsilia pomona Fabricius

Material Examined: 17 Males and 15 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 55-80 mm

Wing Maculation: Pale yellow tinge with or without cell end black spot.

Description: The colour of its wings ranges from white with only basal areas of the wings yellow of varying shades, to completely plain lemon yellow. In forested regions, especially in the summer, the individuals are much larger and brighter sulphur-yellow with brown blotches.

Habits: It flies in a powerful manner with erratic ups and downs and unpredictable jerks. It disperse efficiently to new areas and in places where annual fires are common, this is one of the first butterflies to frequent the burnt areas. It wanders in search of flowers mostly Lantana which is very common in this region.

Habitat: Common in all habitats except at very high altitude. It avoids very hot and dry areas.

Season: Common throughout the year but abundant in monsoon and post-monsoon months progressively becoming less common in winter and early summer.

Host plants: Cassia fistula, C. siamea, C.tora.
4.2.2 Mottled Emigrant (Plate No.2:8)

**Scientific name:** *Catopsilia pyranthe* Linnaeus

**Material Examined:** 12 Males and 16 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 55-70 mm

**Wing Maculation:** The upper side is dull white and the underside is finely striated with light brown or dark gray.

**Description:** The male has a narrow black border at the apex of its wings as well as a small cell-end spot and its underside is tinged with faint green. The female has a broader black border and larger cell-end spot, its underside is tinged with yellow.

**Habits:** Very active butterfly which rarely rests during its activity period. It is most active during morning and early afternoon. It flies close to the ground. While resting the wings are closed over the back but the forewings are not drawn between the hind wings. This posture is maintained while basking also, but it usually leans on one side, so that the wing surface is perpendicular to the Sun’s rays.

**Habitat:** Common in semi-arid and arid areas with little woody vegetation.

**Season:** Common throughout the year but abundant during pre-monsoon and post-monsoon months progressively becoming less common in winter and early summer.

**Host plants:** *Cassia fistula, C. siamea, C. tora.*

4.2.3 Common Grass Yellow (Plate No.2:1)

**Scientific name:** *Eurema hecabe* Linnaeus

**Material Examined:** 14 Males and 10 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 40-50 mm

**Wing Maculation:** Bright yellow wings with black borders and small, narrow, black markings on underside of wings.
**Description:**

This is a bright yellow butterfly with black border on upper side of its wing. Brown blotches on underside of fore wing in the dry season form, a large spot at each forewing apex. The wet season form is yellow on the underside and brighter yellow with black borders on the upper side.

**Habits:** It has very weak fluttering flight. Its caterpillars feed on legumes. It is most active in the morning and at noon.

**Habitat:** It is the most abundant butterfly found in this region. Mostly occurs in grassy areas also in scrub, savannahs and near human habitations.

**Season:** Common throughout the year but abundant in post-monsoon months.

**Host plants:** Plants of family Mimosaceae, Caesalpiniaceae and Fabaceae

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**4.2.4 Small Grass Yellow (Plate No.2:3)**

**Scientific name:** *Eurema brigitta* Cramer

**Material Examined:** 8 Males and 11 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 30-40 mm

**Wing Maculation:** Bright yellow wings with no distinct markings.

**Description:** This is a bright yellow butterfly with no distinct markings. Dry season form has more dusting and it is paler as compared to wet season form. Wet season forms have broader black areas. Female has broader marginal borders. Male has no brand.

**Habits:** It has very weak fluttering flight. Its caterpillars feed on legumes. It is most active in the morning and at noon.

**Habitat:** It is the most abundant butterfly found in this region. Mostly occurs in grassy areas also in scrub, savannahs and near human habitations.

**Season:** Common throughout the year but abundant in post-monsoon months.

**Host plants:** Plants of family Mimosaceae, Caesalpiniaceae and Fabaceae
4.2.5 Spotless Grass Yellow (Plate No.2:1)

Scientific name: *Eurema latea* Boisduval

Material Examined: 8 Males and 15 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 30-45 mm

Wing Maculation: Upper side of wing is bright yellow in both sexes.

Description: This is a yellow butterfly. It has distinct seasonal dimorphism. In wet season form upper forewing apex and termen broadly black, the inner edge being unevenly rounded and scalloped. It has upper hind wing with narrow terminal black borders and under forewing with a small black spot at end-cell. Female has broader borders and denser black dusting on underside. In the dry season form, the forewings apex pointed, underside is pale yellow with overlaid with light brown scales, with a darker oblique line.

Habits: It has very weak fluttering flight. Its caterpillars feed on legumes. It is most active in the morning and at noon.

Habitat: It is the most abundant butterfly found in this region. Mostly occurs in grassy areas also in scrub, savannahs and near human habitations, prefers forest clearings.

Season: Common throughout the year but abundant in post-monsoon months.

Host plants: Plants of family Mimosaceae, Caesalpiniaceae and Fabaceae

4.2.6 Three Spot Grass Yellow

Scientific name: *Eurema blanda* Boisduval

Material Examined: 2 Males, Nashik District

Wingspan: 40-45 mm

Wing Maculation: This butterfly has three unmistakable black spots in cell always on under forewing.

Description: Dry season form has rusty markings on underside. Upper side is similar to Common Grass Yellow. Male has much less prominent, narrow sex brand near base of under forewing.
Habits: Unlike other species of grass yellows, it flies higher at canopy level, especially females around the food plants. Otherwise flight is weak and close to the ground. Its caterpillars feed on legumes. It is most active in the morning and at noon.

Habitat: It is the most abundant butterfly found in hilly regions this study area. Mostly occurs in grassy areas also in scrub, savannahs and near human habitations, prefers forest clearings.

Season: Common throughout the year but abundant in post-monsoon months.

Host plants: Plants of family Mimosaceae, Caesalpiniaceae and Fabaceae

4.2.7 Common Jezebel (Plate No.2:4 & 5)

Scientific name: Delias eucharis Drury

Material Examined: 7 Males and 9 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 66-83 mm

Wing Maculation: Veins are black, Hind wing is yellow with marginal red spots.

Description: The upper side of wing is white, the underside of the wing is bright yellow with black veins and a marginal series of orange-red spots which are roughly pentagonal in shape. The female is more heavily marked.

Habits: This butterfly prefers to be in the canopy except when feeding on flowers of shrubs. This is unpalatable butterfly due to unpalatable alkaloids in its body tissue. This butterfly is more active during noontime and afternoons. It is often noticed sleeping on the overhanging branches of tall trees.

Habitat: Occurs in all types of habitats.

Season: active throughout the year.

Host plants: Dendrophthoe falcate, Helicanthus elastic, Scurrula parasitica
4.2.8 Psyche (Plate No.2:7)

Scientific name: *Leptosia nina* Fabricius

Material Examined: 6 Males and 4 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 35-50 mm

Wing Maculation: A large black spot on the fore wing. Underside of the wing is striated with light green.

Description: It is bright white butterfly; the Psyche’s forewings have an apex with black borders. The only prominent mark is a big black spot on the fore wing. The underside is also white, but dull, overlaid with pale grey scales and marked with faint green striations. The wings appear papery because they are thin and therefore semi-transparent. It has slow flight.

Habits: Extremely weak, fluttering flight and always close to the ground. Once it settles, the dull underside and greenish striations help to camouflage it. The black spot on the fore wings is its only distinct marking and it is hidden by drawing the fore wings between the hind wings.

Habitat: Shaded places in gardens, secondary scrub derived from deciduous, semi-evergreen and evergreen forests.

Season: It is most common from early monsoon to early winter, occurring in other seasons too.

Host plants: *Capparis rheedii, C. spinosa, C. zeylanica, Cleome viscose, Crateva adansonii.*

4.2.9 Indian Cabbage White (Plate No.20:4)

Scientific name: *Pieris canidia* Linnaeus

Material Examined: 2 Females, Nashik District

Wingspan: 45-60 mm

Wing Maculation: The apex of the forewings on the upper side is black with a few terminal black spots. The hind wings have black marginal spots.

Description: This is predominantly white butterfly. A large black spot present in the outer half of the forewings is visible on both wing surfaces. The underside of
the hind wings is dirty yellow, grey and greenish scales. Dry season forms are more heavily dusted with such scales. The female has an additional black spot on the upper side of the fore wings.

**Habits:** It has slow, fluttering flight and is more active around noon and in the afternoon.

**Habitat:** Cultivated field.

**Season:** Active throughout the year but more common from the late monsoon months through summer.

**Host plants:** Cabbage.

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### 4.2.10 Common Gull (Plate No.2:6)

**Scientific name:** *Cepora nerissa* Fabricius

**Material Examined:** 5 Males and 7 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 30-40 mm

**Wing Maculation:** Both wings has black borders, underside of the wing is yellow, veins are black. Forewings are without hockey stick markings.

**Description:** It is predominantly white on the upper side and yellow on the underside. The wing margins and veins are black. The veins are faint on the upper side but prominent on the underside. The females are more heavily marked than males. The wet season forms are bright yellow and deep black while the dry season forms are dull yellow and faint black.

**Habits:** It flies rapidly but always close to the ground. While basking it holds the wings three-quarters open, but at other times closes them completely. Once it is warm enough, it is very warm butterfly. It flies among the bushes and grass, and occasionally small trees in search of flowers. It is active from a little after sunrise until late afternoon, its activity peaking during the late morning and noon hours.

**Habitat:** Common in savannahs, scrub and dry deciduous forests of the plains and low-lying hills. Also found in degraded forests and occasionally visits gardens. It prefers open, sunny patches.
Season: It is more common between the pre-monsoon months and its numbers decrease gradually towards the end of the monsoon as well as in the dry season.
Host plants: Cadba fruticosa, Capparis decidua, Capparis rheedii, Capparis sepiaria, Capparis zeylanica.

4.2.11 Pioneer (Plate No.3:9)
Scientific name: Anaphaeis aurota Fabricius
Material Examined: 8 Males and 10 Females, Nashik, Jalgaon and Dhule District
Wingspan: 40-55 mm
Wing Maculation: The upper side is white with black apical markings and a distinct ‘hockey stick’ marking at the front margin of the fore wings. The hind wings are unmarked except at the margin. The upper side is bright yellow with marginal markings and black bands along the veins.
Description: The males are brighter yellow as compared to females. The females are usually larger than males. The dry season forms are white on the underside instead of yellow.
Habits: It flies rapidly, usually with fluttering wing beats. The only time one can find this butterfly sitting lazily is when it is basking. It spreads its wings halfway or completely closes them, since there are more black markings on the underside of its wings.
Habitat: This is a dry zone butterfly found in savannahs, scrub and dry deciduous forests.
Season: It is abundant in the pre-monsoon months and common until the end of the monsoon. During winter and summer it may be absent in some areas.
Host plants: Capparis decidua, C. pyrifolia, C. rheedii, C. sepiaria, C. spionosa, C. zeylanica, Cadaba fruticosa.

4.2.12 Common Albatross (Plate No.11:10)
Scientific name: Appias albino Boisduval
Material Examined: 2 Males and 1 Females, Nashik district
**Wingspan:** 60-75 mm

**Wing Maculation:** Wings are unmarked except narrow black tip. Forewings are very narrow.

**Description:** The male is unmistakable because it is completely milky white, sometimes tinged light yellow. It is unmarked except for black apical scales and a narrow border on the upper side of the forewings. There may be marginal black spots on the hind wings. The underside is plain glossy white with only the front margin of the hind wings narrowly yellow. The female is yellow with black wing margins. The apex of the forewing is black and encloses a few small white spots.

**Habits:** Females are rarely seen. The species on the whole is very fast on the wing. Unlike other butterflies, when it is feeding at the flowers it keeps its wings slightly open and steady. Other butterflies usually keep them either closed, spread or fluttering. This butterfly basks with its wings closed over the back. At rest, the forewings are almost completely drawn between the hind wings, leaving only the tips of the forewings exposed.

**Habitat:** It is found in evergreen and semi-evergreen forests, especially in the openings, and at the edges and streambeds.

**Season:** It is more frequent in the post-monsoon months and the summer, but usually very rare in the thick of the monsoon.

**Host plants:** *Drypetes oblongifolia, D. roxburghii, D. venusta.*

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4.2.13 White Orange Tip (Plate No.3:4 & 5)

**Scientific name:** *Ixias marianne* Cramer

**Material Examined:** 4 Males and 6 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 50-55 mm

**Wing Maculation:** It is white on the upper side with broad black borders on the wings and an orange forewing apex. The female has a row of black spots in the orange portion.
Description: The underside is bright yellow with a few rusty brown spots on the hind wings. Marking on both sexes during dry season form is more pronounced on underside, whereas wet season form heavily marked on upper side.

Habits: It flies among bushes and small trees, usually within 3 meters off the ground. It flies rapidly and flutters its wings and the wing-beats are continuous. However its flight is erratic.

Habitat: Occurs in plains and lowlands.

Season: Found throughout the year, however it is more common during monsoon and post-monsoon and considerably rare in the summer.

Host plants: *Capparis decidu, C. divaricata, C. sepiaria, C. grandis*.

4.2.14 Yellow Orange Tip (Plate No. 3:1 & 2)

Scientific name: *Ixias pyrene* Linnaeus

Material Examined: 2 Males and 3 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 50-55 mm

Wing Maculation: It is yellow on the upper side with broad black borders on the wings and an orange forewing apex. The female has a row of black spots in the orange portion.

Description: The underside is bright yellow with a few rusty brown spots on the hind wings.

Habits: It flies among bushes and small trees, usually within 3 meters from the ground. It flies rapidly and flutters its wings and the wing-beats are continuous. However its flight is erratic.

Habitat: Occurs in plains and lowlands.

Season: Found throughout the year, however it is more common during monsoon and post-monsoon and considerably rare in the summer.

Host plants: *Capparis decidu, C. divaricata, C. sepiaria, C. grandis*.
4.2.15 Great Orange Tip

Scientific name: *Hebomoea glaucippe* Linnaeus

**Wingspan:** 80-100 mm

**Wing Maculation:** Both sexes are white on upper side with apical half of upper forewing having large black-edged orange patch.

**Description:** This is the largest butterfly among Indian Pieridae. In white season form upper hind wing is with a few marginal spots which are missing in dry season form. Under forewing is with a white base and mottled red or brown apex. Under hind wing has same mottled pattern. Female is similar but apical patch is slightly smaller, paler, markings darker, and has additional row of prominent discal spots on upper hind wings.

**Habits:** It has a strong swooping flight.

**Habitat:** Occurs in forested and hilly regions with a fairly heavy rainfall. Absent in open plains.

**Season:** Common during and after rain.

**Host plants:** *Capparis spp.*

4.2.16 Crimson Tip (Plate No. 3:6)

Scientific name: *Colotis danae* Fabricius

**Material Examined:** 2 Males and 1 Female, Nashik and Jalgaon District

**Wingspan:** 40-50 mm

**Wing Maculation:** White wings with bright crimson spot on upper forewing.

**Description:** Male upper side is white, with inwardly black bordered, broad, bright crimson tip on upper forewing. Upper hind wing with black band or spots along termen. Female upper side has dark dusting at base of both wings; upper forewing with much reduced and paler crimson area crossed by a line of small black spots. Both sexes have a small black spot at end-cell on upper forewing, and in female traces of black spots below vein 2 on upper forewings are present. In both sexes, under forewing apical area is yellowish, pink- marked along inner border with dark reddish black spots; under hind wing has dark yellowish buff.

**Habits:** It’s flight is strong. Males are seen more often than females.
Habitat: Occurs in plains, open, sunny places.

Season: Common from August to October.

Host plants: *Capparis decidu*, *C. divaricata*, *C. sepiaria*, *C. grandis*.

### 4.2.17 Small Salmon Arab (Plate No.3:3)

**Scientific name:** *Calotis amata* Fabricius

**Material Examined:** 2 Males and 3 Females, Nashik and Jalgaon District

**Wingspan:** 35-50 mm

**Wing Maculation:** Upper forewing with black costal borders touching black spot at end-cell; apical half bears spots of ground colour. Similar spotting is seen on dark outer border on upper hind wing. Upper hind wing with black band of specialized scales on costal margin.

**Description:** Salmon pink on upper side in both the sexes.

**Habits:** This butterfly has a weak, fluttering, but directional flight close to the ground.

**Habitat:** Prefers drier habitat near its food plants.

**Season:** Occurs almost throughout the year.

**Host plants:** *Salvadoraceae* spp.

### 4.2.18 Common Wanderer (Plate No.3:8)

**Scientific name:** *Pareronia valeria* Cramer

**Material Examined:** 2 Males and 3 Females, Nashik and Nandurbar District

**Wingspan:** 65-80 mm

**Wing Maculation:** Sky blue wings with black venation. The male is shiny sky blue with black margins and veins. The female is light bluish-white with broader margins and veins.

**Description:** The markings on the underside are similar to those on the upper side, except that they are grey-brown and not well-defined. In rare form Philomela, female has suffused bright yellow on upper hind wing base.

**Habits:** This butterfly has a wandering flight. The females are mimics of blue tiger, and they fly slowly.
**Habitat:** Found in the areas of moderate to high rain fall.

**Season:** Occurs during and after post-monsoon months.

**Host plants:** *Capparis rheedi, C.zeylanica.*

### 4.3 Family Nymphalidae:

These are also called as Brush-footed Butterflies. Many species are brightly colored. These are usually medium sized to large butterflies. The forelegs of these butterflies have reduced structure, functionless as walking legs. However, they are never fully developed and completely functional as in other butterfly families. They are sometimes covered with long dense scales, forming brush like stub; hence the common family name is Brush-footed butterflies. Many of them hold their colourful wings flat when resting.

![Reduced and functionless forelegs](image1)

Fig. 17. a. Reduced and functionless Forelegs of Danaid Eggfly

![Suspended Pupa of Common Indian Crow](image2)

Fig. 17. b. Suspended Pupa of Common Indian Crow
These are the most diverse in their body forms and habits; hence generalization is very difficult except in case of Pupa. All members of the family shows suspended pupa.

Thirty-four species are recorded from the study area and are classified as follows:

Subfamily – Satyrinae: Eight species are recorded from North Maharashtra.

Subfamily - Heliconiinae: Two species are recorded from North Maharashtra.

Subfamily – Limenitinae: Four species are recorded from North Maharashtra.

Subfamily: Biblidinae: Three species are recorded from North Maharashtra.

Subfamily - Danainae: Six species are recorded from North Maharashtra.

Subfamily - Charaxinae: One species is recorded from North Maharashtra.

Subfamily: Nymphalinae: Ten species are recorded from North Maharashtra.

4.3.1 Common Evening Brown (Plate No.4:1)

Scientific name: *Melanitis leda* Linnaeus

Material Examined: 4 Males and 3 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 60-80 mm

Wing Maculation: The upper side of forewing is dark brown with an eye-spot and a white ‘pupil’ or eye spot on the fore wings surrounded by orange patches. The underside is variable.

Description: This is an inconspicuous brown butterfly. This butterfly rests camouflaged among fallen leaves on the forest floor and hence is marked in such a way that the colour and pattern on the wings merge with the surrounding leaf litter. In the wet season forms, the wings are marked with small eye-spots and black streaks and the ground colour is yellowish brown. The dry season forms are pale brown with a few obscure markings. The apex of the fore wing is produced and angular only in the dry season forms. The sexes are similar in appearance.

Habits: This butterfly is exception for diurnal habitat of butterflies. At the time of sunset it comes out of its hiding place and flies about in an unsteady manner.
Being crepuscular, it is often attracted to electrical lights. Fallen and rotting fruits attract this butterfly. It keeps close to the ground and never flies high up. During the day it keeps motionless in the shaded undergrowth, among root complexes along cool forest streams or on leafy ground. When an unknowing predator approaches it, it rushes out and darts a few meters away, vanishing into the denser undergrowth. This leaves the intruder confused. Immediately after landing, it may open its wings and turn around a few times to display eye-spots on the fore wings, but then rests motionless.

**Habitat:** This butterfly is omnipresent and has a wide habitat choice. It is very common in shaded, neglected urban gardens.

**Season:** Common throughout the year. It is abundant in post monsoon months.

**Host plants:** Caterpillars feeds on various types of grasses such as, *Apluda spp.*, *Cyrtococcum spp.*, *Eleusine spp.*, *Oplismenus composites*, *Oryza sativa*, *Panicum spp.*, *Sorghum spp.*, *Zea mays*.

### 4.3.2 Dark Evening Brown (Plate No. 4:2)

**Scientific name:** *Melanitis phedima* Stoll

**Material Examined:** 3 Males and 2 Females, Nashik and Dhule District

**Wingspan:** 60-80 mm

**Wing Maculation:** The upper side of forewing is dark brown with an eye-spot and a white ‘pupil’ or eye spot on the fore wings. Orange patches around eye-spot are absent. The underside is variable. both wings have grey border on upper side.

**Description:** This species is similar to Common Evening Brown in appearance but differs in being much darker. It is relatively rare. It has the eye-spots on its fore wings ending in a sharp point.

**Habits:** This butterfly is exception for diurnal habitat of butterflies. At the time of sunset it comes out of its hiding place and flies about in an unsteady manner. Being crepuscular, it is often attracted to electrical lights. Fallen and rotting fruits attract this butterfly. It keeps close to the ground and never flies high up. During the day it keeps motionless in the shaded undergrowth, among root complexes.
along cool forest streams or on leafy ground. When an unknowing predator approaches it, it rushes out and darts a few meters away, vanishing into the denser undergrowth. This leaves the intruder confused. Immediately after landing, it may open its wings and turn around a few times to display eye-spots on the fore wings, but then rests motionless. Unlike Common Evening Brown it is not attracted to light

**Habitat:** This butterfly is omnipresent and has a wide habitat choice. It is very common in shaded, neglected urban gardens. Usually confined to areas where bamboo is dense.

**Season:** Common throughout the year. It is abundant in post monsoon months.

**Host plants:** Caterpillars feeds on various types of grasses such as, *Apluda spp.*, *Cyrtococcum spp.*, *Eleusine spp.*, *Oplismenus composites*, *Oryza sativa*, *Panicum spp.*, *Sorghum spp.*, *Zea mays*.

### 4.3.3 Tree Brown (Plate No. 4:3)

**Scientific name:** *Lethe europa* Fabricius

**Material Examined:** 1 Male, Nashik District

**Wingspan:** 65-70 mm

**Wing Maculation:** Adult is blackish brown with prominent whitish bars and series of eyespots on underside. Underside has a basal, slender bluish white line across both wings with a post discal series of black eyespots, which curves inwards on under forewing and outwards on under hind wings. On under forewings, eyespots bordered silvery purple. Hind wing toothed at vein 4.

**Description:** Male under forewing has a pale yellowish white oblique discal band. Female has a more whitish, continuous band on both sides of fore wings.

**Habits:** This butterfly usually keeps close to the ground, but at times may fly straight up among the tree tops. It flies in bamboo forest and prefers over-ripe fallen fruit, fresh cow dung.

**Habitat:** Usually confined to areas where bamboo is dense.

**Season:** Often seen during and immediately after rain.

**Host plants:** *Bambusa spp.*
4.3.4 Common Bushbrown (Plate No.4:4)

Scientific name: *Mycalesis perseus* Fabricius

Material Examined: 2 Males and 3 Females, Nashik and Dhule District

Wingspan: 38-55 mm

Wing Maculation: There is an eye-spot on the upper side of the each forewing at the outer margin. The underside varies with the seasonal forms. The wet season form has a white line running from the leading margin of the fore wing to the tornus of the hind wing. A series of eye-spots which are black with white centers is enclosed in the area between this line and the wing margin. The central spot in this series stands out towards the wing margin, but it may be represented as a pale brown or thin white line. The black eye-spots are reduced to mere indistinct dots.

Description: This is a medium sized, brown, inconspicuous butterfly. The female and male look identical in colouration and markings, but the male has small, black, hairy brands in the region of overlap between the hind and fore wings.

Habits: It flies in an unstable manner and always keep close to the ground. It has crepuscular nature. Unlike the Evening-browns it is usually not attracted towards the electrical lights. While basking it spreads its wings flat to the substratum, so that the eye-spots on the fore wings are prominently visible.

Habitat: It is widely distributed butterfly that ranges from common to very common wherever it occurs. It inhabits deciduous, semi-evergreen and evergreen forests, but is commonest in Bamboo forests. It is also frequent in open areas, such as scrub and savannahs, if shade is available.

Season: It is abundant more or less throughout the year, but more common during monsoon months.

Host plants: Caterpillars feeds on grasses generally, e.g. Oryza spp.
4.3.5 Common Five-Ring (Plate No.4:5)

**Scientific name:** *Ypthima baldus* Fabricius  
**Material Examined:** 5 Males and 3 Females, Nashik and Jalgaon District  
**Wingspan:** 30-50 mm  
**Wing Maculation:** On the fore wing is a large eye-spot enclosed in a golden-yellow ring. A ‘U’ shaped dark marking encloses this eye-spot. These markings are present in both the wet and dry season forms. On the underside of the hind wing 6 eye-spots, in three pairs are present. These eye-spots in the dry season forms are represented by dots. A large eye-spot on the upper side of each forewing is distinct when the butterfly is basking.  
**Description:** The underside is paler, whitish or faint brown, with brown streaks. Sexes look similar, except for prominent brand in male.  
**Habits:** In the morning it basks with its wings spread out halfway, revealing the large eye-spots on the fore wings. It is a modest flier and does not go far without halting a few times and always keep close to the ground.  
**Habitat:** This butterfly is common in dry and moist deciduous forests and on forests paths. It avoids dense vegetation in all habitats.  
**Season:** It is active throughout the year, although in drier areas it may be rare in the summer, otherwise in the monsoon the wet season form and in the winter and summer the dry season forms are very common.  
**Host plants:** Caterpillars feeds on grasses generally.

4.3.6 Common Four-Ring

**Scientific name:** *Ypthima hiiebneri* Kirby  
**Material Examined:** 1 Male and 2 Females, Nashik and Dhule District  
**Wingspan:** 30-40 mm  
**Wing Maculation:** Under forewing with a large yellow-ringed eyespot near apex and indistinct dull brown brands. Under hind wing have four yellow ringed eyespots near apex. Upper hind wing has two or three un-pupilled eyespots near margin or none at all.
**Description:** The underside of this butterfly is grayish white. Upper hind wing tornal half is not white. Dry season form has eyespot on under hind wing.

**Habits:** In the morning it basks with its wings spread out halfway, revealing the large eye-spots on the fore wings. It is a modest flier and does not go far without halting a few times and always keep close to the ground.

**Habitat:** This butterfly prefers forested hills as well as open hilly country tip.

**Season:** It is active throughout the year, although in drier areas it may be rare in the summer, otherwise in the monsoon the wet season form and in the winter and summer the dry season forms are very common.

**Host plants:** Caterpillars feeds generally on grasses.

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4.3.7 Common Three-Ring (Plate No.4:6)

**Scientific name:** Ypthima asterope Klug

**Material Examined:** 1 Male and 1 Female, Nashik and Dhule District

**Wingspan:** 30-50 mm

**Wing Maculation:** Underside of forewing has discal and marginal bands which meets forming pale patch bellow eyespot. The eyespot is surrounded by ring of white scales. Under side of hind wing have two small eyespots near tornal region with one more indistinct eyespot in apical region. Upper forewing has a large eyespot with two pupils ringed with yellow.

**Description:** It is small brown butterfly. The underside of this butterfly is grayish white. Males are without brands. Sexes look similar.

**Habits:** In the morning it basks with its wings spread out halfway, revealing the large eye-spots on the fore wings. It is a modest flier and does not go far without halting a few times and always keep close to the ground.

**Habitat:** This butterfly is common in drier and more open areas as compared to Common Five Ring.

**Season:** It is active throughout the year, although in drier areas it may be rare in the summer, otherwise in the monsoon the wet season form and in the winter and summer the dry season forms are very common.

**Host plants:** A caterpillar feeds generally on grasses.
4.3.8 Common Palmfly (Plate No.7:7)

**Scientific name:** Elymnias hypermnestra Linnaeus

**Material Examined:** 2 Males, Nashik District

**Wingspan:** 60-80 mm

**Wing Maculation:** Male upper side is blackish brown with purple gloss. Broad diffuse chestnut border on upper hind wing and marginal series of blue spots on upper forewing are present. Female upper side is reddish brown with dark brown apex and borders, spotted with white. Broad white apical band on upper forewings is present. Maroon underside is heavily marked with white streaks.

**Description:** Female mimics Striped Tiger but with a broader black border and black stripes on upper side of both wings. Hind wing toothed in both the sexes.

**Habits:** The flight of this butterfly is weak, settles with wings closed. Often comes to over-ripe fruits and animal urine.

**Habitat:** This butterfly is common in shaded forest and forest edges.

**Season:** It is active throughout the year, although in drier areas it may be rare in the summer, otherwise in the monsoon the wet season form and in the winter and summer the dry season forms are very common.

**Host plants:** Areca catechue.

4.3.9 Tawny Coster (Plate No.13:6)

**Scientific name:** Acraea violae Fabricius

**Material Examined:** 7 Males and 5 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 50-65 mm

**Wing Maculation:** Both the pairs of wings are tawny-red with a black border, which is broader on the hind wings and encloses a series of white spots. black spots on cell and disc of both wings are present.

**Description:** This butterfly has a lazy flight, distinctive wing shape and bright tawny-red colouration. The fore wings are long but broad and rounded at the
apex. The hind wings are round. The thorax is small; the abdomen is long and narrow. The sexes look similar.

**Habits:** Its flight is slow but long-sustained. This is unpalatable species. This butterfly has a tough skin and is hard to kill. This helps it to survive a few pecking attempts by a bird, or powerful bites of a lizard. Once left alone the, ‘dead’ butterfly takes off immediately. It flies close to the ground. It basks with its wings closed or spread flat and usually sits within a meter from the ground while doing so.

**Habitat:** It occurs wherever its larval host plant, *Passiflora spp.*, the passionflower grow. This butterfly avoids shade and dense vegetation but frequents openings in all vegetation types.

**Season:** Occurs throughout the year.

**Host plants:** *Passiflora edulis, P. foetida, P. subpeltata.*

### 4.3.10 Common Leopard (Plate No.4:7)

**Scientific name:** *Phalanta phalantha* Drury

**Material Examined:** 3 Males and 2 Females, Nashik and Jalgaon District

**Wingspan:** 50-60 mm

**Wing Maculation:** Upper side of wing is tawny with rows of small black spots and wavy lines. Four dark lines are present on cell of upper forewing. Underside is pale brownish with indistinct markings. Underside of forewing has black spot between veins 1a and 1b.

**Description:** This is a bright tawny butterfly marked with black spots. The underside is pale but glossy and fresh Male and Female have bluish or purple sheen. The two sexes look similar. The dry season form has a more prominent purple gloss on the underside.

**Habits:** This butterfly avoids shaded places and is most active in the hot noon sun. It flies with moderate speed but rapid wing beats and settles often on branches of small trees and shrubs, usually avoiding flying high at the level of tall trees. It has a habit of flapping its wings very slowly for some time after it settles. It basks with its wings spread flat or half-open. During the chase it is
extremely quick on the wing. This behavior is probably related to its ‘perching’
mate-locating strategy.

**Habitat:** It is common in scrub and dry deciduous forests, but also inhabits
moist deciduous forests edges.

**Season:** It is found throughout the year but its abundance peaks during the pre-
monsoon and early monsoon.

**Host plants:** Flacourtia spp., Xylosma longifolium, Smilax spp.

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4.3.11 Common Sailer (Plate No.5:1)

**Scientific name:** Neptis hylas Moore

**Material Examined:** 2 Males and 1 Female, Nashik and Dhule District

**Wingspan:** 50-60 mm

**Wing Maculation:** Upper side of wing is black with white markings. Upper
forewing have very short costal streak in discal band. Discal spots in spaces 2
and 3 of upper forewing are not in line with spot in space 5. Under side of wing
is chestnut and central white band is outwardly edged in black.

**Description:** The body is metallic green with a brown sheen. The wings are
narrow. The male and female have similar markings.

**Habits:** This butterfly is the master of graceful flight. It flies with the wings
spread flat and glides without much efforts. It is quick flier and a superb dodger
and therefore not so easy to net.

**Habitat:** Common in wooded and hilly regions. It ventures into scrub, human
habitations and in garden also.

**Season:** Active throughout the year but relatively less common during summer.

**Host plants:** Bombax ceiba, Canavalia gladiate, Corchorus spp.

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4.3.12 Common Sergeant (Plate No.5:2)

**Scientific name:** Athyma perius Linnaeus

**Material Examined:** 2 Males, Nashik and Nandurbar District

**Wingspan:** 60-70 mm
**Wing Maculation:** On the yellow under side of the hind wing row of black spots towards inner edge of the white postdiscal band is present. On upper side of forewing white cell streak is divided into four parts.

**Description:** The markings of Common Sergeant are similar to those of the Common Sailer, but has a short cell-streak followed by three white spots, instead of Sailer’s long streak and a single spot. The cell of the fore wing is almost entirely white, with a triangular white mark in front of it. The underside is chestnut and the central white band is outwardly edged in black. The wings are narrow. The body is metallic green with a brown sheen. The male and female have similar markings.

**Habits:** This butterfly shows typical sailing; otherwise it has a powerful flight, but close to the ground.

**Habitat:** Forest edges.

**Season:** On the wing from February to December.

**Host plants:** Euphorbiaceae spp.

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**4.3.13 Common Baron (Plate No. 5:3)**

**Scientific name:** *Euthalia aconthea* Cramer

**Material Examined:** 4 Males and 3 Females, Nashik and Nandurbar District

**Wingspan:** 55-80 mm

**Wing Maculation:** Both the males and females have black dots on their hind wings. The wings have a deep olive-green sheen and therefore appear olive-green rather than brown. The underside is white with sparse black markings. The male Common Baron is dark brown with a row of very small white spots beyond the cell at bases of spaces 2 to 6 on the fore wing. The female is pale brown with a prominent white band on the fore wings.

**Description:** The thorax is much more robust compared to the abdomen. The proboscis is green but in newly-emerged individuals it is yellowish. The female is much larger than males.

**Habits:** The Common Baron is characterized by a very strong and broad thorax that hints their powerful flight. This, coupled with the pointed forewings and
rounded hind wings, gives them a majestic appearance. This butterfly always rests with its wings spread flat and in a slanting position; the margins of the hind wings touching ground and the forelegs raised, lifting the body. Mostly prefers to rest on a ground.

**Habitat:** Common around human habitations as its caterpillars feeds on leaves on mango tree.

**Season:** It is more active during winter and early summer, becoming rare before and after this period.

**Host plants:** *Mangifera indica, Anacardium occidentale.*

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**4.3.14 Baronet (Plate No. 4:8)**

**Scientific name:** *Euthalia nais* Forster

**Material Examined:** 1 Male and 3 Females, Nashik and Jalgaon District

**Wingspan:** - 60-70 mm

**Wing Maculation:** Upper side of this butterfly is tawny orange with black termen on both wings and narrow black outer discal line broken into small spots on upper hind wing. Upper forewing has black band beyond cell, black bar at end-cell. Upper hind wing has large black spot at mid-costal.

**Description:** This is medium size, tawny-orange butterfly.

**Habits:** This butterfly has a low flight, close to the ground. Often settles with a wing flatly outspread.

**Habitat:** This butterfly prefers drier forested areas and open country. It is also seen along roads and forest clearings. It is fond of sunshine. It gets attracted towards tree sap, over-ripe fruits and damp patches.

**Season:** It is on the wing from February to December.

**Host plants:** *Shorea robusta.*
4.3.15 Angled Castor (Plate No. 12:5)

Scientific name: Ariadne ariadne Linnaeus

Material Examined: 10 Males and 7 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 45-60 mm

Wing Maculation: This butterfly has sparse, wavy, dark brown lines on its wings. Towards the apex of the forewing a conspicuous white spot is present. The underside is similar but darker with purplish brown markings.

Description: It is dark ochre butterfly. The margins of its wings are wavy and its fore wing is angled at the apex. The female is slightly paler.

Habits: The angled Castor is a weak flier and flies close to the ground. It flies jerkily with intermittent spells of sailing and halts with every now and then to rest. It perches on suitable branches not much above the ground, with its wings spread flat, occasionally moving them slowly. It is a pugnacious butterfly, which clumsily chase away other butterflies that happen to come close.

Habitat: Common in scrub, secondary deciduous forest, in disturbed vegetations and around human habitations.

Season: Active throughout the year.

Host plants: Ricinus communis, Tragia involucrate, Tragia plukenetii

4.3.16 Common Castor (Plate No.5:4 & 5)

Scientific name: Ariadne metione Cramer

Material Examined: 4 Males and 6 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 45-60 mm

Wing Maculation: Brown wings with sparse, wavy black lines. The white dot is present on the front margin of the fore wings. differs from Angled castor in having discal line beyond cell double and wavy on upper side of wings.

Description: It is rusty brown butterfly. The margins of the hind wings may or may not be wavy. The underside of the wing is much darker, but of the same colour.
Habits: The angled Castor is a weak flier and flies close to the ground. It flies jerkily with intermittent spells of sailing and halts with every now and then to rest. It perches on suitable branches not much above the ground, with its wings spread flat, occasionally moving them slowly. It is a pugnacious butterfly, which clumsily chase away other butterflies that happen to come close.

Habitat: Common in the vicinity of Castor plants.

Season: Active throughout the year.

Host plants: *Ricinus communis, Tragia involucrate, Tragia plukenetii*

4.3.17 Joker (Plate No5:6)

Scientific name: *Byblia ilithyia* Drury

Material Examined: 3 Males and 2 Females, Nashik, Jalgaon and Dhule District

Wingspan: - 45-55 mm

Wing Maculation: It has black outer discal band broken at vein 5 on upper forewing, black termen and under hind wing with white basal and central band.

Description: This butterfly is bright tawny with narrow black markings in male, dark brown in females.

Habits: This butterfly has a weak flight, sailing often fluttering, close to the ground among the stems and branches of bushes where the food plants grow. It perches with forewings drawn back into hind wings.

Habitat: This butterfly prefers dry, open, grassy plains.

Season: Occurs throughout the year.

Host plants: *Tragia spp.*

4.3.18 Black Rajah (Plate No. 6:3)

Scientific name: *Charaxes solon* Fabricius

Material Examined: 1 Female, Nashik District

Wingspan: - 70-80 mm

Wing Maculation: Upper side is black to dark brown with a row of closely spaced yellowish green discal spots on both wings. The row is broken into
separate spots towards apex of upper forewing. Upper hind wing has a series of sub-marginal small spots. Underside is silvery grey with narrow wavy black lines, with sub-marginal yellowish green spot and crescents on under hind wings. Under forewings have faint sub-marginal spots.

**Description:** This is grayish black butterfly. Tails at veins 2 and 4 on hind wing are equal, but comparatively longer in females, and sharper in males.

**Habits:** This butterfly is strong, active flier, comes to over-ripe fruits, bird droppings and tree sap.

**Habitat:** Fly in open as well as in forests on plains and hills before and after rain.

**Season:** Seen before and after rains.

**Host plants:** *Bauhinia recemosa.*

### 4.3.19 Lemon Pansy (Plate No. 6:6)

**Scientific name:** *Junonia lemonias* Linnaeus

**Material Examined:** 11 Males and 8 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 45-60 mm

**Wing Maculation:** This is a brown butterfly with numerous eye-spots as well as black and lemon yellow spots and lines on the fore wings and hind wings. Upper side forewing eye-spot in space 2 and upper side hind wing eye-spot in space 5 are most prominent.

**Description:** In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale, thus aiding the butterfly in camouflage among dried leaf-litter. The two sexes look similar.

**Habits:** A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.

**Habitat:** Common in gardens, fallow lands and open wooded areas.
**Season:** Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

**Host plants:** Barleria spp., Cannabis sativa, Corchorus capsularis, Hygrophila auriculata.

4.3.20 Peacock Pansy (Plate No.6:7)

**Scientific name:** Junonia almana Linnaeus

**Material Examined:** 4 Males and 3 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 45-60 mm

**Wing Maculation:** This is bright and tawny butterfly. Upper side of wings is tawny orange with large eye-spots on the wings. Eyespot on hind wing is prominent larger than two small eye-spots on forewings. Three narrow black lines are present along the border on upper side of both the wings.

**Description:** In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale. Sexes look similar. The dry season forms are marvelous mimics of dries leaves.

**Habits:** A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.

**Habitat:** Common in gardens, fallow as well as cultivated lands and open wooded areas.

**Season:** Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

**Host plants:** Barleria spp., Cannabis sativa, Corchorus capsularis, Hygrophila auriculata.

4.3.21 Grey Pansy (Plate No.6:8)

**Scientific name:** Junonia alites Linnaeus

**Material Examined:** 2 Males and 3 Females, Nashik and Dhule District
Wingspan: 45-60 mm

Wing Maculation: This is creamish-grey butterfly with brown lines and a row of black spots near the wing margin of both the wings.

Description: In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale. Sexes look similar.

Habits: A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.

Habitat: Common in gardens, near water bodies.

Season: Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

Host plants: Barleria spp., Cannabis sativa, Corchorus capsularis, Hygrophila auriculata.

4.3.22 Blue Pansy (Plate No.6:9)

Scientific name: Junonia orithya Linnaeus

Material Examined: 4 Males and 2 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 45-60 mm

Wing Maculation: Its hind wings are brilliant blue with inner velvety black area. The fore wings are brown and black with two distinct white bands. Eye-spots are present on space 2 and 5 on both wings.

Description: In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale. Sexes look similar.

Habits: A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.
**Habitat:** Common in dry, fallow lands and open areas.

**Season:** Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

**Host plants:** *Barleria spp.*, *Cannabis sativa*, *Corchorus capsularis*, *Hygrophila auriculata*.

### 4.3.23 Yellow Pansy (Plate No. 7:1)

**Scientific name:** *Junonia hierta* Fabricius

**Material Examined:** 4 Males and 2 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 45-60 mm

**Wing Maculation:** This is predominantly yellow butterfly. Its fore wing apex is black with yellow spots. The hind wings have a large blue spots. Costa and termen have narrow black margin on both wings. In male prominent oval shining blue patch is present on upper hind wing. Female is duller yellow with two small discal eye-spot in space 2 and 5 on upper hind wing.

**Description:** In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale. Sexes look similar.

**Habits:** A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.

**Habitat:** It is found in dry areas and stony-stream beds in deciduous forests.

**Season:** Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

**Host plants:** *Barleria spp.*, *Cannabis sativa*, *Corchorus capsularis*, *Hygrophila auriculata*.

### 4.3.24 Chocolate Pansy (Plate No. 7:2)

**Scientific name:** *Precis iphita* Cramer

**Material Examined:** 2 Males and 1 Female, Nashik and Jalgaon District
Wingspan: 45-60 mm

Wing Maculation: This is a chocolate brown butterfly with darker markings. Upper side hind wing with row of small eye-spots. Forewing apex and hind wing tornus are slightly produced.

Description: In the dry season the markings are reduced and in the wet season they are more prominent and larger. The colouration on the underside of the wings is also variable. In the wet season they are obscure and pale. Sexes look similar. The dry season forms are spectacular mimics of dry leaves.

Habits: A very active butterfly. It rests with its wings spread flat and facing the sun. However, every now and then it changes its position or place. It always flies close to the ground.

Habitat: Common in gardens, fallow lands and open wooded areas.

Season: Found throughout the year. It is more numerous during the monsoon and post-monsoon months.

Host plants: Barleria spp., Cannabis sativa, Corchorus capsularis, Hygrophila auriculata.

4.3.25 Blue Oakleaf (Plate No. 6:4)

Scientific name: Kallima horsfieldi Kollar

Material Examined: 1 Male, Nashik District

Wingspan: - 85-110 mm

Wing Maculation: Upper side of this butterfly is indigo blue to dark greenish, with oblique discal band and apex broadly black. Upper forewing’s darker basal area extends beyond end-cell. On upper forewing, one dark bar defining end-cell, another in space 4 and third from veins 2 to 4 are present.

Description: Underside of wing is leaf like. Forewing apex and hind wing tornus narrowly produced to resemble the tip and stem of a leaf. Underside markings of the wings are highly variable. This butterfly is an excellent example of protective resemblance. Dry season forms are more marked.

Habits: It has rapid but erratic flight. This butterfly is fond of tree sap and overripe fruits. It settles with closed wings upside down to look like a dry leaf.
Habitat: Prefers evergreen, mixed deciduous and moist deciduous forest with good rainfall.

Season: Mostly seen in post-monsoon period.

Host plants: Carvia callos, Eranthemum malabaricum.

4.3.26 Painted Lady (Plate No.6:5)

Scientific name: Cynthia cardui Linnaeus

Material Examined: 2 Males and 4 Females, Nashik and Jalgaon District

Wingspan: 55-70 mm

Wing Maculation: its narrow forewings and long, straight antennae give it an elegant appearance. The upper side of the wings is pinkish-red marked with black spots. The underside is disruptively marked with grey, black, white, and a few red spots and lines.

Description: The Painted Lady is an elegant butterfly. Although it is widely distributed and found in many habitats, the individuals do not differ in either colouration or markings, but they do vary considerably in size. The sexes look similar.

Habits: In spite of its bright colours it is difficult to follow, even visually, owing to its swift flight and rapid wing beats. Mostly flies close to the ground.

Habitat: Common on hills, grass lands.

Season: Abundant during monsoon and post-monsoon periods, absent during dry season.

Host plants: Zornia gibbosa.

4.3.27 Danaid Eggfly (Plate No. 7:3 & 4)

Scientific name: Hypolimnas misippus Linnaeus

Material Examined: 7 Males and 6 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 70-85 mm

Wing Maculation: Female is tawny with the apex of the fore wing coloured black and with a white band. The borders of the hind wings are black with a
series of white spots. The underside is similar but paler. The male is jet-black above, which is thrown into contrast by two glistening white oval spots, a large spot on the hind wing and the small one on the fore wing. Near the tip of the fore wing is another smaller white spot. The underside is light rusty brown with a golden-yellow tinge. A broad white band on the hind wing and a narrow one on the fore wings are distinct

**Description:** This is the superb example of sexual dimorphism. The female is an excellent mimic of the Plain Tiger.

**Habits:** Since the female is mimicking unpalatable species, the Eggfly male and female behave differently. The female mimics the Plain Tiger in appearance and behavior. It does not fly high or fast, but flies steadily and untiringly, just like its model. It rarely basks, never with wings open. The male shows high site-fidelity. It can be seen at one spot for days. It rests on the ground or on a low bush, spreads the wings pressed to the substratum and moves them occasionally in an uneasy but slow and controlled manner.

**Habitat:** Common in lightly wooded area, scrub, and near human habitations.

**Season:** Found throughout the year.

**Host plants:** *Portulaca oleracea, Asystacia lawiana, Abelmoschus spp., Abutilon spp.*, *Barleria cristata, Hibiscus spp.*

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**4.3.28 Great Eggfly (Plate No.7:5 & 6)**

**Scientific name:** Hypolimnas bolina Linnaeus

**Material Examined:** 4 Males and 5 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 70-110 mm

**Wing Maculation:** It has a blue sheen on the upper forewings. Upper side of wings in male is black with white centered; shining blue oval spot on each wing and row of white spots along margin from apex to tornus is present. Female upper side wing is dark brown with outer discal row of small white spots on both wings.
Description: It has broad wings and usually larger than Common Indian Crow in size. Its female is Batesian mimic of Common Indian Crow. It has notched white markings in place of the round spots of the common Indian Crow. The upper side of the male Great Eggfly and Danaid Eggfly are similar. It may form confusion in some old specimen.

Habits: Males are territorial and pugnacious. This butterfly is fond of flow

Habitat: Wet forest areas, plains and gardens.

Season: Occurs throughout the year but more common just after rain.

Host plants: *Hibiscus spp.*, *Sida rombifolia*.

### 4.3.29 Blue Tiger (Plate No. 5:7)

**Scientific name:** *Tirumala limniace* Cramer

**Material Examined:** 10 Males and 7 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 90-100 mm

**Wing Maculation:** Wings are marked with pale blue streaks and spots against blue-black or brown background. Pale or white cell on underside of hind wing is present along with narrowly forked streak in the middle.

**Description:** A large butterfly with broad wings, the ground colour is dark brown or black, paler in older specimen and marked with numerous blue streaks and spots. The pattern of markings is important in distinguishing this species from other Tigers and its mimics. The male are smaller than females. Male has hair pencil which contains scent scales.

**Habits:** This is slow flying butterfly. The flight is fluttering with intermittent spells of sailing. While feeding the wings are closed over the back.

**Habitat:** Appear in almost all habitats, but avoids very dense forests and arid areas.

**Season:** It is very common during monsoon and post-monsoon months, rare in winter and summer.

**Host plants:** *Wattakaka volubilis*, *Aselepias curassavica*, *Calotropis gigantean*, *Tylophora indica*.

88
4.3.30 Dark Blue Tiger

**Scientific name:** *Tirumala septentrionis* Butler  
**Material Examined:** 3 Males and 2 Females, Nashik, Jalgaon, Nandurbar and Dhule District  
**Wingspan:** 75-95 mm  
**Wing Maculation:** Upper side of wing is overall black with pale blue markings. Hind wing has a long Y-shaped marking in the cell formed by two streaks jointed at the base. Underside is darker than Blue Tigers and does not have the golden brown tinge. Male under hind wing has pouch with scent scales.  
**Description:** The Dark Blue Tiger has darker and narrower markings. The male are smaller than females. Male has hair pencil which contains scent scales.  
**Habits:** This is slow flying butterfly. Congregations of these butterflies are often seen on moist patches during summer. It is fond of flowers.  
**Habitat:** Found in dense and moist woodlands and open country in hilly regions.  
**Season:** On the wing throughout the year.  
**Host plants:** *Wattakaka volubilis, Cosmostigma recemosa.*

4.3.31 Glassy Tiger (Plate No.6:2)

**Scientific name:** *Parantica aglea* Stoll  
**Material Examined:** 17 Males and 13 Females, Nashik, Jalgaon, Nandurbar and Dhule District  
**Wingspan:** 70-85 mm  
**Wing Maculation:** The Glassy Tiger has more whitish markings that are composed of broader bands and streaks. Both sexes have bluish white transparent markings on dark brown background on upper side. Transparent markings are more extensive than in Blue Tiger. Two fine dark lines divide the pale streak in forewing cell. Underside is paler. Male with patches of scent scales on upper hind wings and black scent scales on under hind wings.  
**Description:** This butterfly is mimicked by female of Common wanderer.  
**Habits:** This butterfly has slow, weak flight close to the ground along shady paths.
Habitat: Open, partially cultivated areas with heavy rainfall.
Season: On the wing throughout the year.
Host plants: *Calotropis gigantea, Ceropedia spp.*

**4.3.32 Plain Tiger (Plate No.5:8)**

**Scientific name:** *Danaus chrysippus* Linnaeus

**Material Examined:** 16 Males and 18 Females, Nashik, Jalgaon, Nandurbar and Dhule District

**Wingspan:** 70-80 mm

**Wing Maculation:** The hind wing has three small, black spots approximately at the centre. The male has an additional larger and slightly bulging white-centered spot. This spot is cluster of scent —scales that attract females. The hind wing has a thin, black border that encloses a series of semicircular white spots.

**Description:** This is tawny, medium-sized butterfly. The body is black, spotted with white. The apical half of the forewing is black and marked with a pure white band. The butterfly is somewhat oily and smooth in touch. The male is smaller than females.

**Habits:** This is unpalatable butterfly due to alkaloids it ingests during its larval stage. Its bright colour advertises its unpalatability. It has tough and leathery skin. It flies straight and close to the ground with few vertical deviations. While basking, it rests close to the ground, on small bushes and spreads its wings with its back towards the sun, so that the wings are completely exposed to the Sun’s rays.

**Habitat:** Scrub, savannahs, neglected corners, gardens, near human habitation.

**Season:** It is common throughout the year.

**Host plants:** *Calotropis gigantea*
4.3.33 Striped Tiger (Plate No.5:9)

Scientific name: Danaus genutia Cramer

Material Examined: 4 Males and 6 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 72-100 mm

Wing Maculation: The wings are tawny with broad and black veins, giving it a striped appearance. The margins of the wings are black with two series of white spots. The underside is similar in colour and pattern, but paler, as compared to the upper side. The male has a black-and-white spot on the underside of the hind wing.

Description: This butterfly is mimicked by female of Common palmfly.

Habits: It is a strong flier, but never flies fast or very high. The wing beats are regular and fairly rapid as compared to the Plain Tiger. The wings may be kept open or closed while feeding from flowers. While basking or resting it perches very low on the herbs, with its wings either open or closed over the back, but the forewings are not drawn between the hind wings.

Habitat: Common in scrub jungles, fallow lands around human habitations.

Season: Most active from the pre-monsoon to the post-monsoon period.

Host plants: Asclepias curassavica, Ceropegia intermedia.

4.3.34 Common Indian Crow (Plate No.6:1)

Scientific name: Euploea core Cramer

Material Examined: 19 Males and 24 Females, Nashik, Jalgaon, Nandurbar and Dhule District

Wingspan: 85-95 mm

Wing Maculation: Two series of white spots run along the outer margins of all the wings. The inner series, especially on the hind wings, is composed of elongated spots and the outer series is of somewhat circular spots. A white spot at the cell-end on the underside of the fore wings is prominent. The male has a velvety dark brand near the rear edge of the upper side of the fore wing and a white streak at the same place on the underside.
**Description:** This is a glossy brown butterfly, paler on the upper side and rich chocolate-brown on the upper side, especially when the individual is fresh. The body is black with prominent white spots on it. Hair pencils are present in males. Only female has the white streak.

**Habits:** It has an extraordinary sailing flight, not swift and jerky like that of Sailors or the Grey Pansy. The wings are held slightly above the horizontal plain and the butterfly glides through the air.

**Habitat:** Common in scrub, in forests and near human habitations.

**Season:** Common throughout the year.

**Host plants:** *Ficus recemosa, Nerium odorum, Cryptolepis buchanani, Ficus religiosa, Ficus benghalensis, Tylophora indica.*

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**4.4 Family: Lycaenidae:**

Members of this family are commonly known as Blues because of its shiny blue metallic appearance. It is the largest family of butterflies along with Nymphalidae. Most of Adult butterflies have threadlike tails at their hind wings ranging from small tufts to long fluffy tails for defense. These are small butterflies with exceptions of few large butterflies. The sexes are often different in appearance; the males are metallic blue, the females paler blue or brown with scattered blue scales. The males have narrow borders on the upper side of their wings and females have broader borders. However, they are similarly marked under side. Male lycaenids uses only four legs out of six because forelegs are non-functional being smaller in size and the tarsi are usually un-segmented and without claws or with only one claw. Females have six normal legs.
Tailed Hindwing
(Protective adaptation)

Fig. 18. a. General morphology of Lycaenidae

Blue and purple on the upperside

Fig. 18. b. General morphology of Lycaenidae

Around 521 species are recorded in India (Kunt, 2007; Kehimkar 2008). These butterflies are commonly known as 'Blues' because of its shiny blue appearance. Twenty-six species are recorded from North Maharashtra and are classified as follows:

**Subfamily – Polyommatinae: Weak Blues**

Eighteen species are recorded from North Maharashtra.

**Subfamily – Riodininae: Punches And Judies**

One species are recorded from North Maharashtra.

**Subfamily – Curetinae: Sunbeams**

Two species are recorded from North Maharashtra.

**Subfamily – Theclinae: Strong Blues**

Five species are recorded from North Maharashtra.
4.4.1 Common Pierrot (Plate No. 8:1)

Scientific name: *Castalius rosimon* Fabricius

Material Examined: 2 Males and 1 Female, Nashik and Jalgaon District

Wingspan: 24-34 mm

Wing Maculation: The underside of its wings is marked with black spots. There is a distinct central region of the hind wing that lacks any markings. The tornus has a brilliant green spots and a short, white-tipped black tail. On the upper side, the bases of the wings are metallic green. The wing borders are dark brown or black with tiny white spots.

Description: It is small white butterfly with a white face and black eyes. Sexes look similar.

Habits: Weak flier with fluttering flight. Mostly bask in the sun with its wings half open, displaying its brilliant metallic green scales on the upper side which make it more conspicuous. It prefers edges and roads in forest.

Habitat: It is common in open deciduous forests, scrub, grassland and near human habitations. Mostly occurs with its larval host plant, *Ziziphus mauritiana* and *Ziziphus rugosa*.

Season: It is active in all seasons but common during monsoon.

Host plants: *Ziziphus mauritiana* and *Ziziphus rugosa*.

4.4.2 Angled Pierrot (Plate No.14:4)

Scientific name: *Caleta caleta* Hawiston

Material Examined: 1 Male and 2 Females, Nashik and Nandurbar District

Wingspan: 26-32 mm

Wing Maculation: It is dark and purplish on the upper side. Under forewing have a short, narrow black streak from base into cell and an outer broad angled black band from costa to dorsum. Upper side is dark blackish with broad white band across entire upper hind wings that reaches end-cell from dorsum on upper forewings.

Description: It is small black and white butterfly, with broad black markings on white underside. Hind wing is tailed.
**Habits:** It has a low, fluttering weak flight. Often comes to flowers and bird droppings.

**Habitat:** moist deciduous, semi-evergreen, evergreen forests and along the forest streams.

**Season:** More common during monsoon.

**Host plants:** *Zizyphus rugosa.*

### 4.4.3 Rounded Pierrot (Plate No. 8:2)

**Scientific name:** *Tarucus nara* Kollar

**Material Examined:** 4 Males and 1 Female, Nashik and Jalgaon

**Wingspan:** 23-28 mm

**Wing Maculation:** Underside of wing is white with prominent black streak in under forewing cell, and black marks elongated into streaks rather than rounded spots. Males are dull violet blue on upper side, with a cell spot but no other discal spots on upper forewings. Females are dull brown on upper side.

**Description:** It has tailed hind wings.

**Habits:** This butterfly has a low flight over grasses and shrubs.

**Habitat:** Drier areas, scrub, grassy land.

**Season:** Active throughout the year.

**Host plants:** *Zizyphus rugosa.*

### 4.4.4 Red Pierrot (Plate No. 8:7)

**Scientific name:** *Talicada nyseus* Guerin Meneville

**Material Examined:** 4 Males and 1 Female, Nashik, Dhule, Nandurbar District

**Wingspan:** 30-36 mm

**Wing Maculation:** The upper surface of this butterfly’s wings is black except for the lower portion of the hind wings which is orange. The underside is white with black spots. The outer margin of each hind wing is marked with orange and white spots.

**Description:** Two sexes look similar.
**Habits:** This is a weak flier so it doesn’t disperse very easily. It basks with its wings half-spread.

**Habitat:** These butterflies are abundant around its host plant. It is found in semi-arid plains, near human habitations, urban gardens.

**Season:** It is common throughout the year.

**Host plants:** *Kalanchoe laciniata, Kalanchoe pinnata.*

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### 4.4.5 Common Cerulean (Plate No. 8:3)

**Scientific name:** *Jamides celeno* Cramer

**Material Examined:** 3 Males and 2 Females, Nashik and Jalgaon

**Wingspan:** 27-40 mm

**Wing Maculation:** Underside is grey-white in the wet season form and pale brown in the dry season form. It is marked with straight lines.

**Description:** Small attractive butterfly. It is a tailed butterfly, having glistening pale blue upper side. The male is brighter than female and has narrower dark borders on its wings.

**Habits:** It prefers partially-sunlit places. It flies erratically, but not very fast. Avoid sitting on the ground.

**Habitat:** It is very common in wooden areas among human habitations, along streams and rivers.

**Season:** It is abundant during late monsoon and post-monsoon months.

**Host plants:** *Abrus precatorius, Butea monosperma, Elettaria cardamomum, Pongmia pinnata, Phaseolus adenanthus, Saraca asoca, Trichilia connaroides.*

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### 4.4.6 Dark Cerulean (Plate No.8:9)

**Scientific name:** *Jamides bochus* Stoll

**Material Examined:** 4 Males and 1 Female, Nashik and Nandurbar

**Wingspan:** 25-34 mm

**Wing Maculation:** Underside of wing is earthy brown with dull parallel lines broken into smaller bars, therefore could be mistaken for a Lineblues. One
orange circled black tornal spot on under hind wing is present. Basal area of under forewing is plain brown without any bars. Hind wings tailed in female but male not always tailed. Male is dark iridescent blue while female is dull blue.

**Description:** This butterfly is smaller than Common Cerulean. Darker brown on the underside and its upper side is dazzling, deep metallic blue. Its lines are broken into smaller fragments, so it resembles the Lineblues more than a Cerulean.

**Habits:** Males are often seen near damp patches. Not observed to visits flowers.

**Habitat:** Prefers open, particularly shaded places, hilly regions.

**Season:** Occurs throughout the year.

**Host plants:** *Butea monosperma, Pongia pinnata.*

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**4.4.7 Metallic Cerulean (Plate No. 8:4)**

**Scientific name:** *Jamides alecto* Felder

**Material Examined:** 2 Males, Nashik and Jalgaon District

**Wingspan:** 30-44 mm

**Wing Maculation:** It has more metallic and blue upper side. On the underside the third line from the base of each forewing is bent and broken.

**Description:** Hind wings are tailed, underside is grey to brown. As the name suggests, male is metallic pale violet blue on upper side.

**Habits:** This butterfly has a weak fluttering flight, low along the forest clearings.

**Habitat:** It prefers hill forest.

**Season:** occurs throughout the year

**Host plants:** *Elettaria cardamomum*

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**4.4.8 Pointed Ciliated Blue (Plate No. 14:6)**

**Scientific name:** *Anthene lycaenina* C. & R. Felder

**Material Examined:** 1 Female, Nashik District

**Wingspan:** 24-29 mm

**Wing Maculation:** A small black prominent spot is present on under hind wing near base in space 7; discal band is broken at vein 6. Discal band on under fore
wing is broken at vein 3. Male upper side is purple blue, paler than common ciliated blue. Female upper side is brown with blue base and dark marginal spots on upper hind wings are present.

**Description:** Hind wings are tailless but with three very short, small tufts formed by slight elongation of the fringe. Both sexes are more pointed fore wings than Common Ciliated Blue. Hind wings are more angled at tornus, especially in male

**Habits:** This butterfly has rapid flight.

**Habitat:** Prefers hill forest.

**Season:** Occurs throughout the year

**Host plants:** *Terminalia paniculata.*

### 4.4.9 Common Ciliate Blue

**Scientific name:** *Anthene emolus* Godart  
**Material Examined:** 1 Female, Nashik District  
**Wingspan:** 28-35 m  
**Wing Maculation:** Under hind wing discal band is more or less continuous. Male is dark purple-blue on upper side, with thin black borders and rounded hind wings. Female upper side is brown, glossed basally with pale blue and upper hind wing is with black marginal spots.

**Description:** Hind wings are tailless but with three very short, small tufts formed by slight elongation of the fringe. An underside marking consists of bands of linked spots similar to Dark Cerulean.

**Habits:** This butterfly has rapid flight.

**Habitat:** Evergreen forest, near streams.

**Season:** Occurs throughout the year

**Host plants:** *Terminalia paniculata.*

### 4.4.10 Lime Blue

**Scientific name:** *Chilades laius* Stoll  
**Material Examined:** 1 Male, Nashik District
**Wingspan:** 26-30 mm

**Wing Maculation:** The underside has numerous dark spots, but the most prominent of these are two that are joined to each other at a right angle, forming an ‘L’ which distinguishes it from others. In the male, the upper side of the wings is dull purplish blue, in the female it is more brown than grey. A triangular darker brown patch near the outer margin of the hind wing is prominent and obscures other spots and marking except, ‘L’.

**Description:** It is light grey, tail-less blue butterfly.

**Habits:** Modest flier, flutters close to small trees and shrubs. Sometimes basks with wings half-open.

**Habitat:** It is common around human habitations, close to Citrus plants.

**Season:** It is common throughout the year.

**Host plants:** *Citrus limon, Citrus sinensis.*

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### 4.4.11 Tiny Grass Blue (Plate No.8:5)

**Scientific name:** *Zizula hylax* Fabricius

**Material Examined:** 5 Males and 3 Females, Nashik and Nandurbar District

**Wingspan:** 16-24mm

**Wing Maculation:** The male has pale blue glistening upper surface while the female is brown. Both have dark thin borders on their wings. On the underside of their wings are fine, small, dark brown or black spots are present.

**Description:** This is 2nd smallest butterfly in our country.

**Habits:** Flight is weak, fluttering.

**Habitat:** It prefers moist, open, sunny patches in grasslands, scrub, deciduous forests. It is common in plains and hills.

**Season:** It is active throughout the year.

**Host plants:** *Hygrophila auriculata, Lantana camara.*

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### 4.4.12 Gram Blue (Plate No. 8:8)

**Scientific name:** *Euchrysops cnejus* Fabricius

**Material Examined:** 2 Males and 1 Female, Nashik District
Wingspan: 25-33 mm

Wing Maculation: There is a thin line composed of light brown spots at the outer side of both its wings, in addition to the cell-end bars. The lowermost spot in this series on the hind wing is distant from line. Near the base of the hind wing are four black dots. The tornus is marked by two black and blue centered reddish orange spots. In the male, the upper surface of the wing is pale violet-blue. The female is predominantly brown with scanty blue scaling at the base of its wings.

Description: It is tailed, light grey butterfly, marked with thin lines and spots.

Habits: It prefers sunny area and avoids any kind of shade. It is a weak flier.

Habitat: It is very common in open, drier areas in the vicinity of its larval host plants. It is abundant around human habitations and agriculture area.

Season: It is common during late monsoon and post-monsoon period.

Host plants: Larvae feed on floral parts of some of the fabaceous crop plants mainly grams.

4.4.13 Pale Grass Blue

Scientific name: Pseudozizeeria maha Kollar

Material Examined: 1 Male and 1 Female, Nashik and Jalgaon District

Wingspan: 26-30 mm

Wing Maculation: Upper side of this butterfly is pale blue and underside is almost white. This is the largest butterfly among blues. It has rounded and faint spots. Under forewing is with faint rounded black spots in a discal band, and end-cell spot, a tiny spot mid-cell and a tiny spot on costa is present in discal region. Male is pale milky blue on upper side with broad pale brown border along termen of upper forewing and narrow border on upper hind wing. Female is dark brown on upper side with blue scaling at wing bases near dorsum.

Description: Hind wing is tailless. Sexes differ.

Habits: This butterfly has weak flight, close to the ground on grassy patches.

Habitat: Prefers open grassy area.

Season: occurs throughout the year

Host plants: Oxalis corniculata, Tethrosia spp. Strobilanthes spp.,
4.4.14 Dark Grass Blue

Scientific name: *Zizeeria karsandra* Moore

Material Examined: 2 Males, Nashik and Dhule District

Wingspan: 18-24 mm

Wing Maculation: Upper side is dark blue; underside is usually brown, occasionally grey. It has rounded and dark spots. Male upper side is dark blue with dark brown border along costa and termen of upper forewing. Female upper side is fully dark brown and may have blue scale at wing bases.

Description: Hind wing is tailless. This butterfly is much smaller than pale grass blue. Sexes differ.

Habits: It has low, ground level flight on grassy patches.

Habitat: Grassy areas.

Season: Occurs throughout the year.

Host plants: *Amaranthus spinosus, Zornia gibbosa.*

4.4.15 Grass Jewel (Plate No.14:7)

Scientific name: *Freyeria trochylus* Freyer

Material Examined: 2 Females, Nashik and Nandurbar District

Wingspan: 15-22 mm

Wing Maculation: Upper side as well as underside is brown. Underside spotted with light brown. It has metallic, orange-crowned spots at the margin. Hind wing is tailless. Two black spots along costa on under hind wing are present. Other spots are dark brown. Black spots are crown with metallic green and orange at under hind wing margin. Both sexes are dark brown on upper side with 3-4 orange crowned black spots along upper hind wing termen.

Description: Female is slightly larger than male.

Habits: It has fluttering flight close to the ground.

Habitat: Prefers open and drier habitat.

Season: Occurs throughout the year.

Host plants: *Pisum sativum, Lotus corniculatus.*
**4.4.16 Guava Blue (Plate No.20:3)**

**Scientific name:** *Deudoris isocrates* Fabricius  
**Material Examined:** 2 Males and 1 Female, Nashik District  
**Wingspan:** 34-50 mm  
**Wing Maculation:** Hind wing has one slender tail. Both sexes are pale grey-brown on underside with slightly dark markings. White border discal band is straight on under forewing. Two black tornal spots on under hind wing, no spot in space 7. Male on upper side is dull brown, shot with purple scales. Upper forewing costa and margin are black. Entire upper hind wing is overlaid with shining purple. Termen margin is slightly toothed with a prominent tornal lobe. Male has a tuft of dark brown scent scales on mid-dorsum of under forewing. Female upper side is fuscous brown with no purple, but with dull orange patches at end-cell on upper forewing and a prominent black-centred orange tornal spot on upper hind wing.  
**Description:** Sexes differ. Female is larger than male.  
**Habits:** It has swift, powerful flight.  
**Habitat:** Plains with low rainfall.  
**Season:** Throughout the year more common from March to May  
**Host plants:** *Tamarindus indica, Punica granatum*

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**4.4.17 Common Lineblue (Plate No. 8:10)**

**Scientific name:** *Prosotas nara* C & R Felder  
**Material Examined:** 2 Males and 1 Female, Nashik and Jalgaon District  
**Wingspan:** 18-25 mm  
**Wing Maculation:** The underside of its wings is pale brown with thin, paired, whitish lines. The upper side of the wings of the male is dark violet with a thin dark border while the female is brown.  
**Description:** This is small tailed blue butterfly.  
**Habits:** It is not a strong flier. Female do not bask. The male occasionally bask with their wings spread out halfway while they perch on exposed branches.
Habitat: It flies in moist and shaded as well as dry open areas and in all the vegetation areas.
Season: It is common in monsoon and post-monsoon periods.
Host plants: *Acacia caesia, Acacia tora.*

4.4.18 Plains Cupid (Plate No.14:1)

Scientific name: *Chilades pandava* Horsfield

Material Examined: 1 Male, Nashik District

Wingspan: 25-35 mm

Wing Maculation: Hind wing has white tipped tail. Both sexes have marginal and discal rows of linked spots, slightly darker than brownish grey background on underside. Discal row of spot on under forewing are unbroken. Male upper side is bright, lavender with dark outer border. Upper hind wing has a tornal spot in space 2.

Description: This is brownish grey small butterfly. Sexes differ.

Habits: Fly low among grasses.

Habitat: Prefers moist wooded area.

Season: Occurs throughout the year.

Host plants: *Acacia spp.*

4.4.19 Pea Blue (Plate No.8:11)

Scientific name: *Lampides boeticus* Linnaeus

Material Examined: 1 Male, Nashik District

Wingspan: 24-36 mm

Wing Maculation: There is distinct white band within the outer margin of the hind wing where these lines are absent. On the upper side, the male is violet blue scaling at the bases of its wings.

Description: This butterfly has light to dark reddish lines on the white underside of its wings. The hind wing has a slightly long, white-tipped tail. This butterfly shows little variation in colour but more variation in size is observed.
Habits: It is very efficient flier, flies fast with rapid wing-beats and can cover long path in single flight.

Habitat: It is common in cultivated areas.

Season: It is abundant in early winter and then in summer. It is less common during monsoon, but active throughout the year.

Host plants: *Pisum sativum, Butea monosperma, Crotalaria spp.*

**4.4.20 Plum Judy (Plate No.9:1)**

Scientific name: *Abisara echerius* Stoll

Material Examined: 2 Males and 2 Females, Nashik and Nandurbar District

Wingspan: 30-40 mm

Wing Maculation: Wings are reddish brown with pale green eyes.

Description: It can never close its wings completely because the plane of the wings is slightly curved. Hind wing is toothed at vein 4 and it is without tail. The male is darker, without whitish markings and lacks scent scales. The female is a light red-brown colour.

Habits: Shed loving butterfly. Most active during late afternoon and evening.

Habitat: This species inhibits deciduous, semi-evergreen and evergreen forests, preferring openings and edges of forests.

Season: Occurs throughout the year.

Host plants: *Embelia robusta*

**4.4.21 Indian Sun-beam (Plate No.14:2)**

Scientific name: *Curetis thetis* Drury

Material Examined: 2 Males and 1 Female, Nashik and Dhule District

Wingspan: 40-48 mm

Wing Maculation: Both sexes are glossy white on underside. Discal and marginal lines are parallel to one another and to termen consist of short lines. The males are red and females are white with black borders.

Description: Hind wing is tailless.
Habits: It has a powerful flight. Males are more frequently seen than females and usually near wet soil.
Habitat: Prefers woody area.
Season: Occurs throughout the year.
Host plants: *Pongamia pinnata*

### 4.4.22 Bright Sun-beam

Scientific name: *Curetis bulis* Westwood
Material Examined: 2 Females, Nashik District
Wingspan: 35-45 mm
Wing Maculation: Male is bright orange on upper side with black apex and termen. Orange on upper forewing does not extend above base of vein 5. Male is silvery white on underside, with very small black dots. Under forewing discal band is straight, pointing to apex and not bordered by well-formed crescents. Female is basically black and white on upper side, with no orange colour. Discal areas on both wings are white.
Description: Hind wing is tailless.
Habits: It has swift flight. Males are more frequently seen than females and usually near wet soil
Habitat: These butterflies prefers woody area.
Season: Occurs throughout the year.
Host plants: *Pongamia pinnata*

### 4.4.23 Plains Blue Royal (Plate No. 9:2)

Scientific name: *Tajuria jehana* Moore
Material Examined: 1 Male, Nashik District
Wingspan: 30-37 mm
Wing Maculation: Both sexes have a conspicuous white fringe of hairs along wing margins. Underside is pale grey to white. On under forewing, the outer discal line is much nearer to termen than to end-cell and not continuous. On
under hind wing outer discal line is broken at veins 3 and 4, as a result the lower part of the line is shifted and tornal markings are prominent. Male is salty blue on upper side, with broad black apex on upper forewings. Female has more extensive blue area on upper forewing and area beyond cell is paler and sometimes whitish. Both sexes have two tornal black spots on upper hind wings in spaces 1c and 2.

**Description:** Hind wing has two tails.

**Habits:** Flight is high, strong.

**Habitat:** Prefers hilly regions, seen in plains too.

**Season:** Occurs throughout the year.

**Host plants:** *Dendrophthoe spp.*

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### 4.4.24 Common Silverline (Plate No. 9:3)

**Scientific name:** *Spindasis vulcanus* Fabricius

**Material Examined:** 2 Males and 3 Females, Nashik and Nandurbar District

**Wingspan:** 26-34 mm

**Wing Maculation:** The underside of the wings is a light yellow with brilliant red bands. These bands are surrounded by thin black lines on either side and also have central golden lines. The band that starts from the base of the hind wing does not touch the central, longer band. The tornus of the wing is orange and gives rise to the tails. The upper side of the wings is dark, with orange bands. In the males the upper side is suffused with blue.

**Description:** The hind wing has a large lobe with two long tails and the lower tail is longer. It has massive, powerful thorax. Wings are narrow and pointed.

**Habits:** It has a powerful flight. It sits on medium-sized bushes or near the ground, at a height of between a few centimeters to about 2 m from the ground.

**Habitat:** It prefers natural vegetation to the tamed landscapes of urban areas, such as gardens or plantations. It is most common in deciduous vegetation and in the openings and edges of semi-evergreen forests.

**Season:** This butterfly is more common during March – May, June - October

**Host plants:** *Ziziphus rugosa, Ziziphus Mauritiana, Cadaba fruticosa.*
4.4.25 Scarce Shot Silverline

Scientific name: *Spindasis elima* Moore

Material Examined: 1 Male and 1 Female, Nashik District

Wingspan: 28-42 mm

Wing Maculation: Hind wing has two tails and a prominent tornal lobe with an orange spot. Underside is reddish brown with silver stripes. On under hind wing, first band near wing base is broken into three spots. Male has indistinct orange patch on upper forewing. Upper forewing margin and costa is blackish brown, and remaining area on upper side of both wings shot with purple-blue.

Description: Male is comparatively smaller than female. Female is without the purple-blue scaling, and orange oval patch.

Habits: These butterflies fly high on hills.

Habitat: This butterfly prefers open plains as well as forests, and damp patches.

Season: This butterfly is more common during March – May, June - Octobar

Host plants: *Ziziphus rugosa, Ziziphus Mauritiana, Cadaba fruticosa.*

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4.4.26 Indian Red-flash (Plate no.9:4)

Scientific name: *Rapala iarbus* Fabricius

Material Examined: 1 Female, Nashik District

Wingspan: 33-41 mm

Wing Maculation: Underside is salty grey, no ochreous tinge. Two tornal black spots are present, one in space 2 which is not prominently orange crowned on under hindwing. Male is bright red with purple sheen on upper side. Upper forewing costa, apex and ternen have dark brownish black border narrowing to tornus, but less broad than in tornal love with a few orange and metallic scales. Female is coppery red with broad, dark brown borders and dull on upper side.

Description: Hind wing has one tail and a lobe.

Habits: It has rapid and straight flight.

Habitat: This butterfly is more common on plains than on hills.

Season: Active throughout the year mostly in winter.

Host plants: *Zizyphus rugosa.*
4.5 Family Hesperiidae:

The family Hesperiidae is popularly known as the family of skippers. It is characterized by antennae which bears hooks at the tip. In all the other families of butterflies, the antennal club is at the tip while in skippers it is found just before the apex, making the apex pointed. Skippers are mostly small and very active butterflies. Skippers generally fly in the early hours at dawn and in the evening. Their flight is strong among all butterfly families. Because of fast, bouncing and skipping these are known as ‘Skippers’.

Their wings are triangular and long, brown or black coloured with semi-transparent or white spots. Forewings are with no peripheral veins. Their body is covered with dense, long, thin scales. The thorax is large and sometimes as long as or longer than abdomen.

Skippers are of two types: one species holds their wings open flat when settled and the others with their hind wings more or less completely open, but forewing only partially open. Several species have exceptionally long proboscis that makes their access to nectar of tubular flower a lot easier.

![Image of a skipper butterfly](image)

**Fig. 19. General morphology of Hesperiidae**

The proboscis is quite long and in some species it is incredibly long as compared to the body length. They usually inhabit woody areas, mostly deciduous and evergreen forest.
India has 321 species of Skippers (Kunt, 2007; Kehimkar 2008). Six species are recorded from North Maharashtra and are classified as follows:

**Subfamily – Coeliadinae: Awlets and Awl King**

One species is recorded from North Maharashtra.

**Subfamily - Pyrginae: Dawnflies, Flats and Angles**

One species is recorded from North Maharashtra.

**Subfamily – Hesperiinae: Darters, Darts, Dartlets, Swifts, Demons**

Four species are recorded from North Maharashtra.

### 4.5.1 Rice Swift (Plate No. 9:5)

**Scientific name:** Borbo cinnara Wallace

**Material Examined:** 4 Males and 2 Females, Nashik and Nandurbar District

**Wingspan:** 30-36 mm

**Wing Maculation:** It has dark brown wings that have semi-transparent spots on the fore wings and white spots on the underside of the hind wings. The upper side of the hind wing is unmarked. The semi-transparent spots on the fore-wings decrease in size from lower margin of the wing towards the upper margin i.e. from dorsum towards apex. There is series of white spots, some of which may sometimes be missing, forming an arch on the underside of the hind wings.

**Description:** The underside of the wings is much paler brown than the upper side. Antenna’s clubs taper to a fine point with hooked tip.

**Habits:** Mostly found in open areas, flies close to ground. It is active throughout the day except in the evening. It is fond of sunshine and is often seen basking with the hind wings spread flat and the fore wings held at an angle.

**Habitat:** Common is grassland and scrub.

**Season:** It is very common in monsoon.

**Host plants:** Oryza sativa, setaria spp.

### 4.5.2 Grass Demon (Plate No.9:6)

**Scientific name:** Udaspes folus Cramer

**Material Examined:** 2 Males and 3 Females, Nashik and Jalgaon District
**Wingspan:** 40-48 mm

**Wing Maculation:** It is black with big white spot on the hind wing and several smaller white spots on the fore wing.

**Description:** The underside of its wings is predominantly white with brown edges and spots. Sexes look similar. Antenna’s clubs taper to a fine point with hooked tip.

**Habits:** It avoids deep shade or dark sunlight. Flight is short and close to the ground. It basks with its hind wings pressed flat against the substratum and fore wings held at an angle above the hind wings.

**Habitat:** Found in deciduous and semi-evergreen forests and more common along streams.

**Season:** It is common during monsoon, from May to September, less common during February-March. Not seen during rest of the year.

**Host plants:** Curcuma aromatic, Curcuma decipiens, Zingiber spp.

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### 4.5.3 Common Grass Dart

**Scientific name:** Taractrocera maevius Fabricius.

**Material Examined:** 1 Female, Nashik District

**Wingspan:** 23-30 mm

**Wing Maculation:** Semi transparent spots are present on forewings and in hind wing cell. A white line is present in upper forewing cell. Underside of wing is brown with pale brown veins outlined with white.

**Description:** It is tiny butterfly with dark brown wings. Spots on the forewings are white. Antenna’s clubs taper to a fine point with hooked tip.

**Habits:** It has long proboscis for its body size. It prefers small flowers. Flight is weak. It basks with the hind wings spread flat and the fore wings half-open.

**Habitat:** It prefers hilly regions and is also widespread in the plains.

**Season:** It occurs during monsoon and immediate post-monsoon months.

**Host plants:** Oryza sativa.
4.5.4 Dark Palm Dart (Plate No. 9:7)

Scientific name: *Telicota ancilla* Mabille

Material Examined: 1 Male, Nashik District

Wingspan: 34-36 mm

Wing Maculation: Wings are black with orange-yellow postdiscal band on upper forewing which runs from dorsum to vein 6, it further bends over and runs along costal margin, cell is almost orange-yellow.

Description: This is black butterfly with orange bands on the fore wings, which narrow towards the apex. The hind wings are black with a pale orange band. The male and female have identical markings, so they look similar. Antenna’s clubs taper to a fine point with hooked tip.

Habits: It has stout thorax, flies strongly and swiftly. It basks in the morning, sitting low on the grass-blades or bushes, spreads its hind wings flat to the substratum and holds its fore wings flat to the substratum and holds its fore wings vertically above the hind wings.

Habitat: It is common in hilly, woody areas and is less common in dry area and plains.

Season: On the wing from March to April and July to November.

Host plants: *Bamboo* and *oryza spp.*

4.5.5 Common Banded Awl (Plate No. 9:8)

Scientific name: *Hasora chromus* Cramer

Material Examined: 1 Female, Nashik District

Wingspan: 45-50 mm

Wing Maculation: Male is dark brown on upper side while female has two small semi-transparent yellowish white spots in discal area in spaces 2 and 3. Underside of wing has purple gloss over brown. Bluish white outwardly diffused discal band across under side of hind wing along with a large black tornal patch is present.

Description: It is dark brown butterfly with a big, strong thorax, pointed forewings and a white band at the centre of the underside of the hind wings.
Males are unmarked while females have some small semi-transparent spot. White band on the hind wing fades at its outer margin. Antenna’s clubs taper to a fine point with hooked tip.

Habits: Found in thick forest as well as away from forests. It flies during early morning and late evening hours. Almost never basks, but when basks, it keeps its wings slightly open to make a slit through which upper side of wing is exposed.

Habitat: It is common near streams and rivers in the plains.

Season: It is common during monsoon and immediate post-monsoon months.

Host plants: *Pongamia pinnata, Ricinus communis.*

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4.5.6 Common Small Flat (Plate No. 15:5)

Scientific name: *Sarangesa dasahara* Moore

Material Examined: 1 Female, Nashik District

Wingspan: 30-35 mm

Wing Maculation: Upper side of wing is dark brown in colour. Semitransparent spots are present on forewings. Spot in space 2 if present are very small. The underside of the wings is grey-brown with diffused dark spots

Description: This is a dull black or brown butterfly with semi-transparent spots on the wings. Sexes look similar but on upper side of forewing female have an additional spot below cell and all the three spots are in a straight line. Antenna’s clubs taper to a fine point with hooked tip.

Habits: It is very fast flier butterfly. It always keeps its wing spread.

Habitat: It occurs in openings and edges in evergreen and semi-evergreen, deciduous forests, scrub area.

Season: It is very common at the end of rainy season, uncommon during post-monsoon.

Host plants: *Asystasia spp.* and *Belpharis asperrima.*