

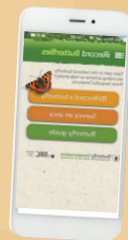
Where to find out more

There are many excellent guides to British butterflies and moths available, including

- *WildGuides: Britain's Butterflies* by David Newland, Robert Still, Andy Swash & David Tomlinson
- *Pocket Guide to the Butterflies of Great Britain & Ireland* by Richard Lewington
- *Life Cycles of British & Irish Butterflies* by Peter Eeles
- *WildGuides: Britain's Day-flying Moths* by David Newland, Robert Still & Andy Swash

iRecord Butterflies app

Download the free iRecord Butterflies app to help you identify butterflies you see and to submit your sightings to Butterfly Conservation. It is available in the iTunes and Google app stores.



For information about local events and guided walks, search for 'St Breward Wildlife and Conservation Group' on Facebook or visit the Cornwall Branch Butterfly Conservation website:

www.cornwall-butterfly-conservation.org.uk

- facebook.com/savebutterflies
- instagram.com/savebutterflies
- twitter.com/savebutterflies

This leaflet has been created as part of Butterfly Conservation's National Lottery Heritage Funded 'All the Moor Butterflies' project. The project aims to conserve the threatened butterflies and moths of Bodmin Moor, Dartmoor, and Exmoor. Find out more online: www.butterfly-conservation.org

SPECIAL THANKS TO STEVEN CHESHIRE, DEBBIE CHESHIRE, IAIN H LEACH, BOB EADE, JIM ASHER, CERIN POLAND, RICHARD FOX, PATRICK CLEMENT, AND MARK PARSONS FOR PROVIDING PHOTOGRAPHS.

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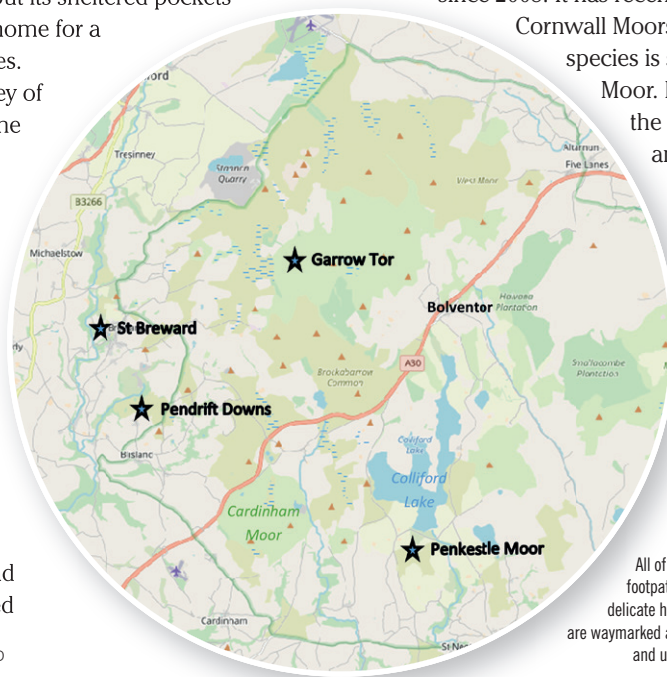
Where to see butterflies on Bodmin Moor

Bodmin Moor is known for its exposed granite uplands, and its vast open moorlands. The landscape can appear wild, rugged, and sometimes desolate, but its sheltered pockets and mixture of habitats provide a home for a variety of butterfly and moth species.

Located above the beautiful valley of the De Lank River, Garrow Tor is one of the most important areas for the iconic Marsh Fritillary. Other butterflies that can be seen in this area include the Wall, Common Blue and Green Hairstreak.

Lower down the De Lank River on the level area below Pendrift Downs is one of the best spots for fritillary butterflies on the moor. In the spring you will have a very good chance of seeing Pearl-bordered Fritillary and Small Pearl-bordered Fritillary here, nectaring on the Bluebells and Bugle that neighbour their preferred

Above: Pearl-bordered Fritillary. CERIN POLAND



Right: Small Heath. JIM ASHER



bracken and woodland edge breeding habitat. Marsh Fritillary and Dark Green Fritillary have been recorded here in June, but sightings of the latter are very rare. As the summer progresses Silver-washed Fritillary are likely to be seen gliding around the woodland edges, while Purple Hairstreak flit among the tops of the oak trees. Brimstone and Speckled Wood may also be found here throughout spring and summer.

The bracken-covered slopes running down to the River Camel near the village of St Breward are another important area for Pearl-bordered and Small Pearl-bordered Fritillaries. These south-facing slopes are also home to an array of day-flying moths, including the magnificent Emperor Moth.

South of the A30 road Marsh Fritillary may be seen on the wet tussocky grassland south of Colliford Dam on Penkestele Moor. The rare Narrow-bordered Bee Hawk-moth was often seen flying in the Fowey Valley, but it hasn't been recorded since 2008. It has recently been discovered on the Mid Cornwall Moors, giving hope that this elusive species is still flying somewhere on Bodmin Moor.

It has similar habitat requirements to the Marsh Fritillary; wet grasslands with an abundance of Devil's-bit Scabious. Bodmin Moor is one of the best places in Cornwall for Small Heath butterfly. Look out for them on the dry areas where the grass is short and sparse. Wall and very occasionally Grayling may also be spotted on the higher areas of the moor, particularly where the granite rock is exposed.

All of the areas mentioned in this guide are accessible via public footpaths. Please follow the countryside code and avoid trampling delicate habitats by remaining on the designated paths. Not all paths are waymarked and may cross uneven and boggy ground. Suitable footwear and use of an OS map is recommended when exploring the Moor.

Flight chart

Occasional/possible flight time
Peak flight period

Butterfly	Flight times												Status/ Regional Trend*	Habitat	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec			
Small Skipper														C / U	Grassy areas, woodland glades and rides
Large Skipper														C / S	Areas with long grass, scrubby areas, woodland rides
Clouded Yellow														M / D	Sunny, open, flowery meadows
Brimstone														L / I	Scrubby grassland, hedgerows, woodland rides or glades
Large White														C / S	Gardens and allotments
Small White														C / I	Gardens, allotments and fields of Oil-seed Rape
Green-veined white														C / I	Hedgerows, riverbanks and damp vegetation
Orange Tip														C / I	Damp, grassy habitats
Green Hairstreak														L / U	Moorland, heathland, chalk downland, woodland rides
Purple Hairstreak														R / D	Oak trees in mature woodland, parkland and hedgerows
White-letter Hairstreak														R / U	Elm in hedgerows and woodlands
Small Copper														C / I	Unimproved grassland, woodland rides and glades
Brown Argus														R / U	Heathland, woodland clearings, road verges, chalk grassland
Common Blue														C / I	Sunny sheltered areas, woodland clearings, grassy areas
Holly Blue														L / S	Hedgerows, woodland rides, gardens
Red Admiral														C / S	Sunny, open habitats, gardens, flower-rich areas
Painted Lady														M / S	Dry, open, sunny areas
Small Tortoiseshell														C / S	Sunny, open habitats
Peacock														C / S	Sunny, open habitats, woodland rides and glades
Comma														R / I	Open woodland, woodland edges, gardens
Pearl-bordered Fritillary														R / I	Open, sunny bracken habitats
Small Pearl-bordered Fritillary														L / U	Woodland glades and clearings, damp grassland areas
Dark Green Fritillary														R / I	Open, sunny bracken habitats, moorland, woodland rides & clearings
Silver-washed Fritillary														L / S	Sunny rides and glades in woodland, woody hedgerows
Marsh Fritillary														R / I	Damp tussocky grassland (chalk downland in Dorset)
Speckled Wood														L / I	Woodland rides and glades, hedgerows, gardens
Wall														L / D	Short, open grassland, stony tracks, cliffs, quarries
Marbled White														R / D	Unimproved grassland, flowery meadows
Grayling														R / U	Dry heathland, chalk or limestone grassland, quarries, coastal habitats
Gatekeeper														C / D	Hedgerows and woodland with wide sunny rides
Meadow Brown														C / I	Flowery open grassland areas, verges, woodland rides
Ringlet														C / I	Tall grassland, woodland rides and glades
Small Heath														C / D	Heathland, dry grassland, coastal dunes

*Status/Regional Trend: (C) Common (R) Rare (L) Locally Common (M) Migrant (D) Decline (I) Increase (S) Stable (U) Unknown

Day-flying moths

If you see what looks like a butterfly on Bodmin Moor but it is not on the identification guide overleaf, it could be a day-flying moth. There are over 100 species of day-flying moth in Britain, compared to 59 species of butterfly. Some that you may come across are included below.

There are a number of differences between most moths and butterflies, but there is no hard and fast rule which separates them. In general, moths are active at night and butterflies are active during the day; moths tend to hold their wings flat against their body when resting, while butterflies tend to rest with wings held vertically; and the antennae of butterflies tend to be clubbed, whereas moths have feathery or thread-like tips to their antennae.

Emperor Moth – large moth with stunning eye spots on each wing. Male is day-flying with bright orange hindwings, female is larger and grey in colour.



Silver Y – dull grey or brown, with central silver spots in the shape of the letter 'Y'.



Six-spot Burnet – similar colour to the Cinnabar but instead of a red stripe it has six red spots on each wing.



Chimney Sweeper – sooty black colour with white fringe at the tip of the forewing.

Narrow-bordered Bee Hawk-moth – fast flying moth that resembles a bumblebee in behaviour and appearance. This nationally rare moth may still be present on the moor in small numbers. Lives in wet grassland and flies in April/May.



Behold the butterflies of Bodmin Moor

Bodmin Moor is home to 33 species of butterfly, and offers great opportunities to view them in a beautiful, secluded landscape within the Cornwall Area of Outstanding Natural Beauty (AONB). Its diverse range of habitats, including moorland, woodland, river valleys, quarries and farmland, support a wealth of butterflies including some rare species that are only found in a few locations around Britain.

Butterflies vary in their flight periods and the type of habitat they use. This guide will help you identify the species you are likely to come across, and show you when and where to see them.

Butterflies can be enjoyed on Bodmin Moor during most months of the year. A warm and sunny day in January or February might offer the chance to see a Red Admiral or Peacock, having awoken from their winter hibernation. A few weeks later a Small Tortoiseshell or a Brimstone might reveal itself, and by April the butterfly season is upon us, with many other species beginning to emerge as spring moves in to summer.

Bodmin Moor is a stronghold for three of Britain's rarest and most rapidly declining fritillary butterflies, including the Marsh Fritillary. This exquisitely patterned butterfly is faring well on the open expanses of herb-rich wet grassland found across the moor, assisted by traditional farming techniques and extensive grazing by cattle and ponies.

Populations of Pearl-bordered Fritillary can be seen on warm and sunny days in the first half of May, gliding gracefully over bracken slopes in search of violets. Small Pearl-bordered

Fritillary can also be found here, and in the wet meadows across the moor where its caterpillar feeds on Common-dog and Marsh Violets. Look out for Europe's largest fritillary, the Silver-washed Fritillary, as it flies along wooded paths and glades. Other special species to look out for are Small Heath, Green Hairstreak and Wall.



Above: Marsh Fritillary. BOB EADE
Cover image: Pearl-bordered Fritillary. IAIN H LEACH

Butterflies in decline



British butterflies remain a cause for conservation concern, with just over half of our native species in decline. Four butterflies and over 60 moths became extinct in the last century. Butterfly Conservation aims to halt and reverse these declines by working closely with conservation partners and landowners to create a world rich in butterflies for future generations to enjoy.

Butterfly Conservation has been researching and conserving butterflies and moths for more than 50 years. By working with partners, including conservation charities, landowners and farmers, we have turned the fortunes of some of our most threatened species around.

Below: Small Tortoiseshell Above right: Purple Hairstreak. CERIN POLAND



Butterfly monitoring is carried out to help us understand what is happening to our butterflies, and the data we collect helps us to direct our conservation resources to where they are most needed. If you would like to get involved with recording butterflies, please get in touch with Butterfly Conservation (contact details are on the reverse of this guide).

Pocket Guide

Butterflies of Bodmin Moor



Butterflies of Bodmin Moor Identification Guide

★ Bodmin Moor Star Species ♀ Wing span range



Clouded Yellow

Colias croceus

Rests with wings closed. Mustard yellow with ringed white mark in centre of hindwing and black dot in centre of forewing.

♀ 57 – 62mm



Small Skipper

Thymelicus sylvestris

Upper side solid orange, no mottling. Males have a curved line (sex brand) on the forewing. Tips of antennae are orange.

♀ 30mm



Large Skipper

Ochlodes sylvanus

Chequered pattern visible on both sides of the wings. The male has a prominent black line (sex brand) on the forewing.

♀ 33 – 35mm

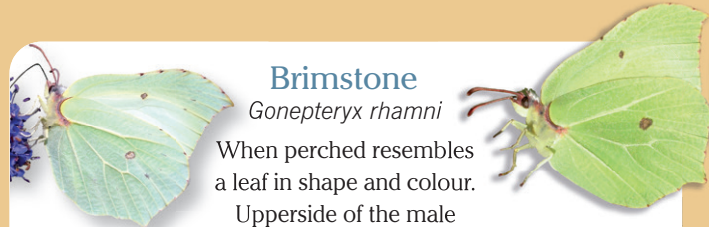


Brimstone

Gonepteryx rhamni

When perched resembles a leaf in shape and colour. Upperside of the male buttercup yellow, female pale lemon yellow. Central spot in both wings. Female can be confused with Large White in flight.

♀ 60mm



Large White

Pieris brassicae

Conspicuous black tips to the upperside of the forewing extending about half way down the wing edge. Females have double black dots on the forewings.

♀ 63 – 70mm



Small White

Pieris rapae

Black wing tips (but less extensive than on Large White). Males have a single black spot on upperside of forewing (unlike Large White); females have two.

♀ 48mm



Green-veined white

Pieris napi

Veins visible on upperside but most conspicuous on underside, green on pale yellow background. First brood (May) is smaller and paler than its offspring (July onwards).

♀ 50mm



Orange-tip

Anthocharis cardamines

Male forewing tips bright orange, female wing tips black. Underside of hind wing mottled green.

♀ 45 – 50mm



Green Hairstreak

Callophrys rubi

Green underside distinguishes this butterfly from all other British butterflies. Upperside plain brown, only seen in flight.

♀ 33mm



White-letter Hairstreak

Satyrrium w-album

Orange margin to underside of hindwing and a distinctive 'tail' to wing shape. White line straddles both wings with 'W' shape on hindwing.

♀ 36mm



Purple Hairstreak

Favonius quercus

Underwings grey with white streak and small tails, upper wings brown. Males have a purple sheen, females have a purple mark on forewing.

♀ 37 – 39mm



Small Copper

Lycaena phlaeas

Coppery-orange forewings with black margins and spots, brown hindwings with orange margins. Male smaller than female and forewings more pointed.

♀ 32 – 35mm



Brown Argus

Aricia agestis

Can be mistaken for female Common Blue. Upperside solid brown ground colour without blue scaling; lacks spots on underside forewing nearer than halfway to the body.

♀ 29mm



Common Blue

Polyommatus icarus

Male upperside bright blue, females dusky brown with blue scaling and orange markings to wing margins. Markings on underside of forewing closer to body than those on Brown Argus.

♀ 35mm



Holly Blue

Celastrina argiolus

Easily distinguished from Common Blue by distinctive silvery blue underwing with black spots. Female upperside with broad black margin.

♀ 35mm



Red Admiral

Vanessa atalanta

Distinctive black, white and red markings on upperside; underside forewing mottled to offer good camouflage.

♀ 67 – 72mm



Painted Lady

Vanessa cardui

Chequered orange and brown markings with white spots in top half of forewing. Freshly emerged butterflies salmon-pink, colour fading with time. Underside mottled and well camouflaged.

♀ 50 – 56mm



Small Tortoiseshell

Aglais urticae

Upperside bright orange with black markings, a white spot on the forewing and blue margins to both wings. Underside is dull and well camouflaged.

♀ 50 – 56mm



Peacock

Aglais io

Orange-red ground colour with distinctive 'eyes' on the upperside of both wings. Underside almost black and very well camouflaged.

♀ 63 – 69mm

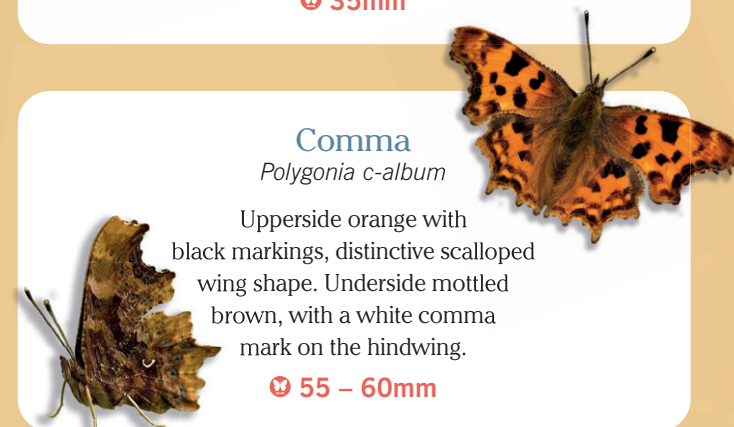


Comma

Polygonia c-album

Upperside orange with black markings, distinctive scalloped wing shape. Underside mottled brown, with a white comma mark on the hindwing.

♀ 55 – 60mm



Pearl-bordered Fritillary

Boloria euphrosyne

Upperside chequered pattern of black markings on orange background. Underside hindwing with small central black spot and margins with 7 silver pearls bordered with red chevrons.

♀ 44 – 47mm



Small Pearl-bordered Fritillary

Boloria selene

Can be confused with Pearl-bordered Fritillary. Upperside black triangles along wing edge are joined to dark wing border. Underside hindwing black spot is large and silver pearls bordered with black chevrons.

♀ 41 – 44mm

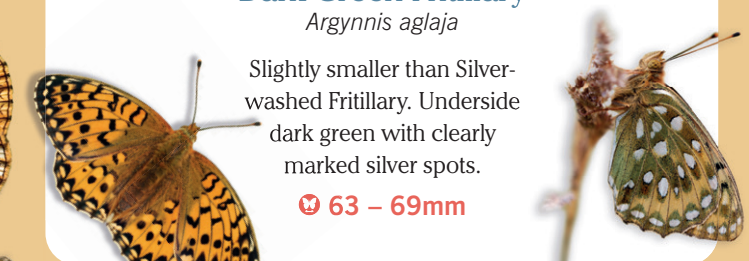


Dark Green Fritillary

Argynnis aglaja

Slightly smaller than Silver-washed Fritillary. Underside dark green with clearly marked silver spots.

♀ 63 – 69mm



Silver-washed Fritillary

Argynnis paphia

The largest of the fritillary butterflies. Males richer orange, with four black sex brands (thickened veins) on the forewing. Underside of both sexes with silver washes or streaks.

♀ 72 – 76mm

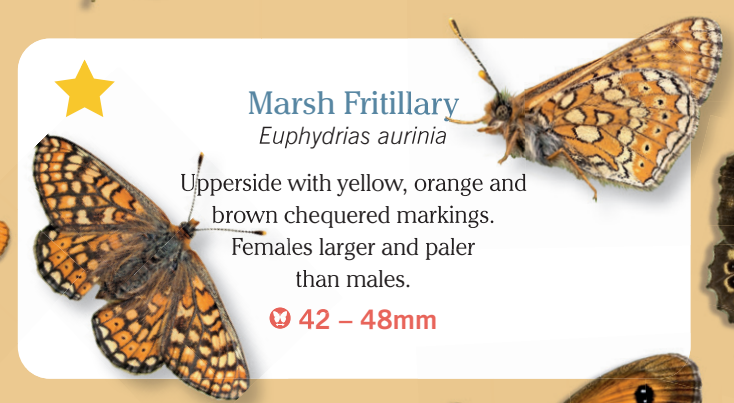


Marsh Fritillary

Euphydryas aurinia

Upperside with yellow, orange and brown chequered markings. Females larger and paler than males.

♀ 42 – 48mm



Speckled Wood

Pararge aegeria

Upperside deep brown with creamy-yellow markings on both wings. Three black eye spots with white pupils on hind wing, one on forewing. Underside mottled pale brown.

♀ 47 – 50mm



Wall

Lasiommata megera

Similar to a fritillary, distinguished by the 'eye' spot on the forewings and three or four 'eye' spots on the hindwing. Underside dull, mottled brown, 'eye' spots visible.

♀ 44 – 46mm

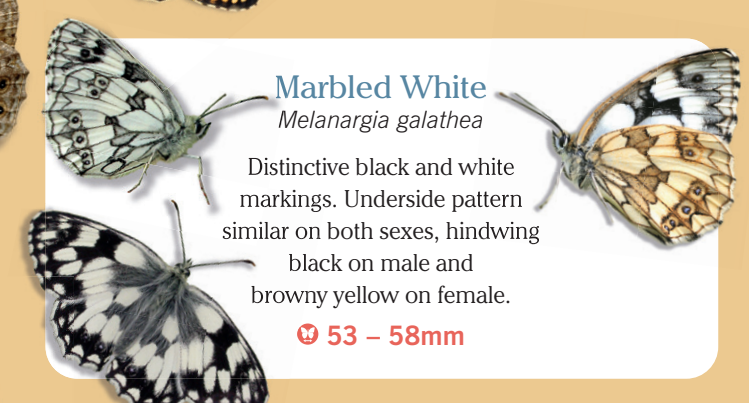


Marbled White

Melanargia galathea

Distinctive black and white markings. Underside pattern similar on both sexes, hindwing black on male and brownish yellow on female.

♀ 53 – 58mm



Grayling

Hipparchia semele

Usually rests with wings closed. Underside dull brown and well camouflaged, two prominent 'eye' spots on the forewing visible on underside.

♀ 55 – 60mm

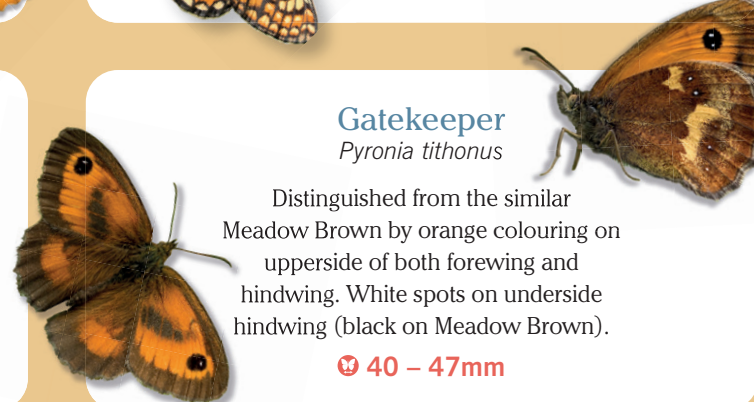


Gatekeeper

Pyronia tithonus

Distinguished from the similar Meadow Brown by orange colouring on upperside of both forewing and hindwing. White spots on underside hindwing (black on Meadow Brown).

♀ 40 – 47mm



Meadow Brown

Maniola jurtina

Males chocolate brown with orange-ringed 'eye' spot on forewing; females with 'eye' spot and splash of orange on forewing. Underside with prominent 'eye' spots on forewing and two small black spots noticeable on hindwing.

♀ 50 – 55mm

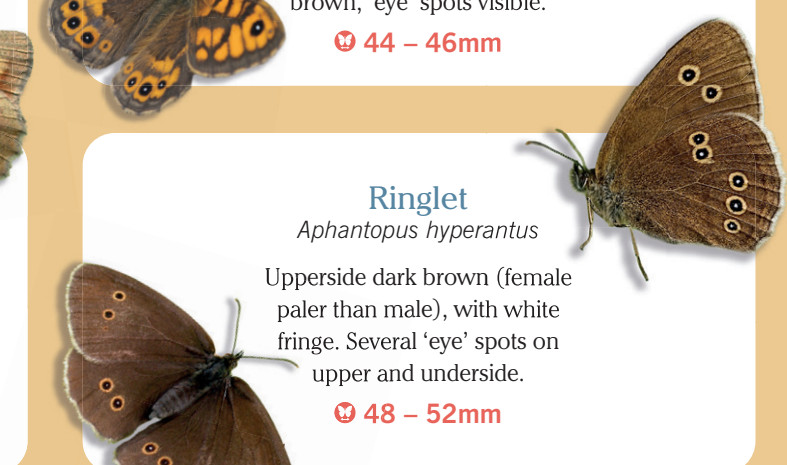


Ringlet

Aphantopus hyperantus

Upperside dark brown (female paler than male), with white fringe. Several 'eye' spots on upper and underside.

♀ 48 – 52mm



Small Heath

Coenonympha pamphilus

Usually rests with wings closed. Smaller and paler than other brown butterflies. Underside of forewing pale orange with black 'eye' spot.

♀ 34 – 38mm

