



## BEESTON WILDLIFE GROUP

### Butterflies in winter

It's the middle of January, our thoughts don't normally turn to Butterflies, but every species that breeds in Britain are out there in the freezing weather, coping admirably as they have done for millennium.

Each species has a different strategy for surviving; they will be in the form of egg, caterpillar, chrysalis or the adult butterfly.

### Adult Butterflies in winter

It is possible to see flying butterflies every day of the year as several species spend the winter in 'hibernation' as adults. If the temperature rises, as it can even in mid January, 'sleeping' butterflies may be stimulated to have a fly round and look for a nectar source. This is disastrous as there are very few. The butterfly will have taken on fuel in autumn to get it through the winter, so flying will reduce its stores. Warm winters are not good for overwintering-adult butterflies. The bodies of the insects have anti-freeze on board and they all *try* to hide out of sight!

**Red Admiral:** These have recently survived mild winters in Britain, but any hint of frost will kill them. The first Red Admirals you see in spring will usually be migrants from the Continent. Overwintering adults in Britain are very late hatches that wouldn't risk migrating south.

**Small Tortoiseshell:** These hide in out-houses or holes in trees. They do come into our homes, - if so, gently pick them up and place outside in a shed, otherwise they will die.

**Peacock:** These hide just as Small Tortoiseshell's, but often in groups indicating that they can communicate. If disturbed, they can hiss like a snake and may flash their open wings displaying their 'eyes' to frighten a mouse or a bird disturbing them.

**Comma:** These don't use buildings but hide in woods and shrubbery low to the ground. Their wings looking like dead leaves.

**Brimstone:** Although bright yellow in colour, the wings are shaped like a leaf, they hide in evergreen shrubs like Ivy.

## Over wintering as a chrysalis

Our three 'White' Butterflies: **Large, Small and Green-veined**, sit out the cold as chrysalises. In this stage they are vulnerable as they are relatively large and can't move, so they are camouflaged and hang on tree trunks or shrubs to merge into the background. The **Orange Tip**, spends 11 months as a chrysalis looking like a thorn or spur on a stem. 4/5 won't survive being eaten by predators.

The **Speckled Wood**, is unique in Britain, it is the only species that overwinters' as *either* a chrysalis OR a caterpillar, they are hidden in coarse grasses. There are two emergences to adults; in May and June respectively.

## Over wintering as a caterpillar

The **Common Blue** spends the cold months as a tiny slug-like green caterpillar, hidden on the underneath of the leaves of Bird's-foot-trefoil. We could easily walk on them as we wander around, but enough of them survive to continue to wake up and eat the growing plant. These caterpillars spend 10 months as this form. **Meadow Brown's** lay their eggs on fine Meadow grasses, the minute green caterpillars munch the grass blades that contain certain fungi that act as bactericides. They may continue to eat on mild days in winter, but always out of sight near ground level. **Gatekeeper** caterpillars hide on the ground among dense dead leaves of coarse grasses, the brown caterpillars are impossible to find. The **Small Skipper** lays its eggs in the sheaths of Yorkshire Fog grasses, in rows of about six eggs above each other. The minute caterpillars eat the eggshells, then spin a cocoon around themselves, where they safely spend the winter still inside the grass sheath.

## Over wintering as an egg

The **Essex Skipper**, is difficult to identify from the very similar Small Skipper in flight, but has a different overwinter stage. The flat shaped eggs with tough shells are squeezed between the sheath's of long grasses and laid in rows. The caterpillars fully hatch inside the eggs, but do not emerge until the spring. The **Purple Hairstreak**, lays its pinhead sized eggs at the base of Oak leaf buds. So, in winter the eggs are high in the trees not on the fallen leaves on the ground. In spring when the leaf buds start to open, the caterpillars hatch and burrow inside and are out of sight.

## Migrating Butterflies

The Painted Lady is a true migrant arriving from Southern Europe in the spring. Their young produced in Britain fly south for the winter. Smaller numbers of other species migrate south in winter, just like the birds, for example Small Tortoiseshell, Large and Small Whites, but most remain as described above. Most Red Admirals will fly south when it gets cold. As winters get warmer we may expect to see other Mediterranean species expanding their range, it's evolution in action. Long-tailed Blue's already have a small foothold on the south coast; others might start to stay including Large Tortoiseshell, Camberwell Beauty or the Queen of Spain Fritillary.

*So, as we turn up the central heating to keep ourselves snug in winter, outside wildlife continues to thrive no matter what the weather. As mere humans, we look forward to the spring when butterflies herald the time when we can get out and enjoy the outdoors, but, before then life miraculously continues out there in the cold.*

## Pictures: Butterflies in winter

1. **Comma** adult, leaf-like
2. **Brimstone** adult, leaf-like
3. **Peacock** adult, black colour to hide in crevices
4. **Large White** chrysalis-cryptic colouration
5. **Orange Tip** chrysalis thorn-like
6. **Essex Skipper** eggs hidden in grass sheath (sheath opened to reveal the eggs)
7. **Purple Hairstreak** eggs (two small white discs) hidden at the base of oak leaf buds
8. **Common Blue** caterpillar cryptic green colouration
9. **Meadow Brown** caterpillar tiny and green to hide in grass stems
10. **Gatekeeper caterpillar**, tiny and brown to hide in leaf litter

