Butterflies

Sources:

https://butterfly-conservation.org/

https://www.wildlifebcn.org/

https://www.perplexity.ai/

Butterflies are insects (BCT)

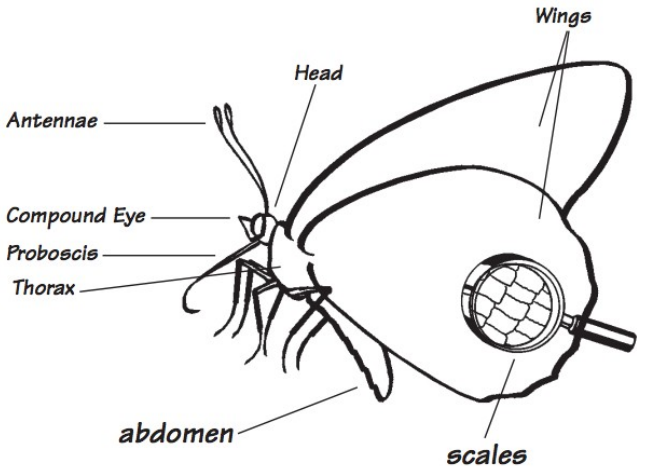
Antennae: sensory organs which detect chemicals in the air - to help the butterfly find food, or a mate.

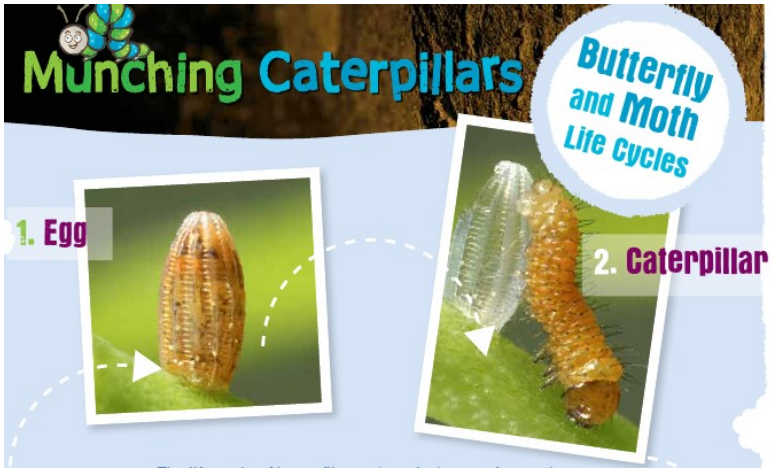
Compound eyes: lots of tiny lenses, can detect light and dark and colour, and able to detect movement in many directions at once

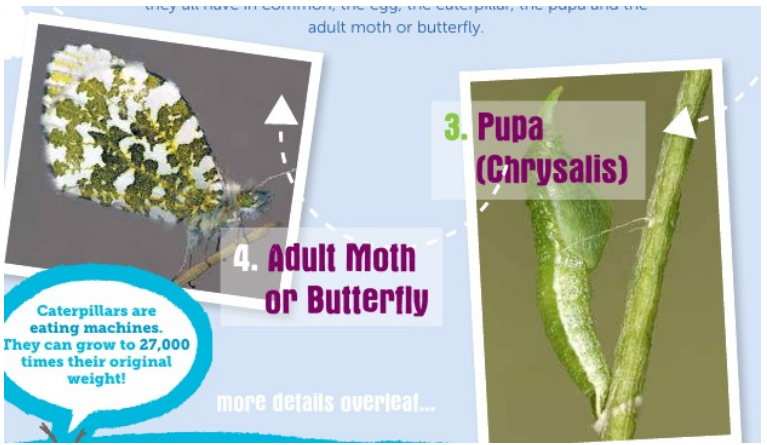
Proboscis: long, drinking straw-like structure

Wings: made up of tiny overlapping scales

Spiracles: tiny holes on sides of abdomen for breathing







Life cycle (BCT)

Eggs laid on plants that the hatching caterpillar will like to eat

Caterpillars have exoskeletons, so to grow they must shed their skin.

Most caterpillars will shed their skin five times in total. One last time to form a chrysalis

After anywhere from a week to a year the adult will begin to emerge

Most live 2-6 weeks

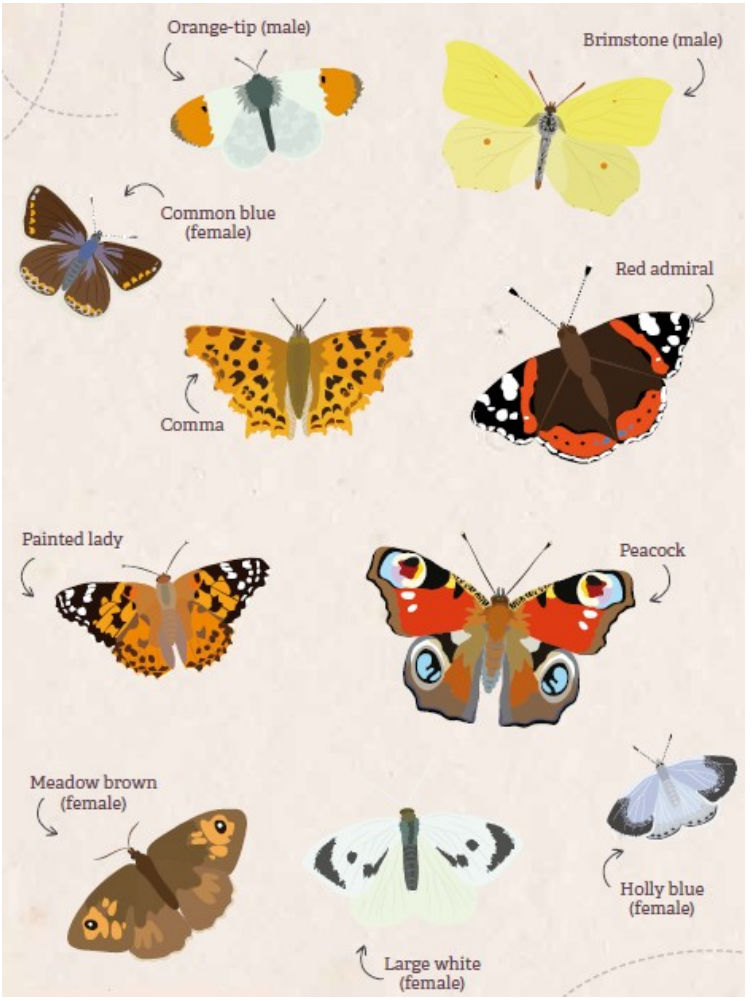
Common local butterflies
(Wildlife Trust BCN)

Cambridgeshire hosts around two-thirds of all permanent UK butterfly species

Thrive across ancient woodlands, chalk grasslands, and fen habitats

Key locations: Wicken Fen, Woodwalton Marsh, Devil's Dyke

(No tortoiseshell in the chart!)



Small Tortoiseshell (WTBCN)



A familiar garden visitor that can be seen feeding on flowers all year-round during warm spells. Overwintering adults may find resting spots in sheds, garages or even houses.

Two or three broods of caterpillars and overwintering as an adult.

The caterpillars feed on common nettle.

Red Admiral wing span 64–78 mm, Small Tortoiseshell 45–62 mm
The similar-looking large tortoiseshell was a common butterfly in Victorian times, but is now considered to be extinct in the UK

Species to look out for in Cambridgeshire (BCT)



Black Hairstreak



Heath Fritillary



Purple Emperor



Chalk Hill Blue



Small Blue



Brown Hairstreak

First in Cambridgeshire in spring (Perplexity)

Peacock – often the very first, from mid-February to early March



Small Tortoiseshell – late February into March



Brimstone – one of the earliest “new-season” butterflies



Comma – from early March



Red Admiral – now often present through winter in mild years



Britain's most threatened and rarest resident butterfly

High Brown Fritillary

Has been recorded in Cambridgeshire,

but it is now extinct in the county.

Now mainly in Morecambe Bay,

Exmoor and Dartmoor



Butterfly Conservation Trust produces a report every few years

59 species of breeding butterfly in UK – nearly 20,000 worldwide



Three quarters are in decline, particularly those

on flower-rich grassland, heathland and

woodland clearings.

Less so those in the farmed countryside

and in urban areas.

Because of habitat destruction, through urban development and agricultural intensification, and climate change

Gardens are important (BCT)

Gardens can act as important stepping stones between nature reserves and other natural habitats by offering abundant supplies of nectar and food plants

Butterflies like warmth so choose sunny, sheltered spots when planting nectar plants.

Choose different plants to attract a wider variety of species. Place the same types of plant together in blocks.

Try to provide flowers right through the butterfly season. Spring flowers are vital for butterflies coming out of hibernation and autumn flowers help butterflies build up their reserves for winter.

Buddleja



“The butterfly bush”

Lots of nectar – strong scent – easy landing – long flowering period

Grows freely – lots along rail line to London

Let’s Talk About Sex (BCT) – a complicated story

Female butterflies choose which males they want to mate with and males compete for the attention of females

Male Peacock butterflies set up territories on the ground and spectacular aerial fights take place between rival males

Male Large White butterflies transfer an anti-aphrodisiac chemical to females during mating. This deters other males from courting the recently mated female.

Male Green-veined Whites not only transfer sperm but also nutrients that the female can assimilate and use to increase egg production. They may transfer 25% of their body mass to females during mating

Female butterflies often put a lot of effort into deciding where to lay their eggs, so as to give their offspring a good start in life, choosing the right types of plants for their future caterpillars to feed on

What they do at night (Perplexity)

Enter a low-activity state rather than true sleep, with eyes open – they have no eyelids

Fold their wings (often vertically) to look more like a leaf or twig

Under leaves, in crevices or under overhangs, where they also take shelter from rain

(They can detect subtle environmental cues that precede rain – pressure, humidity, dropping light levels and temperature)

Migration

Many species, such as the cabbage white, do not migrate

But tens of millions do in boom years

But some travel toward areas with warmer climates, abundant nectar sources, and suitable host plants for their larvae

Perhaps most spectacular is the mass migration of Monarch Butterflies, travelling thousands of miles on thermals air currents to conserve energy – typically at 300m but there are reports of 3000m or more.



Navigate using position of sun and Earth's magnetic field

Butterflies that migrate can live 9–12 months

This year clouded yellows have swarmed into the UK