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Collect caterpillars and watch them change into butterflies

This is the best way for anyone to learn about the miracle of metamorphosis – one of the most complex and extraordinary processes in nature. And with a little effort you can see it happen before your very eyes ...



What you need

- ✿ Something to collect the caterpillars in: traditionally a large jam jar with a lid, but plastic food containers such as Tupperware boxes may be more practical. Remember to make small holes in the lid so the caterpillars can breathe.
- ✿ Rubber gloves or gardening gloves to pick up the caterpillars. Some caterpillars – especially the big hairy ones – have poisonous hairs (to make them unpleasant for birds to eat) which can irritate your skin.

Collecting your caterpillars

- ✿ Look for caterpillars any time between May and August, with the most variety available in June and July.
- ✿ Once you find them, gather up a maximum of five and put them into your plastic container, ideally with a stem or two of the plant they are feeding on at the time.
- ✿ When you collect the caterpillars, also bring home extra stems of the plant you find them on and keep them fresh in a jug of water. This is known as their 'food plant', and many kinds of butterfly or moth only feed on a single type.
- ✿ Never pick up a caterpillar you find on the ground – it is searching for its food plant or wandering off to pupate, and needs to be left alone.

Food plants of some British butterflies

CATERPILLAR'S FOOD PLANT	BUTTERFLY
cabbages, kale and nasturtiums	large white and small white (both also known as 'cabbage white')
stinging nettles	peacock, red admiral, small tortoiseshell, comma
buckthorn & alder buckthorn	brimstone
garlic mustard	orange tip
holly & ivy	holly blue
milk parsley	swallowtail

Looking after them

- ✿ Keep your caterpillars in a tank – you can buy this at any pet shop. Put the stems of their food plant into a small jar of water inside the tank, and bring fresh plant material in every couple of days.
- ✿ Cover the tank with a lid to stop them escaping, but make sure there are enough air holes to keep them alive.
- ✿ It's best to keep your tank in a cool place, otherwise the butterflies will emerge too early – a garage or garden shed is ideal.
- ✿ Make sure you provide a good supply of the food plant as the caterpillars grow – they are voracious eaters. And the bigger they get, the more they eat – some will need new supplies every day.
- ✿ From time to time your caterpillars will shed their skin and emerge looking fresh and new. You may notice bits of shed skin in the tank. When caterpillars change their skin they usually stay still – make sure you don't pick them up at this time.



How to identify ... butterflies



Small Tortoiseshell

*March to October,
almost anywhere*

One of our commonest and most widespread butterflies, and can be seen in almost every month as it hibernates here. Medium-sized, with classic 'tortoiseshell' pattern of orange and black, and blue spots on the edges of the wings.



Comma

*February/March to early
autumn, England and Wales*

Distinctive orange-and-black butterfly with crinkly edges to its wings and a tiny white mark below that gives the comma its name. Loves buddleias.



Red Admiral

*April/May to September/
October, almost anywhere*

One of our largest and most handsome butterflies: basically black and orange-red with white markings near the wing tips. Loves feeding on fallen fruit. Comes here each spring from Continental Europe, migrating back in autumn.



Painted Lady

*May/June to August/September,
mainly in the south*

Like a washed-out version of the red admiral, this is another migrant, some flying here all the way from North Africa. Common in some summers; very scarce in others. Look out for a black-and-orange butterfly with white on the wing tips, and long wings.



Peacock

March/April to September, almost anywhere apart from northern Scotland

Stunning creature, with huge 'eyes' on the tips of the wings which are meant to fool predators and allow the butterfly to escape from attack. Deep orange, with blue, yellow and black 'eyes'.



'Cabbage' White

April/May to August/September, almost anywhere

This is in fact three separate but very similar species: large, small and green-veined whites. All are white above, with black spots and black edges to their wings; and yellowish below. Look out for the green-veined white's distinctive underwing pattern of black streaks on a yellow background.



Marbled White

*Late June to August,
mainly in the south and west*

Not a 'white' at all, but a 'brown' with white mottling on its dark wings. A grassland species sometimes found in gardens.



Clouded Yellow

May to September, mainly in the south

Another migrant, seen in huge numbers in some summers, and other years virtually absent. Resembles the brimstone, but much deeper, richer yellow and with black wing tips.



Brimstone

February/March to late autumn, mainly in England

One of the first butterflies to emerge, sometimes seen on sunny days in late winter, this is the original 'butter-coloured fly'. Male is pale lemon yellow; the female is much paler, and can be confused with one of the 'whites', but has no black on her wings.



Gatekeeper

July to August,

grassy areas in the south

Appears later than the meadow brown, and is smaller, brighter and smarter than that species. The orange patches above are more obvious than on the meadow brown, and the underwings are also brighter. 'Eyes' above and below.



Meadow Brown

May to August/September,

almost anywhere

Our commonest and most widespread butterfly, but often overlooked because of its rather drab appearance. Males are basically dark brown, with small brown 'eyes' above and below, and orange on the underwings. Females have orange on the upperwings too. Larger than the similar gatekeeper. Prefers long grass.



Orange Tip

April to June, almost anywhere

The male is really easy to spot, thanks to the bright orange patches on his white wings, which also have black tips. The female looks very like the cabbage whites, but her underwings are mottled with green.



Common Blue

June to September,

almost anywhere

Male is a small- to medium-sized, deep blue butterfly, noticeably larger than the holly blue. White edges to the wings. Female much browner, with hints of bluish above.



Holly Blue

April/May and July/September, England and Wales

A tiny blue butterfly, often seen fluttering high against a climbing shrub. Powder blue above, with black wing tips, and tiny black spots on pale blue below. Two broods, one in spring and the other in summer. Most likely blue butterfly to be found in gardens.



Small Copper

May to October,

England and Wales

This little gem of a butterfly makes up in beauty what it lacks in size. Dark brownish-grey hindwings with an orange border, and bright orange forewings spotted with brownish grey.



Speckled Wood

April/May to August/September, mainly in the south

A mainly dark brown butterfly with creamy spots on the forewings and a row of 'eyes' along the hindwings. Mainly lives in woods, but now on the increase and often seen in gardens, especially those with hedgerows.