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**RSPB** spotlight

# ladybirds

RICHARD COMONT



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# Ladybirds

**Richard Comont**



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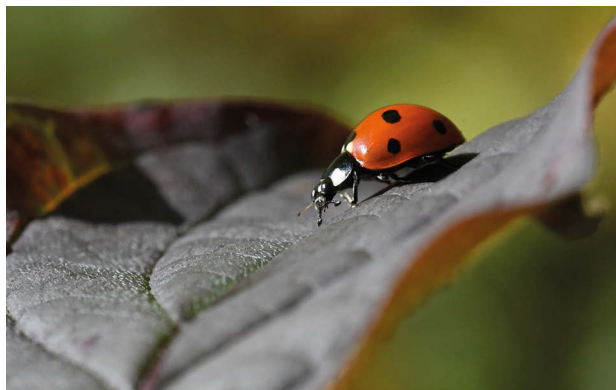




# Meet the Ladybirds

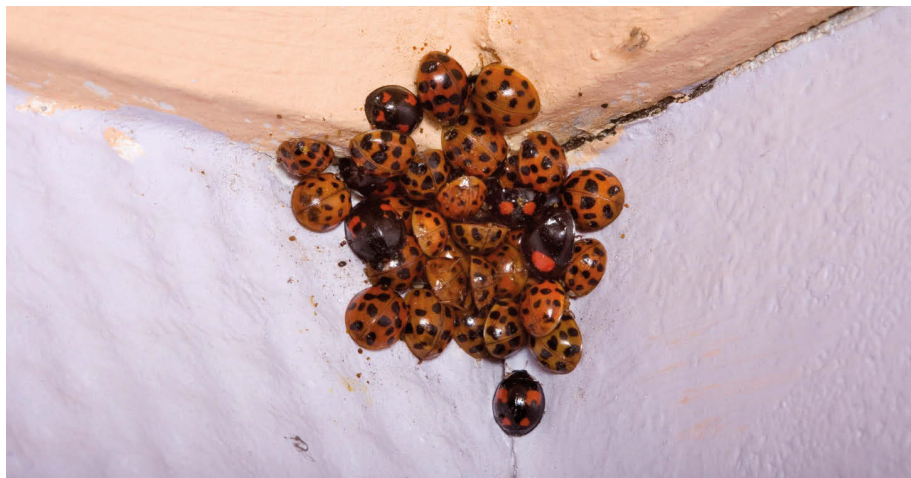
Everyone loves a ladybird. Bright red, spattered with black spots, and clumsily endearing as they amble around the garden, ladybirds have been seen as lucky symbols of summer through the centuries. Farmers and gardeners appreciate them as guardians of plants against the greenfly hordes, and historically ladybirds have been connected to God or the Virgin Mary in thanks for the role they play in crop protection. Often associated with children, they have also been immortalised in rhymes and stories. But beyond our mental image of the lucky ladybird lies a hugely successful range of species, far more diverse than we give them credit for.

Ladybirds – either the real thing or their images – are never far away. Live ladybirds crowd our gardens and parks, trees and roadside verges, heathland, moorland and pond edges. Some species even venture inside our houses during the winter; once there, they are likely to meet pictures of themselves on books, clothing or any one of the huge number of items produced by organisations that use ladybirds as logos. One species in particular has a strong claim to be the single most iconic species of insect worldwide: the Seven-spot Ladybird (*Coccinella septempunctata*) is the symbol of Ladybird clothing,



**Opposite:** Ladybirds are familiar to most people, and can often be found in parks and gardens.

**Left:** The Seven-spot Ladybird is perhaps the most iconic of all the ladybird species.



**Above:** Some ladybirds are familiar because they share our homes in winter, such as these Harlequin Ladybirds.

**Below:** Farmers and gardeners value ladybirds for their pest-eating habits, which ultimately help protect crops and plants.

Dutch street tiles and much else besides, as well as the state insect of five US states and the star of more postage stamps than any other insect.

Despite the 'lady-' prefix to their common name, ladybirds are not all female, and nor are they birds (or bugs, despite the American name 'ladybug'); instead, they are beetles. Ladybirds make up just over 1 per cent of the 4,000-plus British beetle species, but, brightly coloured and abundant in gardens, they punch far above their weight in terms of familiarity.





# A diverse group

Not only are ladybirds common and widespread, they also come in countless colours and sizes. The Seven-spot Ladybird is perhaps the most iconic British insect, and the other black-spotted red species are swept along on its coat-tails of familiarity. But it is just one of 47 ladybird species resident in the UK and more than 6,000 species worldwide, found on every continent except Antarctica.

Compared with many other countries, the UK's total of 47 ladybird species is low; in contrast, the USA has 481 known species and Canada 162. The English Channel has acted as a barrier since the end of the last ice age, almost certainly preventing the colonisation of Britain by a range of species that are widespread on the north coasts of France, Belgium and Holland, including *Oenopia conglobata*, *Cynegetis impunctata* and *Calvia decemguttata*. However, even the British ladybird fauna is surprisingly diverse, and representative of the group across the world. It contains both the smallest and the largest species in Europe – the 1mm ( $\frac{1}{16}$ in) Dot Ladybird (*Stethorus pusillus*) and the 9mm ( $\frac{5}{16}$ in) Eyed Ladybird (*Anatis ocellata*), respectively – alongside a range of predators, herbivores and fungivores (fungus-feeders).

**Below:** Ladybirds come in a range of different sizes: from Britain's smallest ladybird, the Dot Ladybird (left), to our largest species, the Eyed Ladybird (right), which eats aphids that are bigger than its tiny cousin.



**Right:** The 18-spot Ladybird is easily recognised by the cream markings smeared across a maroon background.



Worldwide, the smallest ladybirds are a mere 0.6mm ( $\frac{3}{32}$ in) long – not much bigger than a full stop – and even the largest are hardly giants at just more than 1cm ( $\frac{3}{8}$ in). Most are spotty, though not just black on red: the background can be red, orange, yellow, brown, black or another colour, while the spots can be black, purple, white, red, orange or yellow. And the spots aren't just round either – they may be oval, triangular or kidney-shaped, or streaks, bullseye roundels or indeterminate blobs. Many ladybird species are brightly coloured but some are camouflaged – a few species even manage to be both at the same time!

**Below:** Pine Ladybirds are distinguished by their black colour, with oval and comma-shaped red markings.

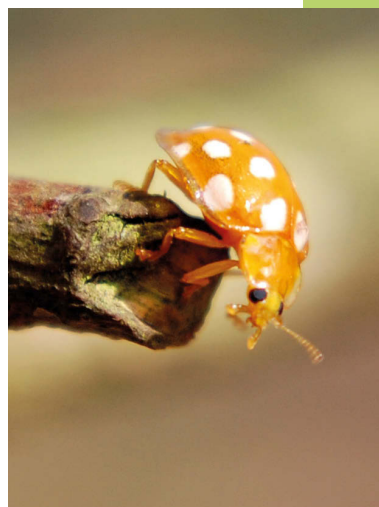
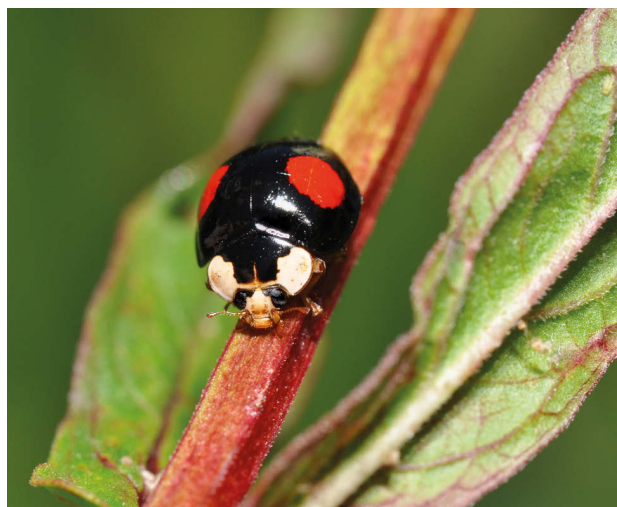


# Recognising ladybirds

The UK's 47 resident ladybirds include 26 'true' or 'conspicuous' ladybirds – generally the larger (3–10mm, or  $\frac{1}{8}$ – $\frac{3}{8}$ in), brightly coloured, hairless species that are immediately recognisable as 'ladybirds' and (in the UK at least) have common names – and 21 'inconspicuous' ladybirds, which are generally smaller and hairier, with much duller colouration and usually only scientific names. Both groups are occasionally reinforced through immigration – around 60 ladybird species have been found in Britain in total, with many of the additional species accidentally imported on fruit and vegetables.

Ladybirds are usually pretty distinctive, but even among Britain's 26 conspicuous ladybird species there is a lot of variation. Most species are orange or red and black, but this can be either red with black spots (like the Seven-spot), or black with red spots (like the Kidney-spot Ladybird, *Chilocorus renipustulatus*). Some species fluctuate between the two: the Two-spot (*Adalia bipunctata*), 10-spot (*A. decempunctata*) and Harlequin (*Harmonia axyridis*). Ladybirds each have a range of colour forms, including some that are red with two to 21 black spots, and others that are black with two to six red spots. Three species are

**Below:** British ladybird species vary massively in colour, but their shape and general appearance remain similar.







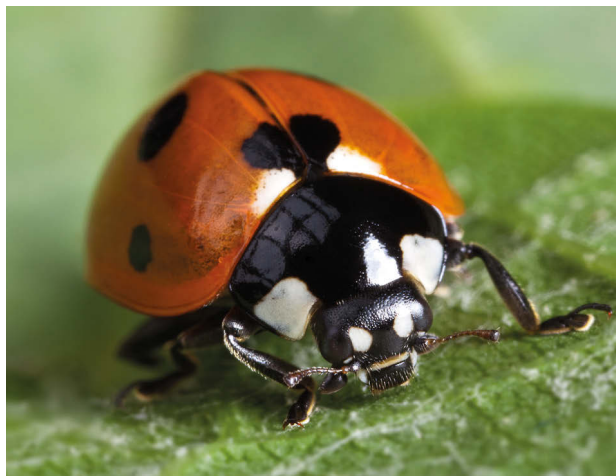
**Above:** The unique markings of ladybirds can vary a great deal, from the neat spots of a 22-spot Ladybird (left) to the smears and streaks on a Striped Ladybird (right).

yellow with black spots, and four are orange or brown with white markings (although these vary between spots and stripes). The Eyed Ladybird has both: black spots, ringed with beige, over an orange-red background.

## High-vis beetles

Many people don't realise that ladybirds are beetles until the fact is pointed out to them. If you look past the colours, they are actually entirely typical for the group, with six legs, three body sections, one pair of antennae, biting mouthparts and hardened front wings formed into elytra (wing cases). All ladybird species fall within the family Coccinellidae, which is split into a range of subfamilies, as well as the less scientific split between the conspicuous and inconspicuous species. The family name Coccinellidae comes either from the Greek *kokkos*, meaning 'berry', or *coccinatus*, meaning 'scarlet', both of which fit the typical ladybird species well.

Everyone can recognise a typical ladybird, but it becomes much trickier to pick out the less standard species. Not all are bright red; indeed, some are not brightly coloured at all. Because of this diversity, the ladybirds are surprisingly difficult to pin down as a family. Generally, they can be recognised by their bright colours, spotted markings and hemispherical dome-like shape, and their ability to produce brightly coloured, foul-tasting



**Left:** Ladybirds, like this Seven-spot, are clearly dome-shaped when viewed from the front or from the side.

defensive secretions, but all these rules of thumb have exceptions. Confirming some of the more unusual species as ladybirds can require close examination, particularly of mouthparts (ladybirds generally have large triangular, axe-like palps) and legs (to count the number of tarsal segments – a ladybird's 'toes').



**Left:** In addition to their recognisable domed shape, some ladybirds are also slightly hairy, as seen here in this 24-spot Ladybird.