

## **Frequently Asked Questions**

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#### What is the difference between a spider and an insect?

Spiders have eight legs instead of six, their bodies are made from two segments instead of three, and they lack antennae. Insects and spider are both arthropods, which separates all invertebrates with exoskeletons, segmented bodies and jointed legs from other animals, but the similarities really end there.

Spiders then fall into the taxonomic Class Arachnida, and this includes scorpions, mites and ticks too. This means that although all spiders are arachnids, not all arachnids are spiders! Meanwhile, insects have their own Class, known simply as Insecta.

#### How many different species of spiders are there in the UK?

There are 660 species of spiders in the UK, but some of these originated from elsewhere and were carried within cargo from overseas.

#### What is the difference between female and male house spiders?

Females that belong to the *Tegenaria* genus, or in fact most spider species, often lead solitary lives sitting and waiting in a web for a male suitor to approach.

Males are identifiable by the enlarged sex organs at the end of their pedipalps that often are cited as looking like boxing gloves. Pedipalps are found on the front of the spider, and when a male is sexually mature these will enlarge and allow him to mate with a female.

#### What is the lifecycle of a house spider?

These spiders live for several years, although there is a markedly different life pattern between the two genders. Females live longer, for around 30 months, whilst males only live for about 18.

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After laying her eggs in the spring, solitary females may care for the spiderlings as they grow by providing <u>food for them</u> and even letting them reside on her web, although generally the mother will keep a healthy distance away from her spiderlings before they disperse.

Spiders do not grow gradually like humans but moult – they shed their hard exoskeleton, expand slightly, and then the new exoskeleton hardens. They can do this up to eight times before becoming adult; four times during their first year, then around four times the next spring.

Young spiders will moult to an immature form before emerging from the egg sac, and then proceed to reside on the web for days as a cluster. Siblings tolerate each other less and less as they mature and start to see their brothers and sisters as food instead of friends, making the sibling rivalry seen in humans very tame in comparison!

Males and females reach full maturity in August and September, and then males leave their webs to find a female. They will often target females who are one moult away from full maturity, and will wait and guard her before swooping in. Upon locating a female, he remains with her for several weeks, mating repeatedly. He eventually dies before winter. <u>Literature</u> suggests that because the female instinct to cannibalize intruders is only temporarily stunted during sexual activity, any dead male left around after mating no doubt becomes the female's dinner.

She then retreats for the winter, and in the spring when it is warmer and there is more food around, she begins to construct egg sacs that hang from the web. These are roughly spherical structures, the size of a small fingernail, that each contain around 60-70 eggs. They are often decorated with dead insects for camouflaging the sac, and dead insects may also be left for the spiderlings to eat.

One female can produce up to ten egg sacs if the conditions are ideal. Generally speaking, however, the house spiders lead solitary lives, and tolerance of any sort of other spider, be it a mate or even offspring, is relatively short lived, until the males go in hunt for females in the autumn.

#### How do spiders find a mate?

Different spider species have different methods of courtship before mating, but for those that reside in webs it is common for a male to pluck the edges and cause vibrations for the female to detect. Spiders are very sensitive to vibrational stimuli, so this lets the females know the male is ready to mate.

#### Do spiders bite humans?

Generally, house spiders are very shy creatures, and are more likely going to run away from humans than towards them! However, if when handling a spider, you do experience a bite, you shouldn't worry as house spiders in the UK have venom that is relatively harmless. Generally though, spiders rarely bite and are quite safe to handle if done so gently.

#### What is a group of spiders called?

A *cluster* or a *clutter* can be used to describe a group of spiders.



#### How can I collect spiders for identification?

If you cannot identify your spider by sight alone, or they are just getting away too quickly, trapping them temporarily under a transparent cup and using a hand lens to get a closer look is a great idea.

For those that are a bit more apprehensive about getting too close to these creepy crawlies, or for those spiders hiding in corners, using sweep nets or a <u>pooter</u> to harmlessly trap the specimen is ideal.

# Why are we only tracking the *Tegenaria* genus (common house spiders) of spiders for the house spider survey?

These spiders are some of the larger, hairy spiders usually found around the house, so are easy to spot and photograph. Not only that, but due to their size they are easy enough to identify as members of the genus, giving us data that we can trust and use. Their behaviour also allows us to get valuable information about their ecology – by recording when the males get more common indoors we study the timing of their mating.

### Where can I find spiders outside the house?

If you want to study spiders more, they can be found in nearly all environments across the globe, so it is almost impossible not to track them down if you put your mind to it!

They can be found by hand searching through leaf litter, sieving vegetation, or moving rocks, logs or even loose bark on a tree to see what is hiding underneath. Spiders like dark, damp conditions so even manmade structures that are left for some time may become the temporary home of an arachnid. Just remember to replace anything you move after checking for spiders.

For those that prefer a more passive approach to collecting spiders, setting pitfall traps is a cost effective way of sampling many ground dwelling invertebrates over a number of days. Use plastic cups or clean yogurt pots submerged in the ground, with the rim surrounded by soil to trap anything crawling unknowingly around- but make sure you check them frequently if you're not using any preservation fluid. Rain covers and small holes in the bottom of the container to aid drainage are essential if collecting in more temperate climates, especially in the UK.

Have spiders managed to now get you tangled up in their web of excitement? For more information, look at the website for the British Arachnological Society (<a href="www.britishspiders.org.uk">www.britishspiders.org.uk</a>), and find out more about searching for spiders, catching spiders, and even keeping some of your own. Thanks go to Geoff Oxford for amendments.