

Laceweb spiders

(*Amaurobius* species)



Advancing Arachnology



Laceweb spider *Amaurobius similis*

A 'doily' of lacy, bluish-tinged silk on a closely cropped hedge, or a more tangled affair emerging from a hole in masonry, give away the presence of one of our Laceweb spiders.

How to recognise Laceweb spiders

In Britain, we have just three species in the family of Laceweb spiders (Amaurobiidae): *Amaurobius similis*, *Amaurobius fenestralis* and the Black Laceweb Spider *Amaurobius ferox*. Here we will call them *fenestralis*, *similis* and *ferox*. *Similis* must be one of Britain's most frequently encountered spiders because it inhabits holes and crevices around buildings across the country. The three species look very similar but differ slightly in size, overall coloration and preferred habitat (see FACT FILE below). *Similis* and *fenestralis* are particularly similar and individually variable; they can only be reliably told apart with microscopic examination.

Prey capture

Although largely active at night, when they lurk at the entrance to their retreats or extend their webs, these spiders will also dash out – at high speed – when the web is disturbed during the day. The spiders feed mainly on crawling invertebrates, but aerial insects are also taken. Unlike most of our spider families, Laceweb spiders have an additional silk-spinning apparatus, called a cribellum, in front of the normal spinnerets (see Factsheet 1) under the abdomen. This is a slit-like structure from which woolly, non-sticky, silk is combed out using a double row of bristles (the calamistrum) on the back legs. This silk acts rather like the woolly-side of Velcro, entangling the legs of potential prey and also retaining it by molecular attraction (Van der Waals forces). On a flat surface, such as a



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Amaurobius similis



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Amaurobius fenestralis



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Male Black Laceweb Spider (*Amaurobius ferox*) showing pedipalps, which look as if they are carrying a white marble!

FACT FILE

Laceweb spiders
(*Amaurobius* species)

Body lengths:
Males - 6-8 mm

(*similis*); 4-7 mm (*fenestralis*);
8-10 mm (*ferox*)

Females - 9-12 mm (*similis*);
7-9 mm (*fenestralis*); 11-15 mm
(*ferox*)

Appearance: • Cephalothorax
(front section of the body) –
The distinctly darker head area
contrasts with the rest of the

cephalothorax, which is mid-
brown to very dark brown,
depending on species. In mature
male *ferox* there is a conspicuous
white patch at the end of the
pedipalps (see Factsheet 1).

• Abdomen (back section) –
All three species have a
characteristic dark-brown,
wedge-shaped mark with a pale
mid-line and edged with yellow
in the front half of the abdomen,
and pale, forward-pointing
chevrons in the rear half. In
ferox, everything is darker and
the pattern may be less obvious.

• Legs – Short, relatively stocky
and the colour of the rear part
of the cephalothorax. All
species have darker rings but
these can be difficult to make
out in *ferox*.

Habitat: *Similis* – usually around
window frames and in tightly
growing garden hedges;
fenestralis – under tree bark
and stones and in dense
vegetation; *ferox* – gardens,
cellars and outhouses and
under rubble or other debris,
often in damper and shadier
situations than the others.



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Lacewebs surrounding central tube-like retreats



Tone Willick

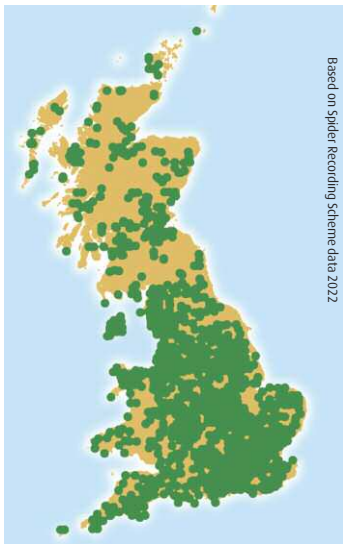
Amaurobius similis spiderlings feeding off special eggs laid by their mother

garage door or on the cut edge of a dense garden hedge, the web spreads out like a doily from a central cavity, within which the spider makes its home. On complex surfaces, the web is more of an untidy sheet. When freshly produced, the silk has a bluish tinge.

Extraordinary life history

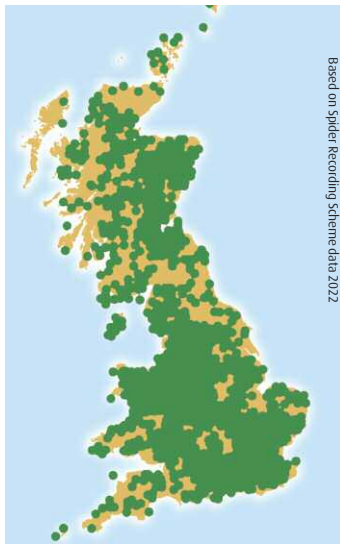
All three species can be found as adults in most months of the year. Most *similis* and *fenestralis* males are mature in late summer/autumn, whereas mature females are found throughout the year, with spring and autumn peaks. *Ferox* has more defined peaks - in spring for males and early summer for females. *Similis* egg-sacs are typically produced in June and July, the parents having mated the previous autumn. The mother guards the egg-sac for about a month, before the young emerge. Some amazing behaviour

follows. After two or three days the female begins to cover her young with a fine layer of silk and they become very active, eventually moving under her abdomen, like piglets round teats. Indeed, they are being fed, but not on milk. The female produces special 'trophic' (food) eggs, which are avidly consumed by the young and help them progress towards their second moult, some five days later. The mother then taps and pulls at the silk, activating her previously quiet offspring, which swarm all over her, biting wherever they can. Eventually she is overwhelmed and eaten, a process called matriphagy (literally 'mother-eating!'). These well-fed young disperse some 14 days later, larger, and in a much better nutritional state, as a result of their mother's provisioning and ultimate sacrifice. The other two Laceweb species behave similarly.



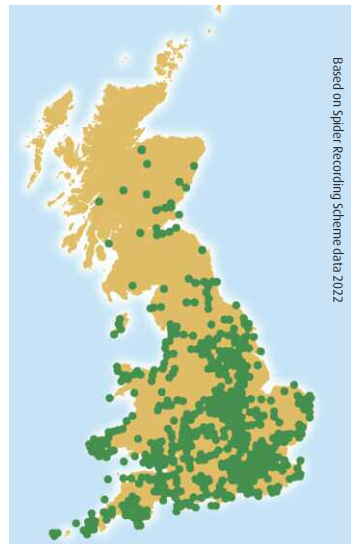
Based on Spider Recording Scheme data 2022

Amaurobius similis in Britain



Based on Spider Recording Scheme data 2022

Amaurobius fenestralis in Britain



Based on Spider Recording Scheme data 2022

Amaurobius ferox in Britain

Where are they?

Similis is very widely distributed but, being associated with buildings and gardens, is understandably scarce in more upland and less populated areas such as central Wales and the highlands of Scotland. *Fenestralis* is likewise widespread - apparent gaps may be a result of under-recording rather than real absence. Finally, *ferox* is much more scattered across England and Wales and even more so in Scotland but it too is probably under-recorded.

For more information

britishspiders.org.uk/srs_Amaurobius_similis

britishspiders.org.uk/srs_Amaurobius_fenestralis

britishspiders.org.uk/srs_Amaurobius_ferox

Bee, L., Oxford, G. & Smith, H. (2020) *Britain's Spiders*. 2nd edn. Princeton WILDGuides.

The British Arachnological Society

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