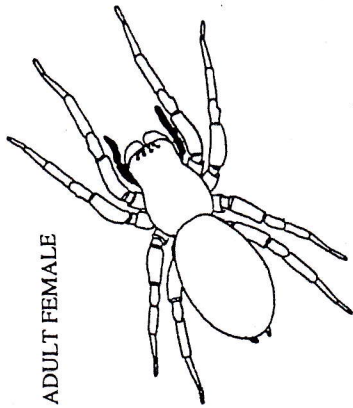
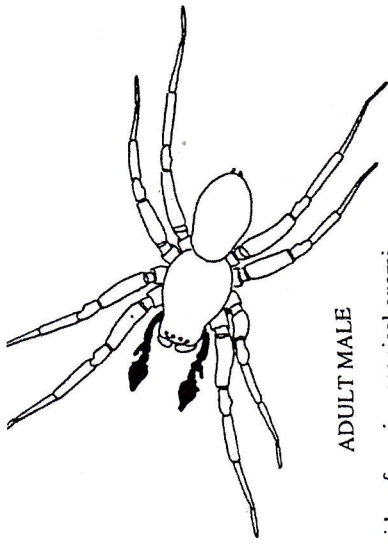


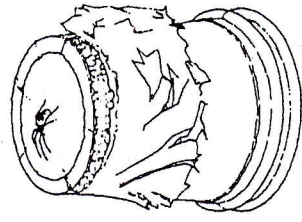
ADULT FEMALE



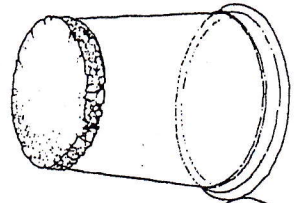
ADULT MALE



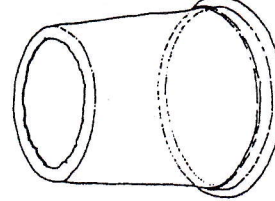
3. **The Spi-pot** Various methods of restraining live spiders for microscopical examination have been tried over the years. One method involves cutting down a plastic hypodermic syringe and gluing a glass coverslip over the end leaving a hole for air to escape. The spider is placed inside the barrel and the plunger advanced until the spider is trapped against the coverslip. It works quite well, but many people have found that syringes are not easily available. Additionally, the inside of the glass coverslip can be difficult to clean and the plastic of some syringes deteriorates rapidly and becomes brittle. With this and other methods there is also the risk of squashing the spider. All of these problems are overcome with a simply made device (arrived at whilst preparing this book) which I call a 'spi-pot'. It should also be of considerable use to entomologists. To make one you will require two clear plastic pots, a small piece of polystyrene sheet and a piece of clingfilm. I use pots with a 50mm diameter base, 67mm high, which originally contained glacé cherries or mixed peel. The polystyrene sheet, comes from a gap of 8mm between the bases. The polystyrene sheet, 8mm thick, comes from packing or tiles. The base of one pot is cut out leaving a rim of 5mm for rigidity (pot A in the illustration). Place the second pot on the polystyrene sheet, draw around the base of the pot and cut out the circle of polystyrene with a sharp knife. Stick the polystyrene to the base with PVA glue (pot B in the illustration). Inclusion of a mm. scale on the polystyrene is very useful for measuring the length of specimens in the field. This can be done with indian ink and a rapidograph pen, ruling a scale line or a grid of mm. squares, or a piece of mm. square graph paper can be stuck on. Finally, take a piece of clingfilm (about 25cm square) and stretch this tightly and evenly over the cut base of pot A, wrapping the surplus loosely around the sides. The captured spider is placed in pot A and trapped between the clingfilm and polystyrene when pot B is pushed in. Don't worry if the edge of the polystyrene is a bit ragged; parts of this will help grip, and parts will allow the passage of air when the cups are separated again.



Spi-pot assembled and holding spider

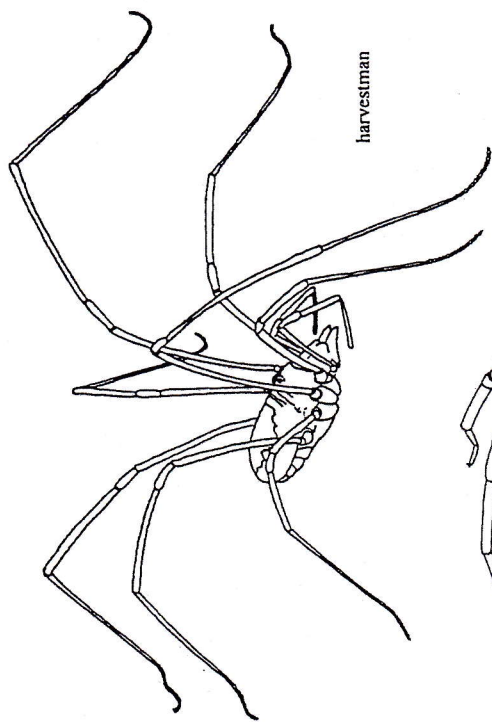


Pot B

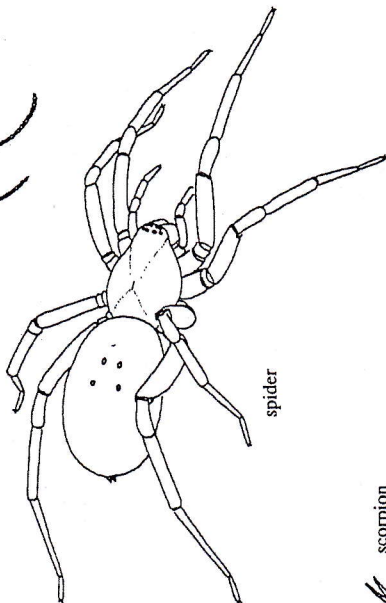


Pot A

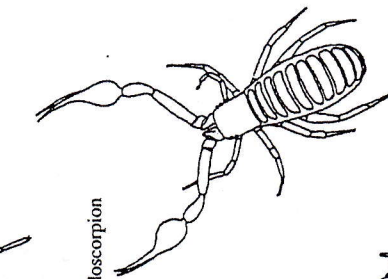
Spi-pot



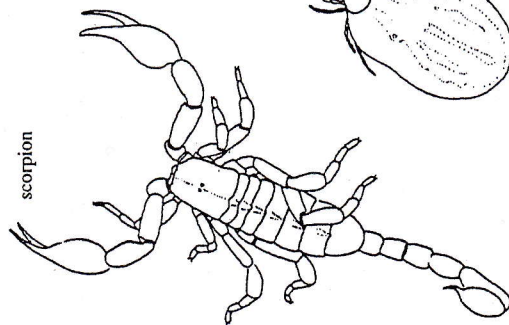
harvestman



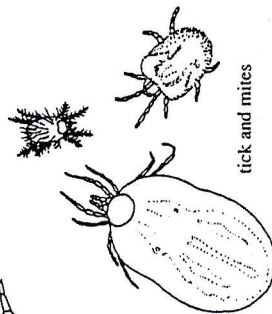
spider



pseudoscorpion



scorpion



tick and mites

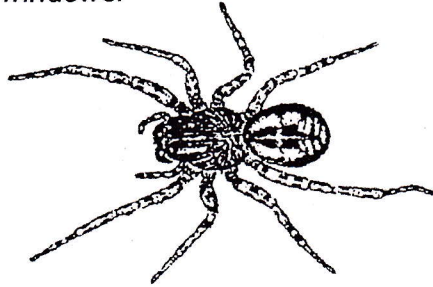
The five orders of Arachnida that occur in northern Europe

THE MAJOR GROUPS OF SPIDERS (not to scale)

Lace-web weavers

(Dictynidae, Amaurobiidae)

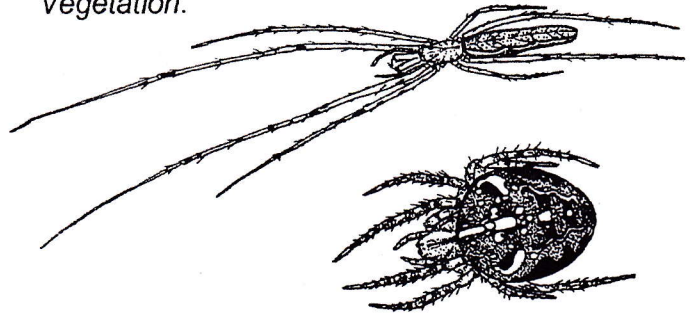
Produce a woolly mass of non-sticky bluish silk in which prey become entangled. *Vegetation, walls, windows.*



Orb-weavers

(Araneidae, Tetragnathidae)

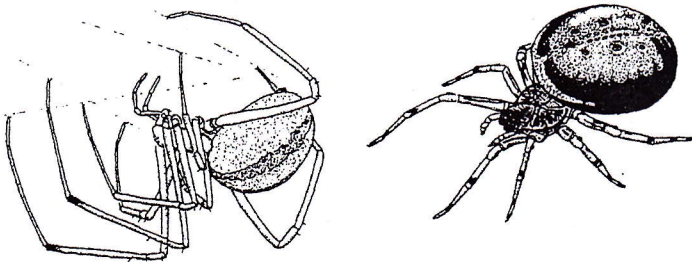
Classical spider's web with sticky spirals. *Vegetation.*



Tangle-web weavers

(Theridiidae)

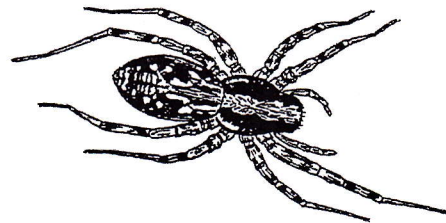
Make webs with a random meshwork of non-sticky silk. *Vegetation, buildings.*



Hunting spiders

(Lycosidae, Pisauridae)

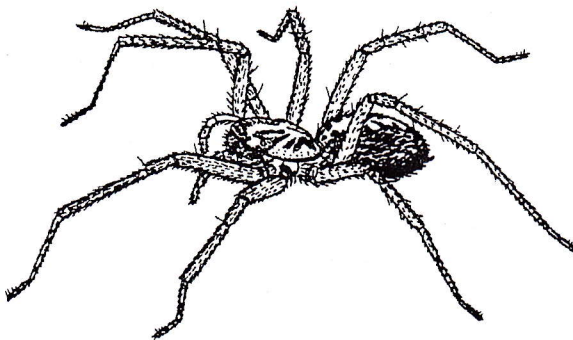
Do not use silk for prey capture, instead run down their victims. *Ground, vegetation.*



Funnel-web weavers

(Agelenidae)

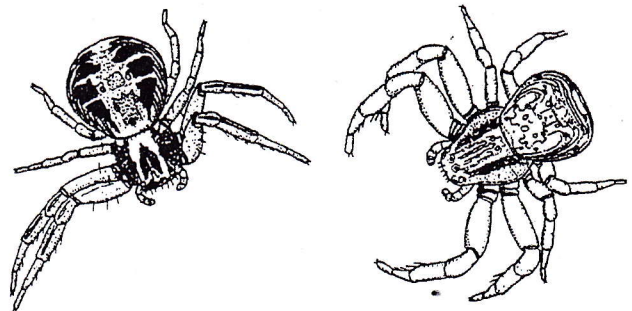
Non-sticky sheet webs with a retreat in one corner. *Buildings, fences, walls.*



Crab spiders

(Thomisidae, Philodromidae)

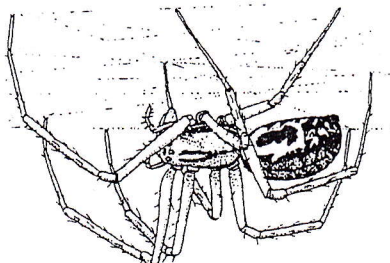
Do not use silk for prey capture, instead sit, wait and grab on flowers, leaves etc. *Vegetation.*



Sheet-web weavers

(Linyphiidae)

Non-sticky, domed sheet webs with scaffolding above and below. *Vegetation.*

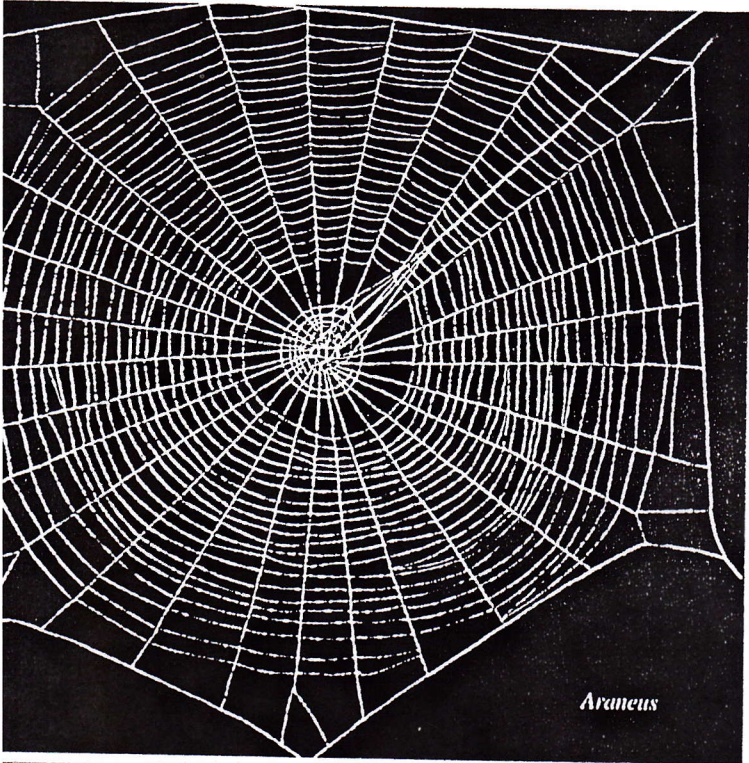


Jumping spiders

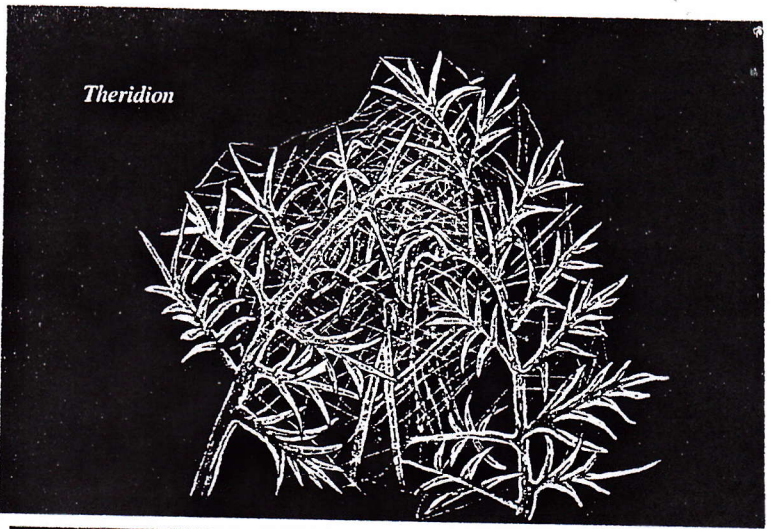
(Salticidae)

Do not use silk for prey capture, instead stalk and leap on their victims. *Vegetation, buildings, ground.*

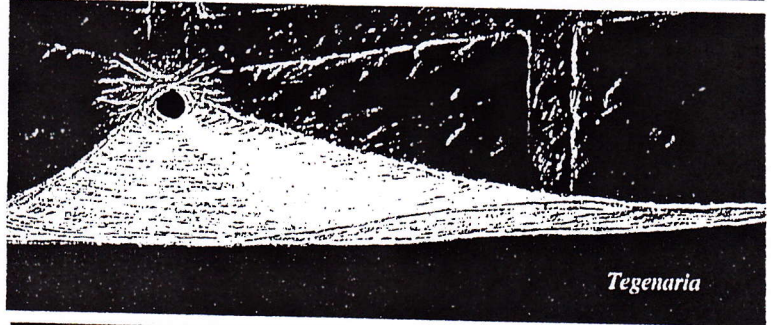




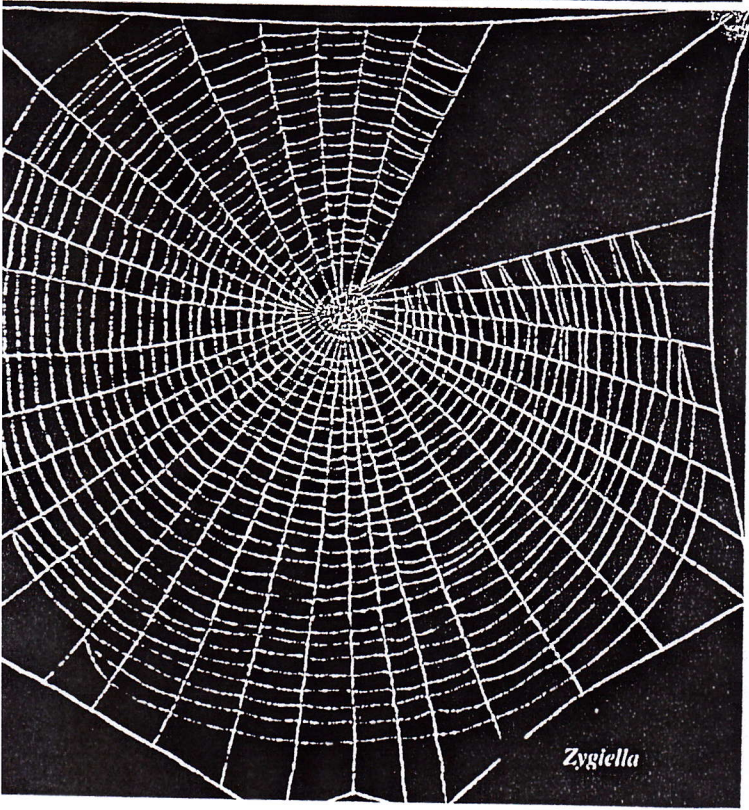
Araneus



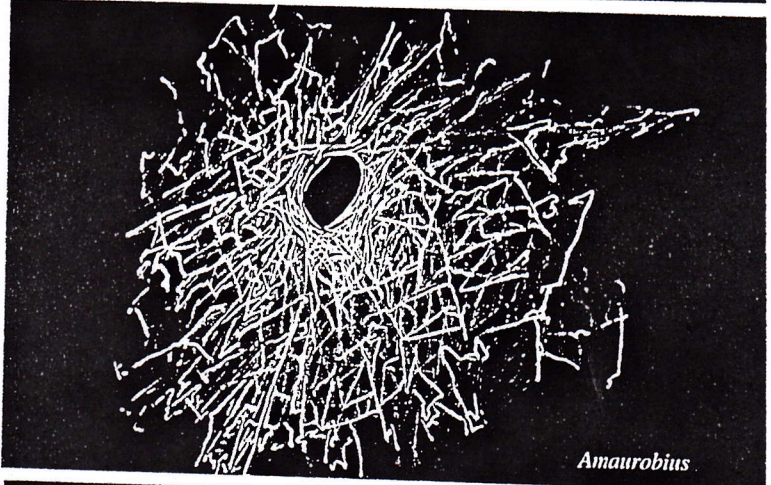
Theridion



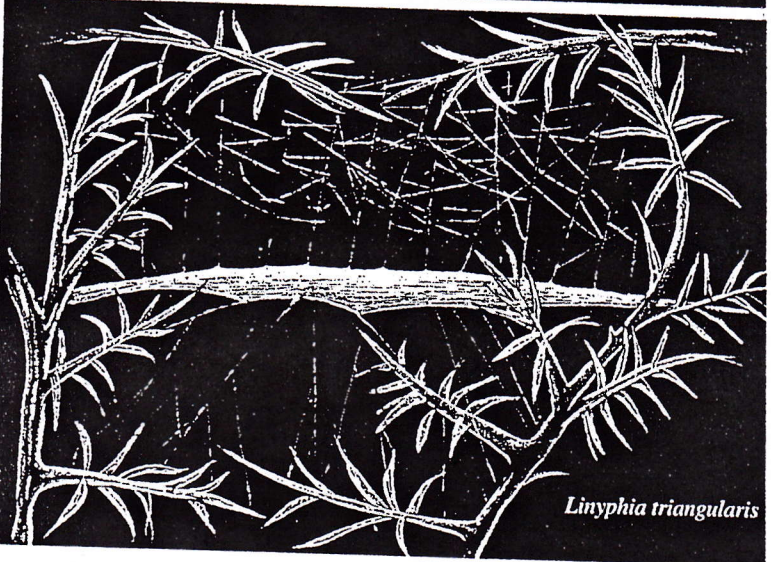
Tegenaria



Zygiella



Amaurobius



Linyphia triangularis

Further Reading

'Coffee table'

Spiders: The Ultimate Predators by Stephen Dalton. A&C Black, 2008. ISBN 978-1-4081-0697-6, £19.99 (£13 on Amazon)

Stands head and shoulders above similar style books owing to the fantastic photography.

Popular science

The World of Spiders by W. S. Bristowe. Collins New Naturalist, 1971.

If you read one book on spiders make it this one. Although quite old now (first printed 1958, and revised in 1971) meaning some of the names are out-of-date, this is still one of the best books on spider natural history. Beautifully written - often considered the 'best read' of the New Naturalists Series. A first edition will cost a couple of hundred pounds, but subsequent editions, especially ex-library, go for less than £40. Also available as a 'print-on-demand' reprint from www.newnaturalists.com for £60.

Arachnids by Jan Beccaloni. Natural History Museum, 2009. ISBN 978-0-565-09220-7 £30.

A recent, beautifully produced guide to all arachnids (not just spiders). It covers all the arachnid orders of the world (including spiders, scorpions, harvestman etc. etc.), and considers their structure, behaviour and natural history - the accompanying photographs are stunning. This book has had rave reviews.

Identification

NB: The majority of the British spider fauna requires microscopic examination to reach a reliable species identification. While this still leaves quite a few that don't, it takes a bit of experience to learn which these are. While there are some exceptions, any identification made without microscopic examination should be considered tentative. However, with experience all can be identified in the field to family level, and the vast majority to genus level, and a great deal of pleasure can be had from observing spider behaviour in the wild without identifying them at all!

A Guide to House and Garden Spiders by Lawrence Bee. Field Studies Council. £3.00
This fold-out guide shows 40 nicely illustrated species with descriptive and ecological notes for each. It shows a good range of commonly encountered species.

The Country Life Guide to Spiders of Britain and Northern Europe by Dick Jones. Hamlyn.

This photographic guide shows 350 species of spiders and harvestmen, with notes for each, but is unfortunately long out of print.

Spiders of Britain & Northern Europe by Michael Roberts. Collins, 1995 (reprinted 2001). ISBN 978-0002199810. £20 or less on Amazon).

While this book contains many very good illustrations of spiders, its real value is in the illustrations of male palps and female epigynes, and is the first purchase for people interested in getting into spider identification to species level using a microscope. It also

includes lots of valuable information on collecting and preserving spiders, and general spider ecology. It is slightly more up-to-date than the next book, though doesn't include the Linyphiidae and contains species from outside Britain.

Spiders of Great Britain and Ireland by Michael Roberts. Harley Books (now Apollo Books), 1993 (reprinted 2009). ISBN 978-0946589-44-9. £115

The definitive text on British spiders. Illustrates male palps and female epigyne of all British species known at time of original publication. Second volume contains illustrations of whole animal for many species.

Websites

<http://wiki.britishspiders.org.uk>

Home page of the British Arachnological Society. Links to latest spider news stories, checklist of British species, FAQ, etc.

<http://www.arachnology.be/>

The 'Arachnology Home Page'. Contains links to thousands of arachnological websites arranged by taxonomy and subject.