



BRITISH NATURALISTS' ASSOCIATION

An Introduction to Pseudoscorpions (False Scorpions)

by Roger Tabor

These tiny animals look just like scorpions, - but without the stinging tail! Their pincers look just like those of a scaled down version of a scorpions, and it is the pincers that contain venom glands to immobilize their small prey. The prey has to be small for the Pseudoscorpions are themselves only 2-8 mm long (depending on species).

They are closely related to spiders, so within the Phylum Arthropoda, they are also in the Class Arachnida, and have their own Order Pseudoscorpionida. They range in colour from a pale yellow-brown to a dark brown.

Most people have never seen one, yet not only are they widespread, it is likely you have some in your home! There they are far from harmful, and help to control insect larvae that can cause damage.

There are 28 species in the British Isles, but they were only beginning to be first identified when the BNA was born just over a century ago. Around 1911 some keys were published, and then again in revised form in 1954. The British Naturalists' Association played a role in encouraging a greater interest in recognising and identifying Pseudoscorpions when it published in its journal 'Country-side' a series of four papers/articles by Gerald Legg. The first two were in the Spring and Autumn issues of Country-side in 1970, the first covering general habits, feeding hibernation, reproduction and life history of Pseudoscorpions, and the second covering the capture, culturing, feeding and equipment to examine Pseudoscorpions plus a key to separating them into their families:

Then in 1971 and 1972 Gerald Legg produced Pseudoscorpion species identification keys within first the families Chthoniidae, Neobisiidae and Cheiridiidae, then the families Cheliferiidae and Chernetiidae.

These keys in Country-side were a significant addition to available material on Pseudoscorpions:

Philip Jones at the Institute of Terrestrial Ecology's Biological Record's Centre at Monks Wood Experimental Station compiled distribution maps of Pseudoscorpion records published as a Provisional Atlas in 1980. After that in 1982 Gerald Legg took over as recorder, and began a new recording scheme plus he also wrote the 'Pseudoscorpions' synopsis of the British Fauna (Linnean Society).

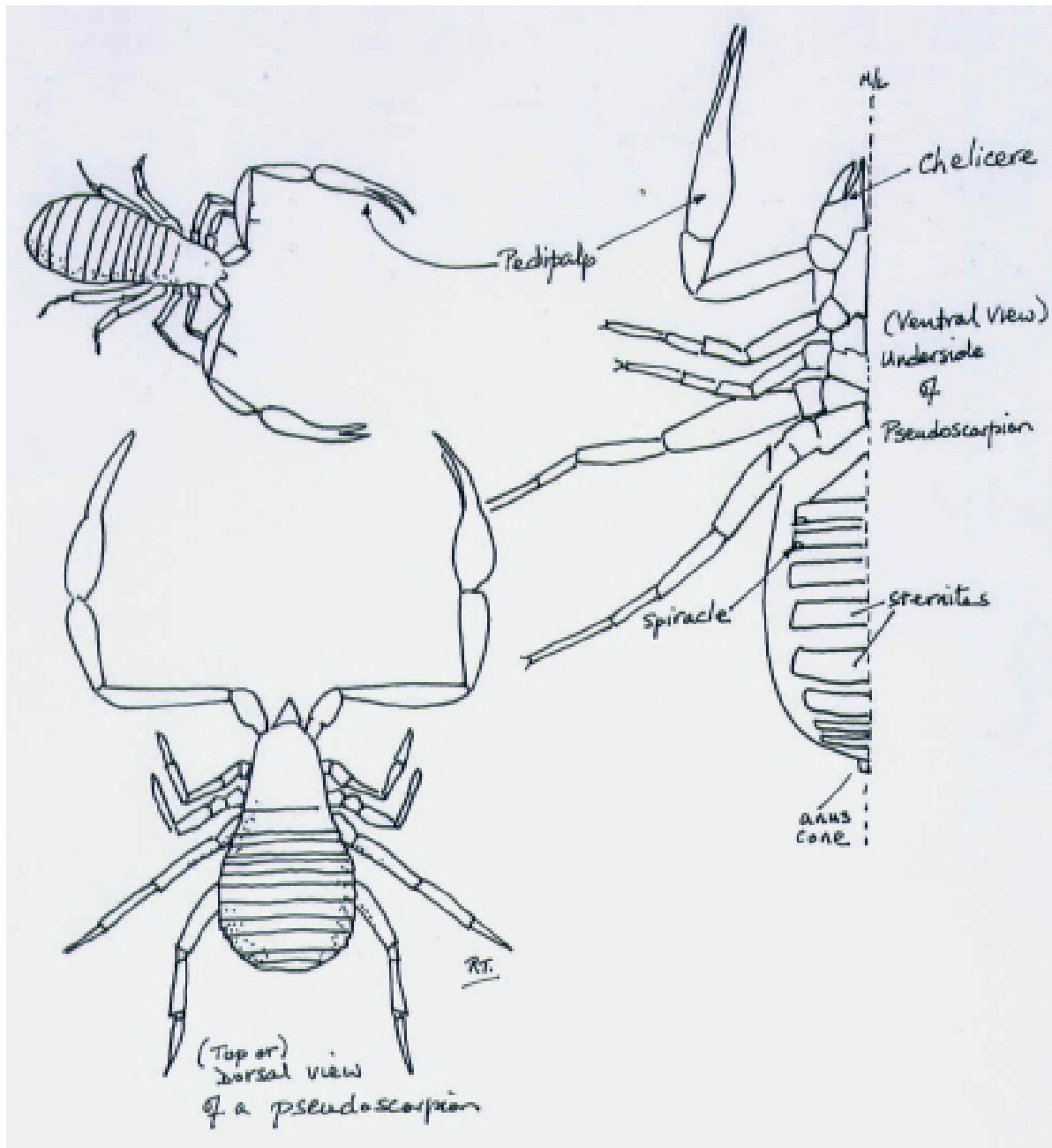
In Philip Jones' Provisional Atlas the distribution maps often showed a paucity of records, such as just a couple of historic records for the whole of Britain for *Chthonius halberti*, but a few were better recorded, such as *Neobisium muscorum* that was observed to be the commonest and most widespread, and found in a remarkable range of habitats from in soil to living in bird's nests. Gerald Legg tried actively to stimulate more interest in the group by producing a newsletter, 'Galea', that is published by the British Arachnological Society. In that some 'English' names were proposed such as 'Halberts' chthonid' which is decidedly less user friendly than *Chelifer cancroides* as 'House scorpion'!

Finding Pseudoscorpions

Over the years most records have come from either finding them incidentally while searching systematically for other arthropods, or by semi-casual inspection by turning stones and leaf litter and prising rotten wood. When a systematic approach is made the usual method has been placing some of the material to be inspected (such as leaf litter) into a white tray and slowly hand sorting. The use of a sieve of a size that allows the Pseudoscorpions through and leaves the leaf litter largely behind is an effective technique in hand sorting. A development of this is to use a Tullgren funnel, which is in essence just a large funnel in which leaf litter is placed, and a small electric light bulb suspended over it (25w). The gentle warmth drives the Pseudoscorpions down to fall into a collecting vessel. Legg described the techniques in the Autumn 1970 edition of Country-side.

Since then using garden leaf vacuum machines (readily obtained from garden centres) has become a recommended method of the Pseudoscorpion Recorder' Groups, with the modification of a fine mesh bag gripped in the inside of the machine's entrance by a tie. Once the catch is dropped into a container Gerald Legg recommends that a few drops of ethyl acetate on a small pad of cotton wool are dropped into the bag to dope any spiders to prevent them eating the Pseudoscorpions!

Just a short burst of suction rapidly removes them from among grass tussocks without destroying them (as other approaches can), and therefore preferable (especially in fragile sand dune vegetation).



Sketch by Roger Tabor

Coastal Species

I have a particular interest in one habitat and 2 species, as they were first found near to here in coastal Essex. *Neobisium carpenteri* was first recorded on the north east Essex coast in 1958 in plant litter on the salt marsh and at the base of the sea-wall. This species, that has only been found in

the British Isles, is a deep olive colour, with red-yellow pedipalps (pincers). Then at the exact same coastal location in 1961 *Chthonius kewi* was first discovered as a species for the British Isles. This species is overall yellow-brown, with red tinged pedipalps.

References

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