Galea

— *Newsletter of the Pseudoscorpion Recorders Group*

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Sharing your home

Pseudoscorpion as Guest in Nests

Animals are never the only ones to own their nest even if they built, bought and paid for it. Whether they are humans, birds, badgers or moles they share their home with other creatures. To many a nest is just an extension of the surrounding habitat, being usually dry, warm and with a plentiful supply of food to hand. Take our homes for example. You can make a very long species list associated with us including many species of spiders, several harvestmen, mites galore, and no end of insects many of which are a considerable nuisance, including furniture beetles, bedbugs, flour and hide beetles, and several species of moths. Even pseudoscorpions exploit us, but they are not very often found.

The very name of Aristotle's Book Scorpion, *Cheiridium museorum*, implies it is to be found in 'museums', and libraries. Most modern institutions of these types will not in fact be a good source of this species. However, no doubt there are old long established and neglected stores of books and the like that will harbour them. Here they feed upon psocids, book-lice, those tiny insects that have a taste for book binding adhesive and paper (they also love labels on old microscope slides). Although psocids are common in most houses, especially in the larder, behind the 'fridge, in the cupboard under the stairs and amongst those books and journals you've not looked at in a while, it is unlikely that *Cheiridium* will turn up. I have had a couple of records of this species from buildings, but in both cases the buildings concerned were old thatched cottages. Here *Cheiridium* was probably living in the thatch — another habitat worth a visit.

Cheiridium museorum is the toughest little pseudoscorpion I know. It has the thickest integument to body thickness ration I know of — its dorsal and ventral cuticle taking in excess of 2/3rd of the thickness of the animal! As a result cutting sections of this species is especially difficult. Why so thick? Simple, an adaptation to extremely dry environments. If you want to find *Cheiridium* then one of these best places to look is in dry old barns, stables, grain stores and farm out-buildings where it can be found in ancient dry hay, spilt grain and other debris accumulated in nooks and crannies. Old long established pigeon lofts and other bird roosts can also yield them. It does appear that the age of the habitat is important suggesting that potentially it takes a long time to establish a population.

How does *Cheiridium* find 'new' habitats? Many pseudoscorpions that live in temporary habitats like dung heaps and rotten trees rely on other animals to transport them the long distances involved. Insects, particularly beetles and flies, are the prime taxi services, but harvestmen are also occasionally exploited. As *Cheiridium* has not been seen to be phoretic one likely method of introduction is through the transfer of material already holding specimens from one place to another. However, this does not account for how the species reaches old established nests. The ecology of the species is well worth some investigation.

Cheiridium is but one of several species that can be found in nests. Even ubiquitous *Chthonius ischnocheles* will crop up in bird nests, but usually ones that have been long abandoned that resemble leaf litter rather than the original 'clean' nest. Species of *Lamprochernes* will also occasionally turn up.

Chelifer cancroides, like *Cheiridium museorum*, another synanthropic species, can be found in barns, grain stores and apparently in bee hives, although I have not received any modern records of this species in this habitat. It might be worth

while investigating its occurrence in hives further. Here it is a predator feeding on mites and other insects in bee nests In South Africa other species of pseudoscorpion are being considered in the fight against some of the bee industry's most troublesome pests. *Chelifer* could also turn up in bat roosts, pigeon lofts or squirrel drays.

The latter habitats are home to *Dinocheirus panzeri*. Populations of this species can reach huge numbers provided there is plenty of food and enough space. An old pigeon loft in Northern Ireland that had at least a cubic metre of debris associated with it yielded hundreds of specimens.

Larca lata, although recognised as an inhabitant of old decaying trees, this species is found in nests too. The first, and currently only, record of this species in Britain, was found in old nest material taken from a rotten tree. It was more likely to have been primarily associated with the decaying wood rather than the nest.

Try digging up moles' nests! Sift through the bedding and you might be very lucky and find *Lasiochernes pilosus*. This large handsome species occurs across the Channel, perhaps it has made its way to Britain too and just awaits discovery.

Vertebrate nests are not the only ones that can host pseudoscorpions. Nest of the *Formica rufa*, the Red Ant, can play host to *Pselaphochernes scorpioides*. More typically this species is found in manure and compost heaps. Precisely what it does in the nest and what its association with the ants is remains a mystery. Perhaps it feeds on ant larvae or other ant 'guests'.

What others are awaiting discovery in nests? How do they live? If anyone wants to pursue this let me know. The coleopterists and dipterists might well have information on pseudoscorpions from this habitat, so if anyone knows an entomologist ask them if they ever find any pseudoscorpions Hopefully they wont say "Eh, what are they." If they do then educate them.

Records

Received

The number of records received over the past year is a little up on last years, with two multiple datasets: from John Hunnisett (additional Dorset records following an enquiry as to the information held on the National database) and the RSPB Ian Dawson, (RSPB records).

My thanks to all those others who have contributed.

Potential

Local record centres no doubt have pseudoscorpion data that I have not yet received. I hope to contact those I've not had data from yet but with the development of the National Biological Network the potential will be there to search and capture data more easily.

If you know of any other data sources, be it in a museum, university field work data or amateur collection, let me know. AND don't forget the common species! Yes *Neobisium carcinoides* can be found every where, but don't assume I have the records. Duplicates are never the same (unless the same dataset has been acquired from different sources and then sent in separately, but I an sort that.)

Temporal data are as important as spatial. Never assume I don't want the data — I never ditch it, even if I've not got the grid reference and struggle unsuccessfully to find it! At some time this very important piece of information can come to light. However, it is a lot easier for me if you CAN provide a grid reference in the first place. Thankfully most recorders do.

Gerald