

# What IS eating your collection? Is it eating mine?

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## What IS eating your collection?

Carrying out insect monitoring will show what insects are present in your collection, but are the insects just present in your institution or do other people have them too? How can you find out?

Entomologists do not record indoor insect pests, so in 2009 Thompson Webb and Pinniger created a website to remedy this.



www.whatseatingyourcollection.com provides information about insect pests and how to carry out IPM. The exciting feature is a pest recording database. Heritage institutions were invited to contribute their quarterly pest recordings. There is now 10 years of continuous data. This has allowed some conclusions to be drawn, for example



*Attagenus pello*, the two-spot carpet beetle is restricted to historic houses.

*Xestobium ruffovilosum*, the death watch beetle is not found in the Highlands of Scotland.



## What is eating the collections in Sweden and the UK?

33 species were recorded in Sweden as compared to 53 in the UK.

The grey silverfish, *Ctenolepisma longicaudata*, was by far the most common insect, found in half of the institutions. In the UK it is still very uncommon, being recorded in only nine out of the 294 institutions in the database and generally in low numbers.



The second most commonly recorded insect was the white marked spider beetle, *Ptinus fur*. This was found in eight institutions – it was found in more institutions than the grey silverfish but less individuals were recorded. It is found in the UK, but is only recorded from 27 locations, just 9 percent of the total.

By contrast, one of the most common and problematic insects found in the UK is the webbing clothes moth, *Tineola bisselliella*, found in over 200 of the recording institutions. By contrast, only three of the Swedish institutions recorded it and only one had over ten individuals. Interestingly, those institutions based in Stockholm, where there might be more people, and thus organic debris, did not record it.



## What about other places?

### The Swedish pilot

Recordings are currently limited to the UK. There is a desire to extend the recordings to other countries to gain an understanding of what insect pests are present, if the range of species is the same as the UK and how insects are distributed. Lisa Nilsen was keen to look at Swedish data and she set up a pilot scheme with 14 Swedish Heritage Institutions.

Lack of funds meant that it was not possible to add the Swedish data directly to the website. The institutions completed a spread sheet based on that created by English Heritage, but with some additional species not found in the UK.



The Swedish institutions are predominantly based in the south of the country. There is an even split between museums, stores and libraries with single representatives of an historic house, an archive and a conservation studio.

In the UK, the institutions are predominantly historic houses with roughly equal numbers of museums and stores and few libraries or archives.

| Scientific name / Vetenska pligt namn | Anobium punctatum       | Anthrenus impervium sp. | Anthrenus verbasci | Attagenus pello      | Attagenus emmouvi      | Attagenus unicolor  | Ctenolepisma longicaudata | Cryptophagus      | Dermeestes             | Dermeestes sp.    | Lathrididae    | Lepisma saccharina | Liposcelis bostrychoph | Nacodes melanura | Niptus hololeucus    | Ptinus flavipes | Ptinus fur                 | Ptinus tectus            | Reesa longula         | Tenebrio molitor | Tinea pellionella         | Tineola bisselliella | Xestobium ruffovilosum |                   |
|---------------------------------------|-------------------------|-------------------------|--------------------|----------------------|------------------------|---------------------|---------------------------|-------------------|------------------------|-------------------|----------------|--------------------|------------------------|------------------|----------------------|-----------------|----------------------------|--------------------------|-----------------------|------------------|---------------------------|----------------------|------------------------|-------------------|
| UK common name                        | Common furniture beetle | Museum beetle           | Carpet beetle      | Varied carpet beetle | Two-spot carpet beetle | Brown carpet beetle | Grey silverfish           | Fungus beetle     | Larder beetle          | Hide beetle larva | Plaster beetle | Silverfish         | Booklice or psocid     | Wharf borer      | Golden spider beetle | Spider beetle   | White-marked spider beetle | Australian spider beetle | Museum insect         | Mealworm beetle  | Case-bearing clothes moth | Webbing clothes moth | Death watch beetle     |                   |
| Svenskt namn                          | Strimmig trätagare      | Muslängare              | Ängelstav          | Mattbagge            | Vanlig mattlängare     | Brun mattlängare    | Pilslängare               | Svart mattlängare | Lingspottad silverfisk | Fuktbagge         | Fläcklängare   | Fläcklängare larva | Mögelbagge             | Silverfisk       | Husbocklus           | Skopporbagge    | Måssingsbagge              | Vanlig spinnbagge        | Australisk spinnbagge | Amerikansk längr | Stor mjölbagge            | Pälmar               | Klädesmal              | Skäckig trätagare |
| Total recorded                        | 6                       | 1                       | 42                 | 1                    | 2                      | 2                   | 2                         | 90                | 253                    | 6                 | 4              | 9                  | 22                     | 160              | 35                   | 6               | 19                         | 16                       | 146                   | 2                | 2                         | 10                   | 2                      | 92                |

## Conclusions

One of the most interesting features of the pest recording trial was how few insects were found. For many of the insect species, less than ten individuals were recorded. Even the most numerous insect, grey silverfish *Ctenolepisma longicaudata*, only had a total of 253 individuals. Compare this to the UK, where the institution that first recorded it noted 80 individuals in 2018. The total across the five institutions that record it is 92 individuals. Yet this is an insect pest that is uncommon in the UK. It is known that the grey silverfish is endemic in Norway so it is possible that some of the silverfish *Lepisma saccharina* records may be incorrectly identified or possibly the Swedish grey silverfish have learnt to avoid blunder traps!

Quite why the total number of insects found was so low is unclear. This needs further investigation and more years of data would show if this was a one-off or if the low numbers are accurate.

Additional years of data would also more fully reveal the differences in species found in Sweden and the UK. The black carpet beetle *Attagenus unicolor megatoma* is currently the only insect recorded that is not found in the UK. It had been expected that a greater range of non-UK insects would be recorded. It is not known why this was not the case.

It would be interesting to carry out some more direct comparison between institutions of the same type in Sweden and the UK, but this does require more UK museums to supply data.

More Swedish data would also permit an analysis of the distribution in relation to climate/geographical location. More contributors would be welcome.

## Comments from the Swedish survey

“*Ctenolepisma longicaudata* spreads to a much greater extent than a few years ago and we find them nowadays everywhere in the building except in the basement where RH is much higher and where the floor is wet due to trespass of subsoil water.”

“It has been nice participating! It is not

always that amusing to check trap after trap when you have 150-160 traps to go through. However, when your work is set in a wider perspective, it gets more interesting.”

“I found out that we had an ongoing invasion of the golden spider beetle (*Niptus hololeucus*)...”

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Maps produced using EasyMapMaker and Google Maps

