



Project Summary

Earwi'GO!



Introduction

Earwigs are omnivorous garden insects with a reputation for damaging soft plants, but their diet also includes aphids and other small invertebrates. This pest control provision may be particularly valuable in pome fruit trees (e.g. apples / pears), in both gardens and orchards.

The Earwi'GO! project aimed to investigate the design and use of DIY earwig shelters in gardens, to support and manage these insects, and improve knowledge of earwigs.

Aims

- 1) Test out cheap, effective 'earwig hotels' for gardens. Test different fillings and outer materials. Find the garden locations where these shelters are most used by earwigs.
- 2) Use the hotels to see if earwigs can be collected from 'vulnerable' parts of the garden (such as flower beds) and relocated onto trees.
- 3) Improve participants' knowledge and perceptions of earwigs.

Results summary

- 1) Earwig hotels made of an upside-down plastic plant pot (with a lid to keep rain out), and filled with tightly packed / corrugated cardboard were used preferentially by earwigs. Hotels positioned in trees, either against the trunk or underneath branches, were used the most.
- 2) Earwigs did not seem to use this (or any other) design at ground-level. This made it impossible to test if they could be transported within gardens, since the 'vulnerable' areas were at ground level.
- 3) Participant feedback from the project was very positive, indicating that making and monitoring 'earwig hotels' improved understanding and perceptions of earwigs – even amongst a self-selected population of interested parties.

This project ended with a detailed Retrospective Webinar, which can be viewed here: [link when available]

Follow-on

Earwi'GO! hotels could be used as the basis of a project looking at pest control provision by earwigs on trees.

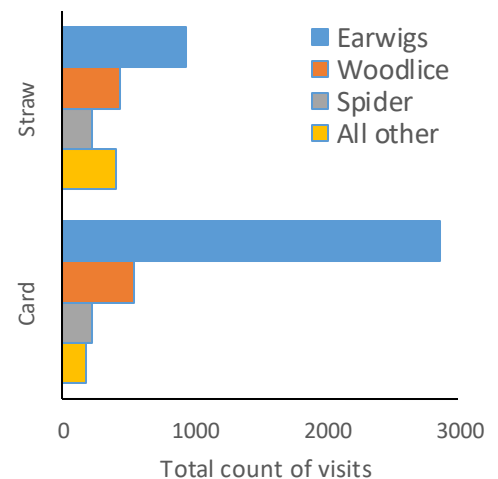
Further investigation into shelters that earwigs may like at ground-level would allow aim 2) to be taken further.

Use of these shelters can be incorporated into learning outcomes about earwigs specifically.



Earwig hotels in an apple tree

Fig: Total invertebrate visits to hotels with different fillings (2021)



Example of a rainproof lid



Make an earwig hotel



This is the protocol used in Earwi'GO! for the final design.

Equipment

You will need, for each hotel:

- **Plastic plant pot.**
- **String.** For tying pots in place / holding filling inside. Try and avoid plastic string.
- **Cardboard (not shiny).** Roll up / fold to make tight 'tunnels'. Can also be corrugated.
- **Lid** for pots. Anything that fits over the end of your pot. E.g. jam jar lid; plastic food tub; small plant tray.

Method

Earwigs starting climbing trees in their later instars, so put up new earwig hotels in **July**.

- 1) Roll up / fold the cardboard so it forms tight tunnels. Squash it tightly into the pot and trim off any excess – it should not stick out further than the pot lip (ideally less).
- 2) Put a lid on the bottom of the pot, covering the drainage holes.
- 3) Secure everything together using string and turn the hotel upside down.
- 4) Secure in place in a tree (ideally an apple or pear tree), where a branch meets the trunk. The hotel should be at an angle, and with the drainage holes / lid pointing upwards, to protect it from rain.

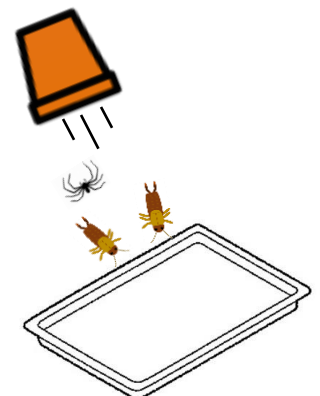


Counting

If you want to see what is visiting your hotel, you will need something to empty it into. A large white tray is best.

Remove the hotel carefully from the tree and hold it over the tray. Gently tap it to knock out invertebrate inhabitants. You can also remove the string and take the filling out, shaking it into the tray.

When finished, replace the filling and the hotel. Release the invertebrates back on the ground underneath the tree – don't try to put them back in the hotel!



Maintenance

We recommend replaced your earwig hotels once a year. Earwigs will not tend to overwinter in these hotels, but other invertebrates might, so wait until winter is properly gone to swap.