Butterfly Conservation
Saving butterflies, moths and their habitats

Finding moths

The study of moths can be a very interesting and enjoyable past time, allowing you to build on your identification skills and learn more about the moths that can be found in your area, and indeed how important your garden may be to local invertebrate populations. There are several techniques that can be used for the study of moths; none of these should be harmful to the moths if undertaken with care.

Active searching

For day-flying moths**,** such as the Cinnabar and Burnet moths, the best way of seeing these species remains to search their preferred habitat with a net and a pot! Many species prefer warm, sunny days. Numerous species, including many night flying species, can be found at rest by day on tree trunks, fences, posts or rocks though this is not always rewarding! Inspecting flowers and tapping vegetation to disturb or dislodge the moths may provide you with some success, particularly on plants such as buddleia, heather, ivy and ragworts. Active searching of nectar sources, such as ivy or sallow blossom, red valerian or ragwort at dusk and after dark with the aid of a torch, can be a very useful technique with many species being found on suitable nights.

Ivy – Mark Parsons/Butterfly Conservation

Sugaring / Wine-roping

Sugaring involves creating a sugary concoction and spreading it on to a surface, like a tree trunk or fence post. To make your own sugar solution, heat 500ml of brown ale, or cola in a pan, along with a tin of black treacle and 1kg of brown sugar, and simmer for 5 minutes. A dash of rum can be added but is not essential. Allow the mixture to cool and spread on several tree trunks or fence posts before dusk. All that is left to do is sit and wait for the moths to arrive to feed on the sugar source, allowing you to catch them in a pot for inspection, though a torch will be needed to inspect the sugar runs. This method attracts fewer species of moths than light traps and is rather weather dependent, but it can be effective for those species that are frequently elusive at light sources.

Light Crimson Underwing at wine rope – Paul Butter/Butterfly Conservation

Another well-practiced and usually successful method of moth recording is known as wine roping. Heat a bottle of cheap red wine and mix with 1kg brown sugar. When cool, soak several lengths of untreated rope in the mixture and then hang the ropes from an appropriate support at dusk, such as in the branches of trees, to attract the moths to feed. The advantage of this method is that you can then remove the rope easily when necessary. A small addition of beer to your solution can intoxicate the moths making them more docile and easier to catch.

Light Traps

Traps that use a light source to attract moths may provide a good introduction to the study of moths. This can be undertaken throughout the year and can give you a quick insight into the variety of species and number of moths to be seen in your area. It is also the most effective technique for recording species and surveying a site for a list of species present. Light traps can allow the

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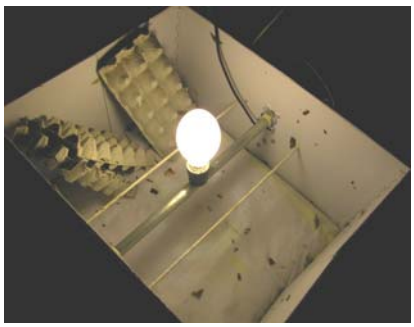
observer to catch large numbers of moths for identification and then to subsequently release the moths unharmed.

One of the most basic and cheapest methods of seeing moths using a light source is to spread out a large white sheet and suspend a light above it or in front of it. The type of light source is important. Whilst and ordinary light bulb can attract a few species, specialist bulbs such as mercury vapour bulbs or actinic light strips are much more effective. You can then sit and watch the moths fly in, but if you want to be able to identify them, you will need to stay up with the sheet and a pot to catch the moths as they arrive. Even using a strong torch light against a sheet can attract some moths on suitable evenings.

For operating regularly in the garden environment, the "Robinson" light trap is generally accepted as the most suitable trap. It is capable of catching 500-1000 moths a night, sometimes more, at peak times of the year. The "Skinner" trap is also popular, generally being cheaper than the Robinson trap and more portable, it attracts similar numbers of moths but it is less efficient at keeping them there, so you may have a smaller catch by the morning.

Robinson trap – David Green/Butterfly Conservation

The "Robinson" generally operates using a mercury vapour light bulb. This is a bright light source. Black bulbs are available and throw out very little visible light, but these tend to be expensive and not as effective. "Skinner" traps can use the mercury vapour bulb or even a black bulb, but can also be constructed to utilise an actinic strip light. These actinic lights are considered to be more efficient at trapping geometrid moths than the mercury vapour bulb. There are traps being used that use a combination of these light sources, but they all follow similar principles to the "Robinson" and "Skinner" designs.



Skinner trap – Paul Butter/Butterfly Conservation

The sheet method and the "Skinner" trap are good portable techniques and with a power source such as a generator, provide a good way of sampling sites away from gardens.

It is possible to build your own version of a "Skinner" light trap as a cheaper alternative to buying one. Instructions as to how to do this and what you will need can be found in 'ALS Beginners Guide to Moth Trapping 2nd Edition, Anglian Lepidopterist Supplies' or on the web (link below). "Robinson" and other style traps can also be constructed.

Trapping Pointers

- If you are using a light trap, the trap can be placed anywhere in the garden as the light is quite a strong attractant for some moths, but it will need to be located within reaching distance of a power source. Light traps will run off the house mains with a cable going through the nearest window. Some degree of shelter from prevailing winds may also be useful as exposed sites tend to be less favoured.

- The release site of the moths that you have caught is very important. It should ideally be an area with considerable vegetation cover to give the moths somewhere to hide during the day. It may also be an idea not to release all of the moths at once or in the same locations each time, as birds may quickly learn where they can take advantage of an easy meal! Ideally moths should be released at dusk.

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- If you retain moths in the trap over the day, ensure that the trap is covered, for example by a sheet, and kept out of direct sunlight and away from areas that get hot.

- The number and variety of moths you catch can be strongly dependent on the weather at the time of trapping. Very cold or windy conditions may discourage moths from flying and will tend to result in a smaller catch. Cloudy nights can be the best option for moth trapping as they reduce light intensity from the moon, which can interfere with your catch. They also tend to be warmer with more stable temperatures than nights with clear skies. Drizzly rain may not deter some species whereas heavy rain can reduce your catch to single numbers, if anything at all!

For further information relating to finding and recording moths, please refer to:

- Anglian Lepidopterist Supplies. *ALS Beginners Guide to Moth Trapping.* 2nd Edition, http://www.angleps.btinternet.co.uk/

- Fry, R. and Waring, P., 2001. *A guide to moth traps and their use*, volume 24. The Amateur Entomologist, volume 24, The Amateur Entomologists' Society, Kent, England.

- Leverton, R. (2001). Enjoying Moths. T & A D Poyser Ltd, London, UK.

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