A beginner's guide to moth trapping

There are about 2400 species of moth in the UK, and they come in an amazing variety of shapes and colours. Don't be put off by the fact there are so many species, or that some of the groups aren't easy for the novice to identify; there are plenty of moths that *are* easy to identify, and for those that aren't help is available (more on that later).

What sort of power supply?

The first thing to consider is where you want to trap. If you only want to trap in your garden, and this is usually the best place to start, then a mains-powered trap is the best option.

If you want to go out on field trips then you will need a battery-operated trap (a mains-powered trap can be run from a generator, but this is a very expensive bit of kit). When choosing a battery you have a choice of getting a lithium ion battery (very light but expensive) or a lead acid (cheap but comparatively heavy).

What type of bulb?

Mercury Vapour bulbs produce the biggest catches. The downside of running an MV trap in a garden is that the bulb's output is very bright. If you have neighbours that are fairly close you may well find them complaining. MV bulbs are being phased out, but will probably be around for some time yet.

Actinic bulbs produces light in the blue wavelengths. They have a good catch rate (not as good as MV), are less intrusive and are cheaper to run.

Black Light bulbs. If your neighbours are likely to complain, you might consider a black light trap. These bulbs produce very little visible light, although catch rates are relatively low.

Safety. Bear in mind that apart from the brightness of the light, MV bulbs get very hot. if you are trapping with children actinic lights are a better option. It's not a good idea to stare directly at moth trap bulbs but MV light is particularly hazardous to stare at. UV protection glasses are available but still avoid looking straight at the bulb. Be careful not to let a moth fly into your ear. A trip to A&E will probably be needed to remove it.

Types of trap

There is no doubt that a Robinson trap with an MV bulb is the most efficient at pulling in moths. But Robinson traps are very expensive to buy because of the bulb electrics.

An alternative to the traditional Robinson trap is one using a 20W black light fluorescent tube (equivalent to 100W). This is cheaper to buy, as the tube has no need for a choke, and is cheaper to run. Such a trap can also be powered from a 12V battery if an inverter is used.

Skinner/Heath/Rigid moth traps are mains operated so ideal for use in back gardens, but they can be made portable using an inverter and battery. They use 20 or 40W actinic tubes. These types of trap are the cheapest to buy.

Where to buy or borrow a trap

Watkins & Doncaster (www.watdon.co.uk) and Anglian Lepidopterist (www.angleps.com) will give you a good idea of what moth traps are available and the prices. The Upper Thames Branch has a loan moth trap scheme so you can always borrow a trap while you make your mind up. If you are feeling adventurous you can even build your own trap (see www.butterfly-conservation.org/in-your-area/east-scotland-branch/budget-bucket-moth-trap).

Setting up and running your trap

Place the trap out just before dusk in a sheltered spot. A white sheet under the trap will help to reflect the light and also allows you to see moths more easily that land just short of the trap. Place a single layer of egg trays inside the trap. The moths will settle in these rather than crash around inside the trap.

Pick a night that is warm (for the time of year) and cloudy. Generally it is best to avoid nights where rain is forecast. A full moon or competition from artificial light will reduce catches.

Some people trap most nights but it is preferable to leave a few days in between (on any one site) to allow the local moths time to feed and breed. There will be some species flying in every month of the year (but far fewer in winter) and it isn't unusual to get only a couple of moths in the trap in the colder months (and sometimes none at all). July is the peak time for species and numbers.

Always remember to get the landowner's permission if you are trapping away from home.

Inspecting the catch

You can examine what's coming in as the night progresses, or wait until the morning. For the former, a head torch is particularly useful as it leaves your hands free.

If you are leaving it until the morning, make sure the trap isn't going to catch the morning sun and get too hot, otherwise the moths may die. Before opening the trap, have a look on the outside and on walls, sheds or trees close by. Often moths that didn't enter the trap will have settled close to it.

You will need some pots to retain moths if you can't immediately identify them, and a camera is useful to further record what you catch.

When you come to release your catch after identifying them, tap the moths gently into shrubs or tall plants to give them protection from birds.

Identifying and recording

Your records are important and the data will go towards building a picture of the state of our moth populations.

Firstly, however, you need to be able to identify the moths you catch. If you go onto the Butterfly Conservation Upper Thames Branch website and click on the 'Moths' tab you will find a 'Moths for Beginners' guide by John Thacker. This gives good advice on the resources available (books, websites etc) to help with identification, and details of 'iRecord' which is the best way to make your data available to the County Moth Recorders. A good quality photo will be a great help in getting your moths identified. As well as the species you will need to record the date, how many and an accurate grid reference.

Good luck and have fun with this fascinating and addictive activity.

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