

LIGHT TRAPPING FOR MOTHS

There has been a lot of discussion on why moths are attracted to light. The consensus seems to hold that moths are not so much attracted to lights as they are trapped by them. The light becomes a sensory overload that disorients the insects and sends them into a holding pattern. In their attempts to escape they end up circling again and again until coming to rest.

Elaborate light traps can be purchased from places like Bio Quip, but you can also make your own traps using simple methods described below.

SHEETS

For ease of our viewing white sheets are used for a variety of insect collection and trapping. A cheap flat cotton sheet works well. Hang it vertically over a clothesline or tied up to trees like a tarp, with weight on the bottom to keep the sheet taught. You can also lay a sheet on the ground underneath your vertical sheet, or attach it flat to a table.



LAMPS/LIGHTS

Any type of single bulb lamps will work shined onto or in front of the white sheet. A spring-clamp light works perfectly to attach to a variety of surfaces such as trees, stakes or other mounting arms. A bug zapper with a disabled electrifying grid can be hung from above. For remote sites battery powered flashlights or camping lanterns can be used, but for all night use a larger battery setup is required. You can take a page from history books and use a candle or candle powered lanterns!

Although standard white bulbs do attract moths, preferable are black lights or even better mercury vapor lights. They emit a broader spectrum of light which increases the amount of moths than can “receive” the light signals. Some have luck using bright Halogen spot lights to “draw” them in, but turn it off after a while in favor of black lights to “hold” them for photos.

PLACEMENT AND OPERATION

Open areas such as field edges, yards or trails are the best spot to bring in moths from a further distance. You basically want to draw in moths from as many angles as possible, and from different habitats.

Using a headlamp or other light source, check both sides of the sheet and the ground for resting moths. Most are easily observed, photographed or collected. A plastic jar or cassette case can be used for temporary collection and viewing of the underside.



Moths will be present throughout the night and frequent checks will usually produce different species. Moth numbers peak just after dark until about 1 a.m. A check right at dusk can be worthwhile as most will be perched somewhere for the day and easier to photograph. After first light most disperse or get eaten. If you find that birds or other insects are learning to “feed” off your sheets, you should shake your sheet clean when you are done or after your first check in the morning. If the problem persists move the location of the sheet.

Moth activity varies a lot depending on various atmospheric conditions. Generally, the best nights are on and around the New Moon (this is because your artificial lights have less competition from moonlight). Moths also seem to prefer warm, windless, humid, and cloudy nights (some drizzle doesn't bother them). Temperatures generally need to be in the 40's or above