



The glowworm

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Summer has arrived and activities are really hopping for 'bug chasers' and for 4-H folks in general. We just finished 4-H Club Congress with a great group of delegates. We saw some new faces in the 4-H entomology competition this year. Congratulations are extended to all who participated. I learned some things and I think most others did as well. First camp is FULL! We still have a few openings for 2nd camp, but those are filling in quickly, so if you are a potential camper, get your name in the hat as quickly as possible. The Project Achievement Days for Junior 4-Hers are quickly approaching and we expect to see many new projects in entomology. Remember to bring your collection for judging, so we can get it critiqued and improved for the fall fairs and shows.

Collecting Techniques: As summer arrives many of us are out looking for ways to improve our insect collections. One of the best ways to collect during the summer is to use a light and collect insects which come to it at night. Most experienced collectors know to leave outside lights and or to go to areas where there are bright lights. Local tennis courts are ideal areas to collect. Anytime there are extremely bright lights look for insects to be flying.

Black lights

One of the favorite collecting methods for camp and for other occasions is the black light and the sheet. Many of the larger moths and beetles will come to the lights. Various species of insects often come to the light at differing time of the night and certainly different species will come to the light at varying times of the year. The black light drives many of the larger moths almost crazy, they tend to flutter and crash into things in the presence of the light. Other lights besides black lights may also be used, but they by far are the most popular. BioQuip and other entomological supply houses have the correct lights and even sheets on sale.



Baiting

Another way to catch moths is by baiting, but remember that regal moths, giant silkworm moths, some sphinxes and most tiger moths do not feed as adults. Baits may be made using molasses or sugar and mixing with fruit. Beer is often added to the mix. It is then cooked (brought to a boil). The bait is `painted' onto a tree trunk - usually the host plant for the critter being sought. This site is then monitored during the hours of dusk to full darkness. Underwing moths are particularly susceptible to this method in late summer on humid nights. Butterflies will also visit the `bait stations' during the day time.

Steps to Setting up and Collecting from a Pitfall Trap

Needed Materials: thick cardboard (10"X 10") to cover trap, hand spade, several plastic containers with lids or resealable plastic bags, empty large (6 oz.) glass baby food jars (larger containers may be used); 1/2 oz. of one or more of the following baits: apple, meat, cheese, peanut butter, syrup; small flat stones, rubber stoppers or blocks of wood approximately 1/2" square, larger rocks to keep cardboard covers from blowing away.



1. Choose a location for your pitfall traps. Look for places that will not get a lot of interference from people or large animals.
2. Add bait to the first baby food jar.
3. Write the name of the bait and location on the jar.
4. Use the hand spade to dig a hole in the ground the same size as the jars being placed at each selected location.
5. Place the open baby food jars into each of the holes and check that the top of each jar is at ground level. If the top edge it is not at ground level, take it out and add or remove more soil until it is.
6. Add soil carefully to fill any gaps around the top of the jar.
7. Place 4 small stones (rubber stoppers, wood blocks) in a 10" square around each jar and place a piece of cardboard on top of the stones. This will act as a roof to protect trapped animals from rain and direct sunlight.
8. Put a larger stone on the cardboard to keep it from blowing away.
9. Repeat the above steps for all of the jars you plan to use. Remember to leave one pitfall trap containing no bait at each site for a control, just to see what you might catch without bait.
10. After 24 hours return to the traps.
11. Remove the jars from each of the holes and be sure to record the location.

This idea was taken from *Students in a Project-based Learning Approach to Schoolyard Habitat Development* (SPLASHD) Bellevue, Illinois.

Happy Buggin'

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4-H Entomology Camp 2004