

Insect Collection

Due Date - Friday, October 08, 2010

There are three purposes for this insect collection:

- (1) To gain experience in the collection of organisms.
- (2) To become familiar with the insect orders.
- (3) To learn to use a classification key in order to identify organisms.

The completed collection will include 50 different, properly identified, labeled and pinned insects. The collection will be graded as follows:

1 point per properly mounted insect	50 pts.
1/2 point per properly labeled insect	25 pts.
Presentation	25 pts.
Neatness	10 pts.
Orderliness	10 pts.
Unusual Insects	5 pts.
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Total Points	100 pts.

Procedures:

Collect as many different adult insects as you can without damaging them. Immature forms such as nymphs, larvae and caterpillars are not to be collected as they do not preserve well. It is best to kill the insects as soon as possible and then pin the insects to the inside of a box (such as a large shoe box) as you collect them. This will protect the insects from damage while allowing them to properly dry.

Killing Insects:

Make a "killing jar" for insects collected. Use a small NONBREAKABLE container and place several cotton balls in the bottom. When an insect is placed in the container, spray an insecticide such as "RAID" on the cotton balls. Wait a few hours and then pin the insect.

Beetles are hard to kill, but they can be quickly killed by placing them in a jar of alcohol for several days. In fact, placing an insect in alcohol for several days will allow the insect to not smell as badly, and will preserve it better than simply killing it.

If you wish to collect bees or wasps, try spraying the hive or nest with an aerosol insecticide that is able to reach distances of 15-20 feet. This will give you a safe distance to stand from the living bees and wasps. Then collect the bees or wasps after they have been declared dead by an adult. Be careful of stingers which may inject poisons even after the bee/wasp has been dead for several hours.

Do not place butterflies and moths in killing jars. They will destroy the scale patterns on their wings as they flap inside the jar. Rather, kill them quickly by pinching their thorax. (Stop by my room and I will show you how to do this.) Then gently unfold their wings, and flattened them between to flat objects and put them in the freezer over night. Remove them and immediately pin them in the shoe box.

Pinning the Insect:

Pin insects as soon as possible after collecting them to ensure that they are not damaged. Most insects can be easily pinned (with practice) by sticking a pin through their thorax. Be sure that an insect is dead before you pin it. Then make sure that the insect is suspended in the air on the pins and not attached to the box.

Tiny insects like ants and mosquitoes can be glued (or use clear nail polish) to a tiny triangle of stiff paper (index card) and then the triangle can be pinned to the box.

Protecting your Insects

- * Children, friends, and animals may want to handle your specimens. Keep your collection away from children and pets. You may allow friends to look but not touch. Insects are very fragile.
- * The best way to temporarily store pinned insects is to place inside a sturdy shoe box. Stick the pins with insects on them into the sides of the cardboard. You can pin insects to the sides, top and bottom. A moth ball will keep most insects and pets away from your collection.

Transporting your Insects

Insects are very easily damaged when moved if they are on foam board. Transporting them in a shoe box protects them from wind, rain and accidents. Do not pin your insects to foam board until the last 2 weeks before the insects are due.

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* Identifying your Insects

* You will need to purchase or borrow an insect field guide in order to identify your insects. I have two that I highly recommend (and there are several copies of these in the CA library):

* National Wildlife Federation Field Guide to Insects and Spiders of North America

* And

* National Aududon Society Field Guide to North American Insects and Spiders

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- * These are available at Barnes and Nobles and Books a Million
- * Spend most of your time this summer collecting. I will help you with the identifications when school begins. We will spend time studying insects in August and every other Friday will usually be “Bug Day” during the first grading period. During this time you will bring your insect boxes to class to work on the identification.
- * You will initially discover the insect order to which the insect belongs, then you will do further research and determine the “common name” for your specimen. Once you have determined the order to which an insect belongs, you will use books on insects or internet websites to identify the specimen by common name. If you check the CA website, you will find my class page under the student section. There are several great websites listed under the Entomology Division at the end of my class page. If you are computer literate and have a digital camera there are a few sights (“What’s that Bug?”) in which you can email a picture of your mystery bug, and they will help you identify it.

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Labeling and displaying Your Insects

- Print on a 5-by-8-centimeter (2-by-3-in.) piece of paper the information that applies to each insect. See the example below.

Order: Orthoptera Common name: red-legged grasshopper Date collected: September, 2010 Place collected: Bibb County, GA

The final collection will be placed on a standard size foam board. We will discuss the form during the Friday “Bug Days”.

Good Websites for insect identification

<http://bugguide.net/node/view/15740>

<http://insects.tamu.edu/fieldguide/>

<http://insects.tamu.edu/fieldguide/>

<http://www.pestcontrolclub.com/about.nxg>

<http://www.daltonstate.edu/galeps/>

<http://www.brisbaneinsects.com/>

<http://www.whatsthatbug.com/>