

# **Insect collecting & preserving**

# Collecting and preserving insect

One of the best ways to learn about insects is to go out & collect them.

Handling them and preparing collections.

**Where to collect insect ??**

Insect can be found partically every where, the best time to collect is from the early spring until late fall.

.noitcetorp

**Compost piles** .stcesnl ynam tcartta rettam gniyaced dna lios hciR.....

**In the soil** eht ni dnuoba stcesnl ,retniw ekil raey fo semit tew looc gniruD.....

.lios

**Under animal dung** ot kcits a esU .erunam ni deerb selteeb gnitseretni ynaM.....

.seipwoc nrutrevo

**Around carrion** fo stib htiw spart ot meht tcarttA .slamina daed tae stcesnl ynaM...

.taem

**Animal nests or burrows** dnuof stcesni ynam robrah sworrub lamina dna stsen driB.....

.esle erehwon

**Rotten logs** a htiw trapa doow eht raeT .htaeneb kool dna yawa krab eht leeP.....

.loot

**Streams and ponds** pid ro meht teN .dnuor-raey tnadnuba era stcesnl citauqA.....

.snap otni meht

**On vegetation** a htiw ffo stcesnl eht kconk dna sehcnarb htaeneb teehs a daerpS..

.kcits

**Wounded trees** .seert degamad fo swolf pas eht ot detcartta era seilfrettub ynaM.....

**In flowers** ees ot trapa srewolf llup ro meht ten dna stcesnl gnitisiv rof hctaW.....

.edisni

**Flying in the air.** .meht rof part a ekam rO .yb ylf yeht sa meht ten tsuJ.....

**At lights.** ro wolley diova yehT .sthgil ot detcartta era stcesni fo srebmun egraL.....

.der

**Swimming pool filters.** seno erar ynaM .tuo deretlif era dna loop eht ni llaf stcesnl.....

ereh<sub>3</sub>morf emac

# Why Collect Insects

Insects may be collected as a hobby and for the enjoyment of observing them as a part of nature. They may also be collected for scientific studies. There is no better way to learn about insects than to collect them .

# Collecting equipments

The minimum equipment necessary to collect insects is one's hands and some sorts of container .

For general collecting it is best to have at least the following items.

# **(1) Collecting bag and other containers**

In order to carry supplies in the field.

You need something to carry them in.

There are as many different types of bags or containers.



# Collecting Equipment

insect net

killing jar

forceps

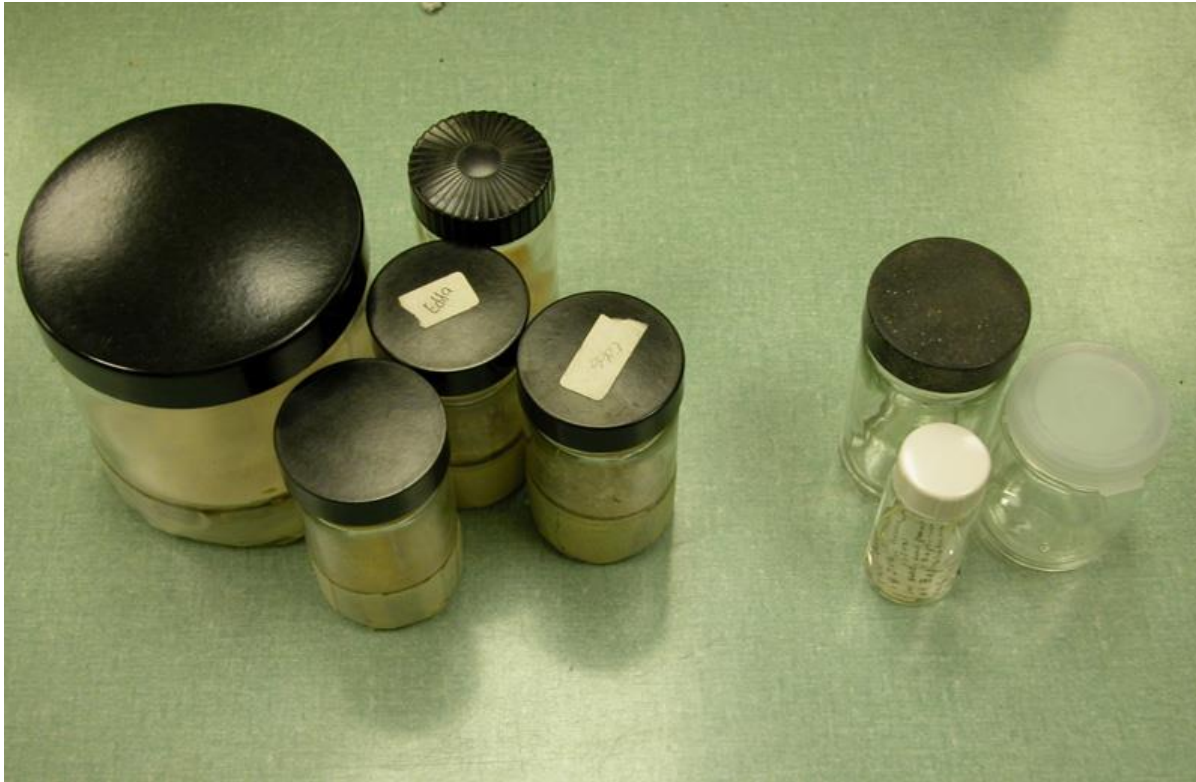
relaxing jar

spreading board and pinning block

insect pins and labels

storage box





## Different types of jars



**Hatchet knife small  
garden shovel or  
other tools**

## (2) Insects net

Insect nets can be made fairly easily of much more cheaply at home.

It may be made with handle of a broom that should be light & strong & a cloth bag which attached to strong ring made of iron or other metal.

used to catch fly insect .



# Aquatic (Watery) Net





# Aerial Nets



## **A different type of net**

## **(3) Collecting jars (Killing jar)**

Insect must be killed in such way that is Not in  
juried or broken .

This is called for some sort of killing bottles of  
various sizes & shapes.

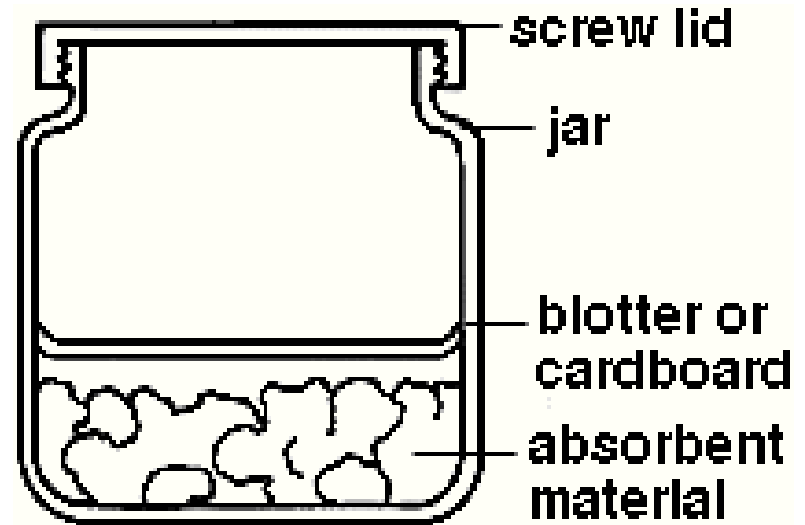
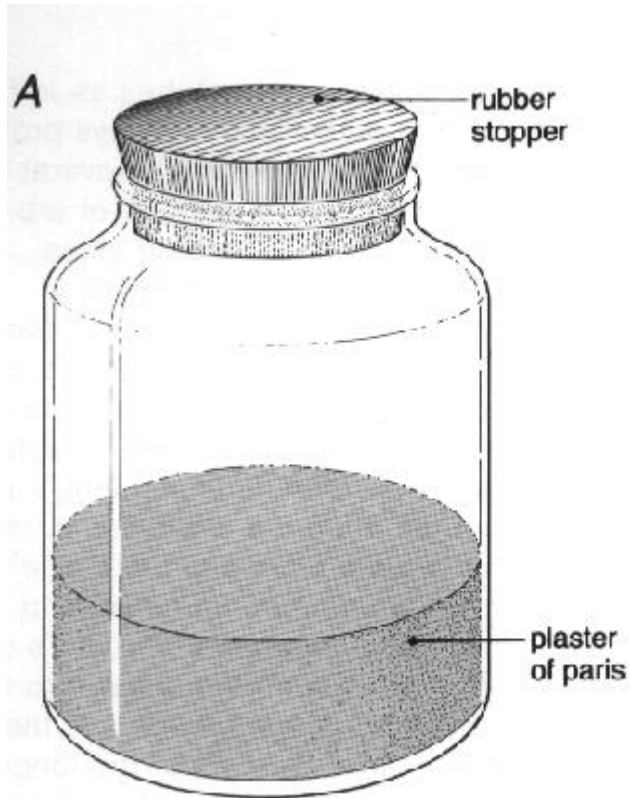


Figure 1. Killing jar

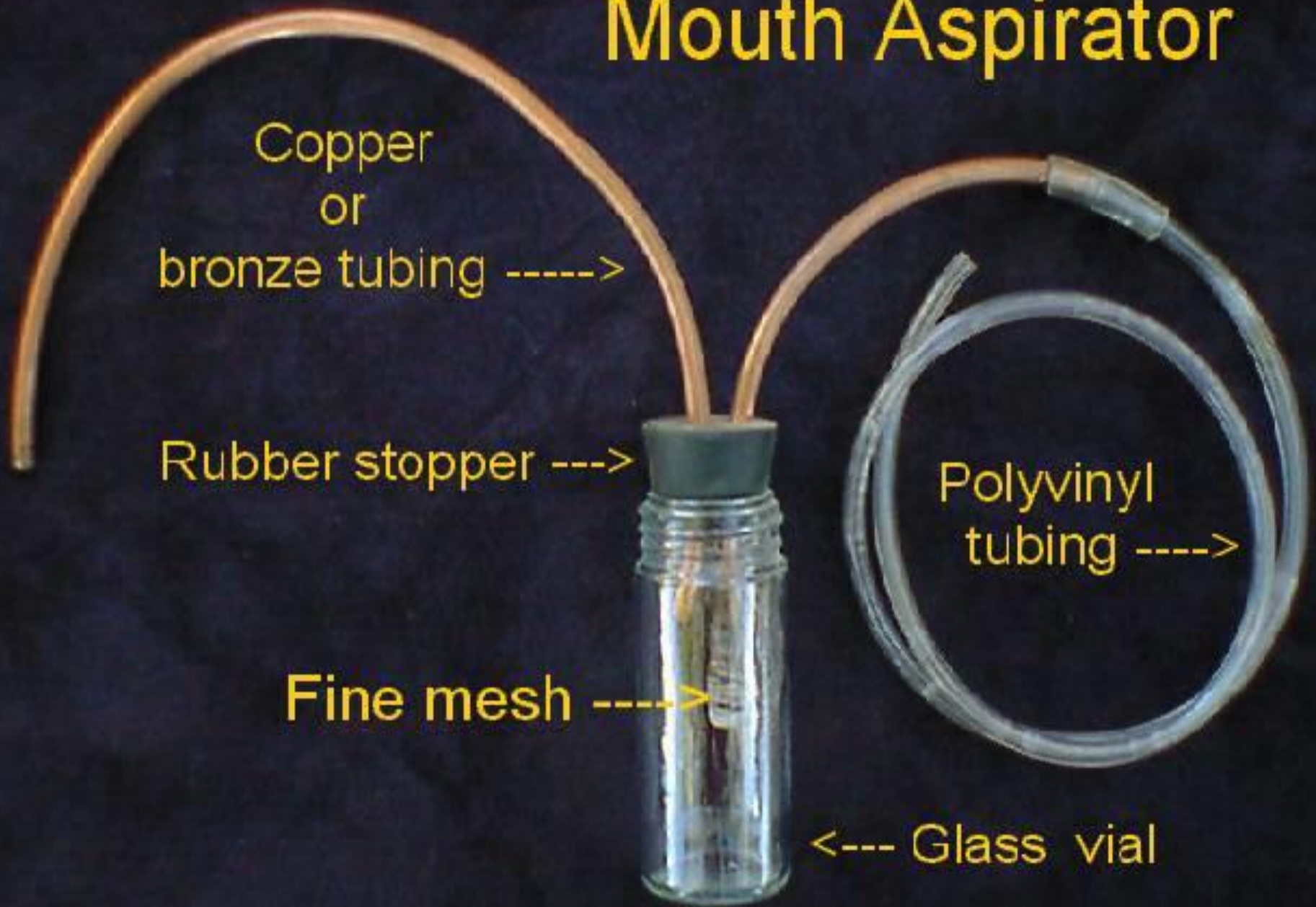
# Killing jar



## (4) Aspirator

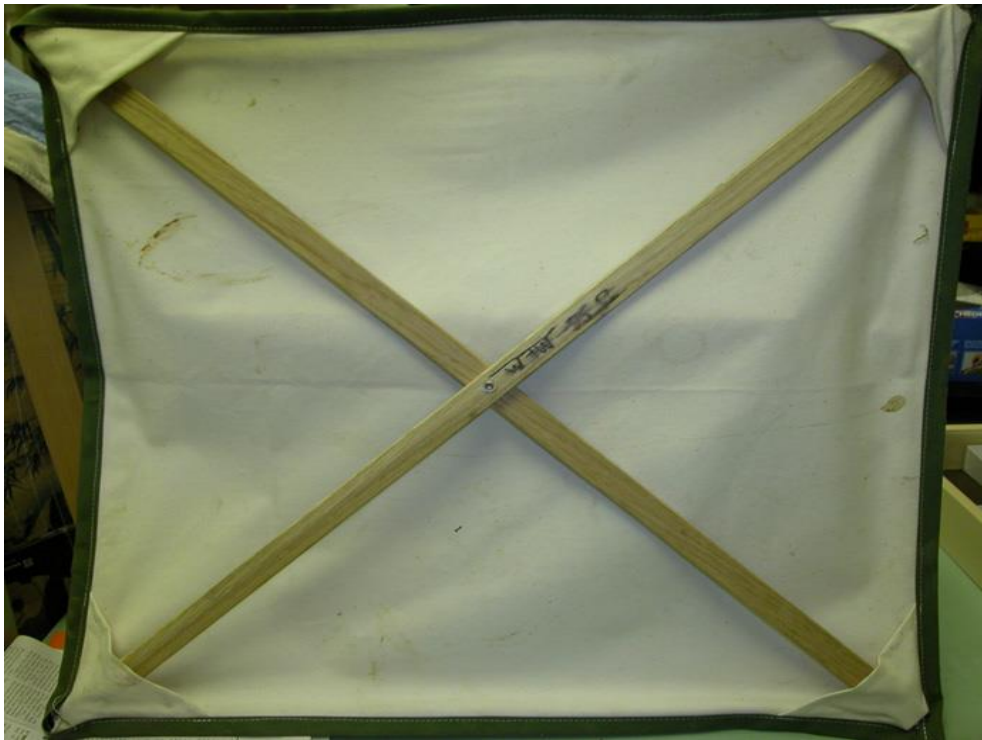
This is a very useful device for collecting small insects anable to fly from dry fall leaves , soil, flour & meal . various forms of Aspirators have been devised.

# Mouth Aspirator



## (5) Beating sheet

It is a frame covered with white clothes (muslin) or light canvas which replaced underneath the plant and then jerrying the plant with a stick the insects which fall may be easily picked up.



# (6) Sifters

It is used for many small & unusual insects which occur in trash & leaf litter., flour etc.



## **7--Berlese funnel:**

**For separating & collecting small insects from humid material .**

# (8) Traps

Traps are an easy & often very effective method for collecting many types of insects .

it is any device containing something to which the insects are attached & so arranged.

There are many types of traps.



# Kinds of Traps(A. Light trap)

For collecting nocturnal insects.





**Lindgren Funnel Traps**



# coloring traps



# (B) Bait traps



## **C – Sticky trap:**

For collecting nocturnal & diurnal insects .

# 9- Spreading board



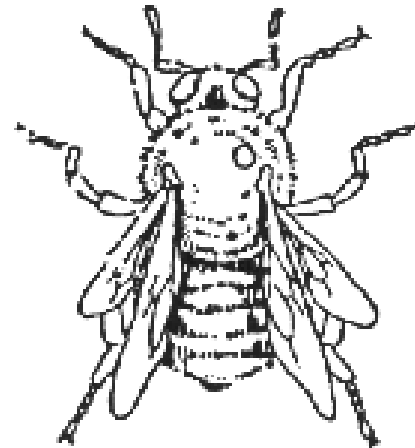
# 10-Insects - Pinning and Labeling

Pin the insects soon after they are killed, or they will become brittle and hard after a few days.

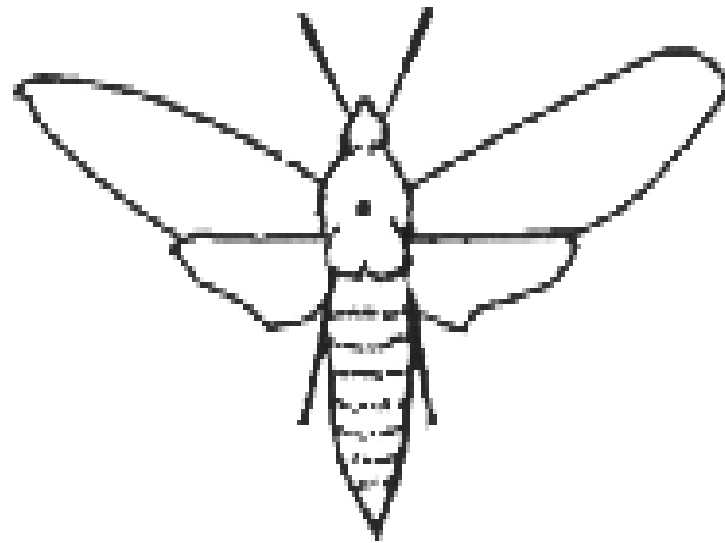
insect mounting pins. Use only No. 2 or No. 3.

Do not use straight pins .

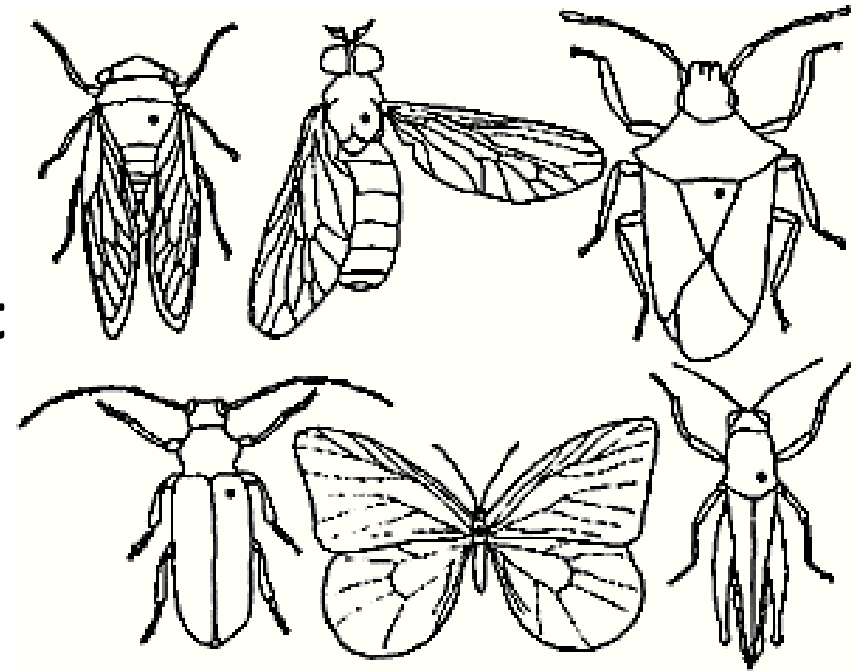
**Bees, wasps,  
and horsefly --**  
pin through the  
thorax a little  
behind the  
base of the  
forewings and  
to the right of  
the middle line.



**Moth,  
butterfly, and  
dragonfly** -- pin  
through the  
middle of the  
thorax at the  
thickest point  
and a little  
behind the  
base of the  
forewings.



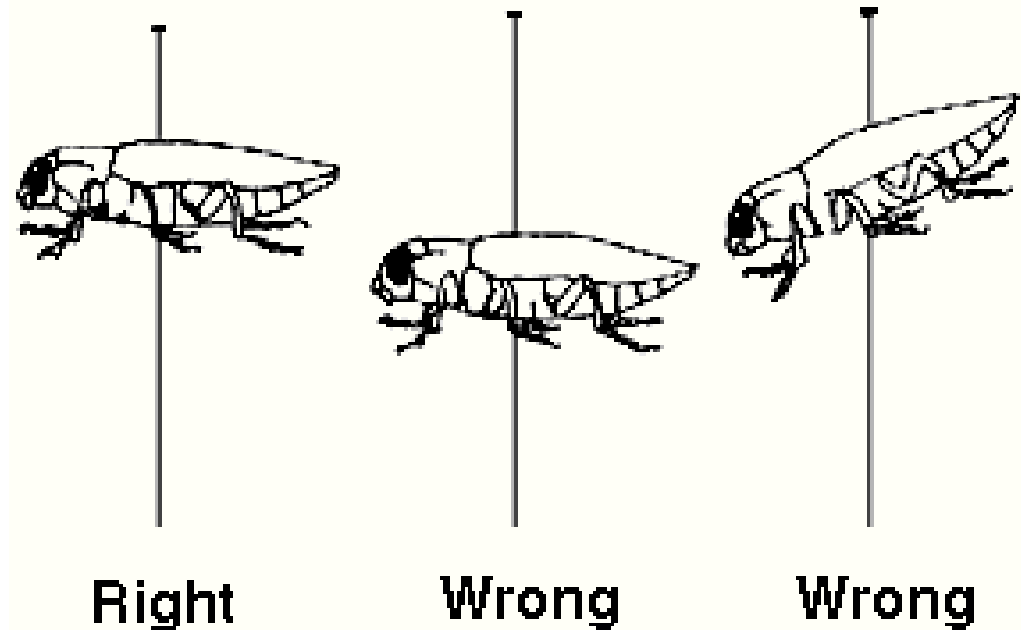
**Rest the specimen on a pinning block and steady the insect by either holding it with your fingers or holding it in place with a forceps. Place the insect pin into the insect body. Insects are generally pinned through the thorax on the right side (Figure 3).**



**Figure 3. Proper insect pinning.**

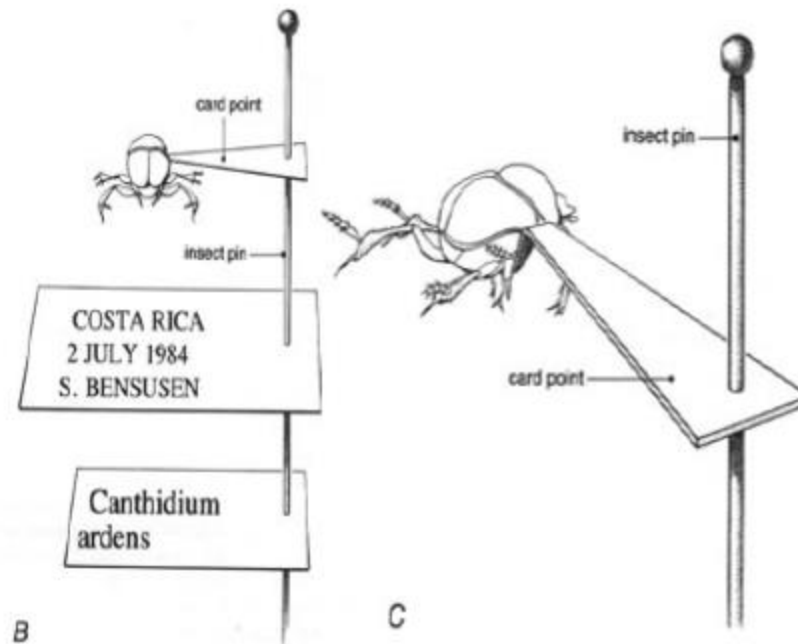


Approximately 3/8 inch of the pin should be showing above the insect body, enough so you can comfortably hold the pin with little risk of accidentally touching the specimen (**Figure 4**).



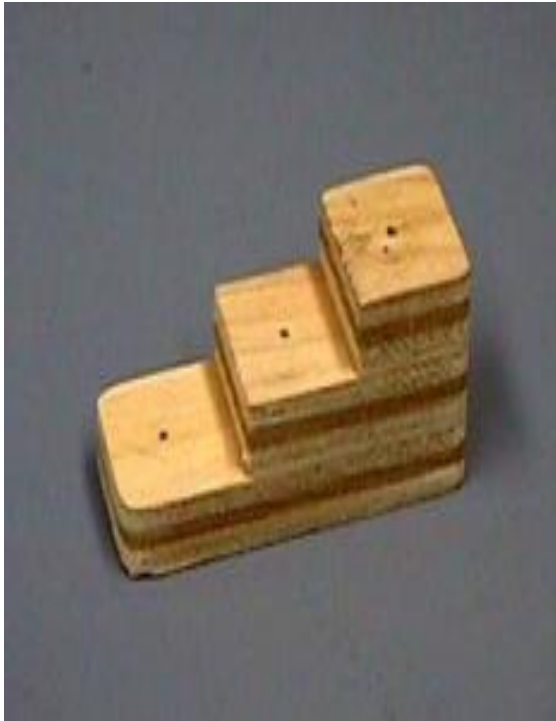
**Figure 4. Placement of the pin.**

- 1.** Place labels giving the **date**, **locality**, **collector** and the *name of the insect* on pins with the insects.
- 2.** Pin labels in the center and attach to the bottom of the box. Labels should be 1/2 inch by 1 inch. **Date** and **locality** labels should be placed on the pin first, with the common name label below.
- 3.** Arrange all insects in rows underneath the correct orders. Make the rows crosswise in the box, not lengthwise (see diagram).
- 4.** Place larvae in small bottles filled with alcohol. Place insect pins around the bottle or use adhesive tape to secure the bottles to the bottom of the box. Place name on label, and pin just above the top of the bottle.



**B) Correct positioning of point and labels on pin. C) Attachment of card point to right**

# Pinning block





Specimen with various labels as well as genetical vial (containing dissected genitalia).

# Collecting, preserving & Mounting insects

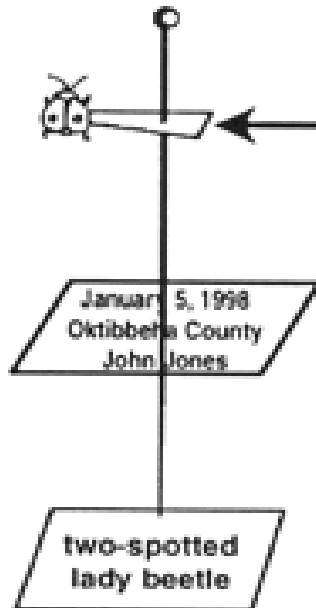
Insects can be mounted and preserved in various ways.

Most specimens are pinned & one dried.

Specimens too small to pin can be mounted on points on tiny minuet pins or microscope slides.

Large & showy insects such as butterflies, moths, grasshoppers, dragonflies, damselflies, may be mounted in various types of display cases.

Soft bodied forms, such as nymphs, larvae & the adults of mayflies, stoneflies, should be preserved in fluids.



Make the points not longer than  $\frac{1}{2}$  inch. Glue the insect to the tip.

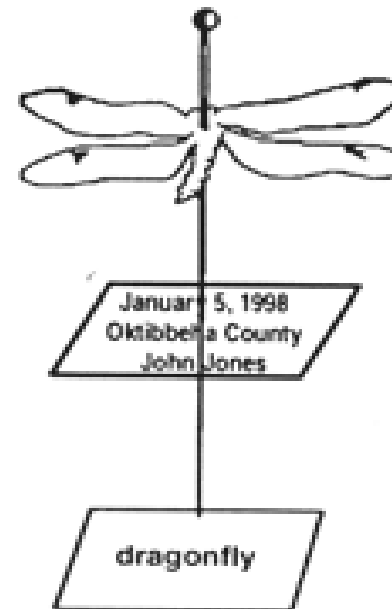




Figure 3: Storage of wet specimens, one option.





**Figure 2: Insect specimen curation in unit trays placed in drawer within entomology cabinet.**



Figure 1: Various curation methods for insects.



Figure 9: Specimens lined up by species in unit tray.