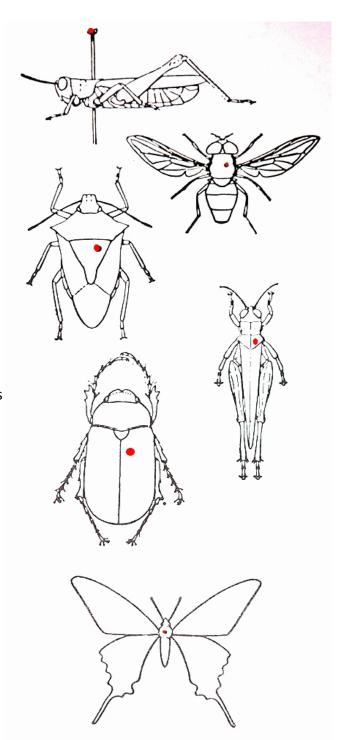
## **HOW TO PIN AND LABEL ADULT INSECTS**

Prepared by: Stephen B. Bambara, Retired 4-H Entomology Extension Specialist and Bob Blinn, Asst. Curator Insect Collection, Department of Entomology, NCSU

Always use genuine insect pins. Insect pins are longer, stronger and thinner than an average pin. They are generally available from a college bookstore, specialty science education store, or biological supply company. They are manufactured in several sizes. No. 2's and No. 3's will be the most useful. They are sold in packs of 100 pins.

Many adult insects may be pinned directly through the thorax if the pin is not too large and does not distort or destroy it. Fragile or tiny insects (such as mosquitoes) which are too small for a pin will need to be glued to the point of a small triangular paper punch-out which has already been stuck through with a pin. Soft bodied insects and larvae are not pinned, but are preserved in vials with alcohol.

Different groups of insects require different pin placement. With most Orders, the pin should pass through the middle of the thorax such that the specimen appears balanced in relation to the placement of the pin. The insect's body should be perpendicular to the pin. In bees, wasps and flies (Hymenoptera and Diptera) the pin should pass between the bases of the forewings, just to the right of the middle. In beetles (Coleoptera) the pin should pass down through the right outer wing. In the Hemiptera and Homoptera, the pin should pass through the triangular scutellum slightly to the right. With grasshoppers and crickets (Orthoptera) pin through the thorax to the right of the middle line. In butterflies, moths, and dragonflies (Lepidoptera and Odonata), the pin goes through the center of the thorax and the wings should be spread properly. Consider visibility, breakage, and space when positioning legs and antennae. Once your insects are mounted and allowed to dry they are very fragile. Consult 4-H Entomology 1 or any beginning entomology textbook for more information on pin location and spreading. All specimens should be labeled with, at least, the locality and date of their capture. Specimens



without such labels are of little scientific value. A good label tells where, when, and by whom the insect was collected. Labels should be as small as is reasonable, and no larger than 1/2" wide by 1" long. Trim labels to small rectangles removing any excess paper. Start by pinning the insect. Leave 3/8" between the top of the insect and the head of the pin so there is enough room to handle the specimen. Second, pin the date, location, and collector label. Third, pin the host information label. This label is optional and includes information such as what plant the insect was eating when collected, or if it was found around a window or porch light. The last label includes as much name identification that you know. Leave 1/4" between labels when possible. A pinning block may be used if desired. These are also described in "4-H Entomology 1".

Labels should be written with a fine point pen using permanent ink. Pencil is a reasonable substitute. Use a quality paper with high rag (cotton) content.

Label 1: Location: N. CAROLINA, Raleigh

Date: (Use Roman numeral for month) 25-XII-

1998

Name of collector: First, Middle Initial, Last

Label 2: Where found: Ladino clover

Label 3: Identification: Hymenoptera Apis mellifera

Some Insect Pin Sources:
Bioquip Products, 17803 LaSalle Ave., Gardena,
CA 90248 (310) 324-0620
Carolina Biological, 2700 York Rd. Burlington, NC
27215 (800)334-5551
Science Safari, Cary, NC
Compleat Naturalist, Asheville, NC

Prepared by Stephen B. Bambara, Extension Specialist Bob Blinn, Asst. Curator, Insect Collection June, 2001

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