

Topic: Temporary Mounting

Lecture No: 4

Subject: Research Methods in Entomology

Class: MS

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Course Code: Zoo-E-Ento-501

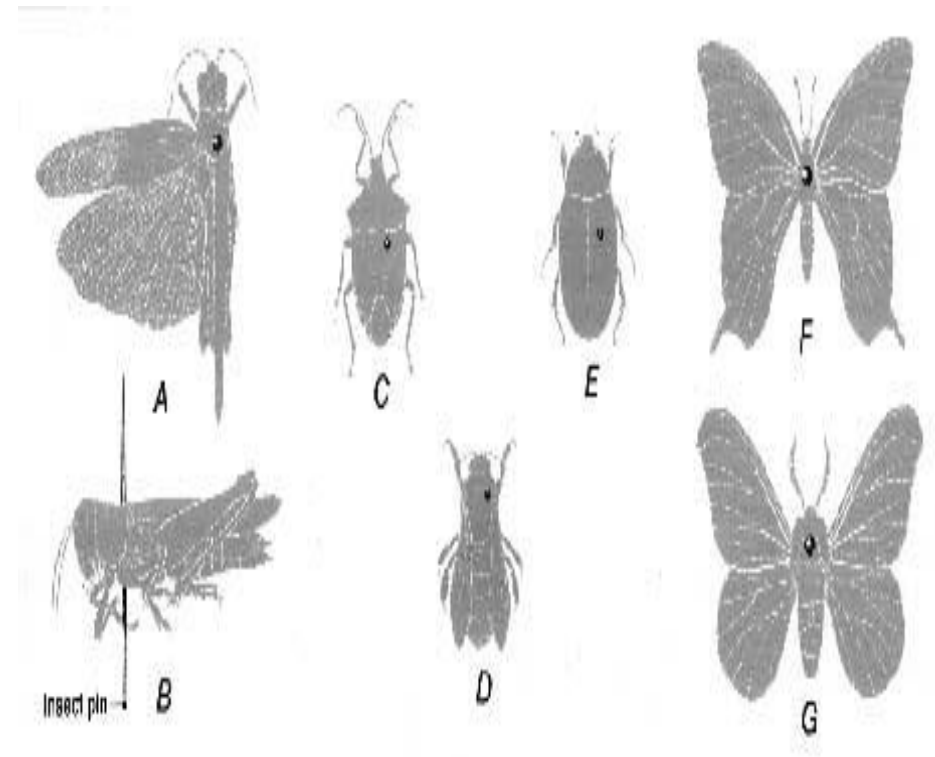
Temporary mounts

- A temporary mount can be made with lactic acid or other medium on a 2.5- by 7.5-cm cavity slide.
- The specimen is placed near the edge of the cavity. A fine needle will help bring the specimen into the desired position before the cover glass is centered over the cavity. Once the specimen is in position and the cover glass centered, a commercial ringing compound, nail polish, or quick-drying cement is used to seal around the edge of the cover glass.
- Such slides may be kept for a year or more, but because they take up more space in a collection than permanent slides, the specimens eventually are usually placed in vials of alcohol for storage.

Type of Temporary Mounting

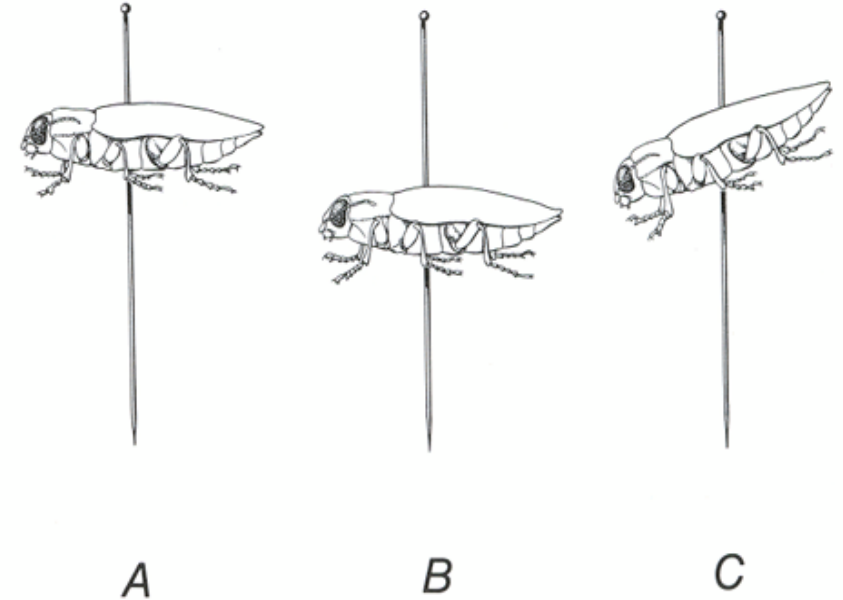
- **Dry Mounting**
- Dry mounting is done by pinning it is type of permanent mounting
 - **Pinning (Dry mounting)**
- Standard pin mounting
- **Kind of Pin**
- Use only regulation insect pins, these are longer and narrow than ordinary pins, and resistant to rust. Size no.2 and 3 are best for specimen while pin no.1 are too thin and easily bend.
- **What to pin**
- The general rule is to pin only arthropods that have wings, they hold their structure when dried. Wingless arthropods are typically permanent in alcohol and on slides.

- **Where to pin**
- Insert the pin on the right side of the thorax of the insect so that left side is entirely free for viewing. The exact position of insertion depends on the kind of insect. The specimen should be positioned about two third of the way up the pin, providing space to grasp the top of the pin with thumb and index finger without touching the specimen. Label should be inserted beneath the specimen for complete identification



- **Height of the pin**

- The height of the insect on the pin will depend somewhat on its size, but enough of the pin should always be exposed above it to be grasped without the fingers touching and possibly damaging the specimen. Those mounted too high on a pin very likely will be damaged in handling. If pinned too low, the legs may be broken when the pin is inserted in a tray or box and insufficient space may be left for labels.

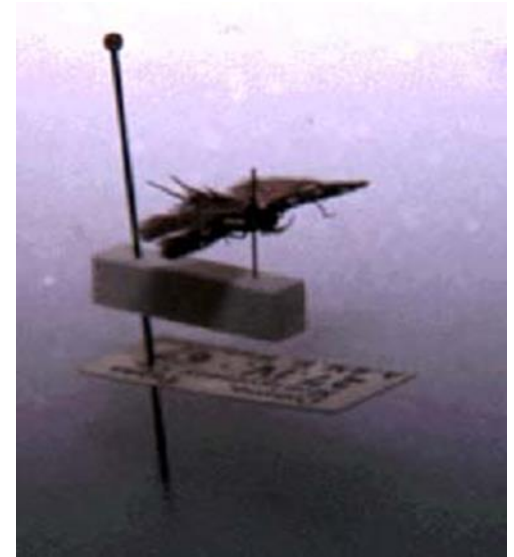


Proper specimen placement on the pin. A) Correct height and position. B) Specimen too low on pin. C) Specimen improperly tilted on pin.

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Pointing or Double mounting

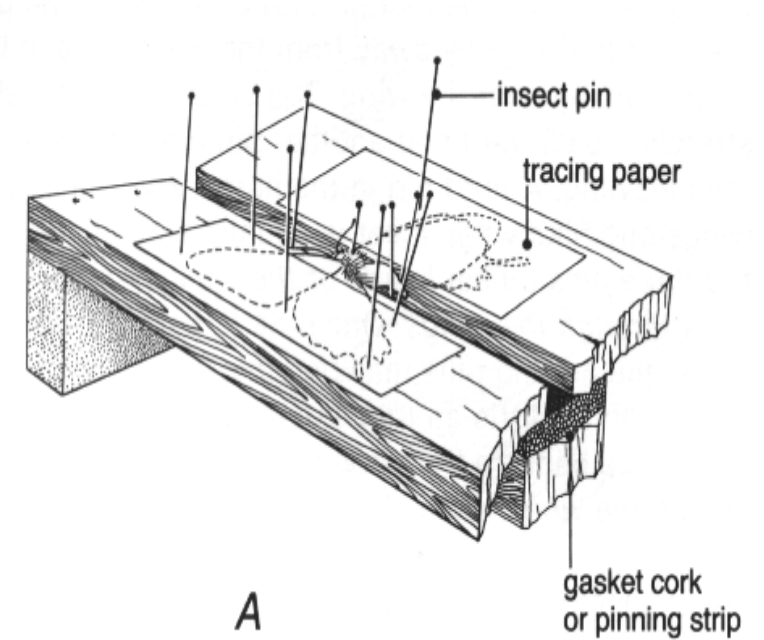
- Small and delicate insects that would be damaged by a standard insect pin are glued on to paper point (Card paper triangle) or pinned with minute needles.
- The simplest method is first to mount a paper point, apply a tiny dab of finger polish or white glue to the tip, then stick it to the right side of insect just before the glue dries.
- Keeps the left side of the specimen, dorsally and ventrally, complete free. The label should so oriented so that they are offset in the same direction as the point.



A double-mounted moth

- **Spreading**

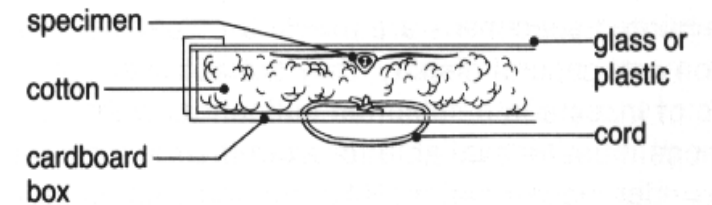
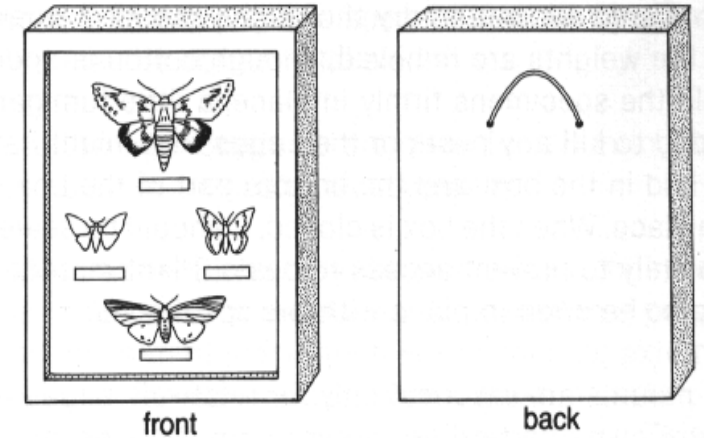
- Insect with broad wings may be mounted with wings spread, to revealed important venation designs.
- This is typically done for butterflies and moths.
- The wings must be spread while they still relaxing, using spreading boards or other device that allows the body to be pinned.



Spreading board

- **Ricker mounts**

- Insects and other arthropods sometime are mounted dry without pins with in shallow box, under glass pressed against cotton backing. This method is useful for displays and for identification based on the superficial characters.



Alcohol preservation

- All non-insect arthropods are stored in glass vials of alcohol. In addition all immature insect, mostly soft body adult insects are kept in alcohol.
- The preferred solution is 70-80% isopropyl alcohol or ethanol.
- If too weak the specimen will be rot, if so strong they will become brittle. The data label is placed right in the alcohol with the specimen.

- **Handling pinned specimen**

- Pinned specimens that have been dried are extremely brittle. If parts are broken off, essential characteristics may be lost and making the insect scientifically worthless.
- Following rules should be taken into account.
- Do not touch any part of the dried animals.
- Slowly and carefully grasp the top of the pin by thumb and index finger.
- Do not hand dried specimen from one individual to another, pin the specimen in cork then transfer the cork to the receiver.