

u) Entomological evidence collection is the process of collecting evidence based on insect clues used in criminal investigations.

Collections kits

1) Aerial or sweep insect nets :- Nets can be anywhere from 15-36". It is for collecting flies around area of dead body.

- 2) Sticky traps :- Sticky Cards are glue based traps used in pest control to catch & monitor insects & other pests.
- 3) Feather weight or light touch forceps :- For collecting without damaging delicate and soft fly larvae.
- 4) Collection Vials :- Screw cap type with neoprene cap inserts 4-dram size, killing jars which are jars of $\frac{1}{2}$ " of plaster to absorb the ethyl acetate. It is kill jars for collecting maggots.
- 5) Plastic "yogurt" or "bait" containers :- Used in collecting & shipping larvae.
- 6) Aluminum foil :- Used in constructing a pouch that will hold the live larvae & their food source during shipment.
- 7) Vermiculite :- Used in filling the bottom of the larval containers to allow for migration & to absorb excess fluid during shipment.
- 8) Plastic specimen containers 4-8oz size. It is additional collection containers.

- (9) Paper labels / heavy bond paper :-
- (a) Non-adhesive :- Used to label inside of preserved & live specimen containers.
- (b) Adhesive :- For labeling outside the containers.
- (10) #2 pencil :- #2 pencil corresponds to HB pencil. For making labels.
- (11) Small hand trowel or garden spade :-
Used in soil sampling & digging for migrating larvae or pupae in outdoor death scenes.
- (12) Thermometers :- ~~Digital~~ Preferably digital, but dial type, mercury or alcohol types are fine. Used for taking temp. of area around body & maggot mass.
- (13) Chemicals :- ethyl. acetate, ethanol, KHA used to kill insects.
- (14) 35 mm. SLR Camera, lens & flash :- used for on the scene macrophotography of insects.
- (15) Ruler or any measuring device :- For showing scale in photographs.
- (16) Paper towels :- For kill jar, cleaning utensils & drying hands after disinfecting.

- (17) Disposable gloves :- For personal protection
- (18) Sifting Screens :- used for processing soil samples for insects & insect artifacts.
- (19) Form for death scene investigation :- for record keeping.
- (20) Shipping Containers :- ~~stiffer~~ Styrofoam containers with lids are best as it offers good insulation from temp. extremes, but corrugated cardboard boxes are widely used.

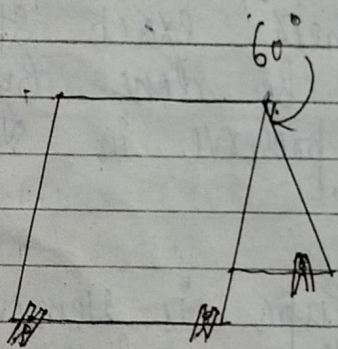
Pup tent fly traps:- The traps are
constructed using manufactured sticky
traps measuring approximately 9 inches by
10 inches.

in the shape of an inverted 'V', or pup tent; with the sticky material on the outside.

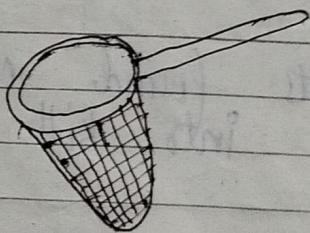
These traps generally have 4 clothespins clipped to the bottom corners to provide ground clearance.

Sweeping

The sweeping technique involves making quick back & forth sweeps across the body in succession.



Pup tent fly traps.



Sweep insect net

Collecting Specimens

1) Collecting insects on the body.

Great care should be used when removing insects from the body to it being removed from the scene. Clothing & immediate surrounding must not be disturbed. Any damage to the body or integrity of the scene can create misleading evidence that could be harm the investigation.

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② Collecting eggs:- Eggs are so small, it is collected in masses. Eggs are collected by small paint brush dipped in water. Half of the egg should be placed in preservative while other half should be kept alive, in order to prevent dehydrating it is imp. to place in damp tissue or media.

③ Collecting maggots & larvae:-

All size or various size of maggot should be collect, diff. size maggot represent diff. species. It is imp. to preserve to see their exact state, this can be done by the boiling maggot & preserve in 50% of Iso-propyl alcohol.

④ Collecting pupa:- Pupa is removed by using forcep or finger, pupa will not grow so no need of preservation.

* All insects found on the body should be placed into kill jars & properly labelled.