

## EFE and GB Nets

### Malaise Trap Instructions

Please allow quite a lot of time to erect the Malaise Trap and a level area of ground makes it far easier. With experience, the guys all attached, and suitable poles available, the Trap can be assembled in a few minutes.

Your trap differs from the common ones in that the edges are all reinforced with tape, there are spare bottles provided, a new design of collecting head that permits wet or dry collecting and the use of a filter. Substantial pegs and ties are also provided.

#### Your Malaise Trap Kit contains:-

1. A large tent like structure made out of either black, black and white, or all white material.
2. Red pegs for holding the guys.
3. Sufficient white rope to make 6 guys (12 metres)
4. The collecting head, support frame and spare bottles.
5. Filter, ties for poles.



As many Malaise traps are dispatched by air mail and there are restrictions on importing timbers to conservation areas the poles are not included in this kit. For that reason you will also need: \_

1. A sharp knife or scissors for cutting the guys to size,
2. A screw driver to tighten the retaining clip on the collecting head insert.
3. Either a strong grip or a pair of pliers to pull the ties tight.
4. A pole for the high end of the trap – about 1.6m long, ideal width 19mm but a strong cane will suffice. A pole or cane for the mid point of the lower end of the trap.
5. At least 2 x 1.5m plus canes for the high corners. In windy conditions two shorter canes may be required for the lower corners.

#### Locating the Trap

The trap works best at right angles to the line of flight taken by the majority of insects, A woodland edge, field edge or woodland path are obviously good sites. Your local knowledge is important and also anticipated weather conditions. These traps do not like strong winds or very exposed sites.

## How to Erect a Malaise Trap

1. Unpack the material part of the trap and layout on the ground. Find the exit hole of the trap where a plastic tube is inserted.
2. Make sure the metal clip is tight around this tube about 2 cms from the end. Tighten with the screw driver if necessary. If it is too close the fabric of the trap sags and closes over the entrance, if it is too far away insects collect around the entrance in the spare material and do not travel up the tube into the trap. You may have to adjust this after your first trapping session.



3. Remove any bottles from the collecting head and separate the curved section from the rest of the head.



4. Push the tube attached to the net into this part of the collecting head,



Pull out the material around this tube and secure with a tie if necessary.



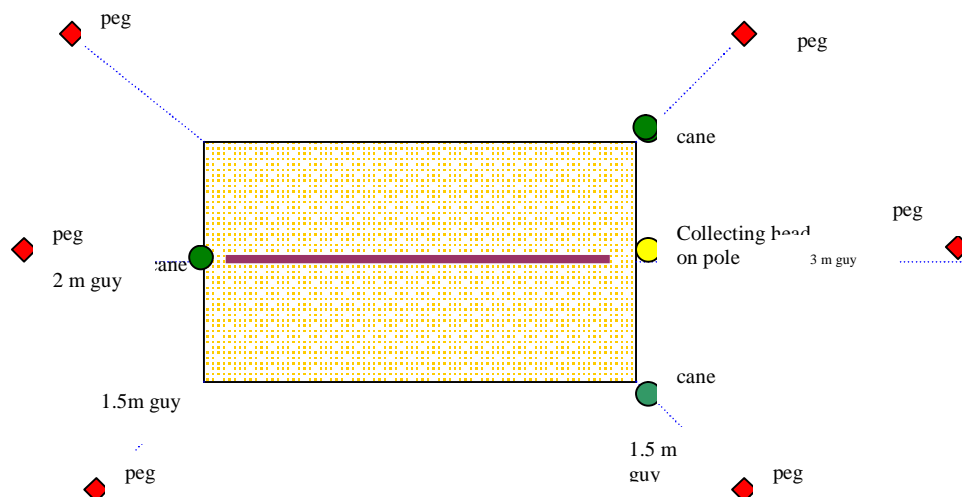
5. Push the upper curved section into the spring clip on top of the pole.
6. Decide if you want to use a single bottle collection (wet or dry) or double bottle collection. The support bracket held on by wing nuts is in the top 2 holes for single bottle, the bottom 2 holes for double bottle collection.



Upper 2 holes for single bottle

Lower 2 holes for double bottle

7. Decide where the high end of the net is going to be sited and push your own large 1.6m pole into the ground. Slide the tapes at the mid point of the high end of the net over this pole. Place the metal part of the collecting head on top of the pole. You have already attached this to the net. At this point the trap is very susceptible to wind damage so peg it out quickly.
8. You will need to attach guys to each point shown on the diagram remembering to allow enough room for a cane to be inserted as well at the corner points. It is easier to peg out the trap with guys first, then slacken a guy and insert the cane afterwards.



Your aim is to have the mid wall of the trap straight and tight up to the collecting head exit. The end walls should be at right angles to this mid line.

9. The two main canes are inserted through the corner tie and foot loop of the trap and pushed into the soil. The corner tie is then lifted and held high and tight using a cable tie. All ties to canes are supported in the same manner as is the tie around the main vertical pole.



10. Decide on the trapping method, dry or wet, and assemble the head accordingly. At this point you may insert a filter if you wish to keep the catch out of the liquid normally used in a wet trap. Remember to tighten the cords so the weight of the collecting head is on the metal, not on the plastic components.

Collecting head assembly for normal use wet or dry



Single bottle uses upper 2 fixing holes

On later models there is an extra tie cord here

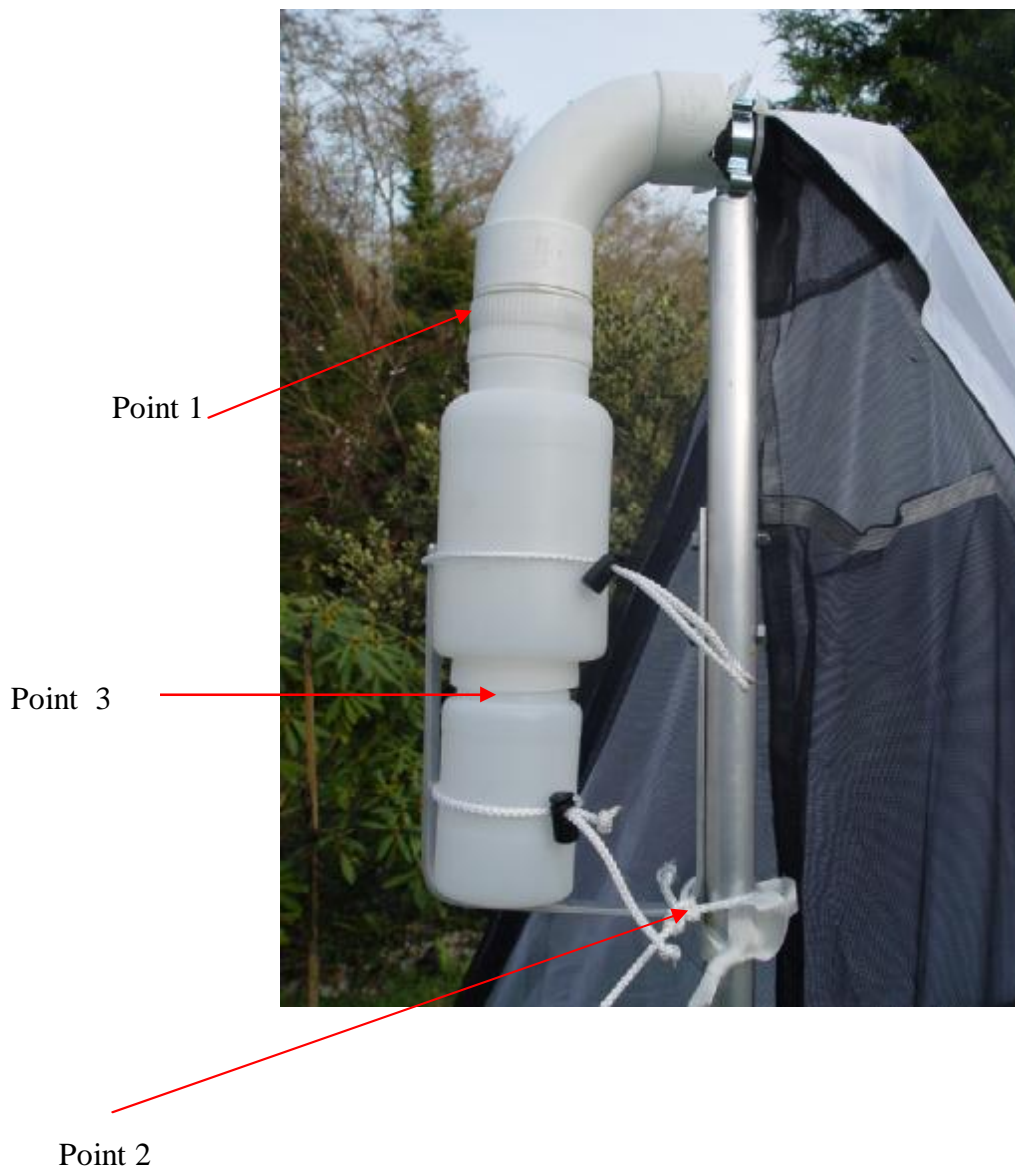
### Collecting head assembly – with separate killing bottle

The killing and collecting jars should be screwed together and assembled on to the curved pipe afterwards. It is designed that the bottles are inserted and removed from point 1. The support frame is in the lower position

The two ties are used in wind or when a liquid is added increasing the weight.

The guy is tied on to the pole beneath the killing bottle - point 2

A filter can be inserted between the two bottles at point 3 to keep the catch out of the liquid. The alternative is to use the large bottle on its own with a killing strip inside.



The Malaise trap should look like this at the lower end wall when you have finished. You can use pegs at each corner or canes to hold the wall vertical as at the higher end – it depends on local conditions.



Finally – before you leave check that the entrance to the collecting head is not blocked by folds of material – separate if necessary.

Possible Killing liquids depend on your location and availability. Wet is often alcohol but you may like to take advantage of the filter and separate the specimens from the alcohol. A simple alternative is a solution of water soap and salt. Only a few drops of detergent are added but the water should be saturated with salt as a preservative. For a dry trap an insect killer strip or patch such as “Vapona” will work. For education or conservation reasons it may not be appropriate to kill the catch at all, although the efficacy of the trap is somewhat reduced; in this case use the single bottle.

As the Malaise trap works by a positive response towards light most insects will end up in the trap. However a few will respond differently, or fall on impact with the net. For this reason a pan or trough should be placed beneath the middle screen to get a total catch. Unfortunately ground dwelling invertebrates may well walk up the sides of this trough so it is suggested that a dark colour such as grey is selected if at all possible and that the trough is raised above the ground by being placed on a stone, twig or, if sophisticated, legs.

#### Possible modification

If due to climatic reasons the inside of the top of collecting head stays wet and insects are trapped in this film of water then a small hole can be drilled opposite to the entrance and a piece of the black filter material supplied stuck over the hole. This will give ventilation and a positive movement of air from the trap to the collecting bottle.