



# What's Eating Your Collection?

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## Further advice: Suggestions for IPM kit

There are a number of pieces of equipment that make carrying out IPM easier and quicker. Many of these items can be purchased cheaply although some are more expensive and need specialist suppliers.

### **Tweezers / forceps**

For: picking up insects/larvae.

Type: a relatively small point size is useful; otherwise it can be difficult to see the insect between the points. Tweezers with straight or angled points are equally useful and it does not matter whether you use plastic or metal.

From: Maplins, hardware/electrical suppliers, tool suppliers, scientific suppliers.

### **Plastic tubes**

For: collecting insects, larvae or frass.

Type: something with a good seal and an easily removable, but firmly fitting, lid. Colourless tubes make identification of the contents easier.

From: specimen tubes are available from medical/scientific suppliers. They come with a label fixed to the tube, which is useful for labelling. Film canister tubes are also useful if you can get hold of them.

### **Magnifying glass**

For: easier identification of insects, larvae or frass.

Type: several types are available. The best type for you depends on personal preference.

- Magnifying glasses (the standard Sherlock Holmes type) are available in a range of sizes, some have an integral light. They can be bulky to carry and store and large ones can be very heavy.
- Coddington type / light loupe magnifiers look like a torch and have the lens mounted at ninety degrees to the stem. This type of magnifier has an integral light and is meant to be placed directly over the object to be magnified. (A recent internet search found something else as a Coddington magnifier, but this type is definitely available).
- Hand lenses have a metal or plastic holder that houses a lens fitted to a swivel. These lenses are small and easily portable but a comparatively small, high powered lens size can be difficult to use.

Note that for all lens types, the most effective way to use them is to keep the lens close to your eye and bring the item to be magnified to the lens. A x10 lens will be plenty of magnification. Higher magnifications can make it hard to see the whole insect/larvae.

From: electrical supply shops, hardware shops, tool shops, specialist suppliers. An internet

search will bring up a large quantity of suppliers.

### **Microscope**

For: examination of insects, larvae and especially frass in detail.

Type: the type of microscope you choose will depend partly on the budget available. Stereo microscopes (those with two eyepieces) are easier to use, particularly if you are unused to working with a microscope. Single eyepiece microscopes are often smaller pieces of equipment and thus are easier to store. You will need x10 and x20 magnification.

From: scientific and school suppliers, also specialist suppliers. Search on the internet for microscopes.

Note: Birmingham Museum and Art Gallery has discovered a very useful, small, cheap microscope that fits into a tiny rucksack made by Motic. We have purchased it from a company called Timstar. Lots of other small microscopes are available, this is just an example.

### **Plastic gloves**

For: protecting the skin when carrying out insecticide treatments or for removing the “yuck” factor when handling insects, larvae or frass.

Type: Nitrile gloves are now the preferred type in many museums. They are available in a wide range of sizes, fit well and are hypoallergenic. They have a reasonable resistance to needle-stick damage and are solvent resistant. They can be washed when dirty and reused.

From: Medical or scientific suppliers.

### **Vacuum cleaner**

For: removing dead insects and larvae, frass, fluff, dust and dirt.

Type: for vacuuming stores, galleries, shelves etc any vacuum cleaner can be used. If objects are to be cleaned then a vacuum with variable suction is required so that the objects are not damaged by the cleaning process.

From: vacuums for general cleaning are available from electrical or hardware shops. Vacuums with variable suction are available from Preservation Equipment Limited and other conservator suppliers, usually sold under the brand of Museum Vac.

Note: Birmingham Museum and Art Gallery use the Nilfisk UZ964 hip mounted vacuum, which has variable suction (actually a potentiometer) fitted retrospectively by a vacuum cleaner engineer. This allows the vacuum to be used for general cleaning and for objects. See the Nilfisk website for details of the vacuum. This adaptation could be made to other vacuums; we like this Nilfisk as it is not a very big machine and so is useful for small spaces.

### **Small plastic boxes**

For: keeping insects to make an insect collection.

Type: earring-type boxes with lids that slot onto the base of the boxes allow the insect to be viewed without opening the box. It can also be examined under a microscope without opening the box. Other small, colourless boxes are suitable. The box should be no bigger than a small match box to prevent the insect from moving within the box too much and becoming damaged. The best way to store insects without them being damaged is to cut out the relevant section from the sticky trap that holds the insect of interest and place this in the box. Loose insects can be placed onto pieces cut from a sacrificial trap.

From: box suppliers, collectors' sundries suppliers, conservation suppliers.