Footnote.

Propylene phenoxytol is manufactured by Nipa Laboratories Ltd., Treforest Industrial Estate, Pontypridd, Glamorgan. A 500 ml. bottle costs £3.4s.0d (plus 7/6d postage and packing). N-tetradecanol (myristyl alcohol) and n-dodecanol are obtainable from B.D.H. Ltd., Poole, Dorset at approximately 26/- per 250 gm. and 14/- per 500 ml. respectively.

STORING A SPIDER REFERENCE COLLECTION

by J.CROCKER.

The constant need to consult the reference collection necessitates a reasonable degree of accessibility. In the spirit collection there is the ever present problem of evaporation with possible damage to valuable specimens. In order to minimise this danger in conventional spirit collections bulky containers are generally used, taking up rather more cupboard space than is usually available to the amateur worker.

Most workers, at one time or another, are faced with the problem of improving their methods of material retrieval, while limiting the physical size of the collection.

If the excellent guidance on 'Spider Collections and their Organisation' given by Cooke (1966) is followed, the 'Main Collection' will comprise the greater part of all stored material, and not being in constant use can be put away until needed. It will contain tubes of material, each listed and numbered in the 'Collection Notebook', from different habitats. Specimens required for reference are removed from the Main Collection and placed in the 'Reference Collection'. As a cross reference, the checklist numbers of the specimens removed are added against the entry in the Collection Notebook to indicate that these have been transferred from one collection to the other. All specimens in the Reference Collection are numbered in checklist order, advancing in tens (ie. 0010, 0020, 0030) to give a degree of flexibility for the addition of new species.

It has been found convenient to have a series of both sexes of each species, collected in widely separated localities as this helps in future diagnoses to eliminate some of the variations in a species. If reference specimens are stored separately and allowing for 3 or 4 examples of each sex from 75% of the British list, then storage space is required for about 3,000 tubes. In a comprehensive collection provision will be made for the maximum number of specimens with room for new additions and foreign material. Therefore consideration has to be given to storage for approximately 5,000 tubes. With a spirit collection of this size, one must attempt to eliminate the maintenance chore of topping up tubes as spirit evaporates. This is achieved to a large extent by using propylene phenoxytol as recommended by Cooke (1969), and by using tubes with plastic closures, but where valuable specimens are concerned, additional precautions are well worth while.

The basic size of tube for single specimens in the Reference Collection is 0.375" x 1.5", with plastic closures. Tubes should be examined

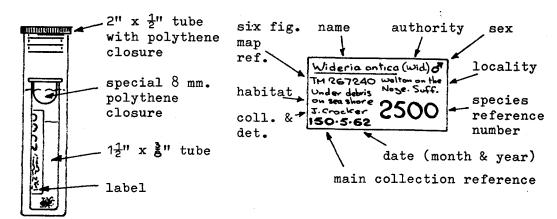


Fig. 1 Twin tube system

Fig. 2 Data label

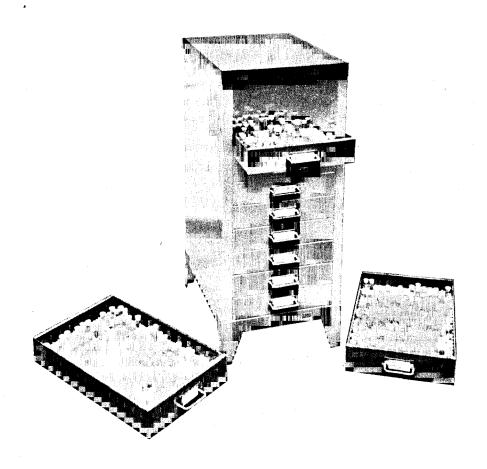


Fig. 3 'Stor' ten-tray cabinet used for storing wet reference collection.

for hairline cracks which sometime occur at the bottom of the tube, and for good fit of the closures. It will be found that some tubes are below size and by forcing the closure the tube can be cracked, or that others are oversize and the closures are a loose fit. These tubes should be relegated to use in the field with cork closures. The remaining tubes which accommodate the plastic closures will give an excellent seal and will not need further attention once properly filled, labelled and filed away. However, due to inherent stresses in the glass, sudden shock or rapid change in temperature can cause tubes to crack unnoticed, thus allowing the preservative to seep out and evaporate. It is therefore safer to enclose the small tubes inside larger ones (fig. 1.) which are also sealed with plastic closures and contain a drop of preservative. Labels (fig. 2.) are kept as small as possible and are written with a 'Rapidograph' pen, size 0.2 using a good quality waterproof indian ink. All information on the label is transferred to the 'Systematic Index' together with any additional notes, and cross referenced to the Main Collection.

For a collection of 3,000 tubes the standard 10-tray 'Stor' multitray cabinet (fig. 3.) is suitable, but for 5,000 tubes the 15-tray unit is necessary. Each tray, measuring 14.875" x 9.25" x 2" deep will house up to 340 tubes which are stored in numerical (checklist) order, but a reduction in tubes is desirable so that indexing can be accommodated. A pair of entomologists' tweezers are ideal for removing and replacing tubes. The cabinets recommended are: 'Stor' model R with 2" trays; the reference number of the 15-tray model is R.15/15 and that of the 10-tray unit R.11/10. A 5-tray model (R.3/5) is also available for the smaller collection. Prices are approximately £13, £9 and £6 respectively. These are readily available through any supplier of office furniture.

A mat of synthetic foam is advisable on the bottom of the tray as this will reduce the risk of cracking tubes accidentally dropped into the tray.

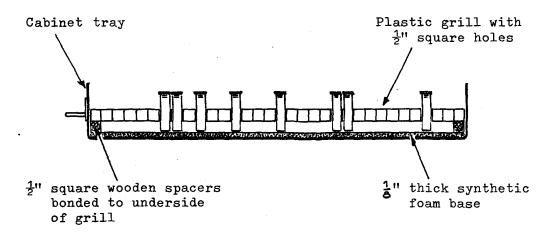


Fig. 4 Section through storage tray

The separators are made from industrial flourescent light diffusing panels as described by Spalding (1967). These can be obtained through an electrical contractor under the trade name 'Falks Plastic Crateing' at approximately 25/- each, cut to size. Each panel is 0.5" deep and has 0.5" square holes which take 0.375" or 0.5" dia tubes comfortably. The overall size of the panels to suit the 'Stor' trays should be 9.125" x 14.625". To prevent the smaller tubes from falling over, it is necessary to raise the separator panels off the bottom of the tray (fig. 4.). Strips of 0.5" square hardwood, 9" long are suitable for this purpose and can be secured to each end of the panel with 'Bostik No.1' adhesive. Numbering the trays, to suit differing requirements, can be achieved by cutting 1" lengths of the 0.5" square hardwood strip (or $\frac{1}{2}$ " dowel) and painting and numbering one end. These numbered blocks can then be put into the appropriate position in the tray and moved as required when the collection grows.

Alternative types of separators can be substituted, such as sheet steel with drilled perforations, or fabricated from steel (or plastic) strip with half-depth saw cuts to interlock with each other, or even small mesh chicken wire.

References.

COOKE, J.A.L. 1966: Spider Collections and their Organisation.
Bull.Brit.Sp.Stud.Gr. 32: 1-3.

----- 1969: Preservation and Restitution; Notes on some use-ful arachnological techniques.

Bull.Brit.Arach.Soc. 1 (3): 42-44.

SPALDING, D.A.E. 1967: A useful Storage Unit for Spiders in Tubes. Bull.Brit.Sp.Stud.Gr. 33: p2.

Footnote.

Tubes are obtainable complete with plastic closures from: Solmedia Limited, 31 Orford Road, London E17.

Special 8 mm. (No.8) polythene stoppers, suitable for use inside the larger tubes, are obtainable from: Kunststoffwerk Kremsmünster, 550 Kremsmünster, Kremsegg 50, 0.-0., Austria, at £1.17s.0d per 1,000. The address of Falks Limited is: 91 Farringdon Road, London E.C.1.

Editor's Note

BRITISH STEREOSCOPIC MICROSCOPES.

Mr. F. Wanless has submitted an annotated list of British stereoscopic microscopes and accessories, together with a breakdown of prices and some useful notes on choosing a microscope for spider study. Details are given of Vickers, Watson, Prior, Perry and Beck instruments.

Since it is not possible to publish this list in the Bulletin, I will send a copy to any member wishing to have this information, on receipt of 1s-Od in stamps.