

A CONVENIENT METHOD OF STORING ENTOMOLOGICAL SPECIMENS IN ALCOHOL, WITH PARTICULAR REFERENCE TO DRAGONFLIES

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One of the best methods of making a permanent collection of dragonflies and certain other insects is to preserve them in alcohol in glass vials.

It is hoped that this paper may help anyone who may be contemplating making a collection of any material that is best preserved in alcohol as it will, I think, help to overcome some of the difficulties met with when trying to make an easily handled and neatly labelled collection.

While this paper has particular reference to dragonflies, most of the observations will apply also to other alcoholic materials.

The only alcohol that is really satisfactory for preserving dragonflies is 95 per cent. grain alcohol. In this material they will keep their colours excellently, which they will not do in ethyl alcohol or other preservatives such as chloral hydrate, formalin, etc.

The best type of vial to use is the thick-lipped homeopathic vial with the widest mouth that the diameter of the vial will allow. The advantages of the homeopathic vial over the shell vial are twofold. In the first place the thick lip allows the cork to be forced in very tightly without fear of breaking the vial. In the second place the vial can be easily made entirely airtight by the addition of a "gelcap" which, when soaked in cold water until soft, can be placed over the cork, and when dry will mould itself around the glass lip, making a perfect seal.

The corks should be the best 4XXXX corks of the short type so that they will not protrude downwards into and discolour the alcohol.

The British Columbia dragonflies can be kept in two sizes of vials. The large size should measure 25x95 mm., and the small 20x66 mm. In ordering these it should be specified that the mouth in both cases be as wide as possible and in no case less than 16 mm. inside dimension.

When collecting in the field the dragonflies should be taken out of the net and placed at once, tail first, into vials of 95 per cent. grain alcohol, and a piece of paper giving the locality and date put in with them. If you wish to kill them in cyanide bottles first do not leave them in any longer than necessary or the colours may change considerably.

When you have determined your material and wish to put it away in a permanent collection the following method is suggested:

With India ink write the species name on a small black-edged label and fill in the date on your locality label.

Put a few small specks of sodium silicate (which can be purchased in the form of "water-glass" for preserving eggs) on the face of the species label and with a pair of forceps place it inside the vial at the bottom and press it against the glass with a rubber-ended pencil until good contact is secured, and then tamp down a plug of cotton wool to hold it in place until dry. Treat the locality label in the same manner, placing it on top of, or alongside the species label.

The sodium silicate will dry very rapidly and will ensure the label remaining in place and appears to be absolutely insoluble in alcohol. When the labels have adhered firmly to the glass take out the cotton wool and place the dragonflies tail down in the vial and fill up to the neck with 95 per cent. grain alcohol; put in the cork and seal with a "gelcap."

The most convenient method of storing the finished vials is in small racks which may be any length desired. These are made with the back and base of three-ply and the two ends of half-inch pine. The base should be slightly narrower than the diameter of the vials to be used; the vials being kept in place by two strands of wire stretched between the end pieces. The best type of wire to use is No. 0 tinned picture wire as this does not stretch and become slack. The back and base may be painted white or may be covered with a soft white cloth, resembling cotton wool on one side, known as "eiderdown." The front end of the rack should be stained and have a brass card holder attached, into which the typed name of the species may be slipped. When fastening these card holders a small brass cup hook or knob may be screwed through the lower nail hole and used as a handle when pulling the racks out of their cabinet. These racks may be kept on shelves in a cabinet with sliding glass doors. A curtain should be provided which can be drawn to exclude the light as the colours of dragonflies keep best in the dark.

The vial racks and cabinet can be made with very little cost and add to the pleasure of an alcoholic collection. The method of fixing the labels inside the vials by means of a few spots of sodium silicate is very convenient and satisfactory.