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## Biology Curators Group Newsletter

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On the other hand a species which is easily seen or collected may delude the recorder into thinking it to be 'not rare'. For instance in certain butterfly species all the individuals in a population may be on the wing on a single day. The collection of just a few specimens might reduce the population to a critical level.

Clearly, common sense must be the guiding principle in all of this, but beware the enemy within. Sometimes filling a gap in the collections can seem like common sense! If in doubt, collect a second opinion before the voucher specimen.

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A response to Geoff Hancock's note (BCG Newsletter 4 (1) p. 29)  
on the preservation of insects in alcohol.

In the course of taxonomic work over the last year I have had to examine a large number of caddis larvae which have been fixed and preserved in 70 - 80% industrial methylated spirits in tap water i.e. 'alcohol', for between 0 and 15 years. It is impossible to be precise but the following has been observed.

There is almost immediate loss of any green or yellow colours in the fat body and haemolymph but then up to about five years there is usually little further change. After that time the normally pale straw-coloured unpigmented parts of sclerites become darker and orange while the brown pigment patterns on those sclerites become paler. The overall result is that subtle shading characteristics may be difficult to see in larvae over ten years old. It must be emphasised that chaetotaxy is unaltered and basic patterning shapes are usually discernible. The deterioration may stabilise for I have seen sixty year old caddis larvae which had quite adequate patterning. Two other factors can cause early deterioration of specimens. If the alcohol is too weak at fixation or becomes weak by evaporation specimens tend to rapidly darken and their bodies become very soft and fragile. Caddis larvae stored on open shelves in light airy laboratories can bleach badly in as short a period as four months.

There is a general tendency for caddis larval bodies in alcohol to become soft in the short term then stiffen up after a few years. I have used Pampel's Fluid for fixation and preservation. It is an aqueous solution of alcohol, formaldehyde and acetic acid and though it gives nice firm bodies it causes serious colour changes when used for storage. The propylene phenoxetol system used as instructed seems to produce very poor quality material after only a year or so.

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