

hour-glass pattern of the American Black Widow are well preserved. The pink colour of Thomisus onustus Walck. turned yellow within a week of being placed in the preservative. Black, white, brown and yellow colours keep well, and patterns such as the folium, lanceolate stripes and chevrons are always retained.

With the Pulvertaft Kaiserling solution, shrinkage and hardening start in the fixative and are completed in the preservative. The size of the spider is not altered to any noticeable extent, but distortion of the abdomen does occasionally take place with the larger Argiopids. If distortion is going to occur it will do so within forty-eight hours of the spider being placed in the preservative. Fortunately it can be cured quite easily; the distorted specimen should be left for about four days and then, by means of a fine hypodermic needle, fresh preservative should be injected into the abdomen, which will blow up to its original shape and not contract again. If preservative is injected in too early, the abdomen will collapse as soon as the needle is withdrawn, in which case one should repeat the process in a few days. If injected too late, when the abdomen has fully hardened, it will not inflate.

An unexpected fault which has occurred in a few spiders is the appearance of fat-like droplets on the abdomen. These droplets are only visible when viewed under the microscope; they do not spoil the general appearance of the specimens and can be removed with a soft paint brush. It should be noted that there has been no occurrence of contamination by fungi or bacteria. Specimens preserved in this way may be neglected for long periods, for if leaks occur the glycerol in the preservative will prevent the spiders from drying out.

Such mounted and preserved spiders can be shown at exhibitions and handled without any fear of damage. More important, the genitalia may be critically examined under the microscope. It is useful if both sexes are arranged in the same box, with one of the male palps removed and set in such a position that structure is easily seen. This method of preservation has proved most successful for the majority of spiders and should also prove suitable for related orders.

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CANNIBALISM IN PIRATA PIRATICUS (Clerck)

by C.FELTON.

During August 1968, several instances of cannibalism in Pirata piraticus were observed among a population of this species in a Juncus swamp at Kirkby, Lancashire.

Adults were taken with small juveniles dead in their fangs, which they released only when placed inside a glass tube. Although the actual number of cases of cannibalism witnessed on this occasion were few, it would seem reasonable that this behaviour is widespread, at least at this time of the year when large numbers of immatures are about.

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