

SHORT NOTES

A METHOD OF REMOUNTING OLD PREPARATIONS OF ACARINES WITHOUT RAISING OR DISPLACING THE COVER SLIP

The demounting and remounting of a mite preparation which is 10 or more years old is a very delicate operation which is not always completed without damage to the specimen. The structures which suffer the most from this remounting are the setae and it is understandable that the most risky operation is with those mites bearing long, complicated setae such as the Glycyphagidae and Cheyletidae.

It is during the later phase of the demounting that the danger of breaking off the setae is the greatest. At this time the water has completely replaced the old mounting medium and the coverslip floats above the acarine. The slightest movement of the slide can cause the coverslip to be displaced and produce irreparable damage to the specimen.

The method that is described here avoids, the delicate aspect of demounting because the entire operation of reliquification of the old mounting medium occurs under the coverslip which remains attached to the slide by the ringing compound.

The method is particularly applicable to old preparations mounted in water soluble media such as Berlese, Faure and Hoyer, and ringed. It is possible, however, to use this technique with slides which have not been ringed, first by putting ringing compound around half of the preparation and waiting until it has completely dried.

DESCRIPTION OF THE METHOD

1. With a scalpel or needle scrape around the edge of the coverslip and remove part of the ring which covers the coverslip and slide. The ring should not be removed completely from the entire coverslip but only half or so in such a way that water will be able to penetrate easily under the coverslip.

One must be sure that the specimen being remounted is located under that half of the coverslip from which the ring is removed. In fact, the water penetrates only in this area which has been deringed and very little in the other area.

2. Place the slide in a humid chamber (Petri dish with paper soaked in water) and spread water over the coverslip. Allow the preparation to soak until the acarine becomes opaque and grayish which indicates that it has become impregnated with water. This can take several hours or even several days for very old preparations. It is important not to leave the specimen in contact with water longer than necessary because if left too long the coverslip can become detached even in the presence of the ring.

3. As soon as the acarine is impregnated with water, remove the slide from the humid chamber, turn it on edge to get rid of the excess water and dry the coverslip by lightly touching the wet part with a piece of filter paper or a fine cloth.

4. Apply a drop of Hoyer's (Berlese) medium on the edge of the coverslip adjacent to the ringed portion of the slide. The Hoyer's will slowly flow under the de-ringed part of the coverslip and will permeate the mite but it will not flow under the ringed portion. The flow of the Hoyer's under the coverslip can be speeded by touching to the side of the coverslip opposite to the place where the Hoyer's was applied with a piece of filter paper. The remaining water

will be sucked up and will pull the Hoyer's under the coverslip and toward the opposite side. In order to achieve better flow of the Hoyer's the preparation can be put back in the humid chamber for 30 to 60 minutes.

5. Dry the preparation for one week in an oven at 50°C. Re-ring the coverslip.

REMARKS

1. This method allows the remounting of mites found in only half of the preparation because the medium penetrates only in that portion of the coverslip from which the ring has been removed. Thus if one wants to remount and clear several mites located at different spots under one coverslip it is necessary to follow the procedure two times. The first time one goes through the demounting as above. Thus the preparation is allowed to dry at 50°C for a week and is ringed in the usual manner. Later, one can carry out the same operation on the second half.

2. With this method we have been able to remount in Hoyer's medium preparations of *Cheyletus* from the Oudemans collection dating back to the turn of the century without the slightest damage.

3. In my laboratory I use exclusively the unstained Gilson Euparal (G. B. I. Labs, Manchester, England) as a ringing compound. It is clear transparent and completely neutral and it adheres tenaciously to the coverslip and slide. Euparal dries more slowly than the other usual compounds and it takes several weeks before it is completely hard. I have used it for more than 20 years and have found it completely satisfactory.

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