



## Wellcome Film Project

### **Pinning Mosquitoes**

**The Wellcome Foundation Limited, 1953.**

**Produced in collaboration with The Department of Entomology, London School of Hygiene and Tropical Medicine.**

**Photographed by Douglas Fisher.**

**Colour**

**Duration: 00:05:12:13**

**00:00:00:00**

**<Opening credits>**

**<Narrator over pinned mosquito, then trays of mosquitoes>**

The standard way of mounting insects is to pin them. This is both quickly and easily done and it requires very little equipment. It is equally useful for display, for storage or for sending specimens through the post, and so far no other method has replaced it.

Here is part of the collection of Anopheles at the London School of Hygiene and Tropical Medicine. These insects have all been mounted and labelled and they are carefully preserved under glass for study and reference. They've been grouped in species and also according to locality.

The pin is always placed so that the insect can be examined from any angle and it should be inserted so that it doesn't damage the important structures. It is important too not to touch the specimens with the hands because many insects, including the mosquitoes, are covered with fine scales. These are easily rubbed off, the specimen is spoiled and identification is made more difficult.

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### <Narrator over shots of live mosquitoes, followed by a demonstration of how to kill and pin them>

Ideally, insects should be killed and pinned without delay, otherwise they rapidly become dry and brittle and cannot then be pinned until they have been relaxed in a moist atmosphere.

Mosquitoes may be killed with chloroform – a few drops on the cotton wool plug of the test tube are sufficient. Or, as an alternative to chloroform, tobacco smoke will be found effective. Then they are placed in readiness on a piece of light-coloured card.

A 16mm pin is used for mounting the insect and a 35mm one for staging it afterwards. The best entomological pins are made of stainless steel and are preferably pointed at both ends. But if only headed pins are available, the 35mm ones can be used as they are, but the heads of the smaller ones should be cut off slantwise to give a second point.

Then one of these is held in the entomological forceps and is inserted into the body of the insect, either between the cruci[?] of the middle legs or from side to side at about the same position.

### <Narrator over demonstration of staging pinned mosquitoes>

For permanent storage, the pinned insect is then staged. For this a piece of celluloid, 15 x 5mm is used, already mounted on one of the large pins. The free end of the pin carrying the insect is inserted about 4mm from the edge of the celluloid and the positions of the pins adjusted so that the mosquito is well below the top of the large pin. Labels are mounted on the large pin; they should be kept small, about the same size as the celluloid strip, and there may be several of them, mounted one below the other.

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Usually the top one gives the geographical locality, the date of collection and the collectors name; the next one states where the insect was caught or where it was bred and the bottom one gives the species – *Anopheles rufipes* in this case.

A solution of naphthalene in chloroform to which beech tar creosote has been added is used in all containers to preserve the specimens from attack by ants and other creatures. It is applied to all the openings, joints and corners and then the specimens are placed inside and the lid tightly closed. The preservative should be renewed every six months.

For sending specimens through the post, a glass tube is sometimes used. The insects which have been pinned, but not staged, are mounted on a cork platform covered with white paper and attached to the cork of the tube. The platform is shorter than the tube and this, with the spacing pin, keeps it from buckling during transit. Notes may be made on the white paper covering the platform. The preservative is added to the cotton wool in the v-shaped slit in the cork. Then the tube is put in a wooden container and this is carefully packed in wooden wool or similar material to cushion it during its journey. Somewhere in the parcel too, full details of the specimen should be included.

Undoubtedly, much time and labour will have been spent in collecting the specimen so it is well worthwhile to mount and pack them with care, for this is the only way of ensuring that they arrive at their destination in perfect condition.

<End credits>