SURVEYING FOR WATER SHREWS

by Ken Winder

The Water shrew, *Neomys fodiens*, is the largest shrew found in England. It can easily be distinguished from the Common and Pygmy shrews by its dark upper colouring which contrasts with the white underside. They are however, our rarest shrew and are rarely seen. One way of establishing their presence would be, as with other small mammals, to use live mammal traps (such as Longworth traps) but these are not only expensive, but are also quite time consuming in their use. Additionally, due to the rarity of water shrews, one is more likely to trap other small mammals (mice, voles and other shrews) than water shrews… Thus, to carry out extensive surveys, an easy, cheap method for surveying was required. Therefore in 2004/5, the Mammal Society instigated a national survey using baited tubes.

So, what is a baited tube. This is basically a 40mm diameter plastic pipe (available from any DIY shop) cut into lengths of 200mm. One end is then sealed using a square bit of muslin (or other) cloth secured by a rubber band. The bait used are casters (blowfly pupae), available from any fishing tackle shop, or dried mealworms. Note that castors must be put in the freezer to prevent them hatching. A teaspoon of these is then put into the tube and the open end temporarily closed using a piece of screwed up newspaper to prevent them falling out during transport.

Once the site has been chosen (small streams, ditches, ponds etc.), at least six of these tubes should be put down near to the edge of the water, approximately 10-20 m apart. Ensure that they are not too near the edge that they will be flooded should the water level rise. The tubes need to be secured down, and a cheap method of doing this is to use the "U" bit of metal clothes hangers, which can be snipped off using wire cutters (thus two per hanger). If surveying flowing water, try to place the tube so that the open end faces downstream. The tubes can now be left for two weeks. Make notes of their exact location as they can be difficult to find when you return.

Once collected, the tubes should be allowed to dry and then faeces that have been deposited by small mammals while eating the casters in the tubes, should be collected & examined with a hand lens. Shrew faeces can be differentiated from that of mice and voles fairly easily, but telling apart water shrew from the other shrews is more difficult. The features of each are shown in the mammal society publication The Water Shrew Handbook by Phoebe Carter & Sara Churchill. Unfortunately, although certain features can indicate that the faeces are those of water shrew, the only way to be certain is to examine them under a binocular microscope to establish what the shrew has been eating. There are some absolute indicators in water shrew faeces such as presence of Water Slater (*Asellus*) or Freshwater Shrimp (*Gammarus*). Again, the publication shows what to look for.

Surveying can be carried out any time throughout the year. The procedure is cheap and simple, and with a bit of practice in identification, can be very rewarding in establishing if water shrews are present in your area.

If you would like to try surveying for water shrews, please note that the Bedfordshire Mammal Group has a small stock of tubes available to borrow. Please contact either Richard Lawrence or Ken Winder.