

## Small Mammal Surveys

Live trapping of small mammals was conducted on the site during the Summer Sapling Surveys at Varteg in late July 2002 and 2003 and early August 2004. This project was an attempt to monitor what species of small mammal might be there, comparing the different habitats and how they changed over time. A licence to permit trapping of shrews was obtained from CCW. Many of the Earthwatch volunteers helped with this project, when they were not involved with the main tree-measuring activities of the Summer Sapling Surveys. Dr. Dan Forman of Swansea University assisted and advised in 2004, but despite hopes that he would develop this project further, that proved not to be the case.

Grids of 20m x 20m were laid out, each with 25 hired Longworth traps, positioned at 5m intervals in each direction. One grid was set out in the plot of trees planted in 1994 ('Titania'), so 8 years old, and another in the trees planted in 1996 ('Syrinx'), then 6 years old. A control grid to represent conditions on the open hillside before the trees were planted was set out next to 'Syrinx' in 2002, and at the top of the site in 2003 and 2004, next to where the 2003 planting ('Cariad') was made. The grids in the trees were marked by tying coloured wool onto adjacent trees, noting the tree-tag number, so that the traps could be located more easily and so that the grid position could be found the following year.

The Longworth traps were supplied with hay bedding, hamster food, casters and sometimes with chopped apples. The casters or blowfly pupae were food for any insectivorous shrews and the apple was to provide some moisture. The traps were baited and set open during the afternoon sessions and again the following mornings.

Each morning and afternoon all the traps were checked to see if an animal had sprung the trap, which closed the door leaving the animal inside with the food and bedding. The mammals were removed from the traps while in a large clear bag, the species identified, they were sexed, weighed and a little of the fur was clipped so that they could be identified as recaptures if trapped again. The shrews were only weighed. The data was recorded and the animals were returned and released where they had been found.

### Summary of the 2002 results:

- Trapping was done over 7 sessions and 3 grids.
- Total number of Common shrews found: 30  
of which 19 were in the older 'Titania' plot and 11 in 'Syrinx'
- Average weight was 7.4g
- Total number of Wood mice found was 3  
of which 1 was in 'Titania' and 2 were in the younger 'Syrinx' trees.
- Average weight 16.5g
- No animals were found in the open grid.
- No voles were found.
- Numbers of animals caught increased in later sessions.

The main conclusion that may be drawn was that the planting of trees had encouraged some small mammals into the area. There must be insect life for the shrews to eat and the protective cover of the trees suited the wood mice.

It was interesting to find that ten times more shrews than mice were captured, and that the shrews were mostly in the older ('Titania') plot. The shrews in the younger ('Syrinx') plot were never found on the lower slope of the grid.

It was possibly surprising that no field voles were found in the open grid where there was suitable, tussocky grass. The only other species encountered was a frog caught in a trap in 'Titania', a lizard spotted running across the open grid and a dead hedgehog seen in the 1993 'Pan' plantings.

#### **Summary of 2003 results:**

- Trapping was done over 6 sessions and 2 grids (wet weather disrupted a session). Traps were only set out in the open moorland area next to where 'Cariad' was subsequently planted, and in 'Syrinx', where the trees were then 7 years old.
- 2 field voles were found in the open grid with the same vole being trapped 5 times
- Average weight 22g. Both male.
- 2 common shrews were found in the open grid.
- Average weight 5g.

#### **Summary of 2004 results:**

- Trapping was done over 7 sessions and 2 grids. Traps were set out as for 2003 in the open grid and in 'Syrinx', where the trees were then 8 years old.
- 11 common shrews, 4 wood mice and 2 field voles were found and one of those was recaptured. Most if not all of the shrews and both of the wood mice were in 'Syrinx', and one of voles was in 'Syrinx'.

It was encouraging to note that the trees appeared to be supporting insect life for the shrews to feed on, and that there was a small population of wood mice and field voles.

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