EDGE vs INNER TRAPS, 1974 - 85 Table I

A.sylvaticus

	JULY		DECEMBER	
	EDGE	INNER	EDGE	INNER
TOTAL	80	51	264	139
AVERAGE	6.67	4.25	22.0	11.58
	No significant difference.		SIGNIFICANT at 1 %	

C.glareolus

	JULY		DECEMBER	
	EDGE	INNER	EDGE	INNER
TOTAL	102	47	110	46
AVERAGE	8.5	3.92	9.17	3.83
	No significant difference.		SIGNIFICANT at 2 %	

Discussion

The vegetation of the Blackwoods Plantation matured as a secondary succession would be expected to mature - a wide variety of species were present at first, declining as the shading of the mature trees excluded light from smaller species. The level of the leaf litter increased dramatically as the survey progressed. These results are summarised in Figure 2.

The small mammal populations did change in response to these changes. The woodmouse reached high levels in the early stages of plantation growth, peaking at a value of 73 in December 1978. Woodmice are thought not to need much groung cover, which accounts for their ability to enter the cleared area first.(Delany, 1974; Whiteley & Yalden, 1976)

As ground cover increased the bank vole became established reaching a peak estimated population of 55 in July 1981. For both species the results are summarised in Figures 3 & 4. Although some fluctuations are apparent, the numbers of bank voles are too small to show cyclic population increases, which would be more typical of microtine voles than bank voles. The bank vole does require more cover than woodmice do.

From 1979 onwards, common shrew have been caught more regularly. This could be due to increased insect population of the litter, or it may be due to the use of insect larvae as bait. I have seen a shrew turn round to re-enter a trap on being released; pupae are certainly palatable and improve the survival of shrews in Longworth traps.

It is interesting that December traps yield the highest numbers. This is probably linked with scarcity of food in December, increasing exploratory behaviour and the likelihood of entering traps. As Table 1 shows, there was a significant edge effect for both the woodmouse and the bank vole in December, which tends to support this argument.

In summary, the predominate small mammal species in this coniferous woodland were the woodmouse, bank vole and common shrew. Other species were rarely trapped but included the short-tailed field vole and pygmy shrew.

Woodmice were the first to colonise the new plantation but were soon followed by bank voles. As the bank voles became established the woodmouse population fell to smaller numbers and an equilibrium seemed to be established between the two species. Although common shrew were caught in greater numbers as the survey progressed, they never reached the same levels as the two dominant species.

The development of the plantation was monitored at regular intervals throughout the survey and followed a predictable pattern.

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Summary

A twelve year survey was carried out on an area of newly planted Scots pine (*Pinus sylvestris*) at Blackwoods, Wheldrake, near York. Trapping sessions were held in July and December using 96 Longworth traps set in pairs at 10 metre intervals on a permanent grid.

Vegetational development of the grid was monitored.

The woodmouse (*Apodemus sylvaticus*) was the first small mammal to appear in reasonable numbers, followed by the bank vole (*Clethrionomys glareolus*) and the common shrew (*Sorex araneus*). The field vole (*Microtus agrestis*) and pygmy shrew (*S. minutus*) were rarely caught. Summer catches were much lower than winter catches.

The population of *A. sylvaticus* increased annually over the years 1976_1979. A subsequent drop in numbers seem to correlate with a decline in the seeding and fruiting plants in the field layer.

C. glareolus was present only in small numbers until 1978. In 1981 the population peaked briefly; this did not correlate with changes in the vegetation.