

Catch data

Lift	1				2				3			
Species	N	F	M		N	R	F	M	N	R	F	M
<i>C. glareolus</i>	19	6	13		21	10	13	8	21	12	-	-
<i>A. sylvaticus</i>	1	0	1		0				0			
<i>M. agrestis</i>	0				1		1		1	1	1	
<i>S. araneus</i>	3				13	2			7	2		

Weights and comments

<i>C. glareolus</i>	18 - 29.5g	One pregnant vole
<i>A. sylvaticus</i>	29g	
<i>M. agrestis</i>	43g	Pregnant
<i>S. araneus</i>	9 - 13.5g	One dead shrew- lift 3

N = total caught R = recaptures
F = females M = males

A single last year's nest of *Micromys minutus* was found on the grid.

The help received from the membership was inadequate, which meant that most of the lifts were carried out by Ken and Doreen Burden, Bev Greenwood and Beryl Cronin.

2) High Batts, Ripon. 30-31st July 1988

Catch data

Lift	1			2		
Species	N	F	M	N	F	M
<i>C. glareolus</i>	5	3	2	7	3	4
<i>A. sylvaticus</i>	0			7	2	5
<i>S. araneus</i>	1			3		

Weights and comments

<i>C. glareolus</i>	15.5 - 24g	16 - 23.5g
	All adult?	one juvenile
	one pregnant	one lactating
<i>A. sylvaticus</i>		12.5 - 32g
		one juvenile male other
		males in breeding condition
<i>S. araneus</i>	8g	8 - 9g

The traps were set at 10.00am on 30th July, with no pre-baiting, but baited with rolled oats and blowfly larvae. The 73 traps were placed at 5 to 10 metre intervals in different habitats on the Reserve. Some were placed near wetland habitats in an attempt to locate the water shrew *Neomys fodiens*, but none were caught. Compared with the trap held earlier in the year, the results show a considerable drop in number of small mammals, with again the bank vole *Clethrionomys glareolus* the dominant species. The trap was well supported by members of the Y.M.G. and the Harrogate Natural History Society.

Michael J. Thompson

Otters - the acid test

The first survey of otters *Lutra lutra* in Britain - conducted by Marie Stephens in 1957 - showed them to be "very numerous" but in the following years their numbers plummeted. There were two main reasons for this, firstly, the physical degradation of their habitat. Anything which damages the river bank is harmful to otters. Farming practices, leisure, industry and urbanisation all had detrimental effects on otter populations. Such "physical" pollution is obvious and, to a certain extent, reversible; but the second major factor, chemical pollution, is far more insidious and far reaching in its effects. Pesticides and fertilizers from farming and chemical wastes from industry found their way into Britain's waterways. There was little evidence of direct effect upon the otter but there were undoubtedly indirect effects. The otter is at the top of its food chain and will accumulate any pollutants in its prey. High levels of cadmium have been found in fish in the otter's range and also in otter faeces. More importantly, however, is the high susceptibility of fish to chemical pollution. If a river is too polluted to support fish, it will not be able to support the otter either.

Despite such adverse factors there seems to have been evidence for quiet optimism recently, otter numbers seem to have been increasing although accurate assessment of such a quiet, retiring creature is very difficult. Awareness of the otter's habitat requirements has played an important part via public education and more sympathetic farming practices. Otter Trusts have released otters into the wild with encouraging results and there is currently such a project being undertaken in the North Yorkshire Moors. It appears, however, that it is too early to rejoice. According to a recent study conducted in Wales, streams draining conifer plantations are particularly acidic. Otters have been found to be absent from such streams but present in those draining adjacent moorland. This problem is particularly pertinent to reintroduction schemes into areas such as the North York Moors. Increased acidity has complex effects on the chemistry of the water, altering the availability of minerals. Again, it is the fish which are particularly susceptible, the ionic balance across their gills is easily destroyed. Studies on dippers *Cinclus cinclus* show that they are also more scarce on streams of higher acidity due to the scarcity of their diet of freshwater invertebrates. It is therefore the whole food chain which is being disrupted, a disruption which would be exacerbated by the much publicised acid rain problem. (There are, of course, naturally occurring streams of high acidity but the fauna they support will have evolved accordingly through the stream's history.)

Let us hope that as environmental awareness continues to increase, the quality of the otter's habitat will be maintained or improved but the problem of increased acidity is a very complicated one and much funding and research will be needed.

Ref: Mason, C.F. & MacDonald, S.M. Acidification and otter (*Lutra lutra*) distribution on a British river. *Mammalia* 51 (1) 1987

Nicola Wise