

**SMALL MAMMAL SURVEYS
of
COCKLAWBURN DUNES
and
TOMMY THE MILLER'S FIELD
BERWICK UPON TWEED**

July to September 2009



Bank Vole by John Rae

**by
Berwick Wildlife Group**

A Report on the 2009 Small Mammal Surveys

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Acknowledgements

This work grew out of a chance conversation between John Rae of Berwick Wildlife Group and Francesca Leslie of the Northumbria Mammals Group and the EYE Project, during which it transpired that there were very few records on small mammals in north Northumberland.

In early July 4 members of Berwick Wildlife Group attended several training days run by Veronica Carnell of the Northumbria Mammal Society. These were held at Cocklawburn Dunes and became both our first survey and defined the methods that have been used during our small mammal surveys.

The following members of the Group took part in the fieldwork:
Fiona Aungier, Stephen Block, Molly Hardie, Elizabeth Martin-Fisher, Jenny Prince, Sally & John Rae, Enid Turnbull.

Credit should go to all who took part in the surveys, especially as Tommy the Millers Field is very steep in places, with uneven footing making inspecting the transects extremely difficult.

Finally we would like to thank –

- Mr and Mrs MacPherson, Castle Hills Farm, the owners of the land, who readily gave permission for the surveys on Tommy the Millers Field to go ahead.
- Mr Whiteford, Borewell Farm, the manager of the land for Greenwich Hospitals, who readily gave permission for the surveys on Cocklawburn Dunes to go ahead.
- Andrew Craggs of Natural England for his support of our surveys at Cocklawburn Dunes, is part of the Lindisfarne SSSI and is subject to an Environmental Stewardship Agreement.



Members of the group weighing a bank vole at Cocklawburn Dunes.

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Aims of the Surveys

Due to the very limited information known about small mammals in north Northumberland, Berwick Wildlife Group undertook two surveys on Cocklawburn Dunes and two surveys on Tommy the Millers Field.

Both locations are well known to us as BWG undertake butterfly transect surveys on them. Also they have very different habitats, with Cocklawburn Dunes being mainly dune grassland with some marshy areas, spoil material and scrubby wild rose, whilst TtMF is a varied habitat of dry, semi-improved grass and scrub land with wet flushes on a steep south-facing slope.

The aim of the surveys was to identify what species of small mammals inhabit these areas and to pass this information on to both the Northumbria Mammal Group and the EYE Project.



An embarrassed bank vole.

Summary of captures assuming no re-captures

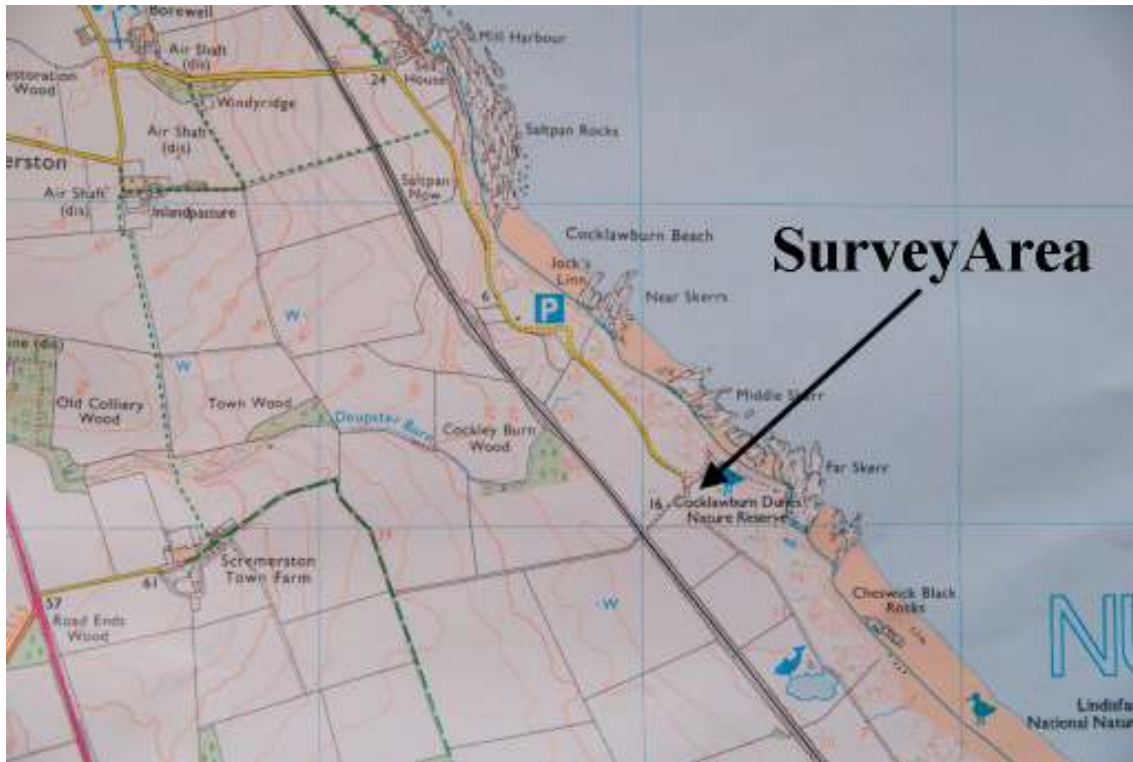
<u>Cocklawburn Dunes</u>	<u>Number captured</u>	<u>Tommy the Millers Field</u>	<u>Number captured</u>
Bank Vole	15	Bank Vole	11
Field Vole	1	Field Vole	3
Common Shrew	7	Common Shrew	4
Pygmy Shrew	-	Pygmy Shrew	3
Water Shrew	-	Water Shrew	1
Wood Mouse	4	Wood Mouse	7

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Description of Surveyed Sites

Cocklawburn Dunes

Cocklawburn Dunes are situated on the coast 5km south of the river Tweed at approx. NU 032 480.



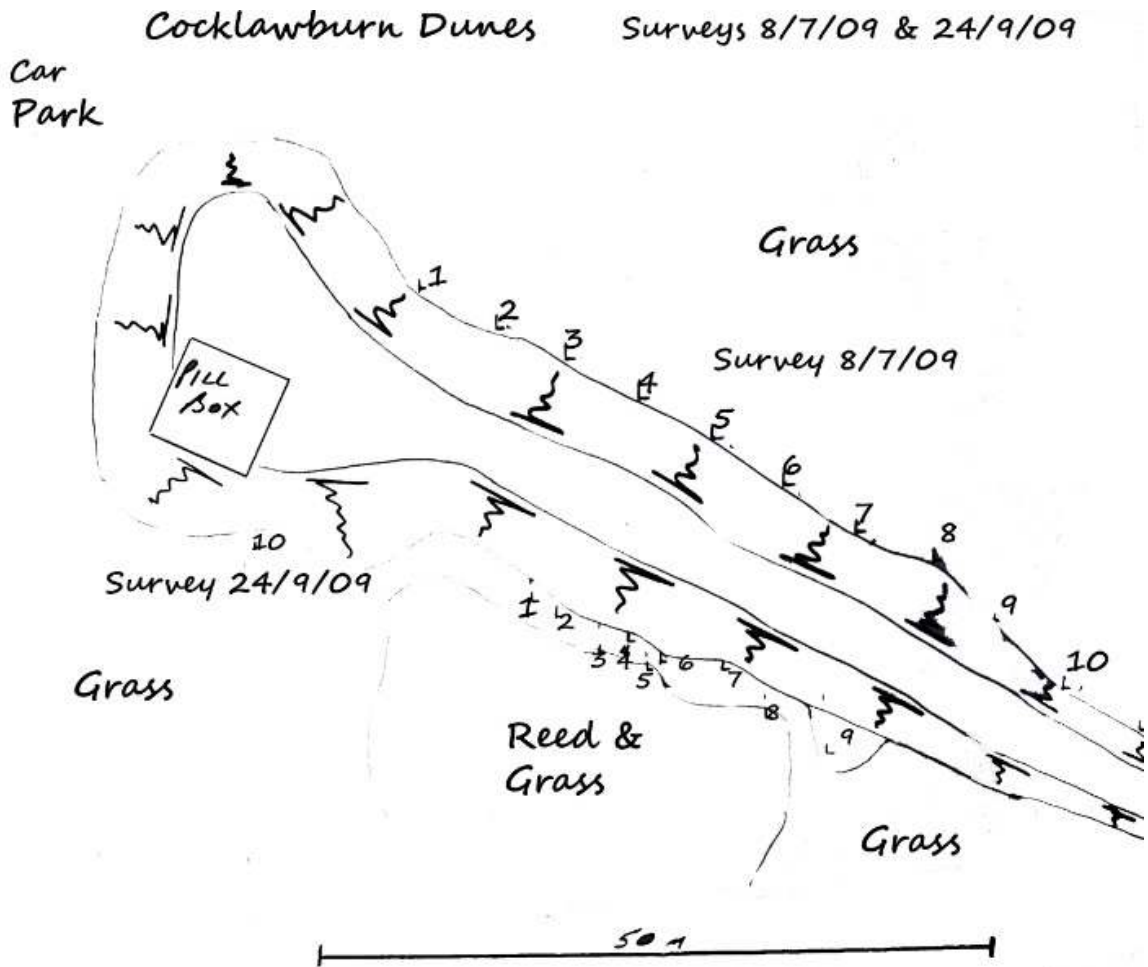
Location map of the survey area.

Although at first glance the area is normal dune grassland (newest grassland near the sea) and rough pasture, the site includes lime kiln spoil heaps, an old brick pit, clay areas, tracks, etc. as well as a natural dune. It is part of the Lindsifarne Site of Special Scientific Interest (and is contiguous with the Lindsifarne National Nature Reserve which covers the dune and intertidal areas north to Cheswick Black Rocks).

The area is the subject of an Environmental Stewardship Agreement, including light grazing by Aberdeen Angus cattle, the effects of which are being monitored by Natural England and Berwick Wildlife Group.

The two transects surveyed followed the base of the slope on either side of an artificial incline built in the early part of the 19th C to enable tipping of lime into railway wagons, and in World War II was used for a raised bunker and gun emplacement.

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Map of transect 1 & 2

The habitat of transect 1 is mature dune grassland and rough pasture with limestone spoil, shrubby hawthorn and wild rose. Very variable substrate and hence varied flora.

The habitat of transect 2 is mature dune grassland and rough pasture, marsh and limestone spoil, shrubby wild rose. Very variable substrate and hence varied flora.

Tommy The Millers Field

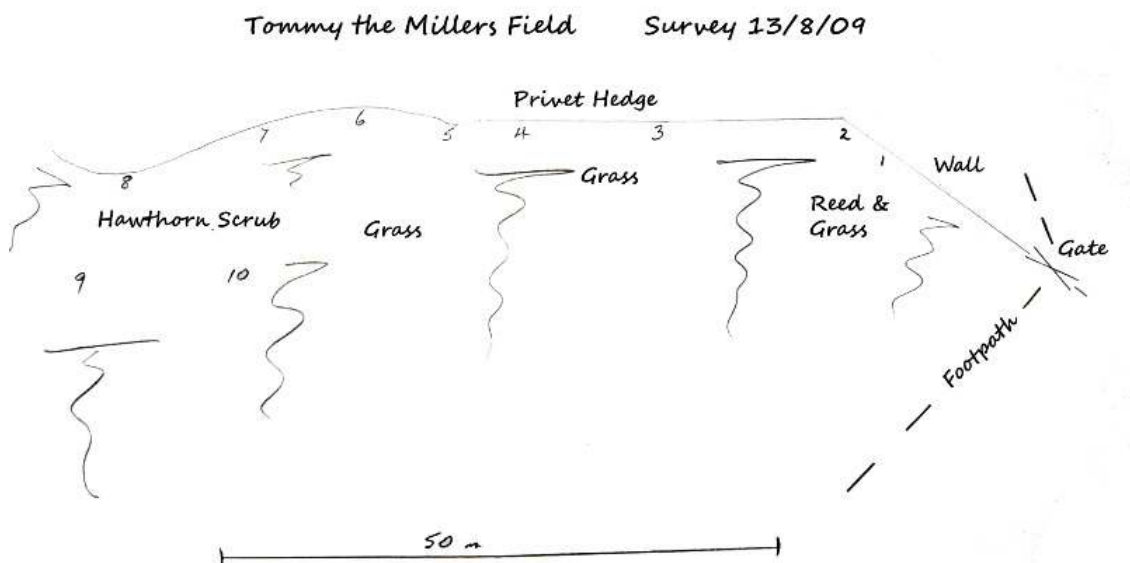
The field is situated on the north shore of the River Tweed, just upstream of the Royal Border Railway Bridge, and below Castle Terrace. It is south facing and is sheltered from north winds and is exposed to the sun throughout the day. Much of the ground underfoot has been pitted by the hooves of grazing cattle. No grazing took place over the period of the survey. The habitat consists of dry, semi-improved grass and scrubland with wet flushes on a steep south-facing slope.

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Location map of the survey area.

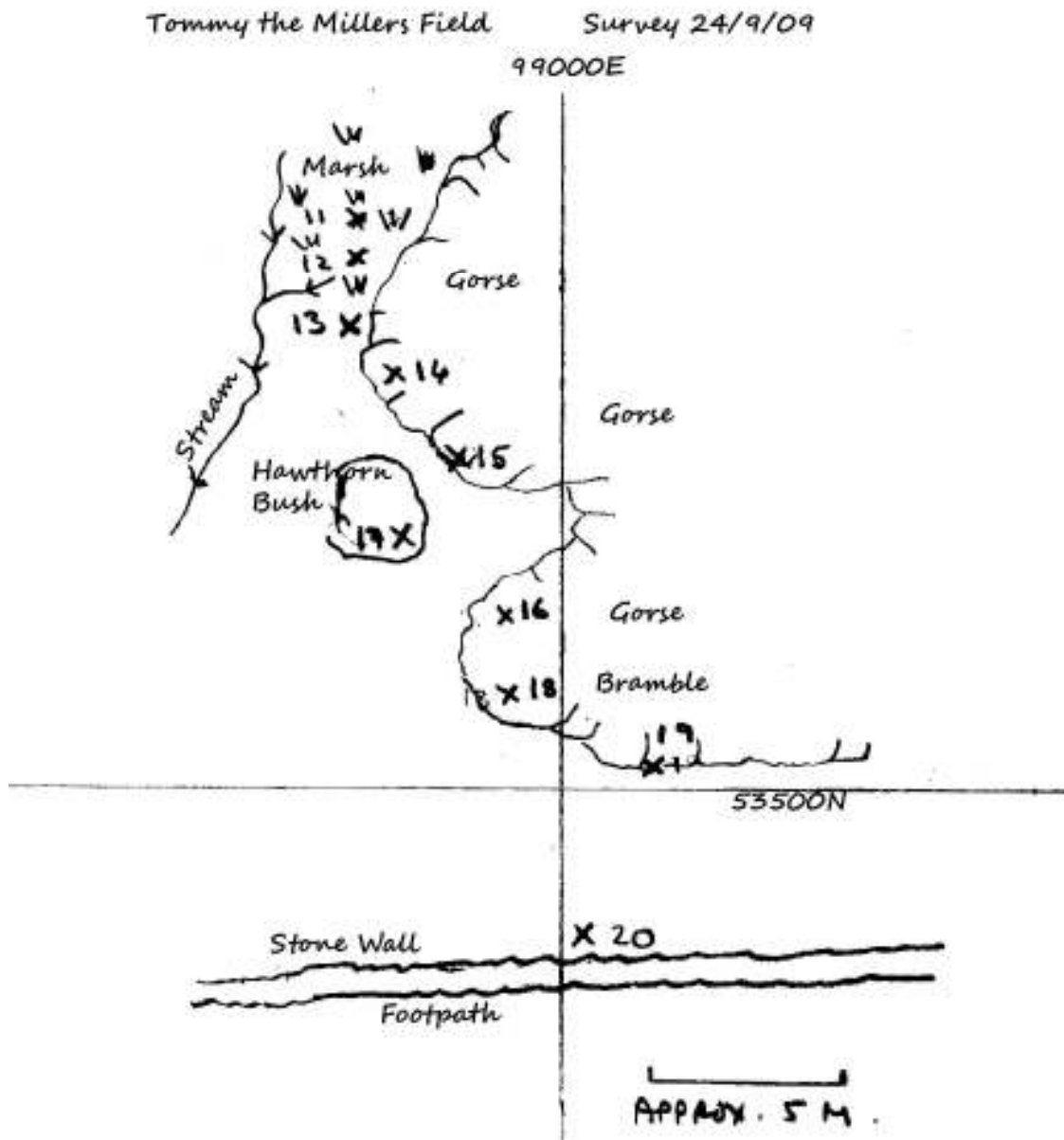
Details of the two transects surveyed.



Map of transect 1

Transect 1 followed the line of the field boundary running along the top of steep terrain. The habitat was patches of damp areas and open grassland among hawthorn scrub, with nettles and thistles prominent in places and some privet hedging.

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Map of transect 2

Transect 2 ran alongside the line of a stream/marshy area near the bottom south west corner of the field. The habitat was steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places. The Tweed River was about 50 metres away.

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Method

Small mammal transects are a way of identifying the variety of species present at a site.

The method adopted for this survey follows that laid down by the Northumbria Mammal Group.

Shrews are a partially protected species (Wildlife & Countryside Act 1981, Schedule 6), which means they cannot be deliberately trapped without a licence. This is because they are very vulnerable to adverse conditions. In order to avoid distress or cruelty to small mammals, the following guidelines were observed.

These guidelines are for a basic survey to detect the presence or absence of species utilising a suggested linear trap line using 10 Longworth traps 10m apart. However many of the methods could be used for other types of survey.

Study Site

1. Ideally the study area should be limited to the study personnel.
2. Traps should be placed so the general public will not disturb them.
3. Obtain permission from the landowner or nature reserve manager before work starts.
4. Set a timescale for the study, i.e. 4 days pre-baiting and 1 day trapping.
5. Make a detailed description of the topography and vegetation.
6. Record the grid reference of the centroid of the trap line.
7. When positioning the trap, make sure that the tunnel is horizontal and the nest box angled upwards to facilitate rainwater/urine runoff and minimize soaking the bedding.
8. Position the traps in a sheltered position and out of direct sunlight to prevent overheating. Place in vegetation, along a likely runway if possible, hidden from predators and other people.
9. Place the traps approximately 10m apart.
10. Having set the trap, take steps to ensure you can find it again later. i.e. Tie a strip of bright plastic to undergrowth.

Pre-Baiting

1. Set the pre-bait catch to ensure the door cannot be closed.
2. Add half a nest-box full of dry bedding – hay or local vegetation.
3. Latch the two halves of the trap together and bait.
4. **It is essential that no bait is used that may introduce invasive species to the study area**
5. Bait: use casters (blowfly pupae) or mealworms, kibbled maize, kibbled peanuts, kibbled sunflower hearts, pods of peas, sultanas.
6. When placing the traps ensure that they are covered with surrounding vegetation.
7. Try to re-bait at a similar time each day.
8. On the last pre-bait before trapping collect local vegetation for bedding and take home to dry out.

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Trapping Day

Have with you -

1. Food for re-baiting
2. Deep plastic box (to work in)
3. Large polythene bag for removing catch from trap. At least 30cm * 20cm.
4. Small polythene "zip" bag for examination and weighing of catch.
5. Pencil, ruler, notebook.
6. Clipboard and Live Trapping Forms.
7. Spring balance for weighing animals. Pesola 50gm.
8. Thin plastic/rubber gloves.

Trapping

1. Do not start trapping unless you are sure you will be able to return to collect the traps at the appropriate time.
2. Set traps for no more than three to four hours without a check
3. Do not trap in freezing conditions or heavy rain or extreme heat.
4. Lift pre-bait traps and clean, wiping out using local vegetation to minimize human scent.
5. Release pre-bait catch and ensure the door will trip when activated.
6. Add half a nest-box full of dry bedding – hay or local vegetation.
7. Bait as with pre-baiting.
8. Shrews have a very high metabolic rate and can eat up to their own weight in food every day. Put a minimum of 20g of casters in each trap.
9. Add apple pieces for moisture.
10. When positioning the trap, make sure that the tunnel is horizontal and the nest box angled upwards to facilitate rainwater/urine runoff and minimise soaking the bedding.
11. Ensure that the traps are covered with surrounding vegetation.
12. If the traps are temporarily out of use, remember to leave the door in the 'pre-bait' position to avoid accidental capture.

Checking Traps.

1. Check traps every three to four hours.
2. Record all relevant data on the Northumbria Mammal Group Live Trapping Form.
3. Remember to handle the animal as little as possible, preferably with gloves, and to release at the same point as it was caught.
4. If the door of the trap is closed -
 - a. Remember to work inside the large plastic box in case the animal escapes.
 - b. Lift the trap with the tunnel pointing upwards and place into the large polythene bag; keep the bag entrance closed as much as possible.
 - c. Carefully split the tunnel from the nest box
 - d. Shake out the tunnel and ensure it is empty and remove from bag.
 - e. Shake out the nest box and as soon as the animal comes out carefully remove the nest box from the bag.

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- f. Isolate the animal in one corner of the bag and identify if possible.
- g. Remove as much of the bedding as possible.
- h. To remove the animal isolate it with its head in the corner of the bag, slide your other hand in and grip its neck skin with your thumb and forefinger.
- i. Remove the animal from the large plastic bag and place into small plastic bag and zip closed.
- j. If the animal escapes into the large box it can be re-captured using the nest box part of the trap and placed into the small bag.

Whilst in small bag.

1. Double check its identification
2. Sex it.
3. Check its condition, fleas/mites etc.
4. Weigh the animal.
5. Photograph if required.
6. Release the animal into the large box to study it and for further photos.
7. Carefully tip box to release the animal in the same place that it was trapped.

Removing traps.

1. As soon as you have lifted all the traps at the end of a session, completely empty them immediately: this ensures that animals that may be hiding in the trap do not get left in the trap by accident.
2. After lifting the traps clean and wash with water as soon as possible before storing
3. Always store the traps in such a way that small animals do not become trapped in them.

After each survey the observations were given to John, who entered them into a standard Excel spreadsheet for evaluation.

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Summary of Observations

Cocklawburn Dunes - 8th July 2009

Summary

Form 2

Site recording form

Observers Code	Name	John Rae	Address	4 Kentstone Cottages, Beal, Northumberland, TD152PE
Grid Ref 2 letters	NU 033481 6 Figures	Locality (or site name)	Cocklawburn Dunes, south of Berwick.	Habitat* Scrub, Grassland, Marshland, Spoil Heap SSSI & ESA

Date	Species	Abundance	Search method	Notes
8th July 2009	Wood mouse	0	Longworth trap	
	Yellow-necked mouse	0	Longworth trap	
	Harvest mouse	0	Longworth trap	
	House mouse	0	Longworth trap	
	Bank vole	2	Longworth trap	
	Field vole	0	Longworth trap	
	Common Shrew	4	Longworth trap	
	Pygmy shrew	0	Longworth trap	
	Water shrew	0	Longworth trap	

Visit 1

Form 4 Longworth trapping recording form

Cocklawburn Dunes, south of Berwick.

Grid Ref of line or grid	NU 033481	Day of session	Thursday	Date and Time	08/07/2009 @ 12:30			
Total Traps	10	Spacing	10m					
Habitat*	Scrub, Grassland, Marshland, Spoil Heap SSSI & ESA							
Weather since last trap round:	Day, cloudy, dry, warm							
Further notes	Training exercise. Traps pre-baited for 5 days prior to setting live.							
Observers Name	Veronica Carnell, Jenny Prince, Sally & John Rae, Enid Turnbull.							
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	None							
2	Common Shrew	N		f		8	Healthy	
3	Bank Vole	N		m		18	Healthy	
4	Common Shrew	N		f		7	Healthy	
5	None						Wild rose & Hawthorn	
6	None						Trap repositioned	
7	Common Shrew	N		m		13	Healthy	
8	None						Wild rose	
9	Bank Vole	N		m		17	Healthy	
10	Common Shrew	N		m		8.5	Healthy	
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				2		4		

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Cocklawburn Dunes – 24th September 2009

Summary

Form 2

Site recording form

Observers Code	Name	John Rae	Address	4 Kentstone Cottages, Beal, Northumberland, TD152PE
Grid Ref 2 letters	NU 032480 6 Figures	Locality (or site name)	Cocklawburn Dunes, south of Berwick.	Habitat* Scrub, Grassland, Marshland, Spoil Heap SSSI & ESA

Date	Species	Abundance	Search method	Notes
24th September 2009	Wood mouse	4	Longworth trap	
	Yellow-necked mouse	0	Longworth trap	
	Harvest mouse	0	Longworth trap	
	House mouse	0	Longworth trap	
	Bank vole	13	Longworth trap	
	Field vole	1	Longworth trap	
	Common Shrew	3	Longworth trap	
	Pygmy shrew	0	Longworth trap	
	Water shrew	0	Longworth trap	

Visit 1

Form 4 Longworth trapping recording form

Cocklawburn Dunes, south of Berwick.

Grid Ref of line or grid	NU 032480	Day of session	Thursday	Date and Time	24th Sept 09 10:00 am		
Total Traps	10	Spacing	10m				
Habitat*	Scrub, Grassland, Marshland, Spoil Heap SSSI & ESA						
Weather since last trap round:	Partial cloud, Warm						
Further notes							
Observers Name	Fiona Aungier, Stephen Block, Molly Hardy, Elizabeth Martin-Fisher, Jenny Prince, Sally & John Rae, Enid Turnbull.						
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes
1	Wood mouse	N	N/A	F	Healthy	20	
2	Blank		N/A				
3	Bank vole	N	N/A	M	Healthy	22	
4	Blank		N/A				
5	Common shrew	N	N/A	M	Healthy	14	
6	Blank		N/A				
7	Common shrew	N	N/A	F	Healthy	14	
8	Bank vole	N	N/A	M	Healthy	27	
9	Blank		N/A				
10	Bank vole	N	N/A	M	Healthy	21	Active. 1 mite on coat.

Summary: number captured by species for all traps (excluding recaptures)

Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
1				3		2		

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Visit 2

Form 4 Longworth trapping recording form

Cocklawburn Dunes, south of Berwick.

Grid Ref of line or grid				NU 032480	Day of session	Thursday	Date and Time	24th Sept 09 2:00 pm
Total Traps		10	Spacing		10m			
Habitat*		Scrub, Grassland, Marshland, Spoil Heap						
		SSSI & ESA						
Weather since last trap round:		Overcast, Dry, Cool, SW3						
Further notes								
Observers Name		Fiona Aungier, Molly Hardy, Jenny Prince, Sally & John Rae, Enid Turnbull.						
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	Bank vole	N/A	N/A	F	Healthy	17		
2	Bank vole	N/A	N/A	M	Healthy	17		
3	Blank	N/A	N/A					
4	Blank	N/A	N/A					
5	Common shrew	N/A	N/A	M	Healthy	8		
6	Blank	N/A	N/A					
7	Bank vole	N/A	N/A	M	Healthy	21		
8	Bank vole	N/A	N/A	F	Healthy	18		
9	Bank vole	N/A	N/A	M	Healthy	12		
10	Bank vole	N/A	N/A	M	Healthy	24		
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				6		1		

Visit 3

Form 4 Longworth trapping recording form

Cocklawburn Dunes, south of Berwick.

Grid Ref of line or grid				NU 032480	Day of session	Thursday	Date and Time	24th Sept 09 5:30 pm
Total Traps		10	Spacing		10m			
Habitat*		Scrub, Grassland, Marshland, Spoil Heap						
		SSSI & ESA						
Weather since last trap round:		Bright periods, Cold, W4						
Further notes								
Observers Name		Sally & John Rae, Enid Turnbull.						
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	Blank	N/A	N/A					
2	Blank	N/A	N/A					
3	Blank	N/A	N/A					
4	Blank	N/A	N/A					
5	Blank	N/A	N/A					
6	Blank	N/A	N/A					
7	Blank	N/A	N/A					
8	Blank	N/A	N/A					
9	Blank	N/A	N/A					
10	Bank vole	N/A	N/A	M	Healthy	15	Active	
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				1				

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Visit 4

Form 4 Longworth trapping recording form

Cocklawburn Dunes, south of Berwick.

Grid Ref of line or grid		NU 032480		Day of session		Thursday	Date and Time		24th Sept 09 9:30 pm
Total Traps		10	Spacing		10m				
Habitat*		Scrub, Grassland, Marshland, Spoil Heap							
		SSSI & ESA							
Weather since last trap round:		Dark, Clear Sky, Dry, Cold							
Further notes									
Observers Name		Sally & John Rae.							
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes		
1	Field vole	N	N/A	Not sexed	Healthy	17	Quiet		
2	Blank		N/A						
3	Blank		N/A						
4	Wood mouse	N	N/A	Not sexed			Escaped		
5	Blank		N/A						
6	Wood mouse	N	N/A	Not sexed		16	Very active		
7	Bank vole	N/A	N/A	Not sexed		18	Active		
8	Wood mouse	N	N/A	F	Feeding young	21	Very active, lost tip of tail.		
9	Bank vole	N/A	N/A	Not sexed		18	Active		
10	Bank vole	N/A	N/A	Not sexed	Healthy	15	Active		
Summary: number captured by species for all traps (excluding recaptures)									
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew	
3				3	1				

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Tommy the Millers Field – 13th August 2009

Summary

Form 2

Site recording form

Observers Code	Name	John Rae	Address	4 Kentstone Cottages, Beal, Northumberland, TD152PE
Grid Ref 2 letters	NT 992 535 6 Figures	Locality (or site name)	Tommy the Millers Field, Berwick-upon-Tweed	Habitat* Steep terrain, patches of more open grassland among hawthorn scrub, with nettles and thistles prominent in places and some privet hedging.

Date	Species	Abundance	Search method	Notes
11/08/2009	Wood mouse	1	Longworth trap	Healthy
13/08/2009	Yellow-necked mouse	0	Longworth trap	
	Harvest mouse	0	Longworth trap	
	House mouse	0	Longworth trap	
	Bank vole	8	Longworth trap	Healthy
	Field vole	1	Longworth trap	Healthy
	Common Shrew	1	Longworth trap	Healthy
	Pygmy shrew	0	Longworth trap	
	Water shrew	1	Longworth trap	Healthy

Visit 1

Form 4

Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid	NT 992 535	Day of session	Thursday	Date and Time	13th Aug 09 11:00 am		
Total Traps	10	Spacing	10m	Habitat* Steep terrain, patches of more open grassland among hawthorn scrub, with nettles and thistles prominent in places and some privet hedging.			
Weather since last trap round: Partial cloud, warm							
Further notes							
Observers Name Jenny Prince, Sally & John Rae, Enid Turnbull.							
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes
1	Bank Vole	N	N/A	m	Healthy	24gm	Very active adult
2	Field Vole	N	N/A	f	Healthy	47gm	Very active adult. Pregnant?
3	Empty						
4	Common Shrew	N	N/A	m	Healthy	12gm	Very active adult
5	Empty						
6	Empty						
7	Wood Mouse						During pre-baiting
8	Empty						
9	Empty						
10	Water Shrew	N	N/A	m	Healthy	17gm	Very Active adult

Summary: number captured by species for all traps (excluding recaptures)

Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
1				1	1	1		1

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Visit 2

Form 4 Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid		NT 992 535		Day of session	Thursday	Date and Time	13th Aug 09 2.00 pm	
Total Traps		10		Spacing		10m		
Habitat* Steep terrain, patches of more open grassland among hawthorn scrub, with nettles and thistles prominent in places and some privet hedging.								
Weather since last trap round: Partial cloud, warm								
Further notes								
Observers Name Fiona Aungier, Molly Hardy, Jenny Prince, Sally & John Rae, Enid Turnbull.								
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	Empty							
2	Empty							
3	Bank Vole	N	N/A	m	Healthy	19gm	Very Active	
4	Empty							
5	Empty							
6	Empty							
7	Bank Vole	N	N/A	m	Healthy	23gm	Very Active	
8	Empty							
9	Empty							
10	Bank Vole	N	N/A	m	Healthy	23gm	Very Active	
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				3				

Visit 3

Form 4 Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid		NT 992 535		Day of session	Thursday	Date and Time	13th Aug 09 5.00 pm	
Total Traps		10		Spacing		10m		
Habitat* Steep terrain, patches of more open grassland among hawthorn scrub, with nettles and thistles prominent in places and some privet hedging.								
Weather since last trap round: Partial cloud, warm								
Further notes Jenny Prince, Sally & John Rae, Enid Turnbull.								
Observers Name Sally & John Rae, Enid Turnbull.								
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	Bank Vole	N	N/A	m	Healthy	23gm	Active Trap removed	
2	Bank Vole	N	N/A	m	Healthy	24gm	Active Trap removed	
3	Bank Vole	N	N/A	f	Healthy	22gm	Active Trap removed	
4	Empty						Trap removed	
5	Empty						Trap removed	
6	Empty						Trap removed	
7	Empty						Trap removed	
8	Empty						Trap removed	
9	Empty						Trap removed	
10	Bank Vole	N/A	1	m	Healthy	25gm	Active Trap removed	
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				4				

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Tommy the Millers Field – 24th September 2009

Summary

Form 2

Site recording form

Observers Code	Name	John Rae	Address	4 Kentstone Cottages, Beal, Northumberland, TD152PE
Grid Ref 2 letters	NT 989535 6 Figures	Locality (or site name)	Tommy the Millers Field, Berwick-upon-Tweed	Habitat* Steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places.

Date	Species	Abundance	Search method	Notes
24th September 2009	Wood mouse	6	Longworth trap	
	Yellow-necked mouse	0	Longworth trap	
	Harvest mouse	0	Longworth trap	
	House mouse	0	Longworth trap	
	Bank vole	3	Longworth trap	
	Field vole	2	Longworth trap	
	Common Shrew	3	Longworth trap	
	Pygmy shrew	3	Longworth trap	
	Water shrew	0	Longworth trap	

Visit 1

Form 4

Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid	NT 989535	Day of session	Thursday	Date and Time	24th Sept 09 11:00 am			
Total Traps	10	Spacing	10m	Habitat* Steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places.				
Weather since last trap round: Sunny periods, dry, cool								
Further notes								
Observers Name Fiona Aungier, Stephen Block, Molly Hardie, Elizabeth Martin-Fisher, Jenny Prince, Sally & John Rae, Enid Turnbull.								
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes	
1	Blank							
2	Blank							
3	Common shrew	N	N/A	F	Healthy	15	Very active.	
4	Blank							
5	Bank vole	N	N/A	M	Healthy	25	Very active	
6	Common shrew	N	N/A	F	Healthy	15	Very active	
7	Blank							
8	Common shrew	N	N/A	M	Healthy	14	Very active	
9	Blank							
10	Bank vole	N	N/A	M	Healthy	26	Very active	
Summary: number captured by species for all traps (excluding recaptures)								
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew
				2		3		

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Visit 2

Form 4 Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid				NT 989535		Day of session	Thursday	Date and Time	24th Sept 09 3.00 pm
Total Traps				10		Spacing 10m			
Habitat*				Steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places.					
Weather since last trap round:									
Further notes									
Observers Name				Fiona Aungier, Molly Hardy, Jenny Prince, Sally & John Rae, Enid Turnbull.					
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes		
1	Pygmy shrew	N/A	N/A	F	Healthy	8	Active		
2	Blank								
3	Field vole	N/A	N/A	F	Healthy	18	Active		
4	Blank								
5	Blank								
6	Pygmy shrew	N/A	N/A	M	Healthy	7	Active		
7	Blank								
8	Blank								
9	Blank								
10	Bank vole	N/A	N/A	M	Healthy	20	Active		
Summary: number captured by species for all traps (excluding recaptures)									
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew	
				1	1		2		

Visit 3

Form 4 Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid				NT 989535		Day of session	Thursday	Date and Time	24th Sept 09 6.00 pm
Total Traps				10		Spacing 10m			
Habitat*				Steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places.					
Weather since last trap round: Partial Cloud, dry, cool									
Further notes									
Observers Name				Sally & John Rae, Enid Turnbull.					
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes		
1	Blank								
2	Blank								
3	Blank								
4	Blank								
5	Field Vole	N/A	N/A	F	Healthy	20			
6	Blank								
7	Blank								
8	Blank								
9	Blank								
10	Blank								
Summary: number captured by species for all traps (excluding recaptures)									
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew	
					1				

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Visit 4

Form 4 Longworth trapping recording form

Tommy the Millers Field, Berwick-upon-Tweed

Grid Ref of line or grid		NT 989535		Day of session		Thursday		Date and Time		24th Sept 09 10.00 pm	
Total Traps		10		Spacing		10m					
Habitat*		Steep terrain, patches of marsh and more open grassland among hawthorn scrub and gorse, with nettles and thistles prominent in places.									
Weather since last trap round:											
Further notes											
Observers Name		Sally & John Rae.									
Trap No.	Species	New or retrap	New no	Sex m/f	Condition	Weight g	Notes				
1	Woodmouse	N	N/A		Healthy		Escaped! All traps removed				
2	Woodmouse	N	N/A		Healthy		Escaped again				
3	Woodmouse	N	N/A	M	Healthy	23					
4	Woodmouse	N	N/A	F	Healthy	22					
5	Blank										
6	Woodmouse	N	N/A		Healthy		Escaped yet again (oh, dear)				
7	Woodmouse	N	N/A	M	Healthy	19					
8	Blank										
9	Blank										
10	Pygmy Shrew	N/A	N/A	Unsure	Healthy	10					
Summary: number captured by species for all traps (excluding recaptures)											
Wood mouse	Yellow-necked mouse	Harvest mouse	House mouse	Bank vole	Field vole	Common Shrew	Pygmy shrew	Water shrew			
6							1				

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Evaluation

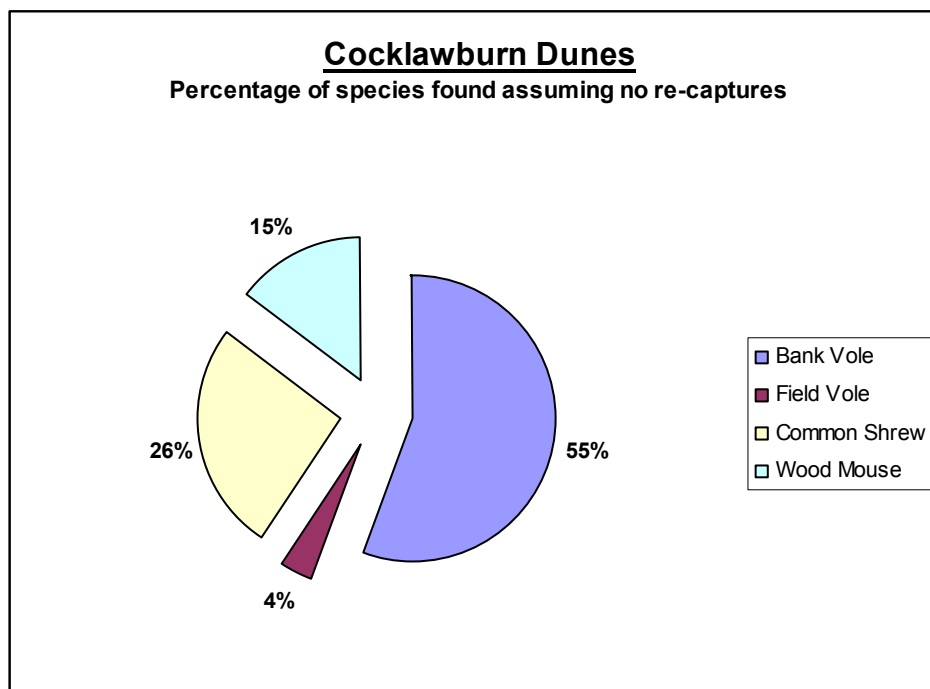
The data from these surveys have been sent to Northumbria Mammal Society and the EYE Project. Very few surveys on small mammals have been undertaken in north Northumberland so there is a shortage of records. Berwick Wildlife Group hope to help remedy this lack of knowledge by undertaking surveys throughout the area around Berwick-upon-Tweed.

This is our first year so we concentrated on two areas that we know well from the Group's butterfly surveys.

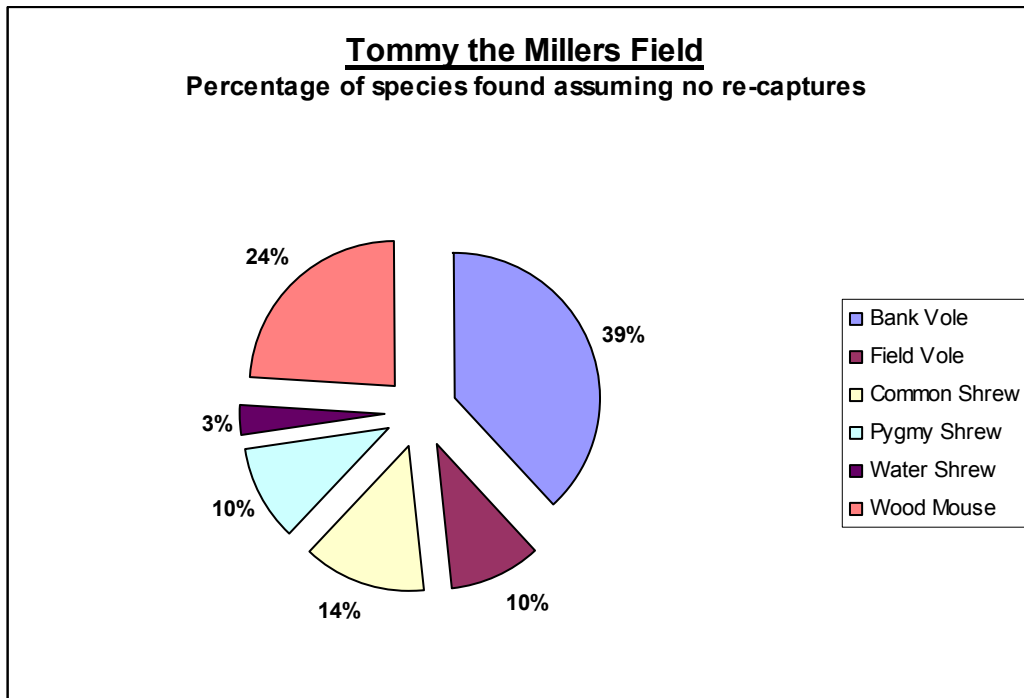
A summary of the species found is below.

<u>Cocklawburn Dunes</u>	<u>Number captured</u>	<u>Tommy the Millers Field</u>	<u>Number captured</u>
Bank Vole	15	Bank Vole	11
Field Vole	1	Field Vole	3
Common Shrew	7	Common Shrew	4
Pygmy Shrew	-	Pygmy Shrew	3
Water Shrew	-	Water Shrew	1
Wood Mouse	4	Wood Mouse	7

Assuming no re-captures



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References

Gurnell & Flowerdew. *Live Trapping Small Mammals – A Practical Guide* by (Mammal Society)

Corbet & Harris. *Handbook of British Mammals*.

Kevin O'Hara for the Northumbria Mammal Group. *Water shrew survey booklet*

Northumbria Mammal Group
Website – <http://www.nwt.org.uk>

The Mammal Society
website - <http://www.mammal.org.uk>

Mammals Trust UK
website - http://www.mtuk.org/index.php?page=mammal_facts

Wikipedia – mammals
website - http://en.wikipedia.org/wiki/List_of_British_mammals

Identify British Rodent Skulls
website - <http://www.skullsite.co.uk/Skullkeys/Rodentkey.htm>

Further information may be obtained from the Mammal Society.

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Appendix 1

Observed species details and status in the Mammal Society database.

Mammal Society – <http://www.mammal.org.uk>

Common Shrew -

http://88.208.205.92/index.php?option=com_content&view=article&id=214&Itemid=247

Pygmy Shrew -

http://88.208.205.92/index.php?option=com_content&view=article&id=215&Itemid=248

Water Shrew -

http://88.208.205.92/index.php?option=com_content&view=article&id=216&Itemid=249

Wood Mouse –

http://88.208.205.92/index.php?option=com_content&view=article&id=219&Itemid=252

Harvest Mouse –

http://88.208.205.92/index.php?option=com_content&view=article&id=221&Itemid=254

Yellow-necked Mouse -

http://88.208.205.92/index.php?option=com_content&view=article&id=220&Itemid=253

Field Vole –

http://88.208.205.92/index.php?option=com_content&view=article&id=222&Itemid=255

Bank Vole -

http://88.208.205.92/index.php?option=com_content&view=article&id=318&Itemid=353

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Appendix 2

A Small Mammal Survey

When John took some of Berwick Wildlife Group's records down to the EYE Project in Newcastle he discovered that there were few records of small mammals in North Northumberland. Being the dedicated naturalist he is, John set out to remedy this and organised some surveys at Cocklawburn Dunes and Tommy the Miller's Field. Since my acquaintance with Britain's small mammals was limited to 4 mice who had invaded houses and a rat that I decided against dissecting way back in the 60's, I thought this would be an interesting, if slightly nerve-racking, activity.

We started at Cocklawburn where I was introduced to the intricacies of putting together a Longworth trap. Sliding one metal box inside another sounds relatively easy. That was my first mistake. There are flaps to engage and places to position. If at first you don't succeed ... At this stage we were not trying to capture the animals, just accustom them to the traps, and we encouraged them to investigate by putting in some food. Since blowfly larvae are expensive and difficult to source, we substituted mealworms which didn't smell nearly so bad. Sultanas, maize and chopped nuts were added along with some bedding. It is important not to use anything which might grow, introducing alien species. The doors to the traps were fixed so that they would not close. Ten traps were set in this way, all marked so that we could find them again, GPS readings were taken and a sketch map of the site was made. We then repeated the exercise at Tommy the Miller's. By this time even I was getting the hang of fitting the traps together. On Tuesday and Wednesday mornings the traps were checked to see if any food had gone (in every case it had) and more food was placed.

Thursday was the big day when the traps were to be set live so that we could find out what was taking the food. This time pieces of apple were added to provide any captured animal with some moisture. I didn't make the 6am and 7am settings, but did take part in the 10am, 2pm and 6pm checks and missed the 10pm one. When, at 10am, we lifted the traps whose doors had closed, we tried, fairly unsuccessfully, to guess what was inside. We opened the traps inside a large plastic box to avoid any premature escapes. Our "guests" didn't really like this and made jumps of Olympic standard in an effort to get out. Each was identified as to species, and then put into a clear plastic bag so that we could weigh it and check for sex, amazingly difficult, and parasites. Each was set free in the area of the trap. The traps were then reset. This was repeated at the later checks, although the traps were not reset at the last check.

The week gave me my first encounters with bank and field voles, common and pygmy shrews and wood mice. I found them fascinating, attractive little creatures and not at all the scary creatures I had imagined. I look forward to the next survey, some time in the spring.

Molly, September 2009