

Tarset Archive Group – Roadside Verge Wildflower Survey 2005 and 2018

Introduction

Tarset Archive Group (TAG) was a community organisation that collected and catalogued Historic/Archaeological data and Environmental data for Tarset and Greystead parish in West Northumberland between 2003 and 2020.

The main, and busy, route through the parish is the C200 road from Bellingham via Lanehead to Kielder. North of Lanehead and the River North Tyne. However, there are over 10km, (6 miles) of quiet minor roads that have attractive floriferous verges.

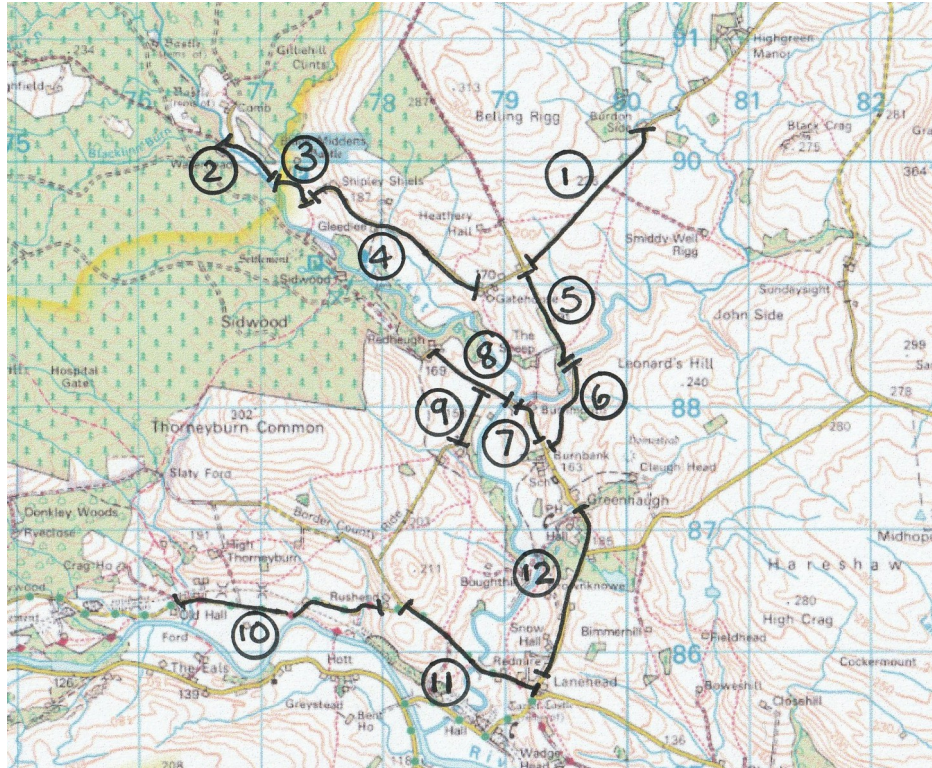
These verges have enjoyed a long period with little or no disturbance from grazing or herbicide regimes and thus exhibit a semi-natural quality, and have a rich mix of flowering plants; the best areas of which could be classed as 'of good haymeadow quality'.

In order to ensure that the quality of wildflower verges is not compromised by overcutting by Northumberland County Council (NCC), the group negotiated with the NCC with a view to either stopping their regular cutting, or at least deferring annual cutting until after seed has set in mid to late July.

The group considered that it was well worth collecting plant records from selected verges to both demonstrate the quality of the vegetation and to provide a useful record for future generations. It did so for many years, and those years reported here represent the opening and closing surveys undertaken.

The recording was established and carried out as an enjoyable community project by local people, with invaluable advice and guidance from Bill Burlton, former FC ecologist, who has now collated these records for TAG. 12 sites were sampled during the years 2005 and 2018 and this report sets out the records gathered and includes some simple analysis and comment.

2. Sites surveyed



Map 1 showing the location of the sites surveyed. To give an idea of scale the side of each grid square is 1km. The area chosen to survey was a segment radiating West and North from the hamlet of Lanehead with a radius of circa 5km.

Total length of verges surveyed $10.16\text{km} \times 2 = 20.32\text{km}$

Table 1 showing sites surveyed, surveyors for each site and the years in which each site was surveyed

Site no	Road length	Location	Surveyor	2005	2018
1	1.4km	Burdonside to Diamond Cottage	Maureen McCracken	1	1
2	0.5km	Waterhead to Blackburn Ford	Kath and Ian Richardson		1
3	0.5km	Shipleigh Shiels to Black Middens	Eva Forster	1	
4	1.5km	Gatehouse to Shipleigh Shiels	Megan Nixon, 2005, 2018 Anne Braund 2018	1	1
5	0.8km	Sneep to Diamond Cottage	Trudi and Freddie MacGregor	1	1
6	0.7km	Burnbank to Sneep Bank	Anne Bell	1	
7	0.5km	West Burnbank to Tarsset Burn	Eileen Murray	1	
8	0.7km	Redheugh to Burnmouth Bridge	Jane Watkins	1	
9	0.6km	Thorneyburn Church to road end	Kate Hersey	1	1
10	1.2km	Rd between Old Hall and Thorneyburn	Cherry Money	1	
11	1.4km	Lanehead to Rushend	2005 Jenny Swailes whole site 2018 Jenny Swailes Lanehead to Redmire Bridge. 2018 Lizzie Kathiravel whole site	1	1
12	1.0km	Lanehead Village Hall to Crossroad corner	Jenni Holland		1

3. Habitats

The area surveyed has a range in altitude from 200m at Burdonside Farm down to 120m next to the River North Tyne at Thorneyburn. The area is just on the moorland line where intensive agriculture becomes unviable and gives way to rough pasture and hill grazing.

It is within the 'Border Moors and Forest' Landscape Character area and this location would be described as an upland farmed landscape of scattered farmsteads with semi-improved and improved pasture in the valleys, mainly enclosed by wire fences and drystone walls, with small copses of coniferous or broadleaved woodland.

The underlying sandstone geology is mainly covered by glacial drift giving rise to slow draining gley soils. In the valleys the riverside flats have been enriched through time with waterborne silt and have developed more freely drained degraded brown earths. The soils are generally slightly to moderately acidic.

Although some of the road verges in the higher altitude or more exposed open areas may have a limited range of plants, where there is any shelter either from the landform, woodland or even stone walls, or where there is a south facing aspect, the habitats are much less demanding and consequently the range, type and growth of plants will be much more diverse.

As mentioned in the introduction, the verges are free from agricultural grazing and herbicide treatments so the plants are able to form tall, herb rich, communities especially in the sheltered valleys such as along the Taret Burn between Shipley Shiels and Waterhead, near Redmire or near the Taret burn at the bottom of Sneep Bank.

4. Methodology

With 10 volunteers available for the 2005 survey it was possible to cover a good proportion of the road verges within the chosen segment and volunteers were able to survey stretches that were near their homes.

The simple aim was to gather records of flowering plants on the verges on both sides of the chosen road survey stretches. It was agreed that visits should be made once a month between April and August in order to ensure that the full seasonal flowering range of the plants was covered.

An informal training evening was held at the start of the season to provide some guidance on plant identification. Identification experience was varied but most volunteers already had an interest and experience in wildflowers.

Horsetails, ferns, rushes, sedges and grasses would only be included if the surveyor was confident with the identification.

TAG produced a standard recording sheet.

A second survey was organised for the 2018 season. The 2005 survey had recorded species presence but no attempt had been made to gauge relative abundance. In 2018 volunteers were asked to use the DAFOR (Dominant, Abundant, Frequent, Occasional, Rare) system to record species abundance.

Again an informal training evening was held to go over plant identification and to practice using the DAFOR system.

The use of DAFOR assessments was, on reflection, not well suited to long linear areas as the aim should be to assess a value for each species as a proportion of the whole area surveyed. This was not easy at all when as much as 1.4km of verge are being surveyed. Also assessments were made at each monthly visit so that, in most cases, more than one value was obtained.

For example, meadowsweet recorded in June July and August may be noted down as Occasional Abundant and Rare which possibly reflects the state of flowering as opposed to the space occupied by the plant in the sward.

For the purposes of the report an average value was calculated for each species. DAFOR was given the numbers 54321 and for the OAR for the meadowsweet example the average value $2+4+1=7$ divided by $3=2.3$ or Occasional.

The hope was that the second survey would indicate trends or changes in the wildflower communities over time. However, with hindsight it was obvious that there were a lot of variables that influence plant growth year on year notably climatic i.e. rain or lack of it, heat or lack of it as well as physical impacts of cutting or roadside drainage and that reasons why growth, abundance, flowering or even appearance/non appearance might be different would need a more comprehensive system to reliably monitor any change.

Between the 2005 and 2018 surveys 5 of the original 10 volunteers left the area. In 2018 3 new volunteers joined the group. 2 new verge areas were surveyed in 2018 and 5 of the original areas were not resurveyed.

Looking back the survey did not achieve as much as it was perhaps hoped it would, BUT as a community project a very useful record of flowering plants was gathered by 13 volunteers which will provide a valuable snapshot of the quality of the Tarsset road verges for future residents in the area.

5. Results and analysis

Over the two surveys 694 records were collected by 13 volunteers.

At total of 178 separate plant species were recorded plus 10 records just down to family level e.g. dock or speedwell.

The spreadsheets below show the plants recorded in each site for each year 2005 and 2018.

The 2005 records just indicate presence whereas the 2018 records include the DAFOR assessments.

Records collected sites 1 -4

Tasset wildflower verge surveys			Site 1 MM Burdonside to Diamond Cottage		Site 2 KR IR Waterhead to Blackburn ford		Site 3 EF Shipleigh Shiels to Black Middens		Site 4 MN AB Gatehouse to Shipleigh Shiel	
			2005	2018	2005	2018	2005	2018	2005	2018
	Latin	Common name								
1	<i>Achillea millefolium</i>	Yarrow	1	o		o	1	1		
2	<i>Achillea ptarmica</i>	Sneezewort	1	f			1			o
3	<i>Aegopodium podagraria</i>	Ground elder								
4	<i>Agrimonia eupatoria</i>	Agrimony								
5	<i>Ajuga reptans</i>	Bugle	1			o				o
6	<i>Alchemilla glabra</i>	Lady's mantle		o						
7	<i>Alchemilla</i> spp	Lady's mantle				o				
8	<i>Alopecurus pratensis</i>	Meadow foxtail								
9	<i>Anemone nemorosa</i>	Wood anemone								
10	<i>Angelica sylvestris</i>	Angelica								
11	<i>Anthriscus sylvestris</i>	Cow parsley	1	la		o	1	1	a	a
12	<i>Aquilegia vulgaris</i>	Columbine	1	r						
13	<i>Arctium minus</i>	Lesser burdock								
14	<i>Artemisia vulgaris</i>	Mugwort								
15	<i>Barbarea vulgaris</i>	Winter cress					1			
16	<i>Bellis prennis</i>	Daisy	1			o	1	1	f	f
17	<i>Betonica officinalis</i>	Betony				o	1	1	o	o
18	<i>Briza media</i>	Quaking grass		o						

19	<i>Calluna vulgaris</i>	Ling heather	1	o				
20	<i>Caltha palustris</i>	Marsh marigold						1
21	<i>Calysitgia sepium</i>	Hedge bindweed						
22	<i>Campanula rotundifolia</i>	Harebell	1	o			1	o
23	<i>Capsella bursa-pastoris</i>	Shepherd's purse						
24	<i>Cardamine pratensis</i>	Lady's smock	1	o			1	
25	<i>Cardamine</i> spp	Cress spp						
26	<i>Centaurea nigra</i>	Common knapweed	1	o		o	1	
27	<i>Cerastium fontanum</i>	Common mouse ear	1	o			1	
28	<i>Cerastium glomeratum</i>	Sticky mouse ear						

Tarset wildflower verge surveys

		Site 1 MM Burdonside to Diamond Cottage	Site 2 KR IR Waterhead to Blackburn ford	Site 3 EF Shipley Shiels to Black Middens	Site 4 MN AB Gatehouse to Shipley Shiel
Latin	Common name	2005	2018	2005	2018
29	<i>Chamerion angustifolium</i>		f		
30	<i>Circaea lutetiana</i>				
31	<i>Cirsium arvense</i>	1			o
32	<i>Cirsium heterophyllum</i>		lf		lf
33	<i>Cirsium palustre</i>	1			o
34	<i>Cirsium</i> spp		f		
35	<i>Cirsium vulgare</i>		o		
36	<i>Conopodium majus</i>	1	o		o
37	<i>Corylus avellana</i>				
38	<i>Cratageous monogyna</i>			1	
39	<i>Crepis capillaris</i>				
40	<i>Cruciata laevipes</i>	1			o
41	<i>Cynosurus cristata</i>				
42	<i>Dactylis glomerata</i>				
43	<i>Dactylorhiza maculata</i>				

44	Dactylorhiza purpurella	Northern marsh orchid	1	lf				
45	Deschampsia caespitosa	Tufted hair grass						
46	Digitalis purpurea	Foxglove			o		1	o
47	Epilobium hirsutum	Great willow herb						
48	Epilobium montanum	Broad leaved willow herb					1	
49	Epilobium palustre	Marsh willowherb			o			
50	Equisetum arvense	Field horsetail		f				
51	Equisetum palustre	Marsh horsetail						
52	Equisetum sylvaticum	Wood horsetail						
53	Equisetum spp	Horsetail spp				1		
54	Erica tetralix	Cross leaved heath	1	r				
55	Euphrasia agg.	Eyebright			o			
56	Festuca rubra	Red fescue						
57	Filipendula ulmaria	Meadow sweet	1	f	o	1	1	o
58	Ficaria verna	Lesser celandine				1		
59	Fragaria vesca	Wild strawberry					1	

Tarset wildflower verge surveys

		Site 1 MM Burdonside to Diamond Cottage		Site 2 KR IR Waterhead to Blackburn ford		Site 3 EF Shipley Shiels to Black Middens		Site 4 MN AB Gatehouse to Shipley Shiel	
Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
60	Fraxinus excelsior								
61	Galeopsis tetrahit								
62	Galium album				o	1			
63	Galium aparine					1			
64	Galium odoratum							1	
65	Galium palustre								o
66	Galium saxatile	1	o					1	
67	Galium spp					1			
68	Galium verum				r				

94	Lotus corniculatus	Bird's foot trefoil	1	la	r	1	o
95	Lotus pedunculatus	Greater bird's foot trefoil					
96	Luzulu campestris	Field woodrush					
97	Lysimachia nemorum	Yellow pimpernel					
98	Matricaria discoidea	Pineapple weed				1	1
99	Mecanopsis cambrica	Welsh poppy					
100	Medicago lupulina	Black medick					
101	Mentha spp	Mints			lf	1	o
102	Mercurialis perennis	Dog's mercury					
103	Mhyrris odorata	Sweet cicely					
104	Mimulus guttatus	Monkey flower	1	lf			
105	Myosotis arvensis	Field forget-me-not	1				
106	Myosotis spp	Forget-me-not spp					
107	Myosotis sylvatica	Wood forget me not					1
108	Neottia ovata	Twayblade orchid					
109	Odonites vernus	Red bartsia			r		
110	Pentaglottis sempervirens	Green alkanet					
111	Petasites hybridus	Butterbur				1	
112	Pilosella officinarum	Mouse ear hawkweed					1
113	Pimpinella saxifraga	Burnet saxifrage					
114	Plantago lanceolata	Ribwort plantain	1	f	o	1	1
115	Plantago major	Great plantain					
116	Polygala vulgaris	Common milkwort					1
117	Potentilla anserina	Silverweed	1	f		1	1
118	Potentilla erecta	Tormentil	1	f	o	1	1
119	Potentilla reptans	Creeping cinquefoil				1	
120	Potentilla sterilis	Barren strawberry					
121	Primula vulgaris	Primrose	1				

Site 1

Site 2

Site 3

Site 4

149	Silene dioica	Red campion	1	o				
150	Silene floss-cocculi	Ragged robin	1	o			1	
151	Silene latifolia	White campion						
152	Silene spp	Campion spp						

Tarset wildflower verge surveys

	Site 1 MM Burdonside to Diamond Cottage	Site 2 KR IR Waterhead to Blackburn ford	Site 3 EF Shipleigh Shiels to Black Middens	Site 4 MN AB Gatehouse to Shipley Shiel
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	Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
153	Sonchus arvensis	Perennial sowthistle								
154	Sonchus asper	Prickly sowthistle	1							
155	Sorbus aucuparia	Rowan								
156	Stachys palustris	Marsh woundwort					1			
157	Stachys sylvatica	Hedge woundwort				o	1			
158	Stellaria alsine	Bog stitchwort								
159	Stellaria graminea	Lesser stichwort	1	f		o	1			o
160	Stellaria holostea	Greater stitchwort	1				1		1	
161	Stellaria media	Chickweed	1							
162	Succisa pratensis	Devil's bit scabious	1	o		o				
163	Symphoricarpos alba	Snowberry								
164	Tanacetum parthenium	Feverfew								
165	Tanacetum vulgare	Tansy								
166	Taraxacum agg.	Dandelion	1	f			1		1	f
167	Teucrium scordium	Wood sage				o				
168	Thymus drucei	Thyme								
169	Torilis japonica	Upright hedge parsley								
170	Tragopogon pratensis	Goatsbeard								
171	Trifolium campestre	Hop Trefoil								o
172	Trifolium pratense	Red clover	1	f		o	1		1	o
173	Trifolium repens	White clover	1	o		o	1		1	o

174	Tussilago farfara	Coltsfoot			1	
175	Ulex europaeus	Gorse				
176	Urtica dioica	Nettle	1		1	f
177	Vaccinium myrtillus	Bilberry		f		
178	Valeriana officinalis	Valerian			1	r
179	Veronica chamaedrys	Germander speedwell	1		1	1 f
180	Veronica filiformis	Slender speedwell				1
181	Veronica oficinalis	Heath speedwell				
182	Veronica persica	Field speedwell		f		
183	Veronica spp	Speedwell spp				

Tarset wildflower verge surveys

		Site 1 MM Burdonside to Diamond Cottage		Site 2 KR IR Waterhead to Blackburn ford		Site 3 EF Shipleigh Shiels to Black Middens		Site 4 MN AB Gatehouse to Shipleigh Shiel	
Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
184	Vicia cracca	1	o		o	1			
185	Vicia sativa	1							
186	Vicia sepium	1	o		o	1		1	f
187	Viola tricolor								
188	Viola riviniana							1	
Totals		55	53		47	54		41	31

Records collected sites 5-8

Tarset wildflower verge surveys

		Site 5 TM FM Sneep to diamond		Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
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		cottage									
	Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018	
1	<i>Achillea millefolium</i>	Yarrow		r			1		1		
2	<i>Achillea ptarmica</i>	Sneezewort		a	1		1				
3	<i>Aegopodium podagraria</i>	Ground elder							1		
4	<i>Agrimonia eupatoria</i>	Agrimony			1						
5	<i>Ajuga reptans</i>	Bugle	1	f	1		1				
6	<i>Alchemilla glabra</i>	Lady's mantle									
7	<i>Alchemilla</i> spp	Lady's mantle	1	o			1		1		
8	<i>Alopecurus pratensis</i>	Meadow foxtail	1	o							
9	<i>Anemone nemorosa</i>	Wood anemone									
10	<i>Angelica sylvestris</i>	Angelica		o							
11	<i>Anthriscus sylvestris</i>	Cow parsley	1	a	1		1		1		
12	<i>Aquilegia vulgaris</i>	Columbine									
13	<i>Arctium minus</i>	Lesser burdock									

Tarset wildflower verge surveys

		Site 5 TM FM Sneep to diamond cottage				Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
	Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018	
14	<i>Artemisia vulgaris</i>	Mugwort									
15	<i>Barbarea vulgaris</i>	Winter cress	1		1		1		1		
16	<i>Bellis prennis</i>	Daisy		f							
17	<i>Betonica officinalis</i>	Betony									
18	<i>Briza media</i>	Quaking grass	1								
19	<i>Calluna vulgaris</i>	Ling heather					1		1		
20	<i>Caltha palustris</i>	Marsh marigold									
21	<i>Calysitgia sepium</i>	Hedge bindweed	1	f	1		1				

22	<i>Campanula rotundifolia</i>	Harebell					1		
23	<i>Capsella bursa-pastoris</i>	Shepherd's purse	1	o	1		1		1
24	<i>Cardamine pratensis</i>	Lady's smock							
25	<i>Cardamine</i> spp	Cress spp		f	1		1		
26	<i>Centaurea nigra</i>	Common knapweed	1	r			1		
27	<i>Cerastium fontanum</i>	Common mouse ear							
28	<i>Cerastium glomeratum</i>	Sticky mouse ear		o			1		1
29	<i>Chamerion angustifolium</i>	Rosebay willowherb							
30	<i>Circaea lutetiana</i>	Enchanters nightshade		f	1		1		1
31	<i>Cirsium arvense</i>	Creeping thistle	1	a	1		1		1
32	<i>Cirsium heterophyllum</i>	Melancholy thistle		o	1		1		
33	<i>Cirsium palustre</i>	Marsh thistle							
34	<i>Cirsium</i> spp	Thistle					1		
35	<i>Cirsium vulgare</i>	Spear thistle	1	o	1		1		1
36	<i>Conopodium majus</i>	Pignut							
37	<i>Corylus avellana</i>	Hazel	1	o			1		
38	<i>Crataegus monogyna</i>	Hawthorn		f					
39	<i>Crepis capillaris</i>	Smooth hawksbeard	1	f	1		1		1
40	<i>Cruciata laevipes</i>	Crosswort							
41	<i>Cynosurus cristata</i>	Crested dog's tail							
42	<i>Dactylis glomerata</i>	Cocksfoot			1				
43	<i>Dactylorhiza maculata</i>	Heath spotted orchid		o					

Tarset wildflower verge surveys		Site 5 TM FM Sneep to diamond cottage		Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
		2005	2018	2005	2018	2005	2018	2005	2018
Latin	Common name								
44	<i>Dactylorhiza purpurella</i>	Northern marsh orchid	1						
45	<i>Deschampsia caespitosa</i>	Tufted hair grass						1	

46	<i>Digitalis purpurea</i>	Foxglove					
47	<i>Epilobium hirsutum</i>	Great willow herb					
48	<i>Epilobium montanum</i>	Broad leaved willow herb	1				
49	<i>Epilobium palustre</i>	Marsh willowherb					
50	<i>Equisetum arvense</i>	Field horsetail	1				
51	<i>Equisetum palustre</i>	Marsh horsetail					
52	<i>Equisetum sylvaticum</i>	Wood horsetail		a	1	1	
53	<i>Equisetum</i> spp	Horsetail spp					
54	<i>Erica tetralix</i>	Cross leaved heath					
55	<i>Euphrasia</i> agg.	Eyebright					
56	<i>Festuca rubra</i>	Red fescue	1	a	1	1	1
57	<i>Filipendula ulmaria</i>	Meadow sweet			1	1	1
58	<i>Ficaria verna</i>	Lesser celandine		o	1		
59	<i>Fragaria vesca</i>	Wild strawberry					
60	<i>Fraxinus excelsior</i>	Ash					
61	<i>Galeopsis tetrahit</i>	Hemp nettle		f	1		
62	<i>Galium album</i>	Hedge bedstraw		f	1	1	
63	<i>Galium aparine</i>	Cleavers					
64	<i>Galium odoratum</i>	Sweet woodruff	1				
65	<i>Galium palustre</i>	Marsh bedstraw		o			
66	<i>Galium saxatile</i>	Heath bedstraw					
67	<i>Galium</i> spp	Bedstraw		o	1		
68	<i>Galium verum</i>	Lady's bedstraw					
69	<i>Geranium lucidum</i>	Shining cranesbill			1		
70	<i>Geranium pratense</i>	Meadow cranesbill				1	1
71	<i>Geranium robertium</i>	Herb robert				1	1
72	<i>Geranium sylvaticum</i>	Wood cranesbill				1	1
73	<i>Geum rivale</i>	Water avens	1	o	1	1	1

Tarset wildflower verge surveys

Site 6
AB

Site 7
EM

Site 8
JW

	Latin	Common name	Site 5 TM FM Sneep to diamond cottage		Burnbank Cottage to Sneep Bank		West Burnbank to Tarsset Burn		Redheugh to Burnmouth Bridge	
			2005	2018	2005	2018	2005	2018	2005	2018
74	<i>Geum urbanum</i>	Wood avens								
75	<i>Helianthus annuus</i>	Sunflower								
76	<i>Helicotrichon pratense</i>	Meadow oat grass								
77	<i>Heracleum sphondylium</i>	Hogweed		o			1		1	
78	<i>Hesperis matronalis</i>	Dame's violet								
79	<i>Hieracium spp</i>	Hawkweed			1					
80	<i>Holcus lanatus</i>	Yorkshire fog					1			
81	<i>Hyacinthoides non-scripta</i>	Bluebell	1							
82	<i>Hypericum androsaemum</i>	Tutsan								
83	<i>Hypericum pulchrum</i>	Slender st john's wort								
84	<i>Hypericum tetrapterum</i>	Square stemmed st john's wort								
85	<i>Hypochaeris radicata</i>	Common cat's ear								
86	<i>Lamium purpureum</i>	Red deadnettle		o						
87	<i>Lapsanna communis</i>	Nipplewort								
88	<i>Lathyrus linifolius</i>	Bitter vetch								
89	<i>Lathyrus pratensis</i>	Meadow vetchling	1	f	1		1		1	
90	<i>Leontodon hispidus</i>	Rough hawkbit								
91	<i>Leucanthemum vulgare</i>	Ox eye daisy	1				1			
92	<i>Linum catharticum</i>	Fairy flax								
93	<i>Lonicera periclymenum</i>	Honeysuckle								
94	<i>Lotus corniculatus</i>	Bird's foot trefoil	1	f			1			
95	<i>Lotus pedunculatus</i>	Greater bird's foot trefoil	1				1			
96	<i>Luzulu campestris</i>	Field woodrush		o						
97	<i>Lysimachia nemorum</i>	Yellow pimpernel								
98	<i>Matricaria discoidea</i>	Pineapple weed			1					

99	<i>Mecanopsis cambrica</i>	Welsh poppy							
100	<i>Medicago lupulina</i>	Black medick						1	
101	<i>Mentha</i> spp	Mints							
102	<i>Mercurialis perennis</i>	Dog's mercury							
103	<i>Mhyrris odorata</i>	Sweet cicely	1						
104	<i>Mimulus guttatus</i>	Monkey flower							

Tarset wildflower verge surveys

Latin	Common name	Site 5 TM FM Sneep to diamond cottage		Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
		2005	2018	2005	2018	2005	2018	2005	2018
105	<i>Myosotis arvensis</i>	Field forget-me -not							
106	<i>Myosotis</i> spp	Forget-me-not spp					1		
107	<i>Myosotis sylvatica</i>	Wood forget me not							
108	<i>Neottia ovata</i>	Twayblade orchid							
109	<i>Odonites vernus</i>	Red bartsia							
110	<i>Pentaglottis sempervirens</i>	Green alkanet							
111	<i>Petasites hybridus</i>	Butterbur							
112	<i>Pilosella officinarum</i>	Mouse ear hawkweed					1		
113	<i>Pimpinella saxifraga</i>	Burnet saxifrage							
114	<i>Plantago lanceolata</i>	Ribwort plantain	1	a	1		1		1
115	<i>Plantago major</i>	Great plantain	1	f					
116	<i>Polygala vulgaris</i>	Common milkwort							
117	<i>Potentilla anserina</i>	Silverweed	1	a	1		1		1
118	<i>Potentilla erecta</i>	Tormentil	1	f	1		1		1
119	<i>Potentilla reptans</i>	Creeping cinquefoil							
120	<i>Potentilla sterilis</i>	Barren strawberry	1				1		
121	<i>Primula vulgaris</i>	Primrose							

122	<i>Prunella vulgaris</i>	Self heal	1				1	
123	<i>Prunus padus</i>	Bird cherry		r				
124	<i>Prunus spinosa</i>	Blackthorn	1					
125	<i>Pteridium aquilinum</i>	Bracken						
126	<i>Ranunculus acris</i>	Meadow buttercup	1				1	
127	<i>Ranunculus ficaria</i>	Lesser spearwort	1	r				
128	<i>Ranunculus hederaceus</i>	Ivy-leaved crowfoot						
129	<i>Ranunculus repens</i>	Creeping buttercup	1	f			1	1
130	<i>Rhinanthus minor</i>	Yellow rattle	1		1		1	
131	<i>Rosa canina</i>	Dog rose					1	1
132	<i>Rosa mollis</i>	Downy rose						
133	<i>Rubus fruticosus</i> agg	Bramble					1	
134	<i>Rubus idaeus</i>	Raspberry	1	o				

Tarset wildflower verge surveys

Latin	Common name	Site 5 TM FM Sneep to diamond cottage		Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
		2005	2018	2005	2018	2005	2018	2005	2018
135	<i>Rumex acetosa</i>	Common sorrel	1	a	1		1		
136	<i>Rumex acetosella</i>	Sheeps sorriell						1	
137	<i>Rumex crispus</i>	Curled dock							
138	<i>Rumex longifolius</i>	Northern dock							
139	<i>Rumex obtusifolius</i>	Broad leaved dock	1	o			1	1	
140	<i>Rumex</i> spp	Dock		o					
141	<i>Salix caprea</i>	goat willow		r					
142	<i>Salix</i> spp	Willow							
143	<i>Sanguisorba officinalis</i>	Great burnet					1	1	
144	<i>Scorzoneroideis autumnalis</i>	Autumn hawkbit	1		1		1	1	

145	<i>Scrophularia nodosa</i>	Figwort							
146	<i>Senecio jacobea</i>	Ragwort	1	o					
147	<i>Senecio viscosus</i>	Sticky groundsel							
148	<i>Senecio vulgaris</i>	Groundsel			1				
149	<i>Silene dioica</i>	Red campion							
150	<i>Silene floss-cocculi</i>	Ragged robin		r	1		1		
151	<i>Silene latifolia</i>	White campion							
152	<i>Silene</i> spp	Campion spp							
153	<i>Sonchus arvensis</i>	Perennial sowthistle							
154	<i>Sonchus asper</i>	Prickly sowthistle							
155	<i>Sorbus aucuparia</i>	Rowan							
156	<i>Stachys palustris</i>	Marsh woundwort							
157	<i>Stachys sylvatica</i>	Hedge woundwort							
158	<i>Stellaria alsine</i>	Bog stitchwort	1						
159	<i>Stellaria graminea</i>	Lesser stichwort	1	r					
160	<i>Stellaria holostea</i>	Greater stitchwort		o	1				
161	<i>Stellaria media</i>	Chickweed					1		1
162	<i>Succisa pratensis</i>	Devil's bit scabious	1	r	1		1		1
163	<i>Symphoricarpos alba</i>	Snowberry		r					
164	<i>Tanacetum parthenium</i>	Feverfew					1		

Tarset wildflower verge surveys

Latin	Common name	Site 5 TM FM Sneep to diamond cottage		Site 6 AB Burnbank Cottage to Sneep Bank		Site 7 EM West Burnbank to Tarset Burn		Site 8 JW Redheugh to Burnmouth Bridge	
		2005	2018	2005	2018	2005	2018	2005	2018
165	<i>Tanaceteum vulgare</i>	Tansy							
166	<i>Taraxacum</i> agg.	Dandelion	1	f	1		1		1
167	<i>Teucrium scordium</i>	Wood sage	1	f					

168	Thymus drucei	Thyme			1		
169	Torrilis japonica	Upright hedge parsley					
170	Tragopogon pratensis	Goatsbeard					
171	Trifolium campestre	Hop Trefoil					
172	Trifolium pratense	Red clover	1	o	1	1	1
173	Trifolium repens	White clover	1	o		1	1
174	Tussilago farfara	Coltsfoot			1	1	
175	Ulex europaeus	Gorse					
176	Urtica dioica	Nettle		a	1	1	1
177	Vaccinium myrtillus	Bilberry					
178	Valeriana officinalis	Valerian					
179	Veronica chamaedrys	Germander speedwell	1	a	1		
180	Veronica filiformis	Slender speedwell					
181	Veronica ofcinalis	Heath speedwell				1	1
182	Veronica persica	Field speedwell				1	
183	Veronica spp	Speedwell spp					
184	Vicia cracca	Tufted vetch		o	1	1	
185	Vicia sativa	Common vetch			1		1
186	Vicia sepium	Bush vetch	1	f		1	1
187	Viola tricolor	Wild pansy			1		
188	Viola riviniana	Common dog violet	1	r		1	
Totals			51	61	45	64	38

Records collected sites 9-12

Tarset wildflower verge surveys

		Site 9 KH Thorneyburn church to road end		Site 10 CM Old Hall to Thorneyburn		Site 11 JS LK Lanehead to Rushend		Site 12 JH Lanehead hall to Crossroads	
Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
1	<i>Achillea milliefolium</i>					1	o		o
2	<i>Achillea ptarmica</i>	1	o			1	o		
3	<i>Aegopodium podagraria</i>								
4	<i>Agrimonia eupatoria</i>								
5	<i>Ajuga reptans</i>	1	r			1			
6	<i>Alchemilla glabra</i>								
7	<i>Alchemilla</i> spp	1	o			1	r		
8	<i>Alopecurus pratensis</i>	1							
9	<i>Anemone nemorosa</i>	1		1					
10	<i>Angelica sylvestris</i>								
11	<i>Anthriscus sylvestris</i>	1	f	1		1	f		a
12	<i>Aquilegia vulgaris</i>								
13	<i>Arctium minus</i>						o		
14	<i>Artemisia vulgaris</i>						r		
15	<i>Barbarea vulgaris</i>						r		
16	<i>Bellis prennis</i>	1							o
17	<i>Betonica officinalis</i>		r			1	f		
18	<i>Briza media</i>	1							
19	<i>Calluna vulgaris</i>								
20	<i>Caltha palustris</i>								
21	<i>Calysitgia sepium</i>					1	o		
22	<i>Campanula rotundifolia</i>	1	o	1		1	o		
23	<i>Capsella bursa-pastoris</i>					1	f		
24	<i>Cardamine pratensis</i>	1				1			

49	<i>Epilobium palustre</i>	Marsh willowherb	1	r			1	r
50	<i>Equisetum arvense</i>	Field horsetail						
51	<i>Equisetum palustre</i>	Marsh horsetail						
52	<i>Equisetum sylvaticum</i>	Wood horsetail						
53	<i>Equisetum</i> spp	Horsetail spp						o
54	<i>Erica tetralix</i>	Cross leaved heath						
55	<i>Euphrasia</i> agg.	Eyebright						o
56	<i>Festuca rubra</i>	Red fescue	1					
57	<i>Filipendula ulmaria</i>	Meadow sweet	1	f	1		1	f

Tarset wildflower verge surveys

		Site 9 KH Thorneyburn church to road end		Site 10 CM Old Hall to Thorneyburn		Site 11 JS LK Lanehead to Rushend		Site 12 JH Lanehead hall to Crossroads	
Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
58	<i>Ficaria verna</i>	Lesser celandine	1		1				
59	<i>Fragaria vesca</i>	Wild strawberry				1	r		
60	<i>Fraxinus excelsior</i>	Ash			1				
61	<i>Galeopsis tetrahit</i>	Hemp nettle					f		
62	<i>Galium album</i>	Hedge bedstraw					a		
63	<i>Galium aparine</i>	Cleavers			1		f		
64	<i>Galium odoratum</i>	Sweet woodruff							
65	<i>Galium palustre</i>	Marsh bedstraw	1						
66	<i>Galium saxatile</i>	Heath bedstraw				1	a		
67	<i>Galium</i> spp	Bedstraw							
68	<i>Galium verum</i>	Lady's bedstraw				1			
69	<i>Geranium lucidum</i>	Shining cranesbill				1			
70	<i>Geranium pratense</i>	Meadow cranesbill							
71	<i>Geranium robertium</i>	Herb robert	1		1		o		

72	<i>Geranium sylvaticum</i>	Wood cranesbill	1	o	1	1	f		
73	<i>Geum rivale</i>	Water avens	1	f	1	1			
74	<i>Geum urbanum</i>	Wood avens	1			1			o
75	<i>Helianthus annuus</i>	Sunflower					r		
76	<i>Helicotrichon pratense</i>	Meadow oat grass	1						
77	<i>Heracleum sphondylium</i>	Hogweed	1			1	o		f
78	<i>Hesperis matronalis</i>	Dame's violet				1	o		
79	<i>Hieracium spp</i>	Hawkweed							
80	<i>Holcus lanatus</i>	Yorkshire fog	1						
81	<i>Hyacinthoides non-scripta</i>	Bluebell				1			
82	<i>Hypericum androsaemum</i>	Tutsan							
83	<i>Hypericum pulchrum</i>	Slender st john's wort				1			
84	<i>Hypericum tetrapterum</i>	Square stemmed st john's wort				1	r		
85	<i>Hypochaeris radicata</i>	Common cat's ear				1			
86	<i>Lamium purpureum</i>	Red deadnettle							
87	<i>Lapsanna communis</i>	Nipplewort				1	o		r

Tarset wildflower verge surveys

		Site 9 KH Thorneyburn church to road end		Site 10 CM Old Hall to Thorneyburn		Site 11 JS LK Lanehead to Rushend		Site 12 JH Lanehead hall to Crossroads	
Latin	Common name	2005	2018	2005	2018	2005	2018	2005	2018
88	<i>Lathyrus linifolius</i>								
89	<i>Lathyrus pratensis</i>	1	o	1		1	f		
90	<i>Leontodon hispidus</i>					1	r		
91	<i>Leucanthemum vulgare</i>								o
92	<i>Linum catharticum</i>								
93	<i>Lonicera periclymenum</i>	1							
94	<i>Lotus corniculatus</i>	1	o			1	f		o

95	<i>Lotus pedunculatus</i>	Greater bird's foot trefoil							
96	<i>Luzulu campestris</i>	Field woodrush							
97	<i>Lysimachia nemorum</i>	Yellow pimpernel						o	
98	<i>Matricaria discoidea</i>	Pineapple weed				1		f	f
99	<i>Mecanopsis cambrica</i>	Welsh poppy							
100	<i>Medicago lupulina</i>	Black medick							
101	<i>Mentha</i> spp	Mints							
102	<i>Mercurialis perennis</i>	Dog's mercury	1						
103	<i>Mhyrris odorata</i>	Sweet cicely				1		o	
104	<i>Mimulus guttatus</i>	Monkey flower							
105	<i>Myosotis arvensis</i>	Field forget-me -not					1		
106	<i>Myosotis</i> spp	Forget-me-not spp	1					o	
107	<i>Myosotis sylvatica</i>	Wood forget me not							
108	<i>Neottia ovata</i>	Twayblade orchid							
109	<i>Odonites vernus</i>	Red bartsia							
110	<i>Pentaglottis sempervirens</i>	Green alkanet					1		
111	<i>Petasites hybridus</i>	Butterbur							
112	<i>Pilosella officinarum</i>	Mouse ear hawkweed							
113	<i>Pimpinella saxifraga</i>	Burnet saxifrage						r	
114	<i>Plantago lanceolata</i>	Ribwort plantain	1				1	f	o
115	<i>Plantago major</i>	Great plantain							o
116	<i>Polygala vulgaris</i>	Common milkwort							
117	<i>Potentilla anserina</i>	Silverweed	1				1	o	

Tarset wildflower verge surveys

Latin	Common name	Site 9 KH Thorneyburn church to road end		Site 10 CM Old Hall to Thorneyburn		Site 11 JS LK Lanehead to Rushend		Site 12 JH Lanehead hall to Crossroads	
		2005	2018	2005	2018	2005	2018	2005	2018
118	<i>Potentilla erecta</i>			1		1		r	

119	Potentilla reptans	Creeping cinquefoil				1		
120	Potentilla sterilis	Barren strawberry			1			
121	Primula vulgaris	Primrose	1		1	1	a	
122	Prunella vulgaris	Self heal					o	
123	Prunus padus	Bird cherry	1			1		
124	Prunus spinosa	Blackthorn			1			
125	Pteridium aquilinum	Bracken					a	o
126	Ranunculus acris	Meadow buttercup	1	o		1	o	
127	Ranunculus ficaria	Lesser spearwort						
128	Ranunculus hederaceus	Ivy-leaved crowfoot			1			
129	Ranunculus repens	Creeping buttercup		f	1	1	a	f
130	Rhinanthus minor	Yellow rattle			1		r	
131	Rosa canina	Dog rose				1	o	
132	Rosa mollis	Downy rose		r	1	1	o	
133	Rubus fruticosus agg	Bramble	1	o	1	1	d	f
134	Rubus idaeus	Raspberry	1	f		1	o	o
135	Rumex acetosa	Common sorrel	1	o		1	o	
136	Rumex acetosella	Sheeps sorriell						
137	Rumex crispus	Curled dock						
138	Rumex longifolius	Northern dock						
139	Rumex obtusifolius	Broad leaved dock				1	f	
140	Rumex spp	Dock						a
141	Salix caprea	goat willow						
142	Salix spp	Willow			1			f
143	Sanguisorba officinalis	Great burnet	1	f	1	1	o	
144	Scorzoneroïdes autumnalis	Autumn hawkbit		o		1		
145	Scrophularia nodosa	Figwort						
146	Senecio jacobea	Ragwort				1	o	r
147	Senecio viscosus	Sticky groundsel					r	

172	Trifolium pratense	Red clover	1	f	1	1	o	o
173	Trifolium repens	White clover	1	f		1	o	f
174	Tussilago farfara	Coltsfoot						
175	Ulex europaeus	Gorse				1	lf	f
176	Urtica dioica	Nettle			1	1	f	a
177	Vaccinium myrtillus	Bilberry						

Tarsset wildflower verge surveys			Site 9 KH Thorneyburn church to road end		Site 10 CM Old Hall to Thorneyburn		Site 11 JS LK Lanehead to Rushend		Site 12 JH Lanehead hall to Crossroads	
			2005	2018	2005	2018	2005	2018	2005	2018
Latin	Common name									
178	Valeriana officinalis	Valerian		f	1		1			
179	Veronica chamaedrys	Germander speedwell	1	o	1		1	o		
180	Veronica filiformis	Slender speedwell								
181	Veronica oficinalis	Heath speedwell								
182	Veronica persica	Field speedwell								
183	Veronica spp	Speedwell spp								o
184	Vicia cracca	Tufted vetch	1					f		o
185	Vicia sativa	Common vetch								
186	Vicia sepium	Bush vetch	1	o	1		1	f		
187	Viola tricolor	Wild pansy								
188	Viola riviniana	Common dog violet	1		1		1	f		
Totals			57	39	35		81	81		41

Table 2 Summarising the record data for each recording site.

Site numbers	Site 1	Site 2	Site 3	Site 4	Site 5	Site 6	Site 7	Site 8	Site 9	Site 10	Site 11	Site 12
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2005 records	55		54	41	51	45	64	38	57	35	81	
2018 records	53	47		31	61				39		81	41
Total site records	75	47	54	54	78	45	64	38	64	35	102	41
No of species recorded on both visits	32			18	34				30		60	
Species only recorded in 2005	22			23	17				27		21	
Species only recorded in 2018	17			13	27				9		20	

Those sites highlighted in orange are the 5 sites that were recorded in both years the remaining 7 sites were only recorded for 1 year

For those sites recorded both years the numbers of records differed year on year and so did the species recorded.

Row 4 shows the total number of species recorded over the two years

Rows 5,6 and 7 show how the total species recorded each differed

Comments

First and foremost a big thank you must go to the 13 volunteers who collected the data. It was a big commitment to go out once a month and record the plants along a stretch of verge, spend time identifying the species and noting it all down. Thanks, too, to the other archive group members who joined in on other years of the survey.

Anecdotally there is the view that the verges are changing and understandable concern that some of the more robust species are crowding out those that are less competitive thus leading to less diversity. However, understanding the mechanism behind any changes is very difficult to tie down.

Some thoughts on what may be impacting on the Tasset verges are as follows:

- Any unmanaged land will succeed to scrub and woodland through time and as part of that process the ground flora will change.
- Seasonal differences year on year will impact on growth and flowering success which can be seen in gardens and the same processes will impact on roadside verges and it may be that these natural changes are being accelerated by climate change.
- Road salting could well have an impact on the verge floras although winters are generally milder so perhaps that is not happening as often.
- Could there be an impact by small mammals such as short tailed field voles or even roe deer in areas adjacent to woodland?.
- Then there are the physical impacts by man such as roadside drainage and verge cutting. These are unavoidable / necessary for road maintenance and annual cutting may be beneficial in a similar way to hay cutting in meadows. It is important that hay is cut around mid to late July so that seed has set to replenish the range of species. However, the hay is removed from meadows and then the land is grazed. The

impact of stock trampling can provide niches for seed germination which won't happen on verges so perhaps cut material lying on verges could be a disadvantage.

At present, however, with 178 separate species recorded the Taret verges exhibit good diversity in a relatively small area on the edge of upland Northumberland and the records gathered by the volunteers are a useful snapshot of current conditions.

Appendix 1 Index of common names

Common name	Plant no in main list						
Agrimony	4	Cherry bird	123	Enchanter's nightshade	30	Hemp nettle	61
Angelica	10	Chickweed	161	Eyebright	55	Herb robert	71
Ash	60	Cleavers	63	Fairy flax	92	Hogweed	77
Avens water	73	Clover red	171	Feverfew	164	Honeysuckle	93
Avens wood	74	Clover white	173	Figwort	145	Horsetail field	50
Bedstraw	67	Cocksfoot	42	Forget me not field	105	Horsetail marsh	51
Bedstraw heath	66	Colts foot	174	Forget me not spp	106	Horsetail spp	53
Bedstraw hedge	62	Columbine	12	Forget me not wood	107	Horsetail wood	52
Bedstraw lady's	68	Cow parsley	11	Foxglove	46	Knapweed common	26
Bedstraw marsh	65	Cranesbill meadow	70	Goatsbeard	170	Lady's mantle	6
Betony	17	Cranesbill shining	69	Gorse	175	Lady's mantle	7
Bilberry	177	Cranesbill wood	72	Great burnet	143	Lady's smock	24
Bindweed hedge	21	Creeping cinquefoil	119	Green alkanet	110	Lesser burdock	13
Blackthorn	124	Cress spp	25	Ground elder	3	Lesser celandine	58
Bluebell	81	Crested dog's tail	41	Groundsel	149	Lesser spearwort	127
Bracken	125	Crosswort	40	Groundsel sticky	147	Marsh marigold	20
Bramble	133	Crowfoot ivy-leaved	128	Harebell	22	Meadow foxtail	8
Bugle	5	Daisy	16	Hawkbit autumn	144	Meadow oat grass	76
Burnet saxifrage	113	Daisy ox eye	91	Hawkbit rough	89	Meadow sweet	57
Butterbur	111	Dame's violet	78	Hawksbeard smooth	39	Medick black	100

Buttercup creeping	129	Dandelion	166	Hawkweed mouse-ear	112	Milkwork common	116
Buttercup meadow	126	Dock broad-leaved	139	Hawkweed spp	79	Mint spp	101
Campion red	148	Dock curled	137	Hawthorn	38	Monkey flower	104
Campion spp	152	Dock northern	138	Hazel	37	Mouse ear sticky	28
Cat's ear common	85	Dock spp	140	Heath cross-leaved	54	Mugwort	14
Mouse ear common	27	Dog's mercury	102	Heather – ling	19	Nettle	176
Nipplewort	87	Shepherd's purse	23	Tansy	165	Willow herb Great	47
Orchid heath spotted	43	Silverweed	117	Thistle creeping	31	Willow herb marsh	49
Orchid northern marsh	44	Sneezewort	2	Thistle marsh	33	Willow spp	142
Orchid twayblade	108	Snowberry	163	Thistle meadow	32	Willowherb rosebay	29
Pansy wild	186	Sorrel common	135	Thistle spear	35	Winter cress	15
Pignut	36	Sorrel sheeps	136	Thistle spp	34	Wood anemone	9
Pineapple weed	98	Sowthistle perennial	153	Thyme	168	Wood sage	167
Plantain great	115	Sowthistle prickly	154	Tormentil	118	Woodrush field	96
Plantain ribwort	114	Speedwell field	182	Trefoil bird's foot	94	Woundwort hedge	157
Poppy welsh	99	Speedwell germander	179	Trefoil bird's foot greater	95	Woundwort marsh	156
Primrose	120	Speedwell heath	181	Trefoil hop	172	Yarrow	1
Quaking grass	18	Speedwell slender	180	Tufted hair grass	45	Yellow pimpernel	97
Ragged robin	150	Speedwell spp	183	Tutsan	82	Yellow rattle	130
Ragwort	146	St john's wort slender	83	Uptight hedge parsley	169	Yorkshire fog	80
Raspberry	134	St john's wort square -stemmed	84	Valerian	178		
Red bartsia	109	Stitchwort bog	158	Vetch bitter	88		
Red deadnettle	86	Stitchwort greater	160	Vetch bush	187		
Red fescue	56	Stitchwort lesser	159	Vetch common	185		
Rose dog	131	Strawberry barren	121	Vetch tufted	184		
Rose downy	132	Strawberry wild	59	Vetchling meadow	90		
Rowan	155	Sunflower	75	Violet common dog	188		
Scabious devil's bit	162	Sweet cicely	103	Willow goat	141		
Self heal	122	Sweet woodruff	64	Willow herb broad-leaved	48		

