# Addingham Environment Group



# Bumblebee and Butterfly Observations - 2023 Season Report The AEG Bee and Butterfly Team

## Contents

ntroduction	3
Transects	3
Methods	5
Results	5
Transect 1: Main St and Pocket Gardens	6
Transect 2: Sidebeck, Dalesway and Wine Beck	7
Transect 3: Sugar Hill, Old First School Site and Methodist Graveyard	8
Transect 4: The Garth and Primary School	10
Transect 5: Marchup, Crossbank Road and Silsden Road Allotments	11
Transect 6: Old Station Way, Newtown Allotments and Memorial Recreational Field	13
Transect 7: Church Field and Hoffman Wood Field	14
Transect 8: Low Mill Lane, Low Mill and Old Ilkley Road	15
Transect 9: Golf Course and Skipton Road Bank	16

Transect 10: Southfield, The Street, Stegholes and Lumb Ghyll	17
Abundance and diversity	19
Distribution over the season	21
Host plants	22
AEG wildflower sites	23
Authors	
Appendix A: Primary data	28

## Introduction

The AEG began recording bees and butterflies along defined village transects in July 2019. The transects were designed not only to document the abundance and diversity of bees and butterflies generally in the village but also to assess the effectiveness of efforts being made to increase wildflower populations in village green spaces as a means of enhancing their attractiveness for pollinators.

This is our report for the 2023 season. It summarises the results of the season's observations transect by transect. All primary data that form the basis of the report are contained in a comprehensive interactive spreadsheet, available to download here.

#### **Transects**

There are ten transects - see map below - and all except Transect 1 were walked during 2023, although not all were walked every month. Some modifications were made to individual transects based on the experiences from the previous year. These have been kept to a minimum to ensure comparability between years and between zones. Where relevant the changes are described below in the notes for each transect.

T6: Old Station Way (Jessica Penrose) T1: Main Street (Stewart Taylor) T7: Hoffman Wood (Margaret Longden) T2: Sidebeck (Julia Tomlinson) T8: Low Mill(Patricia Breen) T3: Old First School (Peter Miller) T9: Skipton Road Wildflower Site and Golf Club (Maire O'Donnell) T4: Garth and School (Melanie Taylor) T5: Marchup (Mick Dunne) T10: The Street and Stegg Hole (Ian and Sue Grant) lighfield inebeck Hall Dales High Way The Street Nudge Hi Gildersber Throst Nest High Nudge mall Banks Brockabank

Addingham bee and butterfly transects

Gate

#### Methods

Each transect is sub-divided into zones, each zone representing a different habitat. Observers were provided with a proforma on which to record their sightings on a zone-by-zone basis. As far as possible transect walks were made once every month during the season defined as 1<sup>st</sup> April to 30<sup>th</sup> September for bumblebees and 1<sup>st</sup> April to 31<sup>st</sup> October for butterflies. This differed from 2019 – 2021 when transect walks were made at approximately fortnightly intervals. A further change for 2022 and this year 2023 was the designation of "hotspots" on each transect, marked "X" on the maps. We defined a "hotspot" as the zone on each transect with the greatest abundance of bees and butterflies based on the experience of previous years. At these sites we asked observers to walk through the zone as usual but then spend an extra 10 minutes searching for additional species before continuing along the walk.

The method of recording observations follows the guidance provided by the Yorkshire Dales Millennium Trust in 2019.

Advisers Maurice White (Bees) and Nyree Fearnley (Butterflies) provided help with identification. Separate WhatsApp groups for bees and butterflies were set up and moderated by Maurice and Nyree respectively to confirm IDs and share photographs.

For data entry an online spreadsheet mirroring the recording forms was used, one for each transect. Observers without online access handed in their field proformas to the recording co-ordinator who entered the data on their behalf. Numerical analysis was carried out in Excel (see below Appendix A for details).

#### Results

Here we summarise the results transect by transect. The transect maps show the route walked and the division of the transects into zones. The tables summarise the abundance of different species of bees and butterflies recorded in each zone.

## Transect 1: Main St and Pocket Gardens

## Not walked in 2023

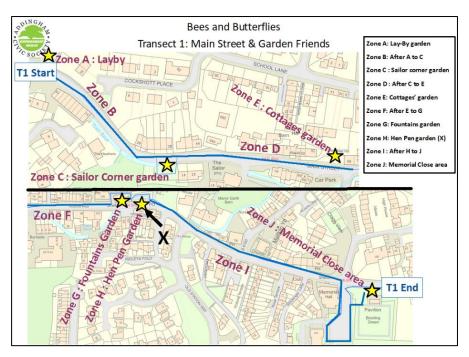


Figure 1: Transect 1

Table 1: Number of individuals observed in Transect 1 by zone

NOTE: There are no data for this year 2023

## Transect 2: Sidebeck, Dalesway and Wine Beck

#### **Observer - Julia Tomlinson**

Julia writes:

Although I did more walks this year than in 2022 I recorded fewer bees and butterflies.

Zone A across Sidebeck meadow has been very disappointing, with very little regrowth of any flowers from last year. In May there had been evident spraying, so only docks and plantains were starting to grow and little else emerged over the year.

Zone B, Wharfe Park gardens are a valuable source of Lavenders and other garden plants, and attractive to a variety of bees. The path alongside the river is unproductive until it emerges into the field. Here I have seen speckled Wood butterflies and the short pink and white clover was attractive to some bees.

Zones C and D had a large number of Orange Tip butterflies, but few bees.

Zone E has short grassland and a more productive area along the school periphery. June was a good month for both bees and butterflies.

Zone E is my "Hot spot" In June/July there were bees: Carder, White, Buff, Red tailed and

Wine Peck Barn

Wine Beck House

Told Weir

Figure 2: Transect 2

butterflies: Red Admiral, Ringlet, Peacock, Orange Tip. It is a productive and interesting area to stand and view.

Transect: 2		Zon	es			
Bees	Total	Α	В	C	D	Ε
Total	114	3	62	27	10	12
White/Buff-tailed	57		20	25	6	6
Common carder	35	1	27		1	6
Red-tailed	11		10		1	
Tree	5	1	4			
Buff-tailed	2	1		1		
Early	2				2	
White-tailed	2		1	1		

Transect: 2		Zon	es			
Butterflies	Total	Α	В	C	D	E
Total	47	8	14	5	3	17
Ringlet	17	2	4	1		10
Speckled Wood	9		6	1		2
Large White	5	3	1	1		
Orange-tip	5		1	1	2	1
Meadow Brown	3	2			1	
Red Admiral	3					3
Peacock	2			1		1
Small White	2	1	1			
Holly Blue	1		1			

Table 2: Number of individuals observed in Transect 2 by zone

## Transect 3: Sugar Hill, Old First School Site and Methodist Graveyard

**Observer: Peter Miller** 

The transect now includes the Craven Crescent wildflower site as new zone F.

#### Peter writes:

Over the last three reporting years numbers of bumblebees observed per walk are quite similar. Numbers of butterflies observed though have increased from 10 in 2021 to 14.7 in 2023.

Overall, the transect is again recording good numbers of pollinators and species diversity is similar to that of last year. As in previous years, the month of July has the greatest abundance of pollinators across the transect.

The standout zone of the transect is the Old First School site (Zone C). The varied habitats there support a range of wildlife and the greatest abundance of pollinators, particularly butterflies. The rare and elusive White-letter Hairstreak butterfly was not seen this year.

The Methodist Graveyard (Zone C) continues to be managed to promote wildflower populations. The number of pollinators per walk has increased from previous years. The zone is one of the transect's hotspots. The additional species of Brimstone and Small Copper butterflies were both recorded in this way. On the site are some mature plants of lvy



Figure 3: Transect 3

(Hedera helix). Late in the season these are attractive to a wide range of insects. On a visit in October, five Red Admiral butterflies were seen feeding together on the nectar and pollen.

This year the transect has been extended to include the Craven Crescent wildflower site. This, small but discrete area amongst housing, was previously mown grassland. With local residents and InCommunities a wildflower and people-friendly space has been created. Numbers of bumblebees and butterflies recorded could be expected to increase next year as the site becomes more fully established.

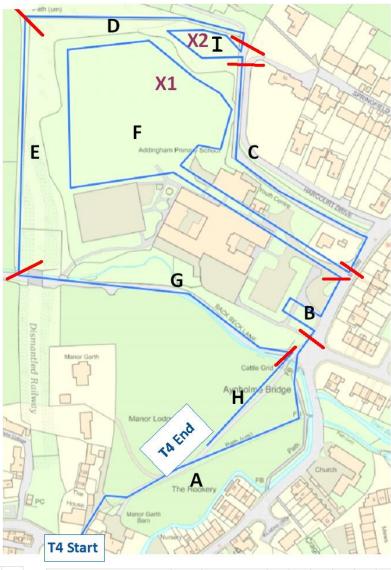
Transect: 3		Zon	es				
Bees	Total	Α	В	C	D	Ε	F
Total	56	9	2	30		9	6
Buff-tailed	22	5	1	13		3	
White/Buff-tailed	14			10			4
Common carder	8	2	1	2		2	1
Tree	5			3		2	
Red-tailed	3	2		1			
Unknown	3			1		1	1
White-tailed	1					1	

Transect: 3		Zon	es				
Butterflies	Total	Α	В	C	D	Ε	F
Total	103	6	10	61	8	15	3
Small White	30	6	5	15	3		1
Meadow Brown	22		2	12	2	4	2
Ringlet	22			19		3	
Red Admiral	10		2	2	1	5	
Orange-tip	4		1	2		1	
Peacock	3			3			
Small Tortoiseshell	3			3			
Speckled Wood	3			2		1	
Comma	2			2			
Small Copper	2				2		
Brimstone	1					1	
Large White	1			1			

Table 3: Number of individuals observed in Transect 3 by zone

## Transect 4: The Garth and Primary School

## Observer – Melanie Taylor



Transect: 4		Zon	es							
Bees	Total	Α	В	C	D	Ε	F	G	Н	1
Total	92	6	1	2	4	5	43	3	1	27
White/Buff-tailed	62	5		1	2	2	33	1		18
Common carder	17		1		1	2	6		1	6
Buff-tailed	4	1		1		1				1
Red-tailed	3						3			
Tree	3				1					2
White-tailed	2						1	1		
Garden	1							1		

Transect: 4		Zon	es							
Butterflies	Total	Α	В	C	D	Ε	F	G	Н	1
Total	81	4		4	9	10	29	5	1	19
Meadow Brown	22	3					14			5
Large White	11					1	6	2		2
Speckled Wood	10				9					1
Ringlet	8	1					1			6
Comma	7			1		3	3			
Holly Blue	5					1		2		2
Small White	5			1		1	2	1		
Orange-tip	3					2				1
Red Admiral	3			2					1	
Small Copper	3						1			2
Peacock	2					1	1			
Small Tortoiseshell	2					1	1			

Table 4: Number of individuals observed in Transect 4 by zone

## Transect 5: Marchup, Crossbank Road and Silsden Road Allotments

**Observer: Mick Dunne** 

#### Mick writes:

This is my fifth year making observations along transect 5. My views about the 4-week pattern of observations remain especially considering the vagaries of the weather that appears to be less settled for longer periods of time now. I know that my surveys during 2023 did not coincide with some important flowering events such as with common comfrey and I missed the flowering of yellow rattle completely. Knowing when the nature reserve is due for mowing would ensure I observed that site prior to the removal of most

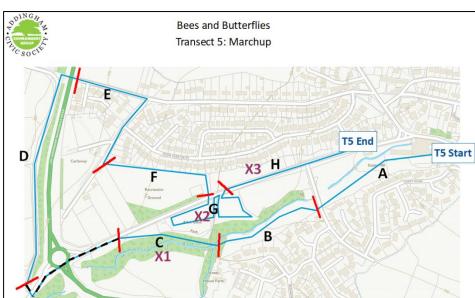


Figure 5: Transect 5

flowering plants too. Nevertheless, I do believe significant patterns are able to emerge with this less burdensome pattern of observations.

Hot spots – these were identified as zones C (Danny Palmer reserve), G (Allotment on the east side of Silsden Road) and H (Allotment on the west side of Silsden Road). The new approach should have provided additional valuable data but on no occasion was any new species of butterfly or bumble bee observed.

#### Overall

This transect always produces high numbers of sightings for both butterflies and bumble bees but not in every zone – zones A and B generating the lowest numbers of recorded sightings. Six different species of bumble bee were observed and ten different species of butterfly (two sightings of the small blue butterfly being an additional species for 2023) indicating good levels of diversity (zones E, G & H for bumble bees and zones C, G & H for butterflies provided the greatest species range) that mainly reflects the availability suitable flowering plants. Key plant species include common comfrey, bramble, sedum, brassicas, legumes, clover, and knapweed.

Those zones with the highest levels of species richness/diversity (number of different species observed) for bumble bees was almost equal across all zones — A being the lowest (5 species) and H the highest (8 species).

Those zones with the highest levels of species richness (number of different species observed) for butterflies was more variable. Zones A and C had least species richness/diversity (3 and 4 different species respectively). Zones B, D, E and G produced the highest numbers of different species that ranged from 6 different species (zone B) to 8 species found in zone G.

Up to now additional observations made in the hot spot zones have not added any additional data.

#### Zone by zone comments

Zone A – Few sightings in the early part of year. Very much dependent on the flowering of thistles and the flowers (buddleia) in a couple of gardens.

Zone B – The coolest zone. Very shaded. Always slow at the beginning of the season. Key species here are bramble, yellow rattle, and rosebay willow herb.

Zone C —A good range of both butterfly and bumble bee observed primarily associated with knapweed and clover. Late end mowing removes remaining flowers and observations are usually then based on moving insects.

Zone D – Fewer observations recorded than in previous years. Traditional a hotspot for ringlets yet none observed in 2022 and 2023. Bramble, clover, and knapweed key flowering plants.

Zone E- This is one of two hot spots for bumble bees mainly due to the presence of many common comfrey plants on both roadside verges. Brambles and bindweeds present in good numbers too.

Zone F – The recreation ground. No butterflies recorded here in 2022. There is a distinct lack of pollinating flowering plants even along the garden boundary. Opportunities for intervention planting of plants like buddleia along westward edge.

Zones G and H – These remain strongholds in terms of both the abundance and diversity of both bumble bees and butterflies. The challenge with both sites but particularly with the allotment on the east side is capturing accurate data on days when particularly bumble bees are very active. Huge numbers of individuals can be found on comfrey and sedum plants so double counting and missing individuals is likely to happen. As one would expect the variety of attractive flowering plants (legumes, brassicas, sedum, fruiting plants…) available to pollinators is huge hence the high numbers being recorded here. The allotment owners are typically very supportive of this survey and often offer their own observations.

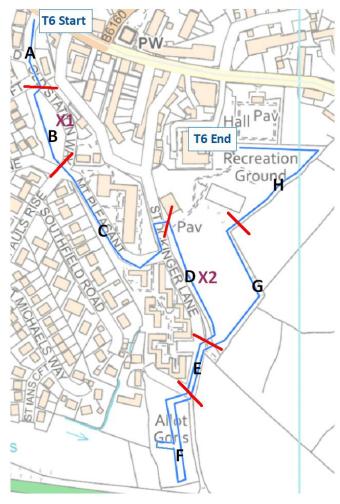
Transect: 5		Zon	es						
Bees	Total	Α	В	C	D	Ε	F	G	Н
Total	162	9	21	14	26	26	11	22	33
Buff-tailed	42	5	10	1		8	2	9	7
Tree	36		1	3	5	7	2	7	11
White-tailed	33	1	4	3	4	7	5	4	5
Unknown	18	1	1	1	12			1	2
Common carder	14		2	5	2	2	1	1	1
White/Buff-tailed	10	2	3		2	1	1		1
Red-tailed	9			1	1	1			6

Transect: 5		Zon	ies						
Butterflies	Total	Α	В	C	D	Ε	F	G	Н
Total	90	4	12	3	10	9	10	17	25
Large White	25	2	4	1		3	4	6	5
Small White	19	2	3		1	1	1	5	6
Unidentified	18			1	1		3	1	12
Meadow Brown	7				4	1		2	
Ringlet	5		2		2	1			
Peacock	4		2		1				1
Orange-tip	3				1			1	1
Speckled Wood	3		1	1				1	
Common Blue	2					2			
Red Admiral	2						1	1	
Small Tortoiseshell	2					1	1		

Table 5. Numbers of individuals in Transect 5 by zone

# Transect 6: Old Station Way, Newtown Allotments and Memorial Recreational Field

**Observer: Jessica Penrose** 



Transect: 6		Zon	es						
Bees	Total	Α	В	C	D	Ε	F	G	Н
Total	139	9	46	2	18	9	40	2	13
White/Buff-tailed	61		9	2	12	4	28	1	5
Common carder	39	6	11		2	2	10		8
Red-tailed	27		22		2	1	2		
Buff-tailed	6	1	2		1	1		1	
White-tailed	4	2	2						
Early	1					1			
Tree	1				1				

Transect: 6		Zon	es						
Butterflies	Total	Α	В	C	D	Ε	F	G	Н
Total	67	1	6	2	14	3	29	6	6
Large White	24	1	5	1	2		14		1
Red Admiral	12				4		6	1	1
Speckled Wood	7					2		1	4
Ringlet	5			1	4				
Comma	4						4		
Peacock	3		1		1			1	
Small Tortoiseshell	3				1		1	1	
Small White	3				1	1	1		
Unidentified	2							2	
Holly Blue	1						1		
Orange-tip	1						1		
Small Copper	1				1				
Wall	1						1		

Table 6. Numbers of individuals in Transect 6 by zone

## Transect 7: Church Field and Hoffman Wood Field

## **Observer: Margaret Longden**

#### Margaret writes:

As last year, the weather has had a huge impact on my findings. In general, just walking once a month has made it easier to find a good day weather-wise but we have had prolonged periods of rain, particularly towards the end of the season which have not been helpful.

My main observation has been that the improvements seen for pollinators on the Church Field have not been consolidated this year as removal of part of the hedge on the boundary with the North Street houses (albeit temporary) removed a huge area of bramble. I understand the reinstatement of the boundary is under discussion with St. Peter's.

There were also changes from the previous year's mowing regime, which resulted in fewer wild flowers. The very wet early autumn also meant that the good showing of butterflies in the Church Orchard seen last year when there was fallen fruit did not occur.

The Hoffman Wood Field's widened unmown borders certainly showed that wild flowers are increasing, but this did not seem to show greatly increased numbers of sightings.

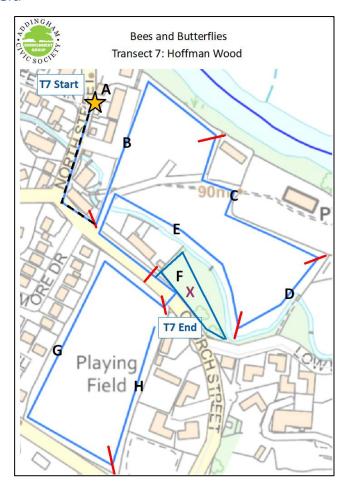


Figure 7: Transect 7

All in all, a bit disappointing but I was thrilled to see a brimstone butterfly on the Church Field.

Transect: 7		Zon	es						
Bees	Total	Α	В	C	D	Ε	F	G	Н
Total	32	4		19		2	2	2	3
Common carder	13	2		8		1			2
White/Buff-tailed	13			10		1		1	1
Tree	3	1		1			1		
Red-tailed	2	1						1	
Unknown	1						1		

Transect: 7		Zon	es						
Butterflies	Total	Α	В	C	D	Ε	F	G	Н
Total	24	4	2	4	1		10		3
Ringlet	8			3			2		3
Small White	7	3	1				3		
Large White	4	1			1		2		
Red Admiral	2						2		
Speckled Wood	2			1			1		
Orange-tip	1		1						

Table 7. Numbers of individuals in Transect 7 by zone

## Transect 8: Low Mill Lane, Low Mill and Old Ilkley Road

**Observer: Patricia Breen** 

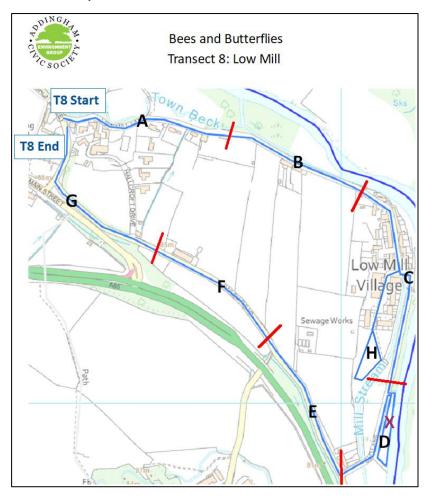


Figure 8: Transect 8

Transect: 8		Zones							
Bees	Total	Α	В	C	D	Ε	F	G	Н
Total	237	10	26	61	77	19	2	2	40
Buff-tailed	77	8	5	21	20	9		2	12
Common carder	74	1	14	9	29	4	1		16
White-tailed	64		6	26	24	6			2
Red-tailed	14			2	2				10
Tree	4		1	1	2				
Garden	2			2					
Unknown	2	1					1		

Transect: 8		Zon	es						
Butterflies	Total	Α	В	C	D	Ε	F	G	Н
Total	58	5	2	4	18	6	3	1	19
Meadow Brown	11				3				8
Large White	9	1		1	4				3
Small White	9			1	3	2	1		2
Ringlet	7				3	1			3
Orange-tip	5	1			2	1			1
Red Admiral	5	1	2				1	1	
Small Tortoiseshell	5				2	2	1		
Holly Blue	3	1		1					1
Comma	2	1							1
Peacock	1				1				
Unidentified	1			1					

Table 8. Numbers of individuals in Transect 8 by zone

## Transect 9: Golf Course and Skipton Road Bank

#### **Observer: Maire O'Donnell**

#### Maire writes:

Nothing new comes to mind about my transect. Just the lack of bee sightings which seems to be similar to last year.

The question is of course - are the bees absent or am I just not seeing them. The distance between their food sources for the majority of (the walk around) the golf course might be a contributory effect.

Though I would have thought I would have espied more on the Skipton Road Bank specifically.

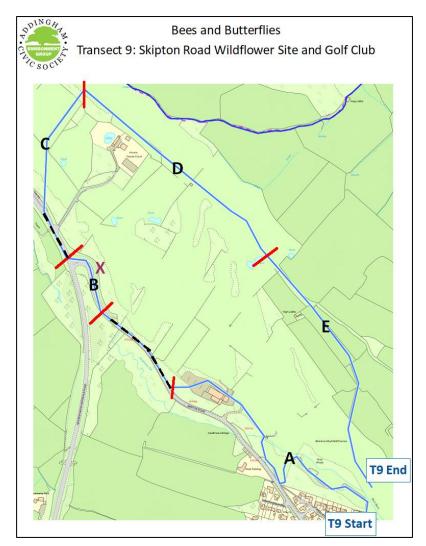


Figure 9: Transect 9

Transect: 9		Zon	Zones						
Bees	Total	Α	В	C	D	Ε	F	G	Н
Total	25	5	15		3	2			
White/Buff-tailed	14	4	6		2	2			
Common carder	4		4				1		16
Unknown	4	1	2		1		1		
Early	2		2						2
Red-tailed	1		1						

Transect: 9		Zon	es						
Butterflies	Total	Α	В	C	D	Ε	F	G	н
Total	114	25	48	3	28	10			
Unidentified	38	11	10	1	14	2			
Meadow Brown	22	3	13		2	4			
Orange-tip	16	3	9		2	2			
Ringlet	11		10		1				
Speckled Wood	8	4		1	2	1			
Small Tortoiseshell	7	1	5			1			
Red Admiral	6			1	5				
Peacock	2	1			1				
Brimstone	1		1				3	1	19
Common Blue	1				1				3
Holly Blue	1	1							
Small White	1	1							

Table 9. Numbers of individuals in Transect 9 by zone

## Transect 10: Southfield, The Street, Stegholes and Lumb Ghyll

## **Observers: Ian and Sue Grant**

#### Sue and Ian write:

- 1. We didn't see any bees in zones A, B, J, K, L. Presumably linked to the scarcity of pollen rich plants in those areas, being mainly along the perimeters or across open sheep fields.
- 2. Zone I was our best spot for bees, due to the large patches of lavender in the house garden. The only other house garden was in zone F but strangely we saw no bees or butterflies, presumably due to their choice of plants, many being multi-petalled cultivars.
- 3. Hotspot D was our 2nd best spot for bees, with zones C and G close behind. All were rich in nettles, thistles and brambles.
- 4. Hotspot G (Stegholes) was the best for spot for butterflies, mainly due to so many Meadow Browns, Speckled Woods and Whites in June, July and August on grasses, nettles or flying. Despite there being a lot of Gorse bushes at Stegholes we saw no bees or butterflies on it.

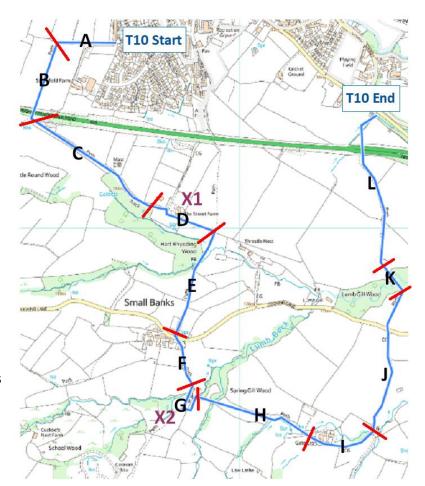


Figure 10: Transect 10

								.44.6					
Transect: 10		Zon	es										
Bees	Total	Α	В	C	D	Ε	F	G	Н	J	J	K	L
Total	72			11	14	8	6	10	4	19			
White-tailed	23				8	1	3	6	2	3			
White/Buff-tailed	15			6						9			
Buff-tailed	11			2	3	3	1	1	1				
Common carder	10			2		1	1		1	5			
Tree	9					3	1	3		2			
Unknown	3			1	2								
Red-tailed	1				1								

Transect: 10		Zon	es										
Butterflies	Total	Α	В	C	D	Ε	F	G	Н	-1	J	K	L
Total	195		11	33	22	16	6	44	17	18	4	11	13
Meadow Brown	59		3	2		3	4	24	8	9	1	3	2
Speckled Wood	39		2	11	8	7		5	3			3	
Red Admiral	19			6	5		1	3	2	1		1	
Small White	14		4		5			2	1				2
Unidentified	14			1		2			2	2	2	4	1
Large White	12				3			5		4			
Ringlet	10			4			1	2	1		1		1
Orange-tip	7			3		3				1			
Small Tortoiseshell	6		1	2									3
Small Heath	4												4
Peacock	3				1			1		1			
Comma	2					1		1					
Dark Green Fritillary	2			2									
Holly Blue	2			2									
Green-veined White	1		1										
Small Skipper	1							1					

Table 10. Numbers of individuals in Transect 10 by zone

# Abundance and diversity

Bees (8 species)	No.
White/Buff-tailed	246
Common carder	214
Buff-tailed	164
White-tailed	129
Red-tailed	71
Tree	66
Early	5
Garden	3

Butterflies (19 species)	No.
Meadow Brown	146
Ringlet	93
Large White	91
Small White	90
Speckled Wood	81
Red Admiral	62
Orange-tip	45
Small Tortoiseshell	28
Peacock	20
Comma	17
Holly Blue	13
Small Copper	6
Small Heath	4
Common Blue	3
Brimstone	2
Dark Green Fritillary	2
Green-veined White	1
Small Skipper	1
Wall	1

Table 11. Abundance of species recorded

#### Observed per walk Bees 2023 Bees 2022 BY TRANSECTS .. BY TRANSECTS. Observed per walk Observed per walk 5.3 April April 4.8 2.3 May 2.3 May 2.5 3.5 0.5 28.2 June June 33.7 22.0 July July 38.7 5.3 18.1 August August 14.1 September 30.3 4.9 September 10 1.5 3.2 5.3 16.0 5.3 34 3.1 Totals 18.7 Totals 9.3 **Butterflies 2023 Butterflies 2022** BY TRANSECTS BY TRANSECTS Observed per walk 9 10 Observed per walk 7.6 April April **4.9** 4.7 May 10.7 6.5 May 5.5 June 6.5 June 17.1 July 14.2 7.5 July 28.0 August 9.1 8.3 2.5 August 13.3 September 9.9 5.1 3.5 2.5 September 4.3 October 0.1 October 13.0 6.7 16 18 9.6 4 8.3 13 Totals 8.1 8.8 7.6 11 0.5 8.2 6.9 8.5

Table 13. Average numbers observed per walk by transect, month, and total for the season

## Distribution over the season

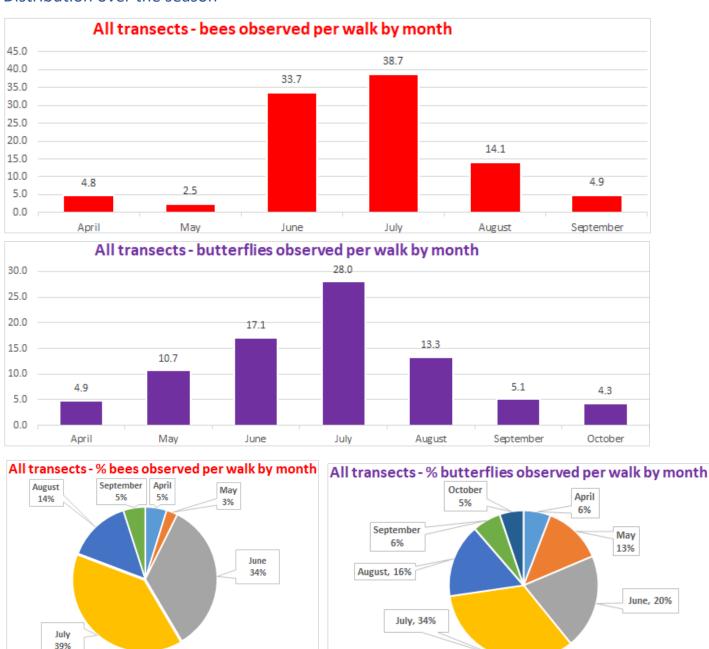


Figure 12. Average numbers and percentages observed on all transects per walk by month.

# **Host plants**

BEES		BUTTERFLIES	
Unique flowers	Instances	Unique flowers	Instances
Bramble	81	Bramble	31
Knapweed, Common	29	Grasses	21
Lavender	28	lvy	13
Clover, White	16	Dandelion	11
Comfrey	13	Thistle, Creeping	9
Catmint	12	Buddleia	7
Crane's-bill, Meadow	12	Nettle, Stinging	7
Thistle, Spear	11	Ragwort, Common	6
Clover, Red	10	Common Nettle	5
Borage	9	Willowherb, Rosebay	5

BEES AND BUTTERFLIES	All
Unique flowers	Instances
Bramble	112
Knapweed, Common	33
Lavender	28
Grasses	22
Clover, White	18
Thistle, Creeping	18
Dandelion	16
Crane's-bill, Meadow	14
Thistle, Spear	14
lvy	14

Table 14. The ten most visited plant species for bees and butterflies

## **AEG** wildflower sites

The AEG manages several wildflower sites in the village. As one of our aims is to increase the number of pollinators visiting these sites they have all been incorporated as zones in one or more of the pollinator transects (Table 15). A new site, the Craven Crescent Green, was adopted in 2022. This site has now been incorporated into transect 3 as a hotspot zone.

**Bees – Zone Hotspots** 

			Zone Hotspot - Average Bees per Walk					
Zone Hotspot	Trans	Zone	2019	2020	2021	2022	2023	
Hen Pen Garden	1	Н	No data	3.8	No data	6	No data	
	1			(11)		(3)		
Sidebeck	2	А	6.0	7.9	1.6	4.7	0.3	
	2		(5)	(18)	(14)	(7)	(9)	
Old First School site	3	С	1.7	2.4	4.5	6.7	5.0	
	3		(3)	(16)	(17)	(6)	(6)	
Methodist Graveyard	3	Е	0.0	1.3	2.1	1.3	1.5	
	3		(3)	(16)	(17)	(6)	(6)	
School playing field	4	F	No data	0.0	0.5	0.0	8.6	
	4			(14)	(12)	(2)	(5)	
School wetlands	4		No data	No data	0.1	1.0	5.4	
	4				(12)	(2)	(5)	
Daniel Palmer Nature Reserve	5	_	1.1	2.0	1.4	3.0	2.8	
	3		(7)	(18)	(15)	(5)	(5)	
Stamp Hill allotments	5	C	1.3	3.7	11.0	11.0	4.4	
	3	C G H	(7)	(18)	(15)	(5)	(5)	
Silsden Road allotments	5	Н	No data	0.2	1.4	6.0	6.6	
				(18)	(15)	(5)	(5)	
Old Station Way	6	В	2	1.3	3.6	7.0	7.7	
		Б	(7)	(15)	(13)	(5)	(6)	
Football Field	6	D	1.1	2.0	2.0	3.8	3.0	
			(7)	(15)	(13)	(5)	(6)	
Church Orchard	7	F	No data	No data	No data	0.5	0.3	
	'					(6)	(6)	
Old Lane / Wharfe field	8	D	No data	0.9	3.5	4.3	11.0	
	0	<i>U</i>		(27)	(26)	(5)	(7)	
Skipton Road Bank	9	В	No data	1.3	2.3	1.8	1.9	
	9	ם		(18)	(15)	(5)	(8)	

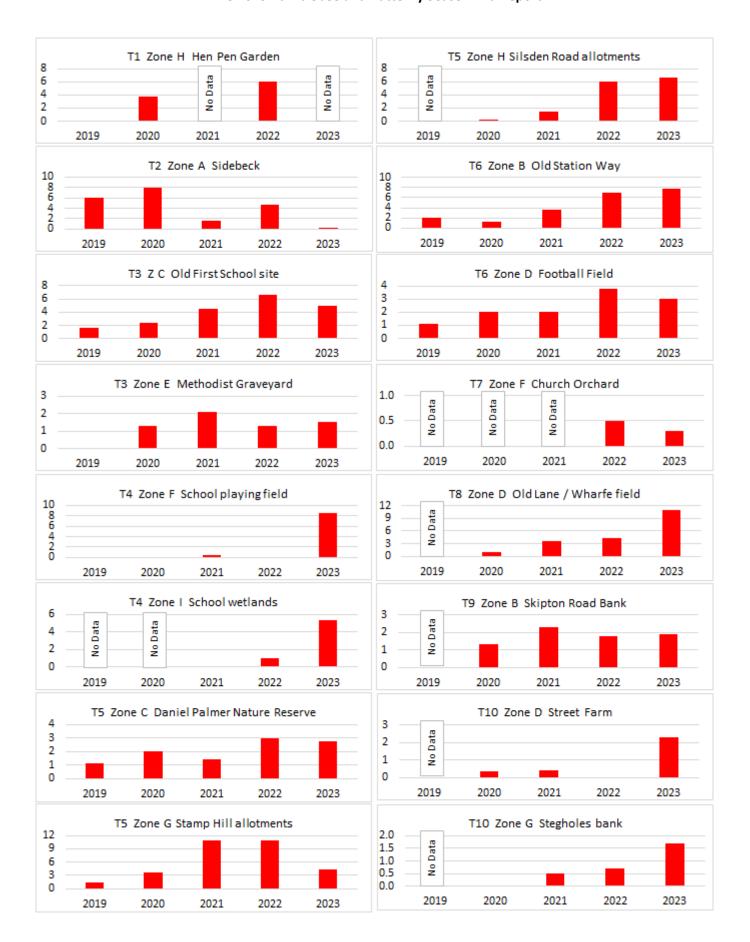
Street Farm	10	2	No data	0.4	0.4	0.0	2.3
		D		(17)	(23)	(10)	(6)
Stegholes bank	10	_	No data	0.0	0.5	0.7	1.7
		G		(17)	(23)	(10)	(6)

## **Butterflies – Zone Hotspots**

			Zone	Zone Hotspot - Average Butterflies per Walk						
Zone Hotspot				(Numbe	r of walks in	brackets)				
	Trans	Zone	2019	2020	2021	2022	2023			
Hen Pen Garden	1	Н	No data	0.7	No data	2.3	No data			
	1			(13)		(4)				
Sidebeck	2	Α	0.0	1.0	0.4	0.6	0.9			
		^	(3)	(14)	(14)	(7)	(7)			
Old First School site	3	С	22.7	4.2	7.6	10.5	10.2			
	3		(3)	(16)	(16)	(7)	(7)			
Methodist Graveyard	3	_	0.7	0.6	0.9	1.7	2.5			
	3	E	(3)	(16)	(16)	(6)	(7)			
School playing field	4	F	No data	0.0	0.2	0.0	5.8			
	4	F		(15)	(12)	(2)	(5)			
School wetlands	4	I	No data	No data	0.0	0.0	3.8			
	4				(12)	(2)	(5)			
Daniel Palmer Nature Reserve	5	С	No data	1.7	0.5	1.8	0.6			
	5			(21)	(17)	(6)	(5)			
Stamp Hill allotments		G	No data	3.5	3.3	4.4	3.4			
	5			(21)	(17)	(6)	(5)			
Silsden Road allotments	5	Н	No data	3.0	3.2	0.8	5.0			
	5			(21)	(17)	(6)	(5)			
Old Station Way	6	В	2.7	0.2	0.7	1.0	1.0			
	0	Ь	(7)	(15)	(14)	(6)	(7)			
Football Field		_	3.0	0.8	0.0	0.6	2.3			
	6	D	(7)	(15)	(14)	(6)	(7)			
Church Orchard	7	F	No data	No data	No data	4.8	1.7			
	'	「				(7)	(6)			
Old Lane / Wharfe field	0		No data	0.1	3.5	2.0	2.6			
	8	D		(23)	(17)	(6)	(7)			
Skipton Road Bank	9	В	No data	2.8	2.5	4.6	6.0			

				(19)	(16)	(7)	(9)
Street Farm	10	D	No data	1.1	0.4	0.2	3.7
				(17)	(26)	(11)	(7)
Stegholes bank	10	G	No data	0.6	0.6	2.8	7.3
	10	0		(17)	(26)	(11)	(7)

Average number of bees / walk



## Average number of butterflies / walk

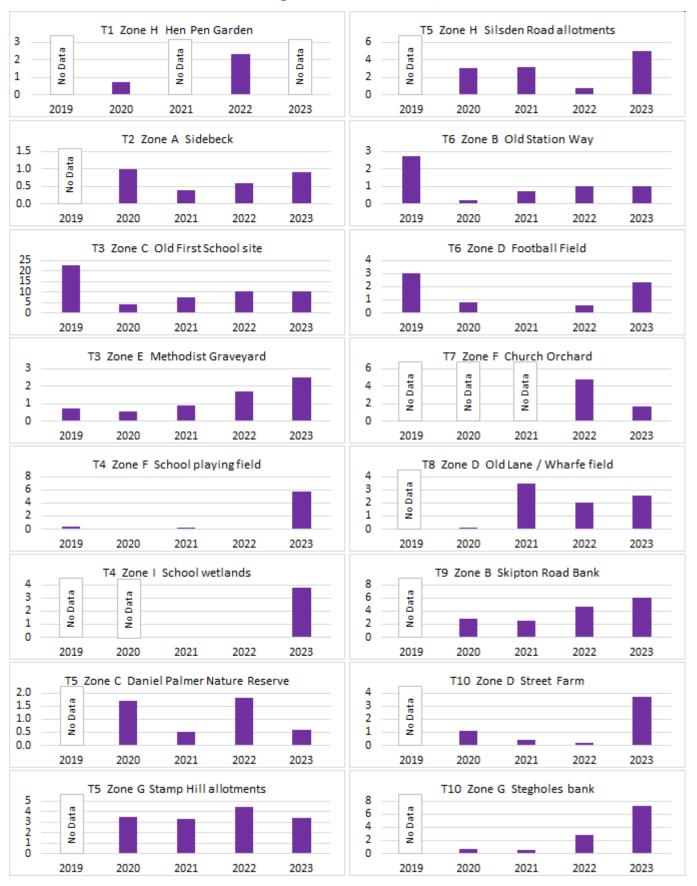


Table 15. Pollinators abundance in the Hot Spot zones

#### **Authors**

Malcolm Secrett\*, Rick Battarbee, Ian and Sue Grant, Jessica Penrose, Julia Tomlinson, Maire O'Donnell, Margaret Longden, Maurice White, Melanie Taylor, Nyree Fearnley, Mick Dunne, Patricia Breen, Peter Miller, Stuart Taylor

\*Contact for enquiries malcolm.secrett@outlook.com

## Appendix A: Primary data

All primary data are contained in a comprehensive interactive spreadsheet, available to <u>download here</u> or to be requested by clicking on <u>Request for the bumblebee and butterfly 2020 season end analysis spreadsheet</u>. Guidance on using the spreadsheet is contained within it.

The spreadsheet includes:

- Overall analysis of numbers and species with averages per transect walk.
- Analysis of numbers observed, the number of walks by month and the average numbers observed by walk and month
- Numbers observed by species in each zone of each transect.
- The plants pollinators were visiting at the time of the observation.
- Transect dashboard in which numbers and species observed are shown.
- Zone dashboard with numbers of species by transect zones.
- Both of the dashboards have links to the transect maps, together with other resources.

End