

Bumblebee recording report 2024

Surveyor name: David Askew

Island: Stronsay



Introduction

Stronsay is one of the 'northern isles', lying to the north east of Orkney. Stronsay is a small island, no more than about 10 kilometers in width and length, and rising to no more than 46 meters in height. Stronsay shares a hyperoceanic climate and sandstone dominated geology with the rest of Orkney. Lying on the east side of Orkney, Stronsay is less exposed to westerlies than some other islands. The solid geology of Stronsay comprises middle (Orcadian) old red sandstone beds of mainly upper caithness flagstones. There are some superficial glacial deposits, and alluvial deposits around some coastal lagoons. Peat has developed on the Rothiesholm headland.

Stronsay is an agriculturally productive island and agriculture is the predominant land use. Grassland dominates - grazed by cattle or sheep, or cut for silage. There are diminishing areas of arable land - predominantly growing barley. There are some areas of unimproved (or semi-improved) grassland - mainly coastal, around the Rothiesholm Head and Burgh Head coastlines in particular. Links type grassland has developed on and behind sand dunes in places such as Rothiesholm Sands. Flower rich wetlands have developed around the coastal lagoons around the island and, in particular, around Meikle Water in the centre of the island. There are two areas of heathland on the island - by Rothiesholm Head and Burgh Head. The heathland approaching Burgh Head is species rich maritime heath, crossed by calcareous flushes. Road verges are an important habitat, for bumblebees and other insects, across the island, especially where other habitats (and nectar sources) are lacking across the agricultural centre of the island. For similar reasons, gardens on the island also play an important role providing nectar sources, with many gardens supporting impressive numbers of bumblebees.

The sites selected for this bumblebee survey, covering 10.7 km, are shown on the map below. The sites were selected on the grounds of both accessibility and providing coverage of the main habitats on the island. The sites are;

1. Lower Whitehall (roadside verge, garden)
2. Rothiesholm links (links grassland, roadside verge)
3. Rothiesholm Moor (grassland, heathland)
4. Millgrip (roadside verge)
5. Airy Road (roadside verge)
6. Bu Loch (grassland, wetland)
7. Kirbuster (grassland, heathland)
8. Holland Farm (grassland, arable)

Site information

Site name: Lower Whitehall - 25/5/2024

Start Time: 12.45

Finish Time: 13.30

Temperature °C : 12

Weather: Sunny/Cloudy

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 3

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route : Section 1 rough grassland (track), section 2 road verge (bordering grassland), section 3 residential garden

Habitat description

This short transect runs from the old lifeboat pier along a grassed track bordered by unimproved but fairly species poor rough grassland - with occasional clover, hogweed and dandelion. The transect then runs along the coast road - with grassland and gardens on one side and rocky shore on the other. There is a wide verge on the shore side with many garden escapes, including comfrey, as well as dandelion etc. The final section runs the length of a residential garden with a flower rich border - aquilegia, fuchsia, geranium etc.

Distance of survey in km: 0.573

Route map



Section 1 - rough track



Section 2 - road verge



Section 3 - garden



Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus muscorum	HY668286		1			White clover
2	Bombus muscorum	HY668285		1			Dandelion
3	Bombus muscorum	HY667284		1			Three cornered leek - garden escape
4	Bombus pascuorum	HY667284		1			Three cornered leek - garden escape
5	Bombus lucorum agg.	HY667284		1			Three cornered leek - garden escape
6	Bombus bohemicus	HY666284	1f				Three cornered leek - garden escape
7	Bombus pascuorum	HY666284		2			Three cornered leek - garden escape
8	Bombus lucorum agg.	HY666284		1			Three cornered leek - garden escape
9	Bombus pascuorum	HY664283		5			Comfrey - garden escape
10	Bombus hortorum	HY664283		2			Comfrey - garden escape
11	Bombus lucorum agg.	HY664283		1			Comfrey - garden escape

12	Bombus lucorum agg.	HY663283		1			Comfrey - garden escape
13	Bombus lucorum agg.	HY663283		1			Flying
14	Bombus lucorum agg.	HY663283		2			Sisyrinchium
15	Bombus lucorum agg.	HY663283		2			Aquilegia
16	Bombus terrestris	HY663283	1				Aquilegia
17	Bombus hortorum	HY663283	1				Aquilegia
18	Bombus hortorum	HY663283		2			Aquilegia
19	Bombus pascuorum	HY663283		1			Fuchsia
20	Bombus lucorum agg.	HY663283		7			Aquilegia
21	Bombus terrestris	HY663283		1			Aquilegia
22	Bombus pascuorum	HY663283		2			Aquilegia
23	Bombus pascuorum	HY663283		4			Geranium phaeum
24	Bombus pascuorum	HY663283		1			Aquilegia
25	Bombus lucorum agg.	HY663283		2			Aquilegia

Photographs, relating to sightings

Record number	Photograph
1	 A photograph of a bumblebee with a prominent reddish-brown thorax and black abdomen, perched on a small, white, tubular flower. The bee is surrounded by a dense patch of green grass and other low-growing plants.
2	 A close-up photograph of a bumblebee with a reddish-brown thorax and black abdomen, sitting on a bright yellow dandelion flower. The background is a soft, out-of-focus green, suggesting a grassy field.

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Site information

Site name: Rothiesholm links - 11/8/2024

Start Time: 13.45

Finish Time: 15.40

Temperature °C : 16

Weather: Sunny/Cloudy

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 4

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

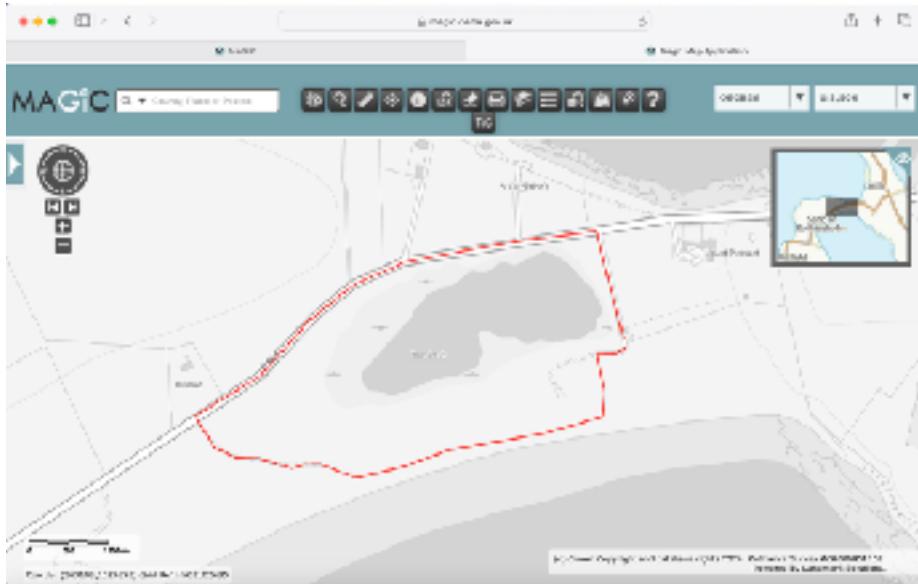
Basic habitat types along the route : Section 1 Links/dune Section 2 Road verge (bordering grassland)

Habitat description

The first section runs through links grassland on and behind the Rothiesholm sands dunes. The grassland is species rich with many flowering plants at the time of the survey; notably Ragwort, Spear thistle, Bird's foot trefoil, Red and White clover, Meadow vetching and Tufted vetch. There are fewer plants in flower as you approach the road (B9061). The second section of this transect runs along the road (B9061) and then the track that returns to the Rothiesholm car park start point. The verge on the road and track is generally species rich with notable amounts of Knapweed with occasional clovers and vetchlings

Distance of survey in km: 1.435

Route map



Section 1 - track through dunes and links grassland



Section 2 - Road verge B9061



Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unkno wn	Comment e.g habitat, flower
1	Bombus lucorum agg.	HY63702474		1			Spear thistle
2	Bombus pascuorum	HY63702474		1			Spear thistle
3	Bombus jonellus	HY63702474		1			Spear thistle
4	Bombus lucorum agg.	HY63702474	1				Spear thistle
5	Bombus pascuorum	HY63692473				1	Flying
6	Bombus pascuorum	HY63662472		1			Spear thistle
7	Bombus pascuorum	HY63662472	1				Spear thistle
8	Bombus pascuorum	HY63592470		1			Birds foot trefoil
9	Bombus pascuorum	HY63552471		1			Ragwort
10	Bombus lucorum agg.	HY63482469		1			Birds foot trefoil
11	Bombus pascuorum	HY63432466	1				Birds foot trefoil
12	Bombus lucorum agg.	HY63352464		2			Birds foot trefoil
13	Bombus pascuorum	HY63232464		1			White clover
14	Bombus muscorum	HY63192466		2			Red clover
15	Bombus pascuorum	HY63192473		1			Knapweed
16	Bombus muscorum	HY63192473		1			Knapweed

17	Bombus pascuorum	HY63192473		1			Flying
18	Bombus muscorum	HY63382489		1			White clover
19	Bombus muscorum	HY63492491		4			Knapweed
20	Bombus pascuorum	HY63542492		4			Knapweed
21	Bombus pascuorum	HY63562493		1			Knapweed
22	Bombus muscorum	HY63562493		1			Knapweed
23	Bombus muscorum	HY63582492		2			Knapweed
24	Bombus pascuorum	HY63582492		2			Knapweed
25	Bombus lucorum agg.	HY63632493		2			Meadowsweet
26	Bombus pascuorum	HY63662493		1			Meadow vetchling
27	Bombus lucorum agg.	HY63672493		1			Knapweed
28	Bombus jonellus	HY63672493		2			Tufted vetch
29	Bombus muscorum	HY63672493	1				Tufted vetch
30	Bombus pascuorum	HY63672493	1				Tufted vetch
31	Bombus muscorum	HY63672492		2			Knapweed
32	Bombus pascuorum	HY63682491		1			Knapweed
33	Bombus muscorum	HY6369248		1			Knapweed
34	Bombus lucorum agg.	HY63692487		1			Flying

35	Bombus muscorum	HY63692483		3			Knapweed
36	Bombus pascuorum	HY63692483		2			Knapweed

Photographs, relating to sightings (if you have taken any)

Record number	Photograph
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Site information

Site name: Rothiesholm moors - 14/8/2024

Start Time: 11.45

Finish Time: 13.30

Temperature °C : 16

Weather: Sunny

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 3

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route : Section 1 road verge (bordering moorland) Section 2 Moorland

Habitat description

This transect starts on a rough track with rough grassland/moorland either side. The verge vegetation has a moorland character with Heather, Bell Heather and Tormentil in flower. Other plants add to the diversity including Devils bit scabious, red clover and knapweed. The second section of track runs through open moorland - heather and crowberry dominated. The verge holds additional diversity with plants such as eyebright, clovers, and spear thistle. The second section of the transect was surveyed first - hence the reversed numbering.

Section 2 - Track across the moorland




Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus lucorum agg	HY62152274		1			Heather
2	Bombus jonellus	HY62142273		1			Heather
3	Bombus jonellus	HY62142269		1			Heather
4	Bombus jonellus	HY62122247		1			Heather
5	Bombus jonellus	HY62092233			1		Eyebright
6	Bombus pascuorum	HY62072221	1				Heather

7	Bombus pascuorum	HY62062216	1				Flying
8	Bombus jonellus	HY62062209		1			Eyebright
9	Bombus muscorum	HY62052206		1			Eyebright
10	Bombus muscorum	HY62052205		1			Eyebright
11	Bombus lucorum agg	HY62042194		1			Eyebright
12	Bombus muscorum	HY62032192		1			Eyebright
13	Bombus muscorum	HY62082188		1			Eyebright
14	Bombus muscorum	HY62122188	2				Spear thistle
15	Bombus muscorum	HY62212325		1			Scabious
16	Bombus pascuorum	HY62222321		1			Heather
17	Bombus jonellus	HY62192313			1		Scabious
18	Bombus jonellus	HY62192306			1		Scabious
19	Bombus jonellus	HY62192306			1		Red clover
20	Bombus jonellus	HY62182294			1		Heather
21	Bombus pascuorum	HY62162288	1				Flying

Photographs, relating to sightings

Record number	Photograph
1	 A close-up photograph of a bumblebee in flight, positioned on the left side of the frame. The bee has a black body with prominent yellow bands and a white patch on its abdomen. Its wings are blurred due to motion. It is flying towards a cluster of small, bell-shaped flowers on the right, which are in various stages of bloom, showing shades of purple, pink, and orange. The background is a soft-focus green, suggesting a natural, outdoor setting.

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Site information

Site name: Millgrip - 14/8/2024

Start Time: 14.30

Finish Time: 15.30

Temperature °C : 17

Weather: Sunny

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 3

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route: Road verge (bordering grassland)

Habitat description

This short transect runs along the end of the B9061 on the Rothiesholm headland. The road is bordered by small grass fields and paddocks. The verge is fairly species rich with abundant red clover, meadow vetchling and tufted vetch.

Distance of survey in km: 0.667

Route map



B9061 road verge



Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus hortorum	HY61342293		1			Red clover
2	Bombus muscorum	HY61362304		1			Tufted vetch
3	Bombus pascuorum	HY61382314		1			Tufted vetch
4	Bombus pascuorum	HY61372320		1			Tufted vetch
5	Bombus pascuorum	HY61402336		1			Tufted vetch
6	Bombus pascuorum	HY61412342		1			Tufted vetch
7	Bombus hortorum	HY61422345		1			Red clover
8	Bombus muscorum	HY61432347		1			Meadow vetchling
9	Bombus hortorum	HY61432348		1			Red clover

Photographs, relating to sightings

Record number	Photograph
1	 A close-up photograph of a bumblebee with yellow and black stripes, perched on a pink flower. The bee is facing right, and its wings are partially visible. The flower is a cluster of small, bright pink blossoms. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.

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Site information

Site name: Airy Road - 20/8/2024

Start Time: 11.15

Finish Time: 13.00

Temperature °C : 16

Weather: Sunny/Cloudy

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 4

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route: Road verge (bordering grassland)

Habitat description

This transect runs along the minor road from the B9060 to the farm at Airy. Most of the bordering fields are grassland - with one barley field. The verge is quite wide - generally 2 meters on either side with a ditch and a bank. The verge is species rich - less so in the middle section - with abundant red and white clover and meadow vetchling. Other flowering plants at the time of survey included dandelion, knapweed, devil's-bit scabious and spear and common thistles. Towards Airy farm there are some garden escapes - including crocosmia - frequented by bees.

Distance of survey in km: 1.311

Meadow vetchling and clover dominated verge (unmown)



Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus jonellus	HY66742514		2			Red clover
2	Bombus pascuorum	HY66762516	1				Flying
3	Bombus jonellus	HY66792519		1			Flying
4	Bombus hortorum	HY66812522		1			Red clover
5	Bombus jonellus	HY66842522		1			Red clover

6	Bombus jonellus	HY66852526		3			Red clover
7	Bombus jonellus	HY66902530		1			Common thistle
8	Bombus pascuorum	HY66932532		1			Red clover
9	Bombus jonellus	HY66952538		2			Red clover
10	Bombus lucorum agg.	HY67002540		1			Grass
11	Bombus jonellus	HY67012543		2			Dandelion
12	Bombus jonellus	HY67032545		1			Dandelion
13	Bombus pascuorum	HY67172561		1			Red clover
14	Bombus lucorum agg.	HY67042547		1			Meadow vetchling
15	Bombus lucorum agg.	HY67062549		1			Meadow vetchling
16	Bombus pascuorum	HY67082551		1			Meadow vetchling
17	Bombus jonellus	HY67162559		1			Red clover
18	Bombus muscorum	HY67162560		1			Red clover
19	Bombus pascuorum	HY67162561		1			Red clover
20	Bombus muscorum	HY67172558		1			Red clover
21	Bombus pascuorum	HY67252565		1			Red clover
22	Bombus muscorum	HY67282569		1			Red clover

23	Bombus jonellus	HY67322571			1		Red clover
24	Bombus pascuorum	HY67352573		2			Knapweed
25	Bombus muscorum	HY67382574		1			Knapweed
26	Bombus pascuorum	HY67422576		1			Red clover
27	Bombus muscorum	HY67442577		1			Meadow vetchling
28	Bombus muscorum	HY67472575		1			Red clover
29	Bombus pascuorum	HY67482574		1			Red clover
30	Bombus jonellus	HY67502568		1			Dandelion
31	Bombus pascuorum	HY67562560		1			White clover
32	Bombus pascuorum	HY67602558		2			Flying
33	Bombus muscorum	HY67602557		2			Crocoshmia
34	Bombus lucorum agg.	HY67602557		1			Crocoshmia
35	Bombus jonellus	HY67622556		3			Crocoshmia
36	Bombus pascuorum	HY67622556		2			Crocoshmia
37	Bombus jonellus	HY67482571		1			Creeping thistle

Photographs, relating to sightings

Record number	Photograph
1	 A close-up photograph of a bumblebee with black and yellow stripes, perched on a cluster of small pink flowers. The bee is facing right, and its wings are partially spread. The background is a soft-focus green.
4	 A close-up photograph of a bumblebee with black and yellow stripes, perched on a cluster of small pink flowers. The bee is facing left, and its wings are partially spread. The background is a soft-focus green.

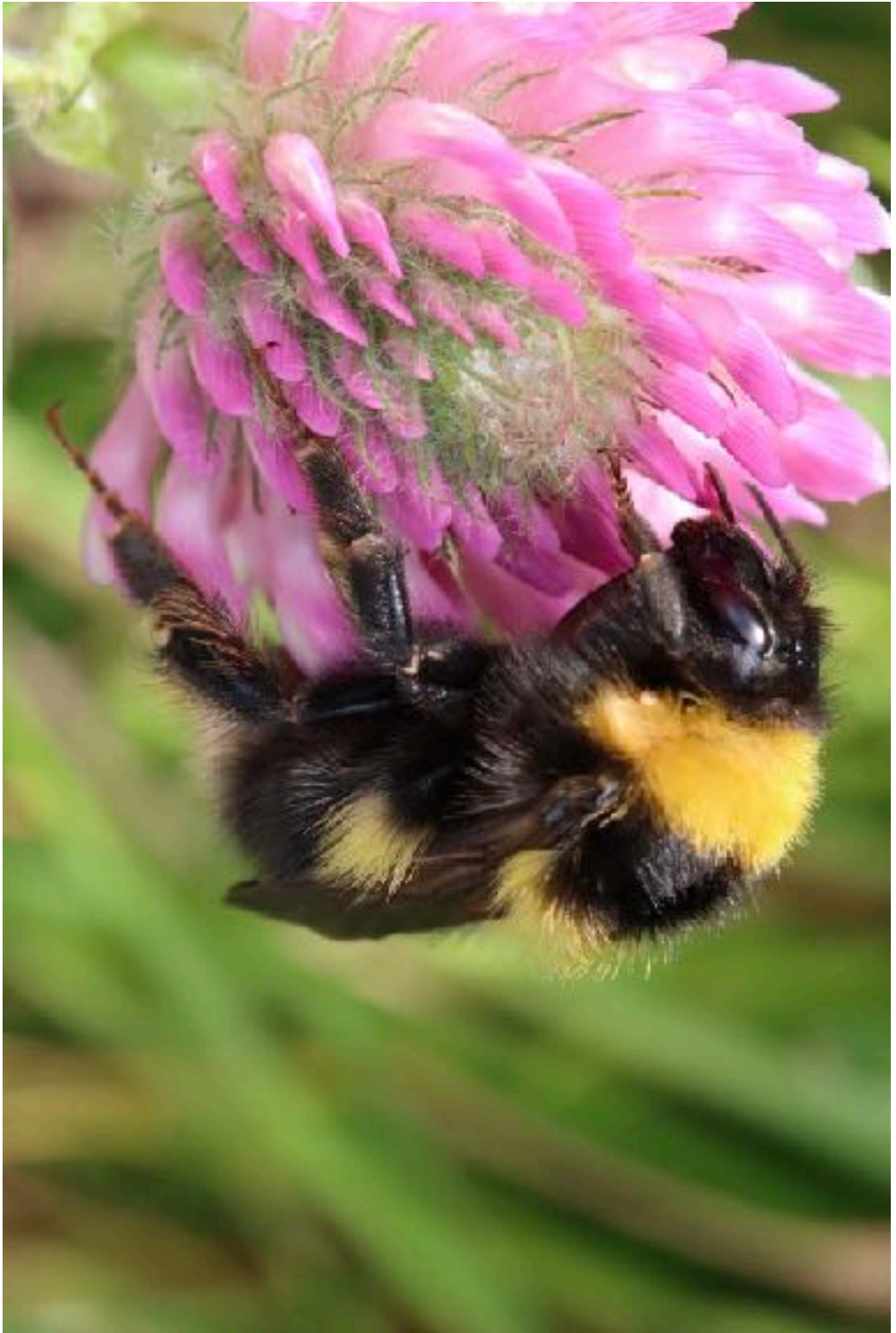
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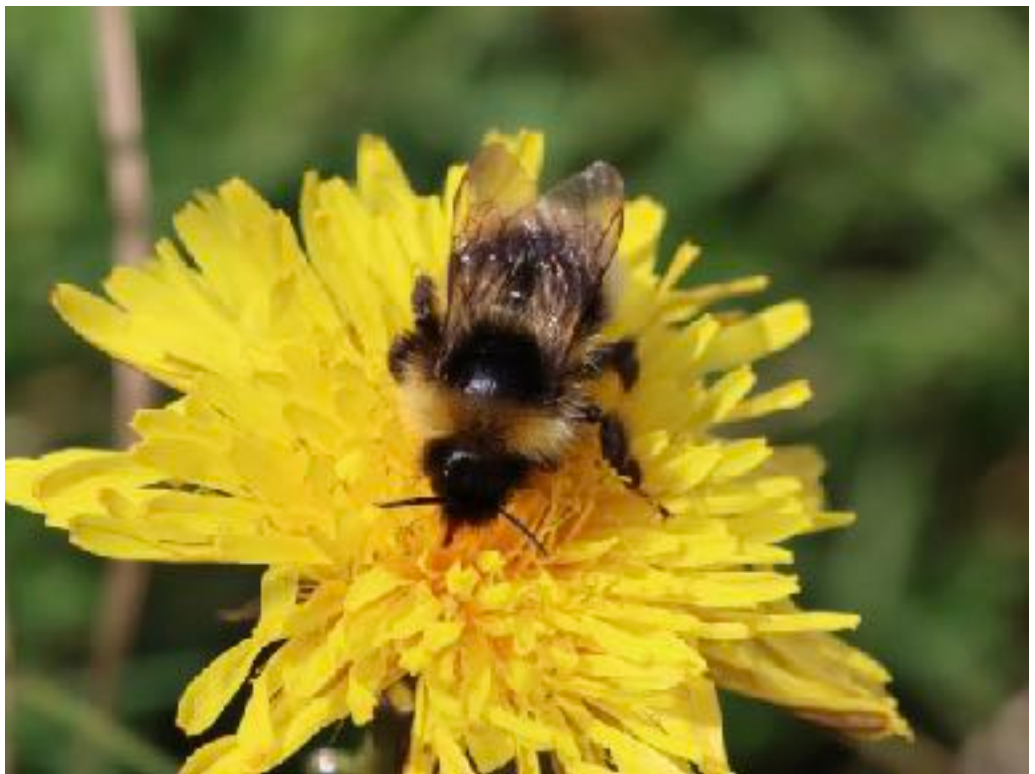
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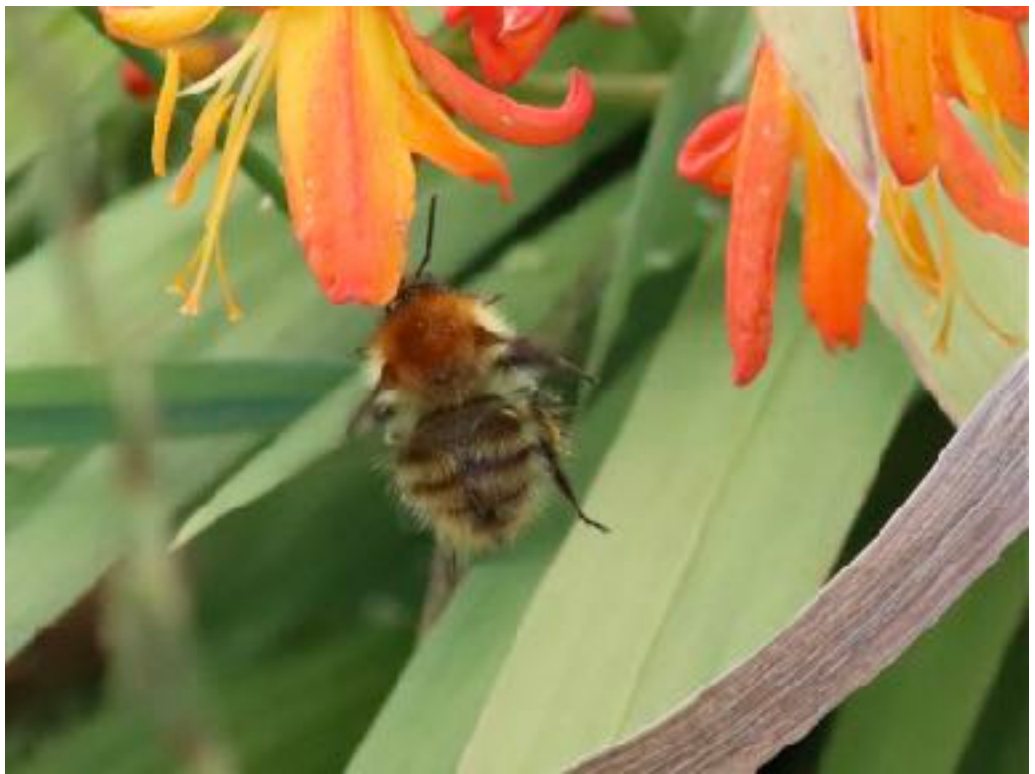
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Site information

Site name: Bu Loch - 26/8/2024

Start Time: 11.30

Finish Time: 13.10

Temperature °C : 15

Weather: Sunny/Cloudy

Sunny	Sunny/Cloudy	Cloudy
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Bumblebee Conservation Trust

Av. wind speed (0-6): 3

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
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3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route: The first section of this transect runs through a small area of wet heath (moorland) besides the Bu Loch. The main section is a rough grassland (unglazed) track.

Habitat description

The first section leaves the B9061 and crosses a short section of wet heathland besides the Bu Loch. This area is ungrazed and the vegetation long (mostly over 40 cm). There is scattered heather and crowberry in the heathland - with the main flowering plants at the time of survey being Devil's-bit scabious and Tormentil. After the Bu Loch this transect follows a rough grassland track out to the coast and back to the Bu Loch. The track is bordered by mainly ungrazed grassland - with one field cut for silage. The track is bordered by a ditch and the whole area is quite wet - with wetland plants such as Amphibious bistort in places. Red and white clover are abundant along the track and are the main plants being used by bees. For a short section along the coast the grassland has a links character - with Lady's bedstraw, Bird's-foot trefoil and Sea Mayweed alongside the clovers.

Distance of survey in km: 1.314

Route map



First section through wet heath



Second section on tracks across rough grassland



Bumblebee Records

(For grid references see [Grid Reference Finder](#))

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus pascuorum	HY62322388		1			Flying
2	Bombus muscorum	HY62312389		1			Scabious
3	Bombus bohemicus	HY62302391	1f				Scabious
4	Bombus muscorum	HY62292393		1			Scabious
5	Bombus pascuorum	HY62272396		1			Scabious
6	Bombus jonellus	HY62262397			1		Tormentil
7	Bombus pascuorum	HY62252400		1			Scabious
8	Bombus muscorum	HY62242402		1			Scabious
9	Bombus lucorum agg.	HY62212409		3			Flying
10	Bombus muscorum	HY62202411		1			White clover
11	Bombus lucorum agg.	HY62192413		1			Bird's-foot trefoil
12	Bombus jonellus	HY62072424		1			White clover

13	Bombus jonellus	HY62002420		2			Flying
14	Bombus lucorum agg.	HY61922415		1			Red clover
15	Bombus jonellus	HY61912414		1			Red clover
16	Bombus jonellus	HY61892413		1			Red clover
17	Bombus pascuorum	HY61862411		1			Red clover
18	Bombus jonellus	HY61822409		1			Red clover
19	Bombus hortorum	HY61772406		1			Red clover
20	Bombus jonellus	HY61742408		1			Dandelion
21	Bombus pascuorum	HY61752411		2			Red clover
22	Bombus jonellus	HY61752414		2			Red clover
23	Bombus jonellus	HY61742417		3			Red clover
24	Bombus muscorum	HY61742418		1			Red clover
25	Bombus jonellus	HY61752420		1			Red clover
26	Bombus hortorum	HY61752420		1			Red clover
27	Bombus lucorum agg.	HY61902421		1			Flying

Photographs, relating to sightings

Record number	Photograph
2	 A close-up photograph of a bumblebee with a fuzzy yellow and black body, perched on a cluster of small purple flowers. The bee is facing right, and its wings are partially visible. The background is a soft-focus mix of green and brown, suggesting a natural outdoor setting.

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Site information

Site name: Kirbuster - 28/8/2024

Start Time: 12.50

Finish Time:14.40

Temperature °C : 17

Weather: Sunny

Sunny	Sunny/Cloudy	Cloudy
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Av. wind speed (0-6): 3

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route: The first section follows the path down to the coast from the vat of Kirbuster car pull in - road verge (bordering grassland), the second section runs along the coast path until the first wall crossing - rough grassland (ungrazed), after the wall the final section goes across maritime heath.

Habitat description

The first section follows the path down to the coast path - the verge is only about 1 meter wide either side (bordered by grazed grass fields on either side). Flowering plants are mainly thistles (prickly sow, creeping and spear) with occasional tormentil and bird's-foot trefoil. Along the coast the path crosses rough grassland (ungrazed) that is quite heathy (with creeping willow and crowberry) in character in places - and exposed. The dominant flowering plant at the time of survey was Devil's-bit scabious - with occasional tormentil, cat's ear, red clover, bird's-foot trefoil and wild Angelica. After a wall crossing the transect continues over true maritime heath (ungrazed) with heathers and crowberry crossed by numerous flushes and with abundant scabious in flower at the time of survey. This section like the preceding one is subject to exposure to wind and salt spray.

Distance of survey in km: 1.614

Route map



First section along path down to the coast



Second section through heathy rough grassland



Final section across maritime heath




Bumblebee Records

(For grid references see [Grid Reference Finder](#))

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus lucorum agg.	HY68232407		1			Flying
2	Bombus lucorum agg.	HY68262430		1			Flying
3	Bombus jonellus	HY68332431		1			Spear thistle
4	Bombus muscorum	HY68522438		1			Spear thistle
5	Bombus jonellus	HY68562438		1			Spear thistle
6	Bombus jonellus	HY68652426		1			Scabious
7	Bombus jonellus	HY68642408		1			Flying
8	Bombus muscorum	HY68582380		1			Scabious
9	Bombus muscorum	HY68582377		1			Scabious
10	Bombus jonellus	HY68602371		1			Scabious
11	Bombus jonellus	HY68612370		1			Scabious
12	Bombus muscorum	HY68612371		1			Scabious
13	Bombus pascuorum	HY68622368		1			Scabious

14	Bombus pascuorum	HY68652364		2			Scabious
15	Bombus muscorum	HY68652361		1			Scabious
16	Bombus pascuorum	HY68662360		1			Scabious
17	Bombus pascuorum	HY68672359		2			Scabious
18	Bombus jonellus	HY68682356		1			Scabious
19	Bombus muscorum	HY68682354		1			Scabious
20	Bombus jonellus	HY68702354		1			Scabious
21	Bombus jonellus	HY68712352		2			Scabious
22	Bombus jonellus	HY68732351		3			Scabious
23	Bombus pascuorum	HY68732350		1			Scabious
24	Bombus lucorum agg.	HY68752349		1			Scabious
25	Bombus muscorum	HY68752347		1			Scabious
26	Bombus muscorum	HY68802344		1			Scabious
27	Bombus pascuorum	HY68812342	2				Heather
28	Bombus jonellus	HY68842339		1			Scabious
29	Bombus muscorum	HY68862337		2			Scabious

Photographs, relating to sightings

Record number	Photograph
3	 A close-up photograph of a bumblebee with a black and yellow thorax and a black abdomen, perched on a vibrant purple thistle flower. The bee is facing left, and its head is partially obscured by the flower's petals. The background is a soft, out-of-focus green.
4	 A close-up photograph of a bumblebee with a black and yellow thorax and a black abdomen, perched on a vibrant purple thistle flower. The bee is facing right, and its head is partially obscured by the flower's petals. The background is a soft, out-of-focus green.

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Site information

Site name: Holland farm - 30/8/2024

Start Time: 14.10

Finish Time: 16.15

Temperature °C : 15

Weather: Sunny/Cloudy

Sunny	Sunny/Cloudy	Cloudy
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Av. wind speed (0-6): 4

0 smoke rises vertically	1 slight smoke drift	2 wind felt on face
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3 leaves in slight motion	4 dust raised & small branches move	5 small trees in leaf sway
6 large branches move & trees sway		

Bumblebee Conservation Trust

Basic habitat types along the route:The first section runs through Farmland (grazing) and then the transect follows a track around Farmland (arable crop). The third section runs through Farmland that has been sown with a ‘wildflower’ mix - effectively a Species rich meadow. The route finishes by returning to the field crossed in the first section.

Habitat description

The first section of the route crosses species poor (improved) grassland used for grazing sheep and cattle. At the time of survey white clover and creeping thistle provided some nectar sources. The route then follows a track around an arable field (Barley). Red and white clover with occasional Bird’s-foot trefoil were in flower - with occasional arable weeds such as Red bartsia. The route then crosses a field (towards the bird hide at Lea Shun) which has been sown with a ‘wildflower’ seed mix - and left ungrazed and uncut. This has left the field as a major source of nectar - particularly with the start of the end of summer decline in native wildflowers in flower - reflected in the very large number of bumblebees observed in the survey. The commonest sown flowers at the time of survey were Borage, Phacelia (purple tansy), mustard/charnock and Crimson Cover. The route then returned across the improved grass field to rejoin the out route.

Distance of survey in km: 1.981

Route map



Section one - farmland, improved grassland



Section two - track around Barley field



Section three - sown 'wildflower' field



Bumblebee Records

Record number	Species	GR (10 figure if possible)	Queen	Worker	Male	Unknown	Comment e.g habitat, flower
1	Bombus pascuorum	HY65902215		1			Creeping thistle
2	Bombus pascuorum	HY65482213		1			White clover
3	Bombus lucorum agg.	HY65472211		1			White clover
4	Bombus hortorum	HY65462208		1			Red clover

5	Bombus hortorum	HY65462206		1			Red clover
6	Bombus lucorum agg.	HY65522174		1			White clover
7	Bombus lucorum agg.	HY65542166		1			Flying
8	Bombus lucorum agg.	HY65602164		2			Flying
9	Bombus pascuorum	HY65622164		1			Phacelia
10	Bombus muscorum	HY65622163		1			Phacelia
11	Bombus lucorum agg.	HY65642163		5			Phacelia and borage
12	Bombus pascuorum	HY65652163		2			Flying
13	Bombus muscorum	HY65662163		3			Crimson clover
14	Bombus pascuorum	HY65682163		3			Phacelia
15	Bombus muscorum	HY65682164		1			Crimson clover
16	Bombus lucorum agg.	HY65702163		6			Phacelia
17	Bombus muscorum	HY65732163		3			Phacelia
18	Bombus pascuorum	HY65742164		4			Phacelia
19	Bombus lucorum agg.	HY65762163		5			Borage

20	Bombus lucorum agg.	HY65792163		9			Phacelia and borage
21	Bombus pascuorum	HY65822163		3			Phacelia and borage
22	Bombus lucorum agg.	HY65832163		2			Charnock
23	Bombus muscorum	HY65842168		1			Crimson clover
24	Bombus lucorum agg.	HY65822171		2			Flying
25	Bombus pascuorum	HY65782173		2			Crimson clover
26	Bombus lucorum agg.	HY65742193		1			Creeping thistle
27	Bombus lucorum agg.	HY65732206		1			Creeping thistle

Photographs, relating to sightings

Record number	Photograph
1	 A close-up photograph of a bumblebee with a fuzzy yellow and black body, perched on a vibrant purple thistle flower. The bee is positioned on the right side of the flower head, facing left. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.
2	 A close-up photograph of a bumblebee with a fuzzy yellow and black body, perched on a white clover flower. The bee is positioned at the bottom of the flower head, facing upwards. The background is a soft, out-of-focus green, suggesting a natural outdoor setting.

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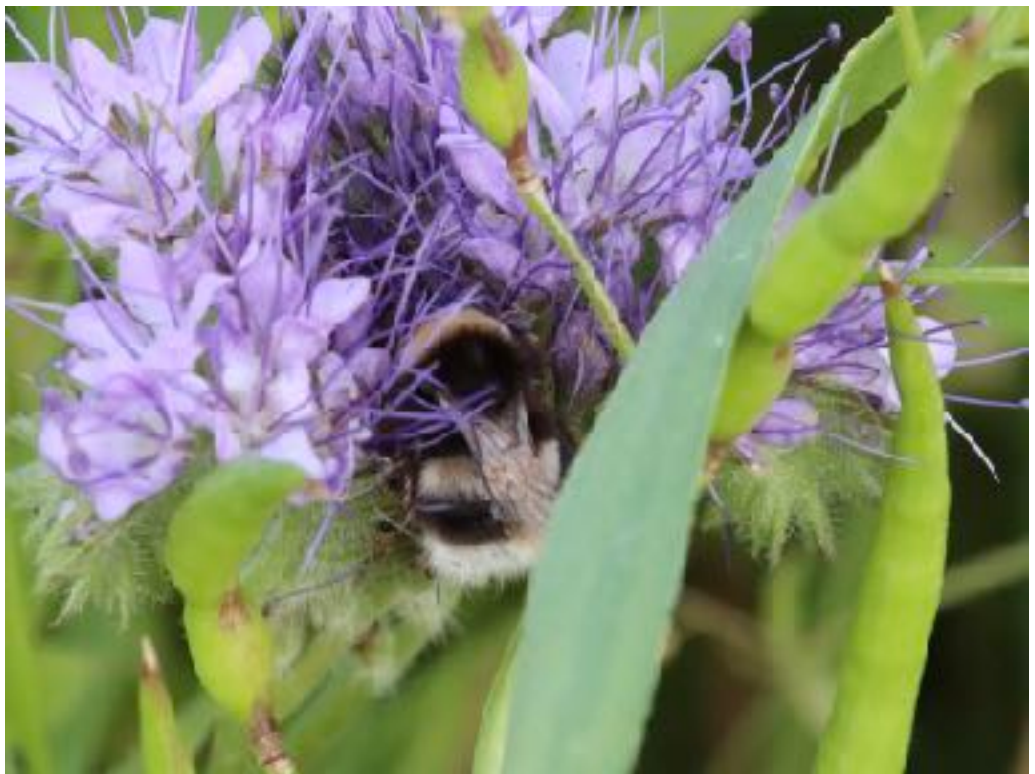
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Summary

The total length of transects surveyed was 10.7 kilometers, along which a total of 310 bumblebees were recorded. This equates to an overall count of around 29 (28.9) bumblebees per kilometer. One survey was carried out in late May, with the rest carried out throughout August. The weather was very mixed over this period. Although surveys were carried out in the better weather windows they often had to be carried out when it was cooler, windier and cloudier than was ideal. It is difficult to say whether 2024 will prove to be a poor year or not for insects generally because of the weather - fewer butterflies have been recorded this year so far compared to 2023 on Stronsay, but more moths.

All 8 regularly occurring bumblebees on Stronsay were recorded during the surveys, with one exception. *Bombus distinguendus* was only recorded once on Stronsay in 2024 (to date) - in the garden section of transect 1 (Lower Whitehall) on May 21st. There were 7 records across Stronsay in 2023.



By far the most frequently recorded bumblebees on this survey were *Bombus lucorum* agg. , *Bombus pascuorum*, *Bombus muscorum*, and *Bombus jonellus*. The other three species were much less frequently observed. Overall bumblebees were recorded in all habitats surveyed in good numbers. The highest frequencies were observed where planted flowers provided abundant nectar sources - the garden section in Lower Whitehall and the sown 'wildflower meadow' at Holland farm. In other habitats the most important nectar sources across all species appeared to be Dandelion (especially earlier in the season), Red clover, Knapweed, Spear thistle and Devil's-bit scabious. Heather is also clearly favoured by *Bombus jonellus*.

There were a number of id challenges in carrying out these surveys. The White-tailed bumblebee aggregate was only recorded at the aggregate level. Particularly later in the season faded specimens of carder bees were difficult to separate. The longer and scruffier body pile of *Bombus pascuorum* remained a useful distinguishing feature. Even with photographs the lack of black body hairs indicating *Bombus muscorum* was not always possible to confirm. The other main id challenge was distinguishing between workers of *Bombus hortorum* and larger *Bombus jonellus* individuals later in the season when the brighter yellow tones of *Bombus hortorum* had faded. However where good photographs were obtained the longer face of *Bombus hortorum* and presence of orange hairs around the pollen basket of *Bombus jonellus* were used as useful distinguishing features.