



Welcome to BeeWalk!

Furry, brightly-coloured and instantly recognisable, bumblebees are icons of the British summer, and they also contribute more than £400 million every year to the British economy through pollinating crops. But they're in trouble. Bumblebees are declining across the country (we've already lost two species), and to better understand the reasons why, we need data – lots of data – on where we can find the remaining bees, how many there are and what they're doing.

That's where BeeWalk comes in. Set up by the Bumblebee Conservation Trust after a successful trial in 2008, BeeWalk is a long-term national recording scheme to monitor the abundance of bumblebees on fixed routes (transects) across the country. These transects would be impossible without volunteers, who identify and count the bumblebees they see on about an hour's walk each month from March to October.

The information collected by BeeWalk volunteers is integral to monitoring how bumblebee populations change through time, and will allow us to detect early warning signs of population declines. All data collected will contribute to important long-term monitoring of bumblebee population changes in response to changes in land-use and climate change, and, ultimately, to informing how we manage the countryside.

Anyone can become a BeeWalker – all you need is a spare hour or so every month to walk a fixed route of about a mile (you choose where it goes), and send us your sightings. It's essential that your transect is a fixed route to allow direct comparisons of bumblebee population trends over time.

Step 1: Establish your fixed route of 1-2km.

Step 2: Fill out the site description form, and set it up as a transect on the BeeWalk website, <http://www.beewalk.org.uk>.

Step 3: Walk your fixed route monthly, recording the bumblebees you see.

Step 4: Enter your records on the website.

We'll help as much as possible with identification – we've got ID resources online and on paper, or you can photograph your mystery species and upload them to our BeeWatch site, or to the website forum where you'll also find a community of fellow bumblebee enthusiasts.

I hope you'll be able to join in – without the fundamental information provided by volunteers across the country, we're fighting blind in the struggle to reverse the plight of the bumblebee.

Best Wishes,

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The step-by-step guide to setting up a BeeWalk transect

1. Before you start, consider whether you are able to commit to doing a monthly BeeWalk between March and October. You will need an hour or so each month to walk a fixed route - a transect - of around one mile.
2. If you are new to bumblebees, prepare for your BeeWalk by brushing up on your identification skills: attend a bumblebee ID training event or a guided bee walk, or look at the ID resources listed on the BeeWalk website, www.beewalk.org.uk.
3. Find a suitable location for your transect. This should be somewhere you visit, or want to visit, regularly and which has a range of bee-friendly habitats. It should be divided into 4-10 sections with different habitat types - these can be anything from gardens and grass verges to coastal dunes and heathland.
4. You then need to register as a user on the BeeWalk website: www.beewalk.org.uk
5. Once registered, you should walk around your proposed transect and mark off what habitats are present, where they change (where the section breaks should fall), and what the land is being used for, on a green F1 'Site Description' form. It will also give you an idea of how long it's likely to take to walk your transect!
6. You can now set up your transect on the website. To do this, click on the 'My sites' tab, then click 'Add site' and enter the name of your transect. Use the map to zoom in to the site of your route, click to set a central grid reference, then fill in the general details of your transect & click save.
7. Once the general information is saved, draw the route of each transect section on the map. First, click the section number and single-click on the map where it starts. Then, join-the-dots style, click on the map where the section goes before double-clicking to save it.
8. After repeating this process for each section, click 'Section details' to enter the habitat and land use types for each part. You can use the G3 form provided for guidance.
9. It is now time to get outside and do a BeeWalk. Ideally, you should walk your transect between 11am-5pm, choosing approximately the same time of day every month. It is best if the weather is warm and sunny, with no more than a light breeze. Record sightings and environmental information on form F2.
10. On your return, you need to record your information on the website – even if you didn't see anything. Click on the 'My walks' tab to bring up a list of dates to the present day and a dropdown menu where you can select your transect. Click on the relevant date and you will be taken to a recording screen where you can enter weather conditions and the time your walk started and ended.
11. Click 'Next step' at the bottom right-hand corner. This will take you to the all-important data input page. In the species column, type in the name of the bees you saw. Then choose the section number from the drop-down menu and fill in the number of each caste – queen, worker or male - that you saw in that section.
12. There is a final page where you can note any changes to the transect - such as flooding - before finally clicking 'Save'. Congratulations, you have finished your first BeeWalk!

Things to think about

Picking a transect route

- **Most transect routes are about a mile (1-2km), and take about 45-60 minutes to walk.** Bear in mind that walks will take much longer in summer, with bees everywhere, than in winter with no distractions.
- **Identify a route that takes in flower-rich habitat.** Your route should be convenient and easily accessible, as the same route will be walked monthly from year to year to enable sightings to be compared.
- **Divide your transect into 4-10 sections.** These should ideally be at natural breaks in habitat or landscape type (see the habitat and land-use classification form, G3), but can also be at waypoints to split what would otherwise be excessively long sections. List and describe the sections in the table provided on Site Description form F1 (see Site Description form G1 for an example).
- **Identify the dominant type of land use in each of your transect sections** (see the habitat and land-use classification form, G3). Note land-use types in the table provided on Site Description form F1 (see Site Description form G1 for an example).
- **The grid reference and section lengths will be filled in automatically** when drawing your transect on the map on the website.

Recording bumblebees

- **Bumblebees should be recorded on form F2.** A separate form should be used for each month. Honeybees should also be noted if possible.
- **Fill in the environmental and whole-transect details first.** Before you begin walking fill in your name, site, date, weather conditions and start time in the spaces provided on the form.
- **Walk your transect route at a steady pace.** Do not linger in hotspots to improve your count, as this will bias results.
- **Record all the bumblebees you see within your 'recording box'.** This extends 2m either side of you and 4m ahead. Do not look behind, and do not count bees seen outside this box.
- **Where possible record the caste (queen, worker, male) of each individual** as well as species, and make a note of any interesting behaviour.
- **Nets and pots can be used** to capture bumblebees for closer examination when necessary. For details on suppliers see the BeeWalk website.
- **Ensure that all recording is completed at the end of each walk.** Double-check for errors and omissions, as it will be impossible to accurately fill in any blanks later.
- **Where estimates have to be made** (e.g. when numbers are too large to count accurately) make sure an actual figure is recorded (e.g. 46 rather than 40+).
- **If something unusual is recorded, add a note at the bottom of the recording sheet to confirm that what you have recorded is correct.** If it's an unusual species, it should ideally be photographed for confirmation. Otherwise anomalous-looking data will be omitted, or you'll be asked to confirm later.
- **Don't forget to fill in the finish time at the end of your walk.**

Verification of records

There are around seven common and widespread species of bumblebee in Britain, but many of the rest are scarce or rare (see <http://bumblebeeconservation.org/about-bees/identification/scarce/> and <http://bumblebeeconservation.org/about-bees/identification/very-rare/> for details). Some, like the Great Yellow bumblebee (*Bombus distinguendus*) are distinctive when seen, but others, such as the Moss Carder (*Bombus muscorum*) are very similar to common species and can be difficult to tell apart in the field.

If you're lucky enough to see a rare bumblebee, please do try and photograph it – range changes for rare species are significant and it is important to verify sightings, so please don't be offended if the sighting is checked. Bees can be tricky to identify from photos, but it at least helps rule species in or out! We've written a guide on which bits of the bee you need to photograph to maximise the chances of an ID – it's at the end of this document.

Identification training

Don't let inexperience deter you from taking part in BeeWalk. Even if you can only confidently identify a few species and mark the remainder as unknown, you are making a valuable contribution to bumblebee conservation – and you'll be amazed how quickly you can pick up ID skills once you start looking!

To help the learning process as much as possible, we have a forum on our website (<http://bumblebeeconservation.org/forum>) with a separate BeeWalk section. This is where you can talk to fellow BeeWalkers, post questions (including 'what's this bee?'), and share experiences. The registration process is very simple, and if you've bought a Trust membership through our website, the login you created for this also works for the forum.

We've put a section on our website dedicated to tips for bumblebee identification (<http://bumblebeeconservation.org/about-bees/identification/top-tips-for-bee-id/>) and the resources section of the BeeWalk website lists several other useful books and sites. There's only a handful of species that you're likely to see on a regular basis and you'll quickly learn these and spot anything that looks a bit different – check these out in a bit more detail! If you want to double-check, post the photo to iSpot (<http://www.ispotnature.org>) and experts will (hopefully!) get back to you with the identification.

The Bumblebee Conservation Trust also run ID training workshops at locations across the country - details can be found on the Events page of the website (<http://bumblebeeconservation.org/get-involved/events-calendar/>). This will be regularly updated as new workshops are organised and they're open to anyone, so register your interest as quickly as possible.

Health and Safety

- Let at least one other person know when and where you are going out and when you will return (let them know when you have returned).
- Wear appropriate footwear and clothing for the terrain and weather conditions.
- Take a mobile phone with you, and water and sunblock as necessary.

If you are still unsure of anything, please don't hesitate to contact me. Happy BeeWalking!!

Using the BeeWalk website

Setting up your BeeWalk account

First of all, go to the website: <http://www.beewalk.org.uk>. Once you've registered with the scheme via the 'register here' link, you'll need to set up a website account. Click on the link to 'create new account' on the right-hand side.

Username or e-mail *

Password *

[Create new account](#)

[Request new password](#)

[Log in](#)

Fill in the boxes (mandatory fields are marked with a little red asterisk). There's a tickbox for BeeWalk Pro - that lets you help us understand the bee's habitat requirements by recording the flowers they're visiting on your transect walks. Make sure you've entered your real email address – anything that comes from the website (verification questions, etc) will go to that address.

Then click the big blue 'create new account' button at the bottom of the page. You'll get an email within a couple of minutes – click on the log-in link and it'll take you to a page where you can set a password. Click 'save', and you're all done!

Setting up a transect

To record your BeeWalk data, you first need to set up your transect on the website. We recommend you walk round your transect first and fill out form F1, to get an idea of which routes are passable, where the section breaks should fall, what kind of habitat is there (see form G3), and roughly how long it's going to take. You'll only need to do this once, then it'll be stored on the website and you can just pick it from the list when you want to enter data.

To start, click on the 'My sites' tab:

BeeWalk Survey Scheme



[Home](#) [My sites](#) [My walks](#) [Annual summary](#) [Explore records](#) [Visits summary](#) [Events](#) [Forum](#) [Resources](#) [FAQ](#) [My account](#) [Log out](#)

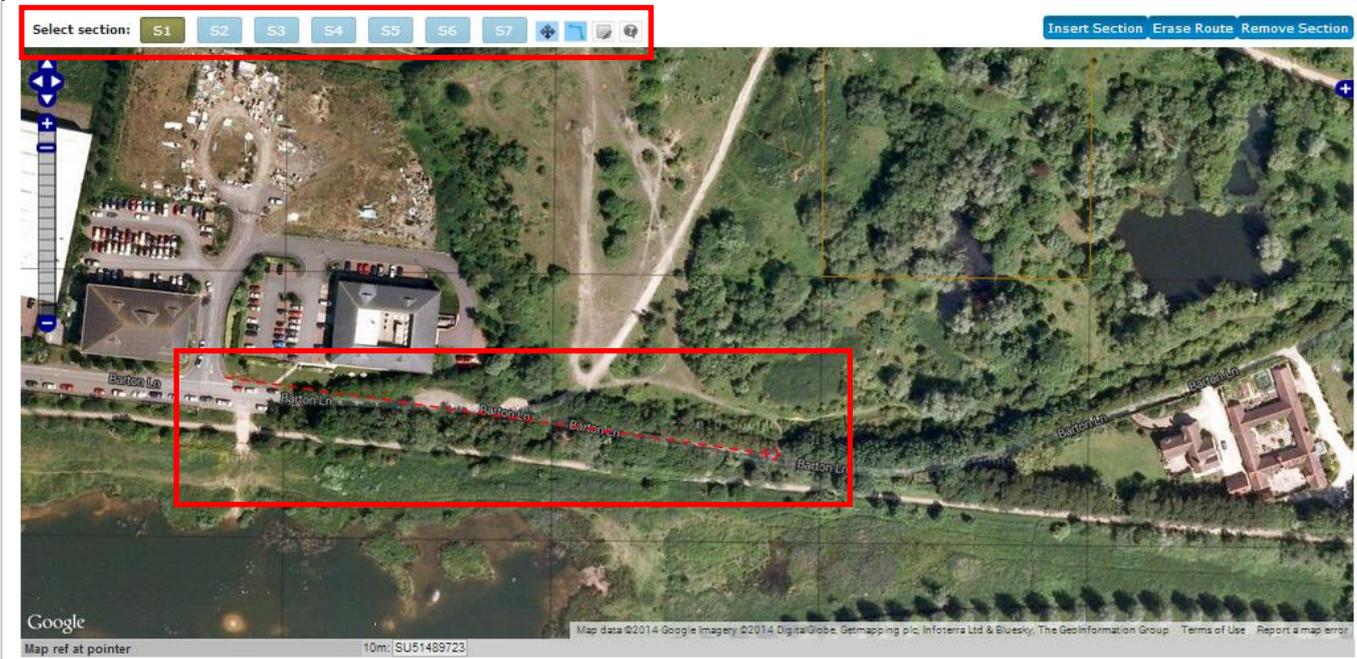
My sites

That'll take you to a page listing transects, and the number of records and species recorded on each of them. To start setting up a new transect, click on 'add site' at the bottom-left.

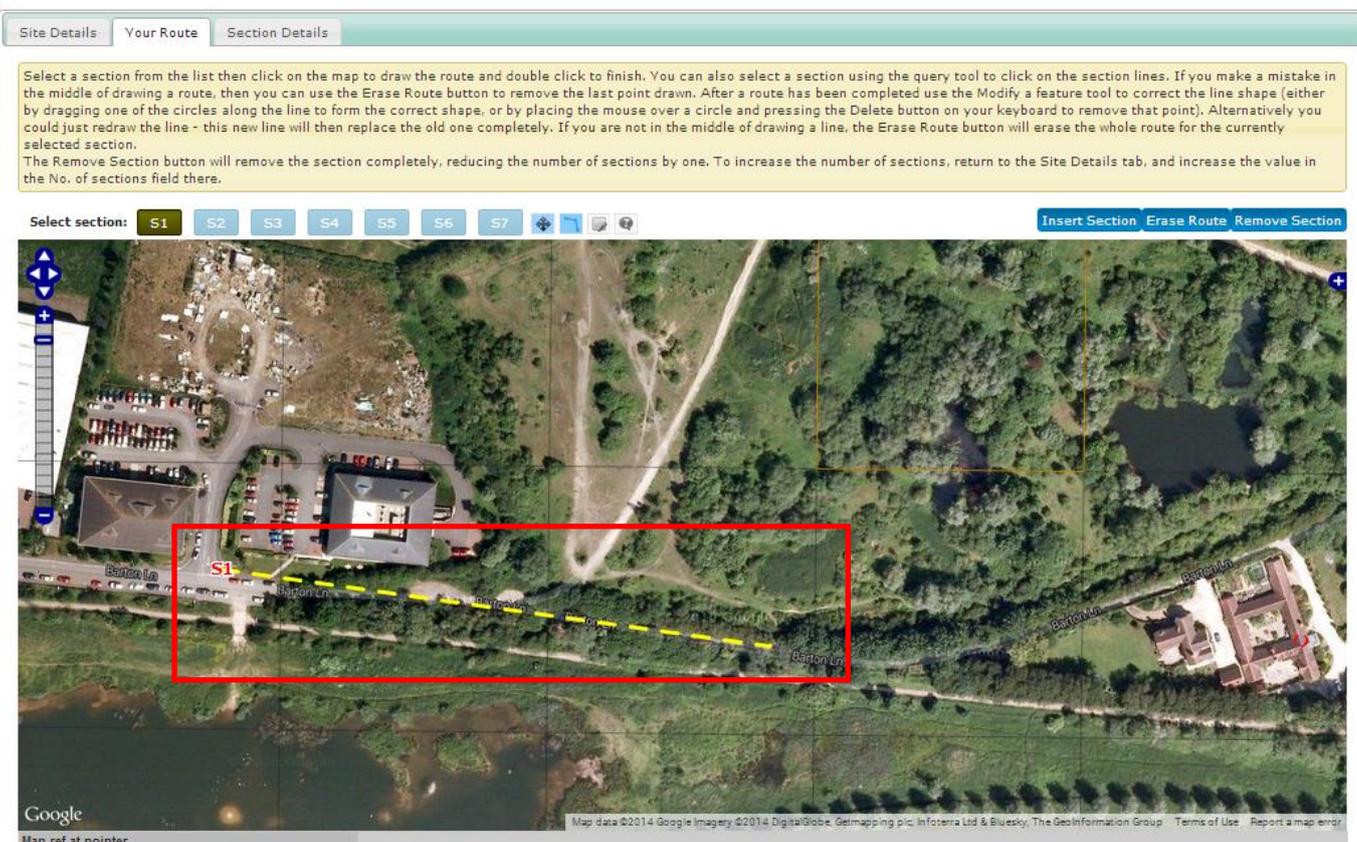
Enter the name of your transect in the relevant box, then use the map to zoom in to your site (the 'search for place' box should help you find the general area).

Click roughly in the middle of your transect to set the grid reference and fill in as many of the site details as you can. Click 'save' in the bottom-right corner.

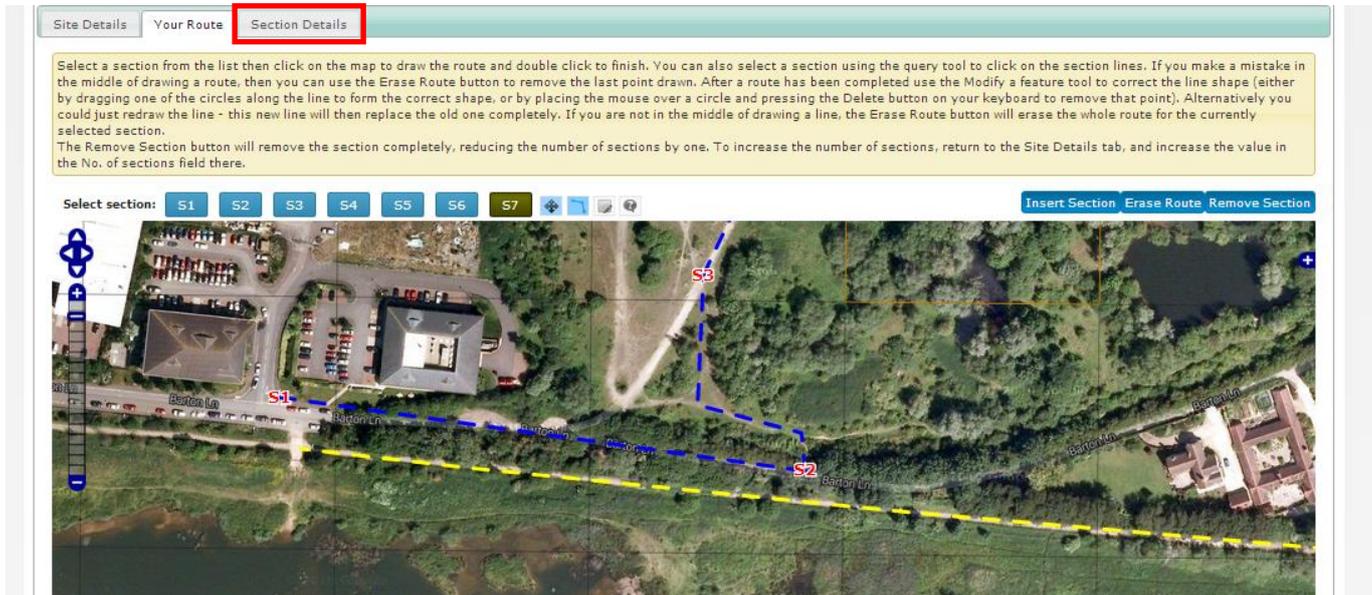
That will take you to a page where you can set the details of each section of your transect. Click on a section number to select it – the one you’re working on will appear green, the rest a faded blue. Single-click on the map at the start of a section, and you’ll get a red dotted line between that point and the cursor:



Single-click again to ‘stick’ the line to the map (eg where you turn a corner), and then double-click at the end of the section to store it. The line will turn yellow and be labelled with the section number:



Repeat the process for each section (non-selected sections will show up as blue dashed lines) – click the section number, draw the route, double-click to finish (you can move the map by holding the left mouse button and dragging), until your whole route is drawn out. Once it's all mapped, click 'section details':



That'll take you to a page where you can fill in details about each section. The grid reference and length for each section will have been filled out automatically from the map – you just need to add in the habitat and land use types for each section (see form G3). Again, you'll need to do this for each section in turn by clicking on the number at the top. If you need to adjust any of the section maps, click the 'your route' tab, NOT the back button! Click 'save' in the bottom-right corner, and you're all done!

Section Details

Select section: S1 S2 S3 S4 S5 S6 S7

Section Grid Ref.: SU512972 OSGB

Section

Details

Section Length (m): 207

Habitat and land use

Habitat

Principal habitat present: 22. Dry scrub/shrub thickets

2nd habitat present: 40. Bare ground/weed communities of post-industrial sites e.g. quarries/pits/road/rail/landfill

3rd habitat present: 39. Ornamental shrubs/trees/lawns of churches/parks/domestic gardens etc

4th habitat present:

Habitat text description: Road verge with grassy margin against ornamental plantings, leading into a path between scrub thickets (blackthorn/hawthorn) with wide bare-mud verges/laybys and sparse vegetation

Land use

Primary land use: L12 - Transport tracks and ways

Secondary land use:

Land use notes:

Save

Recording your transect walk

It's vital that you do this whenever you walk your transect, even when you didn't see anything! If you don't submit the record, we can't tell the difference between 'walked the transect and didn't see anything' and 'didn't walk the transect', which means we can't tell if there were bees there that weren't seen, or whether no bees were present – that's a big difference when we come to use the data.

To begin recording, first click on the 'My walks' tab and you'll get a screen of dates. Every date up to the current date (you can't record what you saw in the future) will have a green-and-white plus-sign next to it. Make sure you're in the right year! Select your site from the drop-down menu, then click on the plus-sign next to the relevant date.

Home My sites **My walks** All sites Forum Annual summary Explore records Visits summary My account Log out

My walks

View Edit

Filter by site :

- All sites
- All sites
- Test Two (SU505943)
- Radley Lakes (SU515973)

Week Number			Tue	Wed	Thu	Fri	Sat	Sun
-3	Mar	4	5	6	7	8	9	10
-2	Mar	11	12	13	14	15	16	17
-1	Mar	18	19	20	21	22	23	24
0	Mar	25	26	27	28	29	30	31
1	Apr	1	2	3	4	5	6	7
2	Apr	8	9	10	11	12	13	14
3	Apr	15	16	17	18	19	20	21
4	Apr	22	23	24	25	26	27	28
5	Apr	29	30	1	2	3	4	5
6	May	6	7	8	9	10	11	12
7	May	13	14	15	16	17	18	19

That will take you to a recording screen. Location, date and name should be already filled in automatically (if location is blank, select it from the drop-down menu). Select the amount of sunshine, temperature (°C) and the wind strength (Beaufort scale) from the drop-down menus and enter the start and finish times (make sure you use : to separate hours and minutes). Then click 'next step' at the bottom right corner.

About your walk

Location:

Date:

Recorder Name:

Start Time (hh:mm):

End Time (hh:mm):

Sunshine:

Wind speed:

Temp (deg C):



[Next Step >](#)

Now we get to the bee data! The recording form looks intimidatingly blank at first, but that's because it automatically recognises what you're typing rather than picking from a menu.

In the 'species' column, start typing the name of a bee (common or scientific names both work, but it has to be a bumblebee or a honeybee, not a solitary species). The site will work out what you're typing and give you a list of options – click on the correct one and another row will appear underneath. As all bumblebees are genus *Bombus*, you can save some time here by typing in * (a wildcard) followed by the species – eg *lapidarius will bring up *Bombus lapidarius*, the Red-tailed bumblebee.

If you type something it doesn't recognise, you won't get a suggestion, the typed text will turn red and it won't give you another line to fill in. Be aware that most bumblebees have several common names! If you accidentally enter the wrong species, the red x to the left of the name will delete that row.

Once you've put in a species name, choose the section number from the drop-down menu and fill in the number of each caste that you saw in that section. You also have two column on the right of the bee castes – 'flowers visited' and 'comments'. If you were recording what flowers the bees were on, add it to the 'flowers visited' column. If you saw two bees of the same species on the same section, but visiting different flowers, please record these on separate rows so that we can see how many individuals were on each flower type. 'Comments' is for anything else you noticed – mating, etc.

Once all your bees are entered, click 'next step' at the bottom right. If you saw no bees on your survey, go straight to this step and leave the page blank

Your observations

Species	Section ID	Queens	Workers	Males	Unknowns	Flower visited	Comment
<i>Apis mellifera</i> - Honey Bee	Radley Lakes - S1		2				
*lapid	<Please select>						
<i>Bombus (Melanobombus) lapidarius</i> - Large Red-tailed Bumblebee							

Click the box in the Species column, using either a common or latin name to search. You can also enter Indet. bee for an unknown bee species. Use * as a wildcard when searching for species names.

[< Prev step](#) [Next step >](#)

The final page is for any notes – mown sections, flooding, etc. Then click 'save' at the bottom right and you're done!

Walk data entry

[View](#) [Edit](#)

Notes

Notes:

Please provide any additional information here.

[< Previous Step](#) [Save](#)

Recorder Name: <i>Leanne Casey</i>	OS Grid Ref (Central point, 6-fig): <i>NT159988</i>
Site Name: <i>Vane Farm Nature Reserve</i>	Transect Length (m): <i>1200</i>
County: <i>Kinross</i>	
Year Transect established: <i>2010</i>	

Habitat and Land Use Details (Please refer to form G3 for codes and descriptions)

G1: Example Site Description Form

Section	Length	Grid Ref	Habitat Description (see G3)	Code(s)	Land Use Description (see G3)	Code(s)
1	316m	NT156988	<i>RSPB nature reserve, Dry semi unimproved flower rich neutral grassland</i>	<i>H17</i>	<i>Unused land, Transport tracks and ways</i>	<i>L41, L12</i>
2	105m	NT15990	<i>Car park, bare ground/woodland herb/grass mosaics of woodland rides, hedgebanks and green lanes and small man made woodland</i>	<i>H30,H32</i>	<i>Managed forest</i>	<i>L3</i>
3	232m	NT160989	<i>Bracken dominated glades or hillsides and mature broadleaved woodland</i>	<i>H20,H26</i>	<i>Un-managed forest</i>	<i>L4</i>
4	351m	NT161987	<i>Wet and dry heathland/ dry heather moorland</i>	<i>H23</i>	<i>Unused Land</i>	<i>L41</i>
5	196m	Nt161989	<i>Bracken dominated glades or hillsides and mature broadleaved woodland</i>	<i>H20,H26</i>	<i>Managed forest, Transport tracks and ways</i>	<i>L3,L12</i>

Recorder Name:	OS Grid Ref (Central point, 6-fig):
Site Name:	Transect Length (m):
County:	
Year Transect established:	

Habitat and Land Use Details *(Please refer to form G3 for codes and descriptions)*

F1: Site Description Form

Section	Length	Grid Ref	Habitat Description <i>(see G3)</i>	Code(s)	Land Use Description <i>(see G3)</i>	Code(s)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

G3: Habitat and land-use classification

Code	Habitat Type	Code	Land Use Type
H1	Marine saltmarshes/estuaries/saline reedbeds	L1	Agriculture
H2	Coastal dune grassland	L2	Fisheries
H3	Coastal dune and sand heath	L3	Managed forest
H4	Coastal dune and sand scrub	L4	Un-managed forest
H5	Coastal dune and sand woods	L5	Mineral workings and quarries
H6	Coastal dune slacks	L6	Outdoor amenity and open spaces
H7	Coastal machair	L7	Amusement and show places
H8	Coastal shingle	L8	Libraries, museums and galleries
H9	Coastal cliffs/undercliffs	L9	Sports facilities and grounds
H10	Fen/swamp/marsh vegetation of inland freshwater edges	L10	Holiday parks and camps
H11	Bare ground/sparse vegetation of inland freshwater edges	L11	Allotments and city farms
H12	Acid bog/mire habitats	L12	Transport tracks and ways
H13	Flushes	L13	Transport terminals
H14	Inland swamp/fen stands without open water (e.g. reedbeds)	L14	Car parks
H15	Dry semi/unimproved (flower-rich) chalk/limestone grassland	L15	Vehicle storage
H16	Dry semi/unimproved acid grassland	L16	Goods and freight terminals
H17	Dry semi/unimproved (flower-rich) neutral grassland	L17	Waterways
H18	Agriculturally improved/re-seeded/ heavily fertilised grassland	L18	Energy production and distribution
H19	Seasonally wet and wet marshy grasslands	L19	Water storage and treatment
H20	Bracken dominated glades or hillsides	L20	Refuse disposal
H21	Stands of tall herbs (e.g. nettle and willow-herb beds)	L21	Cemeteries and crematoria
H22	Dry scrub/shrub thickets	L22	Post and telecommunications
H23	Wet and dry heathland/ dry heather moorland	L23	Dwellings
H24	Wet Willow scrub of fen, river and lake-side	L24	Hotels
H25	Hedgerows	L25	Residential Institutions
H26	Mature broadleaved woodland	L26	Medical and healthcare services
H27	Mature coniferous woodland	L27	Places of worship
H28	Mature mixed broadleaved and coniferous woodland	L28	Education
H29	Lines of trees or scattered trees of parkland	L29	Community services
H30	Small man-made woodlands	L30	Shops
H31	Recently felled areas/early-stage woodland and coppice	L31	Financial and professional services
H32	Bare ground/herb/grass mosaics of wood rides, hedgebanks and green lanes	L32	Restaurants and cafes
H33	Orchards, hop gardens and vineyards	L33	Public houses and bars
H34	Inland screes/cliffs/ rock pavements, and outcrops	L34	Manufacturing
H35	Intensive arable crops	L35	Offices
H36	Horticultural crops	L36	Storage
H37	Organic arable crops	L37	Wholesale distribution
H38	Bare ground/weeds of arable field margins or fallow/recently abandoned arable crops (e.g. set-aside)	L38	Vacant
H39	Ornamental shrubs/trees/lawns of parks/domestic gardens, etc.	L39	Derelict
H40	Bare ground/weed communities of post-industrial sites	L40	Defence
		L41	Unused Land

A photographer's guide to taking identifiable bumblebee photos

Taking photos of the bees you see is a really useful thing to do – in particular, it's a great way to confirm your sightings, especially with scarcer species that you're less familiar with.

Although it is very useful, seeing a photograph is still second-best to having a specimen in the field or in the hand. Cameras and lighting can alter colours, and supplementary information is lost – size, behaviour, habitat, location, time, date, and movement/flight characteristics can all be important in getting to the right species. What's in the photo is all we have – there's no way to see the bits that aren't shown, or aren't in focus, and very limited opportunity to zoom in on smaller features. That means getting the right bits in-shot and in focus is crucial.

Bumblebees aren't the easiest things to ID from photos, as they have useful ID features scattered all over their bodies. Typically, when on flowers, they curl up into a semicircle, hide their head and tip of the tail, and tuck their legs in, which hides some of the most useful features. The best way to make sure your mystery bee is identifiable from photographs is to take several, from different angles, showing as many ID areas as possible.



A typical bee-on-flower view. We can see the thorax well, and the head well enough, but most of the abdomen is hidden, including the very tip of the tail. The antennae are clearly present, but you'd struggle to see details of the segments, and all the useful features on the hind legs are hidden.

Head



Face shape is essentially impossible to see from a top-down picture, but is a useful ID feature to split round-faced/long-faced/very long faced bees, in particular the Garden bumblebee (*Bombus hortorum*) and the Ruderal bumblebee (*Bombus ruderatus*).

The presence and colour of facial hair is important for several species, particularly in deciding the sex of the bee.

The antennal segments are also useful for this – males and females have different numbers of segments, while the shape of some of the antennal segments can be used to split some species pairs, particularly males of the Gypsy and Southern cuckoo bumblebees (*Bombus bohemicus/vestalis*)

Hind leg & side



It's really useful to see the femur of the hind leg, as it's the easiest way to sex the social bumblebees and to split them from cuckoos. Only female social bumblebees collect pollen, and when not carrying pollen they have wide, flattened, shiny femurs with long fringing hairs, forming the pollen basket. Male socials have thinner, hairier legs without a pollen basket, and cuckoos also have hairy legs without a cleared space for pollen.

Additionally, the legs carry useful ID features for some species – for example red hairs fringing the pollen basket split the Red-shanked carder (*Bombus ruderarius*) from the Red-tailed bumblebee (*Bombus lapidarius*), and the spines are also useful for some species.

Tail tip



Tail colour is usually very important in bumblebee ID. It can often be seen from above, but bees on flowers often curl round so that it's not always obvious, particularly with species that don't have much colour to the tail.

Also, several species have two-tone tails, with a different colour on the very tip.

Tail shape is useful to help sex the bee – males have a blunt, rounded back end while females come to a point, which can help make sense of other ID pointers.