

# Wider Countryside Butterfly Survey (WCBS)

## Guidance for BBS recorders

Thank you for volunteering to take part in the Wider Countryside Butterfly Survey (WCBS) organised and funded by Butterfly Conservation (BC), the Centre for Ecology and Hydrology (CEH), British Trust for Ornithology (BTO), and the Joint Nature Conservation Committee (JNCC). The aim of the WCBS is to get a representative picture of the status of butterflies in widespread habitats such as lowland intensive farmland and upland grassland and moorland.



## Why survey butterflies in the wider countryside?

Many 'common' butterfly species have undergone serious declines and are in need of greater attention. Pressures such as agricultural intensification and loss of habitat can be more extreme in widespread habitats. At the same time new government funded 'green' farming schemes aim to achieve environmental benefits over a large proportion of the farmed countryside and could improve conditions for wider countryside species. However, our current monitoring and recording programmes do not give us enough information to pick up detailed trends in the countryside as a whole. The WCBS is necessary to sample the UK countryside in a representative way to fill the gaps and address these issues.

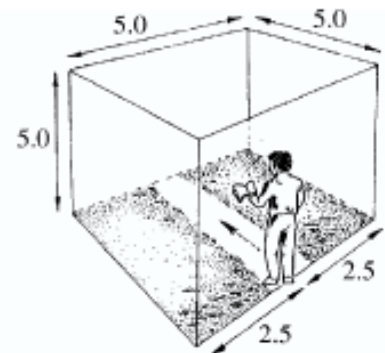
## Contact information

If you have any questions about the survey please contact the BBS National Organiser: Sarah Harris, BTO, The Nunnery, Thetford, Norfolk, IP24 2PU, email: [bbs@bto.org](mailto:bbs@bto.org), tel: 01842 750050

## How to survey

The butterfly survey should be carried out on your usual BBS route to enable future comparisons between birds and butterflies. The WCBS requires that you make separate visits (in addition to BBS visits) to your BBS square recording butterflies with optional recording of day-flying moths and dragonflies. If your route passes through private land it is advisable to let the landowner(s) know that you will be returning in the summer to monitor butterflies on the BBS route.

- For each square record butterflies along the two 1-km survey lines within the same 200m sections used for the BBS survey.
- Both survey lines should be walked on the same day.
- Walk each section at a slow, steady pace counting all butterflies seen within 2.5m either side of the survey line, 5m ahead and 5m from ground level up (5x5x5m box, see diagram).
- In some habitats e.g. along sea cliffs, it may not be possible to record along both sides of the survey line. In these situations it is acceptable to record at a width of 5m along one side only of the survey line. Similarly, if walking along a narrow lane with hedges either side adjust the position of your recording strip to record in a 5m wide strip as far as possible (e.g. 1m on the left, 4m on the right).
- Try to avoid double counting where possible e.g. when an individual butterfly repeatedly flies in and out of your recording box. However, if you lose sight of an individual, and later regain sight of the same species do not assume this is the same individual.
- Do not count butterflies behind you.



## When to survey and recording criteria

- A minimum of two visits to each square are required to take part in this survey and these should take place in the period July to August, with at least 10 days between the two visits.
- In addition, one or two further visits can be made to the square during May, June, July or August with at least 10 days between visits. Recording forms can be downloaded at <http://www.ukbms.org/wcbs.aspx> or sent by the BBS National Organiser on request.
- If possible, return visits to squares should be made at roughly the same time of day.
- Record the time at which you start and end each survey line (1-km) on the survey recording form.
- Survey lines should generally be walked between 10.45am and 15.45pm and only when weather conditions are suitable for butterfly activity: dry conditions, wind speed less than Beaufort Scale 5 (see table below), and temperature 13°C or greater if there is at least 60% sunshine, or more than 17°C if overcast. See below for exceptions.
- If a distinct shadow is cast (bright cloud) then conditions may be classed as sunny.
- Sunshine should be estimated for **each** section to the nearest 10% of the time it was sunny while you were walking that section (shade cast by features such as trees does not count).
- At the end of each survey visit, record shade temperature (e.g. with a portable thermometer placed in a shaded position at the beginning of the first survey line before you start), wind direction and average wind speed, using the Beaufort Scale (see table).

THE BEAUFORT SCALE

Code	MPH	KMH	Description	Specifications on land
0	0-1	0-1	Calm	Smoke rises vertically
1	1-3	1-5	Light air	Slight smoke drift
2	4-7	6-11	Light Breeze	Wind felt on face & leaves rustle
3	8-12	12-19	Gentle Breeze	Leaves & twigs in constant motion
4	13-18	20-28	Moderate Breeze	Raises dust and small branches move
5	19-24	29-38	Fresh Breeze	Small trees in leaf begin to sway
6	25-31	39-49	Strong Breeze	Large branches move & trees sway

### Exceptions to general recording rules:

- It is also permissible to record from 09:30-10:45 and 15:45-16:30, if at these times the majority (>75%) of the survey route is unshaded and the standard (described above) weather criteria have been met.
- If your square is classed as upland then recording can take place in less suitable conditions down to 11°C with any level of cloud cover and calm, dry conditions. Upland squares are classified as:
  - (i) Squares where more than 50% of the land along the survey lines is above 300m (900ft) or
  - (ii) Squares at anywhere north of an imaginary line between Glasgow and Aberdeen.

## Species identification

Try to identify and separate all species you encounter, including where possible similar species such as Small and Essex Skipper, and the 'cabbage' whites. If similar species such as Small White and Green-veined White are flying together at a site you may want to net a sample (a small clear plastic pot, kept in the shade, can be very useful to temporarily confine the butterfly so it can be examined more easily) or get a good look when a sample of individuals are perching or feeding, to determine the proportion of each species present - you can then divide up your overall counts accordingly. For example, if you catch and identify 8 Small Whites and 2 Green-veined Whites, a count of 30 unidentified whites can be converted to an estimated 24 Small Whites and 6 Green-veined Whites. Only wider countryside butterfly species and migrants are listed on the ID guide and recording form but do record all additional butterfly species seen in the blank rows (see guidance below). If you are unsure of a species' identity in the field then use a guide book or take a photo and identify it later. If you are in doubt, do not include the butterfly on your recording form.

**Day-flying moths and Dragonflies:** Also, if you are able, record any dragonflies, damselflies and day-flying moths to species level using the blank spaces on the recording form. When perched, Damselflies hold their wings together over their abdomen, whereas Dragonflies hold them out at right angles. If you can't identify them to species level then record them as one of 4 groups:

1. **Demoiselles:** large damselflies with dark wings or wing-bands (males) or metallic green or bronze wings; usually found near running water.
2. **Other damselflies:** small, weak fliers with clear wings and typically with black and blue, red, green or buff colouration.
3. **Hawkers** (including Golden-ringed Dragonfly): large, long-bodied, often colourful insects that are usually seen in flight.

**4. Darters, chasers and skimmers:** small or medium sized dragonflies in red, pale blue or ochre that are usually found perched on stems or the ground.

**Training events:** Details of general ID training events run by Butterfly Conservation and independently by the British Dragonfly Society can be found online at:

Butterflies and moths: [www.butterfly-conservation.org](http://www.butterfly-conservation.org)

Dragonflies: [www.british-dragonflies.org.uk](http://www.british-dragonflies.org.uk)

## Recording butterflies seen off the survey lines

If you see any additional noteworthy butterflies off the survey lines (beyond the 5m box), these can be recorded (to 6-figure grid reference e.g. AB123456 if possible) on the casual record sheet provided. Casual records should preferably be sent to your County Butterfly Recorder (details can be found at [www.butterfly-conservation.org/2390/recording-contacts.html](http://www.butterfly-conservation.org/2390/recording-contacts.html)) or post them to Butterfly Conservation (address below).

## Submitting your data

**Please enter your data online or return paper forms by the end of September.**

**Online:** Data can be entered online at [www.ukbms.org/mydata](http://www.ukbms.org/mydata). If you enter your data online you do not need to return your paper data sheets.

**By post:** If you do not enter your data online then please send paper data to  
**WCBS, Butterfly Conservation, Manor Yard, East Lulworth, Wareham, Dorset,  
BH20 5QP**

## Checklist:

- Fill in the weather details: average temperature, wind direction (the prevailing direction over the whole survey), average wind speed (over the whole survey).
- Record the start and finish times of the two 1-km survey lines (sections 1-5 and sections 6-10 separately).
- Record the percentage sunshine for each section (dependent on cloud rather than shade cast by trees).
- Record all butterflies, day-flying moths (optional) and dragonflies (optional) within the 5m box in the blank rows provided.
- If you wish, record any noteworthy species outside the 5m box or whilst walking between the two survey lines on a casual record sheet with a 6-figure grid reference.

**Many thanks for helping with this project and we hope you enjoy the surveys.**

By submitting these records you confirm that they contain data that you have collected, give permission for the records to be used for research, education and public information, and to be made generally available for re-use for any other legal purpose under the terms of the Open Government Licence (<http://www.nationalarchives.gov.uk/doc/open-government-licence/>), and agree that your name will be associated with the record. The UKBMS partners collect personal data in order to administer, run and share results of the scheme. The personal data we will collect and how it will be stored, shared and deleted (as necessary) are covered in our Privacy Notice <http://www.ukbms.org/privacy-notice>.