Introduction to

Recording Habitats

in Rhondda Cynon Taf

RHONDDA CYNON TAF
Cronfa Treftadaeth
Heritage Fund

SEWBReC
SOUTH EAST WALES BIODIVERSITY RECORDS CENTRE
CANOLFAN GOFNODION BIOAMRYWIAETH DE DDWYRAIN CYMRU

Mewn Partneriaeth â
Llywodraeth Cymru
In Partnership with
Welsh Government

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The Rhondda Cynon Taf habitats project

The landscape of Rhondda Cynon Taf (RCT), from the dramatic uplands, through the steep-sided valleys, and down to the ancient hedgerows and pastures of the rolling lowlands, sustains a wide range of habitats.

Woodlands and scrub, grassland, heathlands, colliery spoils, peatbogs, wetlands, watercourses, lakes and ponds are home to a rich and biodiverse flora and fauna. The habitat networks along river valleys and through other richly connected mosaics of semi-natural habitats help to physically link the biodiversity of RCT with neighbouring counties and beyond.

RCT is also a place of communities, businesses and economic activity. There are major development pressures, including residential, industrial, commercial, green energy infrastructure and roads. Species and habitats of nature conservation significance, and protected sites such as Special Areas of Conservation (SAC), Sites of Special Scientific Interest (SSSI), and Sites of Importance for Nature Conservation (SINC), often occur close to where we live and work. Without care, these special habitats and species can easily become fragmented and disconnected. However, through the mitigation requirements of planning consents, there are also opportunities to reconnect habitat and species. This opportunity is being tested as part of the 'Building Nature Networks in RCT' project. This project is funded by the Nature Networks Programme and is being delivered by the Heritage Fund, on behalf of the Welsh Government.

To develop resilient habitat networks, we need up-to-date information about our habitats. Surveying and assessments are key to knowing where to retain, restore and enhance biodiversity. The Countryside Council for Wales Phase I Habitat Survey of the early 1990s, was a very valuable baseline assessment of the habitats of RCT. Whilst much of that data is still very relevant, it is now quite old. We need your help in mapping habitats across RCT. The information you share will be used to assess how habitats across RCT can help to connect, buffer and improve the condition of protected sites.

Why get involved?

Everyone can get involved, from beginners to experts! You just need an interest in wildlife and a keenness to learn.

Help with conservation, understand the landscape and the effects of climate change

The recording of species and habitats is important to help build a picture of the distribution of wildlife in RCT, and to improve our understanding of the state of nature. Information gathered helps reveal trends in wildlife numbers and distributions in response to pressures such as climate change and habitat loss. This data will help us make more informed decisions about our behaviour and activities in order to minimise harm to our environment.

Training and skills

By participating in this project, you can learn key skills in surveying habitats and plant identification. These new skills could lead to or help develop a career in environmental studies or ecology. Volunteering could aid your own personal development.

Meet people

Through joining a community of like-minded people, environmental engagement projects can help reduce loneliness. Volunteering can help you make new friends and provide a sense of purpose.

Get outdoors and connect with nature

Connecting meaningfully with nature is proven to support mental health and reduce stress and anxiety. In fact, some doctors now prescribe time outdoors with nature for many patients. Joining a project with specific aims can also help you become more active and improve physical health. It can also increase confidence and self-esteem whilst focusing on a goal.

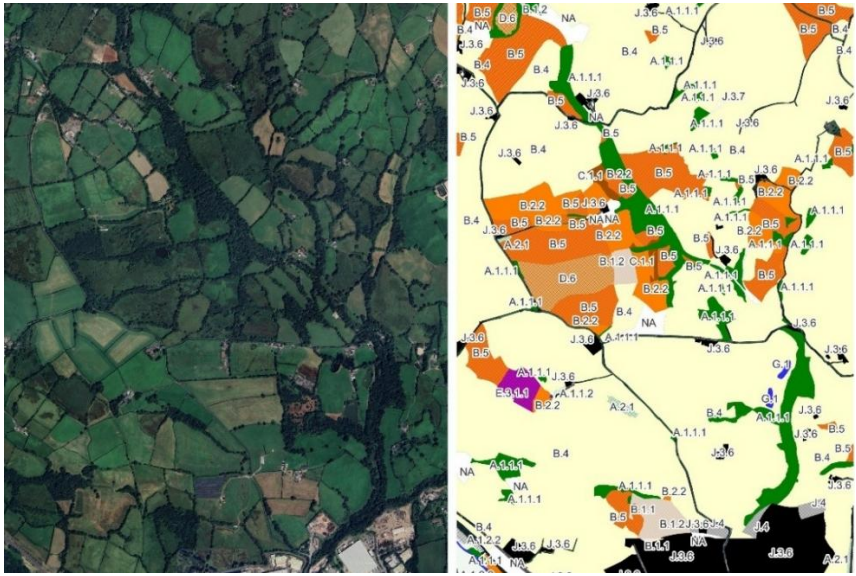
Classifying habitats

There are a few different classification systems for mapping terrestrial and freshwater habitats and we will be focussing mainly on Phase 1 classification in these booklets.

The whole of Wales, including urban areas, was mapped by the Countryside Council for Wales Phase I Habitat Survey in the early 1990s and this is a very valuable baseline assessment of the habitats of RCT. Phase 1 was designed to be a relatively quick method to assign simple habitats to areas larger than 1000m^2 (or roughly 30x30m), with a view to highlighting important habitats and features for more in depth surveying at a later date. Target notes are added at points on the map where there are interesting features.

Within the UK, other more in-depth habitat classification systems include Phase 2, National Vegetation Classification (NVC) and UKHabs which is mainly used in England.

Further reading: JNCC. 2010. Handbook for Phase 1 habitat survey: jncc.gov.uk/resources/9578d07b-e018-4c66-9c1b-47110f14df2a



Aerial view (left) and Phase 1 habitat map (right) for the area north of Llantrisant with extensive light yellow B4 improved grassland, orange B5 marshy grassland and strips of green A.1.1.1 semi-natural broadleaved woodland.

Recording species

Recording is the process of taking a wildlife observation and turning it into a useful, shareable piece of data by making note of four elements:

What	The species seen.
Where	The location name of where the species was seen. Include an accurate grid reference ideally of at least 6 figures.
When	The date the species was seen.
Who	The observer's name. This is usually yourself but if you had help with identification, you should also include this.

These four aspects combine to make a record, which can be added to the SEWBReC database. You can also include comments such as interesting behaviour (for example feeding, nesting, breeding), number of individuals, sex, life stage (for example adult, larvae, juvenile), and habitat. A photograph is always useful to help experts verify your record.

Learn more from our Introduction to Recording Course on YouTube: youtube.com/watch?v=OjQP5xc3d-k

Collecting and sharing data

All species records are important, no matter how common.

Electronic methods

Local Environmental Records Centres Wales have their own recording LERC Wales app (lercwales.org.uk/app.php) which you can download from the Apple Store or Google Play. Other options are iRecord, and specialised apps for recording particular groups, such as butterflies. If using the LERC Wlaes or iRecord app please sign up to the NNF4 Activity (#NNF4: Building Nature Networks in RCT) from the activities tab.

If you prefer to use a website, you can use our online database SEWBReCORD (sewbrecord.org.uk).

Or submit records with the SEWBReC Excel template (sewbrec.org.uk/SEWBReCORD#other).

Paper methods

You can also go back to basics and use a notebook or paper recording form whilst in the field. You can then add these records to the apps mentioned above, enter them directly onto SEWBReCORD (sewbrecord.org.uk), email info@sewbrec.org.uk scanned copies or transcribed records, or post to South East Wales Biodiversity Records Centre (SEWBReC, 15 Talbot Road, Talbot Green, CF72 8AD).

Keeping wildlife safe

Avoid disturbing wildlife wherever possible.

- Respect the countryside and other users. For more advice, see the Countryside Code: naturalresources.wales/days-out/the-countryside-codes
- Keep noise to a minimum.
- Don't feed or approach wildlife particularly during the main nesting or breeding season, usually March to August, or if young are present.

- Keep to public footpaths where possible to reduce trampling or eroding delicate habitats.
- Practice good biosecurity measures by cleaning off mud and other debris from clothing, footwear, and equipment.
- Be aware that some plants and animals are legally protected. Do not touch, harass or disturb any protected species.
- Some sites may also have legal protection in recognition of their biodiversity or geodiversity value. For more information about wildlife legislation please see wildlifetrusts.org/uk-wildlife-law.

Staying safe

Please take a common sense approach to recording. We do not advocate any form of trespassing, and please do not take any risks with regards to your own health and safety.

- Check the weather forecast, avoid recording in bad weather.
- Ideally avoid working alone. If not, always tell someone where you are going and when you will be back.
- Carry a mobile phone.
- Carry a basic first aid kit, and maybe a whistle for emergencies.
- Take appropriate equipment and clothing for the weather and site conditions. For example, walking boots or shoes, warm clothes, waterproofs, sunhat, and suncream.
- Take an OS map and a compass if going to remote areas. Don't rely solely on your mobile to know where you are, especially in remote and upland areas with fewer landmarks or areas with limited phone or GPS signal. An OS map may also help you map habitats within an area. If you are not confident in reading maps, stick to established routes.
- Remember to always wash your hands before eating, particularly after touching plants, animals, fungi or water. Some plants and fungi are poisonous so don't be tempted to have a nibble!
- Ticks are small invertebrates that can bite humans and spread Lyme disease. High risk places include grassy and wooded areas. To reduce risk, cover your skin, tuck trousers into socks, and use insect repellent containing DEET. Check your body for any ticks on arriving home and

safely remove any as soon as possible using a tick-removal tool. If you start to feel unwell or develop a rash in the following days, consult a GP. For more information see nhs.uk/conditions/lyme-disease

- Trust your own instincts. If you feel uneasy, leave and return home.

Extra safety tips relevant to the specific habitat are included in each habitat booklet.

Handy equipment

You may find the following items useful when in the field:

- Clothing and equipment to keep you safe - see the Staying safe section on page 6.
- RCT Habitat Guides (0-6) in this series, including this one.
- Mobile (for recording apps, accessing online maps, taking photos and for safety).
- Camera. Photos are a useful aid in species identification and can help to reduce or eliminate the need to take specimens. You should familiarise yourself with the features you need to capture for identification purposes.
- Pen and notebook, recording sheet, or phone with suitable recording app such as the LERC Wales app.
- Binoculars for scouting out the landscape and looking for areas to survey. This helps to reduce distances walked as well as mitigate lack of access to land.
- x10 magnification hand lens for identification.
- Identification books and guides. See the Useful resources section on page 15.

Before going outside: choosing a place and time

By regularly walking around an area and becoming familiar with its changes at different times of day and in different seasons, you will build your knowledge of the habitats present. You will see what happens as the vegetation grows up from spring to summer, when livestock are moved around, or after scrub is removed.

Maps. Look at maps to find potential places to survey within RCT, including Public Rights of Way, Open Access or other publicly accessible land as a key way to plan a survey walk/visit.

Maps can give clues to habitats such as areas of trees and farmland.

> Satellite images are available free of charge on Google Maps (google.com/maps) and OS Maps (explore.osmaps.com).
>
> Use OS maps at 1:25,000 scale (paper, website or app) to check access points and footpaths. Are there any potential hazards to be aware of, for example, scree slopes, boggy areas, river etc?

Look for discrepancies between OS maps and satellites which could mean that a habitat has not been well recorded.

Under recorded areas. Check SEWBReC square of the month (sewbrec.org.uk/sqothm). Each month we provide maps and information about poorly recorded 1km squares in south east Wales, with the aim to fill gaps in our maps. You can also subscribe to the SEWBReC email list to receive details of new squares. You will need to look through the list to find the squares in RCT.

Interesting sites. On Aderyn (sewbrec.org.uk/aderyn) use 'What's in my area?' to get lists of species for a particular grid reference.

Choose a day for surveying. Spring and summer will usually be better as most plants featured in these guides will be flowering during this time and so will be easier to identify! However, autumn and winter visits can allow you to see more of a site, with leaf fall from trees opening up views. Autumn can also be really useful for identifying important Purple Moor-grass sites, as the grass turns a beautiful orange and make site much more obvious to find. Autumn is also the time for finding grassland fungi, indicators of unimproved grassland habitat, and a key habitat indicator to be looking out for. And obviously good weather helps reduce risk and make recording more enjoyable.

Do not take unnecessary risks or trespass on private land such as farmland. Stick to clearly marked public footpaths.

Outside in the field: Steps to record the habitat

Step 1 Take up to 20 minutes to become familiar with your chosen area. If the area is too large to do this within 20 minutes, break it up and survey the rest at a later date if you wish.

Step 2 Choose a habitat to record that appears to have one kind of vegetation. Look for similarities in overall vegetation height and colour, for example, a short or tall grassy area, woodland, river or farm-field. If there is one area that looks different, record this separately.

Step 3 Use the flowchart on page 15 to choose a habitat booklet.

Step 4 Find an area that contains similar looking vegetation, stand in the centre of it and record everything within 5 paces as described in steps 5 to 7. Make sure the terrain is safe to record.

Step 5 First record indicator species listed in the RCT habitat guides. For example, the presence of Purple Moor Grass (*Molinia caerulea*) and Devil's-bit scabious (*Succisa pratensis*) may indicate marshy grassland, a priority habitat.

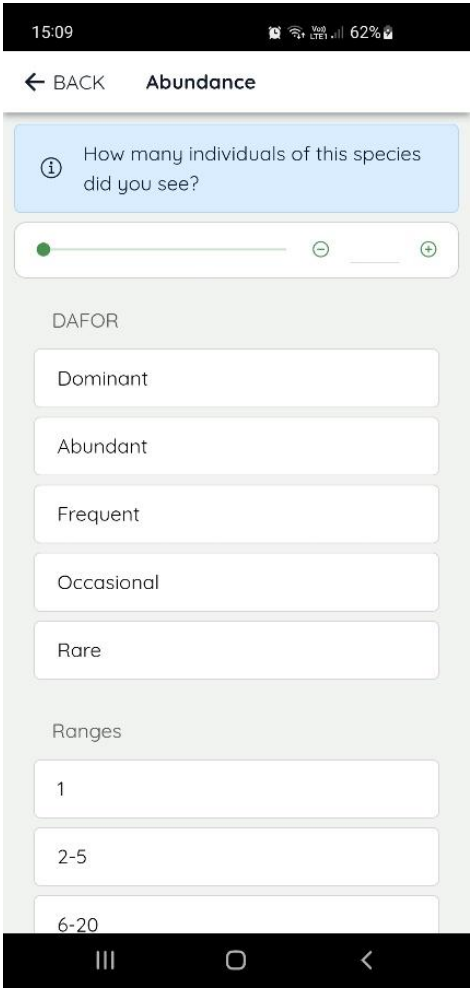
Step 6 Record as many other plants as you can find and identify confidently. Look carefully all around the area without trampling the vegetation. Check beneath larger plants as they may hide smaller plants.

Step 7 Keep an eye out for any fungi or animals, particularly those associated with the relevant habitat. If possible, record them, or take pictures to look up later.

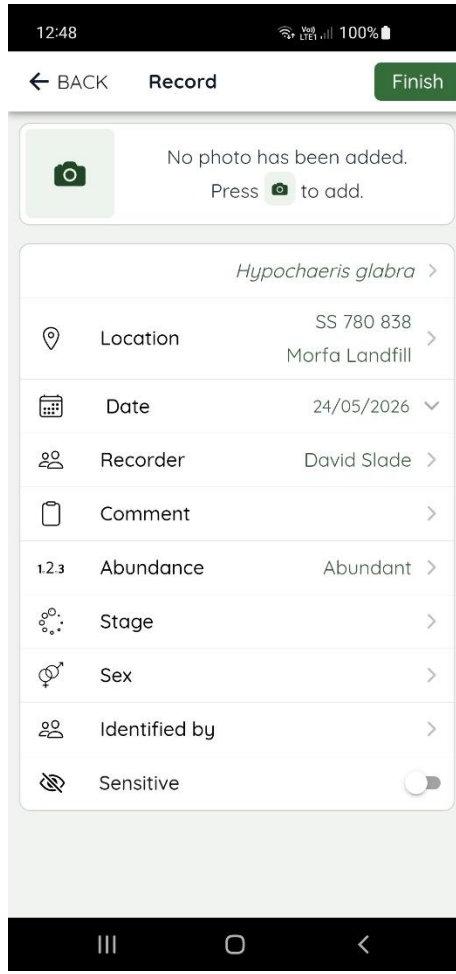
Step 8 Apply the DAFOR scale of abundance to species records using the guide on page 16 if you feel confident. For example, you can then add the DAFOR category to the Abundance section in the LERC Wales app.

Repeat steps 2 to 8 to record different habitats in your chosen area as many times as you wish.

Step 9 Use your chosen method to upload the record (see page 8).



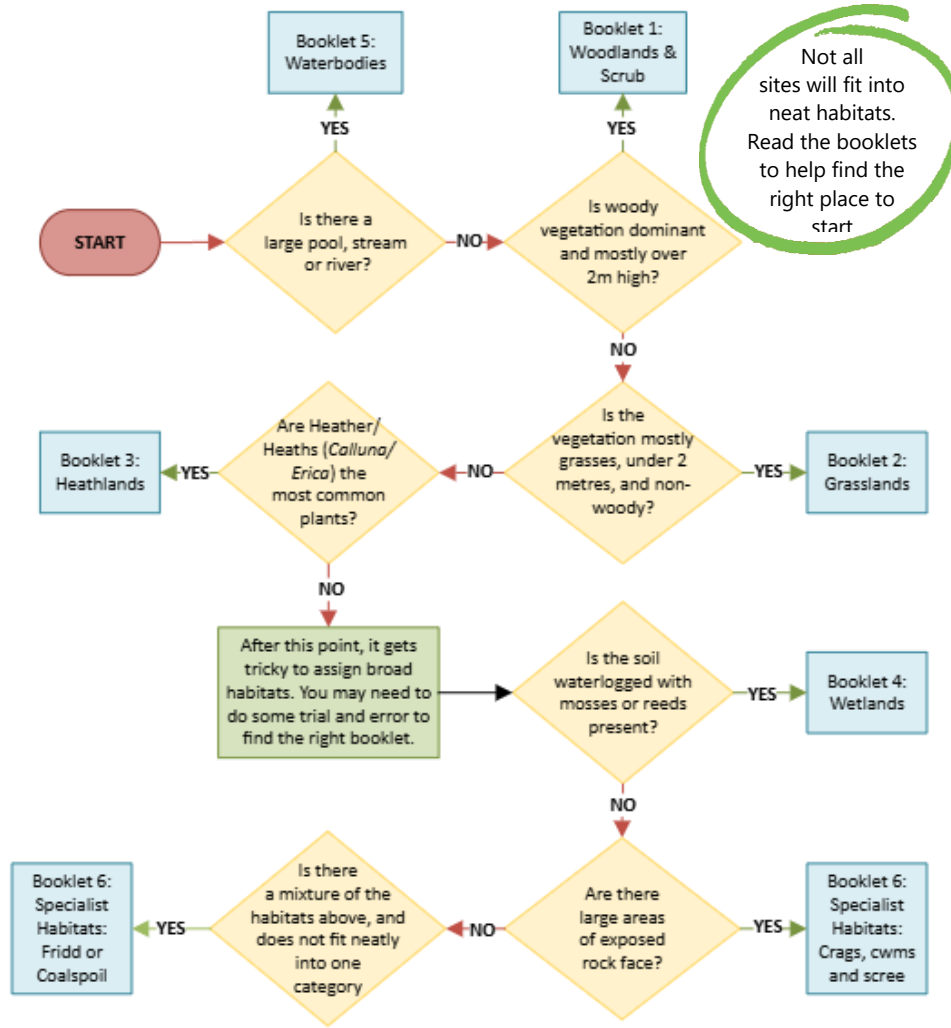
Entering DAFOR scale of abundance on the LERC Wales App



Example of a data entry screen in the LERC Wales app.

Choosing an RCT habitat booklet

Use this flowchart to help direct you to the right habitat booklet. Don't get too bogged down in getting the exact booklet at the start, this is a trial and error process. Habitats are difficult and can grade from one to another. Try a booklet and if this isn't right, try another. There will be sites that don't quite fit.

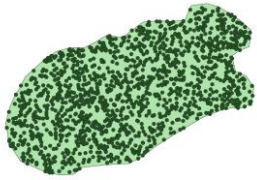


DAFOR scale of abundance

If you feel confident, you can apply the DAFOR scale to your species records. Choose the DAFOR value (Dominant, Abundant, Frequent, Occasional or Rare) that is closest to how abundant your species is in the habitat, as shown below. Add this value to the Abundance section of each species record. This method can be very subjective but gives a rough idea of how common species are.

Dominant

76 to 100% cover



A species is the most common by far, dominating the area to the exclusion of other species. This category is rarely used in practice.

Abundant

51 to 75% cover

A species is very common and covers a significant portion of the area.

Frequent

26 to 50% cover

A species is present in many parts of the area

Occasional

11 to 25% cover

A species is present but not widespread.

Rare

1 to 10% cover

A species is found infrequently.

Habitat guide symbols

The following symbols are used in the habitat guides to denote indicator species to record.

A key symbol means that a plant is a key feature of the habitat.

A hand symbol means this species is associated with the habitat, but not always present.

A beetle symbol means these animals are supported in this habitat.

!!

This icon denotes invasive non-native species (INNS) which may cause damage to the habitat.

Where to see different habitats in RCT

Become familiar with key habitats in RCT by visiting the network of 29+ sites managed for nature. These important areas are nature hotspots and connected stepping stones in the wider countryside.

For more information click on the links for each site, or see the RCT Living Landscapes website: www.rctlivinglandscape.wales

List of habitats with ideas for sites to visit

Habitat	RCT Sites	Location - What3Words
Booklet 1: Woodlands and scrub		
Scrub	Albion Tip	owners.number.quick
	Cefn y Hendy	repayment.fines.scarecrow
	Cwmaman Tip	bigger.trump.birthing
	Dare Valley Country Park	retraced.offhand.doted or storybook.ownership.dislodge
	Llanharry Quarry	lavender.broth.remix or folks.cascaded.outbursts
Semi-Natural Woodland examples of wetter woodland	Brynna Woods	liners.access.relishing
	Dare Valley CP	retraced.offhand.doted or storybook.ownership.dislodge
	Glyncornel LNR	invent.neat.pasta
	Pant Marsh	indicated.suppose.organ
	Parc Dowlais	encrusted.epidemics.bank or elect.fondest.rejoin
Semi-Natural Woodland, examples of drier woodland	Brynna Woods	liners.access.relishing
	Cefn Yr Hendy	repayment.fines.scarecrow
	Craig Yr Hesg	violin.tiny.moves or dots.towers.coins
	Dare Valley CP	retraced.offhand.doted or storybook.ownership.dislodge
	Glyncornel	invent.neat.pasta

	Llanharan Quarry	lavender.broth.remix or folks.cascaded.outbursts
	Pant Marsh	indicated.suppose.organ
	Ty Rhiw	thinks.grit.swung
Planted Woodland	NRW forestry estate	lectured.flatten.newspaper
Wood Pasture and Parkland	Dare Valley CP	retraced.offhand.doted or storybook.ownership.dislodge
Booklet 2: Grasslands		
Marshy Grassland & Rhôs Pasture	Caeau Cwm	affair.energetic.enlighten
	Dare Valley Country Park	retraced.offhand.doted or storybook.ownership.dislodge
	Rhos Llanilltud Faerdref	highly.prevented.blur
	Parc Eirin	roaring.harps.blackbird
	Pant Marsh	indicated.suppose.organ
	Parc Nant Celyn	array.carting.fooling
Semi improved Acid Grassland	Clydach Vale CP	hotspot.crumples.pints or thumb.blotting.strutting
	Dare Valley CP	retraced.offhand.doted or storybook.ownership.dislodge
	Glyncornel Meadows	invent.neat.pasta
	Treorchy Cemetery	level.indeed.rots
Species-rich (Semi-improved) Neutral Grassland	Cefn Parc Cemetery	gazes.casino.ready
	Glyncornel LNR	invent.neat.pasta
	Llanharan Cemetery	harps.merge.tequila
	Parc Heddwch	report.ballooned.unsightly or verve.overhaul.turkeys
	Pontyclun Park	galloped.scored.jolt
	Ty Rhiw Cemetery	thinks.grit.swung
	Ynysangharad Park	pets.highs.landed

'Sleeping' Species-rich Neutral Grassland	Old pasture grasslands, old lawned gardens, cemeteries, parks and road verges	
Calcareous Grassland	Llanharry Quarry	lavender.broth.remix or folks.cascaded.outbursts
	White Tip in Treforest	medium.chimp.famous
Booklet 3: Heathlands		
	Aberaman Tip	crackling.fury.requires
	Cwm Clydach	hotspot.crumples.pints or thumb.blotting.strutting
	Craig Yr Hesg Local Nature Reserve	violin.tiny.moves or dots.towers.coins
	Cwmaman Tip	bigger.trump.birthing
	Llantwit Fardre Marsh	highly.prevented.blur
	Tomen Glofa'r Lady Windsor	cheat.rent.ships or equal.lyrics.earmarked
	Twin Tips, Dare Valley Country Park	retraced.offhand.doted
Booklet 4: Wetlands		
Peat Bog (lowland)	Llantwit Fardre Marsh	highly.prevented.blur
	Caeau Cwm	affair.energetic.enlighten
Peat Bog (upland)	NRW upland forestry Estate	Throughout the uplands
Wetland (fen/ swamp/ reedbed)	Cors Pant Marsh, Llantrisant	indicated.suppose.organ
	Parc Nant Celyn	array.carting.fooling
Booklet 5: Waterbodies		
Watercourse	Coed Tarren y Bwllfa	suitable.skid.scoping
	Melin yr Hom	cherry.final.villa
	Parc Coffa Ynysangharad War Memorial Park	pets.highs.landed

	Parc Heddwch	report.ballooned.unsightly or verve.overhaul.turkeys
	Ynysddu	monument.proposals.drips
Lake	Cwm Clydach	hotspot.crumples.pints or thumb.blotting.strutting
	Dare Valley Country Park	retraced.offhand.doted or storybook.ownership.dislodge
	Parc y Darran	vibrate.lunch.lock
	Glyncornel	invent.neat.pasta
Pond	Parc Gwledig Barry Sidings	insect.slim.deaf
Reservoir	Llyn Fawr	
Booklet 6: Mosaic Habitats		
Ffridd/ Coal spoil Mosaic	Billy Wynt	removals.recent.crowned or bombshell.drones.notch
	Cwm Clydach	hotspot.crumples.pints or thumb.blotting.strutting
	Tomen Cwmaman	bigger.trump.birthing
	Tomen Glofa'r Albion	owners.number.quick
	Tomen Glofa'r Lady Windsor	cheat.rent.ships or equal.lyrics.earmarked
Crags, Cwms and Scree	Dare Valley Country Park	retraced.offhand.doted or storybook.ownership.dislodge
	Graig Fawr & Fach, Cwm Parc	upgrading.souk.chins

Getting in involved in other surveys

As you become more confident about identifying plants and habitats, there may be other surveys you would like to participate in.

- The National Plant Monitoring Scheme npms.org.uk/
- BSBI New year Plant Hunt bsbi.org/new-year-plant-hunt
- Nature's Calendar naturescalendar.woodlandtrust.org.uk/what-we-record-and-why/species-we-record/

Useful resources

Websites

- rctlnp.wixsite.com/rct-actionfornature RCT Action Plan for Nature website with information about RCT's specific habitats.
- Botanical Society of Britain and Ireland. Including getting started with plant identification (bsbi.org/plant-id-getting-started) and Plant Identification Resources (bsbi.org/identification).
- Field Studies Council Shop (field-studies-council.org/shop). Including fold-out guides that can help identify small numbers of species, and more detailed AIDGAP guides.

Books

Books to help with identification in the field are subjective and will depend at what level of knowledge you already have, but the following are some suggestions.

- Britain's Habitats, a field guide to the wildlife habitats of Great Britain and Ireland, 2nd Edition by S. Lake *et al.* Wild Guides 2020.
- The Wild Flower Key, how to identify wild flowers, trees and shrubs in Britain and Ireland, 2nd Edition by Francis Rose and Clare O'Reilly. Warne 2006.
- Collins Wild Flower Guide 2nd Edition by David Streeter, C. Hart-Davies, A. Hardcastle, F. Cole & L. Harper. Collins 2016.
- A Field Guide to Grasses, Sedges and Rushes by Dominic Price. The Species Recovery Trust.
- Grasses, A Guide to Identification Using Vegetative Characters by Hilary Wallace. Field Studies Council AIDGAP Guides 2021.