

Booklet 3 Guide to Recording Heathland Habitats in Rhondda Cynon Taf



Mewn Partneriaeth â
Llywodraeth Cymru
In Partnership with
Welsh Government

Contents

Rhondda Cynon Taf habitat mapping project.....3

RCT heathlands3

Why are heathland habitats important in RCT?4

Identifying and recording a heathland habitat5

Staying safe6

Habitat guide symbols7

 Dry Heath (dry acidic dwarf shrub heath).....8

 Wet Heath (wet dwarf shrub heath).....9

 Lichen/Bryophyte Colliery Spoil Heath 10

Where to see heathland habitats in RCT 11

Summary: Key heathland species by habitat 11

Alphabetical list of key heathland species 12

Useful resources 12

Rhondda Cynon Taf habitat mapping project

In order to conserve and enhance our biodiversity we need up-to-date information about habitats and species. Understanding habitats is fundamental to understanding how to protect and manage biodiversity. Between the late 1980s and the mid 1990s, the Countryside Council for Wales (now part of Natural Resources Wales) undertook a Phase I Habitat Survey of the whole of Wales. An amazing undertaking which has proved invaluable to Welsh nature conservation. However, that information is now aging. So perhaps it is time for all of us who have an interest in finding, identifying and recording species, to start thinking about and recording their habitats as well? If that sounds interesting, and perhaps a new way to interpret and understand the biodiversity of Rhondda Cynon Taf (RCT), then read on.

Use this booklet in conjunction with the Introduction to Recording Habitats in RCT and the other 5 habitat booklets in this series.

RCT heathlands

Heathlands are habitats where low shrubs are dominant (more than 25% cover) on nutrient poor, acidic soils where soil type, grazing, burning or altitude prevents larger shrubs or trees from growing. Classic heathland indicators in RCT are: Western Gorse (*Ulex gallii*) and members of the Ericaceae plant family; Heather (*Calluna vulgaris*), Bell Heather (*Erica cinerea*), Cross-leaved Heath (*Erica tetralix*) and Wimberry/Bilberry (*Vaccinium myrtillus*).

In RCT we have two main types of heathland as identified by Phase I Habitat Survey methodology, dry and wet heath. We are also lucky to have colliery spoil heathland, both wet and dry, and on some tips, we can find a colliery spoil version of the Phase I habitat type 'Lichen/Bryophyte heath'.

[Dry Heath \(dry acidic dwarf shrub heath\)](#)

[Wet Heath \(wet dwarf shrub heath\)](#)

[Lichen/Bryophyte Colliery Spoil Heath](#)

There are also many sites where wet and dry heath occur in complex mosaics with grassland habitat. In this case, record the habitats as mosaics, for example in Phase 1 habitat classification, you can record them as 'dry heath/acid grassland mosaic' or 'wet heath/acid (marshy) grassland mosaic'. See booklet 6 for recording mosaics.

For more information see rctlnp.wixsite.com/rct-actionfornature/heathland

Why are heathland habitats important in RCT?

Heathlands are an important distinctive vegetation type, with a confined global distribution, a habitat for which Wales is of international importance. The specialist flora and often warm ground conditions are important for specialised invertebrate communities including Bilberry Bumblebee (*Bombus monticola*), Grayling butterfly (*Hipparchia semele*) and Green Tiger Beetle (*Cicindela campestris*). They are excellent reptile habitats and Adders (*Vipera berus*), which are under-recorded in RCT, are frequently associated with heathland areas within mosaic habitats. They also support associated fungi, bryophytes (mosses and liverworts) and lichen communities. Certain types of lowland heathland types are listed under Annex 1 of the EU Habitats Directive.

Heathlands are a record of cultural practices in the area over 1000s of years since trees were felled. They are key components of the mosaic habitats of ffridd and, heath has colonised many colliery spoil sites in RCT.

Heathlands contribute to the beautiful wild landscape of the RCT valleys with carpets of purple in the August when the heaths and heather come into flower, to the winter wonderland mounds of white *Cladonia* lichens on coal tips.

Heathlands survive on a delicate balance of management with just the right amount of grazing. The greatest threat to heathland habitat in RCT is a lack of grazing management and subsequent gradual succession into scrub and secondary woodland. Many heathland areas have been lost to woodland development. In some upland areas, overgrazing can turn the heathland on gentler slopes into grassland. Uncontrolled grass fires, drainage and tree planting are all additional threats.

Identifying and recording a heathland habitat

Habitats don't always fit into a neat category. Heathland often occurs in mosaics with other habitats, for example bogs, woodlands and grasslands. RCT has strong examples of this in its ffridd and coal spoil habitat mosaics.

Similar habitats

- If there is more than 25% shrubs or trees, consult **Booklet 1: Woodland & Scrub**.
- If there are less than 25% dwarf shrubs such as Heather (*Calluna vulgaris*) or Heaths (*Erica* species), consult the **Booklet 2: Grasslands**.
- Where wet heath grows on peat it can qualify as peat bog habitat. See **Booklet 4: Wetlands** for a description of bogs and compare it to the description of Wet Heath in this booklet.
- See **Booklet 6: Mosaic Habitats** for recording mosaics of dry and wet heath as well as heath-grassland mosaics.

To record the habitat, start with the [Introduction to Recording Habitats in RCT](#) for step by step instructions.

Then use this guide to characterise which type of heathland habitat you are in.

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, 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](https://www.nhs.uk/conditions/lyme-disease)
- Trust your own instincts. If you feel uneasy, leave and return home.

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.

Dry Heath (dry acidic dwarf shrub heath)

Dry Heath occurs on nutrient poor, thin, usually acidic soils that are well-drained. Variants of the habitat occur in lowland and upland areas, but in RCT, the divide between what could be classified as lowland or upland heath is a largely artificial one. Our mild climate ensures that much of the heathland in the county borough has lowland characteristics. Dry heath is often associated with banks and drier ground within large rhôs pastures site and as part of the complex mosaics of fridd habitat (see booklet 6).

Dry Heath: What to look for



Heather (*Calluna vulgaris*). Flowering July to September

Bell Heather (*Erica cinerea*). Flowering July to September

Wimberry/Bilberry (*Vaccinium myrtillus*). Flowering April to June

Western Gorse (*Ulex gallii*). Flowering April to May. Check identification characters for the larger Common Gorse (*Ulex europaeus*).



Wavy Hair Grass (*Deschampsia flexuosa*). Cross-leaved Heath (*Erica tetralix*) can occur but at low frequency.



Green Hairstreak butterfly (*Callophrys rubi*), Slow-worm (*Anguis fragilis*), Common Lizard (*Zootoca vivipara*), Adder (*Vipera berus*) and Stonechat (*Saxicola rubicola*).

Wet Heath (wet dwarf shrub heath)

Wet heath occurs on nutrient poor, acidic, waterlogged ground where the substrate is too shallow or dry for peat formation. It has similar vegetation in lowland and upland areas but changes in altitude brings in different specialist species (see Britain's Habitats, Lake *et al.* 2020).

Wet heath can form a band between wetter areas of blanket bog, and drier areas of dry heath. In RCT, it often forms patches interspersed with rhôs pasture. Wet heath can grade into blanket bog habitat, but neither Papillose Bog-moss (*Sphagnum papillosum*) or Hare's-tail Cottongrass (*Eriophorum vaginatum*) will be present in wet heath. For a description of blanket bog, see booklet 4: Wetlands.

Wet Heath: What to look for

Look for wet heath on gently sloping hillsides below drier areas where dry heath could occur, and above deeper wetter substrates where blanket bog could form.

Cross-leaved Heath becomes the most common dwarf shrub with other key species prefer wetter conditions.



Cross-leaved Heath (*Erica tetralix*). Flowering July to September. Cross-leaved Heath becomes the most abundant dwarf shrub in Wet Heath.

Deergrass (*Trichophorum cespitosum*). Flowering May to June

Bog-mosses (*Sphagnum* species) but not Papillose Bog-moss (*Sphagnum papillosum*)

Cotton-grasses (*Eriophorum angustifolium*) but not Hare's-tail Cottongrass (*Eriophorum vaginatum*). Flowering May to June



Round-leaved Sundew (*Drosera rotundifolia*), Purple Moor-grass (*Molinia caerulea*), Bog Asphodel (*Narthecium ossifragum*), Heather (*Calluna vulgaris*) and Bilberry (*Vaccinium myrtillus*)



Green Hairstreak butterfly (*Callophrys rubi*), Slow-worm (*Anguis fragili*), Common Lizard (*Zootoca vivipara*) and Stonechat (*Saxicola rubicola*).

Lichen/Bryophyte Colliery Spoil Heath

On colliery spoil sites, there are often areas of dry and wet heath which can fit quite neatly into those Phase I habitat categories. However, there is also a very different and distinctive lichen and bryophyte (moss and liverwort) heath that is characteristic of south Wales Valley's colliery spoil. The most recognisable feature of this habitat are the wide Reindeer Lichens (*Cladonia*), and an associated luxuriance of bryophytes.

These are heathland types analogous to high mountain or tundra habitats. They have developed on colliery spoil through natural process, partly fed from the local heathland seedbank, partly from more distant recruitment. A beautiful and biodiverse post-industrial habitat.

Lichen/Bryophyte Colliery Spoil Heath: What to look for



Reindeer Lichens (*Cladonia*), of which many species might occur.

A richly developed bryophyte flora and a wide diversity of fungi.

Heather (*Calluna vulgaris*), Wimberry/Bilberry (*Vaccinium myrtillus*), Cross-leaved Heath (*Erica tetralix*), Bell Heather (*Erica cinerea*).



Acid grassland species such as Tormentil (*Potentilla erecta*), and Heath Bedstraw (*Galium saxatile*) can all occur, please consult booklet 2, grasslands.

Where to see heathland 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 in the table, or see the RCT Living Landscapes website: rctlivinglandscape.wales

Heathland RCT Sites	Location – What3Words
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

Summary: Key heathland species by habitat

Habitat	Key Species
Dry Heath	Heather (<i>Calluna vulgaris</i>) Bell Heather (<i>Erica cinerea</i>) Wimberry/Bilberry (<i>Vaccinium myrtillus</i>) Western Gorse (<i>Ulex gallii</i>)
Wet Heath	Cross-leaved Heath (<i>Erica tetralix</i>) Deergrass (<i>Trichophorum cespitosum</i>) Bog-mosses (<i>Sphagnum</i> species) Cotton-grasses (<i>Eriophorum</i> species)

Alphabetical list of key heathland species

Note that all these species occur in both wet and dry heath but these tables list which habitat the species are most abundant in.

Key Species by Common Name	Habitat
Bell Heather (<i>Erica cinerea</i>)	Dry Heath
Bilberry (<i>Vaccinium myrtillus</i>)	Dry Heath
Cotton-grasses (<i>Eriophorum</i>)	Wet Heath
Cross-leaved Heath (<i>Erica tetralix</i>)	Wet Heath
Deergrass (<i>Trichophorum cespitosum</i>)	Wet Heath
Heather (<i>Calluna vulgaris</i>)	Dry Heath
Bog-mosses (<i>Sphagnum</i> species)	Dry Heath
Western Gorse (<i>Ulex gallii</i>)	Wet Heath

Key Species by Scientific Name	Habitat
<i>Calluna vulgaris</i> (Heather)	Dry Heath
<i>Erica cinerea</i> (Bell Heather)	Dry Heath
<i>Erica tetralix</i> (Cross-leaved Heath)	Wet Heath
<i>Eriophorum</i> species (Cotton-grasses)	Wet Heath
<i>Sphagnum</i> species (Bog-mosses)	Wet Heath
<i>Trichophorum cespitosum</i> (Deergrass)	Wet Heath
<i>Ulex gallii</i> (Western Gorse)	Dry Heath
<i>Vaccinium myrtillus</i> (Bilberry)	Dry Heath

Useful resources

- **Britain's Habitats:** A field guide to the wildlife habitats of Great Britain and Ireland, Lake, S. *et al.* Wild Guides. 2nd Edition, 2020.
- RCT Action for Nature, 2023 rctlnp.wixsite.com/rct-actionfornature
- Action Plan for Nature: RCT LBAP October 2000