

# Buds, Berries and Leaves Survey

## Community Science



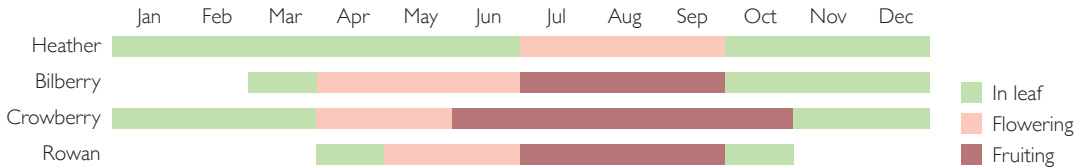
This guide provides information about how to conduct the Buds, Berries and Leaves Survey on moorland. If you're new to the survey, visit our website for more information about why we're doing it and how you can get involved [www.moorsforthefuture.org.uk/community-science](http://www.moorsforthefuture.org.uk/community-science)

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## Why are we interested?

Phenology is the study of the **timing of seasonal events**, such as the opening of leaves in spring. These seasonal events are often triggered by air temperature. Climate change may cause a shift in the date that they happen. This survey will enable us to monitor changes in the timing of seasonal events for important moorland plant species across the Peak District and South Pennines. The diagram below illustrates the expected yearly cycle of leafing, flowering, and fruiting of our target species in Britain.



## Where and when to survey

Surveys are conducted along fixed routes (transects) throughout the year, focussing particularly between March and October when plants are likely to show seasonal changes.

## What to take with you

- A map of the transect you intend to walk (either pick your own or choose from our website). This shows the habitat sections the transect is divided into for recording.
- A recording form (available from our website).
- A camera, if available, to take photographs to verify your sightings.
- You may also find a pair of binoculars useful to get close up views of rowan trees.

## Conducting the survey

- Please fill in the information at the top of the recording form. **When, where** and **who** are important.
- Walk the transect at a slow and steady pace, observing the shrubs (bilberry, crowberry and heather) up to 2m (metres) to each side of the path and rowan trees in the area up to 20m to each side of the path.
- As you walk, make a note of the growth stage of each of the species you see.
- Make sure you record sightings in the correct section of the transect (see map or guide for details).
- When you reach the end, record the finish time of your survey at the top of the form.

## Health and Safety

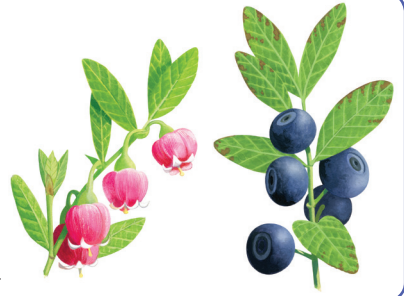
Before setting out, ensure you have read and understood the health and safety guidelines provided at training and on our website [www.moorsforthefuture.org.uk/community-science/berries-buds-and-leaves](http://www.moorsforthefuture.org.uk/community-science/berries-buds-and-leaves)

Please submit results to [www.moorsforthefuture.org.uk/community-science/submit-results](http://www.moorsforthefuture.org.uk/community-science/submit-results) or by post as soon as possible.

## Bilberry

Bilberry (*Vaccinium myrtillus*) is a low growing shrub reaching up to 30cm in height. It can be found in the north and west of the UK on drier areas of heath and moorland.

- Leaves are oval with finely toothed edges.
- Green / pink flowers hang singly below new stems, usually appearing between April and June.
- Fruits resemble small blueberries. Usually seen July to September.



## Common Heather

Common heather (*Calluna vulgaris*) is a low growing shrub, reaching up to 50cm in height. Often found on heaths and moors across the UK.

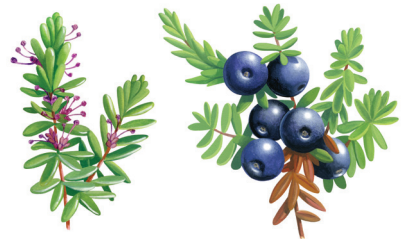
- Leaves are small and stalkless, growing in four vertical rows along branches and are present year round.
- Flowers are bell shaped and pink or pale purple, usually appearing from July to September.



## Crowberry

Crowberry (*Empetrum nigrum*) is a low growing shrub, reaching up to 30cm in height. It can be found in upland areas across the UK.

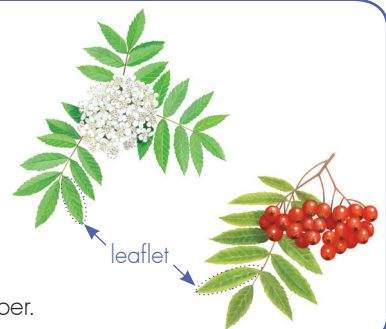
- The plant bears needle-like leaves on reddish-brown stems.
- Flowers are small and purple and can be seen April to May.
- Fruits are shiny black, and can usually be seen from May to October (although may remain until December).



## Rowan (Mountain Ash)

Rowan (*Sorbus aucuparia*) are hardy trees which can grow up to 15m in height. Found throughout the British Isles, from sea-level to over 900m altitude – higher than any other British tree species.

- Leaves are comprised of 5-8 pairs of leaflets plus one leaflet at the end. Usually appear around April and are lost in winter.
- Flowers are creamy white and held in dense clusters, usually seen May to June.
- Fruits are orange-red and borne in clusters from August to September.



Thank you for your involvement in the Moors for the Future Partnership's Community Science Project, an important initiative to collect long-term data to help us understand how moorlands and the species they support are responding to climate change. For information about other surveys you can get involved in visit [www.moorsforthefuture.org.uk/community-science](http://www.moorsforthefuture.org.uk/community-science)