

This guide provides information about how to conduct the *Sphagnum* 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

Moors for the Future Partnership, The Moorland Centre, Edale, Derbyshire S33 7ZA

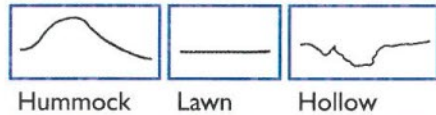
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Why are we interested?

Sphagnum mosses grow in cool, damp places, with a third of the UK's 34 species found in bogs. As the climate is predicted to get hotter and drier in the Peak District and South Pennine moors we may see changes in where and how much *Sphagnum* grows. This survey aims to map the distribution of *Sphagnum* across the Peak District and South Pennine moors and monitor how this changes over time.

How to identify *Sphagnum*

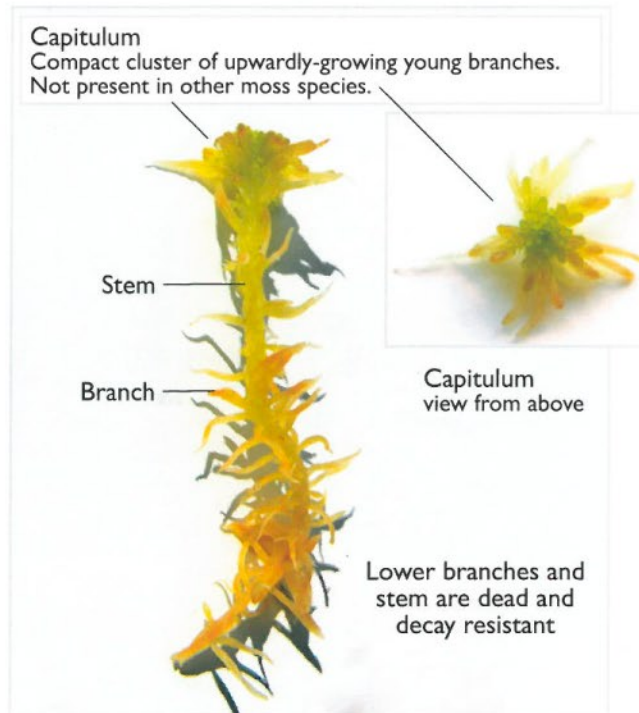
Individual plants form patches in a:



Sphagnum can vary in colour from bright green to dark red and looks bleached when dry.

What is *Sphagnum* moss?

Like other mosses *Sphagnum* are small, low growing, non-vascular plants that thrive in wet, low nutrient environments. Their stems do not transport water and nutrients from the soil. Instead *Sphagnum* absorbs nutrients from the water around it so is sensitive to changes in water quality. In the uplands *Sphagnum* grows in habitats mainly fed by rain water so if the rainwater is affected by changes in air quality, this can affect the occurrence and growth of *Sphagnum* in these habitats. *Sphagnum* grows upwards from its tip (called the capitulum) whilst its lower parts die off. It is these decay resistant parts of the plant that help form carbon-rich peat soils. *Sphagnum* is a key species of blanket bog habitat. It helps maintain healthy, resilient wet bogs and creates an environment for other wildlife to survive (www.moorsforthefuture.org.uk).



Where and when to survey

We are surveying Public Rights of Way across the Peak District and South Pennine moorlands every year. Please visit our website to see which routes have been surveyed and which still need visiting this year. You can carry out a survey at any time of year, weather permitting.

What to take with you

- A Recording Form (available from our website).
- A map covering the survey area – either an OS Map or a print out of a satellite image.
- A camera, if available, to send us photos of your findings.
- A GPS unit, or freely available smartphone app such as GridPoint GB or ViewRanger, to record the exact location of *Sphagnum* patches.

Conducting the survey

- Fill in the information at the top of the recording form. **When, where** and **who** are important.
- Walk the route, scanning 2 metres (2m) either side of the path for *Sphagnum*. If the path is wide you may need to walk up one side and down the other to ensure an even search.
- Record each patch of *Sphagnum* you see. Please don't worry about identifying *Sphagnum* moss to species level as this can be tricky even for experts. If you would like information on how to do this please contact us and we'd be happy to help. To start with we are looking to map where *Sphagnum* is and where it isn't.
- Some patches may be clearly continuous whereas others are made up of a number of small, less distinct patches. If patches are less than 2m apart, treat them as a single patch.

For each patch of *Sphagnum* you find:

- Mark the location of its centre point on your map as accurately as you can or take a GPS reading. On the Recording Form, note down any features that will help you identify the patch location when you enter your results (taking a photo of obvious landmarks might help).
- Record how wide the patch is at its widest point (up to 2m from the edge of the path) and how long the patch is at its longest point to the nearest 25cm (approximately the length of this card).
- Record whether the *Sphagnum* is growing as a hummock, a lawn or in a wet hollow (overleaf).
- If you have a camera (photos from phones are fine) take photos of the patch: one up close to help verify your findings, and one of the whole patch to compare with findings in future years.

Health and Safety

Before setting out, ensure that you have read and understood the health and safety guidelines provided at training and available on our website www.moorsforthefuture.org.uk/community-science

Submit your results through www.moorsforthefuture.org.uk/community-science/submit-results or by post as soon as possible, even if you did not find any *Sphagnum* – knowing where there isn't *Sphagnum* is as important as knowing where there is!

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

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