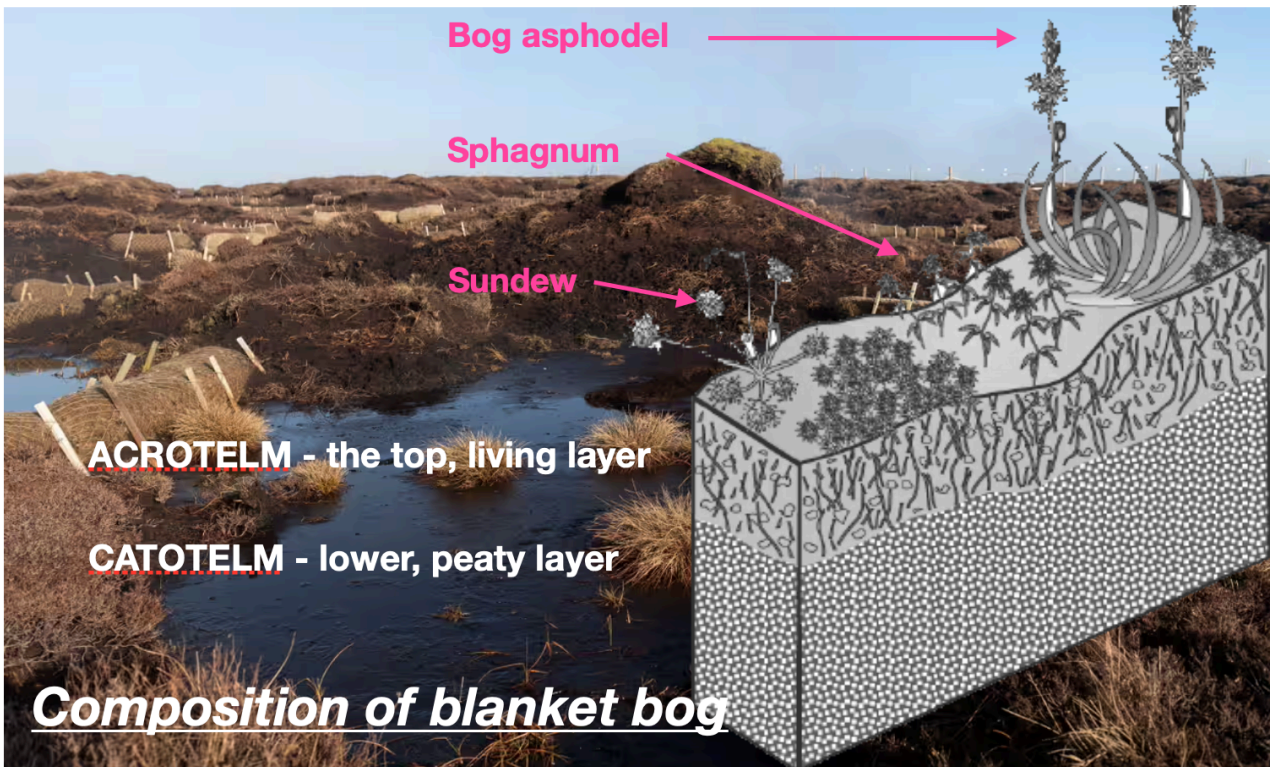


NO WINDFARMS ON PROTECTED PEAT

What are protected peatlands? Why do they matter?



Peat is a type of soil that is largely made up of partially decayed dead vegetation, formed over thousands of years in areas with a lot of rainfall. Meaning that the land is in a (near) permanently saturated state.

The dead vegetation is held underwater, so its decomposition is limited by lack of air. A peat bog, or blanket bog, is formed. In the South Pennine Moors, this process has been going on for around 9,000 years.

When it is waterlogged and in a healthy state, the peat bog is formed of two layers.

The top, living layer (acrotelm) is a rough surface of plants like sphagnum mosses, cotton grass and small shrubs. This slows rainfall runoff, allowing sphagnum moss to absorb and hold up to 20 times its weight in water. As the rainfall doesn't run off the earth's surface, this lets the water percolate gently into the ground (the lower layer of peat in the catotelm), so it holds more water and the water table rises.

As the plants in the acrotelm (surface layer) die - and amazingly,



sphagnum dies from the bottom up - they form new peat. This adds to the catotelm - the dead plant remains which have mainly broken into small fragments. The catotelm may be up to 10 metres deep. The carbon that the living plants had absorbed through photosynthesis, is held in the lower layer of peat under the water table. This is why peat is called a “carbon sink”.

If for any reason the peat bog dries out and the water table falls, the top layer of bog plants no longer have favourable conditions for survival.

They become unable to resist competition from other plant species, which are generally not peat forming. The blanket bog habitat changes first to dry heath, then to acid grassland and finally to mineral soil and bare rock.

In this process, the top living layer (acrotelm) is lost. The lower layer of peat (catotelm) undergoes physical changes (specifically, subsidence and oxidation of peat carbon.) These physical changes to the lower peat layer may extend for significant distances from any drainage.

Oxidisation of the peat carbon creates the greenhouse gas, carbon dioxide, which is released to the atmosphere. This worsens climate change.

How and why peatland is protected

Blanket bog is a priority habitat under the UK Biodiversity Action Plan, it meets specific scientific criteria for being the most threatened and requiring conservation action.

SOUTH PENNINE MOORS’ PEATLAND HABITATS, PLANTS, ANIMALS AND BIRDS ARE PROTECTED BY THESE CLASSIFICATIONS

| TYPE | WHAT’S PROTECTED - AND HOW | WHY SOUTH PENNINE MOORS? | IMPORTANCE |
|---|---|--|--|
| Site of Special Scientific Interest | Plants and animals that find it difficult to survive elsewhere in the countryside; the country’s best wildlife and geological sites. SSSI are legally protected under the Wildlife and Countryside Act 1981. Natural England has powers to ensure farmers and landowners protect and manage their SSSI land effectively. | <ul style="list-style-type: none"> • These areas contain the most diverse and extensive examples of upland plant communities in West Yorkshire. • This mosaic of habitats also supports a moorland breeding bird assemblage that includes a range of species and large numbers of birds • The area contains three locations of special geological interest. | These habitats and species are variously of regional, national and international (European) importance. SSSI habitats and species of international (European) importance are also protected by SAC and SPA designations (see rows below) |
| Special Area of Conservation (256 in England) | Habitats and animal and plant species that are important at a European level, listed in Annex 1 and 2 of the Habitats and Species Directive (now transposed into UK law post-Brexit.) Natural England and Local Planning Authorities have powers to enforce these protections. | <ul style="list-style-type: none"> • 4010 North Atlantic wet heaths with Erica tetralix (a type of heather that flowers between June and September and attracts many nectar-loving insects, including bees and moths.) • 4030 European Dry Heaths • 7130 Blanket bogs* (* Denotes priority habitat) | International (at European level) |
| Special Protection Area (82 in England) | Based on the conservation requirements of species listed in Annex I of the Birds Directive and/or migratory species regularly occurring in the UK. In England and Wales the protection is under the Conservation of Habitats and Species Regulations 2017 (as amended) Natural England and Local Planning Authorities have powers to enforce these protections. | <ul style="list-style-type: none"> • Golden Plover; • Merlin, • Plus a breeding bird assemblage that includes common sandpiper, short-eared owl, dunlin, twite, snipe, curlew, wheatear, whinchat, redshank, ring ouzel and lapwing. • Targets to restore a number of relevant attributes, including (but not limited to) the extent, distribution and availability of suitable breeding habitat for SPA species including golden plover and merlin. | International (at European level) |