

For Peat's Sake

Peat is the accumulation of dead organic matter that does not fully decompose due to waterlogged conditions.

Timeline



How peat is formed

When the ice melted after the last Ice Age a series of shallow lakes were exposed, scooped out on the underlying clay. These pools were colonised by rushes and sedges. As the vegetation grew and died back, fen peat began to form. 2500 years ago the climate became much wetter. Sphagnum moss began to flourish on the fen peat. As the layers of moss grew and died back in the water-logged, de-oxygenated conditions a mound began to form, thus creating a lowland raised peat bog. These small isolated areas spread out and eventually joined up to make a larger bog. This is how Risley Moss was created.



Raised peat bogs can be up to 12 metres deep. The peat depth at Risley varies between 2 and 5 metres, as the top 3 metres were cut away by peat extraction.

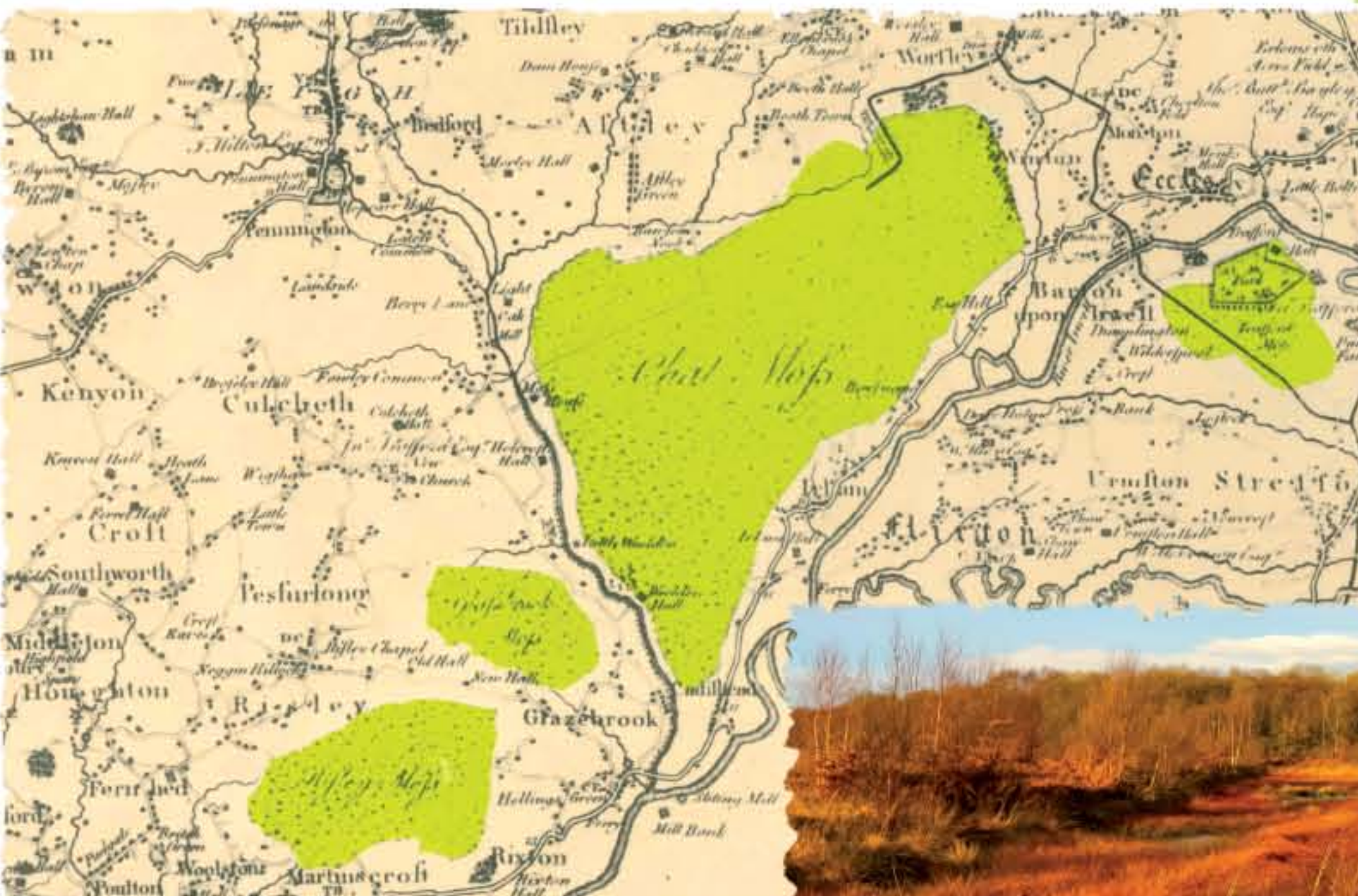
Bogs that form in upland areas like Scotland or the Peak District are known as blanket bogs.

Sphagnum Moss

Due to their cellular structure, these remarkable mosses are able to hold copious amounts of liquid like a sponge, even after drying back. Some species can hold up to 20 times their dry weight in water. The black oozing substance underneath the growing moss is the beginnings of peat formation.

There are 8 known species of sphagnum at Risley Moss, each with its own individual requirements, indicating different levels of moisture and acidity.

Peat forms very slowly at a rate of 1mm per year.



The Importance of Peat Bogs

- Peat bogs are a unique habitat in which many rare plants and animals can be found.
- Peat bogs cover 3% of the world's surface, but store twice as much carbon as all the world's forest combined. This carbon is released into the atmosphere when the bog is damaged.
- Peat bogs are threatened throughout the world by destruction through agriculture, horticulture, forestry, fuel and other commercial developments.
- 94% of the UK's lowland peat bogs have been destroyed or damaged. Most of this has occurred in the last 50 years since peat-digging has been mechanised.
- England still consumes the equivalent of 24 million wheelbarrows full of peat, mostly on its gardens, even though a host of adequate substitutes exist.
- DEFRA (Department of Environment, Food and Rural Affairs) has an ambition to reduce peat use to zero in the UK by 2030, which includes phasing out peat based compost by 2020.

3011	1 metre of new peat formed.
2111	10cm of new peat formed.
2021	1cm of new peat formed.
2011 -13	Fourth phase of rewetting and completion of mini-moss project.
2011	Risley Moss entered into HLS under Natural England.
2002	Third phase of re-wetting.
1999	Second phase of re-wetting.
1994	First phase of re-wetting and bog re-contouring under English Nature.
1978	Restoration of Risley Moss commences. First dams installed.
1928	Commercial peat cutting ceases at Risley Moss.
1872	Peat cutting industry at Risley Moss commences. Drainage of bogs surrounding Risley Moss for farming begins.
1700	Small scale use of peat for fuel by locals.
AD	
BC	
500	Cooler, wetter climate sets in. Trees die back, sphagnum flourishes. Formation of raised peat bog begins.
2000	Fen becomes choked with swampy vegetation. Alders thrive in open ponds.
3000	Shallow lakes become fen, with sedges and reeds.
	Hollows fill with water forming shallow lakes.
8000	Ice retreats leaving series of hollows in underlying clay.