What can I do to help?

Don't buy totally peat-based compost for your garden. Peatland wildlife depends on peat but gardeners don't. Today, suppliers have developed a new generation of composts, specifically designed to replace peat. The measures below will mean that you are helping our wild plants and animals:

- make sure that the compost you buy has 'peat-free' or 'peat-reduced' on the packaging,
- choose plants that are growing in a peat-free or peat-reduced compost,
- ask your local retailer to stock peat-free and peat-reduced products.

The pink flowers of the cranberry

ENGLISH NATURE

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Peat bog conservation

the importance of lowland raised bogs

working today for nature tomorrow

English Nature is the Government agency that champions the conservation of wildlife and geology throughout England.

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Other useful websites for information on peat bogs and biodiversity:

UK Biodiversity website
www.ukbap.org.uk

RSPB
www.rspb.org.uk

Plantlife
www.plantlife.org.uk

National Trust
www.nationaltrust.co.uk

Friends of the Earth
www.foe.co.uk

Composting Association
www.compost.org.uk

Read the *Peatering Out* report at
www.english-nature.org.uk

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A lowland raised peat bog

What is peat?

Peat forms in waterlogged conditions where a lack of oxygen prevents dead plants from decaying fully. Each year new plants grow and die and layers of plant material gradually accumulate over hundreds and thousands of years to form peat.

In the uplands rain and mists are frequent and mean that nutrients in the soil are gradually flushed out. This wet, infertile soil is ideal for *Sphagnum* mosses and, eventually, large areas become covered and are known as blanket bogs.

In the lowlands peat usually forms in shallow, poorly-drained basins or flat river floodplains and can grow to a considerable size and depth. As the peat builds up it forms gently sloping mounds, known as raised bogs or mires. These raised bogs are higher than the surrounding landscape and are cut off from the groundwater. The *Sphagnum* mosses that grow on them rely on rainwater for their nutrients and act as giant sponges to retain as much moisture as possible.

Why is peat important?

Peat bogs form some of England's most scarce habitat and provide a unique home for a wealth of plants, animals and insects. They also provide an important feeding and stopping-off point for native and migrating birds. Because peat bogs can be thousands of years old (and pre-date our Stone Age ancestors!) they contain layers of historical data. By examining a section of peat, scientists can tell what our landscape was like, what type of animals colonised the area, and what weather conditions prevailed.

If we continue to destroy these peat habitats we will ruin a vital part of our natural heritage, lose dozens of rare plants, animals and insects and miss out on the chance to look into the past.

Several species of carnivorous plant have made the peat bog their home. Sundews are able to trap and digest insects on their sticky leaves in order to supplement a meagre diet.

Black darter dragonfly

Dragonflies, bog bush crickets, black bog ants and butterflies are just some of the insects that thrive in this environment.

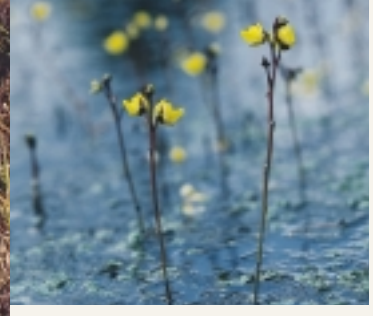
What am I likely to see on a peat bog?

Many people think of bogs as wilderness areas with little to see, but a closer inspection will reveal some remarkable plants, insects and animals. Vast areas are covered in sponge-like *Sphagnum* mosses that display a vibrant mix of colours ranging from pink, deep wine-red and orange to gingery brown and bright green. Dotted throughout the mosses you will see the pink flowers of bog rosemary, the ruby-reds of the cranberry, the bright yellow flowers of bog asphodel and the fluffy white heads of the cotton grass. The whole landscape resembles a giant Persian rug.

Where can I see lowland raised peat bogs?

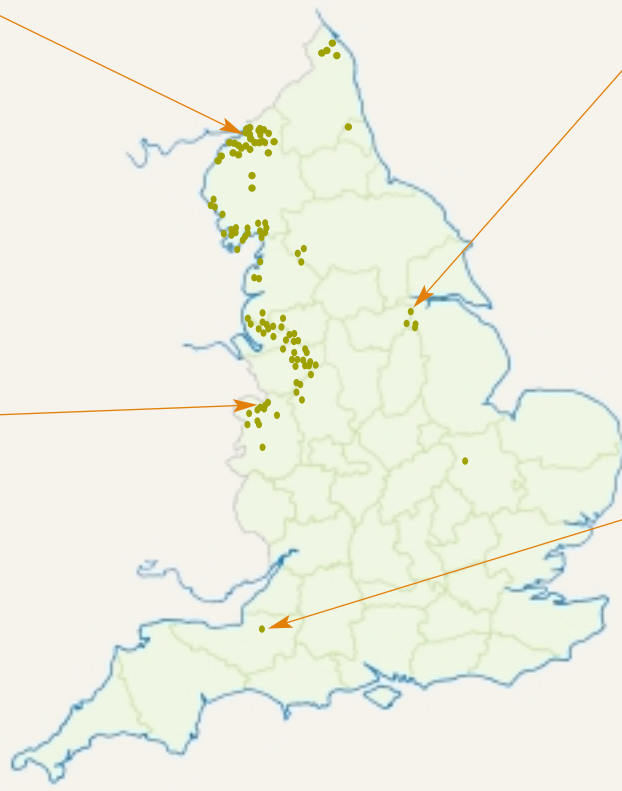
Peat bogs are now found in relatively few places across England and we must ensure that these areas are protected. Use the map inside this leaflet to find out where your nearest peat bog is located.


Peter Wakely/English Nature



Peat bog locations

English Nature is working with partner organisations and industry to ensure that lowland peat bogs, such as those shown on this map, are restored and managed so that native species will begin to thrive again.



South Solway Mosses NNR, Cumbria

Bowness Common, Glasson Moss and Wedholme Flow are three of the best remaining peat bogs in Europe and currently contain much of the peat forming bog surface in England.

Fenn's, Whixall & Bettisfield Mosses NNR

Together these mosslands form an outstanding example of a lowland raised bog, which straddles the national border between England and Wales. Bog species are now thriving following restoration of commercial peat cuttings.

Humberhead Peatlands NNR, South Yorkshire

Thorne, Goole, Crowle and Hatfield Moors (England's largest peat bogs) are all that remains of a formerly extensive area of wetland which occupied the flood plain of the Humberhead Levels several thousand years ago.

Shapwick Heath NNR

Located in the south west of England there is a record of human activity in this area of fen (which was formerly raised peat bog) dating back to circa 4000 – 500 BC.


Peter Wakely/English Nature


Peter Wakely/English Nature


Roger Key/English Nature


Roger Key/English Nature

Clockwise from top right: NNR signage, bog asphodel, bog rosemary, purple-bordered gold moth, cranberry berries on *Sphagnum*, bog bush cricket, *Sphagnum* moss, cross-leaved heath, common cotton grass, bladderwort

Yesterday

An impressive landscape teeming with unique wildlife

As nutrient-poor peat bogs became established, specially adapted plants and animals moved in and were able to survive in the sodden, acidic environment. A whole ecosystem gradually emerged and peat bog developed a rich and unique character of its own.


Large heath butterfly

Today

Great for the grow-bag but…

Lowland peat bog, in England, covers less than one tenth of its original 38,000 ha. Agricultural claim, forestry, landfill and peat extraction has devastated this habitat and much of the peat extraction has been carried out on, or next to, some of our most important remaining peat bogs. Today, one of the greatest threats to our peat bogs is from our continued use of peat in the garden. The gardening hobby that brings many of us a great deal of pleasure is doing so at the expense of our wildlife.

Adding to the greenhouse effect

Peat bogs absorb and store carbon dioxide from the atmosphere. Continuous exploitation means that this stored carbon dioxide is being released and is adding to our global warming problems.

The peat bog story


Wedholme Flow following peat extraction

Protecting our peat bogs

Biodiversity is the amazing richness and variety of life on earth. In order to protect its own unique wildlife the UK has produced a national Biodiversity Action Plan (UK BAP) which is designed to enable participating organisations and communities, through local level schemes (Local Biodiversity Action Plans - LBAPs), to conserve and enhance this biodiversity. With its partner organisations English Nature will identify suitable peat bogs for restoration and will work towards achieving LBAP and UK BAP targets.

In February 2002 English Nature was able to announce the Government's commitment to buy out the peat extraction rights of Scott's, the largest peat producer in England. This will secure the future of the Humberhead Peatlands and Wedholme Flow.

Tomorrow…

Can we end the extraction of peat on these valuable habitats?

Peatering Out, a project sponsored by English Nature and the RSPB, outlines a plan to end the commercial use of peat in the UK within 10 years. A gradual phase-out of peat through progressive dilution with other materials is the most realistic way to work towards ending peat use, and several leading suppliers are working to make this happen.

Are there centuries of history waiting to be discovered?

Controlled digs, in undisturbed peat bogs, allow scientists and archaeologists to delve into the 'living history book' of the peat bog. The semi-decayed plant, animal (and sometimes human) remains provide a record of cultural, climatic and vegetation changes dating back thousands of years.

Will revolutionary drug discoveries be made?

Continued studies of the peat bog environment, as well as other natural habitats, may lead to increased knowledge of the uses and potential medicinal benefits of native plants and organisms. Many medicines are derived from plants or are based on the chemicals within plants and we are only just beginning to realise their true potential. In World War I, when sterile dressings became scarce, *Sphagnum* mosses were used to dress patients' wounds.

Clockwise from top right: NNR signage, bog asphodel, bog rosemary, purple-bordered gold moth, cranberry berries on *Sphagnum*, bog bush cricket, *Sphagnum* moss, cross-leaved heath, common cotton grass, bladderwort

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