

Meres and Mosses: important habitats along the Cheshire Sandstone Ridge

A CHAIN OF SIX IRON AGE HILLFORTS dominates the Cheshire Sandstone Ridge. Beyond their earthen ramparts spreads a mosaic of broadleaved woodland, species-rich grassland, and open heath, flanked by meres and mosses. These varied yet fragile habitats support a huge variety of unusual plants and animals, many of them adapted to specific historic land uses.

By restoring and enhancing these increasingly threatened landscapes, the vision is to create an interconnected and expanding network of woodlands, grasslands, wetlands and heath around the hills that will benefit both people and wildlife long into the future.

Glacial Landscape

The many meres and mosses scattered across the Cheshire Plain make this one of England's most important wetland areas. More than sixty lakes and peatland sites contribute to Cheshire's watery character. What's more, the county can boast the highest density of ponds anywhere in Europe.

Yet, globally, our meres and mosses are unusual. They occur only in ancient lowland glacial landscapes still wet enough to maintain them. And because they support such an incredible wealth of vanishing wildlife, Cheshire's scattered wetlands are of international importance for nature conservation.

Mere and Marsh

Over the centuries, open water is gradually colonised by plants and reverts to dry land.

The Cheshire meres were created at the end of the last Ice Age, around 15,000-12,000 years ago. At first the area was submerged beneath a vast ice sheet up to a kilometre deep. But as the climate warmed, the ice sheet gradually 'retreated' northwards, leaving behind immense chunks of ice embedded in the glacial debris dropped by the ice sheet.

Icebergs and Bogs

When these huge icebergs melted, they left behind basin-shaped hollows, called 'kettle holes', that later filled with water. Most are shallow, but a few have been deepened by subsidence where groundwater has dissolved the underlying salt beds.

Cheshire's meres have survived for thousands of years. These beautiful, ancient pools are often associated with a series of wetland habitats that demonstrate the natural succession from open water to dry land. As layers of dead vegetation build up, the open water changes first to reed swamp, then peat bog, fen, and eventually wet willow or alder woodland. Together, these watery habitats support a rich variety of unusual plants and animals from water beetles and willow tits, to breeding gulls and grebes.

Mosses develop in waterlogged, boggy ground suitable for the growth of sphagnum or bog moss. In the acidic, deoxygenated conditions, layers of dead moss are 'pickled' and compressed to create peat.

This can either fill in a hollow to create a basin mire, or form a raised bog.

Occasionally, a raft of floating moss blankets the surface of a pool to form a quaking bog called a *schwingmoor*.



Pits and Ponds

Our Cheshire mosses support a huge range of species of both national and international importance, from bog myrtle and round-leaved sundew, to short-eared owls and raft spiders.

Cheshire has other watery features, too. Of equal importance to Cheshire’s wetland status are our many marl pits, sand pits and ponds. From the Middle Ages until Victorian times, a local, lime-rich mud called marl was spread on the fields as a soil conditioner. As a result, thousands of steep-sided pits were dug across Cheshire, which soon filled with water. Even more ponds were created where glacial sand was dug out for building work. Today, roughly one in six of all the ponds in England and Wales occur within the northwest Midlands’ Meres and Mosses Natural Area.



Flag Iris
The flag iris’s yellow blooms and sword-shaped leaves brighten Cheshire’s meres and mosses.

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www.sandstoneridge.org.uk

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The Sandstone Ridge Trust

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“A greater surface of land is covered in water in Cheshire, than in any other county in England.”

Sir Henry Holland, *Agriculture of Cheshire*, 1808

Together, they provide precious habitat for water-loving plants and animals such as greater reed-mace, water plantain and tufted forget-me-not, great crested newts, water beetles and dragonflies. They also act as important stepping-stones linking Cheshire’s larger meres and mosses. Yet, each year, more are lost to infilling and neglect that could be saved by careful management.

Looking to the Future

Cheshire’s wetlands are essential for people, plants and animals. Their beauty enhances our lives as well as providing priceless habitat for declining wildlife. Happily, most of Cheshire’s larger wetland sites are legally protected. Yet many of our smaller sites, ponds and marl pits have no protection and remain vulnerable.

Each year, our countryside is becoming more uniform and impoverished. The natural diversity of habitats and the wildlife they support is in sad decline. The loss of traditional countryside management also means important habitats are increasingly fragmented and isolated from one another.

Faced with such a sharp fall in biodiversity, nature conservation must now look beyond reserves and protected areas. It must extend its vision to care for the countryside as a whole. By restoring and extending Cheshire’s wetlands through careful management and habitat creation, we aim to re-establish the links between these semi-natural islands. Only then can we hope to safeguard vulnerable species, maintain viable local wildlife populations, and meet the crucial targets of the UK’s Biodiversity Action Plan.

A series of other guides is available. Look out for four walks leaflets, four habitat leaflets, and six hillfort leaflets.

CASE STUDY

Restoring Delamere’s Lost Mosses

LOST MOSSLANDS in Delamere Forest are being restored by the Cheshire Wildlife Trust, in partnership with the Forestry Commission, with the aim of re-wetting 120 hectares of peatland basin within the forest. Even the forest’s name, de la mere, comes from the old Norman French meaning the forest ‘of the meres’. Hidden among the trees is a cluster of 100 or so peatland basins of various sizes. Most were drained and planted with conifer plantations around 80 years ago.

Now almost 40 of these lost meres and mosses are being brought back to life. Once the trees have been harvested and the area cleared of scrub, the drainage channels are blocked and the basin starts to fill. As the basins return to their natural state they become wonderful habitats for wildlife. Delamere’s new meres and mosses will help threatened plants, birds, amphibians and insects — such as waterlilies, waders and wildfowl, newts, and dragonflies — to thrive again.

One such mossland specialist - the white-faced darter dragonfly – is hoping to be returned its former haunt. Flourishing within the forest for hundreds of years this tiny creature was lost once the mosslands began to degrade. In 2013 an ambitious project began to reintroduce the white-faced darter to one of the recently restored pools in Delamere. Ongoing work will ensure it can spread throughout the forest once more, allowing future generations to marvel at its beauty and the incredible habitat it is a part of.

“When the meres and mosses are restored, rare plants and wildlife will thrive once more.”

Katie Piercy, Cheshire Wildlife Trust.

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