

## Access

Access to the nature reserve is by permit only, available free of charge from the Site Manager, and permit holders are welcome to use the network of paths on the reserve. Visitors are welcome to bring their dogs, but are asked to keep these on leads to prevent disturbance to wildlife.



Large heath butterfly

from the boardwalks. Ticks are present on this reserve and visitors are advised to take adequate precautions.

## English Nature

This nature reserve is managed by English Nature, a government-funded body that cares for our natural heritage and promotes the conservation of England's wildlife and natural features.

This publication is produced by English Nature's Cumbria Team, Juniper House, Murley Moss, Oxenholme Road, Kendal, LA9 7JR.

[www.english-nature.org.uk](http://www.english-nature.org.uk)

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## How to get to the reserve

From the A590 at Haverthwaite take the B5278 towards Cark. Immediately after crossing the River Leven take the private road on the right, opposite Low Wood. Follow this private road to the reserve car park at SD329827

## Map

Ordnance Survey Landranger Sheet 96



Cover picture: Fish House Moss

## For further information

### Contact:

**The Site Manager** (South Cumbria and North Lancashire NNRs) at Roudsea Wood Base, Fish House Lane, Haverthwaite, ULVERSTON, Cumbria LA12 8PE. Tel: 015395 31604



# Roudsea Wood and Mosses National Nature Reserve



working today  
for nature tomorrow

# Roudsea Wood and Mosses National Nature Reserve

The nature reserve lies at the head of Morecambe Bay, adjoining the Leven Estuary. Established in 1955 it comprises an area of 476 hectares of woodland, mosses (peat bog), and saltmarsh.

The site is leased from the [Holker Estate](#), and managed by English Nature to maintain the exceptionally rich wildlife value of this combination of habitats, which supports an outstanding range of plants and animals.



Roudsea wet woodland

## History

There is evidence of a long history of influence by man at Roudsea.

The woodlands have been managed for at least a thousand years, and [coppicing](#) was a vital activity in the past. This provided a constant supply of small timber that was needed to provide [charcoal](#), used locally for the [smelting of iron](#), and for the manufacture of [gunpowder](#).

Coppicing is continued today because it produces a rich variety of [wildlife habitats](#).

[Oak bark](#) was used in the tanning of leather, and other woodland products included clogs, tools, building materials, and bobbins for the Lancashire cotton industry.



Raft Spider  
*Dolomedes fimbriatus*

The [peat bogs](#) started forming at the end of the last ice age some 15,000 years ago. Following the retreat of the ice, and a rise in sea level, shallow lakes formed on the estuarine deposits. The vegetation changed through fens and wet woodland towards conditions that favoured the growth of [Sphagnum](#) moss, which began to lay down a considerable depth of peat. The characteristic ‘domed’ raised mires visible today have a peat deposit of up to 15 metres depth.

The Roudsea mosses are especially important as 96% of England’s peat bog habitat has now been lost through drainage for agriculture and by peat cutting.

Much of the present management of the raised mires is aimed at reversing the effects of drainage to return the Roudsea Mosses to their natural state.

## The Woodlands

Roudsea Wood is especially varied because it lies on two ridges of contrasting rock type, one of [limestone](#) and the other of acid [slate](#). These support very different communities of plants and animals.

On the limestone, the woodland is dominated by [oak](#), [lime](#), [ash](#) and [hazel](#), whilst on the slate [oak](#), [birch](#) and [rowan](#) are predominant.



Dormouse

Between these ridges lies a shallow wet valley with [alder](#) woodland, and a small tarn.

## The Peat Mosses

Raised bogs, also known as raised mires, occur in areas of high rainfall and consist of extensive areas of wet peat with a growing [sphagnum](#) moss surface. These wild landscapes support a fascinating wildlife.

The central lawns of very wet [sphagnum](#) contain a variety of other specialised plants, including the insectivorous [sundew](#). The frequent pools are home to many species of invertebrates, like the [raft spider](#).

On mineral soils around the edges of the peat bodies, [willow](#) and [alder](#) woodland provide a wide range of habitats for birds and invertebrates.

*Sphagnum* moss



**Wildlife**

The woodlands support a wealth of wildlife. Birds include **hawfinch**, **redstart** and  **pied flycatcher**, whilst amongst the mammals are the rare **dormouse** and **water shrew**. The **wild service tree** is near to its northern British limit at Roudsea Wood, whilst the endemic **Lancaster Whitebeam** can be occasionally found on exposed limestone crags.



Fruit and leaves of the wild service tree



Redstart



Great yellow sedge



Roudsea Tarn

The rare **large yellow sedge** *Carex flava*, which is unique to Roudsea within the British Isles, is found in the wet woodland along the transition between the limestone ridge and the raised mire.

**Roudsea Tarn** is a small area of open water and reed bed nestling in the woodland. It regularly attracts **water rail** and **kingfisher** and is also home for **water voles** and the **migrant hawk** dragonfly.

Traditional **coppicing** is carried out on the limestone ridge, where the coppice cycle of felling trees and encouraging re-growth produces a wide range of valuable habitats. Fences are necessary to protect the growing stems from damage by browsing **deer**. This management provides ideal conditions for the shy **dormouse**.

Open rides are maintained to encourage flowers and butterflies, particularly the speckled wood and silver-washed fritillaries.

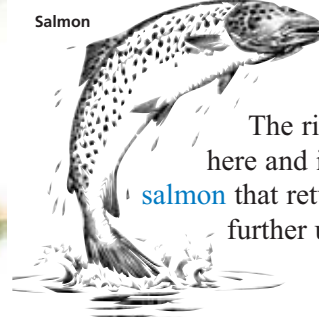


Beautiful snout moth

On the slate ridge, the development of **mature forest** has been encouraged by the removal of non-native **spruce**. Swathes of **bilberry** beneath the mature **oak** canopy provide food for caterpillars of the **beautiful snout** moth.



The woodland runs down to the **Leven Estuary** where ungrazed saltmarsh supports stands of **sea aster** and **sea pink**.

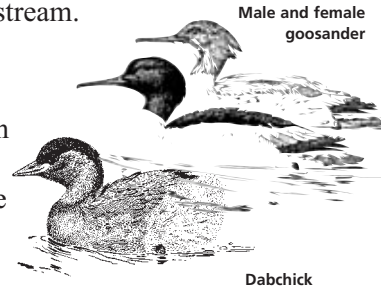


Salmon

The river is tidal here and is used by **salmon** that return to spawn further upstream.



Sea pink



Male and female goosander

Dabchick

**Dabchick** and **goosander** can regularly be seen on the river, but the presence of the elusive **otter** may only be shown by its tracks.

On the Mosses, management of the **water levels** is essential to restore the moss vegetation. This involves a programme of blocking the 55 miles of 18th century ditches with dams, and the removal of invading **birch**, **pine** and **rhododendron**. This work is helping to restore the Mosses as active raised mires.

Carpets of **sphagnum moss** grow on the wet surface of the Mosses, along with plants like **bog rosemary** and **bog asphodel**. There are many species of invertebrates, including the **large heath** butterfly, the **clouded buff** moth and the **silver hook** moth. The Mosses are also home to many nationally scarce beetles, snails, crickets, flies and spiders.



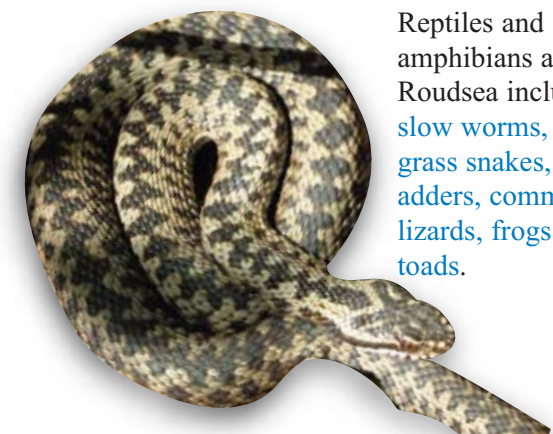
The insectivorous sundew traps and digests insects with its sticky secretions



The four-spot chaser dragonfly hunts across the bog pools

Areas around the raised mires are allowed to regenerate with native trees, to form **lagg woodland**. This helps to balance the water levels, and provides yet another wildlife habitat.

Adders can regularly be seen sunning themselves and are recognisable by the marked diamond patterning



Reptiles and amphibians at Roudsea include **slow worms**, **grass snakes**, **adders**, **common lizards**, **frogs** and **toads**.