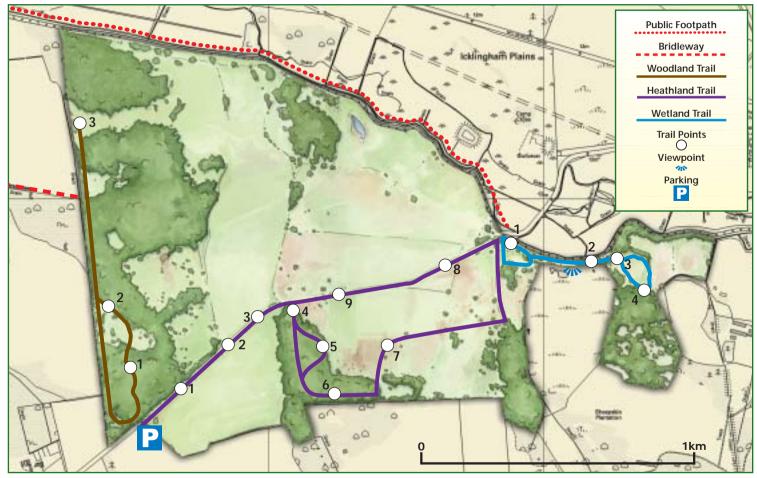


Cavenham Heath

National Nature Reserve - Trails leaflet



working today for nature tomorrow



We all admire English heathlands and here, in the Brecks, we have many important examples. Welcome to an outstanding one, Cavenham Heath National Nature Reserve – an internationally significant site. That is why it's been designated a Site of Special Scientific Interest (SSSI).

We want to reveal the processes that created it and explain why, in spite of its natural appearance, it is actually an 'unnatural' habitat.

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

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Concept by VA

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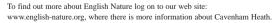








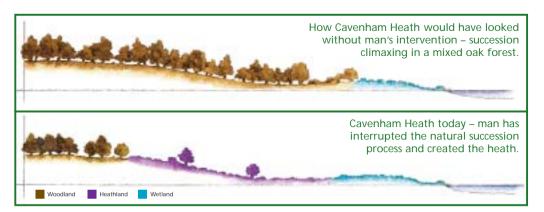






Five thousand years ago neolithic people created England's lowland heaths. As early farmers moved into the forested lowlands of Britain, they felled trees for fodder and housing. The glades they created were farmed and, when their fertility declined, man moved on.

Left alone these heaths will slowly disappear. At first scrub will encroach, then birch woods will spring up to be finally replaced by extensive oak woodland. This process of natural succession can take hundreds of years to complete. Yet for centuries this process has been interrupted by man's activities.



Over millennia this 'slash and burn' agriculture de-forested much of southern Britain. Where the soil was dry and sandy England's heathlands were created – by man.

The three trails we have developed reveal, within Cavenham Heath's two hundred hectares, a rich mosaic of habitats.

There is a universal desire to preserve this rare habitat and its characteristic species. English Nature's role at Cavenham Heath today is to ensure this unnatural, man-made habitat is maintained as naturally as possible, securing a balance between this site's three main habitats.

Woodland Trail: please follow this symbol

Heathland Trail: please follow this symbol

Wetland Trail: please follow this symbol

Each trail explains a different aspect of this unique site and shows how our on-going active management helps to maintain it for you.



This trail shows the process of succession within both wet and dry woodland and the need for management to prevent the woodland encroaching onto the heath.

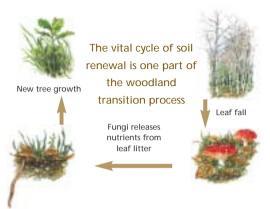
Length: 2.3 km

Easy-access (£ 1000 metres Walkers' extension 1,300 metres

Easy-access section – allow 15 minutes each way. For the Walkers' extension, add an extra 15 minutes each way.

1. Birch Woodland

A wood in transition with oaks steadily colonising – look for oak saplings, the key sign of succession. Driving this change: leaf-litter processed by fungi, returns nutrients to the soil; encourages tree growth, allowing this woodland to become oak forest.



Our role – allowing this transition process to proceed.

Look for decaying branches and trunks: which are vital as a food source for invertebrates, that in turn are preyed upon by woodland birds and mammals

2. Nightjar



This glade is a 'natural' nightjar habitat

This type of glade is preferred by nightjars – summer visitors, active at dusk and dawn feeding on moths and winged beetles.

To increase sightings English Nature is creating glades to encourage nesting and scalloping wood margins to increase food.

3. Wet Woodland and Fen

The habitat changes to wet woodland as you approach the floodplain of the River Lark, with reed and sedges becoming common.

Eventually you encounter the open fen.

As the scrub invades it is creating an ideal invertebrate environment. In the summer, attracted by this habitat and abundant insect food, grasshopper warbler and nightingale can be heard singing.

Ahead you'll spot a Second World War Type 47 pillbox. A heavy machine gun would have been mounted in its open roof.

This trail shows aspects of Cavenham Heath's human and natural history.

Length: 3.8 km, 12 hours

The trackway section of this trail is reasonably accessible when dry. The wooded and heath sections of the trail are less suitable for pushchairs and wheelchairs.

1. Birch Woodland

(See Woodland Trail point 1 for information)

2. Rabbits

Grazing is vital for heath retention. Rabbits keep the grasses short (mainly



common fescue and bents). 2001 estimate: over 1000 rabbits on heath, population stable create are ideal for pioneer plants and nesting

stone curlews. The rabbits' dung allows our populations of dung beetles to thrive.

Also here is a common heathland plant – the ragwort. This spindly yellow flower presents us with a problem. It is poisonous to our grazing animals, yet it provides many invertebrates, such as the cinnabar moth, with valuable nectar. Our decision is to retain this plant, but control its proliferation.

3. The Trackway

Possibly a prehistoric path and later a road to the small walled Roman town at Icklingham. Definitely a medieval trackway - one of several London to Norwich routes crossing the River Lark.

Note the many heathland flowers growing on the track's verge. Viper's bugloss is one such, providing nectar for numerous invertebrates. In turn these are an important food source for heathland insectivorous birds such as the woodlark.

4. Heather

The heath's most distinctive plant, heather, supports a wealth of insects – over 30 different moths feed on it, while dozens of beetles, bugs and bee species live in it.



Building

Heather takes 40 years to mature, involving four characteristic growth stages: solitary 'pioneer' plants; small clumps of young 'building' heather; 'mature' tracts; thinning,

woody 'degenerate' plants.



Degenerate

Wherever poor soils occur lichens and mosses are the vegetation vanguard. Successive colonies die back, to enrich the soil, preparing the way for the next wave of growth – heather and gorse.

5. Medieval Sheep Farming



A medieval sheepcôte - two manors had rights of sheepwalking and shackage on the heath

Another example of man's impact on the heath - once a common Brecks' sight a sheepcôte, or sheepfold. These structures from the Middle Ages were used to corral sheep at night or during poor weather. Sheep maintained the heath by keeping the grasses, scrub and trees cropped, stopping succession progressing.

6. Birch Woodland

Here in the wood you notice most trees are about the same age. A combination of changing farming practices (fewer sheep raised) and myxomatosis killing most rabbits, cut grazing in the 1950's and 60's. So succession rapidly progressed with stands of silver birch like this springing up across the heath.

7. Mature Heathland

An area of mature and degenerate heather – the woody stems are diagnostic. Invasive grasses compete here, most notably the wavy hair-grass. Patches of this grass are regularly rotovated to encourage heather to germinate.

Right: Stone curlew, timid and nocturnal: 2001 – 3 nested, none successfully; pre-migration flock of 30 destined for Spain or Africa assembled from August to October.

Each hectare of mature heather supports well over one million spiders. Evidence for their presence, in the form of webs, is everywhere. In the summer you can find tent webs of the nursery web spider. In the late summer the gossamer threads of money spiders criss-cross the heath. And on dewy autumn mornings orb webs are easy to find, as are the meshes of threads left by venomous therids to ensnare their insect prey.

8. Second World War

Another example of man's impact on the heath. In 1940 the heath was part of Britain's Eastern Command Stop Line. Four pillboxes, numerous slit trenches and several anti-glider ditches were built to repel German invaders.

You can still spot the ditches either side of the trackway by the twin lines of spoil heaps.

9. Heathland Birds

success-rates.

Here you may see birds of the open heath

— including the rare stone curlew and the
wheatear. Both need open dry ground for
nesting, to see predators clearly and to feed on
the abundant habitat's invertebrates.

English Nature's grazing management is
again critical. Alongside rabbits
and deer, our livestock
grazing creates the terrain
for breeding success.

There is no public
access as
disturbance reduces
the bird's

This trail reveals the spectrum of wetland habitats – wet woods, fen, water meadows and riverbanks

Length: 1.3 km

Walkers should allow 15-20 minutes each way.

1. Scrub

As you approach the river the vegetation changes from heath to scrub. This transition zone would revert to woodland, unless managed.

Our scrub management ensures a wide variety of birds can be seen throughout the year. From April to June common whitethroats and lesser whitethroats sing here. During the autumn and winter the bushes act as feeding stations and roosts for berry-eating thrushes.

Try to identify the various scrub species – there's alder, buckthorn, elderberry, elm and hawthorn.



Left: Common whitethroat: 2002 - 6 males singing and presumed to nest

Right: Banded demoiselle, a damselfly, one of 14 odonata (out of Britain's 45 species) found at Cavenham Heath between May and October.

Fen flowering calendar

A wide variety of flowers provides nectar for butterflies and moths

Angelica	J	F	M	Α	M	J	J	А	S	0	N	D
Buckthorn	J	F	M	Α	M	J	J	Α	S	0	N	D
Comfrey	J	F	M	Α	M	J	J	Α	S	О	N	D
Greater stitchwort	J	F	M	Α	M	J	J	Α	S	О	N	D
Gypsywort	J	F	M	Α	M	J	J	Α	S	О	N	D
Hawthorn	J	F	M	Α	M	J	J	Α	S	О	N	D
Hemp agrimony	J	F	M	Α	M	J	J	А	S	О	N	D
Lady's smock	J	F	M	Α	M	J	J	Α	S	О	N	D
Marsh thistle	J	F	M	Α	M	J	J	Α	S	О	N	D
Meadowsweet	J	F	M	Α	M	J	J	А	S	0	N	D
Purple loosestrife	J	F	M	Α	M	J	J	А	S	0	N	D
Redshank	J	F	M	Α	M	J	J	А	S	O	N	D
Willow	J	F	M	Α	M	J	J	Α	S	0	N	D
Yellow iris	J	F	M	Α	M	J	J	А	S	0	N	D

2. The river bank

On the river's margins, reed beds are another habitat with their own mix of species.



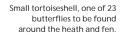
Here reed warblers and sedge warblers nest in the summer, thriving on the rich food source of

invertebrates this vegetation supports. Overhead, dragonflies and damselflies, such as the banded demoiselle, hunt winged insects.

Improving river water quality has increased brown trout numbers and led to the shy otter re-colonising the river.

3. The Fen

This six hectares of derelict traditional fen is being restored. A programme of cutting is improving the fen's flora. Nectar bearing plant numbers are rising, insects that feed on them increasing and this improving food source is already proving attractive to dragonflies and birds such as warblers, hobby and woodcock.



4. Ash Plantation

Ash Plantation has been here for almost 300 years. Native alder, a species preferring wetter conditions, replaced much of the ash during the last century.

Mosses and ferns also thrive in the wet conditions. The seasonal pools are vital for the success of the fern's life cycle.

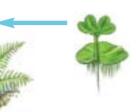
Prothalli, magnified x 10

Fusion and

fertilisation



The plantation's six fern species life-cycles can take up to 2 years to complete



Adult lady fern

Embryo young fern growing from the fertilised prothallus