

## Other places to visit

This esker is not the only reminder that glaciers once covered North Norfolk, in fact all of Norfolk's landscape has been affected by ice. Other landmarks that are related to Norfolk's glacial past are...

**Beeston Bump** – This large sand and gravel mound on the eastern edge of Sheringham, was left behind when the surrounding sand and gravel was eroded away.



**Cromer Ridge** – This long ridge stretching from Overstrand to Thursford marks the maximum extent of a glacier that once covered North Norfolk. This type of glacial feature is called a moraine. Beeston Bump provides a great view of this large ridge (see right).



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# Blakeney Esker Explored

## How did Blakeney Esker Form?

Norfolk has experienced a cycle of cold and warm climates over the last two and a half million years. These range from times when the Norfolk landscape would have been covered by a thick layer of ice, to intervals with climate much warmer than now. Blakeney Esker relates to one of the cold glacial periods. Where you are now you would have been beneath glacier ice! A river would be flowing under your feet, through a tunnel beneath the glacier. As the climate warmed, the glacier reduced in size and retreated to the north, where the sea is now, and the sands and gravels carried by the water were left behind. A ridge of sand and gravel that forms in this way is known as an esker. Even today, eskers are forming as glaciers retreat in cold environments like Iceland.

Glaciers covered much of Norfolk. The esker marks the route of a river flowing in a tunnel beneath the glacier

The ice melted away leaving sand and gravel that had been carried by the river, in the shape of a long ridge.

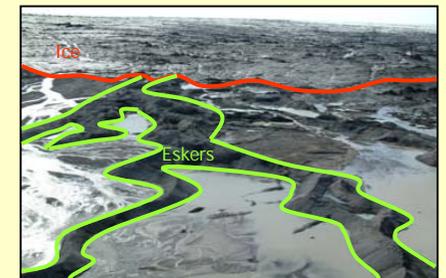


Photo source: <http://www.hi.is/~oi/>

## Wildlife at the site

Many of the plants you see at Blakeney Esker have colonised since the quarrying stopped. Norfolk County Council, the site's owners, have undertaken work to control vegetation at the site. This includes vegetation cutting and sheep grazing, along with occasional fires and intense rabbit grazing. This grazing acts as a natural lawnmower, and without it the whole site would become scrubby woodland and the beautiful springtime bluebells would not grow.

The type of vegetation found on the esker is called heathland and acid grassland, made up of a collection of plants that require sandy, acidic soils with good drainage. This is the type of soil that the esker provides. Vegetation on the esker includes gorse (below left), heather and bracken. The underlying geology is very different in the surrounding low-lying areas, which is generally quite clayey, chalky and not well drained, so different plants grow there. As a result, different animals are attracted to the esker and adjacent low-lying ground.

At Blakeney Esker in the summer, look out for sparrowhawks, swallows, yellowhammers (below right) and meadow brown butterflies (below centre). During winter you may be lucky enough to spot great grey shrikes, waxwings and short-eared owls.



Gorse



Yellowhammer



Meadow brown butterfly

Peter Wakely/English Nature

P.N. Watts/English Nature

## Quarrying at Blakeney Esker

The esker was used as a local source of sand and gravel from WWII to the early 1990s. Permission was initially granted for quarrying at The Wiveton Down Pit, now a Local Nature Reserve. This remained the largest pit, but the number of pits grew. You can find four other major disused quarry sites if you take a walk along the bridlepath along the esker, towards the coast. The sand and gravel from the esker would have been used locally for a variety of purposes, such as building materials and in the construction of local World War II airfields. All of the useful sand and gravel has now been removed.

The site was designated a geological Site of Special Scientific Interest in 1959 and is within the North Norfolk coast Area of Outstanding Natural Beauty, meaning activities at the site are protected. Scientists benefited from this quarrying as it allowed them to see beneath the land surface. It has helped them to understand the way the esker formed and learn more about Norfolk's geological history.



Quarrying at the Wiveton Downs Pit during the 1980s.

Natalie Bennett / English Nature

## To find out more

For more information on any of the topics covered by this information board, and for teaching aids on the geodiversity and biodiversity of the site, please visit:

[www.bgs.ac.uk/blakeney](http://www.bgs.ac.uk/blakeney)

To find out more about Countryside Access in the area, please visit: [www.countrysideaccess.norfolk.gov.uk](http://www.countrysideaccess.norfolk.gov.uk)

To find out more about geological conservation, please visit: [www.english-nature.org.uk/special/geological](http://www.english-nature.org.uk/special/geological)