

Tentsmuir

National Nature Reserve



Tentsmuir Time Line Trail

A landscape through time



Scotland's
National Nature
Reserves

Magical places, amazing wildlife.



Tentsmuir sand dunes

A landscape through time

Take a walk through Tentsmuir National Nature Reserve and Forest and you are, quite literally, stepping back in time. 9,000 years ago the shoreline lay about three miles further inland, close to Morton Lochs. As sand gradually built up, the shoreline extended eastwards over the centuries. 1,000 years ago the sea would still have reached deep within the present-day forest. It was not until the end of the 18th century that the shore finally reached the point where the forest's eastern edge is found today.

Tentsmuir is one the most dynamic coastlines in Scotland.

The mighty River Tay is one of the power sources giving unusual thrust for growth and change. The Tay discharges more water and sediment than any river in Britain. When it finally flows into the North Sea swirling currents and turning tides constantly move the sand from one place to another. This shifting sand, constantly growing and retreating, makes Tentsmuir an important site for studying how beaches and coasts develop and change.

Please take care if you are walking out on the sands and don't let the rising tide cut you off. Tides can change very quickly here. Watch the sea and be aware of tides behind you.

This map shows you the locations of the ten sculptures and existing features throughout Tentsmuir National Nature Reserve. You can follow the paths through the Reserve, forest and along the coastline to reach each of the sites.

On your journey you will witness one of Scotland's most dynamic landscapes. Swirling currents and turning tides constantly move the sand and create new shorelines and sandbars.

The red dotted lines on the map indicate where Tentsmuir's coast once lay and show just how dynamic this coastline is.

We hope you enjoy your visit. Have fun, take care and leave Tentsmuir as beautiful as you found it for others to enjoy too.



First People

The first people arrived here during the Mesolithic era, 9,000 years ago. At that time, this area was probably a low-lying island cut off from the mainland at high tide. These early people were hunter-gatherers who survived on a diet of shellfish, fish, fowl and local plants. They probably occupied the area for over 1,000 years. Evidence of their lives survives in the tools, shells, bones and arrowheads they left behind.



9,000 years ago the coastline probably reached about 2 miles inland to where Morton Lochs lie today. An area close to Morton Lochs would have been an island in the sea.



The Tsunami Strikes

Around 7,000 years ago a tsunami struck this area. The huge 21 metre (70ft) wave was caused by a massive underwater earthquake off the coast of Norway. The effect of the tsunami would have been catastrophic for the early Mesolithic people who had settled here.



7,000 years ago, the sea reached inland to the Morton Lochs area. When the tsunami struck, it would have dramatically changed the coastline.



Romans, Picts and Vikings

The moorland here was once rich in game and wildfowl. Wetlands, freshwater lochs and the sea provided a plentiful supply of fish and shellfish. Berries and nuts grew all around. The Romans established camps in the moorland here around 80AD. Several centuries later the Picts used parts of Tentsmuir as pasture for their animals. And in the 9th century Vikings arrived, and some settled here attracted by the rich resources of the land.



During the first millenium, the coastline was gradually growing eastwards, closer to where it lies today.



Devils, Bears and Oxen

Medieval Tentsmuir was a marshy and isolated place. During this time, the area became inhabited by shipwrecked sailors and gained a reputation as a wild place, home to outlaws and vagabonds. A monk surveying these lands, which belonged to St Andrews Cathedral in the 12th century described a lawless region populated by 'devils, bears and oxen'.

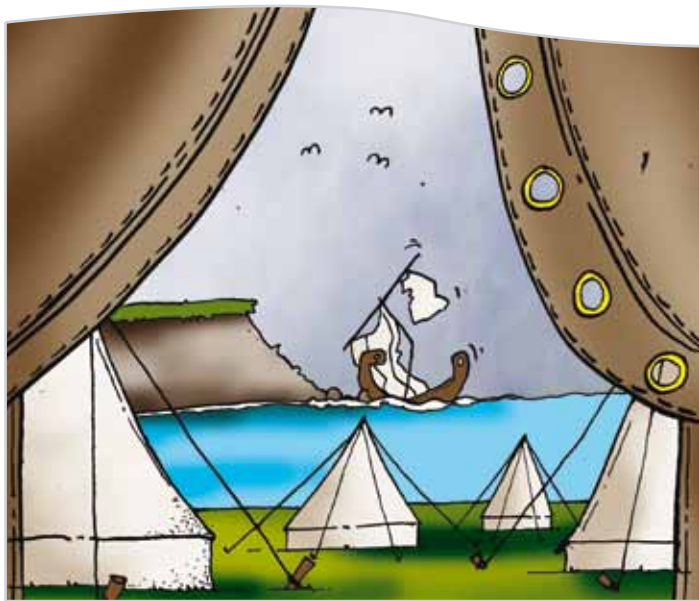


In the Middle Ages the eastern coastline of Tentsmuir probably cut right through the present day forest.



Putting Tentsmuir on the Map

Up until the 1600s this area was more or less uncharted territory. In 1636, Robert Gordon of Straloch produced one of the first maps of the region. A century later, in the 1780s, a Danish fleet was shipwrecked off this coast. Some of the sailors settled here, living in tents on the moor, which gave rise to the name 'Tents Moor'. 60 years later the arrival of the railway, put Tentsmuir well and truly on the map.



The first maps of the area give us a better idea of how Tentsmuir's coast has changed. 400 years ago the sea probably reached inland by about a mile.



The March Stone and Ice House

The March Stone and the Ice House first appear on a plan of the salmon fishings, drawn in 1852. At that time the high water mark was very close to the structures. Over the years as the foreshore built eastward, the Ice House and March Stone have become further from the sea.

The March Stone was erected as a boundary marker for fishing rights in 1794. The term 'march stone' comes from the 16th-century meaning of 'march' as a boundary.

The inscriptions on the stone read:

'This stone was set up in the year 1794.'

'The march between the Shanwell and Old Muirs salmon fishing is a straight line from the top of Norman's Law to the low water. This march stone stands in the said straight line'.



The beaches and estuaries around Tentsmuir were important for salmon fishing. The Ice House you see here was originally built around 1852 to store ice, gathered from local ponds in winter. The ice was used to preserve the fish before shipping it south. Layers of heather or straw, packed around the ice provided insulation, creating a primitive, but effective, deep-freeze.



Moving Targets

In 2010 a Second World War railway wagon was discovered buried in the sand on Tentsmuir beach. It was originally used to transport ammunitions and supplies as well as for gunner practice by the air force training unit from nearby Leuchars. A target, mounted on the wagon, was powered by a small motor. It travelled along a section of railway track forming a moving target for the aircraft gunners to practise their shots.

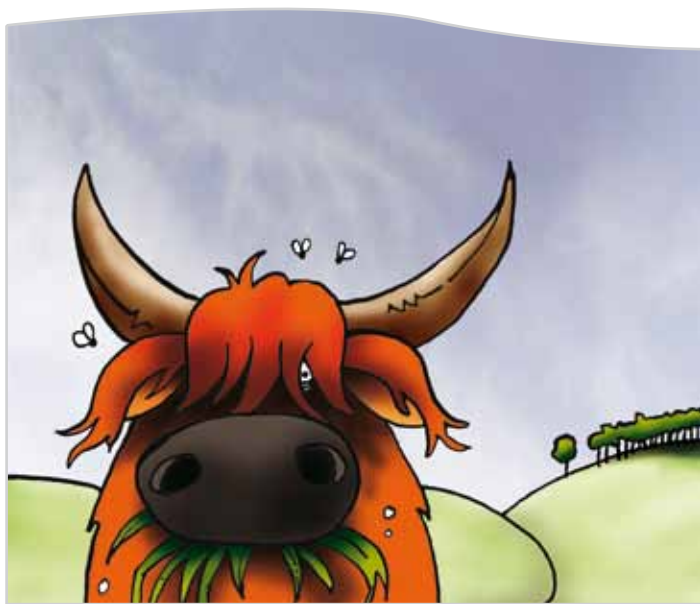


In 2010 a narrow gauge railway wagon, used during the Second World War, which had lain buried in the sand dunes for decades was uncovered by storms and the erosional effect of the sea.

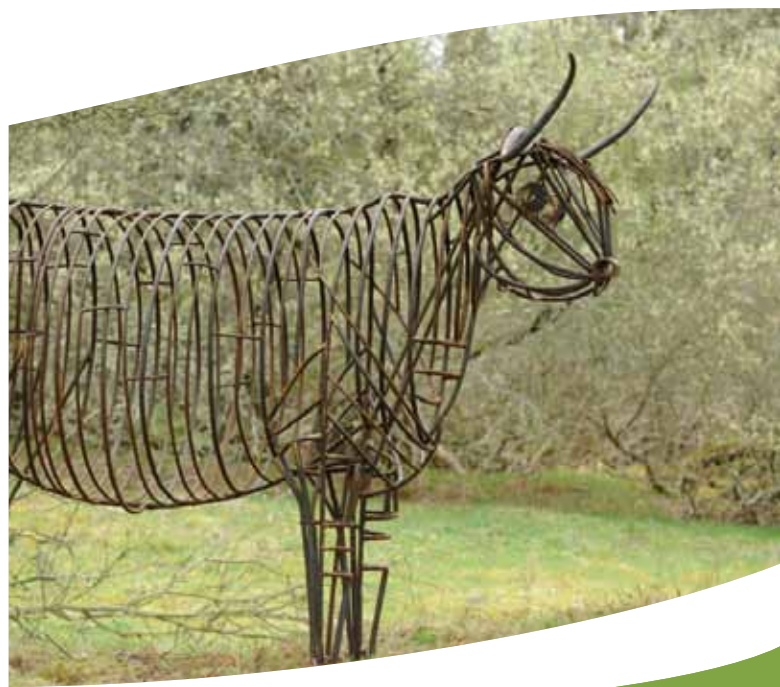


Hungry Herds

Scottish Natural Heritage has managed and conserved this fragile environment since 1954 when Tentsmuir Point became a National Nature Reserve. If left entirely to nature, scrub would take over the sand dune and heathland habitat, turning the entire area to woodland. Reserve staff and volunteers work to clear much of the heathland of saplings and scrub. You might also see our hungry herd of cattle grazing the dunes to keep them free from tree cover.



The coastline near the highland cow sculpture is now eroding at an alarming rate. The shoreline would have reached inland to here in the 1850s.



Shifting Sands

Tentmuir is the fastest growing natural land mass in Scotland. This dynamic coastline is constantly changing as the sea moves and deposits sand. The concrete blocks you can see along the coast were placed here for defence by the Polish army during World War II, along what was then the high water mark. Since then, the shoreline here has grown further and further away from the blocks, at a rate of about five metres each year.



The eastern coastline at Tentmuir is growing and eroding in different places. The WWII tank traps mark the high water line of the 1940s. In some places they are far from the sea while in others they are under water.



For more information please contact:

Scottish Natural Heritage,
46 Crossgate, Cupar KY15 5HS.
Tel: 01334 654038

www.nnr-scotland.org.uk
www.tentsmuir.org

Photography: Lorne Gill/SNH; Ken Barry Photography

© Scottish Natural Heritage 2011

ISBN 978-1-85397-758-9 Print code: BP10k0511



SCOTTISH
OUTDOOR ACCESS CODE

**KNOW THE CODE
BEFORE YOU GO**

outdooraccess-scotland.com



Scottish Natural Heritage
Dualchas Nàdair na h-Alba

All of nature for all of Scotland
Nàdar air fad airson Alba air fad



a landscape on the move