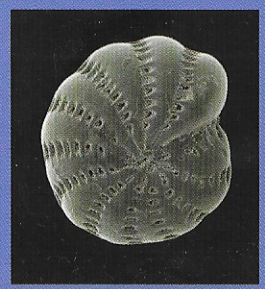
Submerged forests can be seen around our coasts and estuaries at low tides in many places. Their presence is evidence that in the past forests grew in lowlands at a time when the sea was some distance offshore. Often these forests began life as reed swamps (see right) that gradually dried out and allowed trees to colonise the former wetland. The forests disappeared when the sea inundated the forests through a process known as transgression killing off the trees in the process.

The peat beds contain a wealth of information on the forest environments including plant remains such as pollen grains (see below), wood, branch and leaf remains, insects, shells, occasional bones and the remains of other organisms such as foraminifera (see below) and ostracods.

Sometimes the remains of human activity in the form of burnt stones, wooden structures and even boats (like this Bronze Age example from Dover), can also be found in these deposits.

Elphidium williamsoni **a foraminifer indicating estuarine conditions.**



Alder (*Alnus* sp.) pollen grains.

Sandy clay-silts deposited in intertidal channels and creeks

Organic silt with reed fragments forming in reed swamps

Woody peat forming in alder carr wetland and wet forests

Peat with reed fragments formed in reed swamp

Clay-silt formed in salt marshes and tidal flats

A sequence through submerged forest deposits in the Severn Levels at Magor, Monmouthshire

Further reading: Reid, C. 1913 Submerged Forests. Cambridge University Press.
Gaffney, V., Fitch, S. And Smith, D. 2009 Europe's Lost World, the rediscovery of Doggerland. CBA Research Report.

Further information:
http://www.facebook.com/pages/Europes-Lost-World/198528573599200
http://drowned-landscapes.tumblr.com/

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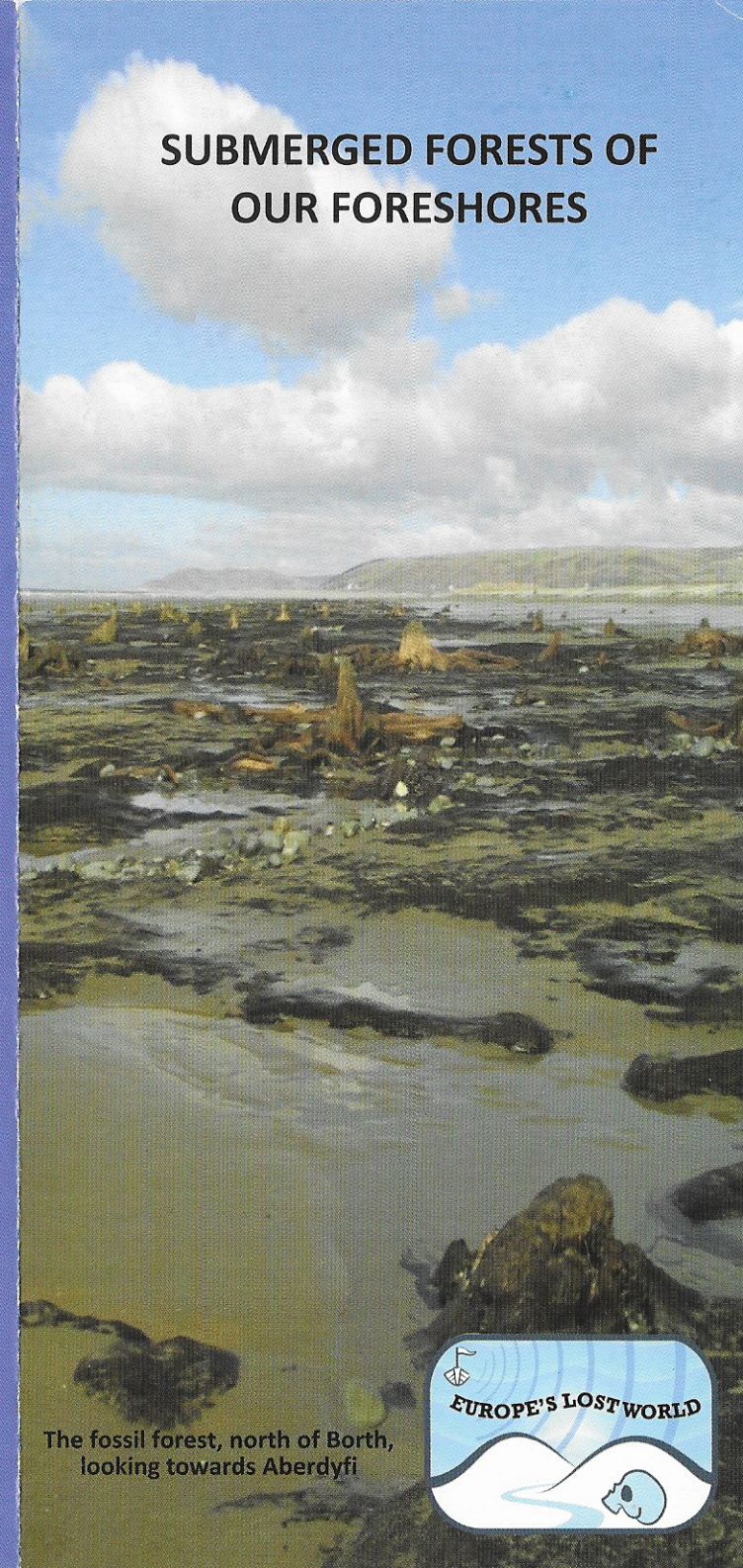
SUBMERGED FORESTS OF OUR FORESHORES



The fossil forest, north of Borth, looking towards Aberdyfi

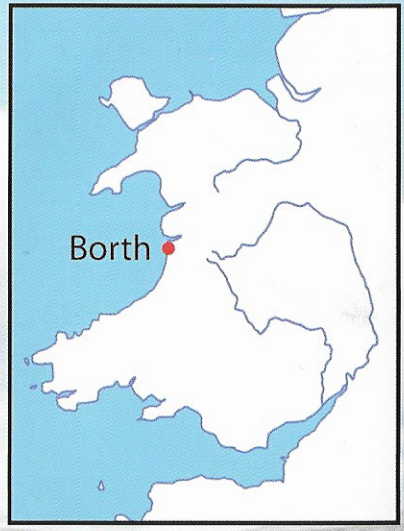
EUROPE'S LOST WORLD

The submerged forest at Borth, West Wales

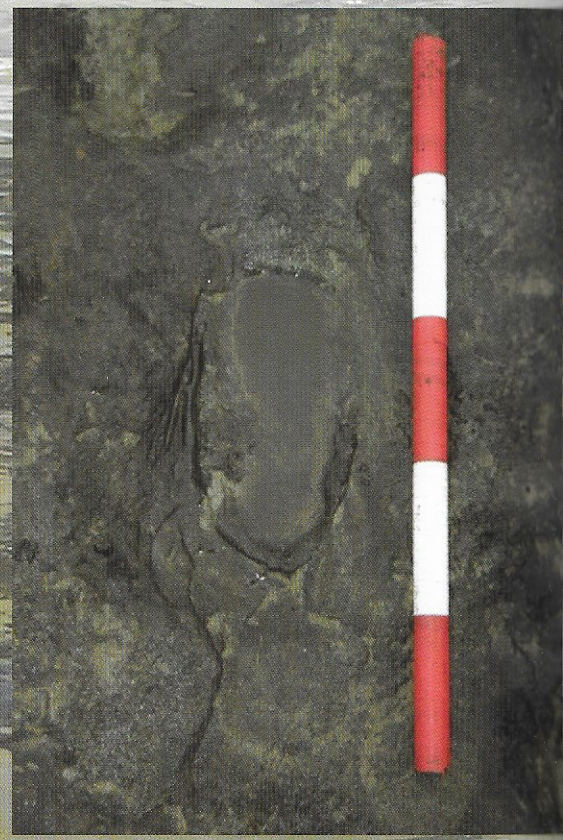
Sampling the peat for laboratory analysis.

Peat is often exposed at low tides on the beach. This peat is between 4 and 6 thousand years old and was formed at a time when the coastline lay some distance to the west. Trees in the forest included oaks and pines while locally reed swamp also existed. The peat (see left) can be up to 1 m in thickness.

Fallen trunks and tree stumps.



Trees in the peat remain in growing position, although often the trunks have fallen over.



Occasionally evidence for human activity in the forest is encountered Here (above right) is a foot print of a small child (perhaps 4 years old) preserved in the peat. Other forms of evidence include scatters of burnt and broken stones (above left).