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## The Making of Ynyslas: communicating change through the visual impact of a drowned landscape

**John Mason**

Skeptical Science Inc, United States of America ([john.mason@geologywales.co.uk](mailto:john.mason@geologywales.co.uk))

Ynyslas National Nature Reserve is a shingle-spit and sand dune complex on the western coast of Wales. In its hinterland are extensive estuarine flats, shifting sandbanks and deep channels. The shingle-spit fronts a wide sandy beach that uncovers at low tide, featuring extensive peat deposits of mid-Holocene and younger ages (6-4.7 KYA). Set in the peat are the stumps of the famous Submerged Forest, consisting of alder, birch, oak and pine that once flourished here before rising water-levels drowned them. Offshore in Cardigan Bay, although extensively reworked Quaternary glaciogenic sediments predominate, similar but either older or undated peatlands have been encountered sporadically in boreholes, one undated example being twenty meters beneath the sea bed in a water depth of 20 m. Clearly these and the Submerged Forest record parts of the post-glacial marine transgression that created the shallow (typically <<50 meters) Cardigan Bay over several thousand years following the onset of the Holocene. The fact that the results of the transgression can be so starkly seen at low tide, coupled with the offshore borehole records, provides a stark reminder of the effects of climate change, of which sea level rise is probably the greatest threat to communities along the Welsh coast. Such straightforward evidence for the effects of climate change provides an excellent opportunity to further explore topics around both its causes and its effects, using a narrative of what actually happened, based on the scientific literature. The Making of Ynyslas (2019) is that narrative and has proved to be an effective method of outreach based around this highly popular (250 K visitors per year) destination. Given that the post-glacial transgression was global in nature, other such science-communication opportunities are likely to present themselves elsewhere.