'Jurassic Coast' Studies Centre: Inspiring Future Generations of Earth Scientists by Boosting Field Geology*

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Geologic and Informational Note

Mesozoic history is spectacularly laid bare in the cliffs of England's 'Jurassic Coast' UNESCO World Heritage Site. The site runs for 95 miles along the south coast of England and is the only place on Earth which exhibits a near complete sequence of Triassic, Jurassic and Cretaceous rocks.

Inscribed to the World Heritage List in 2001, the Jurassic Coast is one of only 82 World Heritage Sites (http://jurassiccoast.org/) recognised for its internationally important rocks, fossils, and landforms. The site stretches from the Triassic of Orcombe Point at Exmouth in Devon eastwards to the Cretaceous of Studland, Dorset, 95 miles (122km) away, and encompasses 185 million years of Earth's history (Figures 1 and 2). For more than 300 years the area has been a crucible for learning, inspiring and enthusing generations of scientists about all aspects of the Earth Sciences. From the evolution of life to the formation of petroleum deposits, there is no better or more inspiring place to establish an international centre of excellence for outdoor learning about the natural sciences for all ages and all abilities.

Immediately to the east lies Wytch Farm, Western Europe's largest known onshore oilfield (500 million bbl). The field's potential source rock, reservoir, seal and migration story are all there to be studied, but so is a great wealth of geology, geomorphology(e.g., Figures 3 and 4) and palaeontology (e.g., Figure 5) that has generated interest since the earliest days of the development of the Earth Sciences.

Exciting plans are underway to create a Studies Centre for the Jurassic Coast (http://www.jurassicstudycentre.co.uk). The Centre will be an exemplary educational facility and research centre for professionals, amateurs and the public. Developed in partnership with the Natural History Museum in London, the UK Field Studies Council and a wide partnership of universities and science organisations, the aim is to inspire the next generation of earth scientists.

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The Jurassic Coast Studies Centre will be a state-of-the-art 120 bed multiuse residential facility. It will accommodate laboratories, seminar and conference facilities, workshops, actual and virtual classrooms and an exhibition space. The centre will offer a wide range of courses delivered by many of the world's leading experts, including field trips along the Jurassic coast to showcase the geological and geomorphological history of the area. More specialist courses are planned with a focus on using the Jurassic Coast as an outdoor classroom to learn about petroleum systems. Bespoke courses for company professionals will be developed for corporate supporters of the Studies Centre.

The petroleum- and civil-engineering-oriented courses will focus on the complex challenges of managing natural resource extraction and civil-engineering projects in unstable geological environments, which the Jurassic Coast exemplifies. Other courses will include taxonomy and environmental science.

The Studies Centre will provide expanded year-round access to the type of outstanding earth science related experiences that are currently offered to inquisitive children and adults at the famous annual Lyme Regis Fossil Festival. The Studies Centre will be located about halfway along the Jurassic Coast in Lyme Regis; a small town with a big name renowned for its geological and paleontological heritage which includes the remarkable fossil hunter Mary Anning and her pivotal role in the birth of palaeontology. The project is led by the Lyme Regis Development Trust (a community enterprise organisation). The Jurassic Coast Studies Centre is a work in progress and Lyme Regis Development Trust would like to invite members of the AAPG to join the partnership team to make it a reality.

Websites

Jurassic Coast Studies Centre: (website accessed January 14, 2015) (http://www.jurassicstudycentre.co.uk).

Jurassic Coast World Heritage Site: (website accessed January 14, 2015) (http://jurassiccoast.org/).

West, Ian, Swanage Bay and Ballard Cliff, Dorset: Geology of the Wessex Cost of Southern England: (website accessed January 14, 2015) (http://www.southampton.ac.uk/~imw/Swanage-Ballard.htm).

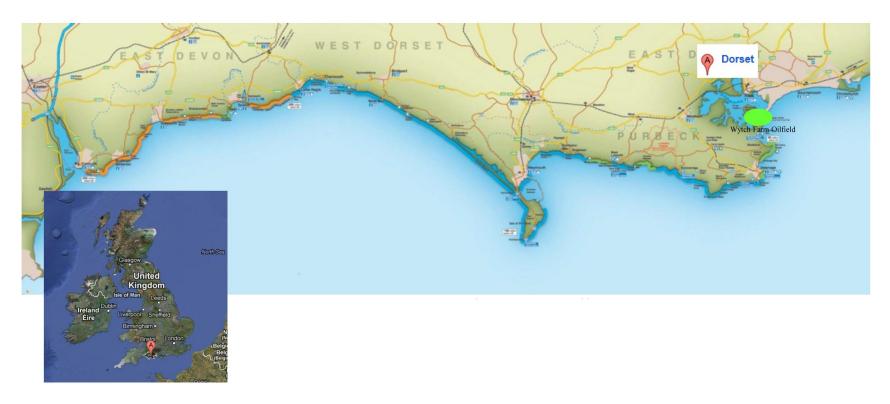
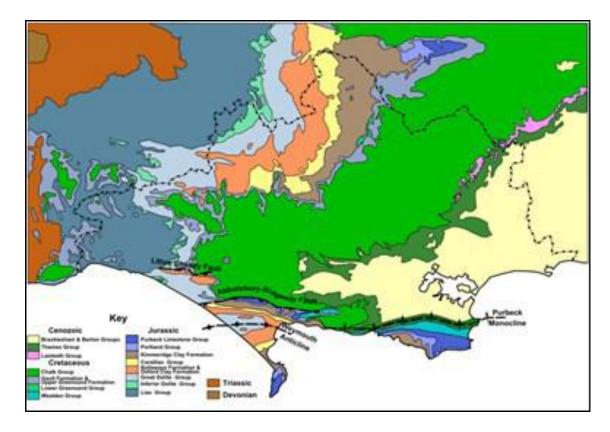


Figure 1. <u>Location</u> map of 'Jurassic Coast' (from Google).



 $Figure~2.~Geologic~map~(from~Wikipedia);~additional~maps~at~\underline{http://www.southampton.ac.uk/~imw/Swanage-Ballard.htm}.$



Figure 3. Coastal cliff view.

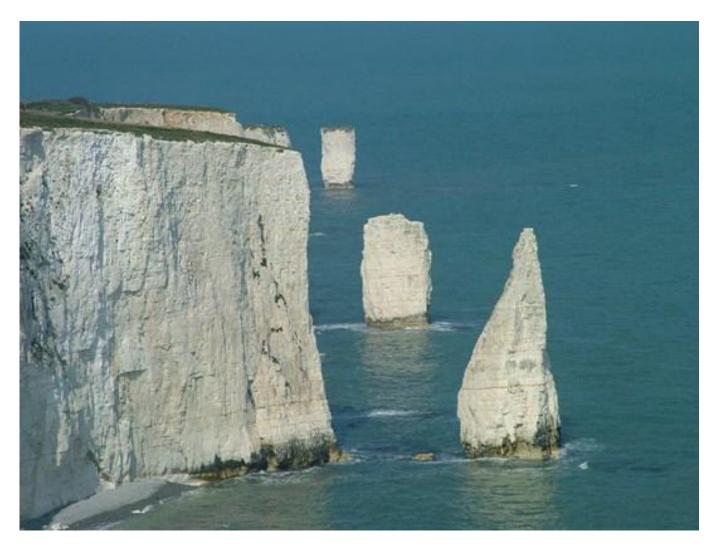


Figure 4. Chalk cliff (Upper Chalk mucronata zone).



Figure 5. Ichthyosaur.