

# BATH GEOLOGICAL SOCIETY FIELDTRIP

Sunday 28<sup>th</sup> April: St Audrie's Bay, North Somerset

Leaders: Maurice Tucker and David Hall

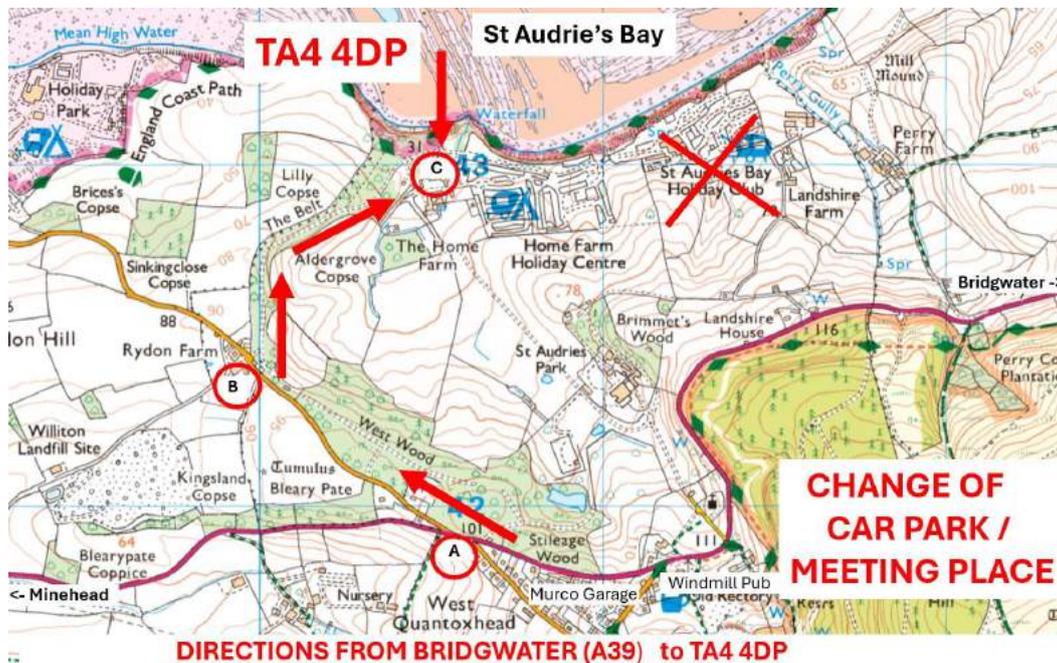
To see the Upper Triassic through Lower Jurassic succession with changing environments from desert playa and alkaline lake through brackish water lagoons to shallow and then deeper-marine limestones and mudrocks. The Rhaetic succession (Lilstock Fm) also records deformed and disturbed bedding which may have resulted from a meteorite impact (2000 km west) and associated tsunami or intense seismic activity. There are faults and fractures too, relating to movement of salt at depth and/ or extensional and compressional tectonics during the later Mesozoic - Tertiary as a result of changes in regional stress patterns, opening of the Atlantic and Wessex Basin extension. Fossils are common in the Rhaetic and Liassic sediments, notably ammonites and bivalves, and trace fossils are well developed.

Walking along beach and foreshore rock exposures; stout boots and care needed.

In view of the tides, we will be meeting at **NOON** at the Home Farm Holiday Centre (parking, café and facilities available). **Post-code TA4 4DP**, West Quantoxhead.

This trip is a walk along the beach west of the steps down to St Audrie's Bay from Home Farm Holiday Centre, towards the west and beyond the conspicuous cliff waterfall, and after, if time permits, back to the east to the headland of Blue Ben. The higher part of the beach is pebbly, so watch your footing; do not get close to the cliffs. With care, there are no great risks. Sensible shoes/ boots and clothes. The tide is falling.

Bookings to Bob Mustow [bob\\_mustow@hotmail.com](mailto:bob_mustow@hotmail.com)



**DIRECTIONS FROM BRIDGWATER (A39) to TA4 4DP**  
After passing through West Quantoxhead take right fork (at "A") towards Doniford.  
After approx. 700 m turn right into Home Farm Holiday Centre private road (at "B").  
Continue for approx. 1 km to Home Farm car park (at "C") - charge £4 / day payable at reception or machine (coins only). Meet in car park, from which path leads down to beach.

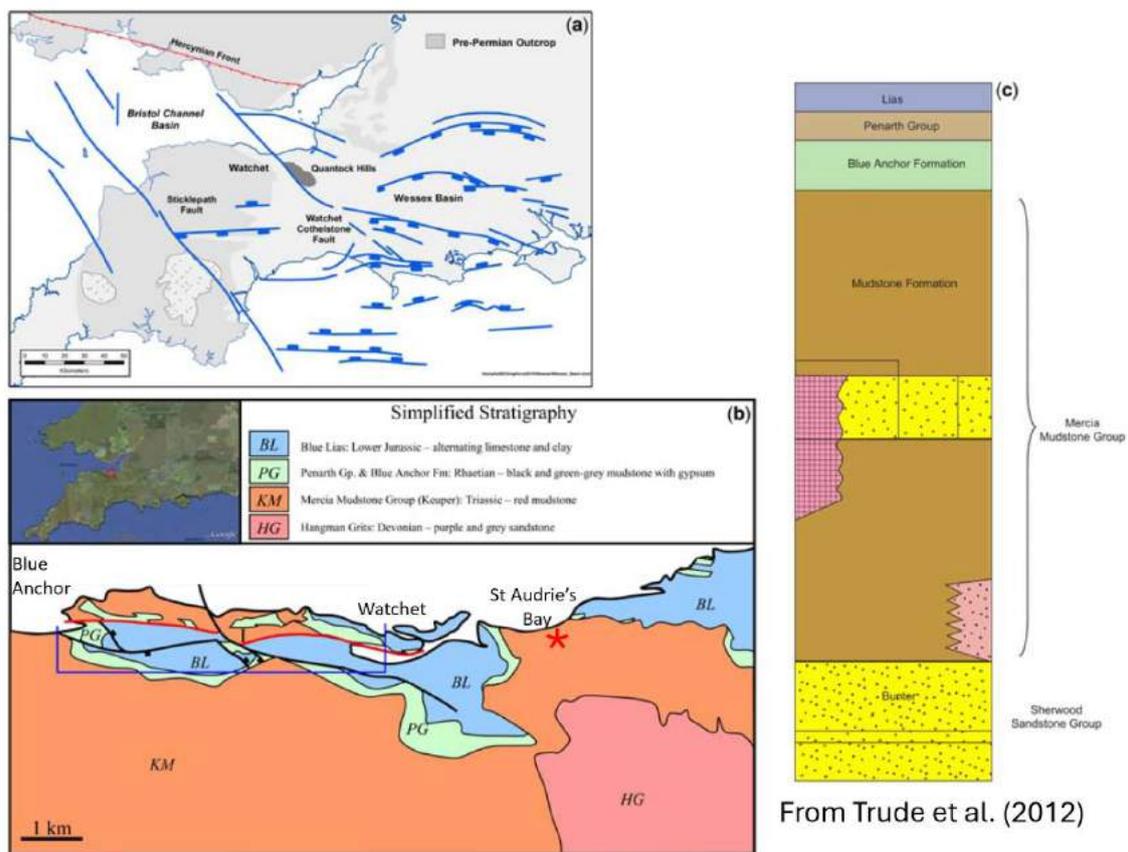


Figure 1 (a) Major faults in SW England; (b) Geology of St Audrie's Bay to Blue Anchor; (c) Stratigraphy of the North Somerset area.

Wm Smith, 1797	Warrington <i>et al.</i> , 1980	This paper	
Blue Lias	Blue Lias Fm	Blue Lias Fm	
White Lias	Penarth Group Lilstock Fm	Watchet Mudstone Fm	
		Langport Mbr	White Lias Fm
		Cotham Mbr	Cotham Fm
Indigo and Black Marls	Westbury Fm	Westbury Mudstone Fm	
Red Ground	Blue Anchor Fm	Blue Anchor Fm	

Figure 2: Stratigraphy of the Upper Triassic in the Bristol Channel area (Gallois 2009)

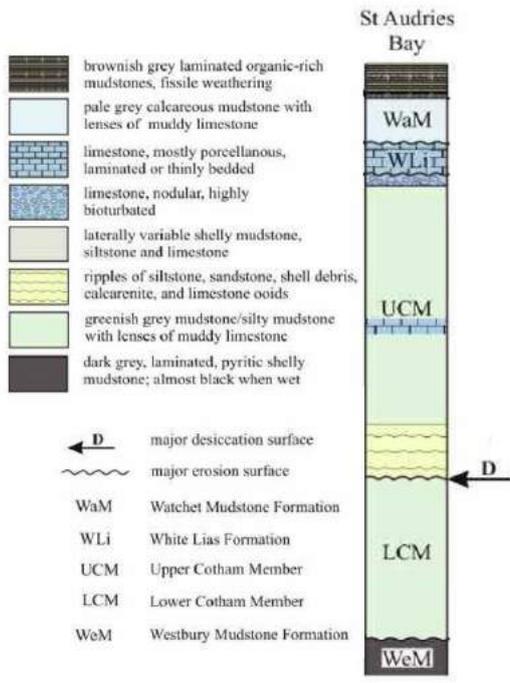


Figure 3:  
Stratigraphic section for St Audrie's Bay. From Gallois (2009).

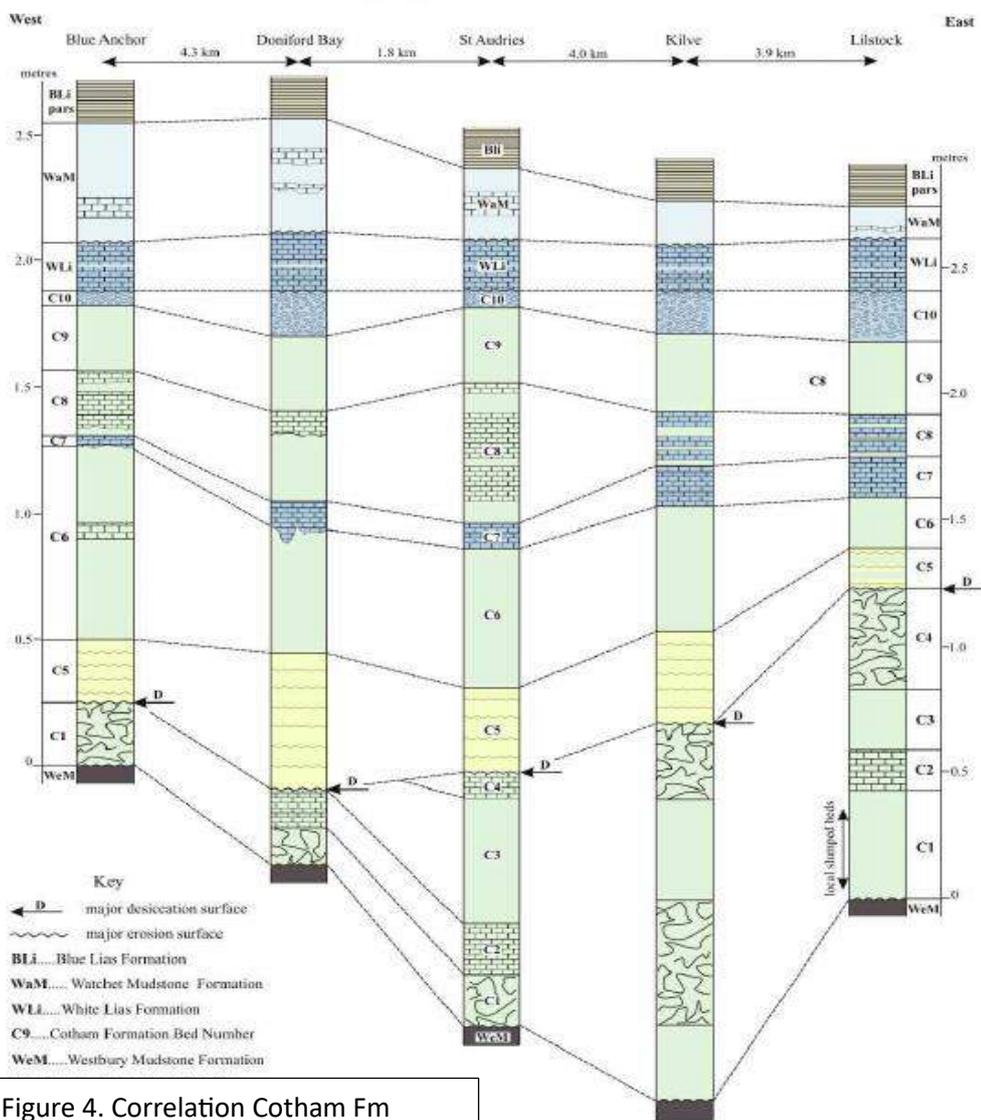


Figure 4. Correlation Cotham Fm north Somerset coast (Gallois 2009).

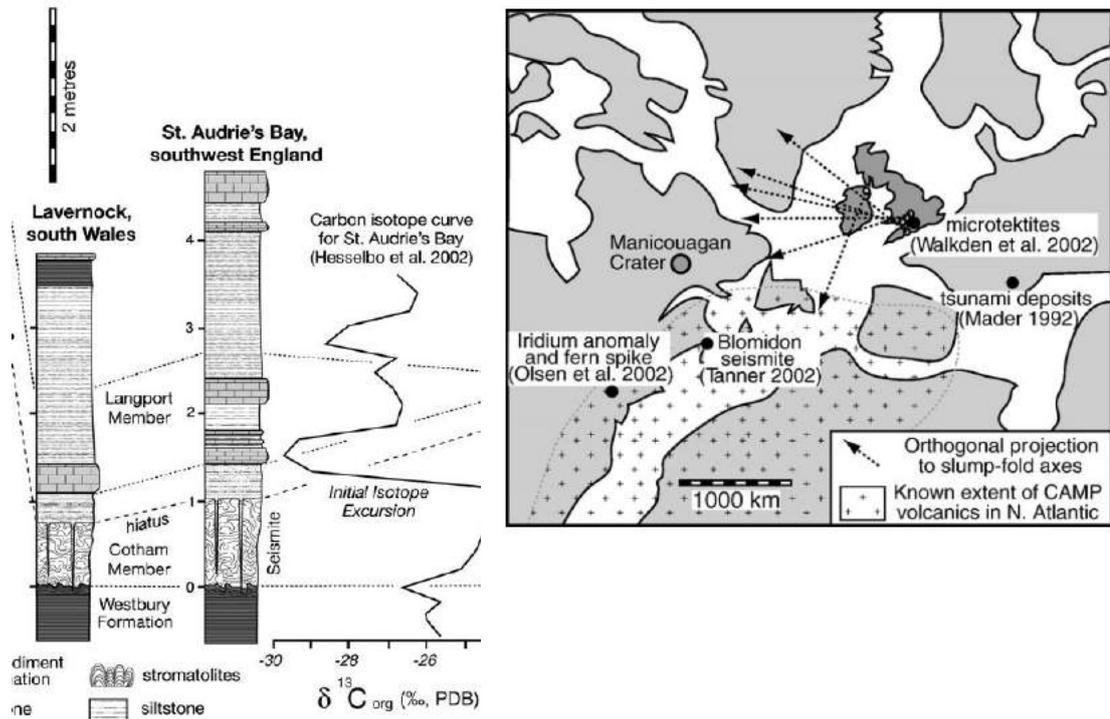


Figure 5. (a) Stratigraphic sections for Lavernock Point and St Audrie's Bay, and the organic carbon isotope curve. (b) Palaeogeographic map of the northern Atlantic region in the late Triassic showing the location of the CAMP (Central Atlantic Magmatic Province) and the site of the Manicouagan meteorite impact crater. From Simms (2007).

**Figure 6: Liassic ammonites from Watchet - St Audrie's Bay area**

