"Between the River and the Sea"

Field Excursion to the Tay Estuary – Thursday 18 September 2014 Led by Professor Rob Duck & Dr Laura Booth, University of Dundee & Tay Estuary Forum

Departure 13.00 from the foyer of the Apex Hotel

The Tay drains a catchment area of c. 6,500 km² and is Scotland's longest river. It rises in the Grampian Highlands of Argyllshire before flowing eastwards across the country towards Perth where it becomes tidal. The long term average fluvial discharge (c. 180 m³s⁻¹) is the largest of any river in Britain and is more than the Rivers Thames and Severn combined. The Tay Estuary (arrowed) is one of the least developed major estuaries in Britain and is said to be the cleanest in Europe.





Locality 1: Dundee Docks and Waterfront.

The £1 Billion transformation of Dundee city waterfront, which encompasses 240 hectares of development land stretching 8 km along the Tay Estuary, is a strategic, focussed and forward-looking 30 year project (2001-2031) that is propelling the city to international acclaim. As an intended focal point of the waterfront, construction of the V&A Museum (left) will commence later this year.

Locality 2: The Tay Railway Bridge.

The site of the world's most infamous railway disaster. On the night of Dec 28th 1879, during a great gale the central section of the bridge collapsed as a passenger train passed over- a memorial to those who lost their lives is seen at Riverside. After the first Tay Railway Bridge fell in 1879, its successor was opened in 1887.



Locality 3: Riverside Nature Park.



A splendid vantage point for the middle and upper estuary established on raised, claimed land that was formerly the city's landfill site. From here the geological setting of the estuary can be discerned. Opened in 2011, the nature park is ideal for watching wading birds feeding on the mud flats at low tide or roosting in Invergowrie Bay at high tide.

Locality 4: Tay Road Bridge.

The Tay Road Bridge linking the city with Fife was opened in 1966. The iconic view from the south (seen right) is towards Dundee Law, the eroded remains of a resistant volcanic plug and a fantastic example of an ice-sculpted crag and tail, shaped during the last ice age, which ended ~15,000 years ago.



<u>Locality 5</u>: Lower reaches of the Tay Estuary.



Between the Tay Road Bridge and Tayport there are great views to the north over the lower reaches of the estuary. It has a classic funnel shape with a neck defined by a belt of resistant lavas which crosses the Tay between Broughty Ferry and Tayport. Raised beaches left stranded after isostatic rebound (land uplift) after the last ice age can be seen on the Fife side (left). Port of Dundee can be seen in the background. Dolphins and seals are regularly seen here.

Locality 6: Tayport salt marsh, beach and dunes.

Concrete blocks placed at High Water Mark in 1941 to defend the coast from enemy attack illustrate the extent of accretion of the Tayport salt marsh – the only true salt marsh in the estuary. Further to the east are extensive inter-tidal flats backed by high dunes which extend alongside Tentsmuir Forest (opposite) which leads to Tentsmuir Point, the fastest accreting part of the British coast.



Route Map

(Images courtesy of R. Duck, L. Booth and Google Maps)

