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## 25 Howick Bay

**Theme:** Earthquakes and folded rocks

### Location

400 metres northeast of Howick [NU 259 180]. There is a small roadside parking area just above the Bay.

### Description

In the cliff backing the Bay is a very large fracture in the rocks. It is the Howick Fault. It can be clearly seen in the cliff and can be traced out east across the foreshore. The rocks to the south have “dropped” more than 200 metres in comparison to the rocks to the north of the fault.

The rocks either side of the fault — limestones, shales and sandstones — are around 330 million years old. The rocks to the south of the fault are marginally younger than those to the north. The fault also had a thin blade of Whin Sill dolerite intruded into it 295 million years ago. The stresses that caused the fault, (just like earthquakes) and allowed the intrusion of the Whin dyke, were part of a long period of mountain building in Britain that started 300 million years ago.

There are many fossils of shells and crinoids in the limestones both north and south of the fault. The sandstones have fossils too; of bits of Carboniferous trees. About 200 metres south of the fault, on the sandstone foreshore where the cliff turns eastward, geologists found some of the oldest footprints in Britain — a four-legged amphibian. The sea has all but eroded them away now.

You might see eider ducks, as well as purple sandpipers, feeding near the water’s edge, and it’s a good place for watching birds out to sea.

### Photographs

(Photo 25-1) Howick Bay rocks.

(Photo 25-2) The Howick Fault in the cliff and running across the foreshore.



*(Photo 25-1) Howick Bay rocks.*



*(Photo 25-2) The Howick Fault in the cliff and running across the foreshore.*