The Walls Boundary Fault

Information Sheet

Recommended visit: 2 - 3 hours

Location: THE WALLS BOUNDARY FAULT
Conservation designations: N/A
Grid reference: HU366805 (British National Grid)
Address: Ollaberry, Northmavine
Parking available: Park in front of the church at HU36628054 (British National Grid)
Personnel to be contacted prior to visit: N/A

Useful equipment:
- Hand lens
- Camera
- Stationary

Relevance national curriculum:

Rock types and geological processes observed: Pssamite, granite
Geological structures: Fault zone, folds, fault plane, gully, fault gouge
Earth processes: eg. Plate tectonics, differential erosion and folding
Geological periods present: Precambrian and Devonian (The first fault movements occurred in the Devonian, then in the Carboniferous and later in the Jurassic and possibly the Cretaceous.

Site specific hazards and risks:
- Cliffs
- Loose, slippery rocks
- Boggy ground
- Changeable weather conditions
- The sea/tides

Mitigation measures:
- Wear sturdy footwear and waterproof/windproof clothing
- Where possible, remain a safe distance from the water's edge
- Keep a safe distance from the cliff edge at all times

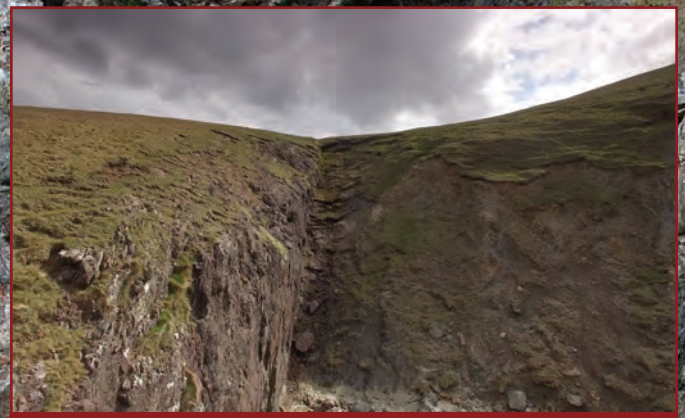
Did you know: Did you know that the Great Glen Fault system extends further south-west in a straight line through Lough Linnhe (Lochaber Geopark) and on into in NW Ireland, directly through Lough Foyle and Donegal Bay. It continues on the N.American side of the Atlantic Ocean, through Newfoundland and the Gulf of Saint Lawrence, skirting New Brunswick. It is no longer part of a contiguous fault as it was separated when the North Atlantic opened.

Topics to cover before visit: Plate tectonics, faults, coastal erosion, folding

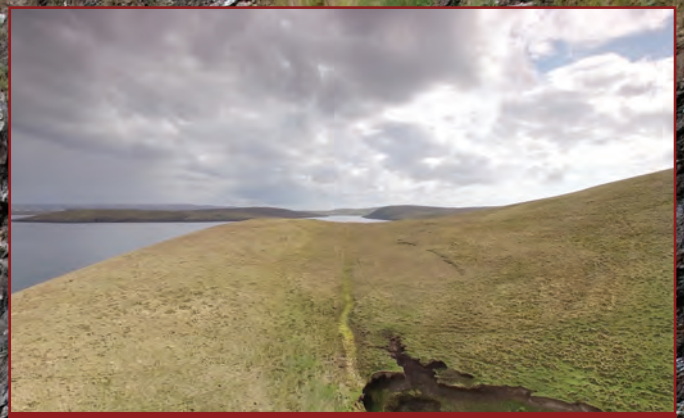
Keywords: Schist, granite, Granodiorite, plate tectonics, fault, folding, erosion

Fact sheet developed by the Western Education and Library Board's Magilligan Field Centre

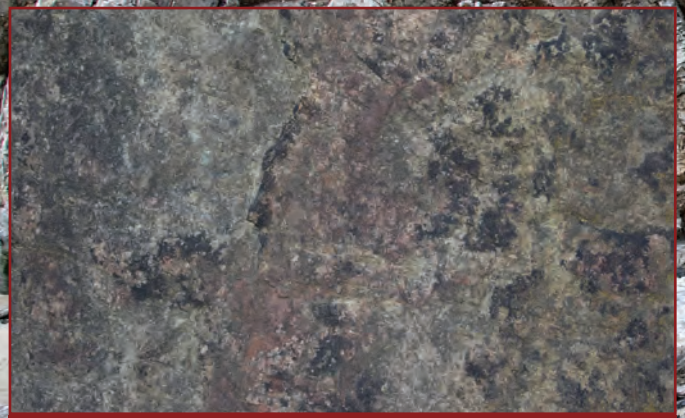
Fault Gouge



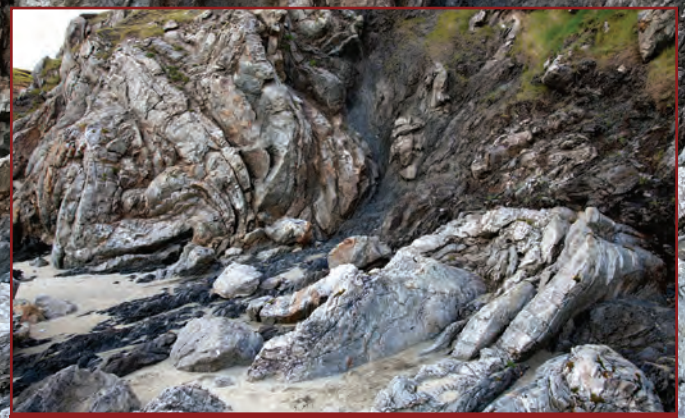
Fault Gully



Fault Line



Granite



Large scale Folding

Small Scale Folding

Geological history*:
The Walls Boundary Fault is part of the Great Glen Fault system; a series of massive splits in the Earth's crust that slice through the Great Glen of Scotland and offshore to Shetland. The fault is so called because it forms the boundary of the Walls peninsula on the west side of Shetland.
Rocks on opposite sides of the fault have moved relative to each other for more than 100km in a series of movements that may have caused massive earthquakes. The main episodes of tectonic activity were during the Devonian Period and in the Middle Jurassic. This is the best exposure of a major shear fault in the United Kingdom.