

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Tullaghmore
Other names used for site	Tawnaghmore
IGH THEME	IGH8 Lower Carboniferous
TOWNLAND(S)	Tawnaghmore
NEAREST TOWN/VILLAGE	Foxford
SIX INCH MAP NUMBER	39
ITM CO-ORDINATES	522030E 807100N
1:50,000 O.S. SHEET NO. 24	GS1 BEDROCK 1:100,000 SHEET NO. 6
GIS Code MO0098	

Outline Site Description

Lakeshore exposures below the lakeside R310 road at the southeastern part of Lough Conn.

Geological System/Age and Primary Rock Type

Carboniferous rocks of the Tawnaghmore Formation (correlated with the Visean Downpatrick Formation) dated to c. 345–328 million years ago, are in faulted contact with, and overlap, older Dalradian rocks of the Carrick O'Hara Formation (Argyll Group, 700-600 million years ago).

Main Geological or Geomorphological Interest

This site hosts a major faulted contact (North Ox Mountains Fault) between Carboniferous rocks (north side of fault), and Dalradian metamorphic rocks of the Ox Mountains Inlier (south of the fault). The Carboniferous rocks (marginal marine calcareous breccias and sandy limestones) are not easily observable along the lakeshore, being largely obscured by glacial deposits. A 2m-3m crush zone marks the faultline, however the fault is not always visible when lake water levels are high. The pebbly psammites and pelites of the Carrick O'Hara Formation are exposed along the shoreline at the site, dipping c. 20°-30° NW into the lake. The North Ox Mountains Fault dips c. 15° NW and marks much of the northern boundary of the Ox Mountains Inlier. The fault can be traced 35km northeast from the site, and southwest across Lough Conn towards Crucknaree. The Fair Head-Clew Bay (FHCBL) Line (correlated with the major Highland Boundary Fault in Scotland) has been suggested to follow the North Ox Mountains fault in this area. A 250m long, thickly vegetated low-lying spur of glacial debris extends north across the small inlet at the SE end of Lough Conn. Much of this debris covers the Carboniferous rocks at the site.

Site Importance – County Geological Site

This County Geological Site marks the northern boundary of the Ox Mountains Inlier, and has been associated with the Fair Head-Clew Bay Line.

Management/promotion issues

The fault contact is not easily identifiable, and as a result, the site is not deemed of significant interest requiring public promotion. Access to the shoreline outcrops requires, in places, a scramble down a steep incline, whilst access along the shoreline is unsteady underfoot. Promotion is not therefore advisable. The site is not at any significant risk, although as it occupies a position proximal to the R310 road, dumping is always a threat.



View of the faulted contact zone from the glacial debris spit, looking SW. R310 road is hidden behind vegetation (dark area on left).



Looking NE towards the spit from the shoreline outcrops of psammites and pelites (Carrick O'Hara Formation). Location is just below (north of) the parking lay-by at Tawnaghmore. NW dipping strata.



Looking SW along the shoreline outcrops of psammites (Carrick O'Hara Formation). Location is just below (north of) the parking lay-by at Tawnaghmore.



Pebbly psammites (Carrick O'Hara Fm.) on the Lough Conn shoreline.

