

NOTES ON THE GEOLOGY OF THE NORTH-EAST PART OF THE NESS BASIN.

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Only a small portion of the Ness area has been mapped by the Geological Survey. It is situated in the north-east part of the basin, and includes the tract at the mouth of Loch Ness and on either side of the river issuing from that loch. It comprises a small part of Loch Ness, Loch Dochfour, Loch Ashie, Loch Abban, and Loch Laide.

The geological structure of the northern part of the Ness basin is well defined. The basin is traversed by the great fault that runs along Loch Ness, which is continued north-eastwards to Tarbat Ness, thus giving rise to the prominent cliff bounding the Moray firth in the Black isle. This powerful dislocation, which has been a line of weakness in the earth's crust at successive geological periods and is evidently related to the earthquake movements that periodically affect the Inverness district at the present time, has a marked downthrow to the south-east. The exact position of the line of fault in the Ness valley is concealed by superficial deposits, but its course probably extends from near the western shore of Loch Ness at Lochend, north-east by Loch Dochfour, Dunean cottage, and Kinmylies, to the Beaully firth east of Kessock ferry.

The effect of this great dislocation in the Ness valley is to let down the Old Red Sandstone strata on the south-east side against the crystalline schists and gneisses of Dochfour hill, the Abriachan granite, and the basal conglomerates and sandstones of Dunean hill and Craig Leach on the north-west. The schistose rocks of Dochfour hill, which are pierced by the Abriachan granite, consist of quartz-biotite granulites and felspathic gneisses traversed by numerous veins of pegmatite. Occasional lenticles of garnetiferous hornblende-schist are associated with the gneisses, and a band of limestone also occurs in the schistose series at Blairnahenachie, west-north-west of Dochgarroch. From their lithological characters, these crystalline schists have been referred to the Moine series of the Geological Survey, the members of which are regarded as altered representatives of sedimentary deposits.

The triangular area of Old Red Sandstone on the west side of the valley of the Ness, extending from Dochgarroch north-east to Clachnaharry, and west to the Bunchrew burn, consists of coarse conglomerates and grits that dip to the north-west, and are overlain by sandstones, flags, and shales. Along their western margin they are bounded by a fault, with a downthrow to the east, which is probably a branch of the great dislocation running along Loch Ness.