

LOCHS OF THE BRORA BASIN.

WITHIN this basin (see Index Map, Fig. 1), the principal loch is Loch Brora, which was the only one surveyed. The numerous small hill-lochs could not be sounded at the time of the visit of the Lake Survey for lack of boats. The area drained by the river Brora and its tributaries is very large, extending from the mouth of the Brora, on the east coast of Sutherland, to the flanks of Ben Armine on the north and of Meall a Fhuarain on the west, and exceeding 120 square miles, nearly the whole of which drains into Loch Brora.

Loch Brora (see Plate I.).—Loch Brora is situated about 3 miles from the shores of the North Sea at Brora, amid beautiful scenery; the Carrol Rock overlooking the central part of the loch is very steep, and forms a fine object. It contains salmon and trout. An island in the southern part of the loch (Eilean nam Faoileag) was formerly used as a stronghold, and the ruins of several Pictish towers are to be found in the neighbourhood. The loch is divided into three portions by the alluvium brought down by the streams, and the Allt Smeoral is rapidly pushing out its alluvium into the loch to form another barrier. The general trend of the loch is in a N.N.W. and S.S.E. direction, but the axis is slightly sinuous, so that the lower portion runs almost north and south, while the upper portion runs north-west and south-east. Loch Brora is over $3\frac{1}{2}$ miles in length, with a maximum breadth towards the head of the loch of nearly half a mile, the mean breadth being less than a quarter of a mile. Its waters cover an area of about 560 acres, or nearly one square mile, and, as already stated, its drainage area is very large, nearly 140 times the area of the loch. The maximum depth of 66 feet was observed near the middle of the loch, about $1\frac{1}{2}$ miles from the head, and about 2 miles from the foot, of the loch. The volume of water contained in the loch is estimated at 553 millions of cubic feet, and the mean depth at over $22\frac{1}{2}$ feet. The loch was surveyed on October 22, 1902, when the elevation of the lake-surface above the sea was determined by levelling from bench-mark as being 92·9 feet; when visited by the officers of the Ordnance Survey on July 25, 1870, the elevation was found to be 91·3 feet above sea-level. The highest drift-mark observed on the date of the survey was 7·2 feet above the surface of the water, and the water may fall about 2 feet below the level on that date, giving a variation in level exceeding 9 feet.