

feet of water is about 66 acres, or 50 per cent. of the total area of the loch, while that covered by more than 25 feet of water is about 4 acres, or 3 per cent. Temperature observations taken in the deepest part of the loch at 1.30 p.m. on the date of the survey showed little variation, the reading at the surface being $52^{\circ}6$ Fahr., at 20 feet $52^{\circ}1$, and at 30 feet $52^{\circ}0$.

The particulars regarding the lochs of the Shin basin are collected together in the table on p. 305 for convenience of reference and comparison. From this table it will be seen that in the eleven lochs under consideration, which cover an area of over 12 square miles, nearly 1600 soundings were taken, or an average of 129 soundings per square mile of surface. The aggregate volume of water contained in the lochs is estimated at 14,500 millions of cubic feet, and the area draining into them is nearly 240 square miles, or twenty times the area of the lochs.

NOTES ON THE GEOLOGY OF THE SHIN BASIN.

By B. N. PEACH, LL.D., F.R.S., and J. HORNE, LL.D., F.R.S.

Of the area included in the basin of the Shin, only narrow belts along the west, north, and east margins have been mapped by the Geological Survey. The greater part of the tract is occupied by crystalline schists of the types so largely developed in the counties of Sutherland and Ross, to the east of the line of complication which stretches southwards from Loch Eriboll by the headwaters of the Cassley and the Oykell rivers to Ullapool. The course of the Moine thrust—the most easterly of the great Post-Cambrian displacements described in the “Notes on the Geology of the Assynt District”^{*}—runs south from Gorm Loch Mòr by Loch Ailsh to near Loch Craggie, thence it curves westwards to Knockan beyond the limits of the Shin basin. East of this dislocation, the metamorphic rocks include quartz schists, quartz-biotite granulites, garnetiferous muscovite-biotite schists and flaggy micaceous gneisses. These are pierced by igneous materials (granite and diorite) that cover considerable areas, as near Lairg.

Along the eastern part of the basin there is a belt of Old Red Sandstone strata running in a north-east and south-west direction, its western limit being approximately defined by a line drawn from the Mound station to a point west of Edderton station. Both the middle

^{*} See p. 178