eastwards to the maximum of 20 feet, then shallow at the east end. The mean depth is 11 feet, the area 119 acres, and the volume 58 millions of cubic feet. The drainage area, which includes that of the Peerie Water, measures $1\frac{1}{2}$ square miles. The outflow is eastward, by the Suso burn, into the Sound of Rousay.

On September 18, 1906, the surface was 321·5 feet above sea-level. The temperature at the surface was 54°·6 Fahr., and at 18 feet 54°·0.

Peerie Water (see Plate XCI.) is a very small, narrow, oblong loch, close to the Muckle Water, in the island of Rousay. On the south rises a heather-clad hill, on the north a flat rugged moor intervenes between Peerie Water and Muckle Water. Rock was seen only at the west end. The bottom is stony and free from mud, moss growing in the deepest parts. The length is half a mile, and the breadth one-sixth of a mile. The bottom is nearly flat, the mean depth 6 feet, and the maximum 10 feet. The area is about 38 acres, and the volume 11 millions of cubic feet. The drainage area measures one-third of a square mile. The outflow is by a small burn flowing north into the Muckle Water. The level measured from Muckle Water was 328·25 feet above sea-level.

The temperature at the surface was 53°·5 Fahr., and at 9 feet half a degree less.

Hoglinns Water (see Plate XCIV.) is a small loch in the southern part of the island of Hoy, lying among heather-covered hills of about 600 feet in height. It is a little more than a third of a mile long, and a fifth of a mile broad, but is by far the deepest loch in Orkney, having a maximum depth of 57 feet, somewhat west of the centre. It is a simple basin, deeper towards the west end, and has a mean depth of 26 feet. The superficial area is about 39 acres, and the volume of water 44 millions of cubic feet. The drainage area measures scarcely half a square mile. The outflow is westward by the Hoglinns burn.

From the following table it will be seen that in the fourteen lochs under consideration 932 soundings were taken, and that the aggregate area of the water surface is nearly 10 square miles, so that the average number of soundings per square mile of surface is 93. The aggregate volume of water contained in the lochs is estimated at 2321 millions of cubic feet. The area drained by these lochs is $90\frac{1}{3}$ square miles, or about nine times the area of the lochs.