

but since it receives the outflow from all the lochs described in the preceding pages, its total drainage area is very large—about  $149\frac{1}{2}$  square miles, an area 85 times greater than the area of the loch. The maximum depth of 164 feet was observed about  $1\frac{1}{2}$  miles, or about one-third of the length of the loch, from the north-west end. The volume of water is estimated at 3288 millions of cubic feet, and the mean depth at nearly 67 feet. The loch was surveyed on August 16, 1902, when the elevation of the lake-surface was found to be 249·8 feet above the sea.

The floor of Loch Luichart is irregular, there being three 50-foot basins separated by shallower water. The largest and deepest lies in the wider north-western half of the loch, and is about  $2\frac{1}{4}$  miles in length, approaching to within less than 200 yards from that end. The central 50-foot basin is separated from the north-western basin by an interval of half a mile, in which lies the single small island in the loch, and where the depth in the centre at another place is only 5 feet, and is over  $1\frac{1}{4}$  miles in length. Immediately to the south-east of this central basin there is a narrow constriction in the outline of the loch, in which a depth of 16 feet was recorded, succeeded by a slight expansion containing the third 50-foot basin, with a maximum depth of 55 feet and of small extent. The principal 100-foot basin in the north-western part of the loch is nearly 2 miles in length, and encloses the deepest part of the loch. Two small subsidiary 100-foot basins lie within the central 50-foot basin: one based upon an isolated sounding of 100 feet, the other near the south-eastern end having a maximum depth of 115 feet. The 150-foot basin is nearly a mile in length, and is distant three-quarters of a mile from the north-west end of the loch; the maximum depth of 164 feet was recorded near the south-eastern end of the basin. It is curious to note the difference in the outline of this 150-foot basin as compared with the outlines of the 50 and 100-foot basins enclosing it, for, while the shallower contours follow approximately the shore-line, and therefore enclose areas widest towards the north-west and narrowing gradually in the opposite direction, the 150-foot basin is widest towards the south-east and narrows gradually to the north-west as the outline of the loch widens out. At the same time the deep basin approaches nearer to the northern shore at its north-west end, while it approaches nearer to the southern shore at the opposite deeper end, so that at the position of the deepest sounding the slope off the southern shore is much steeper than off the northern shore, as is well brought out in the cross-section C-D on the map. The longitudinal section A-B down the centre of the loch shows the three basins included in the loch, each successively deeper on proceeding towards the north-west end. The areas between the consecutive contour-lines, and the percentages to the total area of the loch, are as follows:—