

mile from the head of Scourie bay, but at an elevation of nearly 50 feet above the sea. The loch trends almost east and west, and is nearly a mile in length, with a maximum breadth of a third of a mile, its waters covering an area of about 111 acres, or one-sixth of a square mile. The maximum depth of 121 feet was observed approximately near the middle of the loch, but rather nearer the west than the east end. The volume of water is estimated at 270 million cubic feet, and the mean depth at  $55\frac{1}{2}$  feet. The loch was surveyed on September 8, 1902, when the elevation of the lake-surface was found to be 48·5 feet above the sea, so that the 50-feet contour-line on the map shows approximately the area of the bottom which falls below the sea-level.

Loch a' Bhaid Daraich forms a simple flat-bottomed basin, with no indication of any pronounced irregularity. The contour-lines coincide approximately with the outline of the loch, having here and there a slightly sinuous character, and there are in places steep off-shore slopes, as, for instance, off the northern shore towards the west end, where a sounding in 45 feet was taken about 40 feet from shore—a gradient exceeding 1 in 1. The following table gives the approximate areas between the consecutive contour-lines drawn in at equal intervals of 25 feet, and the percentages to the total area of the loch :—

Feet.					Acres.		Per cent.
0 to 25	...	..	...	...	26	...	23·3
25 „ 50	..	...	...	...	29	...	26·2
50 „ 75	..	.	...	...	19		17·6
75 „ 100	...	.	...	...	22	.	19·5
Over 100	..	...	...	...	15	...	13·4
					—		—
					111		100·0

These figures show that Loch a' Bhaid Daraich departs from the usual rule of decreasing area with increasing depth, for in each of the zones between 25 and 50 feet, and again between 75 and 100 feet, the area is greater than in shallower water.

*Temperature Observations.*—A series of temperatures taken at 2 p.m. on the date of the survey, in the deepest part of the loch, gave the following results :—

Surface ...	..	..	..	..	..	57°·2 Fahr.
20 feet	...	...	...	.	.	57°·1 „
40 „	..	...	...	...	...	56°·1 „
42·5 „	..	...	..	...		54°·8 „
45 „	...		...	..	...	52°·0 „
50 „	..	...	...	...	..	50°·8 „
60 „	...	...	...	..	..	50° 0 „
100 „	...	...	...	.	...	48°·9 „
110 „	...	...	...	..	..	48°·6 „

These observations show a range of temperature throughout the body of water amounting to 8°·6, the greatest fall being observed between 42½ and 45 feet, viz. a fall of 2°·8 in the interval of 2½ feet of depth—a decrease exceeding 1 per foot.