

These temperatures show a range of  $12^{\circ}5$  from the surface to 100 feet, with a small inversion of half a degree between 100 and 140 feet. About 3 p.m. the surface temperature in the centre of the loch, half a mile from the east end, with a strong westerly breeze blowing, was found to be  $61^{\circ}4$ .

*Loch an Nostarie* (see Plate XLV.).—Loch an Nostarie is a small loch lying about a mile to the north of the west end of Loch Morar, into which it drains through the little Loch a' Bhada Dharaich and the Allt an Lòin. It was surveyed on July 16, 1902, when, by levelling from an Ordnance Survey bench-mark, the level of the water surface was found to be 89·3 feet above sea-level. The loch has a length of a little over half a mile, with a maximum breadth of nearly half a mile, the mean breadth being a quarter of a mile. The area covered by water extends to 90 acres, or nearly one-seventh of a square mile. The number of soundings taken was 62, the maximum depth being 35 feet, while the mean depth is very nearly 11 feet. The volume of water contained in the loch is estimated at 44,000,000 cubic feet, and the drainage area extends to 1152 acres or  $1\frac{3}{4}$  square miles. The loch is quite simple in conformation, the deep water occupying a central position.

*Temperature Observations.*—On the date of the survey the temperature of the water was found to be almost uniform from surface to bottom, the difference between the surface temperature and that at 30 feet being only  $0^{\circ}1$  Fahr., as shown by the following series taken at 4 p.m. in the deepest part of the loch:—

Surface	...	...	...	...	...	...	...	$59^{\circ}3$ Fahr.
10 feet	...	...	...	...	...	...	...	$59^{\circ}3$ „
20 „	...	...	...	...	...	...	...	$59^{\circ}2$ „
30 „	...	...	...	...	...	...	...	$59^{\circ}2$ „

The details regarding the lochs in the Morar basin are given in the table on p. 208.

#### NOTES ON THE BIOLOGY OF LOCH MORAR.

By JAMES MURRAY.

Salmon, sea-trout, and loch-trout abound in Loch Morar, and the sport is frequently very good, but the salmon as a rule are “dour” to rise. Charr and the powan, or fresh-water herring (*Coregonus*), are said to inhabit the loch.

The biology of Loch Morar offers several peculiarities as compared with most of the other large Scottish lochs. The quantity of plankton