

wished to examine some of these oyster beds minutely, it was found impracticable under the circumstances to work the schooner in such shallow water, and the only boat we had was not only, at its best, very unsuitable for dredging purposes, but was so badly damaged in the gale at Charlottetown as to be quite useless. Some valuable information as to the present condition and prospects of the oyster beds of New Brunswick and Prince Edward Island was, however, obtained from residents upon the coast. To examine the oyster beds of the Gulf of St. Lawrence effectually, steam power would be desirable. In case, however, a sailing vessel is used, she should be provided with a boat of light draught, of tolerable size, and capable of carrying one or two sails. It is also eminently desirable that the captain in charge should be particularly well acquainted with the coast. It happened that the captain in command of the schooner during the last cruise had never navigated the Straits of Northumberland before, and to make matters worse, we had no proper charts on board. The only boat we had was unseaworthy, as well as far too small for dredging purposes. The weather was more or less stormy all the time, and the season being far advanced, after a few unsuccessful attempts at dredging on well known oyster grounds, finding we were only losing time we were reluctantly compelled to desist.

During the first three cruises, Captain J. N. Purdy commanded the schooner, and in the last, Captain M. Graburn took charge of her. To both of these gentlemen my thanks are due for their continued kindness, and for their intelligent co-operation in carrying out the objects I had in view; I am greatly indebted also to the whole crew of the schooner, for their ready assistance in the work in which I was engaged, without which, indeed, many of the specimens collected would have been lost.

## PART II.—PROVISIONAL SUMMARY OF THE ZOOLOGICAL RESULTS OF THE EXPEDITION.

As has been stated at the outset, the number of specimens collected last summer is very large. Only a small portion of these have at present been studied. With the exception of a few omitted by accident, all the annelids collected (filling some 80 bottles) have been sent to Dr. W. C. McIntosh, F.L.S., who has kindly promised to examine and report on them separately. To Professors A. E. Verrill and S. J. Smith, I am again indebted for much valuable assistance in the determination of critical species which could not be named here. To save reiteration I have prefixed an \* (asterisk) to the species named by Professor Verrill, and a † (dagger) to the crustaceans identified by Professor Smith. A few specimens from former years dredging, which have not been determined before, are included in the following list.

### FORAMINIFERA.

The microscopic species have not yet been critically examined. In the deep-sea mud three or more species were noticed which are plainly visible to the naked eye. They are all from 200 to 220 fathoms; one appears to be *Margulinina spinosa*, Sars, another is probably *Triloculina cryptella*, D'Orb. and the last is an arenaceous form new to me. This latter presents three prominent varieties: the first is a simple, unbranched tube, nearly straight, and sometimes fully an inch in length, but always less than a sixteenth in diameter; the second is widely triradiate, not unlike the calcareous spicules of *Grantia*; while the last is irregularly cruciform. These three extreme forms are connected by transitional specimens which seem to shew that the whole are varieties of one species. I am unable to state whether they should be referred to the *Asterorhiza limicola* of Sandahl or not. These organisms, though gregarious, appear to be exceedingly local; they occurred to me in only one locality.

### SPONGES.

Probably as many as fifty or sixty species of sponges from the Gulf of St. Lawrence if not more, are represented in the Museums of the Natural History Society of Montreal, and of McGill College. As there is no such thing as an accurately named series of British