

lowing haul, were since found to be of unusual interest. At 10.15 p.m., the dredge was thrown over again, in nearly the same place, but in a little deeper water, probably 250 fathoms, and was hauled in a little before midnight. This, the last haul on the *Stella Maris*, is Dredge K. A little mud with a few small stones, came up in the bag; the number of specimens obtained was very small. As the wet rope went over the side of the ship, it was luminous throughout its entire length with electric sparks, but the closest scrutiny with a triplet lens, failed to detect any organic matter among the strands.

Sunday, August 20th. A heavy gale from the north west sprung up a little after midnight, and drove us down to the Magdalen Islands. Anchored in the lee of Bryan Island for shelter at 10 a.m., and remained there all day. A very heavy sea on. Went ashore in the afternoon; noticed several Kittiwakes, Gannets, and two Caspian Terns, near the land. The red sandstone of which Bryan Island is composed appears to be of Lower Carboniferous age.

Monday, August 21st. Tried to beat up towards Gaspé Bay but utterly failed. At 7 in the evening we were almost where we started from.

Tuesday, August 22nd. The gale continued till 1 p.m., and was succeeded by a dead calm, then a favorable breeze springing up, at 11 p.m., we sailed for Gaspé Basin and arrived there the next day at 4.30 p.m. Got on board the S. S. *Gaspé* early on Thursday morning, and arrived in Montreal on the following Sunday.

On *La Canadienne* we had sixteen hauls of the dredge. Of these two were failures, the bag coming up empty: four were in fifty fathoms of water, or less; seven in between fifty and 100 fathoms, and five in from 100 to 200 fathoms.

On the *Stella Maris* we had eleven hauls. Of these, two brought up nothing; one was in less than fifty fathoms; two were between fifty and 100, and six between 100 and 250 fathoms.

PART II.

Provisional Summary of the Zoological Results obtained.

At present only the Echinodermata and Mollusca collected have been carefully studied. The Foraminifera, Polycystinae, Sponges, Actinozoa, Polyzoa, and Crustacea, have been examined in a somewhat cursory way, but the Hydrozoa and the marine worms are as yet untouched. In the following sketch a complete list is given of the novelties among the Echinoderms and Molluscs, and such notes on the other groups as the time at my disposal for their examination has permitted. For the loan of books of reference, I am indebted to Principal Dawson, and to valuable practical help in the microscopic dissection of many of the species to G. T. Kennedy, B.A.

Foraminifera.

Very large quantities of these beautiful organisms were collected, but not a twentieth of the whole have been examined, even in the most desultory way. Since the publication of Mr. G. M. Dawson's paper on the Canadian species of this group, published in June, 1870, much additional information on the subject has been amassed. Eleven large bagfuls of mud brought up from various localities, at depths of from 100 to 250 fathoms during the past summer, were preserved: only two of which have as yet been partially examined.

Further research does not, so far, confirm Mr. Dawson's theory, that the foraminifera found at depths greater than 100 fathoms "are very small and delicate." Gigantic examples of *Nodosaria*, *Dentalina communis* and *pauperata*, and of a new Marginuline form, armed with spines longer than in most specimens of *Culcarina*, also *Triloculina tricarinata*, var., are frequent in from 150 to 250 fathoms, and are very plainly visible to the naked eye. My experience is, that the arenaceous species are not more plentiful in Gaspé Bay than in any other part of the River or Gulf of the St. Lawrence. In Mr. Dawson's paper, a list is given of 55 sub-species or varietal forms of