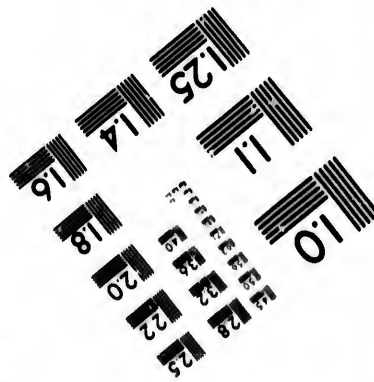
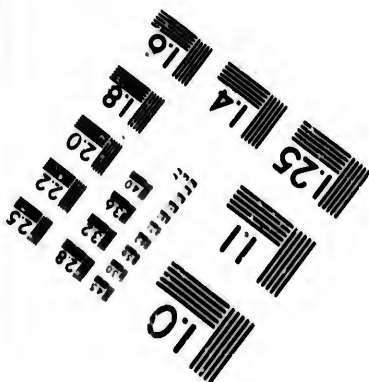
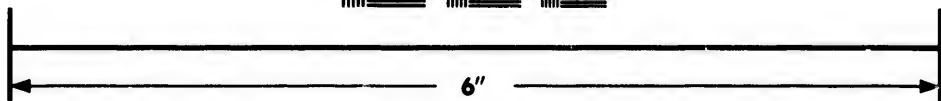
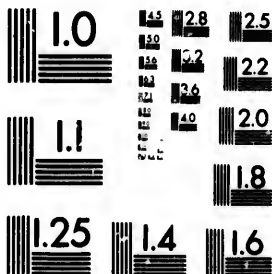


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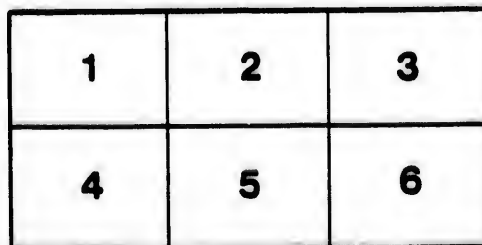
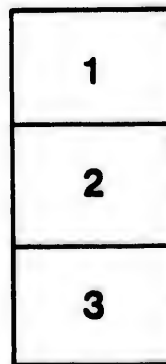
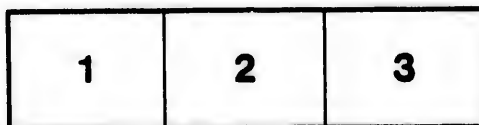
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SUMMER CAMP.

With Notes on the Marine Invertebrates of L'Etang Harbor and the Neighbouring Waters.

BY W. F. GANONG, B. A.

(ABSTRACT OF PAPER READ SEPT. 8TH, 1885.)

THE members of the second Summer Camp, held under the auspices of the NATURAL HISTORY SOCIETY, met in July last at Frye's Island, Charlotte Co. From the arrival of the first member, on the 7th, until the party broke up, on the 22nd, there were twenty persons present, some for a longer and some for a shorter time, four of whom were ladies. No systematic instruction of the younger members by the older was attempted, as had originally been intended, the exigencies of practical work preventing it. The former, however, took part in all excursions, and, doubtless, derived much good from so doing. Messrs. G. U. HAY and J. BRITAIN, assisted by other members of the party, made a systematic study of the flowering plants of the Island, and Mr. HAY gave especial attention to the collection of the cryptogams, particularly the marine forms. The results of these investigations are partially given in the Botanical Report and the paper on Algae (Article V). The Island, comprising an area of about 1000 acres, was found to have a flora of about 300 species of flowering plants, some rarer species of which were *Stellaria humifusa*, *Cuscuta groenovii*, *Comandra livida*, *Elymus mollis*, *Hierochloa borealis*. A sheltered bay on the west side of the Island is probably one of the best collecting grounds for sea weeds to be found on our Southern coast. The Island, so far as observed, was scarcely as rich in the cryptogamic flora as in the higher forms of vegetation, with the exception of ferns, 17 species of which were observed. These grew in the greatest luxuriance on the densely shaded hillsides and ravines of this beautiful Island.

Mr. BRITAIN devoted the greater part of his time to ornithological work, one of the interesting features of which was his success in obtaining a remarkably fine specimen of the Raven (*Corvus corax*), which he shot on Bliss Island. Messrs. G. F. MATTHEW and W. J. WILSON were present for a few days, which they spent very profitably upon the geology of the neighboring islands and mainland.* The writer of the present paper had charge of the Marine Invertebrates, Zoology, and Dredging. The Camp was most successful in all respects, both the amount and nature of the work accomplished being very satisfactory. The physical comfort of the party was not a little enhanced by the attentions of Mr. HENRY FRYE, to whom, for his great courtesy and kindness, the members of the Camp cannot be too grateful.

Dredging operations were carried on in L'Etang, Bliss, Deadman's and Beaver Harbors, in the former case to an extent sufficient to give a very good general idea of the topography of the bottom and the character of the life inhabiting it. Particular attention was paid to the relation of the different species to the physical character of the district, the height of tides, strength of currents, lithological character of the prevailing rock-masses, etc. While a mere list of species collected and their localities would be of little interest to the Society, the facts determined will be of great importance in making generalizations upon the distribution of marine life upon our coast. The fauna of the whole region is essentially Arctic, the strong tides carrying the very cold water flowing northward from the Nova Scotia coast into every bay and inlet of Charlotte County. No new species were added to those catalogued by STIMPSON and VERRILL at Grand Manan and Eastport, the conditions being the same in all of these localities.

Among the more interesting forms observed during the progress of dredging operations may be mentioned that of very fine specimens of the red "sun-star," *Crossaster papposa*, on a bottom of small *angular* stones in L'Etang; two specimens of the brachiopod, *Terebratulina septentrionalis*, were dredged in Beaver Harbor; this species does not probably occur much further up the coast, as it lives in the clearest and coldest water. At the

*See "Summary of Meetings," Sept. 8, on a following page.

same place a few specimens of the Tubularian hydroid, *Corymorpha pendula*, occurred, while *Tubularia indivisa* was very abundant. Several species of sponges were found in L'Etang, where also the Brittle stars, *Ophiopholis aculeata* and *Amphiura squamata*, were large and common. Specimens of the common holothurian, *Pendacta frondosa*, of enormous size, were dredged at the mouth of the latter harbor, and at the weirs of Bar Island remarkably fine specimens of another holothurian, *Lophothuria Fabricii*, together with another "sun-star," *Solaster endeca*, were abundant. Another extremely interesting star-fish, *Ctenodiscus crispatus*, was found upon mud bottoms in Beaver and Bliss Harbors, and a single specimen of the remarkable genus, *Leptasterias* ? at some point unknown. The mollusca which were dredged will be fully treated by the writer in a separate paper.

