

DISCUSSION AND CORRESPONDENCE.

MARINE ZOOLOGY IN THE HAWAIIAN ISLANDS.

TO THE EDITOR OF SCIENCE: At a time when zoologists are making their plans for summer vacation work it seems opportune to direct attention to the advantages offered even in such a distant territory as the Hawaiian Islands. During a visit to the islands last year, under the auspices of the Carnegie Institution, for the purpose of studying the living corals, I was afforded the privileges of the public aquarium recently established near Honolulu, and the directors of the institution desire it to be known that they will be prepared to accord a similar courtesy to other zoologists visiting the islands for purposes of research.

The aquarium is a modest structure, erected a little over a year ago, and is under the control of the Rapid Transit Company, though the funds were largely provided by the generosity of different gentlemen interested in the welfare of the islands. It is most advantageously situated at Waikiki Beach, a suburb of Honolulu, and the adjacent coral flats constitute most favorable collecting ground. Though no special appliances beyond exhibition and experimental tanks are available, yet the advantages of these and a constant supply of sea-water appeal to any student desirous of carrying out investigations on living forms. Moreover, with a generosity which is very praiseworthy, the directors are prepared to make whatever reasonable adaptations may be required.

Our knowledge of the marine fauna of the Hawaiian Islands is becoming rapidly extended, mainly through the reports on the collections made by the U. S. Fishery Bureau, under the direction of President D. S. Jordan, during the two successive seasons, 1901 and 1902. The large addition to the number of species of fishes alone shows how very desirable was such faunistic work, and other groups are yielding a corresponding number of new forms. The physical conditions of the coral reefs have been studied in part by Professor A. Agassiz. Though the luxuriance of the life on the reefs does not equal that in

the more distant Tahiti, Samoa, or the Philippine Islands, yet there is sufficient, particularly in such places as Kaneohe Bay, to satisfy the most ardent investigator.

For the student of terrestrial forms the islands are particularly interesting on account of the influence of introduced animals and plants upon an indigenous fauna and flora. Representatives from the east and from the west, from temperate and from tropical regions, here flourish, and against the pests a strong corps of entomologists is engaged in further introduction of possible remedial forms. The fact that the land shells of the islands served to supply the Rev. J. T. Gulick with material for the theory of isolation adds an interest to the evolutionary biologist. The ethnology and various departments of natural history are well cared for by Professor T. H. Brigham, of the Bishop Museum, and his staff of assistants.

As a last word of attraction regarding the situation of the aquarium one may quote from the 'Report on Collections of Fishes made in the Hawaiian Islands' by Professor O. P. Jenkins:

Of all situations about the island of Oahu, the submerged reef which extends from the entrance of the harbor of Honolulu to some distance past Waikiki furnishes the most prolific supply of fishes, both as to number of species and amount of the catch. This reef at low water is from a few inches to a few feet under water and extends from one mile to two or three miles from the shore, where the water abruptly reaches great depths. Over the surface and along the bluff of this reef may be found representatives of most of the shore fauna of the Hawaiian Islands. This reef, so favorably situated, so accessible, and so rich in material, can not fail to be of increasing interest to naturalists who may have the good fortune to devote themselves to the study of its wonderful life.

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THE GREENE EXPLORING EXPEDITION.

TO THE EDITOR OF SCIENCE: The W. C. Greene Exploring Expedition consisting of Robert T. Hill, John Seward, Frank H.