



## INTRODUCTION.

Knowledge possessed by the Ancients concerning the Ocean, its Saltness and its Inhabitants—Researches during the Middle Ages, the Fifteenth, Sixteenth, and Seventeenth Centuries—The Expeditions of the Eighteenth Century, and the Arctic and Antarctic Expeditions of the early part of the Nineteenth Century—The “Lightning” and “Porcupine” Expeditions—Correspondence between the Royal Society and the Admiralty with reference to the investigation of the Great Ocean Basins.

A BRIEF review of the efforts made to acquire a knowledge of the Ocean, and a general account of the opinions held prior to the year 1872 as to the physical and biological conditions of the great ocean basins, may form an appropriate Introduction to the Narrative of the Voyage of H.M.S. Challenger. The objects which the promoters had in view when they urged Her Majesty's Government to fit out and despatch an Expedition on a special scientific investigation of the depths of the sea will thus be indicated.

The sea and the life in its waters were little studied by the learned men of the ancient civilisations, which were clustered round the nearly tideless Mediterranean. Their sea-lore consisted in great part of wildly exaggerated descriptions of the more striking marine phenomena woven into a vague mythology. The sea was an object of terror, for navigation was uncertain in the extreme; what lay beyond the Pillars of Hercules was veiled in mystery, and what lay beneath the surface of the waters crossed by the ancient navies was equally unknown.

The sea was not, so far as is known, made the subject of close attention until Aristotle (384–322 B.C.) brought his mind to bear on it in common with the other departments of natural history. Aristotle studied the physical conditions of the sea as far as a man without apparatus could study them. He thought that in the ocean the water was warmer and saltier at the surface than at the bottom; he considered that as the sun's heat was always evaporating the water the sea would ultimately be