

THE  
VOYAGE OF H.M.S. CHALLENGER.

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ZOOLOGY.

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REPORT on the ECHINOIDEA,<sup>1</sup> dredged by H.M.S. Challenger during the  
Years 1873-1876. By ALEXANDER AGASSIZ.

INTRODUCTION.

IN preparing this Report on the Challenger ECHINOIDEA, I have purposely limited myself to such topics as seemed most germane to the object of the Challenger Expedition, viz., the careful systematic description of the species collected, and a detailed comparison in all directions which promised to shed any light on the characteristics of the Echinid fauna of the depths of the sea.

A careful comparative study of the new species collected by the "Challenger" and by the "Blake," seems to make a short revision of some of the principal lines of affinities of the recent and fossil Echinids desirable; as from our present knowledge of the affinity of the Echinoidea several groups formerly considered somewhat aberrant can now be shown to be closely connected. New and most unexpected systematic views have in many cases been suggested by this comparative study of the striking deep-sea genera. This comparison is the more interesting, as it brings out more prominently than could otherwise have been done the genetic succession which undoubtedly exists between the types still found living at great depths, and other genera characteristic of the Cretaceous and Tertiary periods.

There remains much to be done in the minute anatomy, not only of the new deep-sea types but of the whole group of Echinoidea. We know as yet practically nothing of the histology of the principal families; for this reason I have not attempted a more detailed examination of the Challenger Echinids, interesting and instructive as it undoubtedly would have been, since there existed no terms of comparison in the other groups. To have attempted to carry out such a comparative scheme for the

<sup>1</sup> It has been found impracticable to incorporate in this Report publications on the Echinoidea which have appeared during the winter of 1879-80 and subsequently.