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**BATHYMETRIC CHECK LIST OF THE MARINE INVERTEBRATES OF
EASTERN CANADA WITH AN INDEX TO WHITEAVES' CATALOGUE.¹**

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INTRODUCTORY NOTE.

The primary object of this paper is to bring together in columnar form all of the available information relating to the depth at which the various species of marine invertebrates live which are known from the Atlantic coastal waters of Canada. The value of the segregation and graphic presentation of any group of facts relating to invertebrate environment is obvious from the standpoint of ecology. The significance of many factors in the environment of faunas becomes clearly apparent only when treated in this way. There is no factor in marine faunal environment which more readily lends itself to this kind of analysis than bathymetric data. Such data though nearly always given by marine Zoologists are generally placed obscurely in the midst of extraneous matter and almost never shown in tabular or easily comprehensible form.

Bathymetric range of fossil faunas is a factor which enters into many problems in palaeontological correlation and it is very desirable that the palaeontologist as well as the zoologist should have access to the recorded bathymetric data in tabular form relating to present marine faunas. There perhaps is no group of facts pertaining to recent faunas of greater significance to stratigraphic palaeontologists than those relating to the bathymetric range of species. The geologic importance of knowing the present range in depth of the marine shells now living in the Gulf of St. Lawrence is clearly apparent to the geologist who attempts to use the fossil Pleistocene shells of the St. Lawrence valley in interpreting the details of its Post-glacial history. The geological and zoological importance of this class of data has induced the authors to bring together in columnar form the recorded information regarding the bathymetric range of species as recorded by Dr. Whiteaves together with the data published by later authors. In order to facilitate rapid comparative examination of the bathymetric data it has been recorded in columnar form, five columns being used. The first three of these columns correspond respectively to the intertidal or beach, the laminarian and the coralline zones. The intertidal zone extends between low and high tides; the laminarian zone reaches from low-water mark to 15 fathoms; the fourth column includes depths of from 50 to 100 fathoms which may be termed the subcoralline zone. The 100 fathom line marks the approximate margin of the continental shelf. All of the records exceeding this depth have for convenience been placed together in a single column.

The bathymetric check list has been brought up to date by the examination of the papers on the marine invertebrates of Eastern Canada which have appeared since the publication of Dr. Whiteaves' paper. Where these later contributions have furnished new bathymetric information its source is indicated by a number following the species name which refers to the bibliographic list at the end of this paper.

The authors have also undertaken in the following pages to make more easily accessible and usable the large amount of information on the marine faunas of Eastern Canada contained in Dr. Whiteaves' Catalogue of the Marine invertebrata of Eastern Canada² by the preparation of an index to it. Many zoologists have doubt-

¹ Published with the permission of the Director of the Canadian Geological Survey.

² Geol. Survey of Canada, 1901.