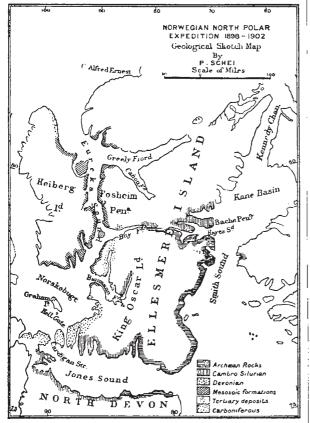
Heiberg Land are underlain by Carboniferous, with some interesting volcanic deposits. Tertiary strata were detected on Baumann Fjord, west of King Oscar Land, containing plant remains in an unusual state of preservation. Towards the western side glaciers are neither frequent nor large, owing probably to a deficient precipitation, and no signs were found of their having had a greater extension.

Thus Dr. Schei's researches corroborate and carry further the work of his predecessors. They show that a plateau-like region of Archæan rocks was submerged —perhaps before the beginning of the Palæozoic—and was buried beneath Cambrian, Ordovician, and Silurian deposits, it may be in orderly succession. These were followed by Devonian and Carboniferous, both marine, and possibly without interruption. After a break, with considerable physical disturbances, some beds of Triassic age were deposited, which are succeeded by Jurassic. Another great break is only



(From the Geographical Journal.)

interrupted by isolated Tertiary deposits, and, with the exception of a considerable late or post-Glacial submergence, terrestrial conditions may have been since then generally persistent.

T. G. BONNEY.

FISHERIES INVESTIGATION IN IRELAND. I RELAND seems to be happier for the moment than either England or Scotland in the organisation and in the results of its official fisheries research. In England the official Fisheries Department has been for some years under the Board of Trade, and is soon, we believe, to be transferred to the Board of Agriculture. It has had no laboratories, no boats, and no scientific assistants, and it is no reflection upon

NO. 1766, VOL. 68]

H.M. Inspectors of Fisheries in such circumstances to say that they have carried on no biological, chemical, or other laboratory investigations.

In Scotland there is the well-known Fishery Board, provided with laboratories, vessels, and a sea-fish hatchery, and much good scientific work has been done in the past by Dr. Fulton and his able staff; but it is said that nearly all the available funds (without which practical work cannot be carried on), and the energies of the scientific men, of the Fishery Board for Scotland have now been diverted for several years into the service of the international North Sea investigation scheme.

In Ireland matters seem to be managed better. Competent scientific men are carrying on important investigations having for the most part a direct bearing on the local fisheries, and there seem to be sufficient funds not only to meet the necessary expenses of the work, but also to publish the results in suitable form-with coloured plates and other good Across the Irish Sea there is a illustrations. "fisheries branch" in the Department of Agriculture and Technical Instruction, and the two names that appear prominently in connection with the work-Wm. Spotswood Green and E. W. L. Holt-are ones that command respect from marine biologists and from fisheries experts alike. Mr. Green is Chief Inspector of Fisheries, and Mr. Holt is his scientific adviser, and from what we know of the work accomplished the combination seems a good one. The department in question has now issued the "Report on the Sea and Inland Fisheries of Ireland for 1901," in which, for the first time, as the report of the scientific adviser states, a part ii. on scientific investigations appears as a separate volume. It contains a couple of hundred pages and more than twenty plates, and Mr. Holt-ior it is evidently very largely his work-and the department, and all others concerned, are to be congratulated on its appearance. The volume is entitled the report for 1901, but we notice occasional references to work done in 1902, and it contains the translation of a Norwegian paper said to be published in 1902. There is no harm in this, but we may be allowed to hope that the volumes for 1902 and 1903 will follow soon.

After a brief report from the scientific adviser to the chief inspector dealing with sea fisheries, inland fisheries, and the Cork Exhibition (1902), there follows an appendix, which is the main part of the book and contains a number of memoirs by Mr. Holt and his colleagues which are of both scientific and economic value. Amongst these we may note a brief account of a fishing survey of the Porcupine Bank, which is supplemented by a paper on the rock specimens trawled from the floor of the Atlantic and examined by Prof. Grenville Cole and Mr. T. Crook; a paper on Copepoda and one on Nudibranchiata by Mr. G. P. Farran; a useful paper on the British and Irish gobies, by Mr. Holt and Mr. Byrne, which is illustrated by two beautiful coloured plates and a number of figures in the text; an account of an investigation of the oyster beds of Wicklow and Wexford; and a translation of A. Wolleback's three papers on oyster culture from "Norsk Fiskeritidende." The section on inland fisheries has papers and reports on salmon, pollen, and

It is interesting to notice that Mr. Holt speaks of his oyster investigation as "part of the systematic examination of all our eastern fishing grounds, which is an item in the work of the scientific section of the fisheries branch." That is a programme such as we should expect from Mr. W. S. Green, and we have no doubt it will be ably carried out by Mr. Holt.

W. A. H.