

the 30th meridian west (Fig. 567). We see that the water-layer limited by the isotherm of 10° C. is relatively thin in proportion to the depth of the ocean. The genuine warm-water layers with temperatures exceeding 15° C. reach only to 30° south and north, and are only 200 to 300 metres thick. The whole layer above 10° C. has a thickness varying between 300 and 700 metres (or between $\frac{1}{20}$ and $\frac{1}{3}$ of the depth of the ocean). Now it was only a part of this small layer which was examined by Hensen's expeditions, and consequently the results must necessarily be incomplete.

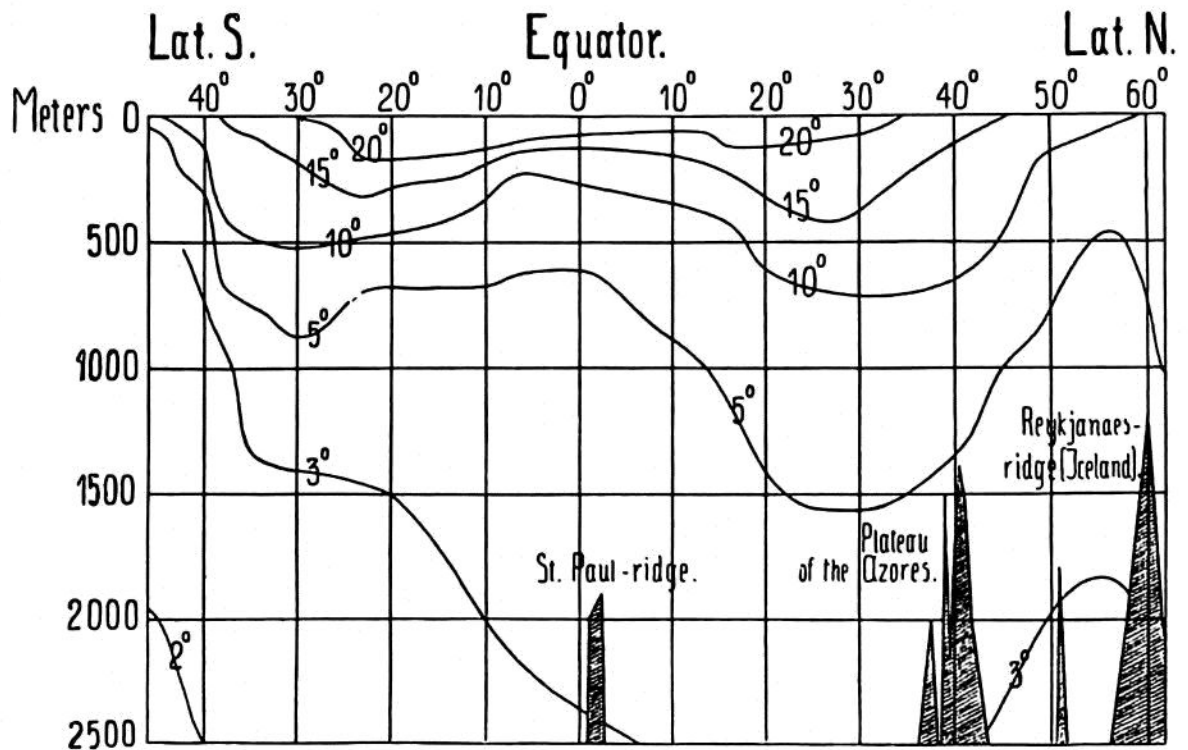


FIG. 567.—DISTRIBUTION OF TEMPERATURE IN THE ATLANTIC ALONG THE THIRTIETH MERIDIAN OF WEST LONGITUDE. (From Schott.)

Distribution
of whales.

In order to understand the abundance of animal life in various parts and at various depths of the Atlantic, it is very useful to review our knowledge of the distribution of whales in that ocean. I agree with Eschricht in dividing the whales into different biological groups according to the food on which they live. One group feeds on "plankton," another on both plankton and fishes, and a third group on squids.

Genuine "plankton whales" are the arctic "right" whale (the Greenland whale, *Balæna mysticetus*, see Fig. 568), and the boreal blue whale (*Balænoptera musculus*, Fig. 569). By the aid of their enormous tongues they press the water out of their mouths between the whalebone lamellæ, thus filtering the water and retaining the minute organisms (see Fig. 570).