W. F. Thompson and **F. H. Bell.** "Biological Statistics of the Pacific Halibut Fishery. (2) Effect of Changes in Intensity upon Total Yield and Yield per Unit of Gear." Rep. Internat. Fish. Comm. No. 8. Seattle, Wash., 1934.

A very brief notice of this paper is sufficient to show its importance. The authors show how it was possible to foresee the effect on the fishery of certain restrictions. The restrictions were made. The expected effect was shown in the fishery statistics. The same theory is found to fit closely to the facts in two other outstanding examples from the statistics. Detailed description of the paper is unnecessary here, for it is obviously one which everyone interested will wish to read in the original.

If one should criticize a paper which so notably advances the theory of fishery statistics, one would be inclined to say that, despite the agreement between theory and experience cited, the theory as given is still too far removed from reality to be very practicable. Here is truly material for another paper, which the reviewer is preparing. One example will, however, serve as sufficient warning to readers. From p. 10: "But it is equally obvious that where the growth-rate is slow, less than the mortality from natural causes, the greatest total yield from a given number of incoming young is produced by an intense fishery ...." If the growth-rate were *constantly* less than the mortality from natural causes, even for adults, the stock would not exist, for its weight would progressively decrease to zero. There would therefore be no incoming young and no fishery. There is needed therefore some treatment of the variation in the postulate as to the ratio of growth-rate and natural mortality.

No foreign literature is cited in this paper. Without wishing in any way to belittle the very great achievement of the authors, the reviewer is not confident that use has been made of earlier advances along these lines, especially E. S. Russell's paper in this journal, Vol. VI, p. 3, 1931, and the theories of Malthus and of Pearl, cited in the papers of Hjort and his school in *Hvalrådets Skrifter* 7, 1933.

M. G.

Chr. Hessle och **S. Vallin.** "Undersökningar över plankton och dess växlingar i Östersjön under åren 1925—1927." ("Investigations of plankton and its fluctuations in the Baltic during the years 1925—1927."). Svenska Hydrogr.-Biolog. Komm. Skr. N. S. Biologi, Bd. 1, Nr. 5. Stockholm, 1934.

The purpose of the investigations described was to find out whether the migrations of the herrings into the coastal basins of the Baltic were due to a difference between the plankton production of the open Baltic and of these basins. Furthermore, it was of interest to study the question whether there was a connexion in other respects between the fluctuations of the plankton production and the occurrence of the Baltic herring.

A very large number of plankton samples was collected in the area extending from the Bornholm Basin to Botten Bay (the innermost part of the Gulf of Bothnia). Several instruments were used, viz. a 0.5 m. closing net, a 1 m. vertical net, a sledge net, which was dredged along the bottom on runners, and a 2 m. ring-trawl. In connexion with the collection of plankton samples hydrographical observations were made.