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Remarks on the ICNAF Plankton Research Program

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The main interests in planktonology can, as far as ICNAF is concerned, be assumed to concern

- 1) fish larvae and fish eggs
- 2) a summary of the quantitative distribution of basic food for the fish stocks

Ad 1. The most recent improvements in the technique of sampling fast-moving fish larvae have resulted in the development of various types of high-speed plankton-collectors (P.W. Gehringer, 1952 (gulf III), B.M. Bary et al, 1958), (E.H. Ahlstrom et al, 1958).

Whilst the usual net-types only can be worked with a speed of, at the most, 1 to 2 knots, the high-speed collectors work with a speed of 6 to 10 knots, thus enabling the quantitative capture of fast-moving plankton (fish larvae, euphausiidae), --- Bridger, 1958. The duration of the hauls and the amount of water passing through the gear vary considerably (1 to 30 m<sup>3</sup>).

Ad 2. For the estimation of the quantitative distribution of zoo-plankton, it hardly matters where (micro- or macro-zoo-plankton) in the food chain the researches are set. Therefore, it must be considered whether the usual type of net (which must be provided with a device for measuring the water passing through it) should continue to be used, or whether another means of capture should be introduced (5, 10 or 100 liter plankton samples pump, or perhaps just the above-mentioned high-speed collector). The essential thing, however, is to agree upon the size category of zoo-plankton to be treated quantitatively.

A standardization of the sampling technique, either to use the usual type of net or to proceed to use a new type of collector, will, no doubt, cause resistance because many will wish to preserve their established methods for comparison with earlier results. A uniform technique must however be accepted.

It is, however, a question whether one should not postpone final decisions until the results of the plankton symposium, to be held by ICES in 1960, are available.

Denmark cannot render any help to the scientific treatment of a possible plankton recorder material. The only rational procedure for the treatment of such a material will be the establishment of a central laboratory.

Would it be possible to organize an investigation of the primary production by means of C-14 technique from the weather-ship A? This would not demand much special gear, and the observations can be made by a properly instructed officer of the vessel, as has been the case for several years with Danish light-vessels. The material could be dealt with by Denmark through "The International Agency for 14-C Determination, Charlottenlund".

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