

SCOR WORKING GROUP 50  
BIOLOGICAL EFFECTS ON OCEAN VARIABILITY

Report on Meeting, Guayaquil, December 1974,  
by A. R. Longhurst, Chairman

Participants: J. Namias, D. H. Cushing, P. Smith, A. R. Longhurst, G. Hempel (for SCOR) and G. Tomczak (for FAO).

1. Programme for the Seminar S5 of JOA, 1976

We agreed that if this Seminar was to include about 5 - 7 speakers, we should structure it along the following lines: (i) a general conceptual review of the topic (unless such a review should be given in one of the major invited lectures of JOA); (ii) 3 - 4 well-chosen regional review papers on, for instance, the Baltic, Atlantic including North Sea, NE Pacific, Peruvian region (or coastal upwelling regions generally), Japanese region, etc; (iii) review papers on different biological scales of response, covering the range from vertebrates with many year-classes in their populations to invertebrates with several generations within a single year. We also agreed that it was more important to select good speakers with novel things to say than to ensure that all topics were covered.

2. General work plan for the Group

We then discussed our broader objective of generating a multi-author review of biological effects of ocean variability over the scale of more than one year to about 500 years. We agreed that this was a useful exercise despite Dickson and Cushing's forthcoming review of the same topic for Russell's 1975 volume. We felt it was important to attempt global coverage, to discuss processes in all regions, as well as to discuss the mechanisms and principles involved. Dickson and Cushing's review differs in concentrating on the conceptual approach and not attempting a factual global coverage.

We spent some time on the proposal by Saetersdal, supported by Dragesund, that our work should be based on a small number of fisheries case-history studies. We agreed that this might be too restrictive a procedure, if narrowly applied, and preferred to take the line that while fisheries are, indeed, the long-term objective we must consider these within other biotic contexts; we preferred to discuss multi-species fisheries case-histories and agreed the ideal would be fisheries 'ecosystem' case-histories. Cushing pointed out that the 1950 and 1964 heavy year-classes were common to many North Atlantic species and in order to understand such phenomena it would be illogical to restrict ourselves to single species. Moreover, we thought, the biological mechanisms which might be exposed as a result of our work would be common to many species.

The biologists were especially pleased that Jerry Namias had agreed to join the Group, and he agreed to consider the nature of a statement about physical mechanisms which would act as the framework upon which to hang our biological discussions.

We thought it would be possible to hold another session at Aarhus in 1975, at the time of the North Sea symposium, and a full meeting in Britain in September 1976 at the time of JOA.