

SCOR WORKING GROUP 56
EQUATORIAL UPWELLING PROCESSES

Report of Chairman: H. Rotschi

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1. Formation of the Working Group

Letters have been exchanged with Professors Hempel and Stewart on the possible membership for the Biological Panel and the Physical Panel of the Working Group. Having in mind the FINE workshop to be held at La Jolla in June-August it has been suggested that the formation of the Working Group be urged.

2. Future activities

According to the terms of reference, it seems that two priority tasks are waiting the Working Group. The first is an inventory of the observational evidences on temporal and spatial variability of the equatorial upwelling in the three oceans and of the production mechanisms which are bound to it. From this point of view a critical listing of all the major cruises devoted to the study of the equatorial region in the three oceans might be established and circulated to serve as a basis for general information. In this line, two Soviet works deserve special attention; they are *Productive zone of the equatorial Atlantic, conditions of its formation* issued by Atlanto NIRO and published at Kaliningrad in 1971 and volume 102 of the *Transactions of the Institute of Oceanology of the USSR Academy of Sciences* "Pelagic ecosystems of the Pacific Ocean", Moscow 1975. Both are being translated into French at CRO, Abidjan and they might be largely diffused among non-Russian speaking interested scientists. Another pertinent book is *Functioning of Pelagic Communities in the Tropical Region of the Ocean*, M.E. Vinogradov Ed., Moscow 1971, which has already been translated into English.

The second priority question is the planning of the possible participation of FGGE. Little can be done until the Working Group is formed. Nevertheless, it is hoped that one member of its Physical Panel will participate in the SCOR/JOC Study Conference on General Circulation Models of the Ocean to be held at Helsinki in May 1977 and particularly at the first meeting of the Panel on equatorial modelling of WG 49. The Chairman will probably be present at La Jolla for the meeting of the Pacific Penal of WG 47 and for the first week of the workshop on Dynamics of Equatorial Ocean Currents. Further, it should be provided for the participation to the CINECA symposium of Dakar in 1978 and to the GATE symposium of Kiel also in 1978.

All the above refers practically only to the dynamical aspect of the upwelling and the biological implications of the latter are let aside. Progress in this field will depend to a certain degree on progress of the work of WG 59 on Mathematical Models in Biological Oceanography with which contacts should be established. Of particularly great interest will be the review of coastal upwelling processes of the former WG 36.

As far as "the coupling of equatorial upwelling processes with the coastal upwelling in the adjacent areas along eastern boundaries of the oceans" is concerned, it is actually difficult to forecast any action until the first meeting of the panel on equatorial modelling

of WG 49. Nevertheless, close cooperation should be sought with the WG 55 on Prediction of El Niño, and the WG 56 should be active in helping the former to select the biological indicators to be studied in conjunction with El Niño.

The fourth term of reference will be approached after the formation of the Working Group.

To conclude I would like to suggest that a possible date and place for the first meeting of the Physical Panel of WG 56 would be the GATE Symposium of Kiel in June 1978 and that the Biological Panel could hold its first meeting during the CINECA symposium of Dakar in early 1978.