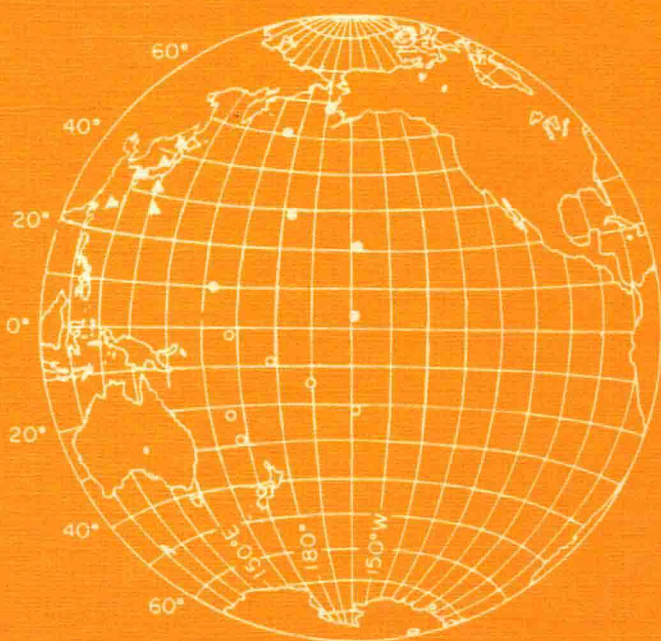


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Oceanic and Anthropogenic Controls of Life in the Pacific Ocean

edited by

V. I. Ilyichev and V. V. Anikiev



Kluwer Academic Publishers

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Proceedings of the 2nd Pacific Symposium
on Marine Sciences, Nakhodka, Russia,
August 11–19, 1988

edited by

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KLUWER ACADEMIC PUBLISHERS
DORDRECHT / BOSTON / LONDON

Library of Congress Cataloging-in-Publication Data

Pacific Symposium on Marine Sciences (2nd : 1988 : Nakhodka,
Primorskii krai, R.S.F.S.R.)

Oceanic and anthropogenic controls of life in the Pacific Ocean :
proceedings of the 2nd Pacific Symposium on Marine Sciences,
Nakhodka, Russia, August 11-19, 1988 / edited by V.I. Ilyichev and
V.V. Anikiev.

p. cm. -- (GeoJournal library : v. 21)

ISBN 0-7923-1854-4 (alk. paper)

1. Oceanography--North Pacific Ocean--Congresses. 2. Marine
resources--North Pacific Ocean--Congresses. 3. Marine ecology--
North Pacific Ocean--Congresses. I. Il'ichev, V. I. II. Anikiev,
V. V. III. Title. IV. Series.

GC771.P33 1992

574.5'2636'091644--dc20

92-17798

ISBN 0-7923-1854-4

Published by Kluwer Academic Publishers,
P.O. Box 17, 3300 AA Dordrecht, The Netherlands.

Kluwer Academic Publishers incorporates
the publishing programmes of
D. Reidel, Martinus Nijhoff, Dr W. Junk and MTP Press.

Sold and distributed in the U.S.A. and Canada
by Kluwer Academic Publishers,
101 Philip Drive, Norwell, MA 02061, U.S.A.

In all other countries, sold and distributed
by Kluwer Academic Publishers Group,
P.O. Box 322, 3300 AH Dordrecht, The Netherlands.

Printed on acid-free paper

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Printed in the Netherlands

Oceanic and Anthropogenic Controls of Life in the Pacific Ocean

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PART I

INTRODUCTION

INTRODUCTION

S.M. Haq

The Intergovernmental Oceanographic Commission (IOC) is a central body within the United Nations System, which, in accordance with its Statute, is responsible for recommending, developing and coordinating of programmes in ocean sciences and ocean services to be implemented through concerted action of its Member States. The Commission also performs its tasks as a joint specialized mechanism under the umbrella of the Intersecretariat Committee on Scientific Programmes Relating to Oceanography (ICSPRO) of which the United Nations, UNESCO, FAO, WMO and IMO are the member organizations.

Following the large scale oceanographic expeditions organized and co-ordinated by IOC during the first fifteen years of its existence (e.g., International Indian Ocean Expeditions, IIOE), the Co-operative Investigations of the Caribbean (CICAR), the Co-operative Investigations of the Kuroshio in the Pacific (CSK) and others. The Commission's programmes and activities progressively evolved under the impact of two major influences. Firstly, the need to reshape its major programs in ocean science and ocean services on a continuing basis in keeping with rapid advances in ocean research. Secondly, the growing demand from the vast majority of its Member States in different regions of the Globe for developing programmes and activities in the area of common interest and in accordance with their priority needs. In order to fulfil its global objective and responsibilities, the Commission reorganized its programmes and structure to respond to those needs. The IOC established technical subsidiary bodies, responsible for major global programmes in ocean sciences and ocean services, and regional subsidiary bodies in different regions. In ocean sciences the technical bodies deal with major programmes which include the Global Investigations of Pollution in the Marine Environment (GIPME); Ocean Science in relation to Living Resources (OSLR) - jointly with FAO; Ocean Science in Relation to Non-Living Resources (OSNLR) - jointly with UN; Ocean Processes and Climate (OPC); a joint SCOR-IOC Committee on Climatic Changes and the Ocean (CCCO) and a joint IOC-IHO Guiding Committee for the General Bathymetric Chart of the Ocean (GEBCO). In ocean services the major programmes of the Commission include the International Oceanographic Data Exchange (IODE) and its Marine Information Management (MIM); the Integrated Global Ocean Services System (IGOSS) - jointly with WMO.

Under CCCO, IOC co-operates with the Joint Scientific Committee (JSC) of ICSU, and WMO for the World Climate Research Programme (WCRP) in outer programmes such as the Tropical Global Atmosphere (TOGA) and the World Ocean Circulation Experiment (WOCE).

One of the major activities of the Commission is Training, Education and Mutual Assistance (TEMA) in marine science through which not only assistance is provided to developing countries, but also co-operation between developed and developing countries is fostered in areas relating to the ongoing programmes of the Commission. The UNESCO/IOC Comprehensive Plan for a Major Assistance to Enhance Marine Science Capabilities of Developing Countries (hereafter called Comprehensive Plan)

sets out strategies required for the development of effective co-ordination of all marine research and related activities including formulation of a marine science policy at the national level in a given country, so as to ensure economic utilization of all available national resources and effective liaison with international organizations concerned with marine affairs. As part of the strategy, IOC is involved in the preparation of Marine Science Country Profiles defining the scope and the basis for the development of marine scientific research capability in the context of ocean development at the national level, as well as the formulation of a technical assistance project, at the request of Member State(s), for possible international funding.

The regional subsidiary bodies on the other hand were established by the Commission in response to the request of the Member States. These include: IOCARIBE (in the Caribbean); WESTPAC (in the Western Pacific); IOCINCWIO (in the North, Central and Western Indian Ocean); IOCEA (in the Eastern Atlantic); IOCINDIO (in the North-Central Indian Ocean). It also co-operates with other bodies in regional programmes such as the Joint IOC-WMO-CPPS Investigations of El Nino (in the South-Eastern Pacific), the Joint CCOP(SOPAC)-IOC Working Group on Post-IODE Studies on East Asian Tectonics and Resources (SEATAR) and joint CCOP(SOPAC)-IOC Working Group on South Pacific and Resources (STAR). The programmes and activities of each of the regional subsidiary body is recommended, developed and implemented by the Member States concerned with IOC, wherever applicable with other bodies, playing a co-ordinating role.

PROGRAMME AND ACTIVITIES OF WESTPAC

The IOC Regional Committee for WESTPAC was established in 1978 soon after the termination of the IOC Co-operative Investigations of the Kuroshio. Although during the first three sessions of WESTPAC there had been modest progress in the implementation of the approved programme and activities, it was at the Fourth Session held in Bangkok, Thailand, 22-26 June 1987, that the Regional Committee under the Chairmanship of Dr. John Bunt of Australia, took several concrete actions to identify specific co-operative projects for implementation by all interested Member States of WESTPAC. It laid particular emphasis on:

- establishing priority programmes that are of specific interest to the region as regional components of the IOC major programmes;
- effective implementation of the priority programmes through creation of mechanisms that should ensure development of co-operative networks relative to each approved project amongst the interested countries and their scientist/institutions in the region.

The nine projects approved by the Regional Committee for WESTPAC are as follows:

OCEAN SCIENCES

Regional Component of OSLR in the Western Pacific

- (i) Recruitment of Penaeid Prawns in the Indo-Western Pacific;
- (ii) Toxic and Anoxic phenomena associated with the algal blooms in the Western Pacific region.

Regional Component of OSNLR in the Western Pacific

- (iii) WESTPAC Palaeographic Map
- (iv) Margins of Active Plates (MAP).

Regional Component of Ocean Dynamics and Climate (ODC)

- (v) Co-operative Research Study of Banding of Porites Corals as a component of ocean climate studies;
- (vi) Co-operative Research Study of the Continental Shelf Circulation in the Western Pacific;
- (vii) Co-operative Research Study of the Ocean Dynamics in the North-West Pacific.

Regional Component of Marine Pollution Research and Monitoring (GIPME)/(MARPPOLMON)

- (viii) Assessment of River Inputs to the Sea in the WESTPAC region;
- (ix) Monitoring Heavy Metals and Organochlorine Pesticides using the Musselwatch approach.

It is important to note that the Regional Committee endorsed the concept of a co-operative network to be developed in the long run which should be based on the principle of partnership, self help and concerted action amongst the interested institutions/scientists, for the purpose of planning, promoting, co-ordinating and implementing agreed projects of common interest to them. For a network to be functional and successful, the operational plan for a given project was considered as a first step which should determine the precise nature of participation by each co-operating institution/scientist and identification of training or assistance needs, to ensure effective implementation by interested institutions of a given project. In this context, it was considered essential that a mechanism, namely, the Project Steering Group, be established to serve a "motor" for the implementation of the project. Such a group is composed of active scientists from participating institutions and led by a Project Leader to be appointed by the Chairman of WESTPAC in consultation with the Secretary IOC.

Although the Regional Committee decided to implement preferentially the projects (i); (ii); (iii); (v); (viii) and (ix) referred to above, it also encouraged the implementation by interested Member States of the remaining projects, i.e., (iv); (vi) and (vii).

OCEAN SERVICES

In the field of ocean services no specific project of the kind referred to above was considered. However, the Regional Committee approved several actions with a view to strengthening the following programmes and activities:

encouraged Member States to increase their participation on IGOSS Ships of Opportunity Programme, particularly by increasing their TESAC data, and their efforts to identify sources of real time data, mainly from research programmes in the the IGOSS System;

expressed support for the regional component of IOC Global Sea Level Observing System (GLOSS) and requested for the development of a tide gauge network in the region;

endorsed strengthening participation of Member States in the IODE System in the region;

welcomed the preparation of national inventories of marine scientific institutions and marine scientists so as to make available to all Member States of the region and, if possible, to incorporate it into the relevant registers of Aquatic Fisheries Information System (ASFIS);

supported the establishment of regional marine scientific information networks to be included in the proposed Marine Information Management Strategic Plan and, in this respect, recommended co-operation between IOC-FAO and SEAFDEC.

LIAISON WITH OTHER PROGRAMMES/ACTIVITIES IN THE REGION

One of the important decisions of the Committee was the maintenance of liaison with other programmes and activities in progress in the region which are the results of initiatives taken by the countries of the region. It is the decision of the Committee to place such activities under the category of serving the objectives of WESTPAC. No criteria was established for such categorization, the decision was left to the judgement of the Chairman of WESTPAC and the Secretary of IOC.

ESTABLISHMENT OF A SUB-COMMISSION FOR WESTPAC

Considering the rapid advances made by the countries in the region in the field of ocean science and ocean services, the Member States of the region decided that a Sub-Commission for WESTPAC should be established. In this context the Secretary of IOC is negotiating with the Government of Thailand, which offered to host the secretariat for the proposed Sub-Commission and a final decision in this regard is expected to be taken by the Fifteenth Session of the IOC Assembly scheduled to be held in the first half of 1989.

TEMA COMPONENT OF WESTPAC

Training, Education and Mutual Assistance in Marine Sciences are an integral part of all programmes and projects approved by WESTPAC. The Project Steering Group responsible for each of the projects approved by the Regional Committee was therefore advised to define TEMA needs while preparing an operational plan relevant to their activities. Two basic types of assistance under TEMA have been foreseen: one relates to the training of scientists, as well as equipment relative to each of the agreed projects, aimed at strengthening the required capabilities of interested institutions of developing countries of the region so that they are able to participate effectively in these projects; and the other is the formulation of a regional technical assistance project under the UNESCO/IOC Comprehensive Plan, referred to above, for possible funding from international sources.

A number of Member States of the region offered assistance including: Australia, China, Japan and the USSR, to developing countries of the region which are in the process of being negotiated and/or implemented by IOC.

The Regional Committee unanimously elected Professor Takahisa Nemoto, Director of the Ocean Research Institute, Tokyo, and Dr. Choompol Swasdiyakorn, Secretary General, National Research Council of Thailand as Vice-Chairman.

SUMMARY OF INTERSESSIONAL ACTIVITIES

During the intersessional period a number of activities endorsed by the Regional Committee have either been implemented or are in the process of being implemented. These include:

- Appointment of project leaders for the project approved by the Regional Committee.
- Operational plan for implementation of the project on Toxic and Anoxic Phenomena Associated with Algal Blooms in the WESTPAC Region was developed at the IOC Workshop held, following the International Red Tide Symposium organized in Takamatsu in Japan in November 1987.
- Operational plan for implementation of the project on Recruitment of Shrimp in the Indo-West Pacific Region, at the IOC Workshop held at the CSIRO Marine Laboratories, Cleveland, Australia, 25-30 July 1988.
- Operational Plan for the Project on Banding of Porites Corals as a Component of Ocean Climate Studies, which is expected to be developed at the IOC training workshop now being held, following the International Coral Reef Symposium, scheduled at the Australian Institute of Marine Sciences, Townsville, 15-17 August 1988.
- Operational plan for WESTPAC Palaeographic Map which is scheduled to be developed at the IOC Workshop, following the International Conference