PART II

## SYMPOSIUM ON POPULATION AND FISHERIES

Edited by JOHN D. ISAACS

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## INTRODUCTION

## JOHN D. ISAACS

This is the 19th Annual CalCOFI Conference or about the 30th of what was once called the Annual Sardine Conference, when the greatest practical problem of the eastern North Pacific was thought to be concerned mainly with that particular species. The meeting is under the sponsorship of the CalCOFI Committee, which is composed of Phil Roedel, John Baxter, Alan Longhurst, and myself. Each year it falls to one or another of this group to arrange these meetings.

This year it has been the responsibility of the Scripps Institution, and I am the general Chairman. We have arranged a symposium for this first day. For the second day, and morning of the third day there will be presented research reports, surveys, and the other individual and overall research activities of the CalCOFI group.

Today's symposium is for the purpose of placing this broad fisheries research program into a context. There could be a number of contexts into which the program could be placed and which would be suitable for such a symposium. For example, there are a number of purposes of fisheries research; recreational fisheries, and fisheries associated with luxury consumption, such as shrimp or tuna fisheries. We could profitably discuss the relationship of the CalCOFI Program with such activities. There is also, of course, the very real and underlying and vital purpose of such research as part of the general intellectual challenge of understanding this planet and its ability to be reconciled to mankind's needs.

There are also hypereconomic purposes of fisheries and fisheries research, such as the export of technology, that is, learning how to use the local fisheries, not solely as sources of domestic product, but as objects of study and experimentation so that one can apprehend opportunities elsewhere around the world, advise, and utilize them, acquire them and manage them in the most effective way. But today, among the possible purposes, we are addressing ourselves to a very fundamental one. We hope that we will be able to put into context fisheries as providing basic nutrient material for the people of this earth and thereby to elucidate the interrelationship between two great populations, that of people and that of marine fish.

Today's session is broken down into presentations of four principal elements of this interrelationship: (1) the nature of the earth's human population; (2) the food supplies of this planet; (3) the relationship of the marine fisheries in this planetary supply; and (4) the technology—how we are fitted for employing this supply—the management, technology, institutions, etc.

I hope that we do not have a highly structured presentation here. There will be adequate time for discussion from the floor. But, unless there is urgent reason to break in, we should hold questions until after each of the more or less formal presentations.

I would like to introduce this symposium with a quotation from the volume "Science and the Future of Mankind," published by the World Academy of Arts and Sciences from a paper by Richard M. Field. This is a quote from the first paragraph:

"All human beings are animals and therefore depend on the material, natural resources which constitute their environment. Human beings should not try to conquer their environment but learn to live in harmony with it. Whether the earth was created for man or with man, they are interdependent correlated expressions of life, and it is either man's God-given or man's inevitable responsibility to explore, develop and distribute the earth's material, natural resources for the benefit rather than the ultimate impoverishment of himself and his fellow-men." I agree with this, depending on his connotations of "animal," and this quotation exemplifies the spirit in which I hope we will approach this symposium.

I now introduce our first speaker, Dr. Samuel Preston, an economist, who received his doctorate from Princeton University. Dr. Preston was somehow talked into joining Dr. Kingsley Davis' group in Berkeley in the Department of Demography. It is very important to recognize the importance of the economic viewpoint in these matters of resources, and we are particularly fortunate to have Dr. Preston, an economist in demography, present this first part of our symposium on "World Population." Dr. Warren Wooster of Scripps Institution of Oceanography will be the discussant.