

University of Alaska

Statewide System of Higher Education

ALASKA SEA GRANT PROGRAM Fairbanks, Alaska 99701 February 5, 1977

Mr. Elmer Rasmuson, Chairman North Pacific Fishery Management Council P. O. Box 3136DT Anchorage, Alaska 99510

Dear Mr. Rasmuson:

During the January 25, 1977 meeting of the Scientific and Statistical Committee the subject of future studies regarding marketing and market structure was discussed. I presented the committee copies of the Alaska Sea Grant Program's funded project entitled, "Market Structure of Alaska Seafood Processing Industries." A brief review of the project was made with the committee commenting that the project would provide useful information to the Council and that it should be expanded to include market demand studies. Representatives of industry, NMFS, State of Alaska and the University met briefly after the Council meeting to discuss how the project should be modified.

An addition to the project has been drafted and is enclosed for the Council's review and comment. I have sent copies to both the SSC members and the industrial participants for their comment and review.

With regard to funding, once the study meets the need of the Council, funds will be requested from the National Sea Grant Program. Special funds have been reserved just for this purpose within the National Office. What will be needed is a recommendation stating that the project is needed by the Council in support of their duties. The project has been specifically written to provide the information in a timeframe to support the Council's deliberations.

This project has been discussed with Dr. Hiatt and he has given full support and approval to the project and has authorized me to hire the necessary personnel as soon as I feel it will receive funding.

I would therefore like to request that the Council take the proposed study under consideration as soon as possible.

very truly yours

Donald H. Rosenberk, Director

DHR/brm

cc: F. L. Orth SCC Members J. Branson (12 copies) distribution of

PROPOSAL

to

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

OFFICE OF SEA GRANT

for

INSTITUTIONAL SUPPORT

at the

UNIVERSITY OF ALASKA

TITLE

ALASKA SEA GRANT PROGRAM

Amount Requested:

\$91,600

Matching Fund Proposed:

\$24,100

Duration:

Eight Months

Proposed Starting Date:

March 1, 1977

Year of Activity:

6

Previous Grant Amount:

\$559,100.00

This proposal has not been submitted to any other agency.

We, the undersigned, certify that, in the event this proposal is accepted, in whole or in part, our signatures on this proposal constitute acceptance of and compliance with statutes and regulations of the U.S. government and the U.S. Department of Commerce as detailed in Part Three, "The National Sea Grant Program Program Description and Suggestions for Préparing Proposals," dated May 1, 1972, and that pages 20-44 of that publication are incorporated by reference as part of this proposal.

Donald H. Rosenberg, Director Alaska Sea Grant Program O'Neill Resources Building University of Alaska Fairbanks, Alaska 99701 (907) 479-7086 SS# 556-52-0332

Robert W. Hiatt, President Bunnell Building University of Alaska Fairbanks, Alaska 99701 (907) 479-7311 SS# 576-30-7316 Program:

RENEWABLE MARINE RESOURCES

Project:

R/14-02

Title:

Market Demand for Tanner Crab.
Proposed as a Supplement to Market
Structure of Alaska Seafood Processing

Industries (Project R/14-01)

Principal Investigator:

F. L. Orth

Unit:

School of Management

Funding Information:

Present level:

SG: \$0

Proposed level: SG: \$91,

UA: \$0

UA: \$24,1

Date Initiated:

1 Mar. 77

Est. Comp. Date: 31 Oct.

BACKGROUND AND NEED

A three-year study, funded by Alaska Sea Grant (See Appendix A) of the market structure and performance of Alaska's seafood processing industries with emphasis on those industries processing crab and shrimp products, began in November, 1976. Another study, designed to develop an economic profile of the harvesting sector of Alaska's shellfisheries, has recently been initiated by the Alaska Commercial Fisheries Entry Commission and is being funded by National Marine Fisheries Service. The purpose of these studies is to investigate, interpret, and document the basic structural and technological characteristics of the harvesting and processing sectors of Alaska's primary shellfisheries for use by state and federal resource-management agencies and industry participants.

Early on in the deliberations of the North Pacific Fisheries Management Council and its Scientific and Statistical Committee, an additional research need has been identified as requiring immediate attention. A study of demand, and projected growth of demand for tanner crab, disagregated by principal market area, and a description of existing marketing channels, are needed for evaluating the market impacts of increasing utilization and/or changing allocation of the tanner crab resource. While large increases in utilization may be biologically feasible, the Council wishes to insure that the economic consequences of expanded use are favorable.

In order to provide a timely response to the Council's needs, an increase in the scope and funding level of the seafood processing market structure study is being proposed. Extending the

existing research project is desirable because: 1) there is a significant degree of subject-matter complementarity between market structure research and demand analysis and 2) the demand analysis needs to be supplemented by a base-line description of marketing channels and the latter is already incorporated in the existing project. The marketing channels research needs to be elevated in priority and accelerated within the existing project in response to the immediate needs of the Council.

OBJECTIVES

To provide information which will assist the North Pacific Fisheries Management Council in making informed judgments on the allocations of tanner crab resources. The specific objectives of the proposed research are:

- 1. To develop quantitative estimates of demand in principal market areas at alternative price levels.
- To develop descriptive, base-line information on marketing channels for use in evaluating the distributional impacts the Council's decisions.
- 3. To integrate the above research objectives, to the degree practicable, with related research efforts in the existing seafood processing market structure project and other ongoing research.

APPROACH

Analysis of the demand for tanner crab will require (secondary) time-series data on:

- 1. the price and quantity of tanner crab in each year
- 2. the price and quantity of king crab in each year
- 3. the price of other substitute products
- 4. consumer income, and
- 5. population

It would be desirable, although it is not known yet whether it will be feasible, to obtain the above data by market area, domestic and foreign.

The above information will provide the basis for constructing a statistical demand model which will be used for projecting

demand for tanner crab under alternative assumed future price and income movements. Alternatively, the statistical demand function can provide estimates of the effect on price of the changes in supply associated with the Council's decisions.

To supplement the quantitative demand analysis proposed above, is the proposed effort to quantitatively describe marketing channels for tanner and king crab products for 1975 and 1976. This information would greatly assist the Council in evaluating the locational impacts of its allocation decisions. keting channels research will require the collection of primary data from the processing industry. It appears that there will be good cooperation from domestic processing firms operating in domestic, or domestic and foreign, market channels. operation of purely foreign firms, while necessary, cannot be assessed at this time. A marketing channels description would provide information like that provided by the Florida Sea Grant shrimp processing study (see attached figure). Ideally a description of marketing channels would allow one to trace the entire domestic and foreign tanner crab harvest (by specie) from area of harvest to processing location (Alaska, Seattle, at sea, Japan, etc.) to final market, by product form (canned, frozen or fresh), by region (Pacific Coast, Rocky Mountain states, etc.), and by type of buyer (institution, wholesale, retail). The extent of the coverage actually achieved will be dependent upon industry cooperation, the degree of detail in which information is generally recorded, and the cost associated with extracting same.

It is intended that a preliminary report to the Council be provided by October 1, 1977, and that periodic updating be provided until study completion and issuance of a final report by October 31, 1978.

INTERACTION

The principal investigator is a member of an advisory panel of economists to the Scientific and Statistical Committee of the North Pacific Council. Interaction with all other relevant research has been established for the existing seafood processing market structure study and will be continued through the interactions surrounding the Council's activities. It is intended that National Marine Fisheries Service on the West Coast be brought into as close an association with this research as possible and that National Marine Fisheries Service assistance will be coordinated through the Alaska Regional Office.

REFERENCES

- Alaska Sea Grant Program 1976-1977 Proposal. Renewable Marine Resources, R/14-Y. Market Structure of Alaska Seafood Processing Industries
- National Marine Fisheries Service, Economic and Marketing Research Division, Washington, D.C. Aspects of the Structure and Market Behavior of the Tanner Crab Industries of the United States and Japan. September, 1976.

UNIVERSITY OF ALASKA

SEA GRANT BUDGET

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APPENDIX A

Program:

RENEWABLE MARINE RESOURCES

Project:

R/14-01

Title:

Market Structure of Alaska Seafood

Processing Industries

Principal Investigator:

F. L. Orth

Unit:

School of Management

Funding Information:

Present level:

SG: \$0 Proposed level: SG: \$70,500

UA: \$35,900

Date Initiated: UA: \$0 l Nov. 76

Est. Comp. Date: 31 Oct. 79

BACKGROUND AND NEED

Alaska ranks among the leading producers of food-fish products in the United States. The processing of its harvests occurs in Alaska and the Pacific Northwest and the resulting products are distributed nationwide. Given the prominence of Alaska as a fisheries state, and considering the importance of the fisheries to Alaska's economy, one would expect that policy makers, both public and private, would have at their disposal a wealth of pertinent economic data and analyses. Such is not the case presently, nor has it ever been. In recent years, however, progress has been made toward the accumulation of an economic information base pertaining to the harvesting sector of Alaska's fisheries (Alaska Commercial Fisheries Entry Commission, 1974; Kresge, 1974; Ness, 1975; Ness and Liao, 1976; Rogers, 1972; Smith, et al., 1975), although the aggregate of these studies represent only a modest encroachment on the informational needs for management. Additionally, some attention has been paid in recent years to the marketing of seafood (consumer characteristics, product forms, export markets, etc.) and some of these studies have direct or indirect relevance to Alaska's fisheries (Anderson, et al., 1975; Langmo, et al., 1975; Schary, 1972).

In contrast with the progress research has made in these areas, there is a dearth of information on the structure of Alaska seafood processing industries. The only exception is the canned salmon industry, and even here the studies are over a decade old (DeLoach, 1939; Rubinstein, 1966). Market structure studies are underway at Oregon State University, Texas A & M University, and the University of Rhode Island and a study of the Florida shrimp processing industry has already resulted in two research reports (Alvarez, 1976; Anderson, 1975; Jensen, 1975; and Manaseo, 1975). The significance of the structure of food processing industries has long been recognized by the U. S. Department of Agriculture and the Federal Trade Commission (see for example: FTC, 1966 and FTC, 1975). These agencies have committed significant resources to studies of market structure and performance related to land-based food processing industries.

A general statement concerning the need for the research being proposed is as follows: Public policy actions are essentially an attempt to convert what is into a society-perceived what ought to be. To know what policy actions (direction and magnitude of change in instrument variables) are appropriate, one must first have an accurate perception of the entity which is to be affected directly or used to effect changes elsewhere. In the present context, the entity in question is the processing level of the fisheries sector of the Alaska economy. Research is needed that will significantly reduce the lack of knowledge about the processing entity; that is, we need to know more about what exists and why before we can obtain desired changes at a minimal or even reasonable cost. The general failure of fisheries management policies from an economic standpoint (in terms of the private and social costs imposed, and in some cases the failure even to derive benefits) testifies to the unmet informational needs of public policy formulation. It has also been reported to me that salmon canning firms made extensive use of the Rubinstein study (1966) as a reference document; this suggests that there are unmet informational needs relating to market structure in the private sector as well.

There is a potentially long list of specific uses for basic information on seafood processing market structure, including:

- Provide a description of structural change within the processing sector.
- . Assist in understanding the underlying economic reasons for structural change.
- Assist in evaluation of public policy designed to alter the allocation of resources and/or the distribution of benefits arising from the fishing industries, e.g., limited entry and extended jurisdiction.
- . Assist private firms in understanding the competitive environment in which they operate.
- . Assist private firms in evaluating their past performance in an industry-wide and historical context, and assist in planning future action with respect to new investment, pricing and product forms.
- Provide factual and objective economic information for fisheries management in a form that can be readily updated.
- . Assist in understanding the determination, and distributional implications, of ex-vessel and wholesale prices.

ACCOMPLISHMENTS

Project development money of the Alaska Sea Grant Program was utilized to support the time and travel necessary to develop this

project. This money has been used to conduct a literature search, identify published data sources, acquire some of the needed data, make contact with interested members of the Alaska legislature, make contact with Alaska Department of Fish and Game which holds some of the needed data, make preliminary contact with industry whose cooperation is necessary to obtain some of the desired information, and develop coordination with other projects through attendance at the National Sea Grant Seafood Marketing Workshop and through meetings with Oregon State University economists. In general, accomplishments resulting from Sea Grant support of the development of this project are implicitly evident in the content of this proposal.

OBJECTIVES

To develop for use by industry and public resource management agencies a background document or series of background documents which will present a systematic, comprehensive, and objective picture of the structure of Alaska's major seafood processing industries -- salmon, crab, shrimp and halibut. The specific objectives of this proposed research project are as follows:

- 1. Provide a data and information base related to seafood processing market structure; the following informational components need to be built up, organized, analyzed, and reported:
 - . The biological environment and its effects on the supply conditions in each market.
 - . The technological environment and its effects on the supply conditions in each market.
 - . Description and quantification of vertical market channels in each market.
 - . Seller concentration at the processing level of each market for the latest time period for which information is available.
 - . Changes in seller concentration through time at the processing level, i.e., develop information on market concentration for one or more past time periods for comparison with the above.
 - Describe ownership interties, including the degree of foreign involvement, in each market at the processing level to include ties with other levels of marketing channel.
 - . Assess the sources and significance of barriers to entry in each market.

- C. Geographic boudries -- to determine relevant geographic market.
- D. Data availability and possibilities for primary data collection.
- Collect data: concurrently determine for each relevant market:
 - A. Market channels (describe and measure) -- survey.
 - B. Ownership interties -- survey and secondary sources.
 - C. Basic conditions (biology, technology, demand, etc.) -- secondary sources and survey.
 - D. Market concentration -- secondary sources.
- 3. Orgainze and analyze data: integrate 2A through 2D for each market.
- 4. Write report(s) on Phase I.
- 5. Define future (Phase II) research needs and objectives.

INTERACTION

The basis for the coordination of this proposed research with other seafood market structure studies has been established through the Seafood Marketing Workshop sponsored by the National Sea Grant Office, March, 1976, and by a subsequent meeting with Fred Smith and Dick Johnston at Oregon State University. The researchers at the University of Alaska and Oregon State University are presently evaluating the need for and the feasibility of a Memorandum of Agreement. It is hoped that the studies can be made sufficiently consistent to allow their respective research outputs to be aggregated, where appropriate, to form a more comprehensive regional description.

During the project development stage, the principal investigator has worked closely with personnel from the NMFS office at Juneau, particularly with Walt Jones and Howard Ness. It is anticipated that these individuals will assist in the market survey work pertaining to ownership interties and marketing channels. Funds are being requested in the budget for this study to place a research associate to work with them in Juneau and to assist the principal investigator with coordination and with data extraction at ADF&G.

EQUIPMENT REQUESTED

- . Assess the sources and significance of product differentiation in each market.
- . Assess the extent and significance of vertical integration and diversification.
- 2. Explain changes in market concentration at the processing level in terms of its basic economic determinants, e.g., technology, biological supply contraints, supply instability, seasonality, etc.
- 3. Analyze the economic implications of the observed market structure, including the following:
 - . Impact of structure on processing firms.
 - . Impact of structure on fishing firms.
 - . Impact of structure on consumers.
 - Impact of structure on static and dynamic efficiency.
 - . Impact of structure on the incentive and ability to develop new resources.

APPROACH

It is proposed that the work leading to the accomplishment of the above objectives be organized into Phase I (objectives 1 and 2 above) and Phase II (objective 3 above). Phase I will be organized into groups, one for each seafood processing market identified for analysis and subgroups, by research tasks (see below) that must be accomplished for each market. Phase I is expected to be completed within two funding periods. Phase II, the organization of which will be determined after Phase I is near completion, can probably be completed within one (the third) funding period.

The research tasks which need to be completed are the following:

1. Develop conceptual framework: This involves the definition and selection of relevant markets (theoretical industries) to be studied (Bain, 1968).

The selection criteria will be:

- A. Significance of market (species) as judged by amount of harvest and/or value.
- B. Product forms -- to determine the relevant product market.

REFERENCES

- Alaska Commercial Fisheries Entry Commission. 1974. Costs and earnings of Alaskan fishing vessels an economic survey.
- Alvarez, J., C. O. Andrew and F. J. Prochaska. 1976. Economic structure of the Florida shrimp processing industry. Florida Sea Grant Program.
- Anderson, C. O., F. J. Prochaska, and J. Alvarez. 1975. Florida shrimp: from the sea through the market. Florida Sea Grant Program.
- Bain, J. S. 1968. Industrial organization, pp. 6-6, 124-126. New York: John Wiley and Sons, Inc.
- DeLoach, D. B. 1939. The salmon canning industry. Oregon State College.
- Jensen, W. S. 1975. A market structure analysis of the salmon processing industry. Unpublished Ph.D. Dissertation.

 Oregon State University.
- Kresge, D. T., S. Fison, and A. F. Gasbarro. 1974. Bristol Bay: a socio-economic study. ISEGR, University of Alaska. Chapter 6.
- Langmo, R. D., C. N. Carter, and R. O. Bailey. 1975. Marketing characteristics of Oregon's fresh shrimp industry. Oregon State University Sea Grant College Program Agriculture Experiment Station.
- Marasco, R. 1975. The organization of the California tuna industry Working Paper No. 45. Oregon State University.
- Ness, H. O. 1975. The southeast Alaska herring fishing industry:
 An economic aspect. NMFS. Juneau, Alaska.
- Ness, H. O. and D. Liao. 1976. An economic analysis of Alaskan salmon fishing businesses, draft manuscript. NMFS. Juneau, Alaska.
- Pacific Fisherman, Various years. Pacific fisherman yearbook.
- National Fisherman. Various years. Pacific Packers Report.
- Rogers, G. 1972. A study of the socio-economic impact of changes in the harvesting labor force in the Alaska salmon fishery. ISEGR, University of Alaska.
- Rubinstein, M. E. 1966 The history of concentration in the canned salmon industry of the U. S. A. Unpublished B.A. Thesis, Harvard University.

- Schary, P. B., B. L. Soule and R. E. Shirley. No date. Analysis of the distribution system for northwest originated fresh and frozen salmon. Draft Manuscript for NMFS,
- Smith, F. J., D. Liao, J. Martin, and P. Adelman. 1975.

 Profitability analysis for Alaska fishing businesses.

 Report to the National Marine Fisheries Services,

 Juneau, Alaska.
- U. S. Department of Agriculture. 1975. Fishery cooperative operations. FCS Research Report 30.
- U. S. Department of Commerce. 1975. National Marine Fisheries Service. List of fishery cooperatives in the United States.
- U. S. Federal Trade Commission. 1966. The structure of food manufacturing. Technical Study No. 8, National Commission on Food Marketing.
- U. S. Federal Trade Commission. 1975. Staff report on agriculture cooperatives.

UNIVERSITY OF ALASKA

SEA GRANT BUDGET

PROJECT TITLE	GRANT	PROJECT NUMBER		
MARKET STRUCTURE OF A INDUSTRY	Program 76-77 R/14-01 DURATION (months)			
PRINCIPAL INVESTIGATORS				
F. L. Orth, School of		12 months		
A. SALARIES AND WAGES			<u> </u>	
1. SENIOR PERSONNEL	MAN-MONTHS	SEA GRANT	SEA GRANT FUNDS GRANTEE S	
a. (Co) Principal Investigator	6	11,:	11,169	
b. Associates (Faculty or staff)	1		100	5,501 1,050
Sub Total		13,2	269	6,551
2. OTHER PERSONNEL				
a. Professionals				
b. Research associates	24	23,5	573	11,787
c. Research asst. grad. students				·····
d. Prof. school students				
e. Pre-Bac. students f. Secretarial-clerical				•
g. Technical—shop				·
h.				
Total Salaries and Wages	36,8		18,338 3,394	
B. FRINGE BENEFITS (When tharged as direct Total Salaries, Wages, and Fringe E		6,816		
C. PERMANENT EQUIPMENT	43,6	228	21,732	
D. EXPENDABLE SUPPLIES AND EQUIPMENT				
1. Domestic - U.S. and its Possessions	(Inc. Puerto Rico) 1. 7,12	<u> </u>		
2. International	2.	·		· · · · · · · · · · · · · · · · · · ·
Total Travel	4.]	87	2.933	
F. PUBLICATION AND DOCUMENTATION COST		· · · · · ·		
G. OTHER COSTS				The Control of Street of Street or the
1. Computer Costs	1,4	100	700	
2. Xerox and drafting		200	100	
3. Communications		200	100	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
Total Other Costs	1,8	300	900	
TOTAL DIRECT COSTS (A through G)	49,6	545	25,565	
(On Campus	56.54 % of S & W) 20,8	330	10,368
INDIRECT COSTS (Off Campus	% of) 20/0		
Total Indirect Costs			30	10,368
TOTAL COSTS	70,4	75	35,933	
ROUNDED TO			00	35,900

STATE OF ALAS: OFFICE OF THE GOVERNOR JUNEAU

Alaska Fisheries Council Statement of Policy

The Fisheries Conservation and Management Act of 1976, Public Law 94-265, states that United States citizens are granted first preference to the fisheries resources, with some exceptions, within the newly established 200-mile fisheries conservation zone (FCZ) of the United States and that the United States must allocate to foreign nations that share of the determined total allowable catch which will not be utilized by any United States fishery.

It is the sense of the Alaska Fisheries Council (AFC) that, within the 200-mile FCZ off Alaska, developmental fisheries on those fisheries resources which are currently underutilized or not being utilized by United States citizens should be encouraged by the State of Alaska. Such encouragement should include: (1) Surveys, (2) Catching and processing technology, (3) Marketing, and (4) Other necessary activities which will lead to a responsible, productive, and economically sound Alaskan fishery.

First preference for the catching, processing, and marketing of fisheries resources within the FCZ should go to Alaskan and other United States citizens and firms.

The AFC believes that highest and immediate priority should be given to the development of onshore Alaskan-owned and operated processing facilities; and secondly, to domestic floating facilities such as factory ships, freezer ships, or other floating processing facilities. Finally, if domestic processing and/or marketing facilities are not available onshore or within the FCZ, then on an interim basis the sale of fisheries resources by Alaskan and other United States fishermen to foreign interests may be fostered. The basic philosophy of the AFC is that any fishery carried out off of Alaska should be marketed and processed by domestic corporations within Alaska to maximize the economic benefit to Alaska.

APPROVED:

Jay Sylliamond, Governor

March 8, 1977



STATE OF ALASKA OFFICE OF THE GOVERNOR JUNEAU

February 25, 1977

The Honorable Rozanne Ridgway, Deputy Assistant Secretary for Oceans and Fisheries Affairs U.S. Department of State Washington, D. C. 20520

Dear Ambassador Ridgway:

The State of Alaska has received a number of inquiries from Asian countries as well as from members of the European Economic Community regarding the purchase of fisheries products from American fishermen on the high seas, outside the territorial waters of the United States, but within the Fishery Conservation Zone.

We have been advised informally by the Bureau of Customs that since the American fishermen involved in this transaction would not be entering foreign territorial waters for that purpose, there would be no objection from the standpoint of the Bureau to these arrangements.

The National Marine Fisheries Service has also given us informal advice to the effect that this transaction would not be prohibited under the provisions of the Fishery Conservation and Management Act of 1976, P.L. 94-265, because the foreign involvement would not occur until after the fish had been captured and reduced to personal property.

Notwithstanding these assurances, there are two questions which we would like to address to the State Department. The first of these questions is whether the Department would have any objection to this type of transaction?

The second question was raised in the foreign inquiry to the State of Alaska. This is whether any fish so caught and sold would be counted against the country allocation of the foreign nationals involved in the transaction?

Your early consideration of these questions will be appreciated, since the State of Alaska views this proposal as consistent with one of the basic purposes of the Act, which is to ". . . encourage the development of fisheries which are currently under-utilized or not utilized by United States fishermen, including bottom fish off Alaska."

If more information is required, please contact the undersigned.

Sincerely,

Enarles H. Meacham, Director International Fictories and



DEPARTMENT OF STATE

Washington, D.C. 20520

BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS

March 2, 1977

Mr. Charles H. Meacham Director International Fisheries and External Affairs Office of the Governor State of Alaska Juneau, Alaska 99811

Dear Mr. Meacham:

This is in reply to your letter of February 25 to Ambassador Ridgway, in which you have asked two questions relating to the possible purchase of fishery products from American fishermen within the U.S. fishery conservation zone.

The Department has no objection to the general type of transaction which you have outlined. Additionally, it is our view that fish caught by U.S. fishermen within the U.S. fishery conservation zone, sold to foreign nationals, and delivered to these nationals within the zone would not be counted against any quotas which may have been allocated by the United States to the government of the foreign nationals involved in the transaction.

We hope that this response will prove helpful.

Sincerely,

Albert L. Zucca

Director

Office of Fisheries Affairs