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Fisheries Development

Wave of the Future

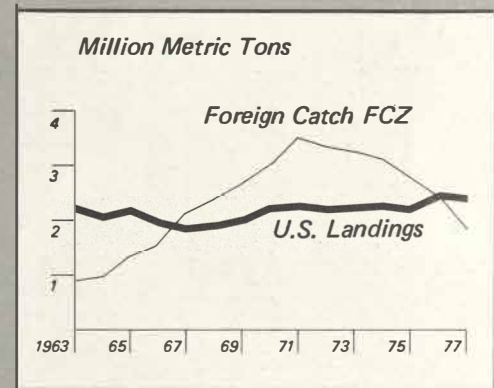
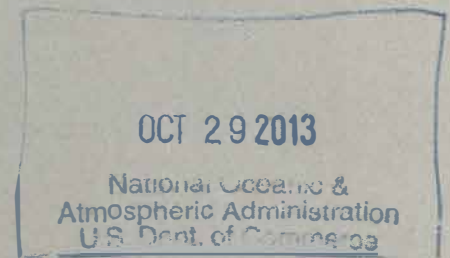
Fishery development is a cooperative industry/government activity that identifies fisheries business opportunities and fosters growth

Our Nation's fisheries are a valuable resource that pumps more than \$7 billion annually into the U.S. economy from commercial fishing and related supporting activities alone, and several billions more from recreational fishing. There is ample opportunity to increase this contribution significantly.

Since 1970, our annual commercial fishery landings have remained relatively static at 2.0 to 2.5 million metric tons. Fishery resources available to U.S. fleets could, however, support a catch of more than 8 million metric tons annually.

Part of the potential increase in catches for U.S. fleets lies in the results of improved management of known resources. Part represents the replacement of foreign fleet activity in the U.S. Fishery Conservation Zone.

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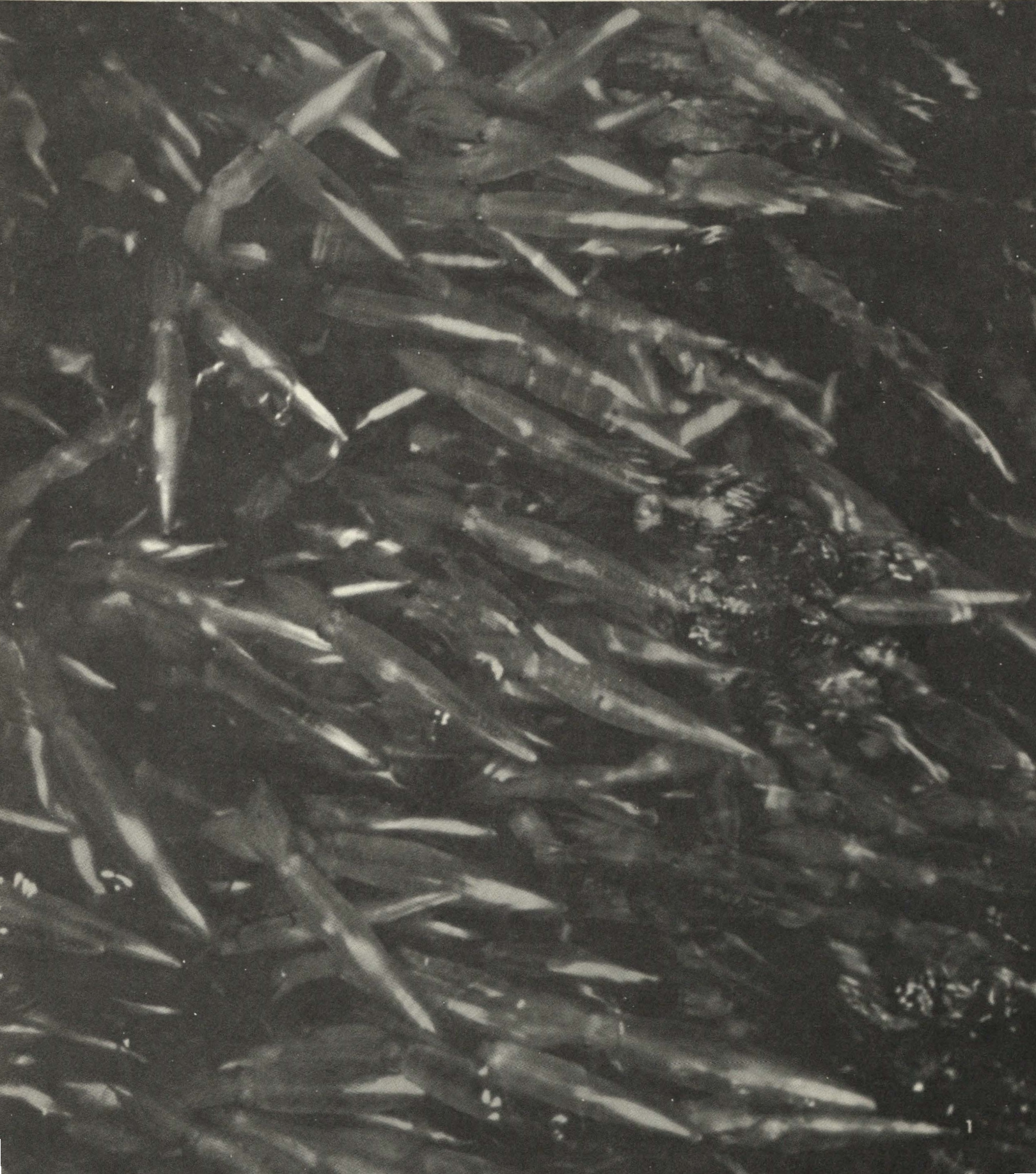


This chart compares total landings by U.S. commercial fishermen at U.S. ports and catches off U.S. shores by foreign fishermen, round weight, mollusk shells excluded.



**Improved management
of known resources**

Large concentration of squid near Santa
Catalina Island, California.

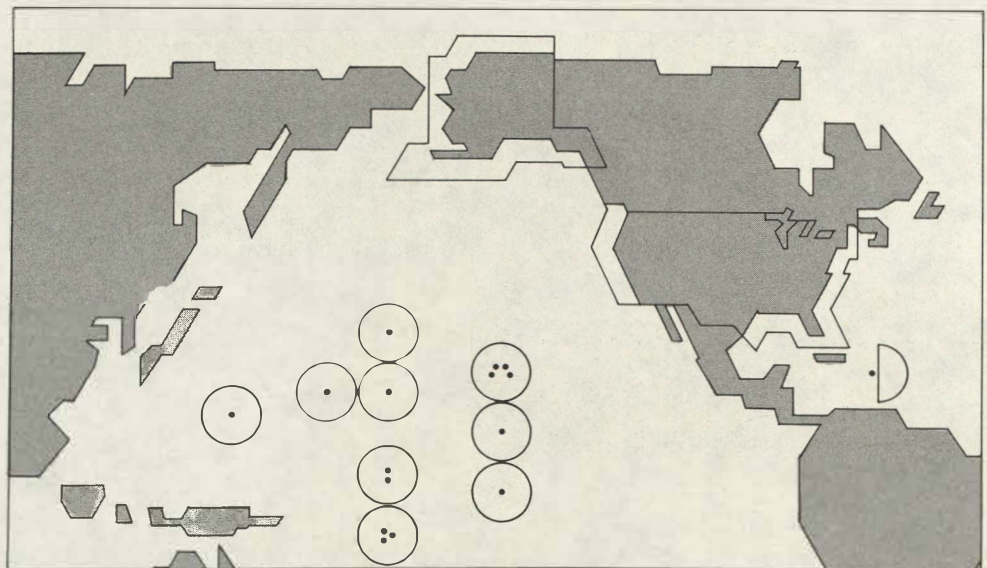


Replacement of foreign fleet activity in U.S. coastal zones

Pacific Northwest combination vessel rigged for bottomfish trawling.



Soviet BMRT stern trawler off the Washington coast.



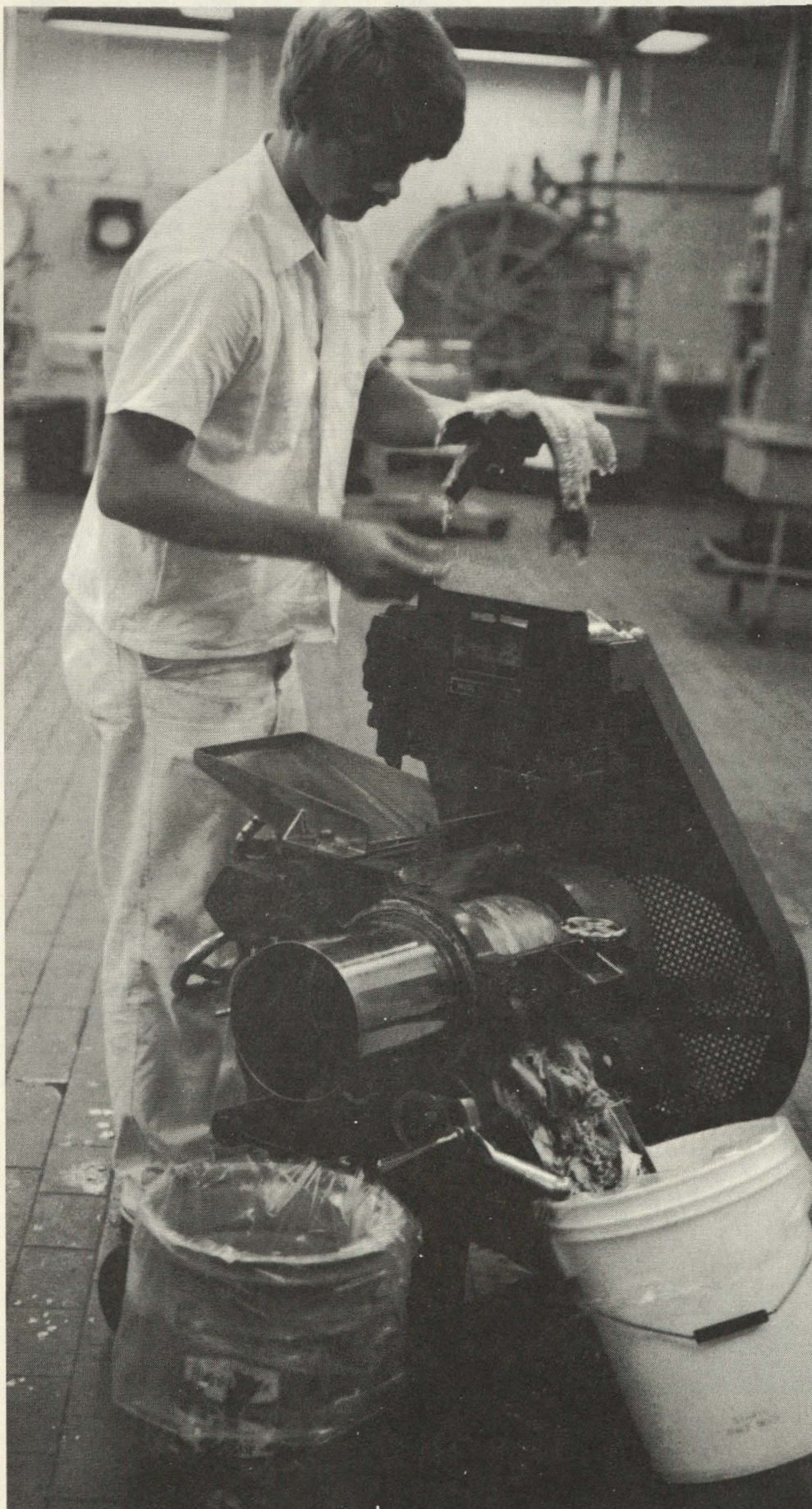
United States 200-mile Conservation Areas.

Development of commercial markets for new species

Inspecting croaker on processing plant conveyor.



Preparing an emulsion of fish muscle.



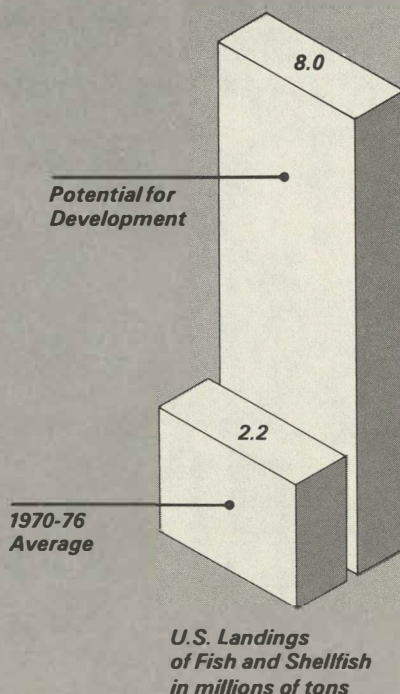
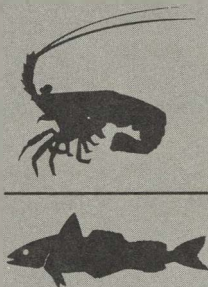
Processing minced sucker products.

We now allocate 1.9 million metric tons of fish to foreign vessels because domestic producers lack the capacity and business structure to catch and process these resources. A still larger potential increase in U.S. production comes from among hundreds of species not now fished that await development and use as commercial fishery products.

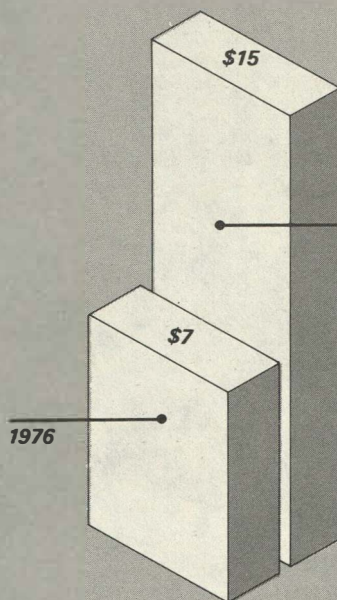
An expanded fishing industry that can take fuller advantage of our fishery resources means more high-quality protein, more jobs, more income, a reduction in trade imbalances, and other benefits. U.S. fleets now supply only about one-third of the edible fishery products consumed in the United States. Two-thirds is imported from a host of other countries. The domestic development of our fishery potential could result in U.S. fishermen supplying two-thirds of our edible fish and shellfish requirements, while building export markets as well. This could add \$8 to \$10 billion to the U.S. economy and create 200,000 to 300,000 new jobs in commercial fishing, food processing, and industries that support fishing.

There are additional benefits for the economy and for consumers. Fishery development can help the U.S. imbalance of payments by reducing our dependence on imports and paving the way for developing export markets. We now import about \$6 in fishery products for each \$1 exported. Our trade deficit in fishery products alone is over \$2 billion annually. The potential exists to narrow this gap significantly. In brief, fishery development will produce benefits to industry, to consumers, and to the United States as a whole.

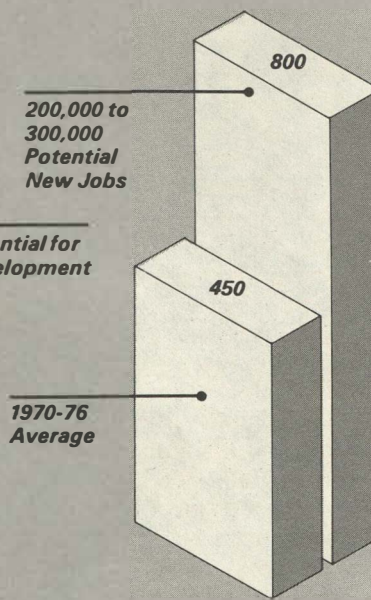
There is Potential for More Than Tripling the U.S. Catch of Fish and Shellfish



The Substantial Contribution of Fisheries to the U.S. Economy can be Significantly Increased



Fuller Use of U.S. Fisheries by U.S. Industry Would Create a Substantial Number of Jobs



Services provided by the National Oceanic and Atmospheric Administration (NOAA)

Primary Government responsibility for fishery development in coastal waters rests with the National Oceanic and Atmospheric Administration (NOAA) of the Department of Commerce. Within NOAA, Federal fishery development programs are administered by the National Marine Fisheries Service (NMFS). In addition, the NOAA Office of Sea Grant supports fishery development activities at the State and local level by providing grants to qualified colleges, universities, and other agencies and institutions.

National Marine Fisheries Service (NMFS)

The NMFS role in fishery development is catalytic. NMFS brings together people from industry, the States, and other Federal agencies so that a broad range of resources and talents can be brought to bear on developing our fishery potential. NMFS helps identify and analyze the opportunities for fishery development. Efforts are made to overcome lack of fishing and processing technology, institutional barriers, and the absence of suitable product forms, acceptable quality, or consumer information. NMFS disseminates information about lesser-used species to fishermen, processors, sellers, and consumers. NMFS also provides certain services to the domestic fishing industry. These services include vessel financing, industry and consumer education, market development assistance, product standards development, product inspection, and market and trade information and forecasts.

There are regional differences in the types and quantities of untapped fishery resources available, the ability of industry to take advantage of development opportunities, and in philosophies about how to develop fisheries. Because of this, the NMFS approach to national fishery development is often regional.

NMFS development programs are financed from funds appropriated by the Congress and tariffs on imported fishery products.

Several NMFS activities involve developing less popular fisheries and in strengthening existing fisheries. The more important of these are:

Resource Assessment

This NMFS program identifies and measures the seasonal and year-to-year variation in U.S. fishery resources. Essential for the management of the Nation's fisheries, this work also provides growing data on lesser-known resources, and is an important source of information for use in fishery development efforts. For most species with commercial potential, NMFS scientists know their areas of concentration, their relative volumes and productivity, and their seasonal movement.

New Technology Development for New Species

NMFS personnel and contractors develop equipment designs and techniques to improve the capture and processing of nontraditional species. This work includes: (1) conceptual design and experimental fishing with new gear; (2) development and testing of new or improved handling and processing techniques to preserve quality; and (3) identification of the edibility characteristics of each species and development of new product forms and standards.

Market and Trade Development and Services

NMFS has education programs to acquaint consumers and retailers with the nutritional and economic values of seafood, and the methods of handling, preparing, and using fishery products. Although less popular species are emphasized, traditional species are also featured. This activity educates consumers to the use of the species being developed and helps correct temporary supply/demand imbalances in the marketplace for traditional species. In addition, NMFS helps foreign buyers and domestic producers get together to develop export markets for U.S. fishery products.

NMFS also has a Consumer Affairs Division which is responsible for conveying current consumer views,

especially on product quality and safety, to fishery policy makers. It handles consumer inquiries and complaints, represents the NOAA on consumer-related councils, and works with public interest groups. As coordinator of consumer information, the Division develops and disseminates educational materials to consumers, the press, government, industry, and academia.



Studying growth rings to determine age of fish.

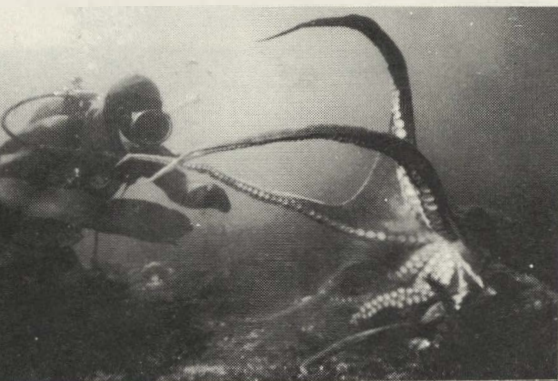
Other NMFS activities include:

- Fishery marketing specialists who provide trade information, and assist processors with product development, testing, and introduction.

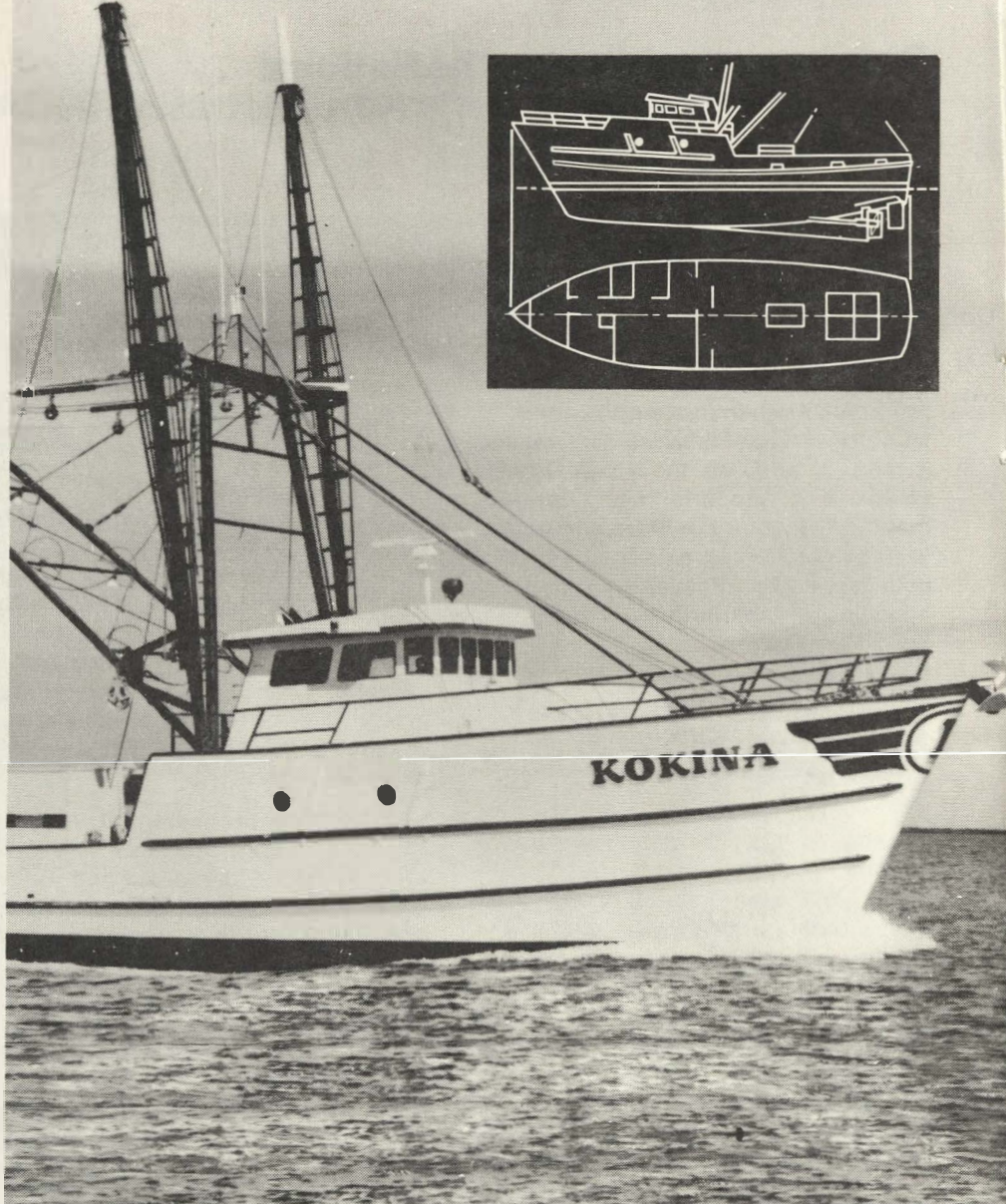
- National Market Situations and Outlook reports review current marketplace conditions and provide supply and demand forecasts for major fishery products three to six months in advance.

- Fishery Market News Service distributes current information on prices, market conditions, production, imports, exports, cold storage holdings, and market receipts of fishery products in major fish trading centers.

- Arrangements are made for fishing industry participation in export marketing seminars and foreign trade fairs through cooperative efforts with



*Researching the habits of
lesser-known species.*



other agencies such as the Agriculture Department's Foreign Agricultural Service and the Commerce Department's Industry and Trade Administration. Several Commerce Department organizations work with NMFS seeking to find domestic and export markets for nontraditional species.

Inspection Services and Product Standards

NMFS provides a voluntary inspection program which is paid for by its users. Seafood producers, packers, brokers, and buyers may subscribe to a variety of inspection services for plant and vessel sanitation; product inspection for wholesomeness and condition; product grading for quality, chemical, physical, or microbiological analyses, or general consultative services. Inspection certificates are issued attesting to the results of the inspections or analyses.

Inspection marks appear on product packages meeting necessary standards. Standardization activities are an integral part of the NMFS program on seafood quality, safety, and identity. Standards are developed to delineate uniform product requirements for quality, safety, and suitability for consumption.

Development of Suitable Market Names for Fishery Products

Some resources are unknown to sellers and consumers. Even though a "new" species may be a good substitute for a well-known product, it is difficult to win acceptance for an unfamiliar name (e.g., Pacific hake or

Gulf croaker). When the product itself is unfamiliar to consumers (such as squid to most Americans), the problem of winning acceptance is compounded.

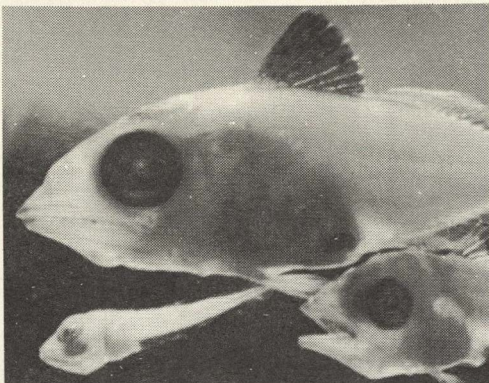
NMFS has a program to develop a new uniform system for establishing market names for fishery products. The basis for the names are the edibility characteristics of the fish rather than the common or usual name of the fish used by fishermen and scientists. The new system will allow consumers to shop intelligently for seafoods. Further, this system will facilitate consumer acceptance of many new species which have common names that adversely affect consumer selection. Industry representatives have been particularly supportive in helping NMFS develop this new naming system.

Financial Services

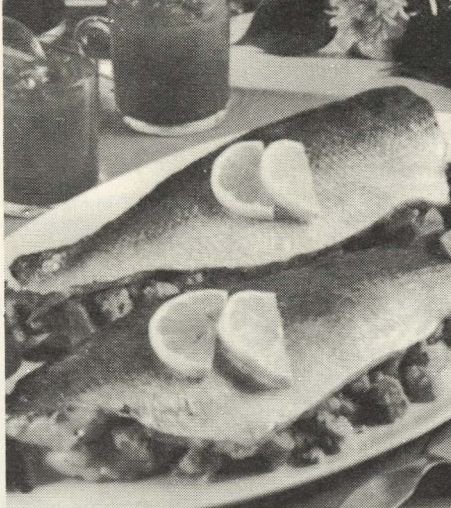
Two NMFS financial services help the fishing industry obtain debt



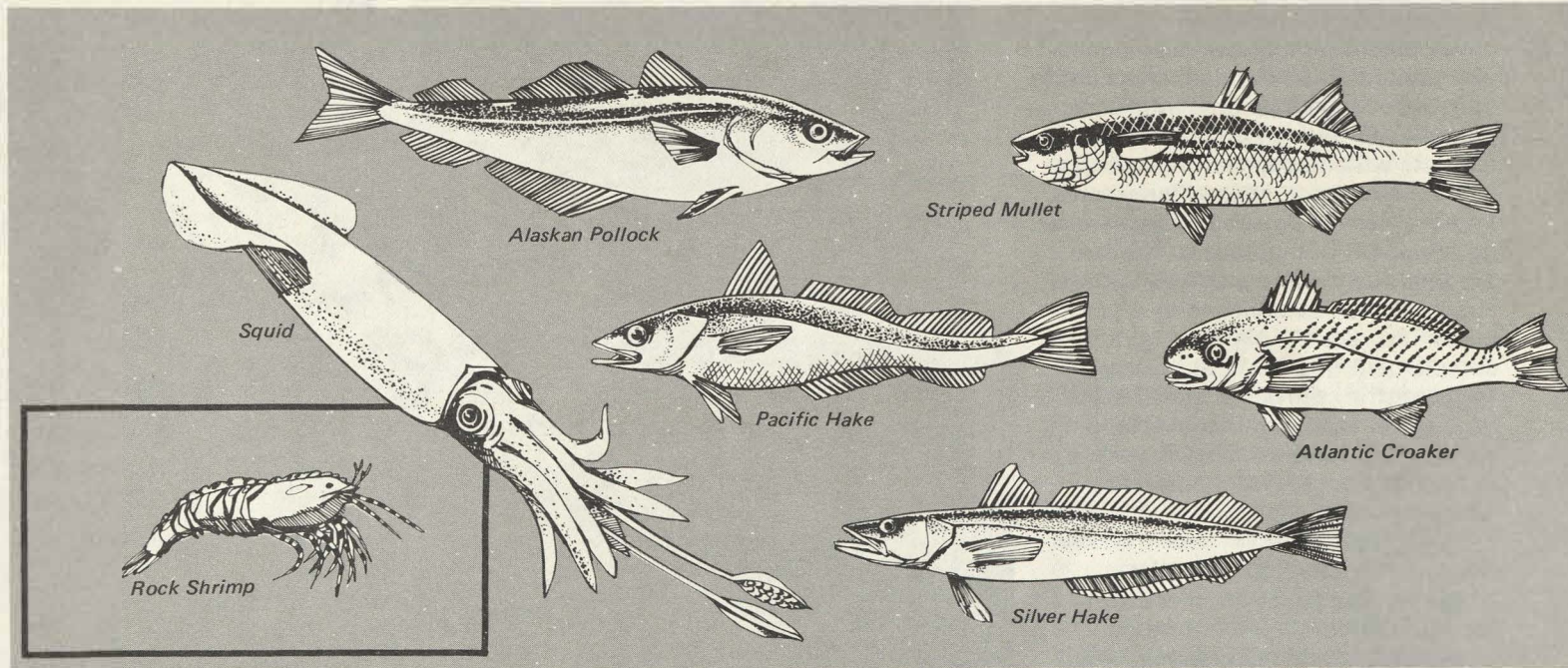
Studying life histories of commercial and recreational species.



Assisting in the marketing of fishery products.



Locating and identifying nontraditional species with commercial and recreational potential.



and equity capital for vessel construction and refurbishing. These programs add financial stability to a volatile industry.

The Fishing Vessel Obligation Guarantee program compensates for the fishing industry's general lack of access to private markets for long-term debt capital. The program, through a Federal guarantee, makes long-term loans from the private sector available to the fishing industry at reasonable interest rates. Guaranteed loans with maturities of up to 20 years are available for financing up to 87.5 percent of the cost of constructing or reconstructing vessels. This program pays for itself through guarantee fees charged to users.

The Fishing Vessel Capital Construction Fund program compensates for the fishing industry's general lack of access to private markets for equity capital. It does this

by allowing participants to defer paying the Federal tax otherwise due on income from the operation of fishing vessels. The tax savings can then be used to help pay for constructing or reconstructing fishing vessels.

This approach reduces the portion of vessel construction costs that otherwise would have to be borrowed (debt) and accelerates the industry's ability to accumulate vessel downpayments (equity).

Both programs are also available to commercial vessels that carry fishing parties for hire, provided such vessels have dual documentation in both the fishery and coastwise trades.

Although tax-deferred funds under the Fishing Vessel Capital Construction Fund program can be used for high-risk ventures in fishery development, the Fishing Vessel Obligation

Guarantee program is limited to projects whose economic feasibility can be firmly demonstrated. Thus, the guarantee program cannot be used for vessels taking less popular species until after commercial success has first been demonstrated.

Other fishery financial services administered by NMFS provide: (1) indemnification against the risk of domestic fishing vessels being seized by foreign governments, (2) compensation for domestic fishermen whose vessels or gear are damaged by other vessels or acts of God in the Fishery Conservation Zone (funded by a surcharge of foreign fishing fees), and (3) compensation for domestic fishermen whose vessels or gear are damaged by oil and gas activities on the outer continental shelf (funded by oil and gas operators).

Sea Grant Programs

Research

The Office of Sea Grant provides Federal grants to colleges, universities, and other institutions to support research, education, and advisory service programs in use of marine resources. At least one-third of the program funding comes from non-Federal sources. Projects include development of improved techniques and gear for catching fish, aquaculture studies, economic impact studies, searches for marine plant and animal extracts with medicinal properties, searches for uses of shellfish wastes, improvement of processing techniques, development of methods to improve product quality, and studies in other areas such as socioeconomics and ocean law. Several NMFS programs complement Sea Grant activities. Together they provide a research base far broader than either could furnish alone and involve the best researchers in both government and university laboratories.

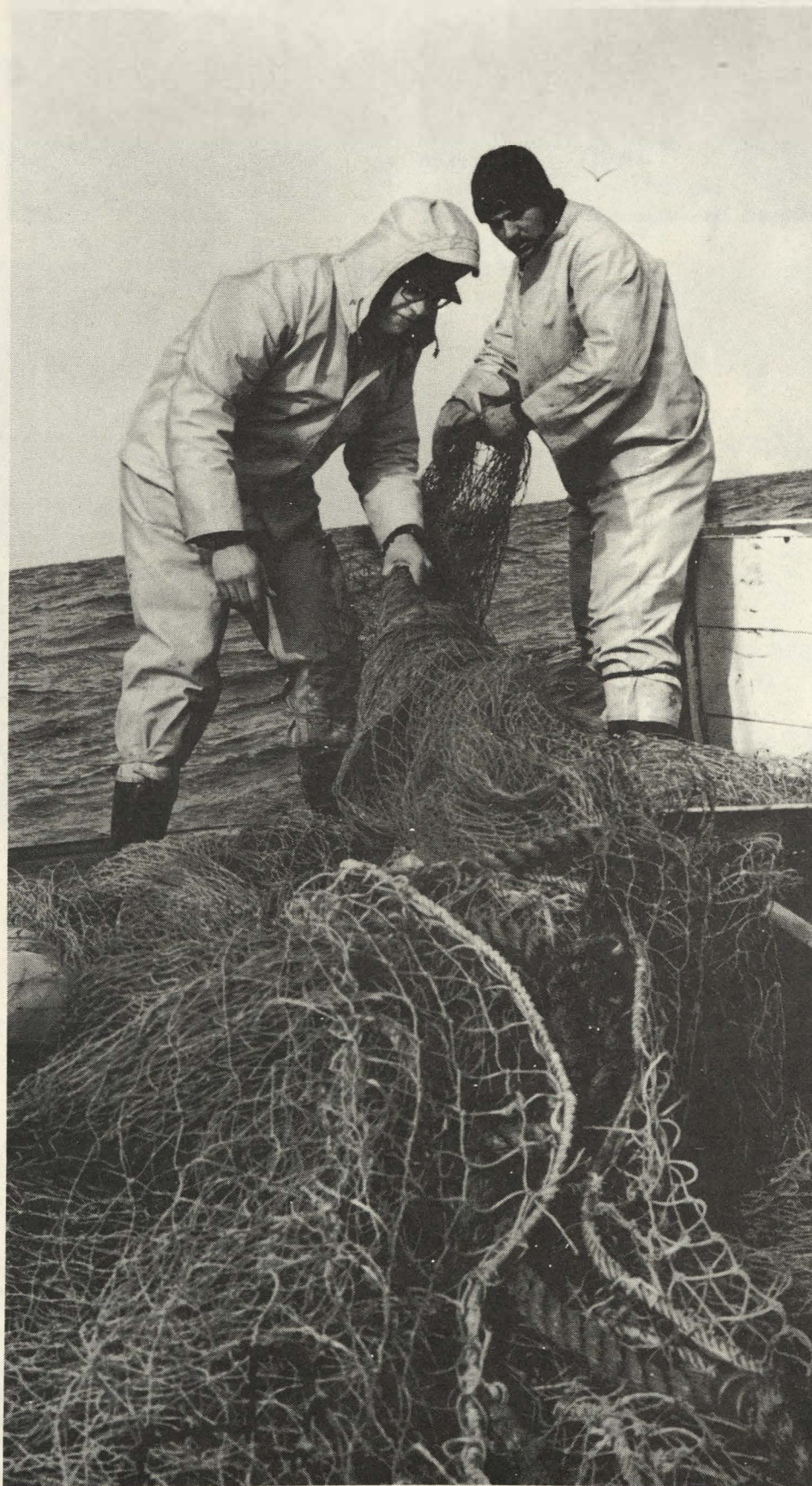
Education

Educational programs supported by Sea Grant cover a wide range, from development of graduate and undergraduate courses to preparation of educational materials for elementary and secondary schools. Examples of Sea Grant educational efforts are graduate assistantships for student participation in Sea Grant research, technician training programs to meet shortages of skilled personnel, and development of new areas of expertise such as ocean law.

Marine Advisory Service

Sea Grant Marine Advisory Service agents provide assistance to commercial and recreational fishing industries, seafood processors, supporting industries, and the general public. They are responsible for transferring knowledge developed in research programs to the users who need it and alerting researchers to problems and opportunities in the field. Agents also participate in programs to create a greater public awareness of marine affairs.

Developing and testing new fishing techniques.



Collecting specimens for underwater research.



Other U.S. Department of Commerce Support

In addition to NMFS and Sea Grant, the Department of Commerce has several other agencies that assist fishery development by providing grants, staff support, organization work, and information.

Industry and Trade Administration

The Industry and Trade Administration operates both domestic and foreign business offices and helps the industry import and export products. Special efforts in cooperation with NMFS are being made to develop markets for new species through foreign trade fairs, trade missions to other countries, export seminars on how to sell products overseas, and programs where foreign buyers are brought to the United States to meet with domestic producers.

Economic Development Administration (EDA)

The EDA Office of Technical Assistance provides support by funding organizations working to produce jobs and economic opportunities. In the past it has funded port and harbor improvement projects and provided operational funds for foundations whose main function is development. EDA also funds specific development projects.

Regional Commissions

Each Department of Commerce Regional Commission provides a Federal/State partnership created to encourage and induce orderly, accelerated economic growth in the region. The membership of each Commission includes a Presidentially appointed Federal Co-chairman and the Governors of the respective States. Commitments are made to support long-range economic development programs that will result in permanent gains in income levels.



Protecting and developing marine habitat.



*Locating and isolating food for
immature shellfish.*



*Developing new methods to expand
aquaculture.*

Industry/government partnership

Various means of fostering fishery development have been pursued. Some of the most successful have been industry-initiated efforts to establish self-help organizations to implement and supervise industry development projects. The following examples have succeeded by providing a focus for industry participation through a single entity and by attracting government and private funds for their research and development needs.

New England Fisheries Development Program

This industry/government partnership was formed in 1973 to develop lesser-known fishery resources in the New England area. Program leadership is provided by a Task Force of industry advisers from the New England Fisheries Steering Committee. Key State officials also participate in the planning process. An NMFS program manager was appointed to oversee projects and coordinate NMFS technical support. Sea Grant institutions throughout New England have made a large contribution to this program.

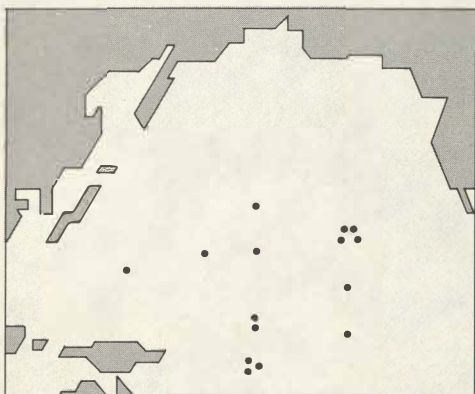
The primary aim of the program is to help develop economically sound industries from species previously unused by the U.S. industry. To accomplish this, all aspects of the selected species are studied, and development efforts are evolved to meet the specific needs of each species. Research and development work includes reviewing data on resource availability; developing new harvesting technology or adapting already existing harvesting methods; developing efficient handling, storing, and sorting methods for vessels and plants; reviewing current technology, its applicability to the new species, and the development of new technologies if necessary; investigating various product forms in both domestic and foreign markets; and developing new or expanded markets. The impact of the program is estimated to be an annual \$20 million increase in New England economy and an increase of 850 new jobs during 1973-76.



Vessels of the Atlantic fishing fleet.

Pacific Tuna Development Foundation

There are vast, latent tuna resources in the Central, Western, and South Pacific that can provide the basis for a cooperative development program by the U.S. tuna industry and by the people of Hawaii, American Samoa, Guam, and the Trust Territory of the Pacific. Funding for the Pacific Tuna Development Foundation is provided by NMFS Saltonstall-Kennedy funds (fees from tariffs on imported fishery products), industry, and the Pacific Islands Development Commission. The main objective of the island areas is to provide employment and economic development in their areas. The tuna industry's objective is to find additional supplies of raw material and fishing areas for its expanding fleet.

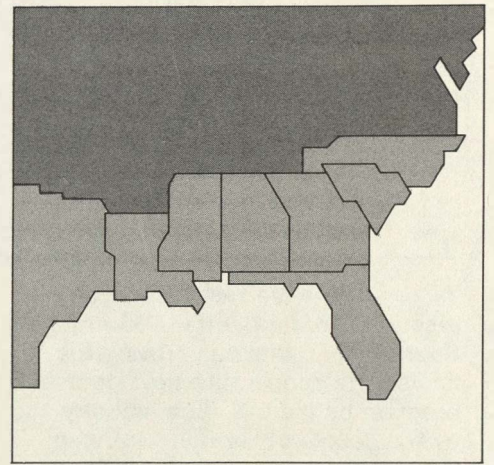


School of tuna in the Pacific Ocean.

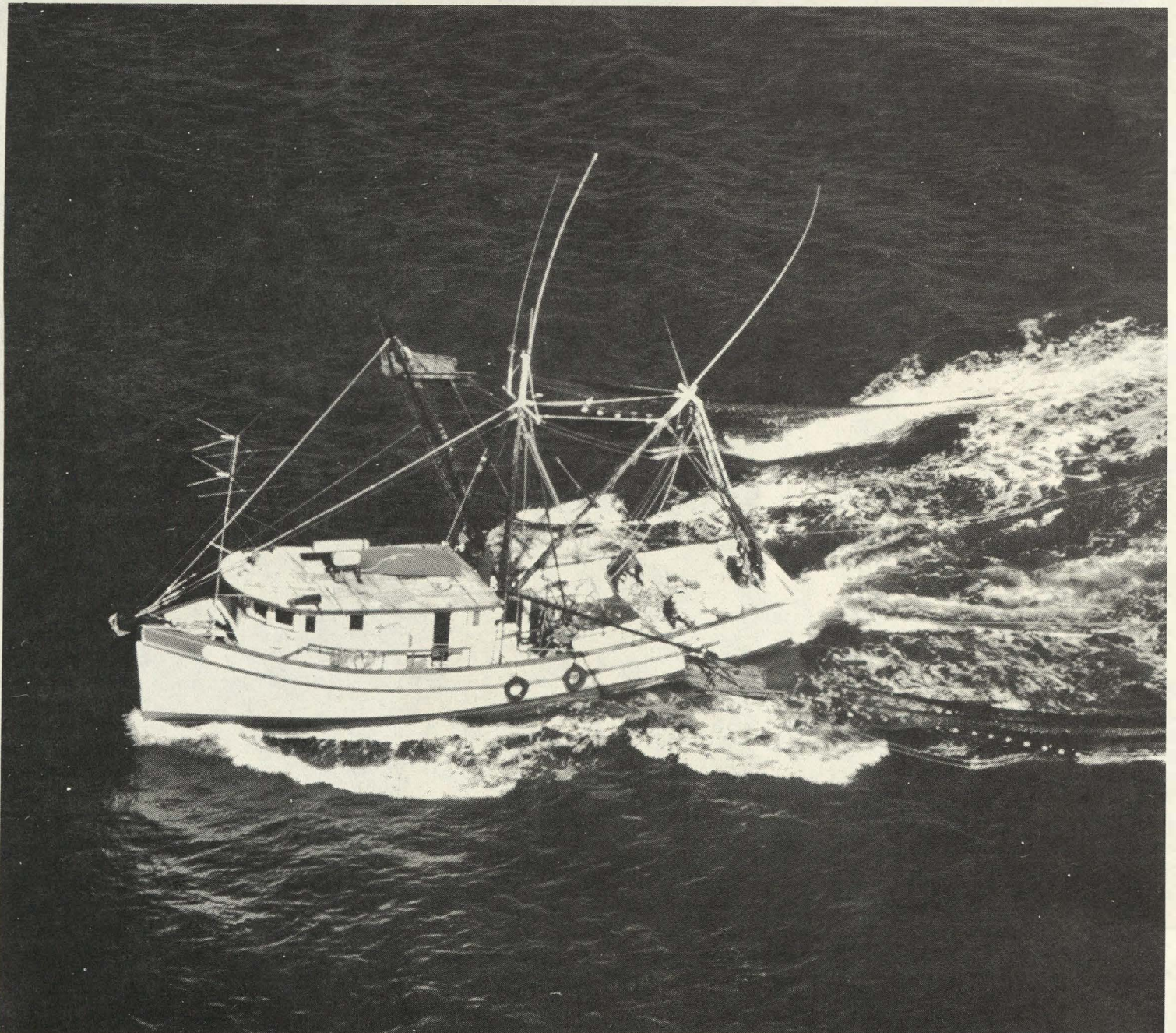
Gulf and South Atlantic Fisheries Development Foundation

The Gulf and South Atlantic Fisheries Development Foundation was chartered in 1976 with representatives appointed from existing fishery industry organizations from Texas to Virginia. Operational funds were provided primarily by an Economic Development Administration (EDA) grant with additional contributions by

participating industry organizations. Project funds were provided by EDA and the Coastal Plains Regional Commission. NMFS provided staff support for the Foundation until an executive director and administrative assistant were hired. Projects include developing Midwest markets for Southeastern underused species, conducting a mackerel seining demonstration project in the Western Gulf, preparing a seafood industrial park feasibility study for the State of Florida, and doing preliminary work on several other projects.



Fishing for croaker in the Gulf.

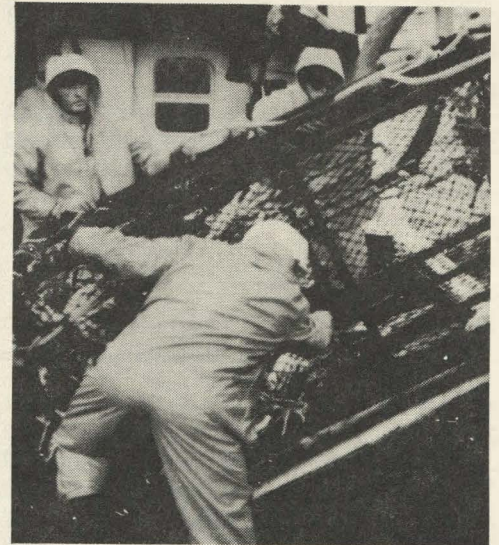




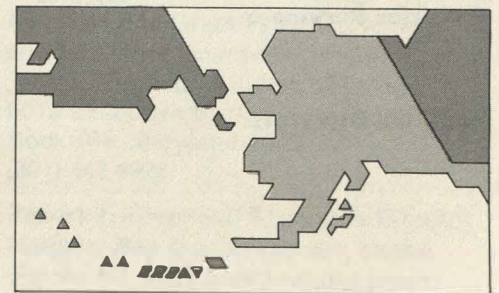
Alaska Fisheries Development Corporation

The Alaska fishing industry believes that it is imperative to have a single entity to evaluate the research and development needs of the fishing industry in Alaska, to solicit and secure public and private funding for research, and to work with the public and private sectors to stimulate and encourage development of the fisheries in these waters.

The industry has formed a nonprofit corporation, the Alaska Fisheries Development Corporation, whose membership will reflect equitably the interests of both fishermen's associations and processors from all sections of Alaska.



Bringing Alaska king crab on board.



Unloading halibut.

The National Marine Fisheries Service and Sea Grant provide a broad range of services to fishermen, dealers, processors, wholesalers, retailers, food service firms, and consumer groups.

Consult the following offices for more information regarding research, market development and other fishery development services.

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Gene Cope

Acting Chief, Consumer Affairs Div.
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National Marine Fisheries Service

Regional Directors

NMFS regional offices are responsible for planning, organizing and implementing fishery management, conservation, and development programs.

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**National Marine
Fisheries Service**

**Fisheries Center
Directors**

NMFS fisheries centers conduct multi-disciplinary research to provide fisheries management and development information to support national and regional programs of NMFS.

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The Fishery Conservation and Management Act of 1976 conferred upon the U.S. fishing industry priority rights to harvest millions of tons of fishery resources now being used primarily by foreign fishing nations.

However, access to these fisheries does not automatically generate a renaissance in the U.S. fishing industry. The Nation is only beginning to undertake the tasks that stand in the way. We now must develop the capacity to harvest, process, and market these resources at a profit to industry, and in the public interest, as a stimulus to the U.S. economy. Diversion of these resources from foreign fisheries to U.S. utilization can help greatly to lessen our enormous negative foreign trade balance, now some \$2.1 billion for fishery products alone. Full domestic realization of our national fishery development opportunities will bring under U.S. control a rich flow of protein food from the sea—a renewable strategic resource of great potential importance now and for the future.

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