The PACIFIC REGION of the BUREAU OF COMMERCIAL FISHERIES

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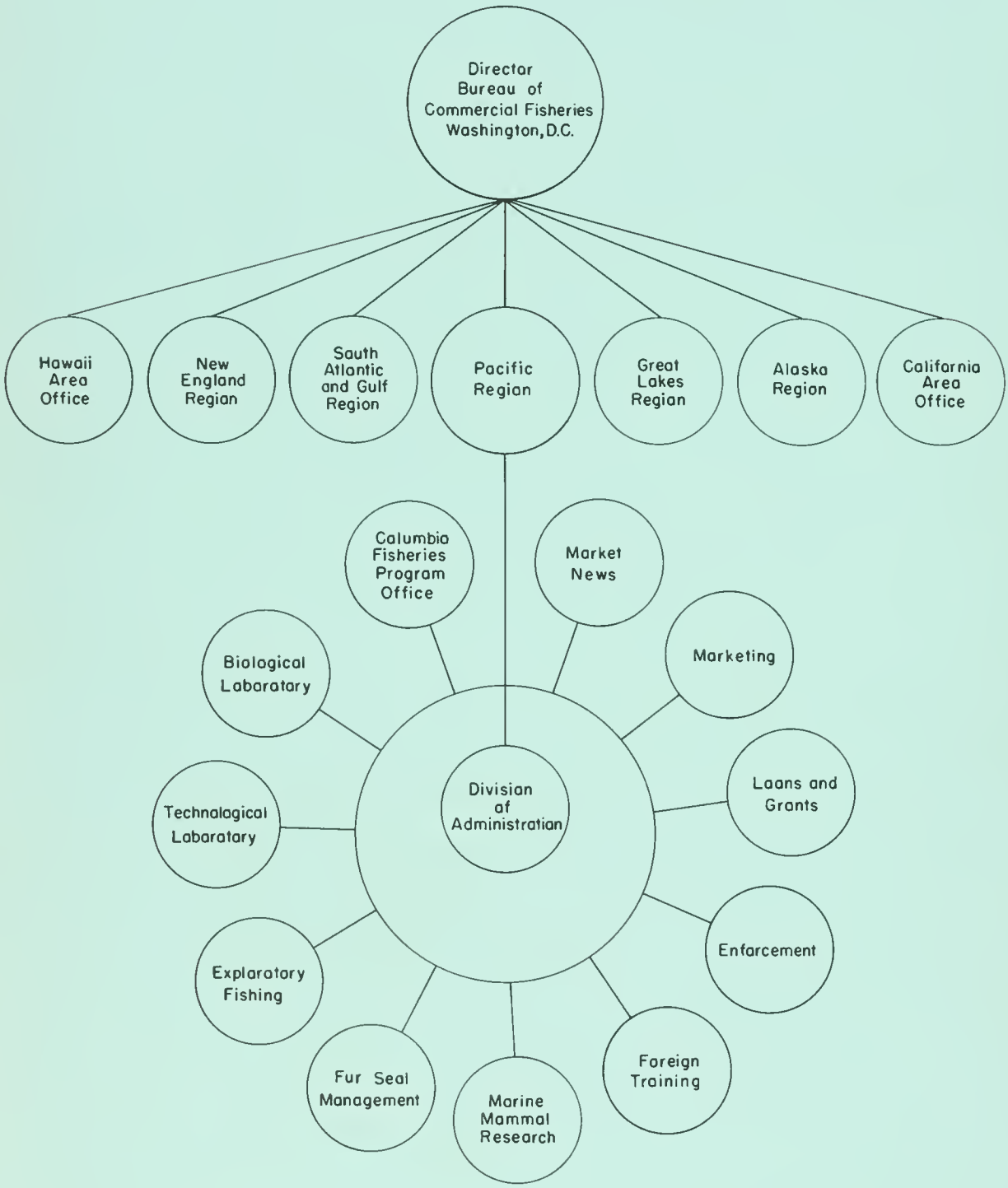
ORGANIZATION CHART OF PACIFIC REGION



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THE PACIFIC REGION OF THE BUREAU OF COMMERCIAL FISHERIES

By

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Seattle, Washington

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Right. Seattle's metropolitan area fronts on a deep, protected harbor which provides superb anchorage for ships. The bulk of Seattle's fishing industry is located along the waterfront. (Courtesy Seattle Chamber of Commerce.)

The Pacific Region of the Bureau of Commercial Fisheries

By Thomas O. Duncan

Puget Sound was a fishing center in the Pacific Northwest long before white men stepped ashore at Alki Point in West Seattle. Fish were the important food for the Indians living on the shores of this vast natural waterway. As the white settlement grew, fisheries became one of the prosperous industries. The methods of fishing were varied and included a combination of methods adopted from East Coast fishermen and the local Indians. Salting was the principal technique used to preserve the fish for consumer distribution. As time progressed, newer and larger boats with more efficient gear led to a greater harvest from the sea, and the preservation techniques were improved many fold. The fishermen soon learned, however, that fishery stocks were not inexhaustible and felt the need for fishery research.

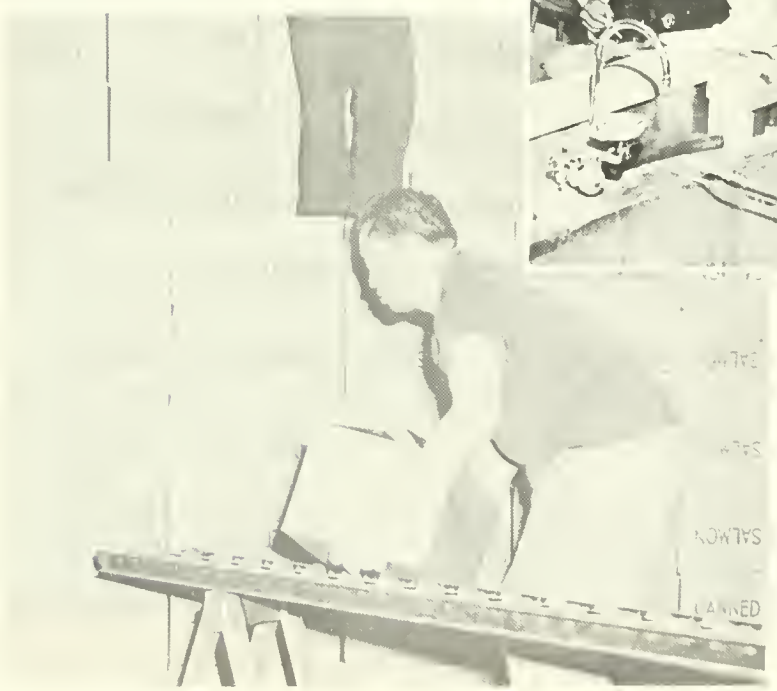
During the late 1920's, many foresighted men visualized the future importance of Seattle as a fishery center. One of these was the U.S. Commissioner of Fisheries Henry O'Malley. He selected Seattle as the site for a Federal fishery research laboratory. Thus, Seattle became a center for fishery research and was the logical site for the office of the Pacific Region when the U.S. Bureau of Commercial Fisheries was established under the Fish and Wildlife Act of 1956.

The activities of the Bureau range from basic research on the populations of fish and the many factors influencing their abundance, to the product on the consumer's table. Between these extremes, the Bureau's work involves various types of problems in many fields of science and technology. The Bureau's program is financed from two major sources: (1) an annual appropriation by Congress and (2) Saltonstall-Kennedy funds, which represent a percentage of the duties paid on imported fishery products.

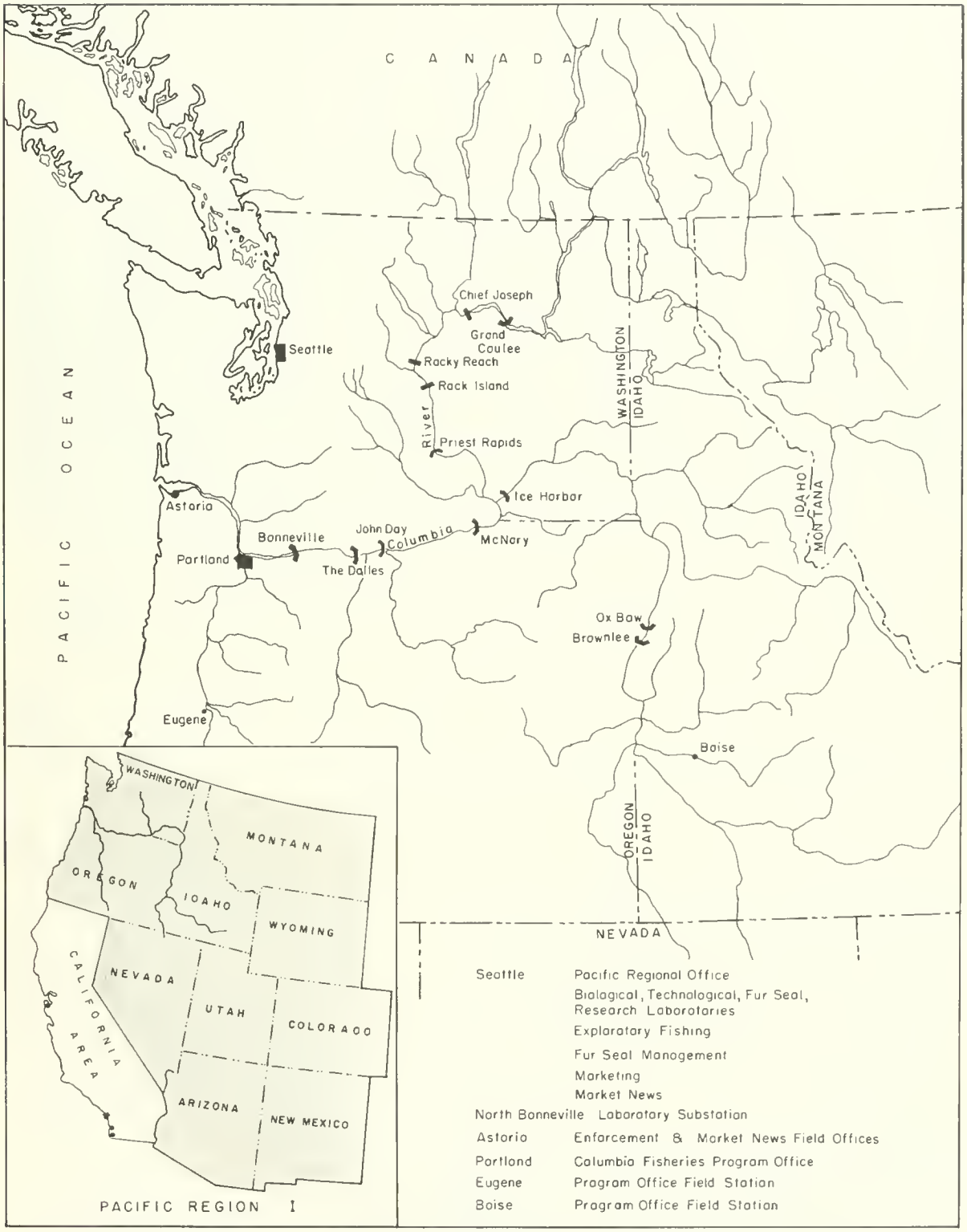
Many pressing fishery problems in the Pacific Northwest are of concern to the Western States. Through persistent research by the fishery agencies of these States and the Bureau of Commercial Fisheries, these problems are being solved. Important to this effort is the supply of fishery scientists, educated in the colleges and universities throughout the United States. With the Federal-State cooperative attitude and with the the dedicated people in the employ of the various agencies, we are confident that these great fishing resources will always be productive and contribute to the economy and well-being of the people.

Left. The College of Fisheries of the University of Washington is conveniently located near the Bureau's research laboratory. Some of the students work on a part-time basis at the laboratory during the school year.

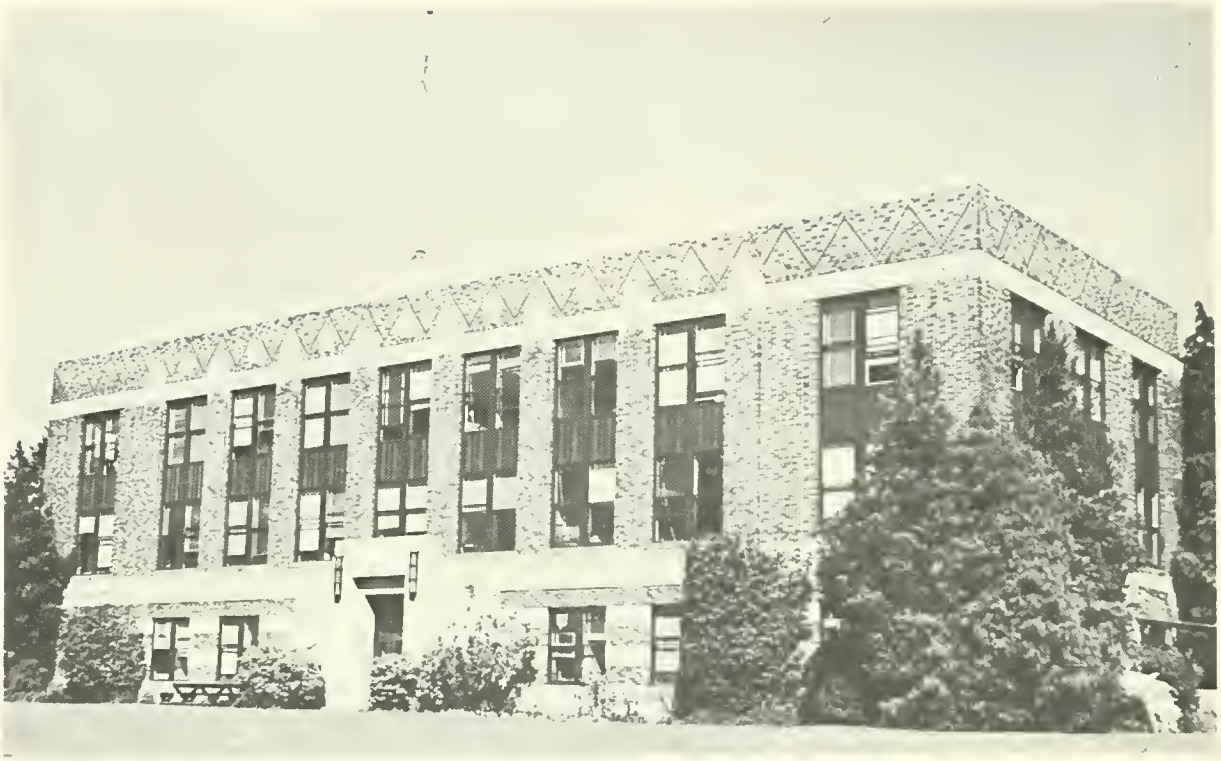
Below. Fishery students studying invertebrate animals at the College of Fisheries.



Left. Fishery products are now preserved in many ways; canning is one of the older yet still popular methods. The industry relies on technological research to provide the latest information on processing to insure better quality to the consumer.



Area of the Pacific region and principal offices. Dams built or under construction on the Columbia River system are named.



The "Montlake Laboratory" is the home of three activities of the Bureau of Commercial Fisheries: (1) the Biological Laboratory, (2) the Technological Laboratory, and (3) the Exploratory Fishing Base. It is located on Montlake Boulevard in Seattle, south of the Lake Washington Ship Canal and the University of Washington.

Biological Laboratory

The principal function of the Biological Laboratory, Seattle, Wash., is to conduct research on the coastal and high seas salmon and king crab in the Pacific Region. Research on salmon behavior patterns and survival under the influences of environment is designed to yield an understanding of the fluctuations in abundance of coastal stocks. Considerable amount of research is directed toward means of providing safe passage for anadromous fishes at water-use projects.

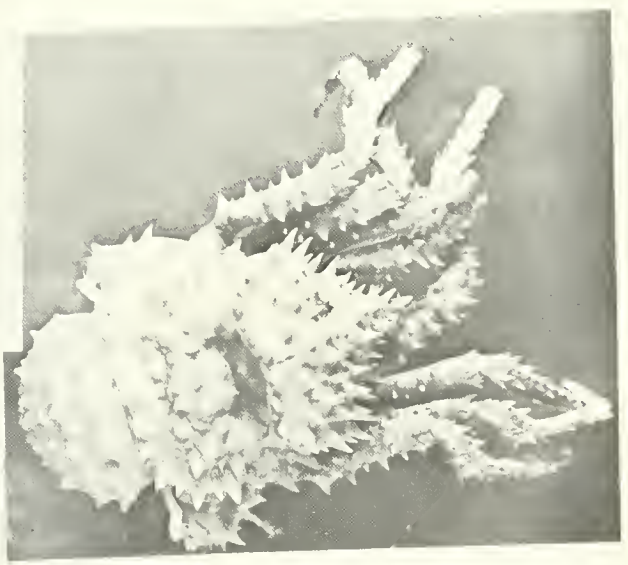
In the critical international North Pacific fishery, some unique research tools have been developed to distinguish Asiatic and North American stocks of salmon and determine their distribution. Valuable data have been collected on the life history, distribution, and abundance of king crab in the Bering Sea.

Right. The 13,000-gross-ton Japanese mothership Renshin Maru is similar to some of the salmon motherships operating in the North Pacific Ocean west of longitude 175° W. This ship contains two reduction units and is served by 25 trawlers.

Left. An oceanagrapher checks Nansen bottles priar ta taking a water sample somewhere in the North Pacific Ocean.

Belaw. This salmon is ready ta be X-rayed for morphometric studies. Asiatic and North American salmon stocks can be separated by study of the body characters of fish taken in the Narth Pacific Ocean and Bering Sea.

Left. A serologist studies salmon blood charocters an an agar test plate ta determine the origin of high seas salmon. This method is being applied ta ather fishes such as tuna and herring.



Right. Recurrent molting of the shell continues throughaut the king crab's life. This young molting crab is a specimen collected by SCUBA equipped biologists at Unalaska Island in the Bering Sea.

Above. The sonic tag transmits signals which allow biologists to "track" a salmon during its migration upstream. The behavior data collected will be used in research on fish passage at dams.

Above. Biologists work in the field the year 'round, in studies concerning survival of eggs and the production of our rivers, and winter is no exception.

Left. Working from a boat, biologists use electrofishing gear to collect specimens for laboratory and field studies of competition and predation among fishes.

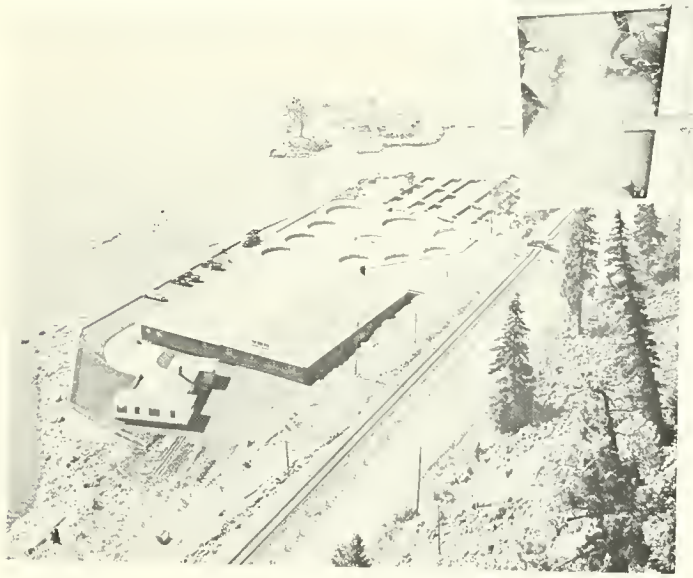
Right. Electricity is being applied in large-scale experiments at Lake Tapps, Wash., to guide fingerling salmon on their downstream migration. This equipment has shown favorable results.

Columbia Fisheries Program Office

In 1949 the Congress authorized Federal funds to initiate a program to rehabilitate the salmon runs in the lower Columbia River area. The program is based on the recognized loss of fish and fish habitat at Federal water-use projects. The objective is the maximum development of the salmon and steelhead runs in the tributaries of the Columbia River. The Columbia River Fisheries Program Office is ideally located in Portland, Oreg., on the Columbia and Willamette Rivers, to supervise this work.

Left. The Abernathy Creek artificial spawning channel for incubation of salmon eggs under controlled conditions. This is a major restoration project provided under the Program.

Right. These young steelhead trout are being marked by fin clipping at the Eagle Creek Hatchery to determine the best time of release.



Left. This salmon hatchery was completely rebuilt. Its modern facilities are typical of those provided at similar stations operating under the Columbia River Fisheries Development Program.

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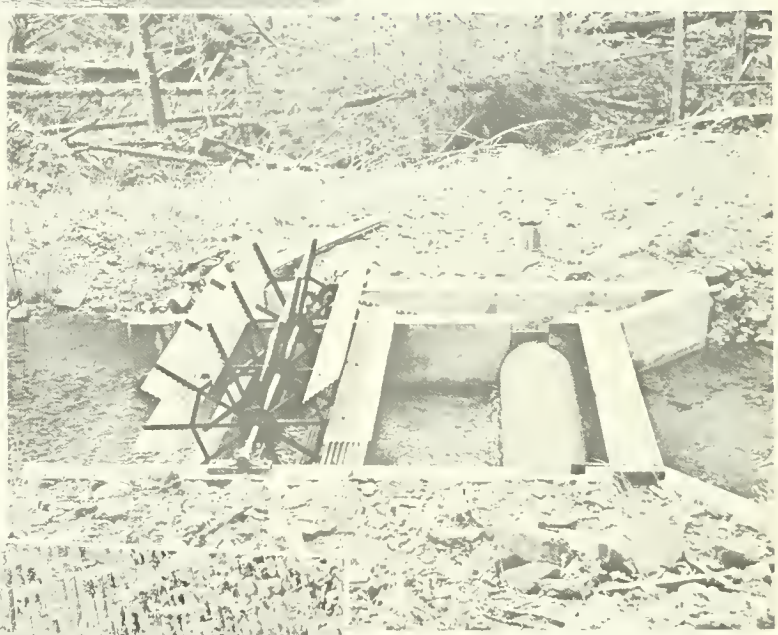
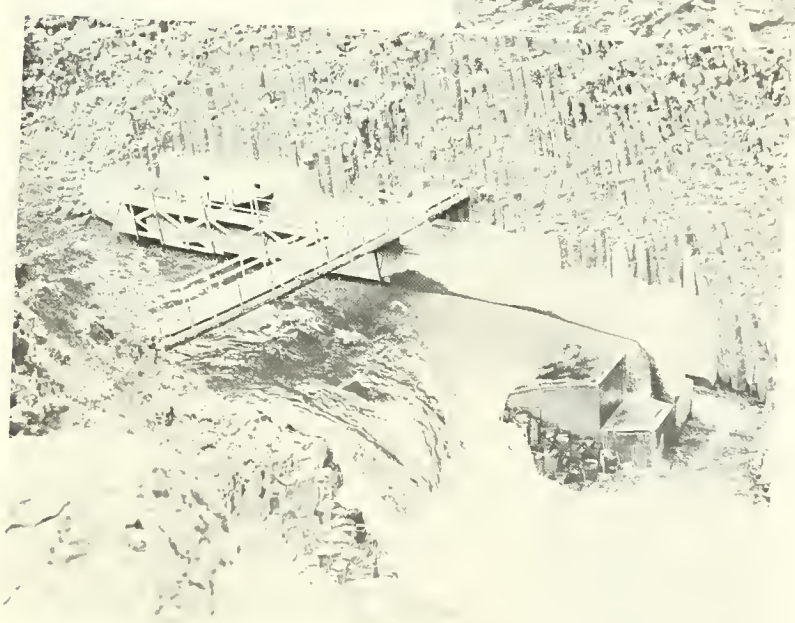
Left. A study of fingerling mortality was made at the Leaburg Powerhouse on the McKenzie River, Oreg., to determine the need for screens in the river system.

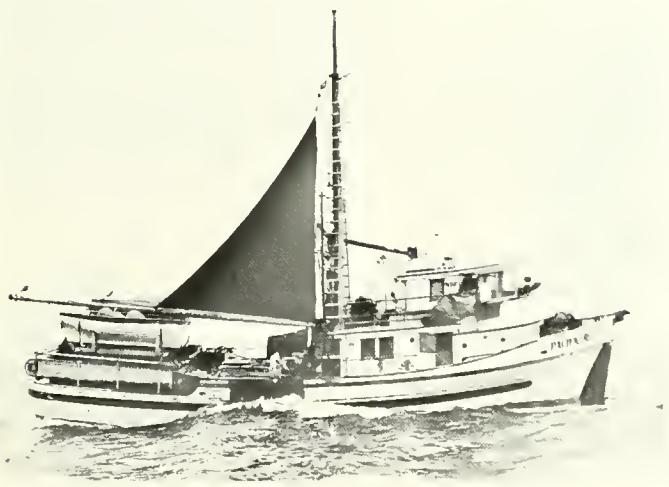


Right. The fish screen illustrated is typicol of the type of facility installed in the John Day River system to protect downstream migrant salmon. Over 400 screens have been installed in this watershed.



Left. Major fishway construction is very important to the rehabilitation of salmon fisheries of the Pacific Northwest. Fishways, which bypass impassable barriers such as falls, open spawning grounds to salmon runs in an effort to improve and restore runs of salmon and steelhead in the Columbia River Basin.

Enforcement

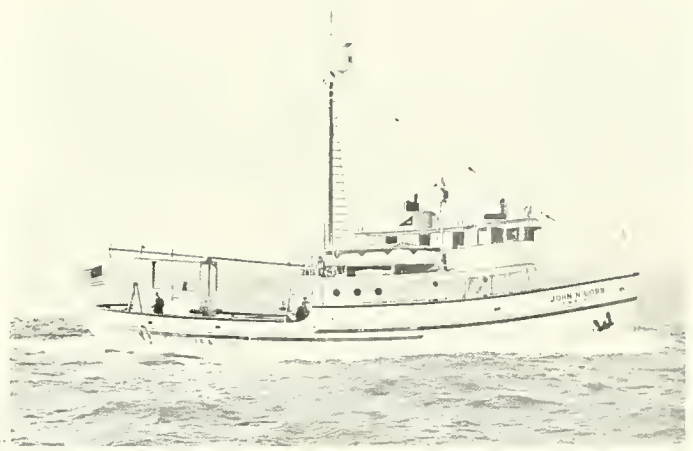


The Commercial Fisheries Enforcement Office in this region is responsible for enforcing the international treaties and regulations for protection of the fishes and marine mammals in our coastal waters. The Office fosters cooperative and coordinated programs with State and other Federal agencies concerned with the enforcement of the international treaties and regulations.

Left. A Canadian vessel fishing for halibut on the high seas. Regulations for this fishery are based on recommendations of the International Pacific Halibut Commission and enforced by the Governments of Canada and the United States.

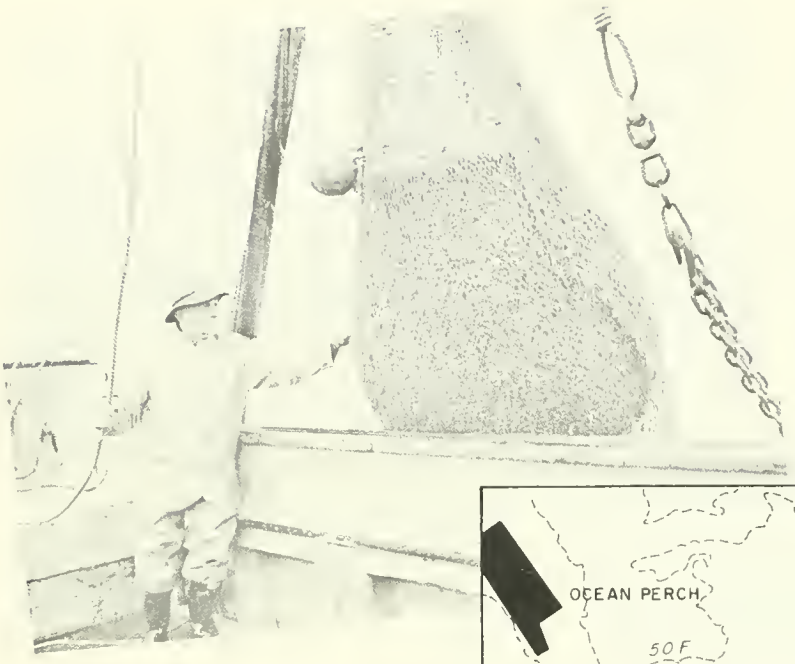
Exploratory Fishing

Exploratory fishing aids the growth of our commercial fisheries by expanding present fishing grounds, diversifying effort on present grounds, and discovering new fisheries. By developing better gear and improving fishing methods, increased research can help the domestic industry compete with foreign imports.

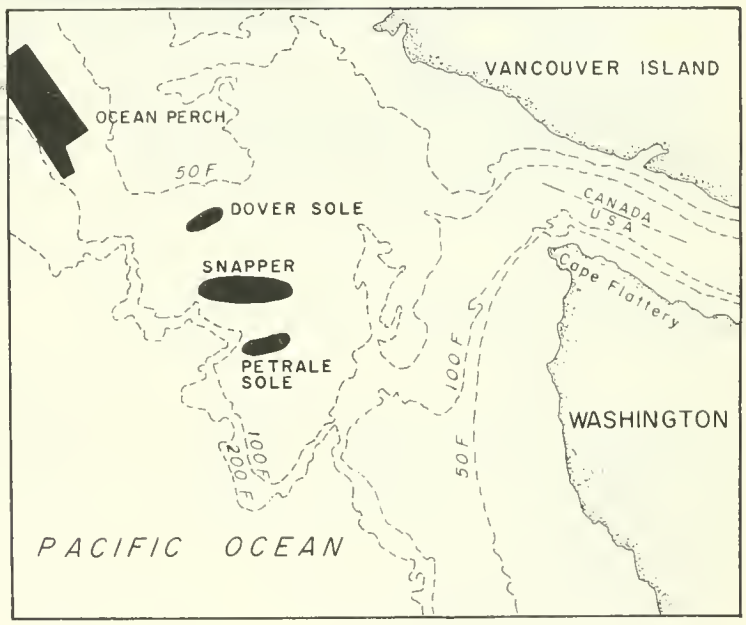


Above. The John N. Cobb was commissioned at Seattle, February 18, 1950, for exploratory fishing and gear research in the Pacific Northwest. The Cobb is 93 feet long, with a speed of 10 knots.

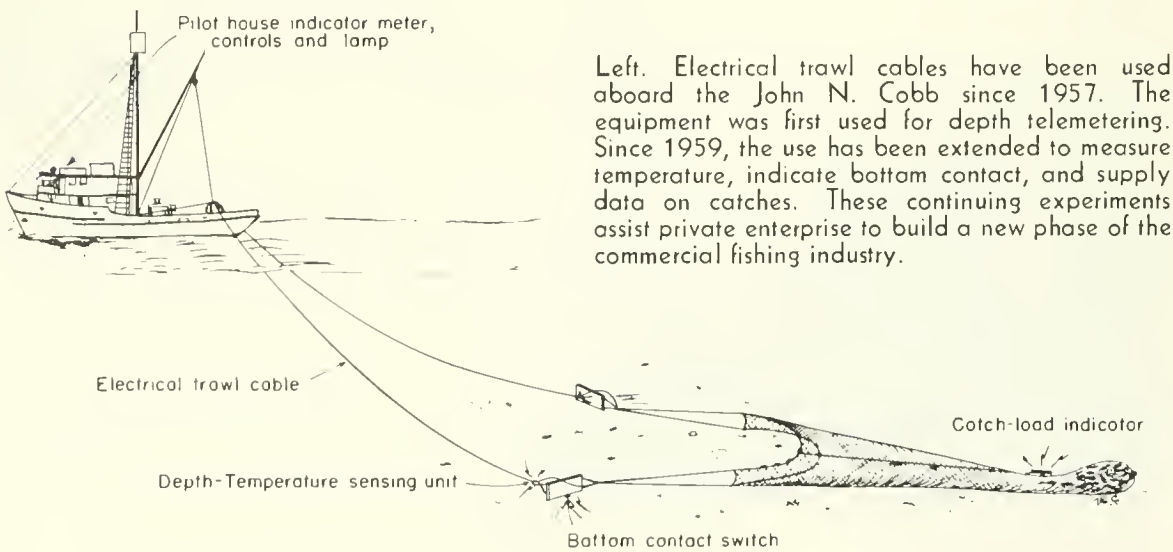
Left. SCUBA divers prepare to board a maneuverable sea sled to observe a bottom trawl in action. These observations provide a better understanding of gear operation and design.



Left. In the Shumagin Islands, Alaska, an exploratory operation for shrimp produced excellent results. This haul was made with a 40-foot "Gulf of Mexico" shrimp trawl. Towing time for 20–30 minutes produced a catch of 3,300 pounds. The operation was conducted aboard the Bureau's charter vessel Tordenskjold.



Right. Commercially productive trawling grounds were located by the John N. Cobb in mid-1960. Fishermen harvested 300,000 pounds from the petrale sole grounds during the first 10 days of fishing. This more than compensated for the cost of the Cobb's cruise. This area was previously considered unfishable because of poorly defined rough bottom.



Left. Electrical trawl cables have been used aboard the John N. Cobb since 1957. The equipment was first used for depth telemetering. Since 1959, the use has been extended to measure temperature, indicate bottom contact, and supply data on catches. These continuing experiments assist private enterprise to build a new phase of the commercial fishing industry.

Foreign Training

The establishment of a Foreign Training Office in Seattle in 1959 made the Pacific Northwest a worldwide center for training fishery people. The ever-increasing number of foreign visitors is aiding Bureau personnel to make valuable contacts for the exchange of scientific fishery information with many foreign nations.

Right. A Korean trainee learns statistical techniques used in biological research from a skilled researcher.

Fur Seal Management & Research

Once nearly exterminated by fur hunters, the fur seal herds of the Pribilof Islands are now approaching their peak abundance under the research and management of the Bureau of Commercial Fisheries, whose success with the seals is an outstanding example of conservation in action.

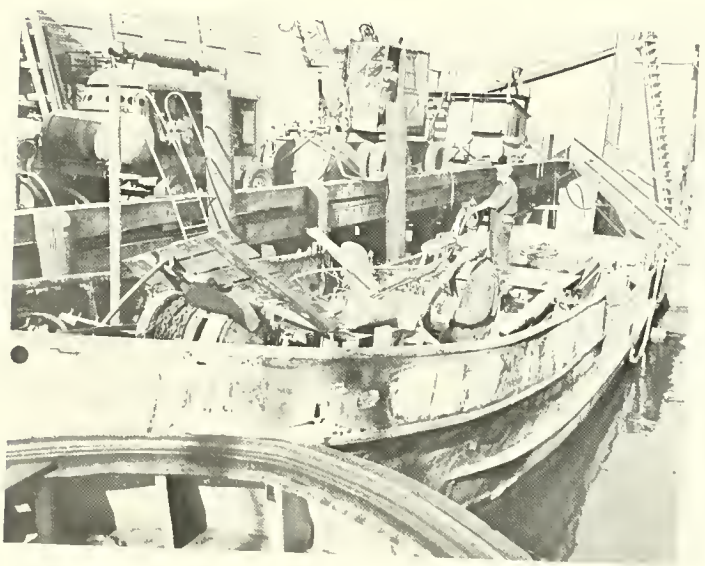
The United States netted about $1,500,000 annually from its share of the seal pelts during the last 15 years. Japan and Canada receive shares of the seal pelts taken by the United States under the provisions of the Interim Convention on Conservation of North Pacific Fur Seals. The Soviet Union is also a participating nation under this Convention. The island byproducts plant has a seasonal output of about 350 tons of seal meal and 50,000 gallons of seal oil. The Bureau, in its Pribilof Islands Program, provides for the health, education, and welfare of about 600 Aleut resident natives.

Left. At Polovina Rookery on St. Paul Island, Alaska, well-defined fur seal harem—a bull, cows, and pups—may be seen in the foreground. On the skyline is a runway and tripod, used when taking a census of the harem bulls and for general observation of seal life.

Left. An aerial view of the village on St. Paul Island. Dock facilities may be seen in the lower right corner and radio installations in the lower left. Seal industry buildings are in the center foreground.

Right. Biologists and Pribilof Islanders tag a fur seal pup. Tagging provides valuable information on the migration, age, and abundance of seals.

Loans & Grants



The Branch of Loans and Grants administers a fisheries loan program in the States of Washington and Oregon for financing and refinancing operations, maintenance, replacement, and repair of commercial fishing vessels and equipment. Loans valued at $1,255,000 have been awarded to vessel owners in this region. The Branch also conducts a mortgage and loan insurance program and a differential subsidy program for the construction of fishing vessels.

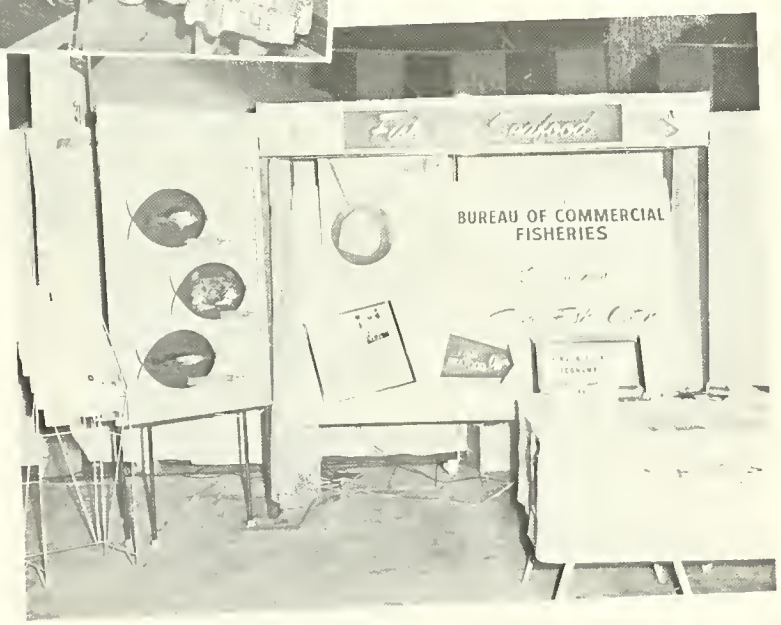
Left. Workmen prepare to remove debris from a steel trawl-seine vessel, following an explosion and fire while at sea. A loan was awarded for complete rebuilding of the vessel.

Marketing

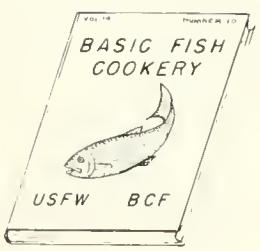
The basic objectives of the Branch of Marketing are—(1) to promote the free flow of domestically produced fishery products, (2) to develop and otherwise facilitate increased markets for fishery products of domestic origin, and (3) to promote the improvement of marketing practices. To industry people, including fishermen, buyers, wholesalers, jobbers, brokers, and retailers, the Branch provides consulting services on market trends, consumer preferences, quality controls, packaging, selling, transportation, and market promotion.

Above. Front of the Seattle Marketing Office.

Left. A home economist explains the elements of taste testing an experimental recipe to a panel of testers. "Palatability tests" provide information for bettering recipes. Before being published, new recipes on all fishery products must pass several rigid tests.

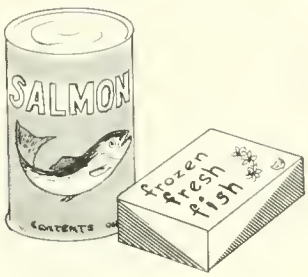


Right. Educational exhibits are provided by the Bureau to promote the use of fishery products. This exhibit appeared at the Astoria Fish Festival in August 1959.



Left. The housewife learns fish cookery through TV demonstrations. Bureau home economists appear frequently on TV and radio. Other fish cookery demonstrations are given to institutions, restaurants, and other consumer groups and, in cooperation with the Department of Agriculture, for the National School Lunch Program.

Right. The educational program extends right down to the children. A Bureau marketing specialist conducts a class on fish conservation.



Market News

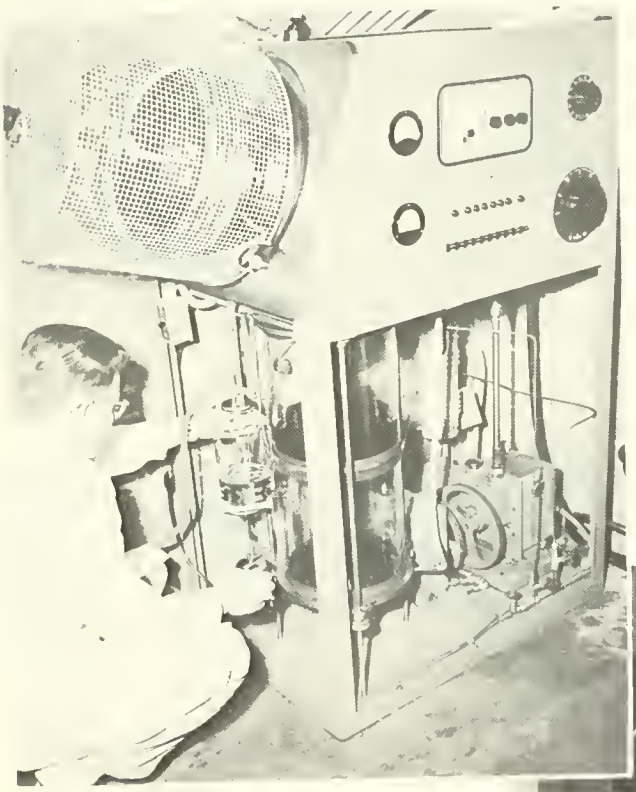
The Seattle Market News Service Office is one of eight such offices strategically located throughout the United States. Through the daily publication of the landings, receipts, stocks, prices, market conditions, this Service encourages the orderly marketing of fishery products and byproducts. In addition to the daily "Fishery Products Reports," many other types of reports of importance to the fishing industry are issued, including monthly and annual summaries. The Seattle office reports are mailed to nearly every State, Canada, Mexico, and many foreign countries.

Left. Market News reporter talks daily with industry personnel to obtain information for reports.

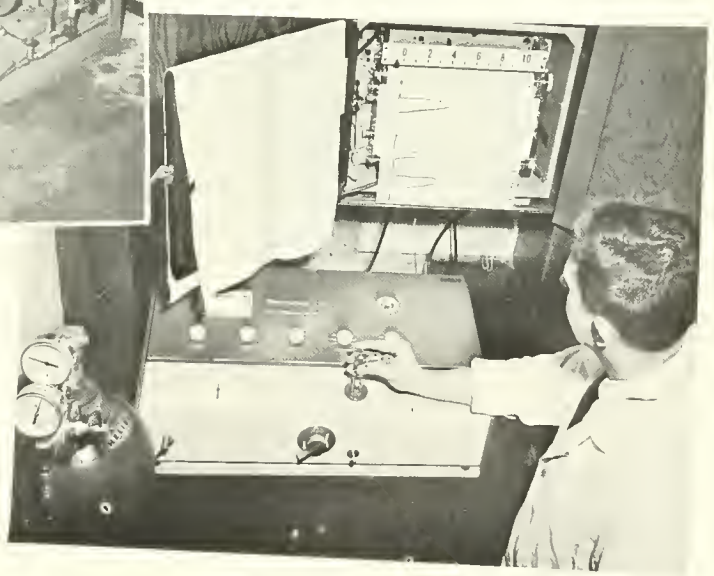
Technological Laboratory

The Technological Laboratory conducts research that is designed to improve and develop methods of handling, processing, preserving, and distributing fish and shellfish, and to increase utilization of byproducts.

Principles of chemistry, bacteriology, engineering, and nutrition are used to accomplish these objectives. Programs at the laboratory include: (1) Research on marine oils, such as chemical reactions and properties of oils, their fatty acids, and related products; synthesis of new compounds; oxidation and its prevention in fish oils and fish flesh; causes and prevention of odors; and nutritional effects of fish oils; (2) development of voluntary standards for grades of fish and shellfish; (3) inspection and certification of fishery products; (4) investigation of biochemical changes during spoilage of fish; (5) preservation and processing of fish and shellfish; (6) analysis of fishery products for components such as amino acids, vitamins, minerals, proteins, and oils.



Left. The centrifugal molecular still is used to prepare large quantities of fractions of fish oils and their triglycerides and fatty acids. This method retains the unique characterstics of fish oils, which are the best natural source of highly unsaturated compounds. These are nearly tasteless, odorless preparations that are used to make new products and to study nutritional values of fish oils.



Right. Gas-liquid chromatography is used to study compounds formed during spoilage of fish. This technique is also used for both qualitative and quantitative analysis of fatty acids in fish oils.

Left. Fishery products in mylar-polyethylene bags are placed into No. 2 cans for irradiation by the Materials Testing Reactor, Gamma Facilities, at Idaho Falls, Idaho. The fish are given pasteurization doses and tested for the effects on flavor and on storage life.

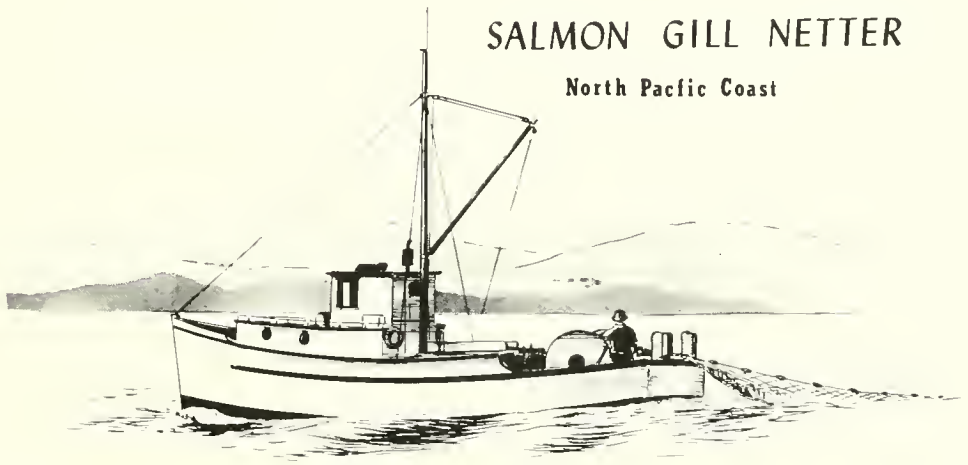
Below. This laboratory refrigeration unit is used to cool a salt-glucose solution for immersion freezing of fish and shellfish.

Below. A USDI fishery products inspector examines and grades frozen halibut steaks under the continuous inspection program. Samples are taken from the processing line periodically and examined under the applicable U.S. Standard.

Right. A technological researcher determines the net weight of a halibut steak before examining its quality under the voluntary standard.

Statistics

Two of the 36 field offices of the Branch of Statistics are in Region 1, at Seattle, Wash., and Astoria, Oreg. They are responsible for assembling data for Washington and Oregon on the number of fishermen, fishing craft, and quantity of gear engaged in taking fish and shellfish in these States; the volume and value of the catch; the production of manufactured fishery commodities; and related information. The data are compiled from the records of the State fishery departments or by surveys of fishermen, fishery wholesale dealers, and manufacturers. Statistical information on the fisheries is released in monthly and annual bulletins in the Current Fishery Statistics series and in the Bureau's annual Digest, "Fishery Statistics of the United States."



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ADDRESSES OF OFFICES IN PACIFIC REGION

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Division of Administration, Pacific Region
Office of International Relations (Foreign Training)
Branch of Loans and Grants
Commercial Fisheries Enforcement

The above offices are located at the following address:

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1319 Second Avenue
Seattle 1, Wash.

Biological Laboratory
2725 Montlake Boulevard
Seattle 2, Wash.

Exploratory Fishing
2725 Montlake Boulevard
Seattle 2, Wash.

Market News Service and Statistics Office
Pier 42 South
Seattle 4, Wash.

Fur Seal Management
706 Federal Building
Seattle 4, Wash.

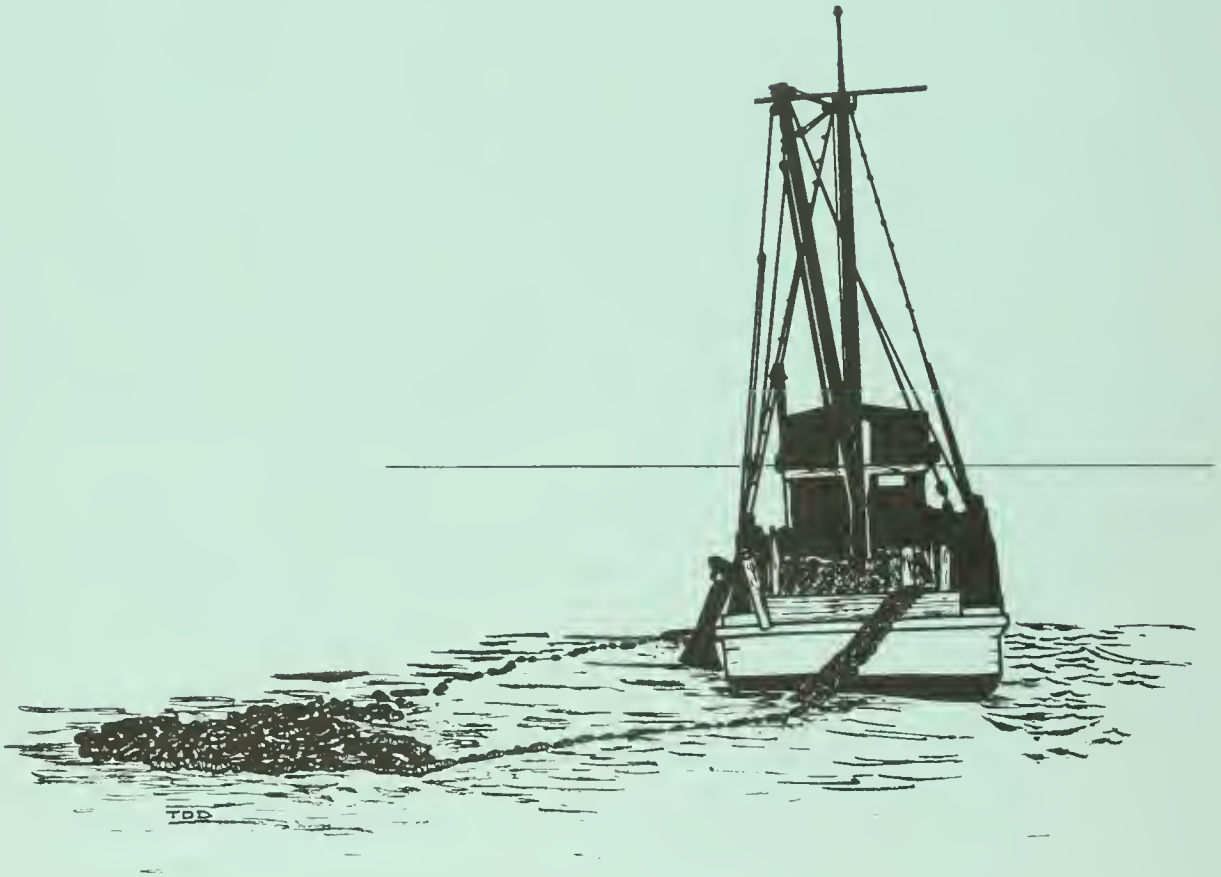
Technological Laboratory
2725 Montlake Boulevard
Seattle 2, Wash.

Market Development Office
2601 Market Street
Seattle 7, Wash.

Astoria Statistics and Market News Office
342 11th Street
Astoria, Oreg.

Columbia Fisheries Program Office
827 N.E. Oregon Street
P.O. Box 4332
Portland 8, Oreg.

Marine Mammal Research
Sand Point Naval Air Station
Building 192
Seattle 15, Wash.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