FISHERY PRODUCTS SITUATION

Consumption of fishery products is expected to be off a little in 1971. Per-capita sales likely will be near 11.2 pounds--down from 11.4 pounds in 1970. Consumption had been on the rise for three consecutive years.

Several factors account for the slight drop in sales this year. At the retail level, sales have been sluggish due mostly to record high prices. Retail prices advanced sharply in 1970 and were averaging as much as 10% higher prior to the wage-price freeze. Prices of most fish fillets are considerably higher than whole broilers and, in most cases, higher than chicken parts. Abundant pork supplies and resulting lower prices made fish more expensive than many cuts of pork during much of 1971. Such price comparisons do not take into account the fact that a fish fillet is 100% edible--no bones or fat. Also accounting for some retail sales resistance were periodic reports of mercury in fish.

Lack of Supplies

Institutional and food-service sales are off in 1971. These markets have been affected less by higher prices than by a lack of supplies. Sales would have been heavier, despite higher prices, if imported raw materials had been available. Combined sales of fish sticks and portions will show little growth over 1970--a direct result of United States processors being unable to increase purchases of frozen blocks from Canada and Scandinavia. The fastest-growing segment of the U.S. fisheries market in recent years has been the fish-and-chips franchises. Sales in this area are off because companies are unable to purchase increasing quantities of imported fillets.

Imports of edible fishery products were off about 3% through August. Because of a leveling off in world catches of many fish species, and increasing demand in other countries, record high prices on the U.S. market were not able to attract more imports in 1971. Since U.S. fish consumption is about 55%-dependent on imports, the world supply-and-demand situation has a direct influence on domestic consumption. A prolonged East and Gulf Coast dock strike could reduce fish supplies even further in the fourth quarter of 1971.

Edible-Fish Landings Down

In addition to lower imports, U.S. landings of edible fish are also down in 1971. Domestic production of tuna may be off as much as 14%, shrimp by 4%, and salmon landings likely will be a third below 1970. Haddock landings continue downward--possibly off a fifth from 1970. Flounders may be down a tenth, and whiting landings are running only a little better than half those of last year. Modest increases in cod, ocean perch, and pollock will not be able to make up the deficits in other groundfish. Halibut landings will also be off.

--Donald R. Whitaker
NMFS Market Research & Services Division

ALASKA'S VAST FISHERY RESOURCES PRESENT CHALLENGES

Some obstacles must be overcome before Alaska can fully utilize its enormous fishery resources, believes Wallace H. Noerenberg, Commissioner, Department of Fish and Game.

For example, the runs of pink and chum salmon in Southeastern Alaska have not responded to state management nearly as well as they did in the central and western regions. The Commissioner says management techniques must be modified. This will be guided by research findings now becoming available. Milder weather would help. A series of harsh winters killed many fish and cancelled rehabilitation efforts.

Other signs point to the development of Southeastern Alaska pink and chum salmon runs: intensive stream-clearance projects, saltwater rearing units, and the expanded hatchery program.

Salmon Industry's Role

The Commissioner asked the salmon industry to recognize that more processing capacity will be needed to handle the larger runs expected to result from state efforts.

State-industry cooperation also could result in greater utilization of shrimp, scallops, black cod, and herring.

Many Salmon Not Canned

There is a steady trend toward diverting larger parts of the salmon catches from canning to other processed forms. The latter are worth much more per pound. This trend "will undoubtedly continue."

In the 1960s, processing of noncanned salmon rose from 10 million to 30 million pounds a year. Air shipment of several species of fresh salmon to Europe will be a key to more development. The U.S. and Japanese markets for fresh and frozen products "will increase greatly."

Sport Fishermen

Commissioner Noerenberg said that "the rapidly increasing pressure from sport fishermen must also be recognized as an important factor in the management of our fishery resources." The sport catch must be provided for; at the same time, the escapement necessary for sustained yield must be maintained.

In 1970, the sport catch of salmon was 75,000. This "could well jump to 250,000 or more by 1980." With proper management, this should pose no problem to a fishery capable of catches topping 40 million fish a year.

Too Many Fishermen

The Commissioner believes there are too many fishermen, "a key socio-economic problem." Also, he anticipates that the 1971 legislature will do something to solve the problem of excessive gear.

Arctic North of Bristol Bay

The Department of Fish and Game "will face a real crisis" in the Arctic north of Bristol Bay when money paid to the natives for settling land claims begins to be used for developing the fisheries there more intensively. The Department has little staff and information to guide and control those fisheries, especially the marine species.

ALASKA's TANNER CRAB LANDINGS RISE BUT MARKET IS POOR

Since the fishery began in 1968, landings of tanner crabs in Alaska "have increased dramatically," but poor market conditions continue to impede full use of this important seafood resource. So states a Department of Fish and Game publication.

Tanner crab landings increased from less than 200,000 pounds in 1967 to 11.2 million pounds in 1969. But a poor market held 1970 landings to 14.5 million pounds.

King Crab Declines

This increase in tanner-crab catch was related directly to a decline of king-crab catches. As the latter declined after 1967, their fishermen focused on the tanner crab for the first time. The industry boomed, particularly around Kodiak.

Kodiak No. 1

Kodiak continues to lead in tanner-crab production: 61% of state catch in 1969. However, other areas--Prince William Sound, Cook Inlet, and the Bering Sea--had greater relative production increases during 1969 and 1970.

Market Weak

Poor market conditions remain the largest hindrance to growth of the tanner-crab fishery. Processing and marketing problems include "uneconomical extraction of meat from the shell, relatively low consumer acceptance, competition from imported crab, and a black encrustment on the crab shell."

Curtailment of landings in May 1970 reflected a poor market. This resulted largely from the result of Japanese and eastern Canadian tanner-crab imports. Japanese and Soviet crab fleets took 17.7 and 6.2 million tanner crabs from waters of the Alaskan continental shelf; for the same period, the total U. S. catch was 3.8 million crabs.

Tanner's Price Vs. Others'

Another market indicator is the price of tanner crab compared to dungeness and king crab. Fishermen now receive about 60% more for king crab than tanner. Dungeness is 33% higher.

The tanner-crab shell encrustment apparently is harmless to the meat. But it causes a problem during processing because it is difficult to keep the black nodules off cannery meat belts. This problem is under study.

Processing and marketing problems have caused individual processors to impose size limits and catch quotas on their own fleets. These limits serve in place of state regulations to protect male breeding stocks--but they may be curtailing full use of the resource.

KODIAK HARBOR POLLUTION ATTRACTS EPA

Representatives of the Environmental Protection Agency's Division of Enforcement called a meeting in Juneau, Alaska, this summer to advise NMFS and Alaska on coming steps to reduce pollution of Kodiak harbor by seafood wastes.

Processing plants are concentrated at Kodiak. Waste treatment and disposal facilities are lacking. So, in terms of pollution by seafood wastes, this is the State's worst problem area.

EPA has met with processors and local government, but it believes that no real progress has been made--and that effective action must begin now. First, EPA plans to require processors to remove solid wastes from plant effluents. Also, it will require monthly progress reports from processors showing what they have done and spent to curtail pollution.

FIRST U.S. SURVEY OF INDUSTRIAL-WASTEWATER DISCHARGES BEGINS

The Environmental Protection Agency (EPA) has begun the first large-scale Federal survey of industrial-waste discharges into U.S. waterways to determine the extent of water pollution by industry. Responses to the survey are voluntary.

Known as the "Report of Industrial Wastewater Discharges," it began with the mailing of forms and instructions to 10,000 industries. These are the heaviest users of water--about 90% of all water used for industrial purposes. Return of the completed survey forms is being requested within 90 days after receipt.

7 Major Industrial Categories

The 7 major industrial categories are: food, textile and mill products, paper, chemicals, petroleum refining, primary metal industries, and transportation equipment, including motor vehicles and motor-vehicle equipment.

"The data gathered in the voluntary wastewater survey will be computerized and made available for use by Federal, State, and other governmental agencies in support of water pollution control and abatement programs," W. D. Ruckelshaus, EPA Administrator, said. Also, all information received regarding quantity and quality of discharge will be open to public inspection.

The information obtained will complement data gathered under Refuse Act Permit Program launched July 1, 1971, by U.S. Army Corps of Engineers, assisted by EPA, in a coordinated effort to control or eliminate major industrial sources of water pollution.

Eventually, all data on industrial discharges will be consolidated into a single Federal industrial-wastewater inventory.

1899 Refuse Act

The mandatory permit program was set up in conjunction with the 1899 Refuse Act. Under it, only those plants that discharge wastes into navigable waters and their tributaries are required to apply for a discharge permit. They must submit data on the nature of the discharge. It is estimated that 40,000 to 50,000 plants require such permits covering over 300,000 discharge outflows.

The EPA survey will attempt to obtain such information from a much broader range of industrial operations: particularly the estimated 44% of the plants that discharge waste into municipal sewerage systems. These plants are exempt from permit requirement. Industries that provide waste data in filing permit applications will not be asked to supply the same information again for the waste-water survey.

GREAT LAKES WILL HAVE A SECOND ICEBREAKER THIS WINTER

An additional icebreaker will be moved into the Great Lakes this winter to support the Transportation Department's study of extending the shipping season in the Great Lakes-St. Lawrence Seaway System.

Secretary of Transportation John A. Volpe said the 6,515-ton U.S. Coast Guard Cutter (CGC) 'Edisto', operating out of Boston, will be reassigned to Milwaukee, Wisc., December 1. The Edisto will support the CGC 'Mackinaw', homeported at Cheboygan, Michigan, in opening shipping lanes during the winter.

Extending Season

Secretary Volpe said it is his Department's business to incorporate water transportation into a balanced national transportation system.

Canada, several U.S. agencies, and private groups are cooperating with the Department of Transportation in the season-extension program.

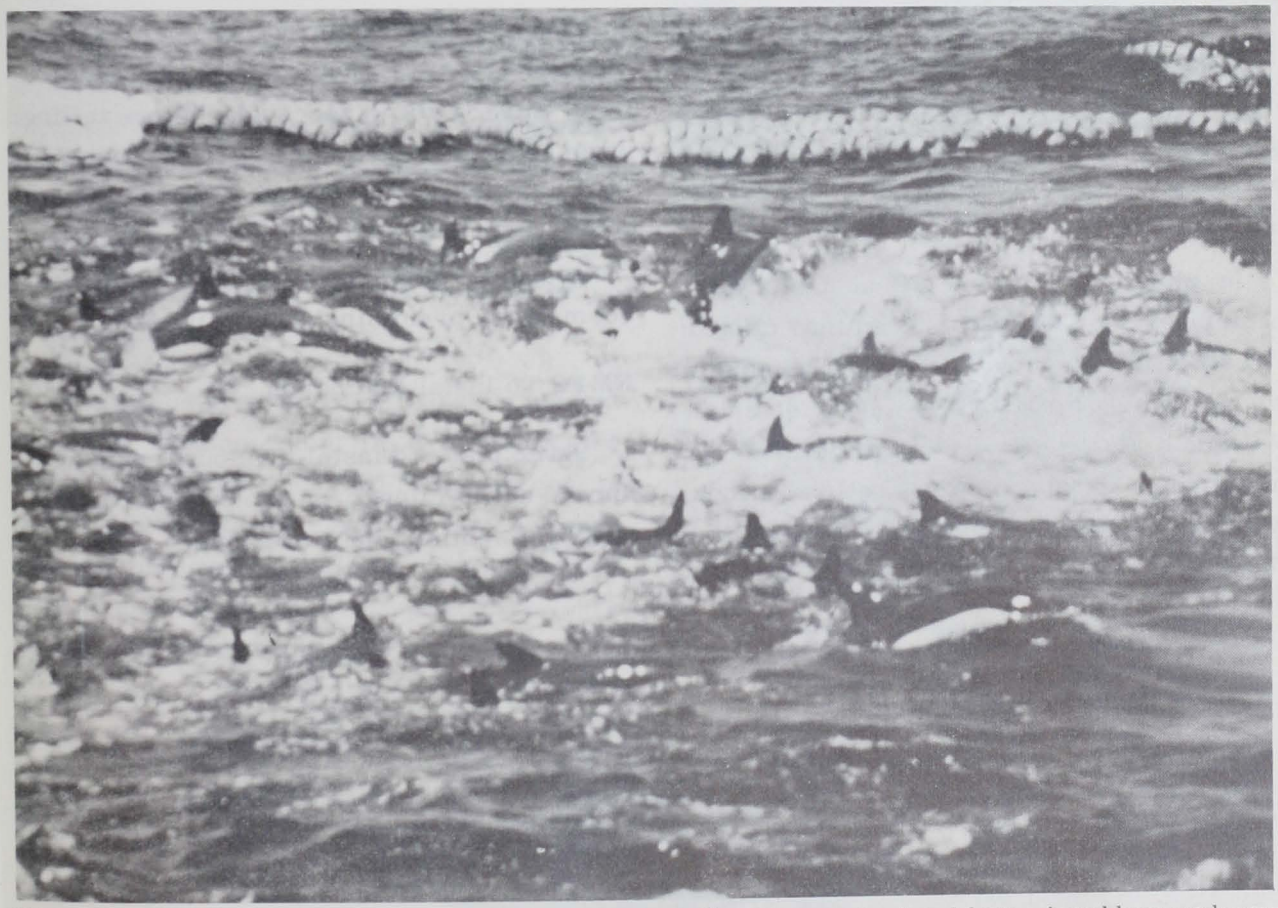
The Edisto is a 269-foot icebreaker of the "Wind" class. In recent years, it has been escorting shipping and performing scientific and oceanographic studies in the Arctic Ocean. It will continue these missions each summer.

PORPOISES SAVED FROM TUNA SEINE BY UNDERWATER SOUNDS

Scientists of the Naval Undersea Center (NUC), San Diego, may have helped NMFS discover a way to save thousands of porpoises normally killed each year by tuna fishing. Commercial species of tuna and porpoises travel together. When a seine encircles a tuna school, it nearly always captures porpoises too. Despite fishermen's attempts to save them, hundreds of thousands of porpoises, attractive animals without commercial value, are destroyed each year, estimates William F. Perrin, NMFS, La Jolla, Calif.

Working with Perrin, NUC scientists Dr. James F. Fish and Dr. William C. Cummings used underwater sound equipment to play back the sounds of killer whales--and successfully drive the porpoises from the huge tuna seine.

Although porpoises have a remarkable ability to leap from the water, they will not so much as slip over the top of the seine at the water's surface. Apparently, porpoises fear the net very much and will not voluntarily approach it or the floatline. As the net is drawn up, crowding the encircled school,



Whitebelly porpoises are caught in tuna seines during fishing operations. Many become entangle and drown. Annual losses reach many thousands.

the frantically moving porpoises near the net become entangled and drown.

Sounds of Killer Whales

Cummings and Fish had disclosed earlier that marine mammals apparently recognize the sounds of killer whales as a danger sign. Killer whales are known to attack and eat other whales and seals. By recording killer-whale "screams" and playing them back to such marine mammals as porpoises, white whales, and gray whales, the two NUC scientists have been able to direct the movements of wild animals. One such experiment may save many young salmon from the highly predaceous white whales in Alaskan waters.

NMFS Gets NUC Help

NMFS asked NUC to help develop a stimulus for herding porpoises through an NMFS-designed escape gate. Previous NMFS experiments with non-biological sounds were unsuccessful.

In playback experiments at the end of September, the NMFS-chartered tuna clipper 'Westport' was guided to large schools of whitebelly porpoises by NUC scientist William E. Evans. He used information from his studies of porpoise migration in local waters. A Navy helicopter also helped find the animals.

Porpoises Escape

The purse seine encircled schools of up to 1000 porpoises. Most animals refused to leave through the unique gate until Fish and Cummings played back the killer-whale sounds with high-powered amplifiers and special underwater speakers designed by NUC's Wesley L. Angeloff. The captured porpoises swam away quickly from the sound source--and out the gate. When free of the net, the porpoises jumped out of the water as high as 15 ft. and continued to jump and dive until they were out of sight. Why the porpoises will not jump the few inches to escape the seine remains a mystery.

The scientists reported that their experiments were very successful. They caution that "more work is necessary before telling whether or not the method will be practical in actual fishing operations. We have no way of knowing how many tuna will accompany the porpoises out of the seine, but the method seems very promising at this time."

NMFS To Instal Equipment

NMFS plans to instal the sound equipment aboard a tuna clipper for prolonged observation by scientists and fishermen.

BLUE FISH ATTACK YELLOWTAIL FLOUNDER

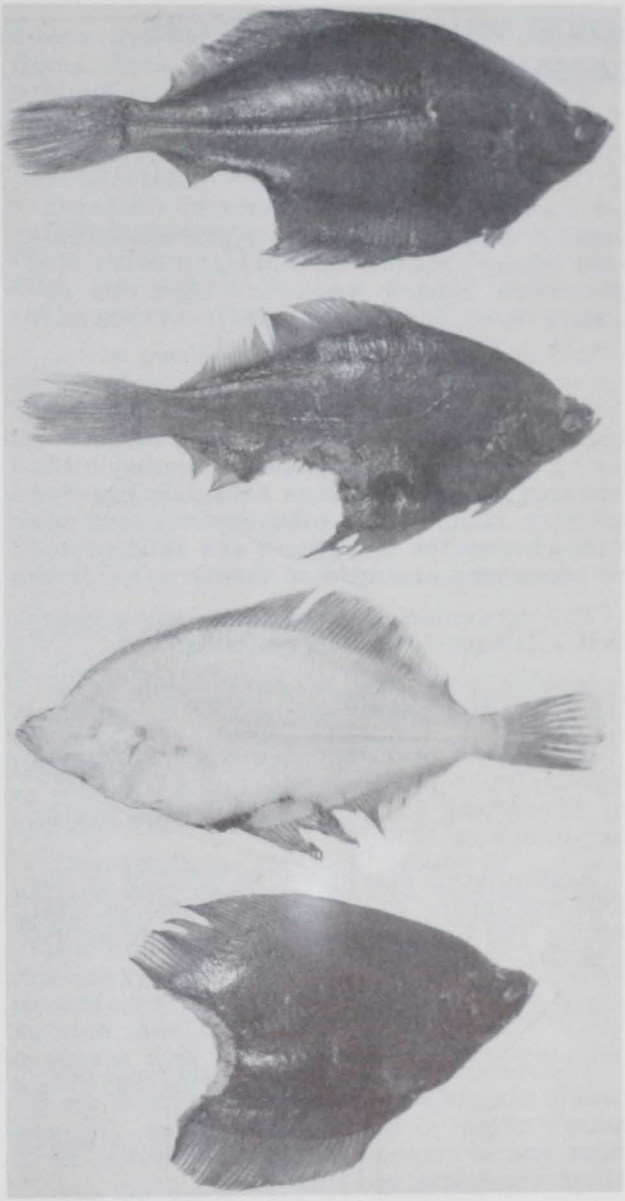
A Long Island fisherman who caught wounded yellowtail flounder all summer claims severe bites on yellowtail resulted from attacks by bluefish. Norman Edwards, captain of the 'Robert E.', Amagansett, L.I., reported that his medium-sized trawler brought in one or two dozen severely bitten yellowtail per tow.

"The flounder are sometimes driven out of particular areas because of the bluefish attacks," he told John V. Mahoney, NMFS, New Bedford, Mass.

Unusual Location for Bluefish

Bluefish continue killing and feeding even on a full stomach but, usually, they do not frequent the ocean bottom, the yellowtail's habitat. There were more bluefish this year and NMFS fishery biologists say it is highly likely these fish have gone deeper in the water. The evidence of their frenzied biting and snapping is present there.

Specimens of mutilated flounders, caught alive off Montauk Point in 30 fathoms, are being studied at the NMFS laboratory in Woods Hole, Mass. Two specimens have wounds that healed partially. The biologists speculate that these fish would have survived--had they escaped capture.



Yellowtail flounder caught by Long Island fisherman who claims flounder have been attacked by bluefish. (Robert K. Brigham)