

The Impact of Export Opportunities on Southeastern Fisheries

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In the face of all time high trade balance deficits, particularly with Japan, President Nixon met with the Prime Minister of Japan on August 31, and September 1, 1972. The news releases following these meetings listed several areas in which Japan agreed to increase imports of U.S. products. Almost unnoticed in the list were "fisheries products." We were, and to some extent still are, unprepared for the almost immediate reaction of the Japanese importers.

In the first 30 days following these meetings the marketing offices of the National Marine Fisheries Services (NMFS) and the Florida Department of Natural Resources (FDNR) began receiving inquiries from Japanese trading companies, particularly about mullet roe. In the early action two Tokyo firms, Kyokuyo Company, Ltd., working through FDNR, and Taiyo Fishery Company, Ltd., working through NMFS, talked enthusiastically about great demand – possibly up to 10 million pounds of roe. It was too late in the season to mass process mullet roe, and efforts were made to have frozen round roe mullet accepted. Twenty-five-pound samples were followed by truck-load orders and eventually over 2 million pounds were ordered. Due to the lateness in the season, Florida producers were unable to meet the demand.

In addition to mullet (*Mugil cephalus*) there seemed to be interest in lady fish (*Elops saurus*), Sunray venus clam (*Macrocallista nimbosa*), Spanish mackerel (*Scomberomorus maculatus*), king mackerel (*Scomberomorus cavalla*), eel (*Anguilla rostrata*), croaker (*Micropogon undulatus*) and all varieties of shrimp. To further explore the market potential and to learn more about doing business with the Japanese, Mr. E. Moret Smith, Fishery Marketing Specialist, NMFS, visited Japan December 9-22, 1972. Since that time the Florida Department of Commerce conducted a trade mission in Japan and further information was developed from a recent trip of Dr. Jack Greenfield, an economist with NMFS.

An obvious measure of the potential demand is indicated by statistics on Japanese consumption of seafoods. This nation of 105 million people has an annual per capita seafood consumption rate of 67.8 pounds. This converts to 7,119,000,000 pounds.

The Tsukiji central wholesale market in Tokyo covers an area equivalent to 24 U.S. city blocks, houses 1200 wholesale dealers and sales average 4.5 million

pounds per day. Since they are open 7 days per week, this one market sells an equivalent of 60% of the entire U.S. production of fisheries products.

Mullet Roe

Apparently the Japanese demand for mullet flesh is limited and all indications at this time point to demand for the roe only. Only the female roe, known as yellow roe or red roe, is in demand. The quality standards are high. They must be in pairs, preferably 6 ounces or more to the pair, washed in fresh water, free of knife nicks and with about 1 inch of the navel string intact. They should be carefully handled and very fresh when frozen. Damaged roe, broken sacks or any off coloration will be rejected. The end product is a salted, dried roe known as "Karasumi." In December 1972 the wholesale price was \$15 to \$20, and the retail price was \$45 per pound.

A large sale of mullet roe would have tremendous impact on southeastern fisheries. Annual mullet production for the past few years has been about 30 to 35 million pounds with Florida producing 80% to 90% of the total. The probable maximum sustained yield for this species is in the neighborhood of 100 to 200 million pounds annually. The first impact is upon us with commercial landings coming from previously untapped resources in North Carolina, Texas and Louisiana and with higher dockside prices at all Florida ports.

In round figures, 1 million pounds of roe would come from 7 million pounds of whole fish or 2 million pounds of fillets and 4 million pounds of waste or potential by-products. While promising research is underway at the University of Florida, we are still faced with an oxidative rancidity problem which limits even the frozen shelf life of mullet fillets. Assuming a roe sale in 1973 between 1 and 2 million pounds, we have, then, between 2 and 4 million pounds of fillets to be moved into the market place and into the hands of the consumer in a very short space of time, perhaps 5 or 6 days fresh or 60 to 90 days frozen. The marketing programs of the NMFS, the FDNR, and the states of Texas and North Carolina are presently engaged in extensive promotional activities in both institutional and retail outlets. Contacts have been and are being made with major institutional users such as Red Lobster Inns, Morrisons, school lunch programs, and state institutions. In the retail field, promotions are being arranged in the mid-Atlantic area through Giant Food Stores, Food Fair, Safeway, A & P and others, and in Florida through every major or minor food sales outlet. Seventy-five thousand existing color recipe leaflets are being distributed and an additional supply of one million recipe folders will be delivered shortly for distribution. Radio spots, television demonstrations, and newspaper features have been developed and are now being seen and heard.

Little has been accomplished to date in the field of by-product use, and it is not likely that much of this year's waste will be converted. We do believe, however, that experience gained this year and technology developed in the laboratories will convert a large portion of next year's waste into valuable products, as minced flesh products for human consumption, for animal feeds, or through dehydration and reduction to high protein additives for animal feeds.

Eels

We have known for some time of a market for eels in western Europe and in Japan. The U.S. production has traditionally been just over 1 million pounds annually with the bulk captured in the east from North Carolina to Maine. Recent developments and inquiries indicate that this fishery offers a great potential as an export item for the southeast. One of the developments is the meeting described in our opening statement, another is the improved trading position brought about by the devaluation of the U.S. dollar. In Japan the annual consumption rate for eels exceeds 90 million pounds. The market demand is for both adult eels and elvers which are purchased by Japanese eel farmers as fingerlings. The preferred species is *Anquilla japonica* which is native to Japan and the elvers of this specie bring up to \$450.00 per pound. The species native to the eastern U.S., *Anquilla rostrata*, while less valuable, is acceptable either as an elver or as an adult. Adult eels are sold live or frozen with Japanese wholesale prices ranging from \$1.00 to \$3.00 per pound. Japanese eel growers have been experiencing large mortality rates with elvers imported from western Europe. In the past year a joint expedition in Florida conducted by the NMFS, the FDNR, the University of Georgia, and Japanese experts was successful in capturing a small quantity of elvers which were shipped to Japan. The latest reports indicate a surprisingly high survival rate from this sample. Ten special permits for elver nets have been issued in Florida, but evaluation of the efforts will have to await the seasonal upstream migration.

The impact of this fishery will be that experienced from a new fishery as opposed to an expansion of an existing fishery. While we know that eels appear to be abundant throughout the Atlantic and Gulf rivers and estuaries, we have very little data on seasonal migrations of the elvers upstream or the adults downstream. Little is known of the actual abundance. Since these animals are catadromous the fishery is generally conducted in fresh water. Many states have differing laws or even different agencies controlling fresh and marine areas. Some problems may arise. It is time now for the southeastern states, all of which have a potential eel industry, to initiate research on species abundance and distribution and seasonal migration patterns. It is also time to begin to develop realistic laws and regulations to protect the species (or other species which might be affected by their presence or their taking) while at the same time permitting this underutilized species to be put to use.

Croaker

The Japanese traditionally consume over 20 pounds per capita annually of a food product called Kamaboko. This is a product made from finely minced fish flesh which is heated and made into a gelatinous, cheese-like loaf. There is no analogous consumer product made for the U.S. The minced flesh from which the Kamaboko is manufactured is called surimi. The best surimi is made from some of the croaker species. The Atlantic croaker (*Micropogon undulatus*) common to the South Atlantic and Gulf of Mexico is ideal for this purpose.

The gelatinous property of Kamaboko depends on the elasticity of the protein which, in turn, depends upon extreme freshness. Kamaboko cannot be frozen nor can surimi be made from frozen fish. It follows then, that to enter this market the surimi (which can be frozen) must be processed locally, frozen and shipped to Japan for preparation of Kamaboko.

Preliminary analysis indicates that 5- to 8-inch croakers used in the manufacture of surimi would be worth two to four times their present value as pet food. Although the surimi market looks very attractive now, it must be recognized that domestic markets are being developed for comminuted products made for these small croaker. It is not unreasonable to conceive that the U.S. market will outprice the Japanese market in a few years. So industry can become more fully aware of the surimi opportunity the NMFS will hold a meeting in New Orleans on November 2, 1973.

Other species

Lady fish seemed to arouse little interest in Japan. There was some interest shown in receiving samples of live *Sunray venus* clams. Apparently the Asians use large quantities of what they call Spanish mackerel, but the size of the fish which stimulated interest indicate they are referring to what we call king mackerel. The demand appears strong, particularly for the larger fish. There is also a market for mackerel roe. In spite of last winter's bleak outlook for Japanese imports of shrimp, the summer demand has been strong and inquiries continue to come in for suppliers of shrimp for the Japanese market.

Doing business with the Japanese can be complex, but rewarding. Corporate decisions are slow and the procedure from first contact to volume sales can be slow and somewhat costly in terms of travel and long distance telephone calls.

Particularly where a visit to Japan is concerned, perhaps the most helpful agency for the potential exporter to Japan is the Regional Fishery Attache assigned to the U.S. Embassy in Tokyo. The attache has knowledge of, or contacts with, Japanese firms at almost every production level. Guidelines of Japanese customs and methods and information on travel or the availability of interpreters can be furnished.

The standard procedure with new fisheries products in Japan begins with accumulation of data. They require detailed information such as biological data, (the scientific name and a color photo are essential) seasonality, catch statistics, location of resource, processing facilities, transportation facilities and cost. This is usually followed by requests for more data and a sample. The sample normally should be about 10 to 25 pounds and should present exactly what the producer intends to provide in volume. In the case of fish, the samples should be shipped whole. If the sample passes its tests there follows a trial order of from 1000 pounds to 20 tons. When the trial order proves acceptable you are at the point of discussing volume shipments.

It cannot be over emphasized that the Japanese demand absolutely top quality in fisheries products. Off-flavors, colors or textures will result in rejections. They may require special markings or packaging. Generally, to avoid

problems with shipping rates, tariffs, etc., quotations should be made F.O.B. cold storage in a U.S. seaport or F.A.S. delivered shipside. In the case of air shipments it is preferable to quote F.O.B. airline freight office in a U.S. city with good overseas connections. Japan Airlines is highly experienced in handling fish products air freight to Japan and their local offices are eager to help. They are particularly helpful in shipping samples and providing feedback.

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