

# POSSIBILITIES FOR AN INCREASED DEVELOPMENT OF FLORIDA'S FISHERY RESOURCES.

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During the course of my various investigations of the fisheries of Florida the fact was brought very forcibly to my mind at different times that there were numerous opportunities for an enlargement of her trade in fishery products. Nearly all of the fishery products of Florida are either sold fresh or in a salted condition, very little canning being done. During certain seasons the markets are crowded with fish in the fresh state, and fishermen are compelled to suspend fishing until this glut is over. This means a heavy loss at frequent intervals. If there were smoking-houses and canning-factories convenient, there would always be a steady demand for certain fishes, which would largely prevent such gluts in the fresh-fish markets.

The State has a great variety of animal life along her immense coast line, but lack of energy and capital with which to prepare and market what are commonly known as "secondary products" prevents her occupying a much higher place among the States as regards the fisheries. Even in marketing fresh fishery products she does not utilize all her resources. I will first take up the question of fishery products sold fresh, and show where I think an expansion could be had.

## FISHERY PRODUCTS IN THE FRESH STATE.

*Catfish.*—One of the commonest varieties of fish in the waters of Florida is the catfish. At nearly all seasons of the year they are found in the rivers in incredible numbers. The people of Florida have always considered them unfit to eat, but this opinion is not universal throughout the country, the people in the States bordering on the Mississippi, Missouri, and tributary streams being especially fond of catfish. St. Louis is a very good market for this fish. At present a small quantity is shipped from Apalachicola, and one firm at Jacksonville does a considerable business, but there is room for an immense development of the fishery. It should be understood that reference is made to the river catfish and not to the sea catfish; the latter does not appear to be popular anywhere.

*Sturgeon.*—This valuable fish is very common in the rivers tributary to the Gulf of Mexico. Spasmodic attempts have been made at times to carry on a sturgeon fishery, but they soon died out. During 1896 a party fished on the Suwanee River with gill nets and secured a number. There is an excellent chance for carrying on this fishery in most of the rivers north of Tampa Bay.

*Crawfish or spiny lobster.*—This crustacean is very common in Florida, especially around Key West. It has an excellent flavor and would doubtless meet with a ready sale if it were shipped North in a fresh state. It would be a good substitute for the lobster, which is growing scarce and expensive.

*Clams.*—The hard clam, or quahog, is very common on the Florida coast, particularly on the lower west coast. A few are gathered and sold locally at Key West and Tampa. These are very large and of an excellent flavor, and by a little effort on the part of the dealers a more extended market for them could be found in the inland towns among people who could not afford to buy oysters.

*Frogs.*—One of the most delicate and popular of fishery products is obtained from the frog. During the winter, especially, frogs' legs command a very high price in the northern markets. There are plenty of frogs in Florida waters and the fishery could be profitably prosecuted in the winter. The expense for apparatus would be slight, either a small rifle or light spear being required.

#### FISHERY PRODUCTS IN THE SMOKED STATE.

One of the best and cheapest methods of preparing fishery products is by smoking. This can be done with very cheap appliances, which are within the reach of almost any fisherman. At certain seasons there is a glut in the fresh-fish markets, and unless the catch can be prepared in some such manner fishing must either stop or considerable loss must ensue. There are a number of Florida fishes which can be utilized in this way, and among them may be mentioned the following:

*Alewife.*—Large quantities of these fish, locally known as "herring," enter the St. John's River for the purpose of spawning, about the same time as the shad, but, owing to the poor prices realized, very few are caught. If properly smoked they would make a good cheap food for the poorer classes of the inland towns of the South.

*Mullet.*—The above remarks apply to this common fish. Some smoking is at present done by individuals for their own use. A little capital invested in the business would soon develop a good trade.

*Sturgeon.*—There is an excellent demand in numerous markets for sturgeon in the smoked state, and it would be profitable to smoke what could not be sold fresh.

*Crevalle.*—These fish, which are rather insipid when in the fresh state, are said to be excellent when smoked. As they are very common it would undoubtedly add to the fisherman's income if he prepared his catch in this way.

#### FISHERY PRODUCTS IN THE CANNED STATE.

With the exception of the canning of oysters and a small business in the preparation of turtle soup, no fishery products are prepared in this manner. A number, however, could be profitably utilized, and I would mention the following:

*Fishes.*—The fishes locally known as "sardine," "pilchard," "herring," and "anchovy" exist in very large quantities along the Florida coast, especially at Key West, Biscayne Bay, and the lower west coast. The only use made of these fish at present is for bait in the Key West line fishery. A number of firms in Maine have developed a large business in the canning of the small herring as "sardines," and it is very probable that the fish mentioned above could be prepared by the same process as the Maine packers use, and would prove an acceptable food product. If a sample lot of these were prepared and placed upon the general market the question of their adaptability would soon be settled.

*Crawfish.*—These can be easily prepared by the method used in canning lobsters. They would make an excellent substitute for the popular canned lobster, and there ought to be very little difficulty in building up a market for canned crawfish, especially in the Southern States, where its excellence is well known.

*Shrimp.*—Shrimp are very common in Florida, but very little attention is given to their sale in other than the practically fresh state, and in many coast towns the fishermen throw them back into the water when found in the nets. A shrimp-canning factory at some good locality would undoubtedly be a paying investment if in the hands of experienced persons.

*Green turtle.*—An excellent opportunity exists for the development of the business of preparing green-turtle soup. One person is now engaged in this business at Key West, but he is so overrun with orders that he has restricted himself entirely to supplying the foreign demand. There is at present a considerable domestic demand, and this could easily be enlarged should the business be taken up by experienced and energetic persons. There is no apparent sign of a decrease in the number of green turtles landed at Key West, and if the factory were located there a supply could easily be secured during the season. A factory, possibly at or near Miami, might be successful if the turtle fishermen, who work on the east coast and sell their catch at Key West, could be induced to land their fare at the factory. There is hardly a doubt of this, as it would save them the long journey to Key West. Turtle meat can be canned in the same way as other food products, and this would be a good method of disposing of green turtles too large for shipment to northern markets in the shell.

*Clams.*—In the North clams are frequently put up in cans the same as oysters, and this would be an excellent method of utilizing those that could not be sold fresh.

#### MISCELLANEOUS PRODUCTS.

*Porpoise oil and leather.*—The securing of oil and leather from this mammal is a profitable business in several sections of this country. As porpoises are very common along the Florida coast a remunerative fishery might be established.

*Crab.*—The horseshoe or king crab is said to be very common in Tampa Bay. While not an edible product it makes a fine fertilizer. Thousands of pounds of these crabs are used each year by the farmers along the Delaware Bay and other waters. As fertilizers are especially valuable in Florida, the utilization of this crustacean for the purpose mentioned is suggested.

*Seaweed.*—This common substance makes excellent and cheap manure, and owing to the very large extent of coast possessed by the State is easily within the reach of all. When buried in the earth around the roots of plants and trees it acts very rapidly, softening and decomposing in the soil so quickly that the effect is confined altogether to the special crop to which it is applied.

*Shells.*—Numerous and beautiful shells are constantly thrown up on the beaches in Florida by the storms, and if these were more generally gathered and shipped to northern points they would find a ready sale, and thus add a considerable amount to the yearly income of the fisherman without much inconvenience or trouble to himself, as the season when they are generally found is the time when he is compelled to remain at home on account of the storms. New York City and the various seaside summer resorts of the North are the best markets for these shells.

In conclusion I would state that, owing to the necessarily restricted length of this paper, I have not taken up the details of the processes necessary in preparing the various fishery products mentioned, but any information in the possession of the United States Commission of Fish and Fisheries will be placed at the disposal of anyone who may be moved to proceed on the lines suggested.