61.-SOME NOTES ON THE MULLET FISHERIES.

By BARNET PHILLIPS.

MULLET FISHING ON THE WEST COAST OF FLORIDA, AT CEDAR KEYS.

The season for mullet fishing in the neighborhood of Cedar Keys begins about the last of November and continues until the first ten days of February, the best months being December and January.

The fish will weigh from 2 to 3 pounds; occasionally a fish of 7 pounds has been taken. The gill net, seine net, and cast-net are all used. The gill-net is 150 yards long, 8 to 10 feet deep, with a mesh of $1\frac{5}{8}$ inches, and is worked by one man in a boat. One thousand fish is considered a good day's work. The seine is from 60 to 90 fathoms long, 22 feet deep, size of mesh $1\frac{5}{8}$ inches, and it is worked with 8 men in a boat; a good day's take is 10,000 fish, although often as many as 22,000 are taken. The cast-net, a circular net, held in the mouth and thrown out by a movement of the arm, will take 100 fish a day, though 500 fish are not uncommon.

The fish are all shipped to Cedar Keys. The gangs working seines are established along the coast, as far down as Tampa Bay, and small schooners of from 10 to 16 tons carry the mullet from the fishing camps.

At Cedar Keys the fresh fish find a ready market, and are shipped through Florida to Georgia, and to South Carolina, in ice. A great many fish are salted, and the roes are cured. The method of preparing the roe is as follows: The roes are taken out carefully, and a peck of salt is used to the half-barrel of roe, and mixed with it. The salt and roe remain together for 6 hours. They are then taken out, strained, and placed on planks, and put in the sun to dry. The roes are frequently turned. When dried, so as to be still somewhat soft, another plank is put on top of them, and they are pressed a little, so as to be flat. Care has to be taken that they do not become too hard.* They find a ready market all over the country.

The fish are split, cleansed, and dry Liverpool salt is put on them; they are then piled up or "banked" for 12 hours. A pickle is made, strong enough to float a potato, which is then put on the fish, and they are shipped in barrels of 200 pounds.

Fresh fish are worth $2\frac{1}{2}$ cents each. Roes alone without the fish 1 cent.

The seines cost \$125. When net and boat are furnished, the owner gets one third of the gross sales of fish.

Clear Water seems to be the limit of the mullet fisheries, from Cedar Keys. The hands are principally white, one-eighth being colored, but

^{*} In Greece, where mullet are caught, the roes are preserved by the same process, only that when dried they are dipped in melted becswax.

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there are more of the latter coming into the business. Mullet fishing is largely on the increase.

In shipping the fish from the fishing station, ice is used, which is taken from Cedar Keys.

OFF CHARLOTTE HARBOR, FLORIDA, January 29, 1884.

MULLET FISHERY AT LA COSTA IN CHARLOTTE HARBOR.

This fishing station consists of 23 men, mostly Spaniards, who came from Key West. Their catch goes to Cuba. The outfit is made up at Key West. The seine is 90 fathoms long and 20 feet deep. The fisheries commence in August, and close about the first week in February. The mullet are split down the belly, the eyes cut out, and rough salted, and are shipped in this condition to Havana. The roes are prepared as at Cedar Keys. Last year the yield at this place was 1,500 quintals, but for this season the catch has been very small, the fishermen believing that the unusual cold weather has kept back the fish. The men work on shares, the owner of boat and net taking one-third. The fish are worth in Cuba \$3 a quintal and the roes \$6. The fish begin spawning in December.

There is another fishing ranch for mullet on the same island, and one at Punta Rassa. All of them have done a poor business this seasea. The general outfit for boats, nets, stores, &c., cost \$3,000.

CHARLOTTE HARBOR, January 30, 1884.

HABITS OF THE MULLET, CHARLOTTE HARBOR, FLORIDA.

Mullet are found all the year round, but the season for catching be-Then they are very fat, but roes not yet well develgins in August. oped. At the close of November and during December they are the There are mullet which remain in Charlotte Harbor fullest with roe. all the year round; they are small, and will average from three-quarters of a pound to one pound. What are called ocean mullet come in November and December. Generally the wind is from the southwest when they enter the harbor, or just before a norther is coming. The fish then will average from 14 to 2 pounds, with occasional fish of from Small or young mullet are not found in Charlotte 3 to 5 pounds. My informant, however, has Harbor-so says Mr. T. A. Gibney. found exceedingly small mullet, evidently the young fish, at Saint Joseph's Bay, Calhoun County, Florida. They were so small that many hundreds of them could be taken out of the water with the hands. It is generally the opinion of the fishermen that the farther south the mullet is caught the larger it is, and that off Cape Romano the biggest fish are taken.

CHARLOTTE HARBOR, OFF JOSEPHA KEY, January 31, 1884.

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MULLET FISHING IN MONROE COUNTY, FLORIDA, AT PUNTA RASSA, AND SANIBEL ISLAND.

Punta Rassa is the southern extremity of Charlotte Harbor. There is a mullet fishery here, and one on the island opposite, Sanibel Island. The gangs, called fishing ranches, consist of 13 men each, mostly Spaniards, with two boats for each company. Nets are used. The time of catching is about the same as at other points in Charlotte Harbor, though the fish are plentiful rather later, and remain somewhat longer. This business was commenced in this portion of Florida in 1873 by some New England fishermen, but the Spanish fishermen have taken their place. At present the postmaster, Mr. G. R. Shultz, believes fish have diminished in quantity, although there does not seem to be any certainty about this. The fish are prepared as at other points in Charlotte Harbor, rough-salted, and shipped to Cuba. The business seems to have been unprofitable for this season, not because fish were scarce, but on account of low prices. One of the gangs will return here about the 15th of February for what they call deep fish, such as sheepshead, redfish (Liostomus philadelphicus), drum, and snook; this is the crevalle (Carangus hippos). These fish are rough-salted and sent to Cuba. Outfits come from Key West.

PUNTA RASSA, February 1, 1884.

MULLET FISHERIES AT CLEAR WATER, HILLSBOROUGH COUNTY, FLORIDA.

This fishery is a fairly important one, being the nearest to Cedar Keys, the catch being forwarded to Georgia, South Carolina, and distributed in the surrounding country. In 1883-'84 there were five gangs composed of some 46 men. They used for the most part seines, and occasionally gill-nets. They begin fishing about the last of September, and their work ends on the 1st of February. The gangs are entirely composed of natives. They employ some eight small vessels of from 10 to 28 tons, which carry their catch to Cedar Keys. The fish are kept on ice during transportation. The 10-ton smacks will carry some 12,000 mullet, and the smack of 28 tons 50,000 fish. The men work on shares. The outfit comes from Cedar Keys. The business has been carried on with good success for about four years. At Cedar Keys the fish bring $2\frac{1}{2}$ cents each, the average weight being $1\frac{1}{2}$ pounds. Some small business is done in smoking the mullet at Point Pinales. There has been no diminution in the catch for the last five years. With an idea of finding out how much oil these fish would produce, I was informed that 15 mullet would give about one quart of oil. The method of bringing the fish on ice to Cedar Keys seemed to be a very careless one, proper precaution not being taken to preserve the ice. At Cedar Keys there is ' an ice-house, the ice coming from Maine.

OEDAR KEYS, February 17, 1884.