

**COD GILL-NETS IN IPSWICH BAY, MASSACHUSETTS.****By S. J. MARTIN.**GLOUCESTER, MASS., *November 15, 1881.*

DEAR PROFESSOR: I thought I would write and let you know how the cod gill-nets are doing. Six vessels have their nets set, and they have done well.

I find that pollock will mesh as well as codfish. The first night the schooner Maud Gertrude set her nets, 12 in number, they got 3,000 pounds pollock, 2,000 pounds cod. The nets were set on Brown's. Their nets were set three nights. They have as many pollock as codfish. The pollock tear the nets badly. The net has too large a mesh for pollock. Captain Gill told me that if the nets had 8-inch meshes they could get them full of pollock. The 10-inch mesh catches large pollock, some of them weighing 20, 21, 21½ pounds. They tore the nets so badly in three nights that they had to put three nets ashore. The pollock are very strong fish. The reason they tear the nets is, that they get half way through the mesh, then they have their head and tail both to work. It takes strong twine to hold them. Two vessels had nets set in Ipswich Bay. They got 12,000 pounds each in two nights with 12 nets each. The Northern Eagle went to Ipswich Bay Monday morning with 24 nets. I think they will do well. There is a good school of fish on the rocks. There are two boats running sperling from Plymouth to Gloucester to sell. There are plenty of pollock. A vessel went out Sunday morning, came in to-day, had 25,000 pounds pollock; 8 men. There are 35 sail fishing after pollock.

I will try and keep you posted on the cod gill-nets.

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GLOUCESTER, MASS., *November 25, 1881.*

DEAR PROFESSOR: A few words concerning cod gill-nets. The schooner Northern Eagle arrived from Ipswich Bay Wednesday. Was gone eight days. Landed 33,000 pounds large cod; stocked \$800; crew's share, \$63 per capita. The fish were all landed in Rockport. They used 28 nets; four 50-fathom nets to a dory. Some of the vessels carry 32 nets. Fish are not plenty. They fetch a big price, averaging three cents a pound. Three years ago one cent a pound was a good price. Last week there were 128 nets set down the bay. Next week there will be 250 nets set in Ipswich Bay. All the vessels that had nets last year can get them cheap. A net 50 fathoms long, 3 fathoms deep, costs \$13. Don't have to buy any glass balls, nor head-rope, so the nets come a great deal cheaper. One thing strange, that all the fish are male fish; always before the female fish came first. I was on

board the schooner Northern Eagle Thanksgiving-day. She had 5,000 pounds cod they got the day before. There were but 14 female fish. The male fish are not large, average 15 pounds each; the female fish, 20 pounds each. In two of the female fish the spawn was ripe. A few of the male fish were ripe. One vessel went down to Ipswich Bay with trawls; they did not get enough fish to eat. I will know more about the net-fishing next week, and will try and keep you posted if I can. It is hard to get an account of all the fish that are caught in nets. I will do the best I can.

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GLOUCESTER, MASS., *December 6, 1881.*

DEAR PROFESSOR: A few words about the cod gill-nets. When the fish first came on the rocks this fall there was a good school. The handliners did well. The netters did well. The fish are scarce now. No fish caught on hand-lines. Some of the boats were out yesterday with frozen herring for bait. Caught no fish. All the fish that are caught are caught in nets. I was down at Rockport last Friday. There were seven boats with codfish. Thursday there were six boats there with codfish. Thirteen boats landed 90,000 pounds of fish last week. All the Portsmouth boats with nets landed their fish in Portsmouth. The Newburyport boats with nets land their fish at Newburyport as near as I can learn. There were 145,000 pounds of fish caught in gill-nets last week. If it were not for the gill-nets we could not get fish enough to eat. There were 26 boats with gill-nets last week. They average 22 nets to a boat. All the vessels that were fishing with trawls are getting nets. There will be 30 vessels with nets. My belief in regard to gill-net fishing is, that if all the boats would take their nets up every morning, and set them at night, it would be better for all concerned. I think the nets scare the fish in the day-time. If the nets were up all day the fish would have a chance to come farther inshore. The nets would last longer. The netters will not do it. If they get their nets on a good spot they want to keep them there. The netters don't sell fish in Gloucester. If I could go to Rockport once a week I could tell very nearly what they get in nets. The fish they got last week sold at two dollars a hundred pounds. The fish I looked at in Rockport were two-thirds male fish.

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GLOUCESTER, MASS., *December 22, 1881.*

DEAR SIR: I will send you last week's report of the cod gill-nets. There were 160,000 pounds of codfish caught in cod gill-nets last week. Fish are scarce. Six boats have taken their nets up in Ipswich Bay and set them off here. The fish off here are most all male fish, good size, averaging 19 pounds each. The trawlers and netters don't agree in Ipswich Bay. The trawlers think the nets scare the fish and stop them from coming in. Twenty-nine vessels have nets. Some of the boats have their nets up for repairs. Fish are sold to-day at 1½ cents

per pound; in November they sold for  $3\frac{1}{4}$  cents per pound. The fishermen do not think there will be a large school this winter. I think if all the boats would take their nets up and keep them up a week it would be better for all hands.

I hope next week to give a better report.

Very respectfully,

S. J. MARTIN.

Prof. SPENCER F. BAIRD,

*Smithsonian Institution, Washington, D. C.*

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#### DRY TRANSMISSION OF FISH-EGGS.

By MAX von dem BORNE.

It is well known that the eggs and milt of fish, when kept separate, die very quickly in water, but that in many cases they will remain alive for several days if kept out of the water. It is to this property that is due the efficiency of the so-called dry method of fertilization. It is also known that it is very difficult to ship recently fertilized eggs of fish in the first stages of their development. Under these circumstances it occurred to me that eggs fertilized entirely dry (if not brought into contact with water at all), and their development thereby delayed, could be more readily transported than if brought in contact with water before the journey, and transported during the first condition of embryonic subdivision.

To test this problem I requested Herr Glase (Basle) to send me some salmon eggs and milt, together, in a hog's bladder, without the addition of any water. This has been done twice, and with them, at the same time, a number of eggs treated and packed in the ordinary manner. The journey lasted three days, and the temperature was high, in spite of which the dry-packed eggs both times arrived in good condition, and were of a beautiful red, while the eggs treated in the ordinary manner were almost all dead and of a very pale color. I propose, hereafter, to investigate whether embryonized eggs may be sent better in the bladders than in the ordinary packing.—*Ö.-U. Fischerei-Zeitung, Vienna, December 8, 1880.*

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#### A DEPOT FOR EMBRYONATED EGGS OF ALL THE VALUABLE KINDS OF FISH.\*

By JOSEPH SWETITSCH.

[From Oesterreichisch-Ungarische Fischerei-Zeitung, Vol. IV, No. 4, Vienna, January 23, 1881.]

Mr. Friedrich von Busse, the head of the wholesale fish-house at Geestemünde, and owner of the large piscicultural establishment at

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\* "Ein Entrepôt embryonirter Eier aller edlen Fischgattungen."—Translated by HERMAN JACOBSON.