

William Black, Belleville, Ont.

September 28, 1893.

Has been a fish dealer during the last 10 years, and does some fishing with hoop nets. Previously engaged in fishing, using gill nets. His experience with the fishery dates back 25 years.

He ships fish to the Buffalo Fish Co., namely, whitefish, black bass, pickerel, pike, perch, suckers, bullheads, sunfish and sheeps-head.

The sheepshead are known on the other side as Buffalo fish. They are caught in the seines and weigh from 10 to 20 pounds each.

Whitefish have always occurred in the Bay of Quinté. During the past 4 or 5 years have made larger catches per year than ever before, notwithstanding that they are not allowed to fish for them in November. Last fall they

were more abundant than he has ever known them before, and they are on the increase every year.

They first appear in the upper part of the bay between October 1 and 13. They come on to the shoals to spawn November 1 to 5, and are through spawning by November 10, although there may be a few scattering ones after that.

They disappear suddenly, going off in a day's time. They may be caught in numbers one day, when the next day not one will be left.

The fish he markets are all caught in the bay, from the upper part down to below Picton.

If the whitefish should give out in the bay, he would not be able to deal in them longer. Of the total quantity of fish which he handles, whitefish probably compose about $1/4$ in value.

There are 2 kinds of whitefish in the bay, both of which are taken together, and the spawn of both must mix.

He ships fish every day.

One large catch made three years ago this fall amounted to 7 tons of whitefish.

The principal spawning places of the whitefish are hard bottoms, rough rocks and gravel, in 15 inches to 4 feet of water, along the shores, and on bars extending off from and lying off from the shores.

Ice forms in this part of the bay from 14 inches to 2 feet thick, and the bay freezes over solid from side to side.

The best and most extensive spawning bars are 12 miles above Belleville, around Trenton, and up the Trenton River, as far as the fish can get now. They are now stopped, however, in the lower part of the river by a dam.

There are very few whitefish in this part of the bay after November 10; perhaps an occasional one. Has known them to leave this region as early as November 1, due to heavy winds. In the spring they get an occasional specimen, but the schools do not return until

the next fall.

The seining for whitefish is carried on chiefly from Deseronto to the head of the bay.

The same seines are used for both whitefish and herring.

Until last year (1892) there was no close season for herring, and the seines were used through November, although the fishermen were supposed to throw such whitefish as they took away. Could not say what was actually done in this respect.

If taken in the herring seines, whitefish can readily be released alive without harm.

The hoop nets as set, catch no black bass, but they would if set on hard bottom. They lead readily and would be taken abundantly.

A few big mouth black bass are taken about here, but they are mostly the small mouth.

The whitefish gill nets have the proper size mesh for gilling black bass, but only an

occasional bass is taken in them. But few also are taken in the fall seining.

Never get many bass in the fall, but do in the spring.

Seines are used in the spring, between the opening of the ice and April 15. Are used for taking pickerel, but catch many bass. This is the only commercial fishery that might do injury to the bass, and the effects are not so serious as they might be were the seining carried on later, as the bass are most abundant in May.

The smallest size of whitefish marketed weigh $1 \frac{3}{4}$ to 2 pounds. Their average size is about $2 \frac{1}{2}$ pounds. They run up to 9 lbs.

Three pound whitefish would go through a 5 inch mesh. Using such a mesh here, they would not obtain enough whitefish to make it pay; not $\frac{1}{4}$ of the present catch. Would have to give up the fishery in this region, but out

in the lake might do better.

Herring about here will average fresh about 100 fish to 45 pounds.

There are no cisco in the Bay of Quinté.

The herring have not the thick upper lip possessed by the whitefish.

One-fourth of the total catch which comes into the market is herring. They are sold as far as Prescott, etc.

The sale of bullheads from this region is very large. Mr. Black handles most of the fish landed here, except the bullheads, many of which are shipped directly by the catchers.

The prices of whitefish and bullheads this year have been as follows, averaged for the entire year:

Whitefish, round,	5 cents,
Bullheads, dressed,	5 1/2 cents.

Frogs are also shipped to Buffalo from this region.

Knows of sea salmon being taken on Weller's

Beach, in seines, 5 or 6 years ago. Thinks it was in April. Five or six were brought to Belleville and sold in the market. Mr. Black saw them. They weighed about 10 or 12 pounds. They were caught by James Wannamaker, of Trenton.

Has not heard of the capture of any specimens since that time, but previously; and 25 years ago they were much more abundant.

The sea salmon is called spring salmon in this region. Never heard tell of their being taken except in the spring, as soon as the fishermen could get to work after the ice had broken up.

Mr. Black knows the salmon trout, and has not confused it with the sea salmon.

Belleville, Ont., September 28, 1893.

Mr. Wallbridge says that the following man could give us more information than any one he knows regarding salmon in this region:

Wm. Lovett,

Murray,

Northumberland Co., Ont.

This is on the Murray Canal, connecting Bay of Quinté with Lake Ontario at the west. He is an old man, who has had a long experience on the waters of this section. ^

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Belleville, Ont., September 28, 1893.

Mr. Wallbridge introduced us to Billa Flint, Senator of Canada to Ottawa, a very old man, but of good memory and sharp wit (Belleville is a wonderful place for old and interesting men.)

Mr. Flint says that in 1826, in the fall, he was at Brockville, Ont. He was a young man, and working on a boat. A salmon appeared, which one or two men attempted to get. It was wounded and Flint himself finally speared and killed it. This was close along the shore. It weighed 9 1/4 lbs.

Dunham Ockerman, 79 years old.

Belleville, Ont., September 28, 1893.

Mr. Ockerman was brought in by Mr. Wall-
bridge. Exceedingly well preserved, good
memory, and still very quick and bright in his
mind.

His memory goes back distinctly to the
time when he was 9 years old and even younger.
Was born and brought up in this immediate
region.

Knew from his own experience in the early
times that salmon run up the 4 rivers entering
the Bay of Quinté, viz: Trant, Moira, Salmon
and Napanee Rivers. Most acquainted with the
Moira at Belleville.

The first dam was built on the Moira River
at Belleville about 70 years ago, or just about
the time when he was 9 years old. He and
other boys were in the habit of standing on the

banks of the river at the dam, and watching the salmon as they attempted to jump it. The dam was 8 or 9 feet high, and once in a while one would go over and run up. They were very persistent, and would remain about the dam for sometime. He thought enough got up to perpetuate the species to some extent at least, but subsequently other dams were built, and several saw mills, and there were other means of pollution, which have rendered the river uninhabitable for salmon.

He cannot recall positively the season when the run took place, but he thinks it was chiefly in June. As he remembers, the fish must have ranged from 10 to 20 pounds in weight. Told us that when still a very young boy, he and a brother were told that if he would come to a certain place, about 4 or 5 miles distant from his home, and upon a certain day, they would be given a salmon. They went and were given the salmon, freshly caught, which weighed

22 pounds, and they got it home only with difficulty, having to drag it on the ground much of the way.

Salmon have not run up the Moira River, he thinks, for 50 years. The Government had some slides put in the dams; could not say whether they were of a suitable character, but, at any rate, they came too late to save the salmon.

There was no market fishery for salmon. They were speared by those desiring them for their own use. Any one who chose to take them went out with spears. Large quantities were taken in this way, chiefly at night and with the aid of a jacklight. Many more were taken than were required for food, and there was great waste in consequence.

The salmon decreased in this region most rapidly about 35 or 40 years ago. This refers to the region as a whole, the several rivers outside of the Moira.

The lumber is now cut out; very little sawing is done in this region, and he thinks that artificial hatching would now rapidly replenish the streams and lakes. The dams are all low and the salmon would readily go over them; they would not need to be removed (In this he is undoubtedly mistaken. It is Mr. Ockerman's idea that the salmon were harmed most by the saw dust and other pollution. He does not count the dams as much of a factor. It is probably the other way, and more apt to have been the fault of the dams.)

Up the Moira River, about 4 miles above its mouth, is a place called Salmon hole, where salmon used to congregate. There is a wide place in the river, and an outlying rocky island, with a sort of cavern underneath on one side. The salmon used to lie in this place in large numbers, and they could see them there.

Belleville, Ontario, Sept. 28, 1893.

Wm. H. Wallbridge, about 65 years old, born and always lived here. His father, same name, was a loyalist, and came here from New York state previous to 1803. He still lives on the water front at the foot of the principal business street, practically at the mouth of the Moira River. The Indians used to land right in front of this house, when he was a little boy, and trade with his father, who was engaged in a general trading business, including the buying of furs. The salmon mentioned in the bills copied below were landed by the Indians at this spot. The house is very old and interesting and contains many curious historical relics. Mr. Wallbridge is very talkative, has an excellent memory, and was very ^{precise} exact in all of his accounts.

He would be glad to give more information,

and if we had had more time, we could have obtained more from him, but the following is sufficient for the purpose sought. His brother was the last speaker of the Canada Parliament at Quebec, and the first at Ottawa, but he is now dead.

Sea salmon, which were generally known in this region as spring salmon in contradistinction to salmon trout, used to be very abundant in the Lake Ontario Region, running up all the streams which were suited to them (The salmon trout does not run up streams). His acquaintance was mainly with the streams flowing into the Bay of Quinté, ⁿTrente River, Moira River, Salmon River, and Napanee River. They also ran up the river at New Castle, and the one at Toronto, salmon being taken in the University grounds at the latter place.

The salmon were abundant, but were not fished for the market. They were speared for local use or by persons desiring them for their

own use, and they must have been taken by the Indians, to some extent, for trade.

(Some of the information given below by Ockerman was brought out in presence of Mr. Wallbridge, and should be regarded as in part his.)

The rivers are different now in their flow, in consequence of the cutting away of so much timber. They used to have a more regular and prolonged flow of high water. Now the water comes down more quickly. They have heavier freshets, and in the summer they dwindle down, sometimes becoming almost dry. When the salmon existed they were much better suited to them than they are now in that respect. The building of mills, dams, etc., has also injured the rivers, and was one of the main causes of the killing out of the salmon.

He showed us the originals of the 3 following bills, which establishment^{ed} the time of year and the year in which salmon were

actually taken. Each was a separate account with the Indian named. The first is given in full. Of the second only the ending is given, the bill having been a long one. The last bill is complete. They were as follows:

1829. John Paul. August 21.

To 3 lbs. shott at 10^u 2.6

By 1 salmon, 2.6

 Aug. 29, 1829.

 Potto Snake (Indian)

 (Last item of bill)

Aug. 29, 1829. By 1 salmon, 2.6

 Michel Indian,

 August 29, 1829.

By 1 salmon, 2.6

The following memorandum is from Mr. Wallbridge's scrapbook and was written about 2

years ago, on the testimony of one who was personally acquainted with the circumstances. The locality is on the lake shore of Prince Edward County.

"About the year 1838, Charles Wilkins, of the Carrying Place, son of the Hon. R. C. Wilkins, of the Carrying Place, caught upon Weller's Beach, on lake Ontario, near Consecon, or Brighton, at one haul with a seine, the number of 343 spring or salt water salmon, and brought them to Belleville in two wagons and sold them."

Mr. Wallbridge states that the above statement is entirely reliable. Every one whom we have interviewed about Belleville corroborates his statement, and much more has been added, especially as to the more recent capture of salmon, some of which are said still to be caught.

John McMahon, Port Hope, Ont.

September 28, 1893.

Is now 23 years old. Has been fishing since he was a small boy, beginning with his father. His home is at Cobourg, but for some time he has been fishing from Port Hope, as there is better fishing and a better market here.

His boat is the only one fishing from here. Has a partner.

No hoop nets or seines are fished about Port Hope or Cobourg.

Off Cobourg the bottom is mostly muddy, rarely ever striking a hard bottom.

Off Port Hope, however, a honeycomb rock bottom extends out as far as he has ever gone, about 12 miles.

The shore line all along here is straight, and the water deepens gradually, there being

only an occasional shoal or bar outside.

In fishing for salmon trout he goes out about 4 miles, for herring about 6 miles.

Uses gill nets entirely; a 2 1/2 inch mesh for herring, and 5 to 6 inch mesh for trout.

During the past 10 or 12 years scarcely any fishing has been done from Port Hope. Prior to 12 years ago they did more, but there has never been an extensive fishery from this place.

Fishes for herring the entire year, except in November, during the past 2 years. Fishes in depths of 43 to 44 fathoms. The herring are most common in July and August. They run into shallow water in June and July, but he never fishes for them in these shallow places. Cannot say where or when they spawn. The gill nets are set at the bottom.

See many herring at the surface, generally in June, and July, during calm mornings. They

come up to catch the flies, called lumber flies'

Herring weighing about $1/4$ pound are the smallest that mesh. They run up to $2 \frac{1}{2}$ pounds, and average about $1/2$ pound. They are sold here fresh, and are not shipped away. The fishing has been good this year, and better than for many years.

Thinks the herring which he gets in deeper water are different from those taken in the Bay of Quinté. The latter seem to be a harder fish, with rougher scales. They are called shore herring, and he thought they corresponded with the herring that comes into shallow water off Port Hope.

Neither of these herring is called Cisco, and they are entirely different from the cisco of western Lake Ontario (referred to below).

The Cobourg fishery is carried on with 5 boats, each having 2 men. They fish for herring in the same depth of water and with the

same nets as off Port Hope. The fishery is essentially the same in both places, and has also been better this year off Cobourg than for many years.

McMahon fishes for cisco in the spring, from the last of March or first of April, up to the middle or last of May. Goes out 3 or 4 miles farther in the lake for them than for herring, where the water is 3 or 4 fathoms deeper.

Uses the same nets for cisco as for herring. The cisco run in average size something like the herring, but do not attain the larger sizes.

They are a softer and fatter fish, and lighter in color than the herring. They are mostly smoked for the market, and McMahon engages in smoking them himself.

The 5 boats at Cobourg also fish for cisco

The cisco come in denser schools than the

herring, and they are caught thicker in the nets. They form very dense schools.

Sees spawn running from the cisco the last of April and first of May. This species never comes into shoal water. The eggs are small, smaller than those of the herring.

The cisco remain on the ~~g~~^rounds after May, but it then becomes too warm to handle them for smoking, and the herring fishery begins soon afterwards.

They generally begin to take the cisco again the last of September, and they continue this fishery until the ice forms. During the last two years, however, they have not been allowed to fish in November.

The licenses for next year will not permit a smaller mesh in the herring gill nets than $3 \frac{3}{4}$ inches (ext.). All herring and cisco would go through so large a mesh, but an odd large one might be caught. On the other hand,

this mesh would not be large enough to take whitefish except perhaps some small ones.

The "shad" appear to have become scarcer the past 2 years. They have occurred in such numbers, and their dead bodies have covered the surface at times so thickly that it has been difficult to row through them. Their bodies sink and foul the bottom. Thinks the appearance of such quantities of these "shad" is what has ruined the fishery in the past, but as they grow less common the fishery is getting better. They have been getting perceptibly scarcer for 2 years. They began to die as the water became warm.

The gill nets for whitefish have had a 5 and 6 inch mesh during the past 6 or 7 years. Before that time the size of the mesh was 4 $\frac{1}{2}$ inches.

The gill nets are set for whitefish and salmon trout together. Get most whitefish beginning about this time of year. There are

also many around in June.

In November the whitefish come close into shore, presumably to spawn. They come into depths of 10 or 12 feet, on stone and sand bottom off Port Hope; on sand and mud bottom off Cobourg. He has never fished for whitefish after the close of November. Nearly all hands lay up then.

Previous to 2 or 3 years ago, they could fish after November 10, and used to get an abundance of whitefish then, when the weather was good, beginning in depths of 4 or 5 fathoms and following them out into deeper water. Stormy weather will drive the whitefish off shore.

They start using gill nets for whitefish the last of May or first of June, and obtain an abundance of fish during June and July. From the last of June to the middle of July they get them commonly in a depth of about 1

fathom. Afterwards they keep moving out into deeper water. Fishing is kept up most of the time to November. After the last of July the whitefish are mostly out about 2 miles, in depths of 18 to 20 fathoms. There are no particular banks or spots on which they fish, but they go according to the distance from shore or the depth of water.

The smallest whitefish to be taken in a 5 inch mesh would weigh about 3 1/2 pounds. This size generally gets through the mesh, however, and only an occasional one is gilled. The whitefish about here average about 6 to 8 pounds each in the fall, and about 5 pounds each the remainder of the year. They run up to 10 pounds. These sizes have reference to the current year. Previously the average size would be about 4 1/2 to 5 pounds, while 6 pounds would be a large fish.

McMahon has only fished since they began

to plant whitefish fry in the lake, and cannot, therefore, say anything about the differences which may be due to planting. He never sees any small whitefish.

Never ship whitefish from Port Hope or Colbourg. All taken are sold locally.

Salmon trout generally occur together with the whitefish. In the early spring they get nearly all trout, fishing in depths of 23 or 24 fathoms. This species remains out in June and July, and they do not get so many, fishing for whitefish in shallow water.

(About Brighton and Presquille they get them on the rocks in shoal water in June and July, with gill nets.)

Trout are scarce in August, Begin to get more about the middle of September, and they are then abundant up to November. Do not fish enough after November to determine how abundant they may be after that time.

The trout come in to spawn in depths of 3 to 4 fathoms, directly off Port Hope and Colbourg. The spawning is over in a very few days, and thinks they retire immediately into deep water.

The average size of the trout taken is 8 to 12 pounds. Seldom get any weighing as little as 4 $\frac{1}{2}$ pounds. More are taken weighing 5 pounds and they run up to 25 lbs.

McMahon has not fished much for trout, except during the past 3 years. Could not get many and it would not pay. Now they are much more abundant. Moreover, he had enough to do fishing for herring and cisco.

Lays the change in the abundance of trout to the occurrence of the "shad," which have furnished a large supply of food.

There are no sportsmen on the lake at Port Hope or Cobourg.

Gets scarcely any other fish in his nets

than those mentioned above. Occasionally a perch and sucker.

There is no other kind of fishing about here; no sturgeon fishing.

Six or seven years ago he caught one sea salmon weighing 8 pounds in a gill net off Cobourg, in a depth of 12 fathoms. That was sometime in the summer.

Had been told by a man that he had caught one off Cobourg in 1892, close in shore, in a seine.

He is certain that the specimen he took was a sea salmon. Is acquainted with their appearance, having often seen them in the markets.

His father has told him that sea salmon used to be abundant in the creeks of this region in the spring. That must have been a long time ago. They used to shoot them up the creeks. Has heard men get together and talk about the former abundance of salmon.

He catches the channel cat now rarely out in deep water. They were abundant 8 years ago.

Bullheads are scarce and they do not fish for them here.

Believes in the protection of whitefish and salmon trout during the spawning season.

Objects to the proposed enlarged mesh for gill nets for herring and cisco. Could not catch these species with them, but might take small whitefish and salmon trout.

There are good shores about here for seining, and the fish come in close enough to the shore at some seasons for seining, but this kind of fishing has not been carried on here.

The gill nets are about 4 feet high. They are set north and south, crosswise of the lake, both ends being made fast.

He is provided with 600 or 800 rods of gill nets altogether.

Never could catch many bloats in this

region, although he has tried for them. They bring as good a price as whitefish. They weigh from 1 to 2 $\frac{1}{2}$ pounds apiece. Are also called Niagara whitefish. They are taken out in deep water. They are softer than whitefish, but are as good a fish as there is to salt.

There are plenty of eels around the docks here. Wagon loads of them have been caught in seines this summer. Has seen them as small as 18 inches long. They weigh all the way from $\frac{3}{4}$ pound to 6 pounds.

Scarcely ever see pickerel (Stizostedion) about here.

Pike (Esox) are somewhat common.

Suckers are plentiful.

Sheepshead are a large sort of bass, with coarse scales.

Salmon trout feed on small herring and cisco.

Most fish are sold round.

Lamprey eels are plentiful, see several attached to his boat at times. They destroy many fish. Eat holes in them.

His father has been fined at Cobourg for catching suckers in a plump net, which is set and the suckers frightened into it by splashing the water about them. Dr. Wakeham thinks he must have been fined under a local regulation.

McMahon gave us the following account of men fishing in the neighboring region:

Colborne, 2 men,

Brighton, 4 or 5 men, fishing for salmon trout.

Presque Isle Bay, 20 boats fishing with gill nets for pike and perch. It is shallow, muddy, reedy bay.

There are probably not over 4 or 5 boats fishing between Port Hope and Toronto.

September 29. Went down to McMahon's boat to see some of the "worms" on which he

said the whitefish feed. They proved to be leeches, of which a number of live ones were found in the water in the bottom of the boat. Some specimens were preserved by Prof. Prince. It is a small species, the specimens being banded crosswise with dark and light colors. He said they occurred abundantly on the surface of the whitefish, and they are evidently parasites, not food.

We also obtained a lamprey eel in the bottom of his boat, about 12 inches long. It was preserved by Prof. Prince.