

56 Victoria.

Sessional Papers (No. 10c\*.)

A. 1893

# REPORT

OF THE

# DOMINION FISHERY COMMISSION

ON THE

# FISHERIES OF THE PROVINCE OF ONTARIO

# 1893

# PART I

*PRINTED BY ORDER OF PARLIAMENT*



OTTAWA

PRINTED BY S. E. DAWSON, PRINTER TO THE QUEEN'S MOST  
EXCELLENT MAJESTY

1894

[No. 10c\*—1893.]

Ontario Fishery Commission.

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Ontario Fishery Commission.

REPORT

OF

MR. SAMUEL WILMOT AND MR. EDWARD HARRIS,

Fishery Commissioners

*Appointed by the Dominion Government to inquire into and report upon the description of nets used, the spawning periods of fish, and other matters connected with the Fisheries in the various lakes and other waters in the province of Ontario.*

To the Honourable CHAS. H. TUPPER,  
Minister of Marine and Fisheries,  
Ottawa.

SIR,—Your Commissioners, duly appointed to examine into the particulars connected with the working of the fisheries of the province of Ontario, beg to submit their first report, which will cover the more important fisheries in Lakes Erie, Huron, Simcoe and the Georgian Bay.

The work of the Commission, after taking a large amount of evidence from fishermen, fish-dealers and others, all engaged more or less in the fishing industries of the country, necessarily closed their work temporarily, in December last, with the view, however, of entering into the investigations again during the season of 1893 in order to obtain information in relation to the fisheries connected with the other great lakes and waters of Ontario.

With two or three exceptions all the evidence submitted was taken under oath. Facts in sufficient number were obtained to enable an opinion to be formed of the present condition of the fisheries in several of the great lakes in Ontario.

Experienced fishermen and others having a special knowledge of the subjects upon which they gave evidence, were called as witnesses. They proved to be intelligent and well acquainted with their calling. A full report of the evidence as taken by the stenographers is annexed, and a synopsis of that evidence has been prepared for convenient reference.

1.—INTER-STATE FISHERY CONVENTION.

By permission your Commissioners attended the International Fisheries Conference held at Detroit in the latter part of December, 1892. The opinion of representative Americans, practical and experienced in the fisheries, are submitted, condensed from the report of the proceedings of the conference, comprising six states

of the Union which front upon our great lakes, each claiming water frontage and fisheries.

The resolution approving a close season during the month of November for whitefish, salmon-trout and herring was adopted unanimously by the various state commissioners at this conference.

A strong opinion was expressed that the licensing system of Canada should be adopted in the various state fisheries.

Other resolutions of an important character, tending to preserve the fisheries, were agreed to, all of which will be found in the condensed report of the proceedings.

No sentiment expressed at the conference appeared to meet with a more unanimous approval than, "That the fisheries were held by the States and Canada *in trust for the people* to see that they and their descendants had for all time to come a supply of fish; that the country is not to be deprived of this fish food, from improvident action at the present time."

These states will ask for legislation to confirm the recommendations of the conference. In Canada an order in council is effective. The adoption of the "recommendations" in Canada would be the best evidence of approval of the work of the conference.

It was recognized that Canada had been in the advance in endeavouring to preserve the fisheries of the great lakes.

In difficult cases, no argument is more effective than examples, the impression is more quick and penetrating than that of words; the possibility and advantages of performance are made clear. The example of Canada in the past, in adopting close seasons and wise regulations, has not been without good effect in the United States. The future of the fisheries of the great lakes will always be largely influenced by the adoption of any well considered regulations by the Canadian Government.

## 2.—FISH IN UNIVERSAL DEMAND.

Before commenting upon the evidence the importance to the people of maintaining the fisheries cannot be better expressed than in the words of the eminent physician, Sir Henry Thompson. His lecture, given during the "International Fisheries Exhibition, London, 1883," will be found in the fisheries exhibition literature "Conference."

"For a large and increasing class of the community who are emphatically brain workers fish furnishes an appropriate food. When we reflect that the tendency of civilization here and elsewhere is slowly but surely to develop mental activity and to dispense with laborious handicraft requiring a strong meat diet, this fish food which has hitherto for the most part been an agreeable appendage to the daily table of a few, ought, I think, to be more generally recognized as peculiarly adapted to the wants of a very large, influential and increasing part of our population.

"For the sedentary man, whatever his calling may be in life, whose engagements permit him only to take just what moderate amount of muscular exercise which is in all circumstances essential to health; for a great proportion of women whose habits mostly are not and often cannot be active, the nutritive elements afforded by fish admirably supply an important part of the wants of the body. The moderate

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amount of flesh-forming material present in fish and in a form which entails little labour on the digestive organs—for most persons certainly less than meat—and the facility with which fish may be associated with other elements, place it in the front rank of foods in that mixed dietary which is suitable to those who lead more or less the kind of life referred to."

That the danger line of destruction of the fisheries of the great lakes is being approached with lesser areas is not generally known to the public. Lake after lake becomes depleted of its best fish, but railway extension opens the other inland waters, limited in number and easily exhausted. The supply of fish is for the present only barely maintained, but at increased cost to the consumer. Whether the lakes and waters already depleted can ever be replenished remains to be proved; the process of destruction and the methods to accomplish it are clear. Should the present very exhaustive methods not be prohibited in all matters, all the better qualities of fish must soon become only a present luxury for the rich, and ere long be exterminated.

Hatcheries can assist nature in replenishing depleted waters, but all artificial efforts will be futile where waste, excessive fishing, and a defiance of all nature's laws have a foothold.

### 3.—THE DEPLETION OF THE LAKE AND OTHER FISHERIES.

In pursuing the following synopsis of the evidence given it will be observed, that the whitefish being the favourite fish with the public, and the fish most easily caught by the fishermen, were the first to be exhausted. Mr. McDonald, who represented the Buffalo wholesale fish dealers at the Detroit conference said: "I think the whitefish are all out of Lake Erie, it is the herring we are all after now."

The evidence given in relation to Lake Huron and the Georgian Bay shows a rapid advance to a similar condition in those waters. In Lake Huron the whitefish are admitted to be "pretty well caught out," and at the lower end of the lake both whitefish and trout are at the point of extinction. Where an increase in the catch of salmon-trout is shown it is explained by the mesh being reduced from 5 inches to 4½, and in many cases much less to catch the smaller and immature fish, as well as by improved fishing gear, more capital and greater efforts put forth by increased numbers of fishermen. Twenty years ago it is said in evidence that a small schooner would have been required, rather than a small fishing boat, to carry off a fisherman's catch from Squaw Island at the head of the Georgian Bay.

The large salmon-trout (large blacktrout so-called), which come from the deep water of the Georgian Bay to the shores about the 15th to 20th October to spawn, are followed by fishermen handling over 1,000 miles in length of gill-nets. It is possible, under the present plan of fishing the Georgian Bay and contiguous waters, to exterminate those fish in a season. The spawning grounds are in circumscribed space on bars, reefs and shallows, and there the fishermen congregate in the autumn months. This immense length of twine can be laid, making a wall of nets, so as not only to catch, but to prevent the fish which escape from reaching their spawning grounds to reproduce their species. The fish being thus driven from one part of the lake and bay to another, a correct conclusion as to the condition of the fisheries in Lake Huron and the Georgian Bay can only be arrived at by taking those waters as a

whole and not by the returns of a season's fishing from any particular locality. The gill-net fishermen of the Georgian Bay and Lake Huron will in a few years be forced into other occupations. This has already happened to the same industry in Lake Ontario, Lake Erie, Lake Simcoe, and the Detroit River and other waters. The process of exhaustion is entirely similar. It can only be checked by preventing the destruction of the young and immature fish, by having larger meshes in the nets and the strict enforcement of proper close seasons.

Fish are described by naturalists as being of two classes, local and migratory. Both may be quickly exhausted by improper fishing and overfishing: with regard to the species which lead a more or less migratory existence, there cannot be the least doubt, and where man has complete control over the area occupied by each, the same principle of more fish being caught than reproduced would lead to exhaustion likewise. It has been demonstrated that some of the Atlantic fish coming into the Mediterranean to spawn, and caught before and after spawning, have become extinct, although at one time so numerous as to interfere with navigation at the spawning season.

The diminution of any species of fish can usually be traced to the action of man.

In the great lakes fishing is carried on with gill-nets in almost any depth, even in 400, 500 and 600 feet of water with as great safety and less loss of nets than when used nearer the shores and shallows. It is in the deep water in the summer months that the immature fish or summer trout are now largely destroyed by the use of smaller mesh nets, which have been reduced from the former 5-inch extension size to  $4\frac{1}{2}$  and 4 inches, and less.

The fish can be followed to almost every point in the lakes, and with this irregular fishing and overfishing their extermination is only a matter of time.

When any species of fish get much below nature's balance in the waters by such abnormal means, their natural enemies and parasites are usually sufficient to complete their destruction without the aid of man.

The doubtful expressions of several witnesses relating to whitefish: "All left at once," "They just disappeared," "Gone somewhere else," "They have emigrated," may also be made to apply to salmon-trout.

W. H. Church, a fisherman for 40 years, 28 years on Lake Ontario, and 12 years in Georgian Bay, says "more salmon-trout are caught as the whitefish drop off—that is the fish they go for now," is pregnant with warning—he had seen the fisheries of Lake Ontario destroyed, and then moved to the Georgian Bay to fish those waters.

Messrs. Cunningham and Campbell are to the point in giving their evidence, "that fish are not at all as numerous as they were, but there are more nets and more fishermen to make them appear so." The almost complete destruction of the whitefish and salmon-trout fisheries in Lake Ontario, Lake Erie, Lake Simcoe, and whitefish in the Detroit River, and the causes for it are too apparent in the evidence published, to require comment here.

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### BLUE PICKEREL AND VORACIOUS FISHES.

The phenomenal increase, as shown by the catch, of voracious and coarse fish in Lake Erie, may be attributed to exceptional causes, by the somewhat warmer water in that shallow lake, and the weedy nature of many of the bays and shores. This lake at one time abounded in whitefish and salmon-trout. The returns of the Department of Fisheries in 1892, show that not one salmon-trout was caught, while during the last ten years, the pickerel catch, mainly blue pickerel, increased 477 per cent, pike, 413 per cent, and other coarse fish, 223 per cent. Twelve tons of blue pickerel have been lifted in one day in four pound-nets. (See Emery's, Port Burwell, evidence.)

The brook pickerels (*Esox Americanus* and *Esox umbrosus*) are well known. These two small pickerel are very abundant—the former in the coastwise streams, east of the Alleghanies—the latter in the Mississippi basin. Neither reaches the length of much over a foot, and from their voracity they are undesirable inmates of streams and lakes. The average weight of the blue pickerel of Lake Erie is one pound, and it may be a development of one or other of the above-named pickerels. The fry of the young whitefish from the spawning grounds at the west end of Lake Erie and Detroit River are carried by the currents to the deeper waters in the middle and at the east end of the lake. It is there the blue pickerel are to be found. They go in shoals and feed upon the fry of the more marketable fish. Fifty and even sixty small fish have been taken from the stomach of one blue pickerel. This fish is little known west of Point Pelee, is not known in Lake Ontario, nor is this species as developed in Lake Erie known in any of the western lakes. At the Detroit International Fisheries Conference an opinion was expressed that the pickerel was a fish which should be "cleaned out of Lake Erie." The pike and the coarser fish which have also so largely increased in Lake Erie are voracious and destructive to all other kinds of little fish.

In Lake Huron and the Georgian Bay there is evidence of the ravages of the lamprey eel, from their marks being found upon the bodies of the whitefish and other fish when caught. This eel inhabits Lake Ontario in vast numbers. At Kempfenfeldt Bay on Lake Simcoe,—the dog-fish have so increased in numbers that a Barrie fisherman has applied for a dog-fish license—the fish is almost worthless, yet they are saleable in some American cities where penury compels their use as food. In Lake Simcoe whitefish and salmon-trout are so nearly extinct, that complete suspension of net-fishing is advocated in that locality.

The dog-fish is classed as one of the most voracious and worthless fish in our waters—fishermen call them lawyers.

Nature's balance having been disturbed by the greed of man in the various lakes will account in a great measure for these unpleasant phenomena.

#### 4.—FISHING IN THE SPAWNING SEASON.

Almost without exception, the fishermen examined expressed the opinion that owing to the loss of nets during November it would be better in the end, and more profitable to the fishermen to take up their nets and stop fishing at the end of October "if all did it." The few that were adverse to the November close season



for all the autumn spawning fishes, based their untenable objections upon the freedom in fishing permitted on the American side of the lakes and in their rivers.

The early settlers upon the shores of our inland waters had neither the boats nor the fishing gear suitable for fishing in deeper waters:—Many fish were then caught in the rivers, creeks, and bays principally during their spawning seasons, in the spring months; and in the autumn, whitefish and trout were taken on the bars and reefs, bays, their regular spawning places in the lakes. Salmon were invariably killed in the rivers and creeks which they entered only for breeding purposes.

Freezing establishments were not known then. Ice was not stored to enable fish to be handled in the summer months; salting, barrelling and fishing in the spawning season became the custom of the country. Fish were then taken in the more circumscribed places where they were more easily caught. In the spring months, the spawning rivers were fished from end to end with seines, dip-nets, rod and line and spears; the destruction was carried on constantly by day and night.

The rivers and streams served as breeding places. The parent fish that escaped destruction, having performed the office of spawning there, returned largely to the lakes—the young remained in the streams until sufficiently grown, when they were carried down by the freshets to the lakes where, in their turn, they became mature and their instinct directed them to return again to the same waters to reproduce their species.

These great natural sources for keeping up the supply of fish in our inland waters have been largely destroyed. The fouling of rivers and creeks by drainage, sawdust and other refuse of mills and manufactories, obstructions in the shape of dams, the shallowing of waters consequent upon the removal of forests and cultivation of the soil, has unfitted many rivers and streams for the propagation of fish.

At the present time the great lakes must be depended upon almost wholly to keep up a supply of fish food for the people. The spawning grounds in the lakes must now be amply protected, as well as all other waters found suitable for the propagation of fish. Commercial or net fishing of any kind should never have been permitted in such waters as the Detroit and other like rivers and streams which were resorted to by fish solely to perform the office of spawning.

##### 5.—DESTRUCTION OF YOUNG AND IMMATURE FISH AND WASTEFUL FISHING.

Where the destruction of the fishery is so nearly complete as in Lake Ontario there is no difficulty in obtaining details of wasteful fishing and the destruction of young and immature fish.

In the Georgian Bay and Lake Huron the destruction of salmon-trout and whitefish is now full on, the end is rapidly approaching. Small and immature fish are shipped packed in ice to the city dealers and to the United States; those not fresh enough are salted or converted into oil. The fish that are carried away and spoiled in gill-nets during storms, or decay in the water by fishing a greater length of net than can be properly handled, is described by witnesses as covering "tons weight" and "sufficient to foul the waters."

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Concurrent with the depletion of the fisheries the struggle of the fishermen to live begins, greater length of nets are used than allowed by law, and the nets are not lifted so frequently. When lifted, some of the fish will be fresh, others unfit for use as fresh fish are salted, others still worse are used for oil. The less experienced fishermen become embarrassed, and merchants, supply houses, and capitalists from time to time by giving credit and advances of money become interested in this continuance of waste and destruction, as well as illegitimate fishing. There is evidence that there are merchants who will "start any man fishing." An experienced Huron fisherman says he never heard of a gill-net being refused to any applicant. At the present time there are about 1,345 miles of gill-nets licensed for the Huron, Georgian Bay and Manitoulin waters, five times the combined issue for the whole of the rest of Ontario—but even this estimate is far below the real length of nets proved in evidence to be in use in these waters, for it is known that, where a license is issued for 6,000 yards of gill-net, 16,000 and upwards all actually used; and with a license for 24,000 yards, for a tug, it is run up to 40,000 yards and over.

Any restrictive system and one which would cut at the root of inveterate abuses, sanctioned by constant practice and of old date, however well considered, will invariably meet with an opposition difficult if not impossible to control.

The evidence of Mr. Davis of Hamilton, Messrs. Port, Doyle and Bray of Toronto, large fish-dealers of high personal character as well as the best reputation as merchants, is not only the best evidence, from the nature of their business, but it is clear and conclusive of the present waste and destruction of young and immature fish in Lake Huron and the Georgian Bay and other waters.

### 6.—AMERICANS FISHING IN CANADIAN WATERS.

That the American fishermen trespass in our waters is clear from the evidence. This irregular and illegal fishing is chiefly carried on in Lake Erie, and the lower end of Lake Huron. It is the cause of much discontent and irritation among Canadian fishermen.

Fish in considerable quantities are also purchased direct from Canadian pound and gill-nets fishermen, and taken in tugs direct to American ports without landing or reporting in Canada.

The duty of  $\frac{3}{4}$  of a cent per lb. intended to be levied on Canadian fish entering the United States is easily and generally avoided—the fish being invoiced by the consignors as fish caught with American nets, and a large percentage of the fresh water fish caught in Canadian waters are thus invoiced. Should any considerable portion be classified as American fish, the American statistics published as to the returns of their fisheries are quite misleading; quantities of Canadian caught fish are actually included in these returns.

7.—SYNOPSIS OF THE PROCEEDINGS OF THE INTERNATIONAL FISHERIES CONFERENCE HELD AT DETROIT, MICHIGAN, DECEMBER 20TH AND 21ST, 1892.

*Hershell Whittaker*, Detroit Fish Commission, and chairman of the conference, said:—

"I assure you, gentlemen, that if we go on for just about five or ten years more in this way you can license your grounds for growing celery or fresh water oysters, but you cannot license them for whitefish. The fish will be gone. There will be nothing to lease. The state will have no fishing grounds that there will be any money in. There will be no temptation for a man to rent fishing grounds here at all. The destruction of the small fish is the thing, if it is possible we should overcome that. Our legislative bodies ought not to be apart from each other in the matter of regulations, we ought to be united."

*E. W. Gould*, Commissioner Sea and Shore Fisheries of Maine:—

"When nature establishes a season during which one species ought to be fully protected (while spawning), another of somewhat different habits is in its prime condition, thus wisely ordaining such a condition of affairs as will keep up throughout the entire year the fish food supply of the people, and now the thinking portion of the people are slowly awakening to the fact that the danger line of extinction has been passed in some instances and being rapidly approached in nearly all others. To those who have made a study of fish life and its underlying conditions the answer is a very simple and exceedingly plain one in explaining the great depletion of our fisheries—simply exhaustive fishing and at improper seasons. Men appear in conjunction with the legislatures and sending their most suasive members, giving a glowing account of the immense industry they represent, the large number of men they employ and the large amount of general good that is the result of their operations, and while arranging themselves to all appearance on the side of intelligent restriction, oppose strenuously any restrictive measures that would be effective.

"The more intelligent fishermen promptly range themselves on the side of protection and preservation, foreseeing that without some means being employed to prevent this wanton destruction the business will not survive itself.

"The Commission of Sea and Shore Fisheries of Maine emphatically advocates protection for all edible fish during their seasons for spawning."

*Dr. Robert Ormsby Sweeny*, son., Duluth, President Minnesota Game and Fish Commission:—

"I know from the experience of the protection given by the Canadian authorities to whitefish on Lake Superior, that it is most beneficent. The difference between our fishing on the north shore of Lake Superior in our waters and theirs is most marked. When you get within 35 or 30 miles of the Canadian line the fishing is fairly good, and when you cross it it is excellent compared to what it is on our side. The greater bulk of the whitefish are obtained from Port Arthur now on the Canada side, and the fishermen of Lake Superior on the American side are so well satisfied that it is the right thing to do that they have expressed to me their willingness, without any solicitation on our part, that we should join with the Canadians in having the same close season. It is their opinion that a close season for whitefish from November 1st to December 1st will be the salvation of the fishing. If they go on as they have been the fishing will be exterminated. In regard to our fisheries in Lake Superior I think our legislature will pass such a law."

*Hoyt Post*, Detroit, Michigan, Fish Commission:—

"There is no doubt in my mind from the experience I have had with the better class of fishermen and those whose support would be more valuable that they are going to see this matter somewhat in the light we look at it, and they appreciate the necessity for something being done in the way of prevention of destructive fishing."

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*Wm. H. Bowman, New York, Fish Commissioner:—*

"It seems to me, after discussing this matter properly, we can reach a compromise that would be satisfactory and just to all concerned, and we could pass laws in these different states that would be uniform, and that thereafter you will certainly have a much better supply of fish than heretofore."

*A. Booth, President of the A. Booth Packing Co.:—*

"I should very much like to see a more cordial feeling existing between our country and Canada in reference to a uniformity of fish laws, and trust that from your deliberations much good may result."

*John H. Bissell, formerly Michigan Fish Commissioner:—*

"I should like to go over the subject of the regulations of the fisheries by way of licensing. I became satisfied from my examination of the subject that that is one of the things that ought to be kept in view all the time. The time has got to come when the industry of fishing will be licensed."

*C. V. Osborn, Dayton, Ohio, Fish Commissioner:—*

"We will have to come to this upon our lakes, the leasing of the fishing grounds, for only upon leased grounds do we reach that enforcement of observance of law which will make the fishing perpetual. We have the decision in Ohio of some of our best lawyers, showing that this is constitutional and that it is in the power of the state to lease the fishing grounds."

*W. P. Andrews, Minneapolis, Minn.:—*

"It has been the idea of the Minnesota Commission that the time is not far distant when we will have to do as our Canadian friends do and lease the grounds."

*A. G. McDonald, Detroit, manager of the Buffalo Fish Co.:—*

"We have made up our minds that there should be a close season for herrings."

*C. M. Keys, representing the Sandusky wholesale and retail fish-dealers:—*

"I am firmly of the opinion that gill-net fishing as practised now on all the lakes is a great destructive force in fishing. In the Georgian Bay, when they take up those nets the fish are absolutely putrid, dropping from the nets almost as they lift them up. But a small portion of the fish taken are fit for the market, and consumed. The gill-nets are usually out three or four nights, and the fish that run in first are mostly decayed."

"My opinion is that gill-nets are the greatest engine of destruction that we have on the great chain of lakes. The fish are practically given no rest from the beginning of the season to the end. They do not claim that the fish are fit for the market, but they do go to the market. The Boards of Health of the various states have investigated the matter, and with one accord they have said that fish thus taken are absolutely unwholesome as food. There is not a man who is practically engaged in the business but what will say there isn't one fish out of ten taken in gill-nets that he would eat, especially in summer. I do not expect it will ever be possible to get laws passed which will prevent gill-netting, but if you could get laws past limiting that, it would go a long way towards the protection of fish."

"I will make this proposition now: That with all the protection the Canadian laws afford, if gill netting is permitted in Georgian Bay, in less than five years fish will be scarcer there than they are in Lake Erie."

## 8.—RESULT OF DELIBERATIONS AT THE DETROIT CONFERENCE.

The special committee submitted the following to the Fisheries Conference:—

DETROIT, December 21st, 1892.

Your committee to whom was referred the question, "Whether or not there should be a close season for whitefish, lake or salmon-trout, and herring," also what means should be taken for their protection, would report:

1st. All small fish and those unfit for food of all kinds when taken in nets should be replaced in the water when taken alive, and that fishermen should not be allowed to take such fish on shore, nor expose them for sale.

2nd. That no string of pound-nets used in the lakes shall extend more than four miles from the shore.

3rd. That one-half of all channels between islands or elsewhere where fish migrate to spawn, shall be kept free from nets of all kinds at all seasons.

4th. That all whitefish taken of less than sixteen inches in length and all salmon-trout less than two pounds in weight, shall be immediately returned to the waters where taken, and shall not be exposed for sale. That all herring less than eight inches in length, and all wall-eyed pike, pickerel or doré less than twelve inches in length, shall be returned to the waters where taken, and shall not be exposed for sale.

5th. That the month of November in each year be made a close season in all the great lakes for whitefish, herring, and salmon or lake trout.

Your committee would further recommend that all penalties fixed for violations of any laws that shall be enacted shall be made to apply not only to those who take fish, but also to all persons who buy, sell, transport, or have the same in possession.

## 9.—SPECKLED TROUT.

Speckled trout breed in Canada, as a rule, in September and October. A close season from 15th September until 1st April is proper for Canada. In the older settlements of the province of Ontario this fish is practically extinct, except where artificially reproduced, and its reproduction has now become a matter of private and commercial enterprise.

To be universally popular, fish culture and fish preservation should be based on food considerations, and not on those of sport.

In some of the provinces and states legislation has been influenced to preserve game for sportsmen and their friends, and not for that numerous class who desire to purchase it for food.

Speckled trout (and in this connection black bass may be included), are claimed as a luxury for the sportsmen the same as game, but they, like all edible fish, are in universal demand, and among all classes.

All fish should be preserved and regulations made with a view to bring them within reach of every consumer.

Speckled trout should only be caught by angling with rod and line.

## 10.—BLACK BASS

Spawn in May and June.

The nesting habits and manner in which these fish protect their young are well known.

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From the end of August until April black bass are in good condition for food, and are in demand, being a favourite table fish with consumers. They bring at the proper season the highest price of any lake or river fish in the market.

A close season during May and June should be established to protect this fish.

### 11.—STURGEON

Spawn in June and July.

It is recommended that all sturgeon caught three feet six inches in length and under be returned uninjured to the water, and that a close season for sturgeon be fixed to include the months of June and July.

### 12.—SALMON-TROUT, WHITEFISH AND HERRING, THEIR SPAWNING TIME.

The evidence clearly indicates that salmon-trout, whitefish and herring combined spawn from 15th October to the end of December. It may be therefore said that the month of November now established as a close season for these fish, somewhat reasonably protects them; better protection would be felt with a close season from 15th or 20th October to 1st December, thus covering the spawning season of the trout more fully, as shown in the evidence.

### 13.—POUND-NETS, GILL-NETS, SEINES — AN OPINION AS TO THE DESTRUCTIVE QUALITIES OF THE VARIOUS NETS USED IN FISHING CAN BE FORMED BY A CAREFUL PERUSAL OF THE EVIDENCE.

The restoration of the fisheries depends upon the enforcement of proper close seasons and regulations preventing overfishing and the taking and marketing of young and immature fish. The use of certain kinds of nets in certain waters, with a proper regulation as to size of mesh, is an important factor for upholding the fisheries.

The fisheries of Lake Ontario were largely destroyed by seines; few, if any, gill-nets were used in that lake until about 1853, nor until seine fishing began to be unprofitable along the shores.

It was the same in Lake Erie, Lake St. Clair and the Detroit and St. Clair Rivers, and at points on Lake Huron.

Gill-nets are now and have been the most destructive engines in use in Lake Huron and the Georgian Bay and other waters.

Deep water pound-net fishing began about 1865 in Lake Erie, and not until all other plans for commercial fishing had begun to fail. The chief objections to pound-nets can be remedied by certain limitations, and by compelling the use in the pots of a larger sized mesh in waters frequented by whitefish and salmon-trout. The loss of fish in pound-nets and seines can always be estimated; the waste in gill-nets can never be known.

The following is a synopsis of the evidence, as taken before the Fishery Commission, in November and December, 1892.

## 14—LAKE ERIE.

*Frank Jackson*, Port Dover, fisherman and foreman, page 6, says:—

Even twenty years ago this lake and bay had whitefish in plenty, caught with gill-nets and seines. They were salted and were a food supply in winter on the farms and in cities, towns and villages. Herrings were valueless then, whitefish were so numerous. It is now played out, caused by overfishing in the spawning season and wasting and catching small fish. "Yes, sir, whitefish have become extinct in these waters; what was once a whitefish and salmon-trout fishery, is now a herring fishery."

The 2-inch extension mesh used in the pots of pound-nets in Lake Erie has hitherto been very destructive to small, immature fish. A 3-inch extension mesh is the proper mesh for Lake Erie. Blue pickerel are most destructive to the fry of all fish, and they now overrun Lake Erie. The average weight of the blue pickerel is about  $1\frac{1}{2}$  pounds, and cannot be caught in anything larger than a 3-inch extension mesh. Has seen tons weight of small immature whitefish caught; the majority were buried. This was common in 1890 and 1891, but in former years the destruction of immature fish was far greater. Has known two or three tons of these small fish taken out of six or seven nets in May and June.

*James Low*, Fisherman, Port Dover, page 16:—Around Long Point and Port Dover is a herring fishery; without the herrings it would not pay to fish it.

*Geo. F. Allen*, Fisherman, Port Dover, page 9:—Get now and then a whitefish about the size of a big herring. Never saw a salmon-trout caught in these waters.

*Capt. J. S. Allen*, Port Dover and Nanticoke, page 11:—Very seldom catches a salmon-trout.

*Crosby Morgan*, Port Dover, page 12:—Fished formerly; now in business. Take the herrings out of the east end of Lake Erie and you might as well stop fishing.

*W. F. Tibbetts*, postmaster, Port Dover, page 14:—Fished formerly. Herrings are the principal fish.

*William Backhouse*, fisherman, Dayham, page 26:—Catch two or three salmon-trout in a season; they are about alone in this lake; it is now a herring and blue pickerel lake.

*H. E. Ansley*, Port Dover, warden of county, page 3:—Enforcement of judicious regulations as to mesh and close seasons might reduce the catch in the meantime, but would be better for the fishermen in the end.

## (B.)

*W. Emery*, merchant and fisherman, Port Burwell, page 23:—Four or five years ago lifted considerable numbers of small, immature fish; gave some away and buried some; sold some at reduced price; the blue pickerel prey upon small fish; has lifted twelve tons of blue pickerel in one day in four nets; they would pass through a  $3\frac{1}{2}$ -inch mesh.

*C. C. Bates*, fisherman, Clear Creek, page 17:—Have caught whitefish 5 inches in length in my 2-inch extension pots; have never thrown away immature fish from his nets; people buy them at  $\frac{1}{2}$ c. per pound to smoke; blue pickerel are very numerous, but not many yellow; blue pickerel and herring average the same size; sturgeon under 3 feet should be thrown back.

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(C.)

*A. C. Brown*, fisherman, Port Stanley, page 21 :—Catch of blue pickerel large, but not so large as at Port Burwell; occasionally catches immature fish, from 100 to 500 pounds; mostly sold for home consumption; bury perhaps half a ton in a season.

*Capt. John Ellison*, fisherman, Port Stanley, page 29 :—Two-inch extension catches  $\frac{1}{4}$ -pound fish; four years ago we caught a number of small fish, few since; those small fish ran  $\frac{1}{4}$  to  $\frac{1}{2}$  pound; threw them back; small fish in a net are a nuisance; of late years in Lake Erie the fishing business has been assuming a more business-like aspect.

*Daniel Lang*, fisherman, Aldborough, page 25 :—Caught plenty of immature fish, principally herrings, and about four years ago great numbers of young whitefish; never buried any.

*W. H. Black*, Kingsville, fisherman, page 32 :—Catches a salmon-trout once in a while.

*W. D. Bates*, fisherman, Rondeau, page 34 :—Eleven salmon-trout caught in this fishery.

*William Grubb*, light-house keeper, Point Pelee, page 40 :—A great many more blue pickerel caught here than whitefish.

(D.)

*Gilbert de Laurier*, fisherman and fish-dealer, Leamington, page 38 :—Sturgeon under 3 feet 6 inches should be returned to the water; has heard it reported that great quantities of small fish are wasted.

(E.)

At the International Fisheries Conference held at Detroit, 20th and 21st December, 1893.

*Mr. C. M. Keys*, of Sandusky, Ohio, specially invited to attend the conference to represent the fish-dealing interests of Sandusky, said :—The head or west end of Lake Erie is the natural spawning ground for the whitefish. From Pelee Island and the Dummy Light to Vermillion is one continual spawning ground. The only whitefish taken to speak of are those taken on these spawning grounds. The bulk of the whitefish are caught with gill-nets, set upon what is called the "reef." The whitefish are not only caught, but are turned back and prevented from reaching their spawning grounds above. Nature directs them to a certain place, and this they cannot reach. The fish which escape the nets thus fail to reproduce. There is a wall of nets stretching across Lake Erie. This fishing is carried on in November while the fish are ripe for spawning. The heaviest herring fishing is carried on at the same time. The whitefish and herring spawn at the same time.

*Mr. A. G. McDonald*, Detroit, manager of the Buffalo Fish Company, said :—I think the whitefish are all out of Lake Erie, and it is the herrings we are after now. Every net of every description should be out of Lake Erie by the 15th November. I am in favour of a close season. The Canadian close season begins first November.

*Mr. Herschel Whittaker*, of Detroit, Michigan, Fish Commissioner and chairman of the International Conference, said :—Twenty years ago I lived in the State of New York, and whitefish, trout and ciscoes were in plenty. Five or ten years afterwards the commercial fishing of Lake Ontario became extinct practically. It was not pursued for profit any longer by fishermen. This illustrates what fishing without restraint will do. The same thing is occurring in Lake Erie to-day, and



the same thing is true of the fishing in the lower end of Lake Huron. Let me say one thing with reference to a close season. In Canada they have the month of November closed. There is no complaint there from the Canadian fishermen but one, that their neighbours are fishing without restriction across the border, so why should they not do it. I am thankful to see that there is one place on God's footstool where they do enforce a law which seems to be a reasonable and a just law. I wish we might do it here.

(F.) SANDWICH, DETROIT RIVER.

*Noah Jolie*, Sandwich West, Detroit River, a fisherman 40 years, says:—All the fish in the Detroit River were caught during the spawning run. Eighteen years ago the whitefish caught were put in pens; a pen covered half an acre, and 40,000 whitefish in a pen. Sometimes they lost 2,000 fish out of a pen, one year lost one-half, warmer water and sickness killed them, fungoid growth showed on them, they would come to the top, we would sell them along with the others, the very bad ones were buried, some were healthy, some were sick. About the same happened in other fishermen's pens, but the smaller the pen the more the sickness; all these fish came up the river to spawn. Fish became so scarce I gave up 13 or 14 years ago. In those days the Americans caught about as many as we did. November is the only month that will pay to fish for whitefish in Detroit River. All the fishing on both sides was done with seines.

*Rémi Laframboise*, Sandwich West, Detroit River, seine fisherman, page 54, says:—Whitefish come up the river to spawn in November, and that is the principal month for catching them. Herrings spawn end of November. Large numbers of whitefish were caught and put in pens about 100 feet square; a good many died and were thrown out in the river; some were buried, and some converted into oil. I have known 15,000 to 20,000 put in these pens; 2,000 and upwards would die and be converted into oil, some years more; they died from disease; got mossy and died; some would look bright, but large numbers would be affected; herrings were put in along with them; one year 300,000 or 400,000 were caught, and one year the pens were so full of herrings that the fish were crowded so close together that they died in great numbers; days were occupied in scooping dead ones out and throwing them into the river. The river was made foul with the quantities of rotten fish; thinks the fishery would not have been destroyed had the fish been allowed to spawn. The young fish would have been carried by the current into Lake Erie through the channels on our side of the river. All the whitefish that came from Lake Erie to spawn were destroyed in Detroit River, and there was nothing to go back, and that accounts for the destruction of the whitefish fisheries.

*Daniel Maloche*, Sandwich West, farmer at present, fished 50 years on Detroit River (page 57) says:—In 1870 we caught most whitefish; they have been decreasing ever since; my average catch was about 30,000; 2½ pounds each. I put these fish in a pen the usual size to keep them for the New York market later on. These fish came up the river to spawn and were caught in November. They would jump out of the river, and we could see them spawning. They are ripest for spawning from 12th to 20th November—then the eggs flow most freely. We would have a few herrings in the pens at the same time. We used to lose fish sometimes by keeping them over; when they died they floated on the surface; some had red spots, some moss; some were buried, some converted into oil, some were taken and sold in Detroit for consumption. I consider the fisheries in the Detroit River worthless now; I would not fish the best ground. It is a great calamity, \$50,000 a year to the Canadian side. Close seasons were never obeyed here and we fished the whole month of November. The fishing began to fail 15 years ago and five years ago fish became so scarce fishermen could not live. All the river fishing was done with seines.

*Joseph Maloche*, Sandwich West, carpenter, had been fishing Detroit River 25 years (page 69), says:—He fished in Detroit River like Daniel Maloche. That the

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pens in which the whitefish and herrings were put were made of plank and were made handy so people could walk around them. The whitefish came up the river to spawn and were principally caught in October and November; we had 80,000 and 90,000 whitefish in a single pen at one time. There were in other pens at the same time 30,000 and 40,000. This was in November, which was their spawning time. Some of these fish were kept until March for the New York market. About 10 per cent died in the pens.

*Joseph Allen*, Sandwich, fisherman 20 years, still fishing (page 71), says:—The most herring are caught in Detroit River in November, their spawning season. They were caught in great numbers seven years ago. As many as 500,000 were caught on west side of Lighting Island on five stations; they were filled with spawn. In 1888 and 1889 we did not catch much more than enough to pay expenses. The Detroit River fisheries began to give out about 13 years ago. Seines were pretty close together then, in some places not room for more. In some places there were seven seines in a mile, that was the thickest. On the American side they were not quite so thick. The seines were the same build on both sides. Thinks fish feeding on each other does not reduce their numbers much—that man makes more difference than fish.

*Charles Gauthier*, fisherman, Windsor (page 74) says:—The spawning time for whitefish in Lake Erie commences about the 13th or 20th November in Detroit River. They begin a little earlier, but the month of November is the only time that whitefish can be caught in Detroit River in sufficient quantities to pay for fishing and has been so for a number of years. For 13 years, from the year 1876 to 1889, the close season for fish in Detroit River was suspended and several Ministers would not enforce it, because it was unreasonable. Whitefish in the Detroit River have decreased so that the largest catch out of two or three seines would be 400 or 500 fish. The whitefish came up the Detroit River to spawn. They were not taken at any other time. Very few were caught before 1st November. The bulk of the fishing was in the middle of November, in the height of the spawning time. I have known the Lake St. Clair fisheries; in 10 or 15 years they have decreased.

### (G.)—ST. CLAIR RIVER.

*Marquis A. Hitchcock*, Sarnia, who fishes a seine at head of River St. Clair, Lake Huron (page 80), says:—In the old days there were three whitefish seines at his point, seining in October and November, and now fishing for whitefish is perfectly done. The fishermen consider there are none to be caught.

There are very few herring caught now at all; some years ago there was a very good catch. They spawn in November. Previous to 1892, we fished until the winter set in. No close season was observed by anybody above or below me. When we catch the first pickerel which come in they are full of spawn. They come here to spawn. They are all yellow pickerel (*doré*), no blue pickerel. Ten or twelve years ago we had three times the catch and paid \$500 a year for the license—not worth a cent now. The bottom of the fishery has fallen out. We catch them as low as 1 pound, for sale; under that they are not saleable. The sturgeon were ripest in spawning in July. We fished from the middle of May until the middle July. The sturgeon have almost left us.

*John Lang*, of Lake Huron (page 85):—Whitefish were very plentiful in former years, as many as 40 or 50 barrels in a haul—5,000 fish was an ordinary catch. These fish have fallen off very greatly. Sturgeon have fallen off, destroyed by overfishing. Yellow pickerel have fallen off wonderfully during the past four years, destroyed by improper fishing and overfishing. The river or large herrings have fallen off entirely. A smaller kind are now taken. Four years ago, I paid \$100 per day for the catch of one seine during September. I would not pay them anything now, the fishery has so greatly fallen off.

## (H).—GODERICH.

Capt. *John Craigie*, fisherman, Goderich (page 89):—The whitefish are declining in Lake Huron—the herrings are so undersized that it is unprofitable to fish for them; the whitefish are the best fish; the public prefer them—and the fishermen caught them with less trouble than other fish. A Lake Huron gill-net license holder goes wherever he likes in the lake or Georgian Bay. The 8 or 10 boats here are all licensed to fish in the same waters—fishes half way across the lake in 100 feet of water; and at certain seasons of the year we fish along the shore.

*James Clark*, fish dealer, Goderich, (page 97):—In the interests of the fisheries and the fishing industry the close seasons should be sustained—the close season should begin 1st November and kept strictly. Does not believe fish move around much, but keep in families in the same locality.

*Malcolm McDonald*, fisherman, Goderich (page 118):—Whitefish are caught in the Georgian Bay now. They were once plentiful in Lake Huron. To preserve the fisheries for the future we should have close seasons; but it is very discouraging for us to be keeping it and the Americans not—and they fishing in our waters during that time.

*James Clark*, fish dealer and fisherman, Goderich (page 123) says:—In following the fish in their gill-net fishing in Lake Huron and Georgian Bay they use  $4\frac{1}{2}$  mesh, also 5-inch and  $5\frac{1}{2}$ -inch and sometimes  $5\frac{3}{4}$ ; we use  $5\frac{1}{2}$  in the fall, following the larger fish to the shores, these are large dark trout from  $3\frac{1}{2}$  to 10 lbs. The deep water trout are small and light in colour, average  $2\frac{1}{2}$  lbs.; never saw eggs in them which were mature. The dark large trout show their eggs pretty well advanced when caught. They spawn in November, some earlier, some later. We catch these big trout in October and November. I think they come to spawn. The small trout averaging  $2\frac{1}{2}$  lbs. are not caught at that time, they do not come inshore. We catch salmon-trout in Lake Huron and whitefish in Georgian Bay. Herring fishing is of no account in Lake Huron. Never heard of any one applying to fish with gill-nets who has ever been refused. In the interests of the fisheries and fishing industry the close seasons should be sustained. Does not believe it natural for fish to move around much, but keep in families in the same locality.

Capt. *James Inkster*, Goderich, fisherman (page 106) says:—There are a great many fishermen who depend upon the November herring fishing, they scrape along all summer and want to catch herring in the close season; other fishermen work hard all summer and don't feel like continuing on. It is no hardship but a benefit to the fishermen to have a close season and stop fishing in November. I doubt the migration of fish from side to side in the lakes. So long as there is a whitefish or salmon-trout left we don't want to bother with herring. Did not catch enough whitefish last season to pay men's wages.

*H. W. Ball*, fishery overseer, Goderich:—He considers gill-net fishing the most wasteful method of fishing. If a pound-net breaks away all the fish get free, if a gill-net is washed away there may be 10 tons of dead fish in it and they are blown all over the lake, the fish are lost and the lake full of decayed fish, equally destructive to the fisheries as cleaning the fish and throwing the offal into the lake. It is well known that many fisheries have been destroyed by throwing fish offal into the water. Whitefish have almost disappeared on this coast—the apparent increase in salmon-trout is explained by the mesh being reduced from 5 inches to  $4\frac{1}{2}$  and more small fish being caught and by the use of improved fishing gear tugs, and flexibility and make of the twine. Think the department should not discourage pound-net fishing. Has known the proceeds of a gill-net brought to shore and not one half of it marketable. The yellow or bad fish are salted it is not good for the reputation of Canada that we should salt such unwholesome food. There is considerable discontent among the fishermen, the business being now outdone—that is the principal cause. There are too many in the business. There are men with capital

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interested in the fishing business and they will start anybody to go fishing. A close season for herrings in November is absolutely necessary, and also to protect whitefish and trout.

### (I.)—SOUTHAMPTON.

*Donald McCauley*, Southampton, fisherman (page 128):—There is too much fishing, too many men trying to make a living at it; too many gill-nets drive the fish away and prevent them reaching their spawning grounds—fouling the water with offal and dead fish has the same effect. When first started here, 1855, Canada took all our fish. Now there are so many at it that we must send them to the States. There are more fish caught now than this country wants. In stormy weather we find a good many dead fish in our gill-nets, they are not marketable as fresh fish, but there are many that will do for salting that won't do to use fresh. This year being stormy we lost a great many, too far gone for anything, and oil was made of them. There are men all over the lake making a living by making oil from rotten fish. There is a good deal of it made, it brings 30c. per gall. and is sent to the tanneries.

*Malcolm McKenzie*, Southampton, fisherman, (page 135):—People came up from Port Frank a few years ago, 1876, and commenced drawing seines on Sauble Beach, 8 miles north of Southampton. The decline of whitefish hereabouts then began. The whitefish came on the seining grounds thick. It was September, and they were young whitefish; lots of them were lost dead in the water and on the beach, not being marketable nor fit for salting, not being over 4 inches long. They used herring seines (inch bar). We used to catch our whitefish off that shore but did not get them afterwards, the fish worked up north. It is advisable to have a close season while the fish are spawning; the Americans should do it also.

*Daniel McCauley*, Southampton, fisherman (page 143): Overfishing is the cause of the decline of the fisheries.

*Finlay McLennan*, fisherman, Southampton (page 147): He uses a seine for herrings, 1½ bar mesh, and his groat catch is in November, in the spawning season. He heard that young immature whitefish were caught at Sauble Beach and walked down just to see. There were plenty of them; some 2 inches long, some four inches and over. There were about 12 seines on the beach, these from one end to the other. It is about 5 miles long. The Indians had two seines, the whites ten seines. The white people who destroyed Sauble Beach with seines came from below Bayfield. Most of our fishermen have gone to the Georgian Bay. Fish have become scarce here. We do not catch whitefish now.

*Dougal McCauley*, fisherman, Southampton (page 152):—It is seldom we can catch whitefish. They do not catch herrings or anything else on the Sauble Beach now. Two-thirds of the fish that are caught here in the fall of the year are caught by boats that do not take out a license, boats that do not follow fishing steadily. We paid \$50 for two tugs and did not catch one-quarter of the fish that the other boats did that did not pay for license. The license system is good if every body pays it alike.

### (J.)—GEORGIAN BAY.

#### COLLINGWOOD.

*George Knight*, fisherman, Collingwood (page 195):—Whitefish are now scarce all over the Georgian Bay; we get very few indeed. Fifteen or sixteen years ago they were very plentiful. There are four times as many nets in the Georgian Bay as there were 15 or 20 years ago when the whitefish were in plenty. Those fish "have now taken some other course." Their spawning ground was

once on this side of the bay, but they do not come any more. The trout come here to spawn in the end of October and in November.

It is a hard matter to make a living now, the fish are getting so scarce. Thinks it would be better for the fishermen if all took out their nets and stopped fishing by 1st November.

*Norman Sanders*, Collingwood, fisherman (page 202) says:—Loft Gilluses Island on the American side of Lake Ontario many years ago, because the fishing was played out. Now fishes from Squaw Island, Cabbage Head, to Christian Islands, down to Collingwood. This is a whitefish bay naturally, but the whitefish have been getting scarcer for about eight years, caused by double the amount of fishing being done. November-used-to-be-the-best-month-for-whitefish. Law-breakers—men who do not observe the law—used a 5½-inch mesh for shore fishing on the shoals in the fall of the year when spawning. The regular fishermen also use this large mesh. Do not think any seine should be used to catch whitefish or salmon-trout unless mesh one-fourth larger than the gill-net mesh, except in Lake Erie.

*William A. Clarke*, fisherman, Collingwood (page 207) says:—I consider the reduction of the gill-net mesh from 5 inches to 4½ a mistake on the part of the Fishery Department, because it takes the fish before they are matured. Cart loads of young immature fish are now taken at Thessalon Point and Dollar Bay. There is a current there which they frequent for food and it is protected. Has noticed this for two years. In a whole cart load you would not get one over ¾ to 1½ pounds. Took particular notice of them passing in transit. These immature whitefish as a rule pass on to the American markets. This irregular fishing goes on outside the line across from Spanish River, separating Lake Huron from Georgian Bay. These fish come from the pound-nets around Duck Island and the North Channel. The meshes are so small that they catch a small herring. The 1-inch bar used in the pot of the pound-nets is the cause of the trouble. These pound-nets referred to are put where the young whitefish frequent. Was for two years at Whitefish Point on Lake Superior, one of the largest and best fisheries on the chain of lakes; it is 40 miles above the Sault, in the state of Michigan. Has seen 100,000 whitefish destroyed there in a season. They are carried to a dump and thrown away. You can form an idea from the immature fish shipped of the whole waste and destruction of these small whitefish.

The pound-net fishing would have been all right if the mesh in the pot had been right, the mesh should be 4½ inches for catching whitefish 2¾ pounds to 3 pounds, and trout about the same. Yellow pike or pickerel are not caught in gill-nets, but are taken in pound-nets easily; they are a voracious fish. There are large quantities caught, and there is a good demand. There is no such fish as a blue pickerel known in these waters. The great quantities of immature whitefish wasted would in a couple of years have become good fish.

Whitefish have fallen off 30 per cent anywhere on the Georgian Bay. Up to 1st June you won't get any whitefish.

Twenty years ago if a man had taken a gang of nets to Squaw Island the same as we use now it would have taken a small schooner to carry the fish away, either summer or fall, but it was in November the whitefish were most abundant. "There ain't any more whitefish on these grounds." The decrease has been caused by over-fishing and fishing in the spawning time. The whitefish are now principally caught from the western islands on the Georgian Bay, along the north shore and up the north passage to Thessalon Point. There are none on the south shore. In the fall they used to be very plentiful. Large quantities of small immature fish are now shipped, principally caught in the North Channel above Little Current. There were never as many caught as the past season, marketed or shipped at Warton and Collingwood. The Dollar Bay and Thessalon fish have to go through the American channel to Detroit. Thinks there should be no difficulty in making a regulation which would prevent the marketing and destruction of small immature fish. All this improper fishing was done openly and the shipment took place in the usual way. A proper sized mesh is the true remedy to prevent this destruction of imma-

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ture fish. The average weight of whitefish now is pretty small. They will average 2 pounds, formerly they were 2½. Some obey the law and some do not, it is a one-sided affair.

### (K.)—MEAFORD.

*John McCrae*, Meaford, fisherman (page 186):—A 2 pound whitefish is not a mature fish. Overfishing has destroyed the fisheries on the south shore of the Georgian Bay. We got whitefish thick up to 2,200 fish with one gang of nets and a single boat. Whitefish are now a thing of the past on this shore. Whitefish are the most profitable fish if they could be caught; they are gone on the south shore, and greatly reduced in the Georgian Bay by overfishing; small meshes have also reduced their size.

*Gilbert Peter McIntosh*, fish-dealer, Meaford, late president of the Fishermen's Association (page 172) says:—He has carried on a whitefish and trout fishery; says a 4½-inch mesh is too small for gill-nets in these waters; that a 5-inch mesh should be the minimum; the 4½-inch mesh has been the means of reducing the fishing. There are too many small immature fish caught; the autumn mesh should be 5½ inches. Is positive that nothing less than 5-inch mesh is proper for whitefish and salmon-trout. Fish now caught are immature and unable to breed. As dealer, has seen small immature whitefish and trout on the market; has handled them; they come from different localities; small trout are more numerous on the south shore than on the north; some shipments average from ¾ pounds to 1½ pounds; quite small fish. Formerly we could not dispose of such fish, but we can do so now. Considers it injurious to the fisheries to catch these small fish. The mesh in the pots of the pound-nets is too small, and should be regulated like the gill-nets. A 2½-pound salmon-trout is immature, and should not be caught, and a fish at 1½ pounds is a pretty small fish. The whitefish are the most valuable of the two. Has seen one boat take 2,000 whitefish in one lift; that would be an ordinary catch right in front of Meaford. In the last eight years the whitefish seem to have disappeared; there are but few left. If there is a close season, it should be enforced.—A good many people along the shore break the law and fish in the close season. The black trout or fall trout, the species that come in to spawn, are as plentiful as ever, but the summer trout have fallen off one-half in 20 years, and the size of the fish reduced by using too small a mesh.

*James Pilgrim*, fisherman, Meaford (page 167):—Whitefish have left here; they don't come here; they have just disappeared; formerly one gang of nets would take 500, 1,000 to 1,500 at once with one gang of nets, usually from 20th November to 10th December.

*Adam H. Stephen*, druggist, Meaford (page 176):—We used to catch great numbers of whitefish off the shore here when I was fishing in what is called the Mudhole, about eight miles off Meaford—about the end of November—it was either a spawning or a feeding ground—this was eight years ago. Has taken 1,500 out of one gill-net; other fishermen did the same. They were full of spawn; they all left at once, and for a number of years have not fished it. The uniform mesh should now be 5 inches.

*John Nelson*, fisherman, Meaford (page 178) says:—The fishermen follow the whitefish to the north shore in October. The finest and largest whitefish and salmon-trout go there to spawn and they are not caught at any other time there. They are right on shore on their spawning grounds, 1st of November. "I have seen forty boats of us within three miles." This is general with other fishermen. It is the only time you can catch these large spawning fish. The boats come from all parts of the country there, from Manitoulin Island, and all parts of the Georgian Bay. Half-breeds and Indians all congregate there to catch these spawning fish. The fishermen follow the fish down from the north shore of the Manitoulin, and at this time the spawn is running freely from the fish.

*James Stewart*, fisherman, Meaford (page 192) says:—Trout are full of spawn in October and November, and then go to the north shore to spawn. We used to catch them until 15th November. Unless hatcheries are established to take the place of a close season, the supply must go down. The fishing for salmon-trout and whitefish has so fallen off here that the fishermen have gone to the north shore. The whitefish have fallen off most. They have gone from this place. Whole families of fishermen have left Meaford who formerly made their living here.

*Charles Little*, Meaford (page 194):—"The fishing has greatly decreased."

(L.)—MIDLAND.

*Albert Hutchins*, Midland, fisherman (page 227) says:—Prefers a  $4\frac{1}{2}$  mesh. Some fishermen fish with mesh of all sizes, as small as 4 and  $4\frac{1}{4}$  inches. These small meshed nets are injurious to fishermen and fish-dealers. They destroy too many small fish before they are full value and before they are able to reproduce their species. Whitefish come in the shoal waters very thick and close together to spawn, and if caught when spawning it is very injurious to the fishery. Immature fish are caught in pound-nets, seines, and hoop-nets with small mesh. Such nets would not be more injurious than gill-nets if they had a proper mesh. Pickerel are played out by overfishing, and whitefish are very much cleaned out by catching immature fish and fishing in the spawning time. A great many nets are lost with the fish in them by being out too long, several days usually during storms. The fish are spoiled; a great many are useless; some are salted. Local men take the dead fish if not too bad.

*Archibald Campbell*, fisherman, Midland (page 259) says:—Believes in close seasons, as they are right if properly selected. It would be in the best interests of fishermen, the public and the fisheries if the close seasons were maintained and maintained rigorously. The setting aside of the spawning grounds would be a correct thing if there were no close seasons. Would prefer this to the close seasons. Formerly less nets were used and more fish caught. If the fishing goes on as at present the fishermen cannot live.

*Charles W. Phillips*, Midland, fisherman (page 229):—Whitefish have fallen off most in these waters. The other fish have declined also, with the exception of herrings. The cause of the decline in the Georgian Bay and Lake Huron fishing is caused by overfishing—too many nets—too many boats. Sizes of mesh being too small, has also helped the falling off. The non-observance of close seasons has also done a good deal to lessen the number of fish.

*Samuel Fraser*, J. P. for thirty years, Midland (page 231), says the small mesh in pound-nets is very destructive to small fish; that large quantities of trout and whitefish caught in gill-nets are lost, and by reason of storms and neglect the nets are not lifted. In such cases the fish are not fit for food, nevertheless they are sold in a deceptive way throughout the country. Some are thrown away on the shore, some are seen floating on the water; these have fallen out of the nets. Some of the nets may be out a week and some longer, and some of the nets are never found at all; has seen them out in the bay with fish rotting in them. There is very considerable loss of nets and fish in this way late in the fall when fishermen are fishing along the shore during the close season. Close seasons are sound in principle but have never been enforced. The nets used in the close season are generally sunk, which makes it difficult to find out without boats and grappling irons. Small fish are thrown away on the ice below Waubaushene. Whitefish, salmon-trout, pickerel and herring are the most valuable fish, but they are becoming pretty scarce. The greatest falling off is experienced in salmon-trout and whitefish. This is very apparent.

*James A. Smith*, fisherman and dealer, Midland (page 235), says there were 100 miles of gill-nets used last year from Manitoulin to Midland, and around the bay

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north and south shores, and some 1,700 fishing crafts, large and small. The fishing cannot stand all this net in the water. It is vastly too largely fished and must be reduced, otherwise the fishermen will lose their industry; saw last season three large lots of small 9 and 10-inch pickerel shipped. Close seasons are right in order to keep up the supply of fish food.

*John Yates*, fisherman, Midland (page 241), says all kinds of fish have fallen off very much in recent years, especially whitefish and trout. The small sized mesh and too many fishing has reduced the fisheries. If the size of mesh had been kept up at 5 inches as formerly, the destruction of fish would not have been so great. Pound-net pots should be 4½ to 5-inch mesh. A close season for bass and all kinds of fish should be thoroughly enforced.

*W. J. Hodgins*, fisherman, Midland (page 247):—Fish are now one-third less than when he began. Overfishing and fishing in the spawning time have made a great difference in the fisheries. Quantities of fish are lost by fishermen having too many nets out, and leaving them in the water too long. The fish drown and die. The good fish are kept separate for the American market. The culls which they cannot sell are salted. Culls salted may be fit to eat by some, but would not eat them himself; has known 1,400 rotting fish thrown away at one time; approves of close seasons; something must be done to keep up the fisheries.

*W. W. Church*, fisherman, Midland (page 250), says seines destroyed the fishermen in Lake Ontario. They are a most destructive net. Fish are getting scarcer every year in the Georgian Bay. More salmon-trout are being caught as the whitefish drop off. That is the fish they go for now.

*Joseph Cunningham*, fisherman, Midland (page 257), says there are ten boats fishing now where there was only one ten years ago, making it appear that there is no falling off in fish. A good many fish are lost by drowning in the nets by their being out too long. Such fish are salted and then they go to market, otherwise they could not be used. It is desirable to have close seasons and spawning localities set apart where the fish would not be molested.

*Capt. McGregor*, master mariner, Georgian Bay (page 221), attributes the falling off of fish to fishermen using a greater number of gill-nets than they can attend to. Nets remain in the water until the fish decay and have to be thrown away. Last fall I lifted some gill-nets and at least a ton of rotten fish had to be thrown out of them. The excessive quantity of nets used had as much to do with this waste as the stormy weather. This will deplete the fisheries altogether if allowed to continue. The destructive work goes on in places 3 to 4 miles off shore on the honeycombed bottomed rocks, which are the real spawning grounds of the fish. This destruction applies to both salmon-trout and whitefish.

Neither trout nor whitefish under two pounds should be caught. A 5-inch mesh should be the lowest size licensed. Pound-nets in the locality of Cornell and Thessalon throw away and destroy large quantities of small fish. Late in October and in November fishermen use their old nets and take the chance of their being swept away, frequently full of dead fish. Fishermen now fish in water 70 fathoms (420 feet) deep, 15 and 20 miles out.

*Alber. Hutchins*, Midland, Georgian Bay (page 227), says:—Before coming here fished in Lake Ontario about 30 years for whitefish and salmon-trout. The great majority were whitefish, and were caught at Wellington Beach with seines, as many as 5,000 to 10,000 at one haul during the night. This was in the summer time, June and July. These were salted and sold on the ground to dealers. He has caught as many in a season as would allow the owners of the seine for their share, about \$2,000. The other \$2,000 would go to the fishermen. Even more than this number were caught sometimes. Fishing was carried on in the fall of the year also. Whitefish were thick everywhere in Lake Ontario at that time; have known as many as 90,000 being taken in one haul in the night; was present and saw them counted; has often known from 5,000 to 10,000 being taken, and has taken 40,000



in a seine several times in July on Wellington Beach; those that were saved of the 90,000 were salted; many were lost because they could not be taken care of. There was another haul as large as this taken at Westlake Beach; the net was a 175-rod seine called "the sou'wester." When I left Lake Ontario some fourteen years ago there were no whitefish to be had by the fishermen where these great hauls had been made; in fact the whitefish fishery had ceased to exist; there was no more of it. I left Lake Ontario to fish here with a number of other fishermen who left for the same cause.

*James A. Smith*, Midland (page 235), says:—Has seen 20,000 whitefish on Consecon Beach, Lake Ontario, being one evening's catch, not one in twenty of which would weigh two pounds; this was in June; some were salted; others rotted on the shore and were made into manure. They were so plentiful that 100 could be bought for 25 cents. Whitefish were so plentiful in Lake Ontario that with one seine (I owned half of it), a 50-rod seine put up in one month 180 barrels for our net's share; the other men (eight of them) would get the equivalent to 180 barrels amongst them; this was in June, 1869 or 1870; there were other seines fishing also. The same year, in November, the fish were very numerous, and all larger fish than usual, weighing about 2½ pounds; as many as we could barrel we salted, but a great many were lost. Whitefish were so numerous that they were hauled away for manure for use upon the farms. The whitefish were so plentiful that in hauling the seine they could not pull it on the shore; they had to dip out what they wanted of the fish with small nets and let the rest go. When I left Lake Ontario some 15 years ago whitefish were almost exterminated; salmon-trout and whitefish in Lake Ontario were vastly more numerous than they have ever been in Georgian Bay.

*Capt. S. Whartman*, Midland (page 244), says:—Fished in Lake Ontario in 1874 at Presqu'Isle and Brighton, principally for trout of large size. The fish were quite plentiful then. Left there in 1878 to come to Georgian Bay to fish and better myself. The rough fish and whitefish in Lake Ontario have fallen off very much; understand from late residents that the fishing in Lake Ontario is all done now.

*William J. Hodgins*, Midland (page 247), says:—Fished in Lake Ontario from 1875 to 1877, and caught trout and whitefish; left there whitefish had become so very scarce. In 1856 and 1857 they were caught in great numbers. Whitefish were more plentiful in Lake Ontario than ever in Georgian Bay. Left Lake Ontario to come here to better his fishing, and other fishermen came here from there with the same intention.

*W. W. Church*, Midland (page 250), says:—In Lake Ontario whitefish years ago were caught by the thousands in seines from the 10th October to 1st November along the beach at Weller's Bay and the Consecon Bay, at Presqu'Isle along the shores of the lake; has known every 40 rods of the beach in five miles to have a seine; a seine would get from 1,000 to 6,000 whitefish at a haul. Those fish were cleaned and salted in barrels. Seine owners would have sometimes as many as 15 persons cleaning and salting fish and sometimes many of the fish would be spoiled, they were taken so numerously. It was about 30 years ago when they began to drop off, then when I left it was not worth while going out with a boat, they were so scarce; has known as many as 40,000 caught in one seine in July. That business is all gone now, not worth carrying on at all. As the fish gave out in Ontario I came up to the Georgian Bay to fish, and quite a few other fishermen left for there in the same way.

*Joseph Cunningham*, Midland (page 257) says:—Fished in Lake Ontario for about 10 years but could not get enough to make a living out of it, and then came up here to carry on fishing; caught whitefish in Lake Ontario off Amherst Island, something like 1,900 at a haul at first but got very few later on. Both whitefish and trout became scarce from overfishing Lake Ontario.

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### (M.)—LAKE SIMCOE.

#### BARRIE.

*Alexander B. McPhee*, registrar of Barrie (page 267):—In 1862 I could catch 16 salmon-trout in a morning in this bay; now I might fish 5 or 6 days and not catch one—whitefish and all fish have decreased.

*John Stevens*, photo artist, Barrie, (page 271):—Regards the fisheries of Lake Simcoe as so depleted that angling only should be permitted.

*Samuel Wesley*, 42 years resident in Barrie, publisher (page 274) says:—The close season for whitefish and salmon-trout should begin 1st October and end 31st December, Lake Simcoe is so depleted of fish, from fishing in the spawning season and overfishing, that it should be closed against nets entirely. The lake is too depleted for fishing in a commercial sense.

*John Hines*, Barrie (page 276) says:—Fourteen years ago fishermen could make lots of money catching whitefish, trout and maskinongé in the Lake—the fishermen have gone elsewhere, the fishing is done. The Rome and Snake Indians follow fishing all the year round and their harvest is during the close season. There was a great deal of fishing at Midland, Waubushone and Penetanguishene this year during the close season. The only whitefish caught now are speared about Big Bay Point.

### (N.)—LAKE ONTARIO.

#### *From evidence given at Hamilton.*

*William Depew*, Burlington Beach, Lake Ontario (page 308) says:—In the destruction of the salmon-trout and whitefish fishing, these seines with 1-inch bar mesh in centre were used. He has seen thousands of fish piled on the beach and left there to spoil. "The pigs came down to eat what they wanted."

The salmon-trout and whitefish were destroyed on Burlington Beach, Lake Ontario, down towards Grimsby by seines during the summer, but the biggest part was with gill-nets in the autumn months while spawning. They were caught out by overfishing at all times, including the spawning time. Ciscoes are not so numerous as formerly.

*Daniel McGwyn*, Burlington Beach, Hamilton (page 303):—Ciscoes and herring are what we fish for here. Whitefish and trout were in plenty in 1860; got 680 trout and whitefish in one haul on this beach; none at all now; none to market; destroyed; the yellow pickerel are gone also.

*Jonathan Corey*, fisherman, Burlington Beach (page 311), says they fished on Burlington Beach with seines, 1-inch bar mesh or 2-inch extension, twenty to thirty years ago. Large and small whitefish were taken. The small ones were so numerous they were thrown away in piles on the beach. The fishing was destroyed by catching in spawning time, overfishing and killing too many small fish.

*John Davis*, Hamilton, fish-dealer, gets fish from all the lakes; says the mesh is too small. Even from Lake Superior, where the fish are abundant, they send down small fish. We get nothing from the east; all fresh water fish come from the west. These immature fish are chiefly salmon-trout and whitefish. Less than a three-pound salmon-trout is not wanted. Immature fish are unsaleable to a certain extent; they don't command weight and price as mature fish. Two pounds is the smallest salmon-trout that should be caught. These immature fish come from the islands in the Georgian Bay, and from all the western fisheries in Lakes Huron, Superior and Georgian Bay. Collingwood and Wiarton are the great shipping points; they are usually sent in June and July. They catch a tremendous lot of small

fish at Southampton, and they must have small nets. There must be a larger mesh ordered for these lakes, both for gill-nets and pound-nets. If this is not done the fish will play out, and nobody will be able to live at it, neither dealers nor fishermen. The trout and whitefish were very numerous in Lake Ontario all the way down to Cobourg. Thirty years ago you could not put a net in the wrong place in Lake Ontario to catch fish; none now to be caught. The pound-net is the best. There are a great many fish destroyed in gill-nets. Fish are not fit for food that have been lying dead in those nets for four or five days. They are unfit for food whether they are herrings, whitefish or anything else. The ciscoes are falling off. To preserve the fish close seasons are necessary. The fish are not good then, and should not be caught. To keep up my reputation as a dealer I will not handle such fish. The public should be prevented from getting such fish, and everybody will be the better for it in the long run.

*Frederick Corey, Burlington Beach, fisherman 60 years (page 320), says:—*There was no law in 1840 to prevent our fishing our seines with any sized mesh, and we did not know what harm we were doing in catching small fish. We caught many thousands that were never used. They were unfit for use and were thrown away. We let them lie on the beach. These little whitefish would not weigh over a quarter of a pound or half a pound. The size of a mature fish was then four pounds. We fished all the year round for salmon-trout. The first gill-nets were used in 1853. Pickerel were very plentiful; we used to catch thousands of them with seines. The pickerel were destroyed by catching in the spawning season. They were always caught in that season. So far as salmon-trout are concerned they are not in existence now, in the way of business. They were all along the lake 40 years ago. We fished all the year round.

(O.)—LAKE ONTARIO.

*From evidence taken at Toronto.*

*Michael Doyle, fishdealer, Toronto (page 267) says:—*He deals in all kinds of fish. The biggest part of my whitefish and salmon-trout came last summer from Collingwood, some from Southampton and Goderich, and in the winter from Manitoba and Winnipeg; does not know anything about their nets, but knows they are catching unlawful fish and have been for years; the department has been busy putting in the spawn and the fishermen have been busy taking them up. They should be prohibited from fishing for three years now; if their nets were lawful they would not hold these fish; Southampton is a great place for them, both small trout and whitefish; they come fresh and cleaned and packed in ice along with the big ones; there are more small ones than big ones. There is a larger shipping place for these immature fish, but I forget the name (Warton, I believe). The salmon-trout would be from one pound to one and a half; the whitefish not larger than a good-sized herring; these fish are not fit to be k'ed; they should not be caught. All kinds of fish should be preserved while spawning; when fish are spawning they have neither taste nor flavour; it is like killing a cow in calf; there is plenty of law, but it is not enforced; whitefish and salmon-trout have fallen off most. I came here in 1862, and fishermen would bring in boats loaded with them down to the gunwale; this was at Toronto Island; now they are only catching the small whitefish you put in from the hatcheries; they have fallen off altogether. Formerly they brought so many whitefish and salmon-trout we could not get room in the market for them; we used to pile them up outside; they glutted the market; there were piles outside on the sidewalk on the street; we had so many to sell here at one time that we had liberty to sell till Sunday morning at 10 o'clock, the fish were that thick here. The whitefish weighed 4, 5 and 6 pounds and sold for half a dollar a dozen; the salmon-trout weighed 8, 10 and 12 pounds, and were so plentiful they sold for 50 cents each. There are none of these fish at all to be had now; they have emigrated or something has happened to them; should like to see Lake Ontario get a chance

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to see if these fish would not accumulate again. They catch small whitefish off the island—the small, immature fish—(Mr. Wilmot's fish); they won't stand; are young, delicate and small; they won't keep. The business of the fishermen and fish-dealer will soon be at an end unless proper regulations are made to preserve fish and preventing their destruction at improper times and killing immature fish.

*Dawson W. Port*, fisherman, Toronto (page 202) says:—Immature whitefish and salmon-trout come to this market. They are soft, flabby and easily bruised and are to a certain extent unmarketable. They are not as saleable as full-grown fish. They come principally from the Georgian Bay and Lake Erie for the herring; and the head of Lake Superior for the salmon-trout. A good many of these small fish come from Port Arthur. There they get a large quantity of small whitefish, and being very soft they often come crushed by the weight of ice in the packing. Sometimes they are not saleable. If they come fit to sell, they are sold from 1 cent to 2 cents per lb. less than proper sized fish. The small herring are not saleable. If sold at all, it is at greatly reduced prices. These small fish are mixed up with big fish when sent to market. The fishermen, the dealers and the public are all interested in preventing the destruction of these immature fish. This and catching fish at the spawning season are the two great evils to be contended with. Whitefish have fallen off most by all odds, and salmon-trout are not so plentiful as formerly. Whitefish should receive special protection. Lake Ontario principally supplied the Toronto market in years past—Toronto and the east with whitefish and salmon-trout. They were caught in large quantities, with seines along the shores or about Willard's Beach, or Toronto Island, and at the eastern and western ends of the lake. Now there are only a very few brought to this market from Lake Ontario. We depend wholly on the western lakes. The speckled trout is gone, so far as the public is concerned. There are large quantities of fish destroyed by dying in the gill-nets when left out for three nights. This is caused by men trying to handle too many nets, and by stormy weather. If not altogether spoiled, they are generally salted. They would be unfit to sell as fresh fish. Lately the people won't touch them. They are unsaleable.

*Horatio John Bray*, fish-dealer, Toronto (page 297):—Pound-nets in salmon-trout and whitefish waters should have 5-inch mesh in pots and the same in gill-nets. We are now getting fish too small to be marketable. The really marketable fish now come from Manitoba. A barrel of herrings—a sugar barrel—should contain 350 herrings, 250 lbs. This would be a saleable fish. I receive many barrels more containing 600 and 700 herrings, and they are not worth the express charges when they come to the warehouse. They are perfectly unsaleable. You may sell a few for 50 cents per hundred and dump the rest. Large quantities of small herrings are used for manure and thrown away. My whitefish supply now comes from Port Arthur, Lake Superior mostly. The Lake Ontario whitefish are only half-grown. The seines destroyed whitfishing in Lake Ontario. That was done 14 or 15 years ago. Remembers some years ago they put in whitefish fry from the hatcheries over at Niagara. Afterwards the fishermen caught them in seines. Handled pretty much all of them that were shipped here. Got \$8 per 100; but they shipped so many we had to drop it. They were from  $\frac{3}{4}$  to 1 lb. They haven't had hardly any since. The speckled trout as a fish for the public is about extinct in Ontario.

*William Montgomery* (page 281) says:—A gill-net in Lake Ontario means a herring net. There are no salmon-trout. No whitefish have been caught in the fall for some years. Cannot tell when they spawn. The summer catch is not much. The ciscoe is our best fishing, and they have gone away for the present. Cannot account for the falling off in the whitefish. All he knows is they have disappeared. Our 2-inch bar mesh is too large, it will not catch the half-grown whitefish. The herrings are decreasing. The scarcer the fish get the less often we lift our gill-nets. They are now left out about four nights and catch 4,000. Three years ago we left them out two or three nights and got 6,000 or 7,000. On account of the way the fishing is, has only his brother helping him and a 28-foot boat. Three seines

is the extent of the whitefish seine fishing now around Toronto. The next seine is at Frenchman's Bay, down 20 miles from here. Towards Hamilton the Humber is the first, then I think no more till you get to Burlington Beach, Hamilton. The large catches of whitefish heard of were quite 18 years ago.

(P.)—AMERICANS FISHING IN CANADIAN WATERS.

Mr. *Keys*, who represented Sandusky fish-dealers at the Detroit International Fishery Conference, 1892, said: "Beyond Sandusky Bay strings of gill-nets reach clear over into the Canadian waters and whether there is a close season in Canada or not, they run their gill-nets clear across to Pelee Island, and they do not make any bones about it."

*Frank Jackson*, Port Dover (page 6) says:—American gill-net fishermen fish within six miles of our Canadian shore, off Clay Point and Long Point Island. Has seen as many as five or six boats, tugs and gill-net boats, each fish boat would have a gang of nets 2,000 yards. The usual months are June and July following the whitefish. These boats hail from Erie, Penn., on the opposite coast. This has been going on for ten years. No Canadian would be permitted to fish in this way on the American side of the boundary line.

Capt. *J. S. Allen*, Port Dover (page 11) says:—Americans fish inside the national boundary line within six miles of Gull Island, and eastward from Clay Point to Clear Creek.

*Henry Swan*, Port Burwell (page 28) says:—American tug-boats lie off Clay Point, four or five miles out, and fish, the lake being fifty miles wide there; that would be twenty miles on the Canadian side of the line.

*W. Emery*, Port Burwell (page 23) says:—American fishermen boast of fishing in our waters. That is chiefly done about Long Point Island.

*C. C. Bates*, Clear Creek (page 17) says:—Last spring there was an American fishing tug fishing for herring and blue pickerel within a few miles of our shore (lake 50 miles wide). They were in sight fishing for several days. Ran up alongside of them and said: "You people are out of your element." They said they just came in to take some fish out, they often came over in the spring.

Capt. *John Ellison*, Port Stanley (page 29) says:—Americans fish in our waters within 20 miles of Port Stanley, (lake 60 miles wide); has seen them fishing with gill-nets and tugs; has a good chance to see these American fishing boats passing along on his steamboat route to Cleveland; it should not be allowed.

*Ira Loop*, of Kingsville (page 36) says:—American tugs cross from Sandusky and take fish on board direct from Canadian nets. It would be impossible for some of the fishermen to dispose of their fish if these tugs did not come and take them. The tugs get a permit to run one or two weeks, and then they clear on certain days. They do not infringe upon the law; it would be impossible to make entry every day; it is an irregularity, but they are permitted to do that.

*W. H. Black*, Kingsville (page 32) says:—Some Americans at the "Old Hen" fish gill-nets in Canadian waters. Capt. Post takes fish from a number of Canadian pound-nets direct to Sandusky.

*W. D. Bates*, Rond. Eau (page 34) says:—We run our small boat alongside of the American tug, and just weigh and sell to them. Sometimes the tug comes into port—sometimes she goes direct to the American port.

Capt. *J. W. Post*, Leamington (page 61), says:—Have seen American gill-net tugs on Canadian side of boundary line, engaged in lifting gill-nets—about six miles east of Pelee Island—should think they were herring nets, but a 3-inch mesh will

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catch ordinary whitefish and occasionally a sturgeon—has seen American tugs take fish from Canadian fishermen direct from the nets, and go direct to the American markets—Sandusky and Cleveland.

*John Lang*, Port Huron (page 85) says:—Near Kettle Point, Lake Huron, there is 10 miles square of rocky honeycombed spawning ground. There is a great rush of fish to this point. On these spawning grounds the Americans come with their tugs and nets and men and fish right through our close season, whilst the Canadians are keeping the close season. This fishing is wholly in Canadian waters. This was done this year by the Port Huron Fish Company. These American fishing companies claim that by instructions from the United States consul at Sarnia they could fish anywhere beyond three miles from the Canadian shores. These American fishermen fished right through the month of November. They made a wonderful catch of those spawning fish, and on account of the roughness of the season, great quantities of those fish were thrown away as unmerchantable, and many of them rotted in the water.

Capt. *John Craigie*, Goderich (page 89) says:—There is one American tug of 25 or 30 tons down here fishing in Canadian water. The latter part of the fall we have got to stop, and she can fish all she likes. This would be about six or seven miles from our shore; this has also been done at the lakes about Drummond Island.

*H. W. Ball*, Goderich (page 113) says:—There is great discontent among the fishermen at the present time by Americans being allowed to fish in our waters when we cannot fish in our own.

Capt. *James Inkster*, Goderich (page 106) says:—There is an American tug this season fishing in Canadian waters at Kettle Point. Have seen her.

(Q.)—EXTRACTS FROM SWORN EVIDENCE BEFORE THE FISHERY COMMISSION.

### THE BLACK BASS.

#### LAKE ERIE, ETC.

*William Grubb*, lighthouse keeper, Leamington (page 40):—Does not think it right for sporting men to angle for bass in the close season. They string them and tow them about all day to see who catches most and then at night throw them away. Most of them are dead. This is done by Pelee Island anglers.

*Phillip DeLaurier*, Point Pelee, fisherman for 33 years (page 41) says:—Black bass spawn from 20th June, through July.

*Gilbert DeLaurier*, fisherman 25 years, and fish-dealer 5 years, Leamington, (page 38) says:—They catch black bass largely at Pelee Island. They spawn about June.

*Ira Loop*, Kingsville, fisherman 25 years (page 36) says:—Black bass spawn late in June.

*W. H. Black*, fisherman, Kingsville (page 32) says:—Large quantities of black bass are caught by American anglers at Pelee Island. They are caught in June when spawning. It creates discontent among Canadian fishermen.

*Henry Smith*, Pelee Island, angler (page 45) says:—Angling is carried on on from 15th May to 1st June, and from middle of October to middle of November. They spawn from 1st June till July. They catch from 40 to 400 per day. Fishing is better in June. If they spawn in June it is better not to kill them. The quantity of fish is small to what it was formerly. They fish with one line and several baits. They sometimes catch four at a time, but not often. They have two or three

minnows, a couple of flies, a spoon bait and three to five hooks. Thinks pound-nets have helped to destroy bass fishing, but has not seen one lifted for five years; could easily see one lifted. Does not know what they catch.

## LAKE SIMCOE.

*Alexander B. McPhee*, Barrie (page 267) says:—Black bass should be protected for the benefit of the public generally. Would like to see the close season extended to the 1st July. Caught earlier, they are sluggish and not fit for food. They are sluggish even in August. Caught in proper season, prefers black bass to any other fish.

*Samuel Wesley*, Barrie, publisher (page 274) says:—Black bass are good in September. They are sleepy before 1st July. The close season should be extended till 1st July.

*John Hines*, Barrie (page 276) says:—The Buckskin Club from Buffalo come to the Severn River in the summer and catch large quantities of bass. The settlers said they caught them in piles and let them lie on the rock. Some places were stinking with fish. They caught them for sport.

## GEORGIAN BAY.

*Samuel Fraser*, Midland (page 231):—Regarding black bass fishing, it is carried on largely by tourists and anglers who catch them in great numbers and throw a great many on the rocks to spoil. This is done by campers out, principally. These fish should have a close guardianship. They are taken amongst the islands where they are not observed by the officers. These tourists are not of much service to the localities to which they come. They bring their supplies and camp out.

*J. A. Smith*, fisherman, Midland (page 235):—Bass will spawn in May, not so much in June. They may watch their beds and young in June and July, and this would lead to the impression that they were spawning then. Some of the tourists who come up here are very injurious. They catch more bass than they can consume, and fish are left upon the rocks to spoil—sheer wanton waste.

*John Yates*, fisherman, Midland (page 241):—There has been great waste by persons leaving black bass on the rocks to spoil. Bass are a fish that spoil very quickly unless iced. A close season for bass should be thoroughly enforced.

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*Daniel McGwyn*, Burlington Beach, fisherman (page 303) says:—Black bass are not fit for food in July and August, they spawn from May till June. They are caught in the summer when not fit to use,—in July and August—it is waste to catch them in Burlington Bay before November. It is not the fishermen who catch them, it is the sports. They are wasted. When fit for food they bring 10c. and even 12½c. per pound.

*William Depew*, fishermen, Burlington Beach (page 308) says:—To catch black bass in July and August is simply a waste of the fish. They are not fit to eat. They do not spawn until June.

*Jonathan Corey*, Burlington Beach, fisherman (page 311) says:—Black bass are hardly good in August. A first-rate fish in September, October and November. Does not think they should be supplied to the public as food before September. City people troll in the summer and throw away the fish.

## Ontario Fishery Commission.

*Frederick Corey*, fisherman, Burlington Beach (page 320) says:—The best time to catch black bass is the spawning time. They make their spawning beds 20th May, spawn about 1st June. They watch their young until they leave the bed.

*John Davis*, Hamilton, fish-dealer (page 316) says:—Black bass is a good fish and should be preserved.

### TORONTO.

*Michael Doyle*, fish-dealer, Toronto (page 287) says:—Bass in value come next to salmon-trout and whitefish, if we could get them, they are the dearest.

*Dawson W. Port*, fish-dealer, Toronto (page 292) says:—Bass are pretty good in September and October, best after that. They are not good in spawning time. No fish are good at spawning time. Black bass are good fish and should be preserved. Our customers will take them when in good condition.

*Horatio John Bray*, fish-dealer, Toronto (page 297):—Black bass are in best condition just as the ice leaves and they catch them with hook and line. They are more valuable than whitefish. They are not fit for food in July and August; they catch them in June. They should not be handled then. Could handle half a ton a day when they are in good condition, but do not get 25 pounds.

### (R.)—THE CISCOE.

*Daniel McGwyn*, Burlington Beach, says:—Ciscoes spawn from 25th December till the middle of January. They have fallen off considerably during the past four or five years by being overfished—too many nets. They are better cured than herrings, being a fatter fish. They are caught from 1st November until 1st May. They spawn in deep water on weedy bottoms, about six miles out, and are caught in deep water. They do not come near the shores. Two men can handle 2,000 yards of gill-net; 21-foot boat; that would be too much in a boat; some use a good deal more; sets one gang of nets and lifts one; some keep three gangs, 6,000 yards in the water, but 2,000 yards is enough for two men to handle; meshes  $1\frac{1}{2}$ -inch bar; net out two or three nights before being taken up; had them out twelve nights, and the fish still good; they live quite a while if not strangled; sometimes lose nets, fish and all, in some severe storms; have had a clean sweep of everything; do not fish for ciscoes in May, June, July and August; they are too oily, and we would have to go too far out to catch them; we would have to take ice, and that would not pay; December is the best month; has quit ciscoeing; they are going the same road as the whitefish and salmon-trout; they spawn all the year round, but chiefly in January.

*William Depew*, Burlington Beach (page 308):—Uses a  $2\frac{3}{8}$ -inch extension mesh for ciscoes; ciscoes are in the best condition all the winter; they begin to get soft in May; they are caught in deep water, six to fifteen miles from the shore; one fall they came within 200 yds of the shore; they keep out beyond the whitefish; the biggest part of the ciscoes spawn in February; see spawn in them in November and December; the eggs are pretty plentiful in the boats the latter part of January and February; they are a good deal better fish than the herring, when they are cured; the ciscoe is best cured; the ciscoe is a soft fish, and does not eat well; fresh salting and smoking makes them harder; ciscoe and herring are the same size; both about the same value; herring are more numerous and can be sold fresh; ciscoes are being caught out, and are not so numerous as they were formerly; they are overfished; the size of the net,  $2\frac{3}{8}$ -inch extension, is all right; it is overfishing that does it; they are caught most numerous in January and February; they begin to spawn in January, but mostly in February; thinks fishing in the spawning season has helped to reduce them.



*Jonathan Corey*, Burlington Beach (page 311):—Fishes for ciscoes with a  $1\frac{1}{4}$  to  $1\frac{3}{8}$  bar measure mesh.

*John Davis*, fish-dealer, Hamilton (page 316):—Ciscoes are good any time except when spawning. They are getting played out.

*Frederick Corey*, Burlington Beach (page 320):—Ciscoes have fallen off very much of late years by overfishing and catching in the spawning season.

*William Montgomery*, fisherman, Toronto (page 281):—Egg, flow freely from the ciscoe in November and January; leave nets out now over four nights and move nets and lift about 4,000; three years ago lifted some two or three nights and caught 6,000 or 7,000; the scarcer the fish get the less often we lift.

*Dawson W. Port*, fish-dealer, Toronto (page 292):—Ciscoes are always good except at spawning time.

*Horatio John Bray*, fish-dealer, Toronto:—Sixteen years ago began to handle ciscoes smoked; was the first man to smoke them; at that time the mesh was  $2\frac{3}{8}$  extension; they have got it down to  $2\frac{3}{8}$  and  $2\frac{1}{4}$ . The fish caught with the  $2\frac{3}{8}$  mesh were good saleable fish. The fish are getting so small it is hard work to sell them. If they were anything else but ciscoes they would not sell at all. The mesh should be  $2\frac{1}{2}$  extension. They are good all the year round. The dealers don't want to handle ciscoes from 1st June to 1st October. They are a delicate soft fish and spoil too quickly to be handled in the hot weather. The ciscoe is a valuable marketable fish and should be preserved.

The evidence in detail is herewith appended.

Respectfully submitted.

SAMUEL WILMOT,  
*Chairman.*

EDWARD HARRIS,  
*Commissioner.*

OTTAWA, 1st March, 1893.