

MAINE STATE LEGISLATURE

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PUBLIC DOCUMENTS

OF THE

STATE OF MAINE

BEING THE

REPORTS

OF THE VARIOUS

**PUBLIC OFFICERS
DEPARTMENTS AND
INSTITUTIONS**

FOR THE TWO YEARS

JULY 1, 1926 - JUNE 30, 1928

FIFTH BIENNIAL
REPORT

OF THE

Commission of Sea

AND

Shore Fisheries

OF THE

STATE of MAINE



1928

STATE OF MAINE

BIENNIAL REPORT

DEPARTMENT OF SEA AND SHORE FISHERIES

Rockland, Maine

To the Honorable Governor and the Executive Council:

Sirs:

We have the honor to transmit herewith, in compliance with the law, the report of H. D. Crie, Director of Sea and Shore Fisheries, for the year ending June 30, 1928, together with such additional statements as the Commission has made.

FRED B. SPEAR, Eastport
CHARLES H. CAHILL, Bath
WILLIAM H. THURSTON, McKinley

By H. D. Crie,
Director.

Approximate Amount Expended by the Department of Sea and Shore Fisheries

July 1, 1926 to July 1, 1927

Salaries and Clerk Hire	\$5052.38
General Office Expenses	3399.90
Pay and Expenses of Wardens	42,183.58
Purchase of Seed Lobsters	12,998.53
Propagation of Shell Fish	2499.75

July 1, 1927 to July 1, 1928

Salaries and Clerk Hire	\$4,837.33
General Office Expenses	3,947.82
Pay and Expenses of Wardens	47,515.20
Purchase of Seed Lobsters	16,978.08

APPROPRIATIONS ASKED FOR NEXT TWO YEARS

	July 1, 1929 to July 1, 1930	July 1, 1930 to July 1, 1931
Salaries and Clerk Hire	\$5,000.00	\$5,000.00
General Office Expenses	4,000.00	4,000.00
Pay and Expenses of Wardens	70,000.00	70,000.00
Propagation of Shell Fish	2,500.00	2,500.00
Purchase of Seed Lobsters	20,000.00	20,000.00

PREVIOUS APPROPRIATIONS

	July 1, 1926 to July 1, 1927	July 1, 1927 to July 1, 1928
Salaries and Clerk Hire	\$5,000.00	\$5,000.00
General Office Expenses	3,000.00	3,000.00
Pay and Expenses of Wardens	40,000.00	40,000.00
Purchase of Seed Lobsters	13,000.00	17,000.00
Propagation of Shell Fish	2,500.00	2,500.00

AMOUNTS RECEIVED FROM FINES AND LICENSES

	July 1, 1926 to July 1, 1927	July 1, 1927 to July 1, 1928
Fines	\$1,826.00	\$2,500.18
Licenses	583.00	453.00
Amount received from sale of boats, lobsters etc., seized	203.00	7.20
	\$2,612.00	\$2,960.38
	July 1, 1926 to July 1, 1927	July 1, 1927 to July 1, 1928
Number of Licenses issued	4,832	4,908

ATLANTIC SALMON

The body of the Atlantic salmon (*salmo salar*), native to the rivers of both sides of the North Atlantic, is moderately elongate and but little compressed; the greatest depth is about one-fourth the total length without the caudal fin. The length of the head is about equal to the depth of the body. The mouth is of moderate size. The scales are comparatively large and number about 120 in the lateral line. The dorsal fin has 11 rays and the anal, nine rays. The color, like the form, varies with sex, age, food and condition. The adult is brownish above and silvery on the sides, with numerous small black spots often X or XX shaped, on the head, body and fins, and with red patches along the sides of the male. Young salmon (parrs) have about 11 dusky cross-bars, besides black and red spots. Weight 15 to 40 pounds.

Its original natural range in America stretched from Greenland to Long Island Sound.

The vast abundance of salmon was one of New England's chief recommendations to immigration in colonial days. The Merrimac is reported to have been so filled with them during the spring migration that they sometimes crowded those near the banks out on dry land. Even as late as 1783 Peters reported in his "History of Connecticut" that the "shad, bass and salmon more than half supported the province." There is no good reason to suppose that they did not originally run in the Hudson, altho direct evidence that they did so in abundance, is lacking. DeKay mentions that one was taken in August 1840, near Troy, N. Y., weighing 40 pounds. Long before that year, however, the New York market had ceased to be supplied from the Connecticut, and had begun to bring salmon from the Kennebec, packed in ice. In the Saint Lawrence, however, few if any salmon entering the river from the sea ever ascended as far as Lake Ontario, and the salmon inhabiting that lake and its tributaries have always, as a rule, made the lake their sea, and the limit of their downward migrations. The reason for the decline was everywhere the same, over-fishing in the rivers with seines and the damming of the upper streams for milling and other purposes. Although Peters had recorded that in 1783 salmon "fill the Connecticut River for many days, and no finite being can number them", the Rev. D. D. Field stated in 1819 that they had scarcely been seen there for "15 or 20 years."

In respect to the habits and feeding of the salmon Dr. G. Brown Goode has written at great length. He remarks that most of the tribe are peculiarly fresh-water fishes, though several share the sea-dwelling habit, and others, like the brook-trout, descend into salt water when not prevented by barriers of temperature. "I am inclined to the view that the natural habitat of the salmon is in the fresh waters, the more so since there are so many instances where it has been confined for years in lakes without apparent detriment. The salmon while it remains in the sea, or in the brackish estuaries, takes particular delight in feeding on crustaceans and their eggs, small shrimps and young crabs. When in the rivers they eat but little, though they are at times eager enough for food, as testify their voracious rushes at the angler's flyhook. The absenteeism of the salmon is due principally to the dearth of desirable food in the rivers. The young fish stay in fresh water for one and frequently two years. When they pass down to the sea they weigh but a few ounces. They find congenial food and begin to grow rapidly. The broad world of ocean affords them new opportunities for adventure and self-advancement, and it is only when summoned by the duties of family life that they return within the narrow limits of the old home. When salmon live in the lakes they prey upon minnows and other small fishes, but those of the sea delight also in small crustaceans and their eggs, to which they owe the vivid color of their flesh. The habits of successive generations become hereditary traits."

It is as an adult, four years or a little more old, that the salmon enter the rivers and work their way toward their head. They have been for two or two and a half years in the sea, where and how living is little known; but the probability is that they do not go very far from the mouth of the river in which they were born. They enter as soon in the spring as the water has reached a moderate degree of warmth, and therefore appear in southern rivers much earlier than in northern ones. They are in magnificent condition, and make their way upstream with extraordinary persistence and force, overcoming swift rapids, climbing cataracts and leaping unbroken falls as much as 12 feet high; but only the strongest can accomplish so great a feat, and sometimes only after repeated efforts. It is during this early advance that the angler seeks the streams where they are running and throws his line for the grandest sport afforded by fly-fishing in fresh waters. Having reached, as near as time or circumstances permit, to the source of the streams, the eggs are poured out in vast quantities by the females, and simultaneously the males void their milt, so that impregnation takes place at once. This takes place in our rivers late in October or in November. The development of the embryo

proceeds for a time, but soon is checked by the winter cold, so that it does not burst the shell of the egg until the next April or May.

At this time the embryo salmon has a slender half-transparent trunk, less than an inch in length, carrying, suspended beneath, an immense ovoid sac—the “yolk-sac”; for about six weeks after hatching it hides in crevices among stones, keeping up an incessant fanning with its pectoral fins. During this period it takes no food, but is supported and nourished by the yolk-sac, the substance of which is gradually absorbed into the rest of the body, and not until the sac has nearly disappeared does the salmon really look like a fish and begin to seize and swallow food. It now puts on a mottled coat, with several heavy dark bars across its sides, and bright red spots, larger and fewer than those of a trout, and looks therefore very unlike the adult salmon but much like a young trout. In this stage it is termed in Scotland and England, a “parr”, and it was formerly thought to be a wholly different species from salmon.

The parr stage lasts a year or two in British rivers, and the few observations made in America indicate that it is more likely two years than one in our rivers. The parr, at first but little over an inch in length, is provided with good teeth and a good appetite, and beginning to feed at a season of the year when the water is almost crowded with small insects and other more minute creatures, it grows rapidly, probably increasing its weight 30 or 40 times the first summer. In two years it reaches the length of six or eight inches, and its bright red spots and dark bars have given place to a silvery coat like the adult salmon. It is now termed a “smolt” and is ready to go to sea, which it does with little delay, and passes out beyond the range of man’s observation, but to a region where it finds a rich feeding-ground and rapidly increases in size. In northern rivers, those of New Brunswick and beyond, as in those of northern Europe, the salmon returns from the sea when it has attained a weight of two to six pounds, and is then termed a “grilse.” In the rivers of Canada, in general, grilse occur in great numbers, coming in from the sea at a later date than the adults, but ascending like them to the upper waters, mingling freely with them, rising to the same fly, and caught in the same weirs. In our rivers grilse are seldom seen; yet it by no means follows from this that our salmon do not pass through the same phases of growth, or that the growth is more rapid, but merely that when in the grilse stage, they generally lack the instinct that impels their more northern relatives to seek fresh water.

Of the characteristics of grilse, as ascertained in the rivers they frequent, it will be sufficient to say that they exhibit to a great

degree the characteristics of the adult; that the main, external differences are a shorter head, slender form, and a difference in the color and markings; that they are remarkably active and agile, leaping to great heights; that the male is sexually well developed and mates with the adult, but that the female is immature, and that like the adult, they abstain from food and consequently lose flesh during their stay in fresh water.

Records show that for a great many years the Salmon Dance was a custom. It was a dance of the Karok, Yurok, and Tolowa tribes of American Indians, held in the spring when the salmon begin to run up the rivers. No man may catch a salmon before the dance nor for 10 days afterward, even in case of extreme necessity.

Article from the Bulletin of the Bureau of Fisheries

Volume 43, 1927

Part I

STURGEON

The sturgeon is a fish of variable characters. The following description has been compiled from published accounts, both of American and of European fish, and from an examination of specimens made by us. Most authors give the dorsal rays between 30 and 40, but Ryder, who made an extensive study of the sturgeons of the Delaware River, counted 40 to 44 on the fish examined by him. The number of anal rays given by most authors is 23 to 27, but Ryder found 26 to 30. The body is elongate, somewhat hexagonal, tapering gradually to base of caudal; head flattened above; snout 2 to 3 in head, variable, pointed in young up to 3 or 4 feet but becoming blunt with age. Smitt states that the shortening of the snout in relation to length of fish during its growth is accomplished at the expense of its anterior part, the distance from the anterior nostril to the tip of the snout being reduced with age from 47 to 28 per cent of the length of head. Ryder too, is of the opinion that the snout of the common sturgeon undergoes actual shortening and loss of substance during growth. Eye small, elongate, about 5 to 7 in snout; interorbital about 2.7 to 3.2, somewhat concave; mouth underneath head small, protractile, suckerlike; premaxillaries passing around front of mouth; maxillaries small, lateral, articulated with premaxillaries and with palatines; two pairs of short, slender barbels placed in transverse line about midway be-

tween end of snout and anterior edge of mouth, never touching mouth when deflected; nostrils double, close together, in front of eye, the posterior pair larger than anterior; teeth wanting, except in young; gill rakers small, sparse; skin smooth, granular, or covered with small osseous points; dorsal shields 10 to 16; lateral shields 25 to 36; ventral shields 8 to 14; preanal shield present; dorsal far back, caudal heterocercal, the upper lobe longest; anal beginning under posterior half of dorsal; ventrals inserted on a perpendicular beginning a little in front of dorsal; pectorals inserted low, near level of lower edge of gill cove.

Color olive green, bluish gray, or brownish above; pale below.

The sturgeon feeds on the bottom, its food consisting of a large variety of animals and plants, perhaps chiefly mollusks, worms and small fish. When ascending rivers to spawn the sturgeon feeds little or not at all.

Adult sturgeons, according to Smith do not appear in the sounds and rivers of North Carolina until the latter part of April, when the main run of shad is over. Ryder says; "As the season advances the spawning schools move upward from the salt waters of Delaware Bay and in the neighborhood of Fort Delaware and Delaware City, 45 miles south of Philadelphia, where they pass into brackish or nearly fresh water. From this point, southward 20 miles and northward as many more, it is probable that a large part of the spawning occurs." Records of catches of pound nets set in Lynnhaven Roads indicate that the sturgeon usually enters Chesapeake Bay during April. It later enters the rivers where the spawn is deposited. The eggs when laid, are about 2.6 millimeters in diameter. They are demersal and adhesive, becoming attached to brush, weeds, stones, etc. The eggs hatch in about 1 week in water having a temperature of 64 degrees F. The mature ovaries of the female, according to Smith may constitute one fourth of the total weight of the fish, and a total of 1,000,000 to 2,500,000 eggs may be produced by one female. The young fish, according to Ryder are sometimes taken from under ice in the Delaware River in midwinter, indicating that they remain in fresh water the whole year.

The newly hatched fry is about 11 millimeters in length, and in a few days, when the yolk sac is absorbed, it reaches 3-4 inch. The later growth has not been followed, but in Europe this sturgeon is said to reach a length of 4 to 5 1-2 inches in two months. Sexual maturity is believed to occur when a length of about 4 feet has been attained.

Small, unmarketable sturgeon, less than 4 feet in length, are even yet taken in sufficient numbers in the Chesapeake to give promise that the present-day small catch of adults will at least hold its own, providing the fishermen, in every instance, return the

immature fish to the water uninjured. From early March until April 8, 1922, in a set of three pound nets off Ocean View, Va., from 3 to 10 small sturgeons were taken each week; while in a set of two nets in Lynnhaven Roads during the same period the weekly catch was 3 to 6, the usual size being from 30 to 40 inches in length. Even in Lower New York Bay, where the adult sturgeon is almost extinct, we have reason to believe that young fish are present in small to fair numbers at the present time. We observed a sturgeon 575 millimeters in length, about 22 1-2 inches, caught on Dec. 21, 1923 off South Beach, New York, by being snagged in the side with a fish hook. A year later the same angler reported another small sturgeon caught in the same manner.

During 1920 the Chesapeake Bay catch of sturgeon amounted to 22,888 pounds, worth \$5,353. In addition there was obtained 2,654 pounds of caviar, worth \$7,618. The total value of the catch, therefore was \$12,971. In Maryland the sturgeon ranked nineteenth in quantity and sixteenth in value. The catch consisted of 714 pounds of fish, worth \$172, and 20 pounds of caviar, worth \$87. In Virginia it ranked eighteenth in quantity and tenth in value. The catch consisted of 22,183 pounds of fish, worth \$5,181, and 2,625 pounds of caviar, worth \$7,531. Of this amount, 90 per cent was caught in pound nets and 10 per cent in gill nets. According to the value of the fish and caviar, the leading counties were Norfolk, \$3,518; Elizabeth City, \$2,850; Mathews, \$1,351; James City, \$1,271; and Gloucester, \$1,068.

At one time, the sturgeon was caught in large numbers throughout Chesapeake Bay, but it has become scarce, and now it is seldom taken north of the mouth of the Potomac River. Fishing is done so intensively that very few are able to reach the headwaters of the bay.

A great decrease in the sturgeon catch occurred after the year 1897, followed by a further decline after 1904 since when it has never been taken in anything like its former abundance. In May, 1915 at Buck Roe Beach, Va., Radcliffe stated: "Very few adults have been taken and few young observed. I saw fish caught on Buck Roe Beach 9 feet long, estimated weight 275 pounds, estimated weight of roe 90 pounds. The owner had difficulty in marketing the fish. Roe worth 50 to 60 cents a pound." Inquiries around the bay during 1921 and 1922 elicited the fact that sturgeons were scarce everywhere and had been for many years. During April and May, 1921, there appeared to be a slight increase in the lower bay pound-net catch as compared with the previous few years. During April, in a set of five pound nets off Buck Roe Beach, six sturgeons of marketable size were caught. On May 16 a 225 pound fish was taken in Lynnhaven Roads. The

roe of this fish, after being rubbed and salted, weighed 41 pounds and sold for \$3.50 a pound. Other scattering fish were caught, of which we obtained no record. During 1922, in a set of three pound nets, at Ocean View, that fished from early March to April 8, one large female and two males (the latter weighing 90 and 100 pounds respectively) were caught. The aggregate catch of these nets up to May 26 was 20 sturgeons over 4 feet in length, 13 of them males and 7 females. The largest amount of spawn from one of the females weighed 59 pounds. In a set of two pound nets, operated in Lynnhaven Roads, during the same period no adults were caught. The first marketable sturgeon taken in the last mentioned nets in 1922 was a 40 pound male caught on May 25. At Buck Roe Beach only three sturgeons were reported in 1922 up to April 11. At Lewisetta, Va., on April 22, 1922, the fishermen reported that: "The sturgeon have been scarce this year but are occasionally taken." At Solomons, Md., on April 25, it was said: "A few sturgeon have been taken in this vicinity this spring; one large one was caught April 24." At Love Point, Md., no sturgeons were reported caught during the year 1921. At Havre de Grace, on May 9, the report was: "None caught this year nor for the past three years. At the end of May a few are sometimes taken."

Most of the sturgeons caught in the lower Chesapeake are taken during April and May. During this period large fish are taken, many of them containing eggs suitable for making caviar. Sturgeons are caught during the summer and fall, but usually these fish are rather small (less than 100 pounds) and contain immature roe. Records were obtained from a set of two pound nets located at Lynnhaven Roads, Va., giving the number of sturgeons caught from 1916 to 1922, both inclusive. The aggregate catch, by months, for this period is as follows: April, 9 fish; May, 15 fish; June, 9 fish; July, 4 fish; August, 2 fish; September, 1 fish; Oct. 9 fish; November, 1 fish.

In comparison with the present-day scarcity of sturgeons, the catches made in the following rivers during 1880 show that at one time this fish was abundant in the Chesapeake drainage; James River, 108,900 pounds; York River and tributaries, 51,661 pounds; Rappahannock River, 17,700 pounds; Potomac River, 288,000 pounds.

It is a matter of common knowledge that at one time sturgeons were considered worthless, and large numbers were destroyed annually by fishermen, who regard them as pest. Their value gradually became apparent, however, and a special fishery was inaugurated. Being a large, sluggish fish, it was easily captured in great numbers, with the result that each year the aggregate catch became smaller and smaller. The retail price of fresh

sturgeon has advanced steadily from about 10 cents a pound during 1900 to 50 cents during 1921, and 1922. Smoked, it is considered a delicacy and is among the highest-priced fishes.

Even more phenomenal was the tremendous increase in the value of sturgeon eggs, from which caviar is prepared. The wholesale price advanced from 30 cents per pound in 1897 to \$2.87 in 1920 and \$3.50 in 1922.

The sturgeon is mentioned in early American History. The first market for American sturgeon was established when the fish were cured near Brunswick, Me., and shipped to Europe, when they were much esteemed. (1628). Large quantities taken in the vicinity of Ipswich, Mass., about 1635 were likewise shipped to Europe. The Rhode Island Indians captured sturgeons with harpoons and prized them highly for food.

The vessels worked their way up the coast until Delaware Bay was reached about April 1, and operations were continued here until early in May. The fish caught in the south were sent to Savannah, where they were skinned, packed in ice, and forwarded to New York. The Delaware Bay and Chesapeake Bay fish were likewise shipped to New York, which seemed to be the only large market for sturgeon. At this time the fishermen received about 6 or 8 cents per pound. During 1880 about 3,000,000 pounds of sturgeon were smoked in New York City and were consumed mainly by the German population.

Preparing caviar from the eggs of the Atlantic Sturgeon was attempted as far back as 1849 by a Boston firm operating at Woolwich, Me. Because of an alleged scarcity of fish, operations were discontinued in 1851 and were not revived until 1872. By 1880, sturgeon eggs were utilized at many places along the Atlantic coast, but at that time the fishermen received only about 7 cents per pound. At Cape Fear River, N. C., the eggs were discarded as being valueless.

The present-day method of preparing sturgeon for market is essentially the same as that used during 1880. The fish is bled by cutting off the tail, and later the head, viscera, and skin are removed. The carcass is then iced in a box or a barrel and is ready for shipment. The average weight of an adult sturgeon is about 150 pounds, and when a fish of this size is dressed the carcass weighs about 65 pounds.

At the present time most of the Chesapeake Bay sturgeons are caught incidentally in pound nets, but a few are taken in gill nets. After the fish are dressed they are shipped to Norfolk, Baltimore, Philadelphia, or New York. The caviar which is usually prepared by the fisherman himself, is shipped to New York exclusively.

The rapid decline in the abundance of the sturgeon has caused the enactment of laws for its protection. The Virginia law states

that no sturgeon less than 4 feet long may be removed from the waters of the State. The Maryland law states that no sturgeon weighing less than 20 pounds may be caught or offered for sale, and that no sturgeons whatsoever might be taken during the 10 year period from 1914 to 1923.

When a survey of the fishery industries of the United States was made in 1880, it was found that the Atlantic coast sturgeon industry was of relatively large importance. The industry centered at Delaware Bay and Savannah, Ga. Schooners sailed from Delaware during January and commenced operations early in February on St. Mary's River, Ga.

This sturgeon attains a large size, a maximum length of 18 feet having been recorded from Europe and, many years ago, from New England. At the present day the maximum for American fish is more nearly 12 feet, with fish 7 to 9 feet long not at all uncommon. The males average considerably smaller than the females, rarely exceeding a length of 7 feet.

JAPANESE CRAB MEAT

There seems to have been created a great demand for the crab meat canned in Japan and shipped to the United States for consumption. It has grown in favor so rapidly that in some instances it has taken the place of lobster meat. As the lobsters are in the luxury class, it seems to me that there should be a protective tariff on the canned crab meat, also a duty on lobsters that are shipped from Canada into the United States markets, because they are on sale in our markets nearly all the year now. Only a comparatively few years have passed since they were able to ship lobsters from Point Du Chien, N. B., in refrigerator cars. This method of transportation gives Canada nearly the whole control of our markets which is not right. There is a duty on Halibut, Salmon and many other varieties of fish which are readily classed under the daily food supply. This being true, why should lobsters be on the free list? We cannot produce them as cheaply as they can be produced in Canada and in order for the Maine fishermen to prosper in their business, they must have protection. It is not a square deal to continue this unfair competition any longer.

The fishermen of Maine are practically all native born Americans. They are law abiding, upright and honest, big hearted and generous. Their homes are open to anyone in trouble or distress, they are always ready and willing to give their all for the comfort and happiness of others. When you are among the fishermen, you are among real friends. This class of men help to furnish the food on which we live. Their mission in life is a most useful one,

and there should be no class greater in the minds of the American people than the ones that furnish food. The farmers and the fishermen should be the honored class, they should be complimented for the vocation they have chosen, and they should be given all reasonable protection against foreign competition, and granted every encouragement possible to assist them in their good work.

These men should work together because they are brothers in the production of food. They are an army of great importance. If they would combine their efforts, their future would be prosperous and bright, because they would then be in a position to acquire what rightfully belongs to them, which is value received for their labors. People in America cannot work as cheaply; therefore, they cannot produce as cheaply as they can in foreign countries. Living conditions are different. We Americans are not contented to live like the foreign laborer, we believe in educating our children, we also want them to have the comforts of life, so that their childhood days may be happy ones. We believe in good homes, good churches and good schools. If we are to maintain the present standard of living we must look to protection through a duty sufficiently large to take care of the extra expense daily incurred. Everyone engaged in the production of food should pull together. The people on the coast catch the fish, the inhabitants of inland towns grow the potatoes. Fish and potatoes make a wonderful diet—that promotes health. The fishermen and farmers, working together, should make one of the most prosperous and healthy organizations in the world—a wonderful opportunity, to combine forces so that their strength will be recognized in Congress. If this can be accomplished, no doubt, a duty will be imposed and protection given them against foreign competition.

The Grange is already a working organization of national importance, and the way is all paved in Maine for the fishermen to become members. Why not avail yourselves of this most valuable opportunity?

No doubt the first act committed by white men when they landed on Maine soil was to catch fish for their next meal, because, in those days, fish and lobsters were so plentiful in the bays, rivers and inlets that it was an easy matter to catch the fish, and at low tide, lobsters could be procured by going to the water's edge and taking them from their hiding places beneath the rocks.

At that time nearly every rock sheltered one or more lobsters during the summer months, but no doubt, when cold weather appeared, they moved into deeper water, being directed by their natural instinct, as they do to-day. As years passed the state became more thickly populated so that more fish was consumed,

and markets outside the state were supplied until it became necessary to use improved methods and more modern devices for catching fish, in order to supply the yearly increasing demand.

Until 1888 the only real sale for lobsters was for canning purposes or occasionally a Boston smack would go along the coast buying them, and the price received by the fishermen was seldom more than one cent per pound. The year 1888 saw the first real lobster dealers in Maine, and from that date the demand for the Maine product increased very rapidly.

In 1842 lobsters were first preserved at Eastport by Treat, Noble & Company. The canning of immature lobsters continued until about the year 1895, when the people of the state awoke to the fact that if they were to retain a supply of lobsters, the canneries must go out of business.

During the Legislative Session of 1895 the 10 1-2 inch law was passed, thus making it illegal to sell 9 inch lobsters at any time of year, which virtually put an end to the canning of lobsters in the State of Maine.

The cool, salt breezes in summer, the magnificent scenery and the lobsters have been the direct means of luring people from other states to the shores of Maine, until to-day the greatest part of the shore line is dotted with cottages.

For many years the lobster situation was not taken seriously, and the native born inhabitants, also the summer residents were supplied with small lobsters at a very much reduced price, but finally it became evident that real enforcement must be practiced if we were to take care of the ever-increasing demand for the supply of lobsters was showing a decrease annually. For many years changes were made in the lobster laws at nearly every session of the legislature.

In 1916, Carl E. Milliken was elected Governor and took his seat in January 1917. Although he lived in Aroostook County among the farmers, he had been along the coast, talked with the fishermen and gained quite a knowledge of the fishing industry, which, with his wide legislative experience, gave him a general idea of the situation, so that when he became Governor, he was in a position to recommend constructive legislation.

He conceived the idea that it would be an advantage to the fishing industry to have the Governor appoint a Commission of three men for three years, having the term of office arranged so that one Commissioner's term of office would end at the close of each year, and said commission should appoint a Director, as the active man to take charge of the work, under supervision of the Commission.

During the 1917 Legislature this law was passed and a Commission of three men was appointed by the Governor on January

3, 1918. This Commission was sworn to the faithful performance of their respective duties, a Director was appointed and enforcement commenced. For sometime it was an uphill job because the laws were so full of holes that it was almost impossible to hold a violator after he was caught, and it has taken many sessions of legislature to make the laws even partly enforceable.

During the ten years the Commission has been in power, it has continually striven to gain the confidence and cooperation of the fishermen, and to-day there seems to be no question regarding the matter, as we believe nine-tenths of the fishermen are working with the Commission to improve and develop the industry. Nearly all the fishermen on the coast see a marked increase in the number of lobsters caught. There are nearly three times as many persons engaged in the business as there were in 1916, and all are apparently getting better returns for their labors.

If sufficient appropriations are made available to carry on the enforcement of the laws in an efficient manner, the purchase of seed lobsters continued and the department kept out of politics, there can be no question about the future of the lobster industry, but if insufficient appropriations continue it will be impossible to keep the department functioning properly or even in a healthy condition.

We now have nearly 25,000 people dependent entirely on the lobster business for their livelihood, so it behooves us all to do all we possibly can to develop the fisheries, in proportion to the yearly increase in the number of fishermen.

If we do not do our best to develop the fisheries of our state, what is going to happen to this army of people who so gallantly did their part during the World War? At that time the men did not wait to be drafted, but, on seeing their duty to their country which gave them birth, they immediately took command of the ships that carried the soldiers across to do their part. Submarines did not stop these brave fishermen because they were accustomed to braving the seas while doing their daily work. They were of the ready and willing type who were willing to give their lives for their country if necessary.

Who can tell how soon we may need these men again for a similar emergency? Does it not behoove us to provide sufficient funds to protect the industry that provides a living for them?

WHY EVERY FISHERMAN SHOULD BE LICENSED

The importance of the great Sea & Shore Fisheries is not fully realized by a majority of the inhabitants of the State of Maine, because we have been unable up to this time to obtain a correct

statistical report. In years past the wardens were required to visit the different firms doing a fish business and procure all the data they could from them; also get all the information they could from the fishermen. This was a very unsatisfactory method to pursue because one was liable to get an account of a fisherman's catch from the man who caught the fish and also from the firm that bought the fish. It is almost impossible for a warden to see all the fishermen in the isolated places where they lived, and in olden days many of the fishermen considered the wardens their worst enemies and would not give them a correct report of their catch. As a result the report that was procured was not worth the paper it was written on. Fishermen do not always like to have their good catches or poor catches advertised so would not give any report, and they were not to blame at all, because when a number of men gather statistics, some are liable to talk more than they should about some of the good catches, the fishermen would hear of it and next time a warden asked for a report, he would not get it. If a report was forwarded to the office, that would not be liable to occur because the office force have no special interest in any particular locality or person.

Every fisherman and every person interested in the fisheries should know first hand if the different kinds of fish are increasing at a good healthy growth or are decreasing annually, and the only way we can be sure of this is by an annual statistical report obtained from each individual fisherman. This can be done only by licensing each man that makes a business of fishing, and when a man applies for license require him to give the amount and value of his equipment and when he renews his license, at the expiration of the fiscal year, or when he retires from the fishing business, render a report of his catch on blanks furnished by the department, said report to be a correct copy of records kept by him on a pamphlet furnished by the department, having said report sworn to before a Justice of the Peace or Postmaster. If the legislature will pass such a law, requiring every fisherman to be licensed and to render reports of equipment, catch in value and pounds, we will then know accurately the amount of the annual catch, the number of men employed, the value of equipment, and the annual increase or decrease. Until such a law is enacted, we will be drifting regarding the magnitude of our fisheries as we have been in the past.

We also believe that each fisherman should contribute a small amount for the support and maintenance of the Department of Sea & Shore Fisheries, and if a fee of two dollars should be charged for each license, it would not work a hardship on any fisherman, and he would have the satisfaction of feeling that he was contributing to the support of the department.

THE SARDINE SITUATION

Since the World War, the Sardine Situation has changed materially. For years before the war the normal pack of sardines was from 2,500,000 to 3,000,000 cases, which were practically all consumed annually. Today the trade will not take care of more than 2,000,000 cans, although a much better grade of goods is being packed. The close of the 1927 season found the cannery with a much reduced pack, the real cause being a light catch of desirable sized fish. Therefore when the season opened, the packers found the trade ready and waiting for the 1928 goods, because practically all the old goods had been disposed of.

The customary school of spring herring did not arrive in any great quantity. It was really August 1st, before the supply was called satisfactory. Prices which opened at \$10.00 per hogshead, dropped to \$5.00 and then to \$3.00 in some instances. The factories really got all the fish they cared to have by October 1st. In October the fish seemed to scatter to such an extent that few were taken, making it expensive to continue operations, therefore the season was really crowded into two months, August and September, but was very satisfactory to the packers. It is estimated that 1,800,000 cases were packed, being nearly the normal amount that the trade will take care of. Eight factories were operated in the vicinity of Portland, and from reports received this most western sardine section did a satisfactory and prosperous business, comparing favorably with the eastern section.

LOBSTER SITUATION

For the past ten years the Commission of Sea & Shore Fisheries has been striving to increase the lobsters on the Maine Coast. For the first five years it seemed an uphill job, but then they really began to feel encouraged because they were reasonably sure that the lobsters were on the increase. No doubt there will be lean years in the years to come, owing to unavoidable conditions that are sure to work havoc with the lobsters when they are in their infancy, but after the large catch in 1928, there can be no doubt left in the minds of any right thinking person regarding the increase, and as long as the present methods are continued, there will continue to be an increase in the number of lobsters caught along our seaboard.

There seems to be one condition that must be remedied, and that is the price paid by the consumer and the price received by the producer. From good authority we learn that from fifty to sixty cents per pound is being charged the consumer while the

fishermen are being paid only twenty to twenty-five cents per pound, a difference of nearly three to one. It would seem that such a difference is not warranted.

It seems to have been a practice in fish markets to maintain one price as nearly as possible, throughout the whole year, regardless of the price paid the producer. This does not seem quite right to the marketmen nor to the consumer, for when prices go far below the average, the consumer should have the benefit, and when prices soar far above the average, the marketman should not be compelled to lose money.

It also makes a hardship for the producers because this present fall, quantities of lobsters would have been eaten in our own state if they had been sold at a fair profit. This being true, it would have given the fishermen a chance to work off their surplus stock which they now have in cars and must take a large shrinkage on.

It is hoped that the prevailing conditions will adjust themselves before another season's catch arrives that the consumer will have a chance to get lobsters at a reasonable price and the fishermen have a chance to dispose of their product at a living wage.

RECOMMENDATIONS

The state should have one new, sea-worthy boat because all the boats they own at present are old and unsafe to be used in rough, stormy weather, and they haven't the speed necessary to compete with the fast, sea-worthy boats which are now being used in the fishing industry. The days of usefulness for the old state boats are past, and if we are going to enforce the laws and protect our Maine dealers against foreign competition, we must have at least one fast sea-worthy boat.

We believe that section 17 should be amended and that for the second offense, a person should have his license suspended for three years, and for the third offense, five years because a third offense shows conclusively that he intends to violate the laws as long as he is allowed to fish.

We also believe that a person coming in from another state should not be allowed to fish for lobsters until he has resided within this state for ten years, preceding the date of application for a license, because of the fact that there are approximately 5000 licenses issued each year, and the number is increasing all the time. We believe that our native sons should be protected against the foreign element because the foreigners are usually the most persistent violators.