1939

Maine Sea Foods

Maine Dept. of Sea and Shore Fisheries

Follow this and additional works at: https://digitalcommons.library.umaine.edu/mainehistory

Part of the History Commons

This Monograph is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Maine History Documents by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.
MAINE SEA FOODS
WHITE MEN caught lobsters in Massachusetts Bay for the first time early in the seventeenth century. The Pilgrims and Englishmen who began to flock into the bay colony about the year 1630 were well acquainted with the products of the sea in their old home and the coast of New England supplied their tables with essentially the same kinds, only in far greater abundance.

In the chronicles of those early days, the lobster is honored with frequent mention. A minister writing from Salem said that many weighed as much as 25 pounds each and again in 1623 when the ship Anne brought over many of the families of the earlier Pilgrims the only feat of welcome which the latter had to offer was "a lobster, or piece of fish."

In an account of marketing in Boston in 1740, "oysters and lobsters" are mentioned "in course the latter in large size at 3 half-pence each," and this abundance continued for over 100 years.

The American lobster is found only on the eastern coast of North America. Its geographical range covers a strip about 1,300 miles long and 30 to 50 miles wide from the Virginia Capes to Labrador. Since the fishing of lobsters was begun first on the southern New England coast and gradually extended northward it is not surprising to find the lobster at the present time not only more abundant but attaining the greatest average size in the northerly part of its range.

The Cape Cod region furnished most of the lobsters consumed until the middle of the 18th century when the supply began to give out and the new and virgin beds off the coast of Maine were tapped. The people of Provincetown in 1812 realizing the great economic loss through the disappearance of lobsters succeeded in having a protec-
tive law enacted through the State legislature, but this measure was
designed to protect fishermen rather than the lobster, for it merely
declared it illegal, for anyone not a resident of the Commonwealth to
take lobsters, from Provincetown without a permit. The great Cape
Cod lobster grounds were exhausted by overfishing without steps for
conservation and propagation and that same fate is seriously facing
the Maine beds unless steps are taken immediately to stop it.

In fact our lobster industry is well on the way towards oblivion.
Twenty years ago there were around 5,000 licenses issued to fisher-
men. This year the number will be much less than that and the
scarcity of the famed crustaceans is becoming more noticeable each
year. The Sea and Shore Fisheries Department in its effort to re-
build the Maine fishing industry is giving a lot of attention to lobsters
and is attempting to secure a rearing station which, it is believed,
would check the decline and start the business on the uphill swing
again. This year seed lobsters are being purchased by the State,
punched and released. This form of protection is bound to be very
helpful but is not nearly as practical as a rearing station would be.
Seed lobsters would be brought to the rearing station and stripped of
their seeds. These would be brought along to a reasonable stage of
maturity and then replanted along the coast. A single lobster lays
thousands of eggs a year but in its natural state only few of these
survive to reach maturity. Through the methods utilized by a rearing
station this percentage would be increased many times and it is be-
lieved that our lobster industry could be made to become a great
economic asset once again.

Lobsters are caught in traps which are weighted and lowered to the
floor of the ocean and left there indefinitely, to be hauled, usually once
a day. Primitively they were speared, gaffed, or hooked and for a
long time on the coast of Norway they were taken by wooden tongs
about 12 feet long and adapted for use in shallow water only.

The traps, in most general use, are about 4 feet long and 2 feet
wide ranging from 18 inches to 2 feet high. The frame of sturdy
wood from which is sprung three arches or “bows” of spruce, and to
these are nailed laths at intervals of 2 inches, one side being provided
with a hinged door. The heads are made of netted cotton, and strung
to a “funnel bow” about 6 inches in diameter and often set obliquely
to the long axis of the trap, the whole head being drawn in to form
an upwardly directed funnel. The lobster in order to get to the bait
which is secured to an iron spike in the center of the floor, must climb up the funnel and pass through the entrance ring; when once a prisoner it is liable to crawl over the ring rather than through it to liberty.

The traps are baited with small herring, codfish or fish heads or other fresh or salted fish of any kind. The fishermen try to follow the movements of the lobsters and in summer fish closer to the shores,

ordinarily in from 1 to 10 fathoms, but in winter they often go out 5 or 6 miles and set in 20 to 50 fathoms. The traps are pulled, as often as possible, once or twice daily in summer but in winter weather a week or even a fortnight may elapse before they can be visited and many are destroyed by storms.

Lobsters—Fresh From Ocean Depths
The Maine legislature has provided a double gauge law for lobsters for conservation purposes. It states that no person shall buy or sell, consume or give away or use for any purpose, lobsters less than 3 1/16 inches or more than 5 inches in length measured from the rear of the eyesocket along a line parallel to the center line of the body shell to the rear end of the body shell.

The Reigning Monarch of American Seafoods

The sea bottom is the natural abode of the lobster and it knows no other. The creature spends most of its time in search of food and in reproducing its kind. Its instincts are constantly leading it to secure protection through concealment and we find it burrowing in the mud or sand, or hiding under stones, whether to await its prey or to pass in greater security the crisis of its successive molts.

In traveling over the bottom in search of prey the lobster walks nimbly upon the tips of its slender legs which are provided with sensitive hairs. When an enemy appears or the lobster is suddenly cornered or surprised it will immediately strike an attitude of defense. Raising itself on the tips of its walking legs, it lifts its powerful claws over its head after the manner of a boxer, and striking the offending object endeavors to crush it and tear it to pieces.

Sluggish as the lobster may appear when out of water and partially exhausted, it is quite a different animal, as we have seen when in its natural abode. It often captures its prey by stealth and with concealed weapons. Lying hidden, in a bunch of seaweed, in a rock crevice, or in its burrow in the mud, it waits until the victim is within reach of its claws. The sense of hearing is probably absent and that of sight far from acute but it possesses a keen sense of touch and smell, possibly of taste, and is quite sensitive to changes of temperature and light.

Lobsters are fond of clams, as they are of mollusks of all kinds. They are cannibals from birth, owing, primarily to their strong instinct of pugnacity. When crowded in cars or pounds they play the cannibal role at a great rate. Dealers and fishermen lose a percentage of their stock in this manner, the larger feasting on the smaller, even when the precautions of supplying them with food and separating the "soft shells" have been taken.

The reddish, darkish color of the adult lobster is due primarily to the presence of pigments, whether in a state of solution in the blood
or in the form of granules in the protoplasm of certain cells, particularly the chromatoplasm, which lie beneath the circular epithelium. The chromatoplasms are richly supplied with blood, which flows in a system of irregular sinuses through the spongy tissues underlying the epidermis.

In the adult lobster the hard shell is an opaque lifeless substance and the pigments to which it owes its characteristic coloring are excreted by the chromatoplasms of the soft underlying skin.

The Dish Maine Serves When Company Comes

New England lobster has received world wide acclaim. It is in great demand at banquets, restaurants, hotels and homes. Dishes made from the meat of this famed crustacean rank high in the repertoire of great culinary artists. Maine dealers ship thousands upon thousands of pounds to all parts of the world. The market expands with the improvements in transportation. Maine has a great opportunity in its lobster industry and steps must be taken to save it. The Maine lobster is regarded as the peer of them all. It has been widely advertised, mainly by satisfied folk who have consumed it. It must not be allowed to disappear and the Sea & Shore Fisheries Department is determined that it won't.

If you have never eaten lobster you have missed one of the greatest treats that the sea has bestowed upon the human race. Try them immediately and you will try them often. Be sure and eat more Maine fish products this year.

Some Good Old Fashioned New England Lobster Recipes

These recipes are taken from those used by New England housewives who have been preparing and experimenting with lobsters for years. They are not fancy or labelled with deceiving names but just plain, sensible, solid dishes that bring out all of the flavor and food value of these delicious crustaceans.

LIVE BROILED LOBSTER

Place lobster on its back and with a heavy knife split lengthwise. Save green fat and red coral. Throw away the "craw" or "crop" in the head and the dark vein down the tail section. Brush the meat of the lobster with seasoned melted butter, and broil for 15 or 20 minutes until thoroughly cooked. Serve hot with melted butter.
MAINE SEAFOODS

BAKED LOBSTER

Prepare lobster as for broiling. Mix toasted bread or cracker crumbs, melted butter, green fat, minced red coral, pepper and salt into a crumbly stuffing. Fill cavities of lobster with this and let a thin covering extend over all of the exposed meat. Bake in hot oven for about ½ hour. In baking several lobsters there may be more than one layer placed in the pan.

LOBSTER STEW

Cut up and fry cooked lobster meat in butter. Then turn into scalding hot milk, season with butter, pepper, salt and paprika. Let stand awhile before serving as it flavors better.

BOILED LOBSTER

Place live lobsters into a kettle of boiling, salted water. Boil rapidly 20 minutes for 2 pound lobsters, longer for larger sized ones. Remove from water, wipe dry and serve whole with side dish of melted butter.

SCALLOPED LOBSTER

2 pounds cooked lobster, ½ cup white sauce, ½ teaspoon salt, dash of cayenne pepper, 2 teaspoons lemon juice. Cut meat in small pieces and heat in the white sauce; add seasoning and fill baking dish with mixture; cover with fine bread crumbs dotted with bits of butter and brown in a moderate oven.

LOBSTER CROQUETTES

Chop fine the cooked meat of a 2 pound lobster. Cook 2 tablespoons butter and ½ tablespoon flour together until they bubble. To this add about ½ cup (scant) cream or water; then add lobster, salt and pepper and when hot, the egg well beaten. Set away to cool. When cool, shape, dip in egg and cracker crumbs and fry.

SHELL FISH a la NEWBURG

2 cups finely cut lobster, crab meat, shrimp or scallops, 2 tablespoons butter, 1 tablespoon flour, 1 cup milk, 2 hard boiled eggs, 1 teaspoon salt, cayenne pepper to taste, ¼ teaspoon paprika, and ½ cup cooking sherry. If canned fish is used cover with cold water 20 minutes and drain. Melt butter in sauce pan; add flour and stir until smooth; add cold milk slowly; boil until thick. Rub egg yolks through strainer and add, stirring until smooth; add seasoning and finely chopped egg whites; add fish and put all in top of double boiler and cook for 15 minutes. Add sherry and serve immediately.
LOBSTER SALAD
Mix 2 cups cooked lobster meat cut in small pieces with 1 finely chopped hard boiled egg and 2 stalks of diced celery. Season with salt and pepper and thoroughly mix with mayonnaise. Serve on crisp leaves of lettuce. Any kind of dressing may be used in place of the mayonnaise if desired.

GAY'S ISLAND
LOBSTER SCRAMBLE
1 cup lobster meat cut in small pieces, 3 eggs well beaten, mix with lobster and fry in a spider. This will serve two people.

LOBSTER SANDWICH SUGGESTION
Finely chopped cooked lobster mixed with any kind of salad dressing and seasoned with salt and pepper makes a delicious sandwich filling.
The CLAM

A Story of the Life and Habits of This Humble Creature

The common clam is known in New England as the “soft-shelled clam,” or “long-necked clam,” to distinguish it from the quahaug or hard clam. It has a wide distribution in the Pacific and the Atlantic oceans, in both the old and new World. In America its habitat is principally the Atlantic Coast from So. Carolina to the Arctic Ocean, where it is supplanted in the far north by a closely allied specie. It is scarce south of Cape Hatteras and most abundant along the New England coast where there is hardly an acre of flats from which at least a few clams cannot be taken. It is not a native of the Pacific but was introduced there in 1869, with oysters, from the East. In Maine the clam is found along the entire coast but in nearly every locality, the flats have shown the effects of overdigging, resulting in a more or less depleted condition. It is the purpose of the Sea & Shore Fisheries Department in its campaign to rebuild the Maine fishing industry, to revitalize this declining clam business with a system of conservation and propagation.

SOME MAIN FACTS
IN THE NATURAL HISTORY OF THE CLAM

The length of Life ..........Uncertain, at least 10 to 12 years.
Maximum Size ..............About 5 in. and weight of 1½ lbs.
Legal Size Clam ............(2 inches) is about 2 years old.
Becomes sexually mature ..in the second year.
Spawning Period ..........June 1 to August 31.
Average No. of Eggs ......(2½ in. clam) about 3 million.
Size of Eggs ..............1.387 of an in. or 48 million per cu. in.
Swims in Water ..........after hatching, for about 12 days.
Attaches itself ..........at end of free swimming period.
Burrows freely ..........until it is 1½ to 2 inches long.
Withstands ..........varying degrees of salinity.
Will Repair ...............usual injuries to shell.
Feeds on ..........microscopic plants contained in the water.
A bushel of Clams ..........yields about 8 qts. of “shucked.”
Food Value ..............Edible portion 34.55% of total.
An Acre .................With low average contains 1,089,000 or approximately 1,000 bushels and these may throw 5 billion eggs.
Exposed beaches with open surf are not inhabited with clams, as they take up their stationary life on the tidal flats, of bays, inlets, rivers or sheltered beaches. They are found in various kinds of soil, from rocky gravel to soft mud, but thrive best in a tenacious soil of mud and sand.

At high tide the clam extends its siphon or “neck” above the surface of the soil, drawing in a stream of water through the incumbent tube which is guarded by a row of tentacles. In this manner it feeds upon the microscopic plant forms strained from the water by its gills.

At low tide the clam rests in its burrow beneath the soil with its siphon partly retracted, leaving a telltale hole in the surface of the flat. Although the natural habitat of the clam is between the tide lines, it thrives beneath low water mark. The clams below low water mark grow more rapidly, being naturally protected thus they are a great help towards perpetuating the supply.

The clam is a higher type of organism than casual acquaintance may suggest. It has three “brains” one in the foot and the intestines pass through the heart. The vascular, nervous, excretory and reproductive organs are well developed and very efficient.

The principal enemies of the clam, other than humans are waterfowl, crab, starfish, oyster drill, cockles, worms and some fish. Due to their stability they are easy prey to their enemies. Despite this destruction the “natural balance” is upset by greedy man who has overdug the flats time and time again and made no allowance for propagation or conservation. This will be done by the Department and experiments in “marine farming” are now being planned for the near future.

In Castle or Hovel It Finds Great Favor

The clam is a delicious shellfood and is in great demand. Many large factories can them and they are a favorite dish on the menus of the public eating places and the home. Not many years ago there was a general idea that clams dug in a month without an “R” in it such as June or July were not fit to eat. This theory has been blasted many times and now more clams are sold for quick consumption throughout the summer than at any other period.

The ease with which they can be obtained along the Coast of Maine makes them especially popular. All one needs is a Clam hoe, a receptacle, a pair of boots and a strong back. It is easy to find beds
by the “telltale” siphon holes in the flats. In a short time, enough can be dug to provide a meal for a dozen.

The State has passed some Legislation for the protection of its clams but work along these lines has not been active enough. There are some closed areas where it is unlawful to dig clams for commercial use at certain times, yet these laws are not drastic enough to prevent destruction of the industry in a few years.

Several States and foreign countries are going into the “marine farming” business on a big scale and are achieving great results. Marine farming is one of the planks in the platform of this Department and it will be brought about.

Eat more clams this summer. They are luscious and they are nutritious. They contain Vitamins A, B, C, and D and are 9% protein. The mineral content includes calcium, copper, iron, sulphur and phosphorus, and it has the second highest iodine content of any fish.

Some Good Old Fashioned New England Clam Recipes

These recipes are taken from those used by New England housewives who have been preparing and experimenting with clams for years. They are not fancy or labelled with deceiving names but just plain, sensible, solid dishes that bring out all of the flavor and food value of these delicious shellfish.

STEAMED CLAMS

Make sure the clams are alive. Then wash the shells clean and place in kettle with very little water, about ½ cup to 4 quarts of clams. Cover and boil until clam shells open. Then serve with melted butter. Some prefer a few drops of vinegar, or lemon juice added to the butter. Strain the clam water off to drink as clam broth or serve it as clam bouillon.

CLAM CHOWDER

1 quart clams, 1 quart sliced potatoes, 1 onion cut fine, ¼ pound salt pork, 1 quart milk. Fry out pork diced, then place potatoes in kettle with the fat and cold water, (the clam water which has been drained from clams) and cook until potatoes are tender. Then add clams and boil just 3 minutes. Season with salt and pepper and add hot milk.

FRIED CLAMS

Season clams and roll them in finely sifted bread crumbs, flour or cornmeal. Then dip them into a beaten egg diluted with 2 tablespoons cold water and then back into the bread crumbs, cornmeal or flour. Fry either in deep fat or small amount of fat until brown. Serve with tartar sauce or catsup.
**MAINE SEA FOODS**

**FRIED CLAMS IN BATTER**

1 pint clams, 2 eggs, 1 teaspoon salt, 1/8 teaspoon pepper, 1/4 cup milk, 1/4 cup clam liquor, 1 cup flour, 1/2 teaspoon baking powder. Beat eggs, and add salt, pepper, milk and clam liquor. Mix and sift together the flour and baking powder, to which add the liquid mixture and beat until well mixed. Dip clams into this batter and fry in deep fat or small amount of fat as desired.

**CLAM CAKES**

1 pint clams, 1 pint flour, 1 egg, 1 teaspoon baking powder, 1 teaspoon salt. Remove soft part of clams and chop remaining part very fine. Sift baking powder and flour together. To this add well beaten egg and enough sweet milk to make batter thick enough to drop from spoon. Mix clams into this batter and drop from spoon into deep fat, or if desired fry in small amount of fat.

**INDIVIDUAL CLAM PIES**

Remove soft part from 1 pint clams and boil remaining part once hard in clam water. Take from fire and add soft part of clams, butter size of an egg. Season with salt and pepper. To this add enough pounded crackers to thicken a little and 1 cup of hot cream or rich milk. Fill individual dishes two-thirds full and cover the top with rich pastry. Bake brown and serve hot.

**SCALLOPED CLAMS**

1 pint bread crumbs, 1 quart clams, 1/4 pound butter, pepper and salt. Roll enough stale bread to make 1 pint crumbs. Sprinkle layer of crumbs in a well buttered dish; then a layer of finely chopped clams; add piece of butter, pepper and salt. Fill the dish alternately. Pour the clam water over this until nearly covered. Bake 1 hour.

**NEW ENGLAND CLAM BAKE**

Try this on a picnic on the seashore. It is a method of steaming the clams and they are delicious. A layer of large pebbles or small stones are arranged on the shore on which is built a fire which is kept burning briskly until the stones are red hot. The ashes are then raked away and a layer of wet seaweed packed on the stones. The clams are put on this and then another layer of seaweed put on. Cover with heavy canvas to keep the steam in. Leave 2 to 3 hours.

Corn, Potatoes or Live Lobsters may be added. Just how much of the delicious flavor is due to the seaweed and how much to open air eating would be hard to say, but the popularity of the clam bake is great.

A bake may also be made by making an oven of rocks and placing flat rocks on top, under which build fire. Keep fire burning while clams are cooking on top of flat rocks arranged in seaweed as above mentioned.
GROUND FISH
The Backbone of a Great Industry

WHEREVER there is water, there is likely to be fish, so geographically, fishing no doubt rates as man's most widely distributed endeavor. The most numerous fish is herring. In the United States the salmon is the most valuable food fish but these are caught mostly on the Pacific Coast and are too scarce on the Atlantic Coast to be of much value commercially.

The most important fishing center is the North Atlantic from Cape Cod to St. Pierre with the Coast of Maine being ideally located at the geographical center, of this great productive area. Here the fish standbys are cod, haddock, mackerel, herring, pollock, cusk, flounder and whiting. New England produces 27.5 per cent of the nation's fish and Maine will, if the present program of the Sea and Shore Fisheries Department can be carried out, come in for a great share of this lucrative business.

Finny Citizens of the Ocean Bottom

New England fish are sharply divided between ground fish and surface fish. The ground fish such as cod and haddock, swim only a few feet above the floor of the ocean. The surface fish, such as mackerel and the herring, swim only a few feet beneath the surface of the ocean. So the cod and the haddock are caught mostly in nets dragged along the bottom whereas the mackerel and herring are scooped up in a different type of vessel. Hundreds of small handliners, and trawlers are out daily bringing in much smaller catches than the big draggers yet it is these hundreds of "ordinary" fishermen that make up the bulk of Maine's ground fishing industry.

We have seen that the most important of the fish caught off New England are the cod, haddock, mackerel and herring. The other species such as halibut, flounders, cusk, pollock, hake, catfish, and sole are also in abundance and help to make up the great variety of seafoods that Maine Dealers put on the market.
The bulk of these fish, except for the catches of the smaller boats near shore, are taken on the fishing banks, submarine ledges, that stick out below the surface of the water at anywhere from a few feet to 600 feet, with 240 feet (forty fathoms) the most frequent depth.

There are a score of recognized banks, from Georges Bank, 120 miles off the Maine coast and 150 miles from Boston to Grand Banks about 1,000 miles from Portland or Rockland, the two major Maine fishing centers. The banks are all part of the main continental shelf, a kind of a jumping-off place that surrounds all continents, and beyond which the floor of the ocean slopes precipitously to the true ocean depths. Sometimes a bank becomes fished out or the fish migrate. Since more fish are eaten by other fish than are caught by man, it is believed, there is no possibility that the marine population will ever disappear. Indeed if the fish were not so voracious the ocean might not be big enough to hold them as it is estimated that one cod alone lays up to 10,000,000 eggs in one season. There are however signs of
the fish in coastal waters running out and the Sea and Shore Fisheries Department is making a survey of this possibility with an idea of giving some protection to the denizens of the deep during the spawning season.

Although New England remains traditionally the land of the cod, the haddock catch has recently been more numerous. However, the cod and the haddock, along with the pollock, the hake, and the cusk, are all members of the same family. The haddock usually weighs about four pounds, and is distinguished by two spots or smudges behind its gills. Cod are considerably larger than haddock, commonly being caught at weights from five to twenty-five pounds. Both cod and haddock travel in schools numbering thousands of fish and it is not extraordinary for 2,000 at a time to swim into the fisherman's net. Incidentally the famed scrod is a mythical creature, the name being applied to undersized cod and haddock that weigh up to two and a half pounds.

The mackerel (not a groundfish) run in schools even larger than the other fish; it is a mass of densely packed seafood sometimes reaching a length of twenty miles, a width of half a mile. The formation makes them easy prey for fishermen and for other fish but through some fish-of-feather-flock-together instinct they cling obstinately to it.

Halibut, flounders, cusk, pollock, hake, catfish and sole, less plentiful, have similar habits and are very important members of the New England fish family.

**The Favorite Food of Millions**

Draggers, handliners, trawlers, jiggers, seiners and sportsmen are all continually preying on the finny folk of the deep. Nearly every coastal town in Maine has dealers who buy and sell at wholesale or retail or both. Peddlers take these fish fresh from the water to the doors of your home in a short time. The principal markets have fish departments. Larger operators ship thousands of pounds to the metropolitan markets. The harvesting and marketing of fish is an important Maine Industry and gives employment to thousands. Due to the close proximity of the Maine Coast to the great fishing grounds there is a great opportunity at hand to enlarge this industry and make it a major economic asset to the State.

Dealers are finding new methods of preparing fish and of making
them more marketable and more profitable. Smoked fish, salt fish, fish sticks, fillets, fish cakes, and other variations add activity to the industry. From the waste valuable by-products are being developed. Catfood, dogfood, fish meal, cod liver oil, fertilizer and other materials are being made and sold from the sections of fish that were thrown away a few years ago.

Fresh Mackerel—A Sweet Morsel

The fish is a highly perishable product that starts to deteriorate as soon as it leaves the water. So as soon as it is landed everyone who handles it tries to get it to the next man as soon as possible. Through this high pressure system of quick turn-over the public can always be nearly sure of getting the freshest of fish at reputable dealers and eating establishments.

Probably 75% of New England fish are consumed, east of Cleveland
and North of Richmond, Va., a circle within a radius of Portland, of not more than 650 miles. For this restricted area the marketman has partly himself to blame, but the difficulty in keeping fish strictly fresh is the major reason for the unpopularity of fish that has gone too far from the sea. These facts demonstrate the great field of expansion before the men in the fishing industry. Improved methods of refrigeration and transportation will eventually open the great Southern and Western markets to New England fish and New England will prosper from its inherited wealth, “its fishing grounds” as never before.

Campaigns are being launched to educate the public to the food merits of fish. Even aside from the price comparison with meat, which is very favorable, there are other encouraging factors in the future of our fisheries. Most important is that the “fish cycle” again appears to be moving in the favor of the industry. The fish catch will mount steadily over a period of years, then, for reasons not entirely clear, go through a declining period. It was at the low point of one of these declines that the 1931 trawlers brought in loads of 25,000 pounds less than today’s average. But the cycle—particularly of haddock—is again swinging upward and from every indication there should be better fishing in the next few years. Furthermore, fish supply protein in a more digestible form than either hog or steer and the industry trusts that it will eventually educate the more sedentary American citizen to this important fact.

Maine has a great opportunity in its fisheries. Its Sea and Shore Fisheries Department realizes this and is making every effort to see that every advantage is taken of the chance to rebuild and revitalize this important industry.

We suggest that you eat more Maine fish products this year and satisfy your craving for healthful, delicious dishes that will place a much smaller tax on your pocketbook, than other well known edibles.

**Some Good Old Fashioned New England Ground Fish Recipes**

These recipes are taken from those used by New England housewives who have been preparing and experimenting with fish foods for years. They are not fancy or labelled with deceiving names but just plain, sensible, solid dishes that bring out all of the flavor and food value of the delicious fish products.
BAKED FISH

Take a cod, haddock, or cusk, which has been scaled and cleaned and put it in a roasting pan. Then stuff it with dressing made of 1 pint bread crumbs moistened with a little water, 1 small onion, chopped fine, 1 tablespoon butter, salt and pepper. Score the fish 3 or 4 times across and in each of these cuts place a thin slice of salt pork or bacon. Sprinkle salt and pepper over the fish and dredge with flour. Add a little hot water when putting in oven and baste occasionally. Bake 1 hour or longer if necessary. Garnish with slices of lemon or with parsley. Make a gravy of the fat left in the pan, by adding 2 tablespoons flour and 1 cup milk or boiling water. Stir until it thickens.

BAKED MACKEREL

Clean and split mackerel and season with salt and pepper. Place skin side down in a greased baking pan. Pour ½ pint of seasoned milk over fish and cook in hot oven about ½ hour.

SPICED MACKEREL

Place mackerel in a crockery jar or bean pot, sprinkle with salt, pepper and cloves and cover with vinegar. Bake 2 or 3 hours or until done. Fresh alewives or herring may be cooked in the same way.

BAKED FINNAN HADDIE

2 cups cooked finnan haddie, 2 cups milk, 1 cup buttered bread crumbs, 1 teaspoon chopped onion, 1 tablespoon chopped green pepper, 3 tablespoons butter, 1 teaspoon salt, ¼ teaspoon paprika, 3 tablespoons flour. Cook onion and pepper 5 minutes in butter, stirring constantly. Add salt and paprika mixed with flour. Gradually add milk, stirring all the time. Bring to boiling point and add fish. Pour into greased baking dish, cover with crumbs and bake in oven until crumbs are brown.

CREAMED FINNAN HADDIE

Take good sized piece of thick finnan haddie, cut in ½ inch pieces. Plunge into 1 pint boiling water for 5 minutes, remove and drain. Place in small saucepan 1 ounce butter and 1 ounce flour and stir briskly 1 minute. Then pour in ½ gill milk and ½ gill cream and season with cayenne and stir until it boils. Add fish and boil 5 minutes. Serve hot with baked potatoes.

FRIED FISH

Clean fish and dry thoroughly. Cut in pieces and dust with salt and pepper. Heat 1 tablespoon bacon drippings or other fat in pan over hot fire. Put in fish and brown quickly on both sides then reduce heat and fry 5 or 10 minutes until done. Serve with lemon or tartar sauce.
BROILED FISH

Clean fish and dry thoroughly. If fish is large cut into slices. Season with salt and pepper. Cook on well greased broiler from 10 to 20 minutes turning once. Remove to hot platter; add melted butter and sprinkle with chopped parsley and garnish with slices of lemon and serve.

FISH HASH

Take equal parts of cold flaked fish and cold boiled potatoes finely chopped; season with salt and pepper. Fry out salt pork, remove scraps, leaving enough fat in pan to moisten fish and potatoes. After thoroughly mixing fish and potatoes put into hot fat in frying pan and cook until well browned, then turn and fold like an omelet.

EASY FISH BALLS

1 cupful shredded salt fish that has been previously cooked; 2 cupfuls cold or hot mashed potatoes; 1 egg, pepper. Beat well together, shape and fry.

HADDOCK SMOTHER

Cut a 5 pound haddock into junks and place in kettle with ¼ lb. butter, pepper and salt and just enough water to keep fish from burning. Cook slowly until fish will fall from bones, then add 1 or 1½ qts. milk. Serve very hot with oyster crackers or saltines.

FISH CHOWDER

Cut 2 or 3 slices salt pork and fry until crisp in kettle. Then put into the kettle 6 medium sized potatoes cut in pieces and 1 small, finely chopped onion. Cut fish in small pieces and lay over potatoes; add seasoning, ½ teaspoon pepper and 2 teaspoons salt and enough water to come to top of fish. Cover closely and cook until potatoes are soft. Then add 2 qts. milk and let scald. Serve very hot with crackers.

FISH STICKS IN MILK

Sprinkle 2 fish steaks about 1 lb. each with ½ teaspoon salt, ¼ teaspoon pepper and ¼ cup flour. Place in pan and cover with 1½ cups milk and bake 10 minutes in hot oven. Take from oven and cover with 2 sliced medium sized Bermuda onions which have been cooked in fat until a delicate brown and lay a strip of bacon on each piece of fish. Then return to oven again and bake 10 to 15 minutes more.

SOME FISH SANDWICH SUGGESTIONS

Fish—Minced Green Peas—Mayonnaise.
Fish—Sliced Chopped Olives—Chopped Nuts—Dressing.
Fish—Cream Cheese—Minced Celery—Lettuce.
Minced Sardines—Lettuce—Cheese—Mayonnaise.
Minced Sardines—Minced Pimiento—Chopped Nuts—Butter.
Sardines—Chopped Pickled Beets—Dressing.
Salmon—Sliced Tomato—Lettuce—Mayonnaise.
Salmon—Lettuce—Minced Celery & Green Pepper—Dressing.
The SCALLOP

Its History, Its Development and Its Uses

Although often found by fishermen in the early days, the scallop was not considered an edible shell fish. Since, it has become one of America's choicest seafoods, and is considered nearly as much of a delicacy as the lobster. The market has been expanded, in the past few years by energetic dealers, and has reached all sections of the country whereas but a short time ago it was confined mostly to N. E.

They were first harvested, commercially along the coast of Maine, about fifty years ago. Abundant beds were discovered in the waters around Penobscot Bay and fishermen, using crude hand drags, brought in unheard of catches. This lasted for a few years, and despite new beds being discovered continually, the supply became practically exhausted. The beds were closed from April 15th to November 1st for the purpose of conservation, but this did not prove sufficient measures to revive the beds.

As the market was becoming established and stabilized it was necessary to seek new sources of supply and this problem was solved fifteen years ago when Government surveyors found huge beds out on the Georges Shoals, which are 150 miles from the nearest port. If these beds were to be worked, new and improved methods of harvesting must be developed and in a short time 75 to 100 foot draggers equipped with power drags were tapping this new bonanza. It proved profitable beyond expectations, and the dealers were soon overrun with so many scallops that the undeveloped market would not absorb them.

Scallops Are a Delicious, Nutritious Sea Food

This resulted in an extensive campaign to make America "Scallop conscious" and good results were obtained. The market grew and expanded. Improved shipping, and marketing methods were developed. Soon the dealers could sell all they could obtain and today the industry employs about fifteen hundred fishermen and one hundred and twenty-five boats costing from $5000 to $35,000 each. There is still some activity in dragging, along the New England coast, by smaller boats but a great percentage of the supply is brought from Georges. It is believed that there are other great beds in mid-ocean and when
the Georges beds begin to become exhausted a more extensive survey will be made by the energetic fishermen and dealers.

Scallops are usually found on sand and gravel bottom. The drags which consist of an iron framework from 6 to 12 feet long and 2 feet deep with a netting bag attached are let down to bottom and are dragged along by a one-half inch wire cable about 170 fathoms long. Two of these drags are used, one on each side of the boat and will hold from six to twenty bushels. After being towed for about a half hour they are raised to the surface by the same power that propels the boat.

The scallops are dumped on the deck, culled and placed on shucking benches. The crew starts shucking, throwing the shells and nonedible parts overboard. The large abductor muscle or the eye is the only part of the scallop that is used for food, the rest being waste and used only for fish bait, when saved. Meanwhile the drags are down again and by the time the catch is shucked another is ready. This is a continuous performance for twenty-four hours around, the crews of the large boats working in shifts. After being shucked and washed thoroughly the scallops are packed in ice and put in cotton sacks containing thirty pounds each.

After fishing for six to eight days the boats start a twenty hour trip to market. Ashore the scallops are sold to local dealers, and packed in gallon cans, or sacks, iced and placed in barrels holding from five to twenty-five gallons. They are then shipped all over the United States to be served, on the tables of hundreds of hotels, restaurants and homes.

The usual arrangement between the boat owner and his crew, is that first, 40% of the gross revenue is taken out for the boat share which goes to the owner. Then the expenses are taken out and the remainder split equally. The men average about $80 a trip, when the fishing is fairly good. The offshore season lasts from around the 1st of May to the 1st of October.

It takes about two bushels of scallops in the shell to make a gallon of nine pounds. The shells consist of two sides of equal diameter joined together by a thin ligament. The abductor muscle or eye is used to open and shut the shell. Sea scallops four years old are large enough to sell. At this age they are about six inches in diameter and often grow to be as large as a dinner plate.
Until 1918 it was very difficult to get anyone to eat scallops during the summer months or the months that did not have the letter "R" in its spelling, such as May or June. This idea of the scallops being unfit to eat during those periods has been dispelled and now more are produced, and eaten, during the summer months, than at any other time of the year.

The shell is adapted for swimming, the mantle lobes are supplied with numerous sense tentacles and eyes used in detecting enemies, the foot is comparatively small, and split at the end, the stomach lies near the hinge line, surrounded by the liver, muscles for withdrawing the mantle and gills are well developed, the excretory organs are large sacs with glandular walls, the genital organs are large, pink in the female and white in the male, blood seems to act both as blood and lymph, the eyes are numerous and optically arranged for the formation of images, the development is normal and rather rapid, the cerebral system is small and somewhat removed from their usual positions. Each gill is attached, by one lamella to the muscular membrane that serves to elevate the gills when the shell is closed and this is the end of the story of the sea scallop and its development to serve mankind.

Some Good Old Fashioned New England Scallop Recipes

These recipes are taken from those used by New England housewives who have been preparing and experimenting with scallops for years. They are not fancy or labelled with deceiving names but just plain, sensible, solid dishes, that bring out all of the flavor and food value of these delicious shellfish.

SCALLOP STEW

Fry in butter until thoroughly cooked 1 pint of fresh scallops, cut in pieces about the size of a walnut. Season with salt, pepper and paprika. Then turn them into double boiler containing 1 1/2 quarts of scalding hot milk and let cook for about ten minutes.

SCALLOPS a la POULETTE

Wash, scald and drain 1 pint of scallops and stir them into 1 cup white sauce seasoned with 1/2 teaspoon salt, 1/2 teaspoon white pepper, 1 teaspoon lemon juice. Cook until the scallops are done, about 10 minutes. Just before removing them from fire add the beaten yolks of 2 eggs and 1 tablespoon of finely chopped parsley.
CREAMED SCALLOPS

Cook in salted water for 20 minutes 1 quart of scallops and 1 onion. When cooked drain in colander and then cut them in small pieces and place in baking dish. Thicken \( \frac{1}{2} \) pint milk with a little flour, to which add \( \frac{1}{2} \) pint cream and 1 tablespoon butter. Pour this mixture on scallops and mix thoroughly. Then sprinkle bread crumbs over top and place in oven until well browned.

SCALLOP SALAD

Scallops make a delicious salad when mixed with lobster, hard boiled egg or celery or by themselves, served on lettuce leaves with any kind of dressing.

FRIED SCALLOPS

Wipe scallops dry and season, then roll them in finely sifted bread crumbs, flour or cornmeal. Dip them into a beaten egg diluted with 2 tablespoons cold water and back into the bread crumbs, cornmeal or flour. Fry in deep fat, or a small amount of fat until brown. Serve with tartar sauce or catsup.

DEVILLED SCALLOPS

Chop and heat 1 qt. scallops. Slightly warm \( \frac{1}{2} \) cup butter, beat to a cream and add to scallops. Season with \( \frac{1}{2} \) tablespoon mustard, \( \frac{3}{4} \) teaspoon salt, \( \frac{1}{4} \) saltspoon cayenne. Add 1 cup hot milk. Put in shell or a dish. Scatter bread crumbs over with a spoonful of butter and bake 20 minutes.
The SHRIMP

A New and Fast Growing Maine Fishery

Although this specie has probably been abundant all along the Maine coast for countless years, little was known about them until the summer of 1936 when experiments in a commercial fishery were first made. Fishermen had often found them in their nets and traps but never seriously considered them as a potential source of income.

Over in Norway, Dr. Johan Hjort, fisheries expert of Oslo University had been making an exhaustive study of the small crustaceans and reasoned that they should find the waters of the Gulf of Maine suitable for breeding and feeding. With this in mind he came to America in the summer of 1936 bringing along a well known Norwegian fisherman and a supply of equipment that had been operated successfully in the many north country fjords.

Experimental operations were so successful that the Massachusetts Fisheries Association offered to contribute to cover the personal expenses of Dr. Hjort and his assistant for a continuation of the activity. The Fisherman’s Relief Corporation of Maine supplied a well equipped trawler and a large section of the coast was covered during October.

It was established beyond doubt that there was a potential fishery of superior quality shrimp but due to lack of equipment and the element of gamble fishermen were slow to try their luck.

In the spring of 1937 some good landings were brought to Portland and in 1938 Maine fishermen started in earnest after Captain Otis Thompson came into port one February afternoon with 2000 pounds aboard. Steadily mounting total landings in the new industry represented a much needed additional source of revenue to hard pressed fishermen.

Practically all of the activity was carried on through the late winter and early spring months. The department of Sea and Shore Fisheries under Commissioner Arthur R. Greenleaf hoping to create a year around fishery launched experimental summer dragging operations from Kittery to Eastport but results indicated that a summer fishery was not practical, with the present methods of fishing, at least.

The Maine shrimp while smaller in size than the familiar species of our southern waters are much sweeter and more delicate in flavor.
They are considered to be a superior product by all who have tried them and rapidly growing markets are being obtained. Portland is the leading shrimp port but there are also large landings in Rockland and in Friendship where a nationally known canning concern packs them in a modern factory.

Habits of the Shrimp

Observation of the shrimp under natural conditions is so difficult that only the most obvious habits can be thus determined. They are most common on sandy bottom and spend much of their time in deep water although in rare instances schools have been seen on the surface. Usually they swim in two ways and when moving rapidly virtually leap backward by flexing the powerful muscular abdomen and sweeping the large tail fin under the body. In this manner they sometime leap out of the water similar to a fish.

They are voracious eaters their food consisting principally of worms, small mollusks, plant debris and crustacea (not excluding shrimp of the same specie).

Although they have an extended breeding season of at least 4½ months their life span is very short and believed by some sources to be no more than a year. Females produce a very large number of eggs.

Extent of Fishery

From a national standpoint the shrimp fishery is of considerable economic importance. In 1929 over 113,000,000 pounds were caught and valued at nearly $5,000,000. It is believed that eventually Maine will become a major producer of the product, the greatest need now being development of markets. The crustaceans are there and their qualities of taste and tenderness are unquestioned. By all means you should try this product and we feel that your reaction will be a very favorable one. Insist upon Maine shrimp the next time you feel hungry for this delicacy.

Some Time Tested, Delicious Shrimp Recipes

Although many of these recipes have been contributed by Maine housewives some were supplied by the St. Augustine, Fla., Chamber of Commerce as winners in a prize contest. Be sure that you use Maine shrimp in preparing these dishes.
Dragging for Shrimps from the Clear, Cold Waters of the Gulf of Maine
MAINE SEA FOODS

FRIED SHRIMP

Average 1 pound headed raw shrimp per person. Six pound fresh headed large shrimp, 6 eggs, one 10-ounce package cracker frying meal, 1 pound vegetable oil shortening for deep frying, salt and pepper to taste. **Shrimp should not be boiled before frying.** Rinse the prepared shrimp in cold water, drain and place in refrigerator for two hours if possible before frying. Beat eggs, season to taste, dip shrimp in beaten egg, roll in cracker meal, fry in deep hot fat until light brown. Drain on brown paper. Serve with datil pepper sauce or tomato catsup as desired.

**SHRIMP CREOLE**

- 3 cups hot boiled rice
- 2 tablespoons fat
- 2 cups tomatoes
- 2 cups peas
- 2 onions, sliced
- 1 tablespoon vinegar
- 1 cup water
- 4 stalks celery, chopped
- 2 cups peas
- 1 tablespoon sugar
- 1 teaspoon chili powder
- 1 1/2 cups cooked shrimps
- 1 teaspoon salt
- 1 cup cold water

Cook the onions and celery until brown in the fat, add flour, seasonings, and slowly add the water. Cook fifteen minutes. Add tomatoes, peas, vinegar, sugar and shrimps. Continue cooking ten minutes more or until shrimps are thoroughly heated. Mold rice either in cones or ring and surround with the Shrimp Creole. Yield: 7 servings—1/4 cup.

**SHRIMP SALAD**

Two cups cooked shelled shrimp. Pull to pieces with fork to make light. Mix with one cup finely diced celery. Moisten with mayonnaise dressing and season to taste with salt and pepper. Place on nest of shredded lettuce or tender heart leaves. Garnish with spoonful mayonnaise, with a shrimp and two thin strips of sweet green pepper. Serve ice cold.

**SHRIMP CHOWDER**

- 2 lbs. fresh shrimp
- 2 crackers rolled fine
- 2 tablespoons butter
- 1 quart milk
- Paprika or cayenne
- 1 slice onion
- 1 cup cold water—salt

Chop the shrimp in small pieces, cream butter, add the finely grounded crackers, scald the milk with onion, remove the onion and add milk to the mixture. Season with salt and paprika.
MAINE SEAFOODS

SHRIMP SALAD
3 cups of cooked shrimp 1 cup of celery diced

Blend well with ¾ cup mayonnaise, sprinkle with paprika, garnish with chopped parsley and hard boiled egg.

SHRIMP WIGGLE
1 lb. fresh cooked shrimps 2 cups milk
4 tablespoons butter ½ teaspoon salt—dash of pepper
4 teaspoons flour 1 cup of canned or cooked peas

Make a white sauce of butter, flour and milk, season with salt and pepper, add shrimp with the peas, heat thoroughly, serve on thin slices of butter toast. Serves 6.

SANDWICH FILLING
Gulf of Maine cooked shrimp chopped, celery, hard boiled egg and mayonnaise. Makes a delicious filling for either bread or crackers.

CREAMED SHRIMP
1 cup cream sauce
¼ teaspoon celery salt
¼ cup walnut meats

½ teaspoon paprika—little nutmeg
1 cup of fresh shrimps cooked
Bring to boiling point—Serves 4 to 6

CREAMED MACARONI AND SHRIMPS
2 cups of cooked macaroni
2 tablespoons butter
3 tablespoons flour

1 cup shrimps cooked
1 teaspoon salt—little pepper
1½ cups milk

Make a sauce of the butter, flour and milk, add shrimps broken in pieces.

STUFFED EGG AND SHRIMP SALAD
1 large head of iceberg lettuce
1 pint fresh shrimps
French dressing

1 can small sardines
Parsley—pickles—mayonnaise
6 stuffed eggs

Prepare the lettuce by cutting out the core and holding the head of lettuce under cold water faucet; let the cold water run through lettuce, chill and crisp in refrigerator, combine shrimp with french dressing and chill, separate the leaves of lettuce without breaking from the head, and place the green flower-like bowl that results on a large round platter. Heap the center with half the shrimp and tuck the rest of the shrimp among the leaves. Border with the stuffed eggs, each topped with a sardine. Garnish with parsley and slices of pickle, in serving pass a choice of french dressing or mayonnaise.
SHRIMP SOUFFLE

1 lb. fresh cooked shrimps  4 eggs  
1½ cups milk  Salt and pepper  
¼ cup butter  ½ cup flour

Melt butter, add flour stir until smooth, add hot milk, remove from fire and add the well beaten yolks, shrimps and seasoning. Let cool, then add well beaten whites of eggs, turn into a buttered dish, set dish in a pan of hot water, bake ¾ of an hour in slow oven 325 degrees.

SHRIMP AND PINEAPPLE SALAD

1½ cups of fresh cooked shrimp  
1 cup of pineapple diced  
½ teaspoon paprika

Serve on endive leaves.

BUTTERED SHRIMP

3 lbs. cooked fresh shrimp  
3 tablespoons butter  
½ teaspoon salt

Fry shrimp meat gently until a delicate brown in butter mixed with the meat sauce, vinegar, and salt. Serve with triangles of toast. Garnish with parsley and sections of lemon.

SHRIMP STEW

Heat 1 quart of milk, add one whole onion. Fry in butter 2 cups of chopped fresh shrimp. Remove onion from milk, and add the fried shrimp, season with butter, salt and pepper. Let stand for a while, but do not boil. Serve with crisp saltines. Serves 6.

BISQUE OF SHRIMP

1 quart of chicken stock  
2 slices each onion and carrot  
Bit of bay leaf  
Sprig of marjoram  
Blade of mace  
½ teaspoon peppercorn  
2 tablespoons cornstarch  
½ teaspoon salt  
½ teaspoon pepper  
2 tablespoons lemon juice  
½ pint fresh shrimps  
½ cup heavy cream

Serves 6

SAUTE SHRIMP WITH CELERY

½ lb. Shrimp  
Wesson oil  
1½ tablespoons lemon juice  
Few drops Worcestershire sauce  
1 teaspoon horseradish  
1 teaspoon salt  
Fine dry bread crumbs  
½ cup minced celery  
1 cup white sauce

Rinse shrimp in cold water, drain and add the seasonings. Let stand in cold place for at least 30 minutes, then roll the shrimp in bread crumbs and saute in sufficient oil to keep them from sticking. Transfer to buttered toast, pour over the white sauce and sprinkle with the minced celery.
GULF OF MAINE SHRIMP PUFFS
(Woman’s Home Companion)

2 cups flour 1 egg
1/2 teaspoon salt 1 cup milk
3 teaspoons baking powder 1/2 lb. shrimp meat

Sift flour, salt and baking powder. Beat egg and add to milk and shrimp meat. Stir into the flour mixture and mix thoroughly. Have a kettle of hot fat ready. Drop the shrimp mixture from a large spoon into the fat and fry until a delicate brown.

SHRIMP A LA NEWBURG

1 lb. shrimp 1 pint cream
2 tablespoons butter Yolks of two hard boiled eggs
1/4 teaspoon paprika 1/4 cup cooking sherry or dash of
3 tablespoons flour Worcestershire Sauce or A-1
Pepper and salt to taste

Put cooked shrimp in double boiler with butter and seasonings. Allow butter to melt. Sprinkle flour in slowly stirring constantly. When smooth and thick add cream into which the egg has been chopped. Cook ten minutes, adding sherry or sauces just before serving. Serve on toast.

SHRIMP DRESSING

1/4 cup mayonnaise 3 minced small swt. pickles
1/2 cup chili sauce 2 tablespoons minced celery
2 finely minced green onions Few sprigs minced parsley
1 tablespoon Worcestershire 1 teaspoon horse radish

Combine the mayonnaise and the chili sauce in a bowl. Add the remaining ingredients, mix well. Chill. Arrange the selected sea food on lettuce on individual plates and put a generous spoonful of the dressing on each serving.

COCKTAIL SAUCE

4 tablespoons lemon juice 4 tablespoons catsup
2 tablespoons horse radish 2 tablespoons chili sauce
2 tablespoons Worcestershire 1/2 teaspoon salt
Few drops Tabasco sauce 1/4 cup chopped celery hearts
1 tablespoon anchovy paste
MAINE SEA FOODS

STUFFED PEPPERS

1 cup cooked shrimp 2 tablespoons minced tomatoes
6 green peppers 1 teaspoon salt
1 tablespoon butter ¼ teaspoon minced parsley
¼ tablespoon minced onion ½ cup bread crumbs
½ cup mushrooms

Cut off tops of peppers, discard seeds. Parboil peppers. Heat butter, add onion and tops of peppers chopped, and let simmer until tender. Add mushrooms and let peppers chopped; then add tomato, salt, parsley and shrimp. When all is heated together dust in crumbs. Fill peppers, put a piece of butter on each and bake 10 minutes in hot oven, (400 F.). Serves six.

Foregoing recipes recommended for serving Gulf of Maine Shrimp

PREPARED AND DISTRIBUTED
BY THE
SEA AND SHORE FISHERIES

STATE OF MAINE
ARTHUR R. GREENLEAF, Commissioner
BOOTHBAY HARBOR, ME.
1939