

United States Department of the Interior, Douglas McKay, Secretary  
Fish and Wildlife Service, John L. Farley, Director

-----  
Fishery Leaflet 358 (Revised)

Washington 25, D. C.

September 1954

THE CHESAPEAKE BAY CRAB INDUSTRY

By James Wharton 1/

CONTENTS

	<u>Page</u>
INTRODUCTION.....	2
CAPTURE.....	4
The Crab Dip Net.....	4
The Crab Push Net.....	5
The Crab Scrape.....	6
The Crab Fyke.....	7
The Crab Haul Seine.....	8
The Crab Pot.....	9
The Crab Dredge.....	10
The Crab Trotline.....	12
MARKETING.....	13
The Buy Boat.....	13
The Shedding House.....	14
The Crab Picking House.....	15
Freezing.....	16
Canning and Byproducts.....	17
PUBLICATIONS.....	17

---

1/ Fishery Marketing Specialist, Statistical Section, Branch  
of Commercial Fisheries, Weems, Va.

# THE CHESAPEAKE BAY CRAB INDUSTRY

By James Wharton

## INTRODUCTION

The 4,000 square miles of the Chesapeake Bay and tidal tributaries, from the James River to Pocomoke Sound and beyond, form one of the great blue-crab nurseries of the world. Here the blue crab Callinectes sapidus feeds, breeds and matures, providing a highly marketable commodity for thousands of Maryland and Virginia crabbers, and a highly palatable food for Americans.

Whole blue crabs appear in the market in two principal forms, hard and soft. The hard crab contains delicious meat, but for the uninitiated it is difficult to extract. Therefore, it is usually sold picked out and graded in 1-pound containers, prepared in shore plants by professional pickers. The soft crab, as its name implies, is free from the hard shell. It is shipped alive in special protective packing. A third form may be mentioned in passing, "peelers." These are hard crabs preparing to molt, or shed their shells in course of growth. In commercial records they are classed with soft crabs. They are used by hook-and-line fishermen for bait.

The meat of the blue crab is not only a fancy item in food stores, but is a nourishing, digestible food.

Though it required developing refrigeration and transportation in the not-so-distant past to arouse the industry from its long-dormant state, some Americans had always eaten and enjoyed crabs. Countless observers of the New World during Colonial times referred to abundance of crabs along the Atlantic Coast. Richard Parkinson, British traveler, reporting on the habits of Americans during his visit at the close of the 18th century, dwelt on the popularity of both hard and soft crabs, but added that they were consumed only in the immediate areas of capture. As late as 1880, with the Bay swarming with uncaught millions of crabs, only three crab-meat-processing firms were officially listed.

Preservation of the meat at about this time by heating and sealing in cans was patterned on the highly-successful oyster-canning industry of the mid-19th century, but as an enterprise it was short-lived. The canned article could not compare in flavor, appearance, or price with the fresh meat. As the production of the latter expanded, the former disappeared altogether. It was not until about 1938 that a method was first successfully introduced to can meat without loss of quality, a process protected by patent, with rights leasible. But Chesapeake Bay crab meat is still not canned to any great extent, principally because the fluctuations in supply and price work against the regular maintenance of such an operation.

The perishability of crab meat has long been a problem of the industry. Most freezing and holding techniques fall short of preserving quality intact. In 1951 a patent was granted to a Maryland packer for what

might be called a pasteurization process. Under it crab meat has been successfully held in cold storage for comparatively long periods. When improved preservation methods become general the industry may achieve the stability it sorely needs. Under present conditions crabs that sell for \$3, or less, per 100-pound barrel in July may bring \$20, or more, in February.

There is a limiting production factor in the crab-meat picker, usually a woman practiced in taking the meat from the shell by hand. No mechanical means for accomplishing this task has yet been devised. Pickers are semi-skilled workers, and even in the main production centers of Hampton, Virginia, and Crisfield, Maryland, never form a large group. Consequently, no matter how great the supply of crabs, the quantity of meat produced must be determined by the availability of pickers. Thus, when crabs are superabundant, a landing quota is given crabbers so that the pickers will not be overwhelmed.

A recent count lists about 200 firms in the Chesapeake area, whose operations range from a two-man outfit shipping perhaps 10,000 soft crabs a season, up to picking houses producing 100,000 pounds of meat during the calendar year. The total gross income of these enterprises will hover around \$6 million during a fair year.

Ordinarily about 4,000 persons find seasonal employment in catching and transporting crabs in the Chesapeake area. Processing and handling furnish occupation to about 1,100 more, most of them the year round. However, the crab business can verge on the precarious when either scarcities or gluts occur. Imports from other states may ameliorate the first, but making use of gluts still cries for solution.

The Chesapeake Bay industry receives substantial competition from States to the south, but to the north blue-crab production is of comparatively minor proportions. Warmer winters in the Southern Atlantic and Gulf assure a steadier supply of hard crabs than in Chesapeake Bay, but in the matter of soft crabs the Bay remains supreme. It contains vast areas offering well-nigh ideal conditions to molting crabs, and, let it be added, excellent conditions for their capture, such as shallow, sheltered waters with a smooth bottom.

A number of years ago it was found that in a fairly well-determined area in the lower Bay large concentrations of spawning, or "sponge-bearing," female crabs gathered, presumably because the salinity there favored hatching. Following recommendations by biologists this was marked off as a "sanctuary." It is under legal control by Virginia, to be opened or closed or closed to crabbing following the advice of qualified experts. Other conservation measures are: minimum size limits on crabs possessed or sold, specified seasons for some gears, and the complete prohibition of certain others. Maryland and Virginia crabbing laws do not coincide in all respects, even though the same crabs are common to the waters of both. Continuing investigations, such as, for example, crab-tagging, are expected to clear the ground for future attempts at unification.

However, the big question of whether production can be so controlled as to allow for steady industrial growth remains unanswered. For the present, it appears as though the industry has reached its limit of development. Predicating no greater natural supply than is available in a normal year, the industry would be capable of considerable growth if practical means could be devised (1) to apply mass-production techniques to processing and (2) to combat more successfully the extreme perishability of the crabs themselves. These problems are under constant study by State and Federal agencies.

### CAPTURE

A number of methods of taking crabs, more methods perhaps than for any other one creature of the sea, are in use in Chesapeake Bay. Two of them have been patented. Methods range from dredging, which usually requires a boat of 5 net tons or more, carrying one or two heavy dredges and a crew of three to five men, down to a lone youngster without a boat, wading over the river flats with a home-made push net. There are incidental catches also, as when soft crabs are caught in shad gill nets, and hard crabs in pound nets, haul seines, eel pots, catfish pots, oyster tongs, and by hand lines. For that matter, every fishing gear known in the Bay has brought in crabs at one time or another.

Described below are the best known and most used ways of capturing crabs. Some, like the dredge and crab pot, are limited in their activity by law; others only by the nature of the crab itself.

#### THE CRAB DIP NET

The dip net is a ring or "bow" of  $\frac{1}{4}$ -inch iron, 1 foot in diameter, to which a net, usually hand-woven of cotton twine, is attached. It is set on a pole handle about 8 feet long and is used by the crabber as he stands on the bow of his skiff. Sometimes his skiff is "sharp ended." That is, each end is bow-shaped for quick maneuvering. Such skiffs are specially designed for soft crabbing. In shallow water, the fisherman poles the skiff with the handle end of the net until he spies a soft crab or peeler, which is usually resting on the bottom, almost indistinguishable to the inexperienced eye. With a swift motion, he scoops the crab up and, if it is a peeler, "nicks" its claws and drops it in a specially constructed "well" in the center of the skiff. Nicking the claws is important because it prevents the crabs from preying upon and destroying each other. It should be done with skill to avoid the wounding which might possibly cause death from bleeding. The correct method is to force out the movable prong of the claw carefully until it snaps at the hinge. The purpose of the "well," which is nothing but a live-car built into the skiff, with holes in the bottom for the free passage of water, is to insure the good condition of the crabs until they are delivered to the shedding house. The well is divided--one side for peelers, one for soft crabs.

Many dip netters carry a bottle of linseed or menhaden oil. When the water is ruffled by the wind so that visibility at the bottom is difficult, a few drops of oil will clear up the immediate area around the skiff.

The number of crabs caught by the dip net varies greatly. Weather conditions must be just right for maximum catches. Dip net crabbing is at its best in the calm of early morning, especially if the weather is clear and the tide low. Many crabbers arrive at the grounds before sun-up; by noon, their workday is usually over.

Fig. 1 -- Crab Dip Net

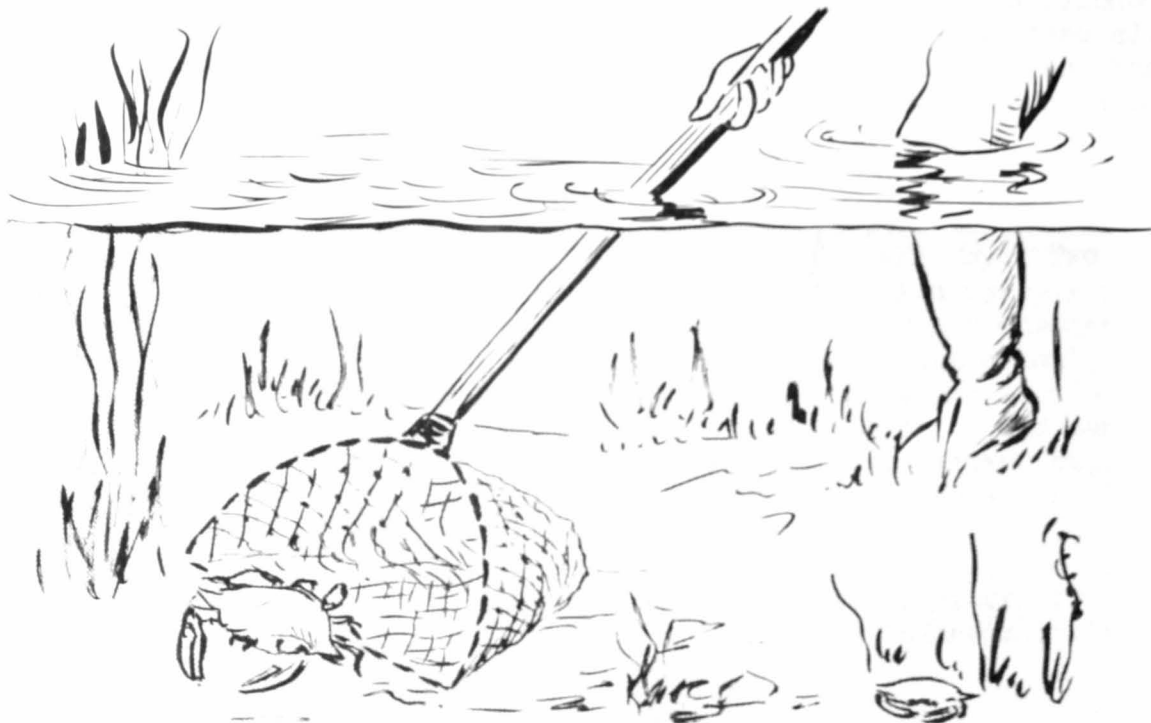


#### THE CRAB PUSH NET

The push net is used while wading and serves to capture soft crabs hidden in the eel grass that often grows thickly on crabbing grounds. It resembles a dip net except that the iron bow is about twice as large, flattened and provided with a guard bar to prevent abrasion of the twine net where it comes into contact with the bottom. As it is pushed, it becomes filled with everything in its path. As the crabber empties it, he

removes any soft crabs or peelers and places them in his skiff or in the live-box floating in the water behind him, towed by a line fastened round his waist.

Fig. 2 -- Crab Push Net



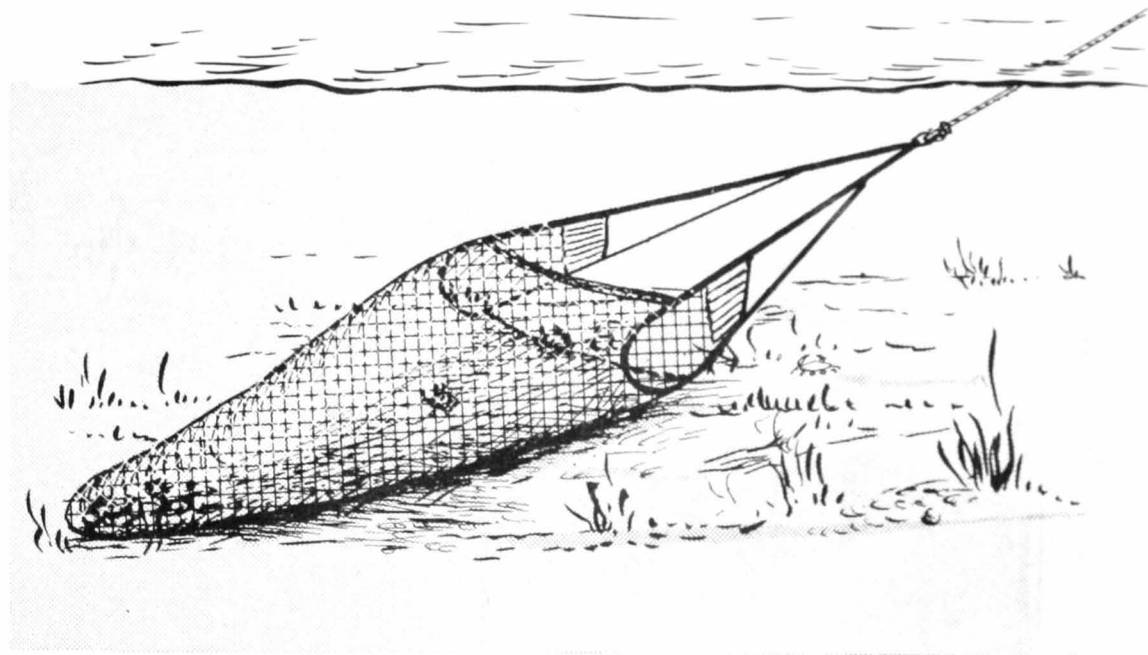
#### THE CRAB SCRAPE

The crab scrape is an efficient instrument for gathering soft and peeler crabs in water deeper than that worked by dip netters. Its use is necessarily confined to bottoms where leased oyster ground is not extensive. This limits it almost entirely to the Eastern Shore, especially in the Tangier Sound section.

Like an oyster dredge, it consists of a triangular metal frame with a mesh bag attached. Its drag bar, about 42 inches wide, is without teeth in order to prevent injury to the crabs it strikes and to keep it from digging too deeply into the bottom. Attached by ropes, it is pulled by a small powerboat. However, under some conditions, a sailboat is used. Sometimes two scrapes are operated per boat, and large vessels may operate three or four. One man can raise, dump, and cull the first scrape load, which, together with crabs, contains grass, mud, and shells, while the

second scrape is being dragged along by the boat at low speed. Scrapes have to be operated usually at high tide in order to accommodate the draft of the boat. More than 500 scrape boats worked the Bay in 1952.

Fig. 3 -- Crab Scrape



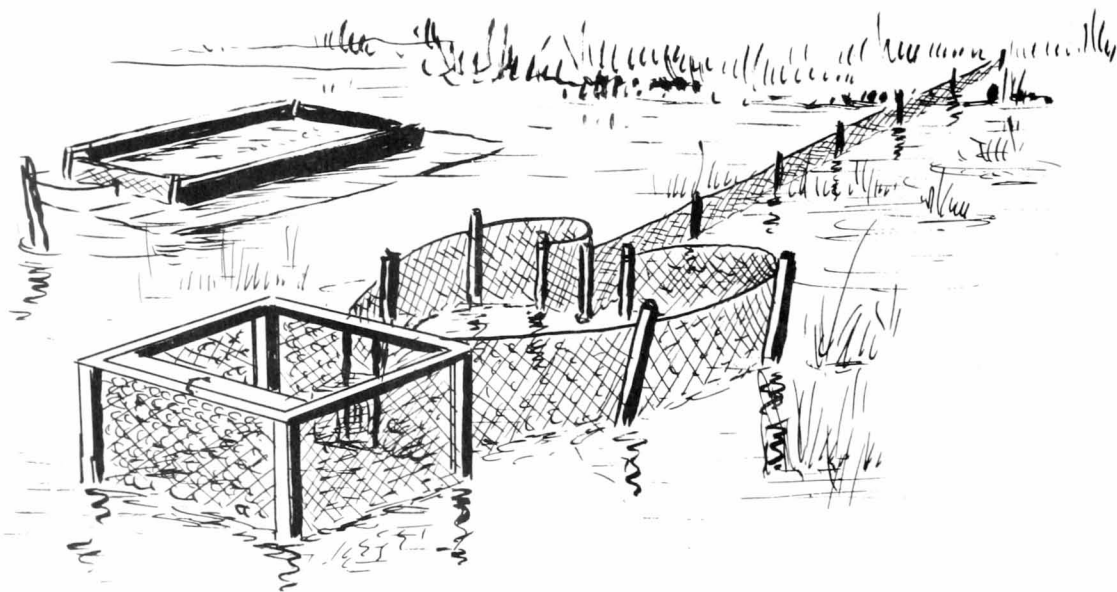
#### THE CRAB FYKE

The crab fyke is an ingeniously simple and often productive device permitted by Virginia but not Maryland. Essentially, it is a fish pound net designed for peeler crabs and is constructed of galvanized poultry wire netting.

A wire fence or leader, 2 feet high, is staked out on flats frequented by peelers, running from high water mark out as much as 50 or 60 feet to a preliminary inclosure which is followed by a funnel leading into a wire box or trap from 3 to 6 feet square. The box is not baited, but during favorable periods, several hundred peelers may be entrapped in one day. Some mortality occurs when "green" (as distinguished from "ripe") peelers or mature hard crabs attack crabs in the process of shedding.

Because of certain specialized conditions surrounding their successful operation, such as shore-line contour and quality of bottom, crab fykes are not widely distributed in the Bay; however, nearly 1,500 were licensed in 1952.

Fig. 4 -- Crab Fyke



#### THE CRAB HAUL SEINE

Compared to other crabbing gear, crab haul seines have little popularity in the Bay. They may, however, be used to advantage--with or without a skiff or other boat--on shores where crab scrapes are impractical.

The net is like a miniature fish seine and is operated by two men wading. Its length averages 40 feet; its depth, 3 feet; its mesh, about  $\frac{1}{2}$  inch. Weighted by chain at the bottom it has corks at the top and a pole at each end. It is dragged over the flats by hand and at intervals it is raised and the crabs removed and placed in a float, or the catch brought up to the shore.



Fig. 5 -- Crab Haul Seine



#### THE CRAB POT

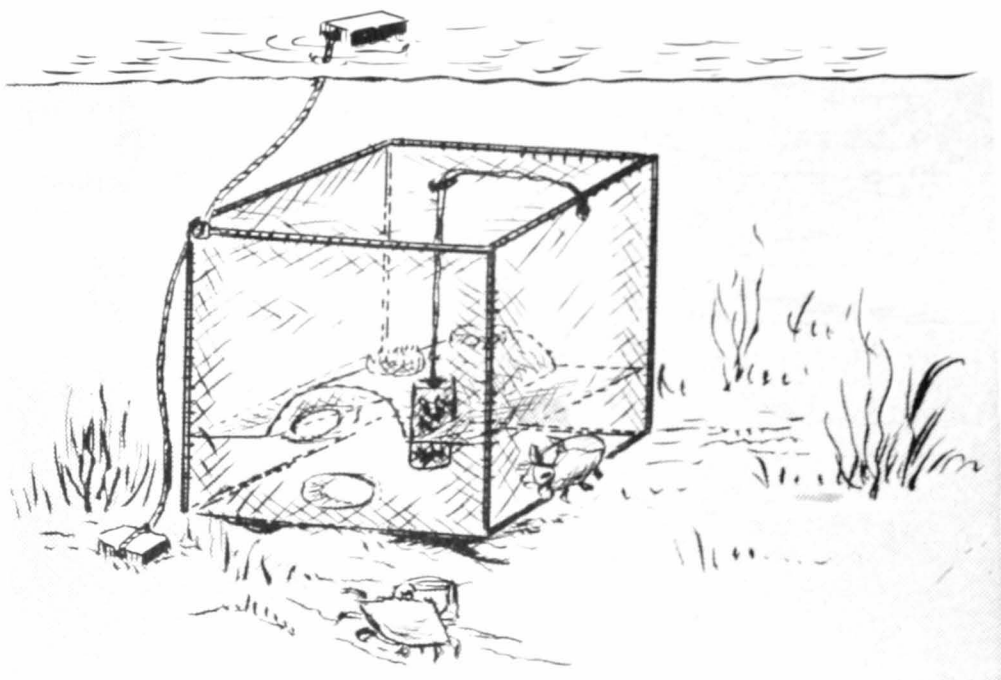
The crab pot, invented and patented by B. F. Lewis of Harryhogan, Virginia, in 1938, is a box 2 feet square, more or less, constructed of wire mesh on a rigid metal frame, divided into a lower or bait chamber which contains a cylindrical bait cup in its center, and an upper or trap chamber. The crab, attracted by the bait, enters through an aperture in the side, and in swimming upward after grasping at the bait, goes through the opening into the trap chamber and is imprisoned. The mesh measurement is set by State law in order to permit the escapement of undersized crabs.

General practice is to set the pot in water of from 1 to 10 fathoms with a buoy attached. In Maryland and Virginia, each license is limited to 50 pots with the prohibited crab-potting areas specified by law.

One man can fish a series of pots from a fair-sized motor boat. Bait most frequently used is salted fish heads, so-called "trash fish" or menhaden. At times of bait shortage, crab potters have found it necessary to discontinue crabbing altogether. Bait requirements for crab potting are the largest of any crab gear but so are the returns.

The fragility of the pot makes it liable to destruction in storms and very susceptible to corrosion from salt water. It is necessary to have new pots each season, except in those cases where they are tarred periodically. Often replacements are required during the same season. They are usually constructed by the crabber himself and the cost is small--about \$3 apiece. An estimated 85,000 were operated in 1952 in the Bay and its tributaries.

Fig. 6 -- Crab Pot



#### THE CRAB DREDGE

If it were not for the crab dredge, fresh crab meat from Chesapeake Bay would not be available in the winter months. Cold weather sends crabs to deep water where they slow down migration or bury in the mud. The dredge is designed to capture such crabs.

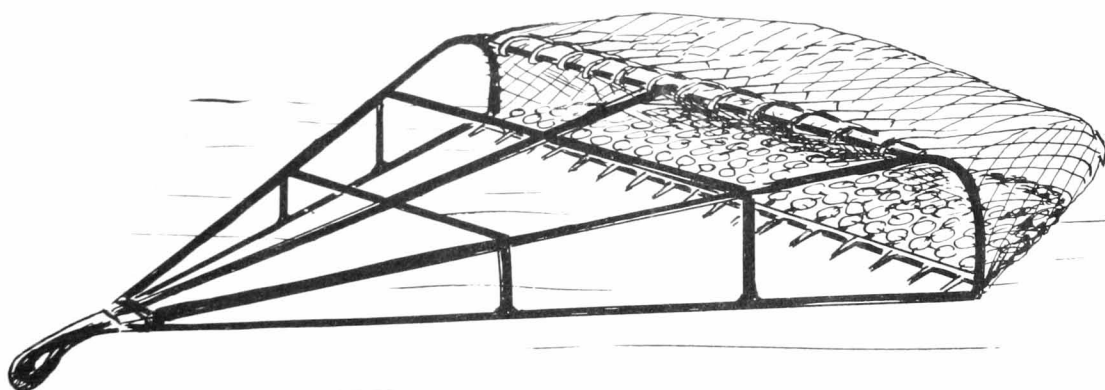
A crab dredging vessel is usually among the larger Bay fishing boats, and carries a crew of three to five men. It is usually diesel-propelled and its crab dredges, usually two, are hauled by the same power. The dredge itself is a strongly reinforced triangular iron frame, with a meshed bag consisting of steel rings below and cotton twine above attached to a drag

bar about 2 yards wide. Iron teeth 4 inches long are spaced along the under side of the drag bar. These teeth cause the dredge to dig into the bottom and collect most of the buried crabs in its path. Both dredges are operated at the same time, one on each side of the vessel. They are towed by heavy chains which pass over rollers at the vessel's rail, thence to pulleys attached to a post at a post at mid-deck, then below to the winch, which is controlled from the pilot-house. Each dredge can be operated separately--while one is hauled aboard, the other continues dragging. Two or three men empty the dredge on deck and separate the marketable crabs from the debris, which is shoveled overboard.

In Maryland, winter crab dredging is prohibited in the Bay but permitted on the seacoast. In Virginia, it is limited as to area and season. Biological studies have indicated that hibernating female crabs choose waters of relatively high salinity, while males prefer it lower. Thus, males, to a great extent, escape dredge capture, since they remain in the rivers and in the upper Bay, where crab dredging is prohibited. The best open grounds for crab dredging are in the saltier lower Bay and there the take is preponderantly females. Dredge boats working the Bay in 1952 numbered 135.

Dredged crabs are sold by the barrel, which contains about 100 pounds. A barrel yields about 12 pounds of meat, more if crabs are well-fleshed. Periods when crabs almost entirely disappear from the dredging grounds occur, in which case crab meat producers have supplies trucked in from the Southern States.

Fig. 7 -- Crab Dredge



## THE CRAB TROTLINE

The trotline is used when the crab begins actively to hunt for food after the water warms up in the spring.

It is a baited line, sometimes reaching nearly a mile, but ordinarily a good deal shorter. The length, in general, is determined by the way the crabs take the bait: if they are sluggish the line is made longer and the baits placed closer together. Baits may be spaced from 1 to 5 feet. Cotton line,  $\frac{3}{8}$  inch diameter, formerly universally used, is being replaced by sisal or hemp. The latter saves labor by allowing the chunks of bait to be inserted in the weave rather than looped and tied as with cotton. When the line is set it is held on the bottom with 4 short chain weights, 2 "indicator" chains about 60 feet before each end and 2 suspended from the 2 buoys marking the ends of the line. Buoys are usually 5-gallon cans painted to prevent rust. When the line is hauled aboard for the removal of the crabs clutching the bait the arrival of the indicator chain serves as a signal indicator that the end is nearly reached.

Crabbers have their bait preferences. Eels, or any fish tough enough to withstand the onslaught of crabs, may be used, but meat scraps such as snouts, ears, and tripe are most in demand. Crabbers do not share in the popular delusion that crabs are particularly attracted to spoiled meat; fresh bait catches more, they agree.

Trotline boats are medium-sized craft having a small roller fixed on the side toward the stern and out over the water. There must be convenient space to hold the two or three barrels in which the line, rebaited, is coiled and salted down after each trip. The roller serves to run the line on when it is being lowered and raised. Lines are not always set singly. Conditions may warrant the laying of two or more apart from each other. Thus one may be fished while the other is "fishing."

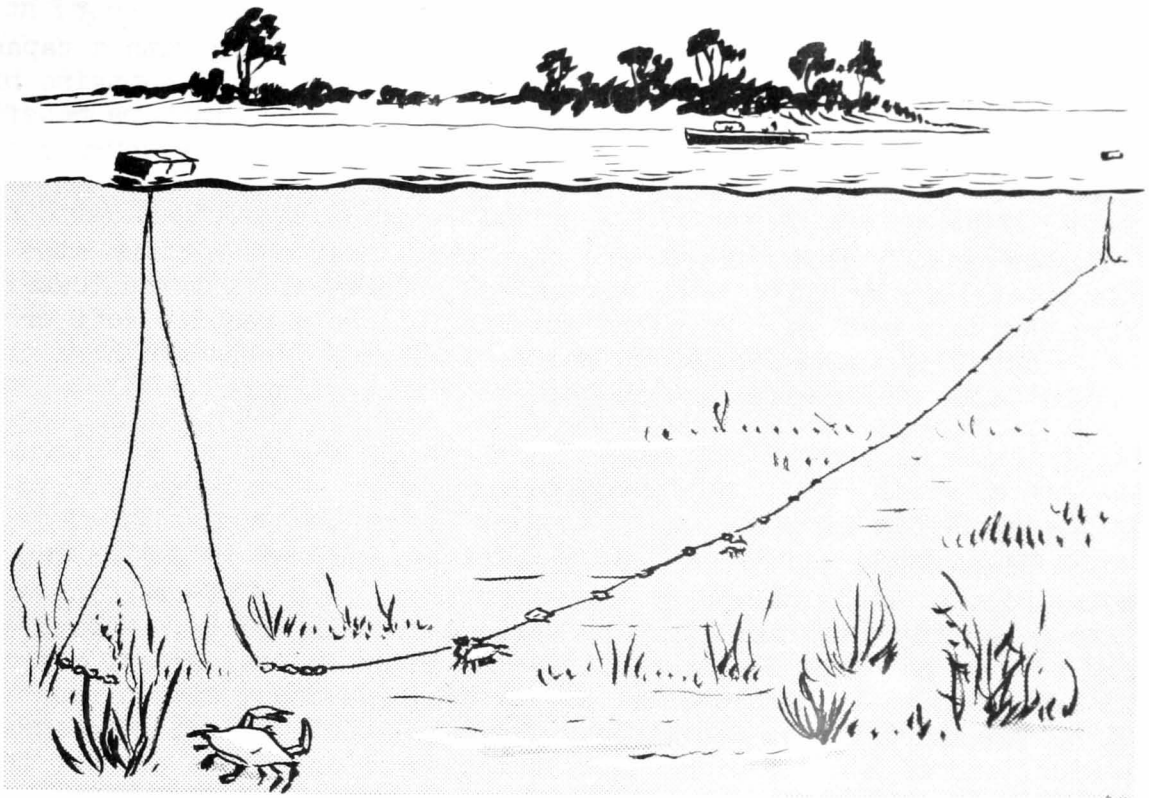
Crabs are removed from the line by raising one buoyed end and carrying it over the roller as the boat runs slowly along. The crabber scoops the clinging crabs into a dip net before they reach the roller and places them into a receptacle to be culled. Trotlines catch hard, female soft and peeler crabs. Though a soft crab is unable to grip bait a soft shell female while breeding with a male is carried wherever he goes and is caught with the male when he takes the bait.

A rig known as a "patent dip" relieves the crabber of wielding a net. A net swung from a boom takes the crabs from the line automatically and when filled is swung back over a receptacle and emptied, thus saving hand labor. A larger boat and more capital outlay are required for a patent dip. In return, greater volume is produced in less time.

Trotlines may be fished again and again during one trip, according to the crabber's judgment. But strong tides or rough water may interfere seriously; therefore, activities tend to be confined to the rather brief period of slack water.

About one thousand boats a year trotline in the Bay, of which perhaps 11 percent are equipped with "patent dips."

Fig. 8 -- Crab Trotline



### MARKETING

Methods of marketing crabs differ, according to the kind of crab. Hard crabs are handled in a way that would be unsuitable if applied to soft crabs and peelers. Described below are the customary procedures.

#### THE BUY BOAT

Crabbing is practiced in many far-flung, relatively inaccessible sections of the Bay, which lack a central loading point. The "buy boat" and "run boat" solve the problem of transportation of hard crabs by visiting the crabbers individually on the crabbing grounds and buying their catch. They then transport their loads to the crab picking house. Although the terms "buy boat" and "run boat" tend to be used interchangeably, the strict meaning of the first is that the boat captain buys the crabs himself to sell where he wishes; of the second, the captain freights crabs and acts as buying agent for a dealer.

Crab industry centers, like Hampton and Crisfield, send out scores of such vessels to all parts of the Bay. A steady increase in truck transportation too is being noted. Most crabs produced in the Maryland-Virginia Atlantic Coast area beyond the convenient range of Bay vessels, are so handled.

Crab-transporting vessels are from 40 to 60 feet long with a capacity up to perhaps 100 barrels. When, as sometimes happens, the captains bid against each other in order to acquire a full load, the crabbers benefit from prices higher than they had anticipated. Buy boats may carry stores of bait to be sold to crabbers.

Buyers usually take care to see that crabs meet the minimum size limits prescribed by State law. A measured notched stick is customarily carried for this purpose. Maryland and Virginia both require soft crabs to be at least  $3\frac{1}{2}$  inches, spike to spike, peelers 3 inches and hard crabs 5. Crabs below the minimum are subject to confiscation.

#### THE SHEDDING HOUSE

The place where soft crabs are prepared for market is called the shedding house. It is always on the water front in a soft-crabbing area and has a landing convenient for the various crabbing boats. Moored nearby are the shedding floats or live-cars in which peelers are retained until they shed their hard shell. Floats are home-made, with a rough plank bottom and laths on the sides. They are about 12 feet long and 4 feet wide, and of a depth of perhaps 18 inches or enough to prevent the escape of the crabs. A wooden flange along the outer sides regulates the depth of submergence, usually 9 inches. A shedding house uses from 4 to 50 such floats, depending upon its volume. Often they are kept in a fenced-in inclosure to protect them from rough water. Floats are taken from the water and allowed to dry every week or so during the season. This keeps them free from parasites such as moss, shipworms, and barnacles, and prevents their becoming waterlogged. At some houses, peelers are divided into five classes (named in order of shedding time required): busters (partly emerging from the shell), and, so-called from the changing appearance of the flipper, "red sign," "pink rim," "white rim," and "green." These are placed in floats appropriate to their stage of molting. Floats must be carefully watched by an experienced attendant, and the crabs removed for shipment at the proper moment. This means that, among any sizable group of floats, a constant going over is necessary both night and day.

A crab which has just molted--jelly-soft and delicate--cannot survive shipment. Since soft crabs reaching the consignee dead are discarded and hence a total loss to the shipper, it is customary to allow the newly-shed ones to remain in the float an hour or two after they emerge from the shell. They thus develop a body firmness and a certain toughness of skin that insure their shipping well and in no way affect their standing as a genuine soft crab. There is danger in leaving soft crabs too long in the water because they quickly harden beyond the desired stage and becomes "paper shell"

or "buckram" crabs, unacceptable in the soft crab market and too watery and thin to pass as a hard crab. When soft crabs are removed from the water, the hardening process is suspended indefinitely. Four size grades are in use: mediums ( $3\frac{1}{2}$  inches spike to spike, the legal minimum), hotel primes, primes, and jumbos. In some houses, the hotel prime classification is not used.

Soft crabs are packed snugly one against the other on a layer of seaweed, with legs folded and mouths elevated, in shallow wooden trays which hold from 3 to 8 dozen (according to size of crab and size of tray) covered with parchment paper, seaweed, and cracked ice, and the trays boxed. Shipped thus, they travel long distances and remain alive for days. Good refrigeration in transit is important. Occasional mortality occurs if the weather is extremely hot.

Shedding houses are classed as small businesses. They seldom employ more than 2 or 3 men. They operate from May to September and the volume of the largest of them would not often exceed 250,000 peelers in that period. The number of peelers bought from the crabber is not indicative of the number of soft crabs shipped to market because there is the seemingly inevitable mortality of peelers in the shedding floats which has for various reasons, apparently beyond control, at times reached the startling figure of 60 percent.

A profitable side line for some shedding houses is the sale of live peelers to sports fishermen for bait. The price charged for them is often the same as for edible soft crabs.

A remarkable feature of the shedding house is its absolute independence, if the waterproof paper and the ice be excepted, of any manufactured equipment whatsoever. The shipping trays and boxes are made on the spot during spare time out of thin scrap lumber. The insulating grass or sea oar, so necessary for safe shipment, is gathered locally along the shore. The floats and dip nets are homemade. Little else is needed.

#### THE CRAB PICKING HOUSE

Almost the entire catch of hard crabs goes to the picking house to be turned into crab meat. The exception is the large sized or "Jimmie" crab, which is in demand at bars, and for picnics and steamed crab feasts. It represents a negligible fraction of the whole.

When crabs arrive at the picking house, which usually has a dockside for unloading, they are still alive. They are promptly placed in iron baskets and lowered into a large pressure cooker holding about 1,000 pounds. Muddy crabs are washed first. After approximately 20 minutes of steaming they are with drawn and carried to the picking room where pickers, working at long metal covered tables, await their arrival. The picker extracts the meat from the shell with a small sharp knife. Some crab houses use a specially designed knife with the end bent into a sharp hook. The picker

tries to preserve the original flaky condition of the meat as far as possible, because the best unbroken flakes, known in the trade as "lump" or "backfin," bring premium prices. Meat that is broken up or not entirely freed of bits of shell is graded lower. The third grade, and lowest priced, is the meat from the claw, so classed because it lacks whiteness and flakiness. Still another grade, called "special," is made up of first and second grades mixed. The Bay industry does not produce it in large quantity. All meat is graded by the picker, as she extracts it, by placing it in the 1-pound metal cans lying on the table before her. The cans are perforated at the bottom supposedly to keep moisture in the meat regulated, and these are the same cans in which the meat is iced and sold. A current trend toward the use of non-perforated cans has been noted.

The picker is paid an agreed-upon sum for each pound of meat she produces; she can perhaps deliver 5 or 6 pounds an hour. Since piece work is a speed incentive and potentially wasteful, it must be admitted that not all possible meat is always recovered from the crab body, and that sometimes bits of shell remain unseparated from the flakes. Crab houses are, in general, however, proud of their high standards.

A method designed to simplify the work of the picker is known as "bobbing." Special workers strip the crabs of back shell before the picker receives them. The Bay industry does not seem to be convinced that, under present labor conditions, a saving results from this method, though it may occur occasionally.

Washing crab meat in cold water gives it an additional whiteness, but the practice is not favored in the Bay area because it is believed to impair the flavor. Crab picking is supervised by State health services. Picking rooms are closely screened; in addition, the almost complete elimination of flies by DDT is now being effected. All implements and metal coming into contact with the meat are non-rusting and are steam-cleansed daily. Utmost precautions are taken to insure adequate and constant icing of the product.

#### FREEZING

While almost every segment of the seafood business relies on freezing as an aid in marketing, the crab industry is prevented from doing so except in special cases.

Hard crabs, both raw and cooked, may suffer a quality loss in frozen storage. Crab meat often toughens and discolors, even though its edibility may be unimpaired. On the other hand, soft crabs freeze without serious depreciation, and gluts of them are now usually so handled.

It was found a few years ago that crab meat, combined with a medium such as egg, milk, crumbs and seasoning, made into cakes and frozen, appealed to the consumer. Markets were soon being supplied with packaged frozen crab cakes and similar preparations, cooked or ready to cook, and



production now grows yearly. It is held back only by the scarcities and high prices that at times afflict the crab industry.

#### CANNING AND BYPRODUCTS

Some crab meat is now being canned in Maryland, although the production of canned crab soup in the State exceeds it in volume.

Soft crabs have been canned successfully, but, as a rule, canning is attempted only during periods of glut when the price falls to levels which permit the pack to be offered at a moderate price.

The shell refuse of the picking house can be turned into meal which is in demand as an ingredient of farm animal feed. The manufacturing process is simple. The material is dried in a heated rotating drum to reduce the water content. It is then ground and bagged. One or more such dehydrating plants are usually located conveniently near crab picking centers.

#### PUBLICATIONS

##### Anonymous

1948. The blue crab (Callinectes sapidus). Fishery Leaflet 282, Fish and Wildlife Service, Washington, D. C.

##### Andrews, Emmett

1948. Trot-line construction, operation, and maintenance. Fishery Leaflet 291, Fish and Wildlife Service, Washington, D. C.
1948. The "bob" method of picking blue crabs. Fishery Leaflet 276, Fish and Wildlife Service, Washington, D. C.
1947. Crab pot construction (Chesapeake Bay type). Fishery Leaflet 262, Fish and Wildlife Service, Washington, D. C.

Note:--This leaflet supersedes Leaflet 184, Chesapeake Bay soft crab industry, Fish and Wildlife Service, Washington, D. C.