

213
United States Department of the Interior, J. A. Krug, Secretary
Fish and Wildlife Service, Albert M. Day, Director

Fishery Leaflet 276

Washington 25, D. C.

March 1948

THE "BOB" METHOD OF PICKING BLUE CRABS

By Emmett Andrews, Fishery Educational Specialist
Division of Commercial Fisheries

Illustrations by Shirley Briggs

The blue crab fishery of the Atlantic and Gulf Coasts of the United States yields annually about eighty million pounds of hard-shell crabs. This round weight converted into picked crab meat, amounts to more than ten million pounds of highly concentrated, nutritious food.

With the final product valued at several millions of dollars and many more millions of hours of manual work involved in its preparation, speed and efficiency are essential factors. As is the case in practically all high speed food processing, there is some waste. The Virginia Fisheries Commission found 15 to 20 percent less recovery in the commercial picking of crab meat than was obtained from the same type of crabs carefully picked in its laboratory ¹/₁. Assuming that conditions are about the same in other states and allowing a reasonable leeway for an industrial operation as compared with a laboratory process, at least 10 percent more crab meat can be recovered by a more efficient picking method. Based on the annual production the additional recovery would amount to a million pounds each year. This poundage converted to dollars represents a sizeable potential income because crab meat usually has a relatively high market value.

The "Bob" method of crab picking is a rapid way of separating the meat from the shell and is so named because all the legs of the crab are "bobbed" or cut off before the actual picking is begun. It is a method which has been used with good results in some localities for more than a quarter of a century.

Separating the meat from the shell of the crab is still difficult chiefly because of the peculiar anatomy of the crab. Its many shaped body chambers and size variations have steadily resisted efforts to simplify mechanically the procedure. Therefore, an efficient picking method is one of the principal factors in a successful commercial operation.

In order that the crab picker may work at maximum efficiency, it is necessary to understand the structure of the hard inner skeleton of the crab, especially the top of the body after the shell has been removed. This forms a tile-

¹/₁ The Biology and Conservation of the Blue Crab, by C. L. Newcombe, Educational Series No. 4, Virginia Fisheries Laboratory, 1945.

like roof which must be cut off in a relatively thin slice and picked separately. In this manner access is given to the larger sections of meat. From then on it is a matter of keeping the meat in the largest lumps possible, for the various grades of lump, flake, and claw meat are based mainly on the size and general appearance of the pieces. Those with the whitest color bring the premium price.

Live crabs are first steamed for about 20 minutes under pressure, then cooled. Some plants remove the back shell and pass the crabs to the picking room on a conveyor equipped with powerful jets of water. Very fast workers are able to pick about ten pounds of crab meat per hour by the "Bob" method, depending upon the size and condition of the crabs. However, the average worker will produce about five to seven pounds in a similar time, the exact amount being closely related to picking dexterity, sequence of operations, and adherence to the job.

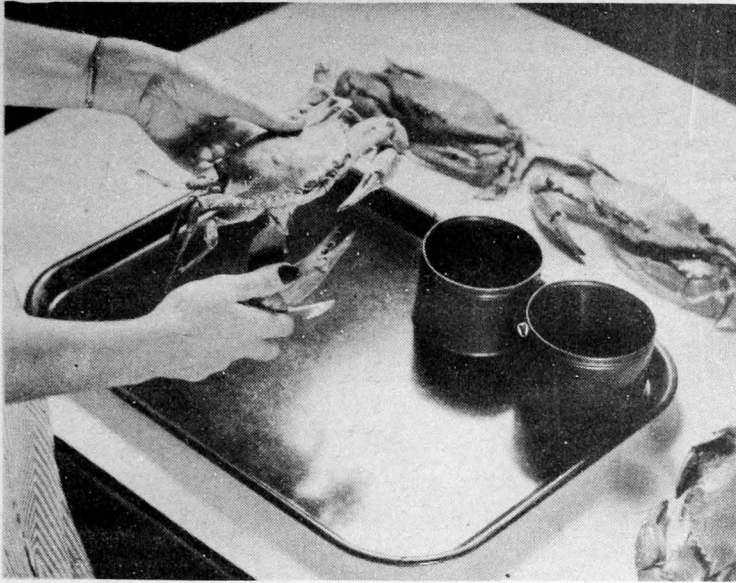
It is common practice in most plants for the pickers to work alternately from standing and sitting positions and, in many plants, to place the meat, as it is picked, directly into the containers in which it will be marketed. This is particularly true of the top grades. However, in some plants the meat is picked into larger stainless steel containers and a special crew inspects, grades, and packs it into tins for shipment in crushed ice or for further processing. The usual recovery of blue crab meat, commercially, ranges from 10 to 20 percent of the live weight of the crab, depending upon the season of the year, the locality, size and condition of the crab and the efficiency of the picker. However, in an experiment by the U. S. Tariff Commission, two cooked blue crabs from the lower Chesapeake Bay weighing 14.21 ounces contained a total of 3.82 ounces of meat divided into 0.98 ounces of back fin lump meat, 1.21 ounces of claw meat and 1.63 ounces of body meat 2/. On the other hand, meat recovery in some crabs is practically nothing. The Maryland Conservation Commission estimates that fully 20 percent of all hard crabs used in that State are "buckrams" and, regardless of size, are thrown away by the picker as not "worth picking" 3/. No effort is being made in any crab picking process at present to recover crab livers, which are readily accessible in the "Bob" method and which, according to the Virginia Fisheries Commission, are nearly twenty times as rich in riboflavin as boiled shad and over eight times as rich in this vitamin as fresh oysters 1/.

The modern trend in marketing has been toward more and better packaged foods for the consumer. The food frontiers of perishable fishery products have been steadily pushed inland by improved traffic schedules and methods of transportation which are linked closely with modern developments in refrigeration. This helps to alleviate the depressing marketing influences which sometimes occur in seasonal peaks of production of this commodity.

In line with these developments, a rapid and efficient production method for picking crabs will not only produce a better quality of meat which is demanded in the growing, more selective market of today, but will increase the earnings of the worker and save the industry thousands of dollars in the recovery of crab meat now lost in the scrap pile.

2/ Crab Meat, Report #147 Second Series 1941, U. S. Tariff Commission.

3/ Our Water Resources and Their Conservation, R. V. Truitt, March 1939, Contribution #27 from the Chesapeake Biological Laboratory, Maryland Conservation Department.



Steps in picking blue crabs
by the "Bob" method:

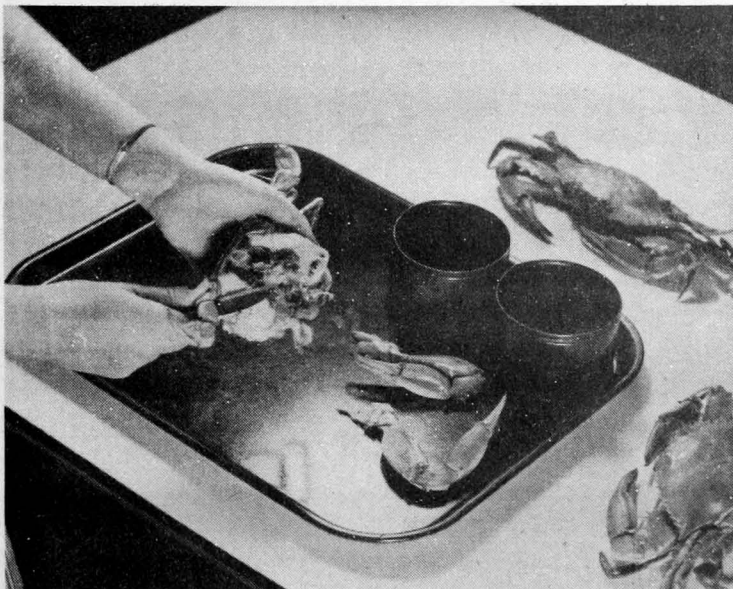
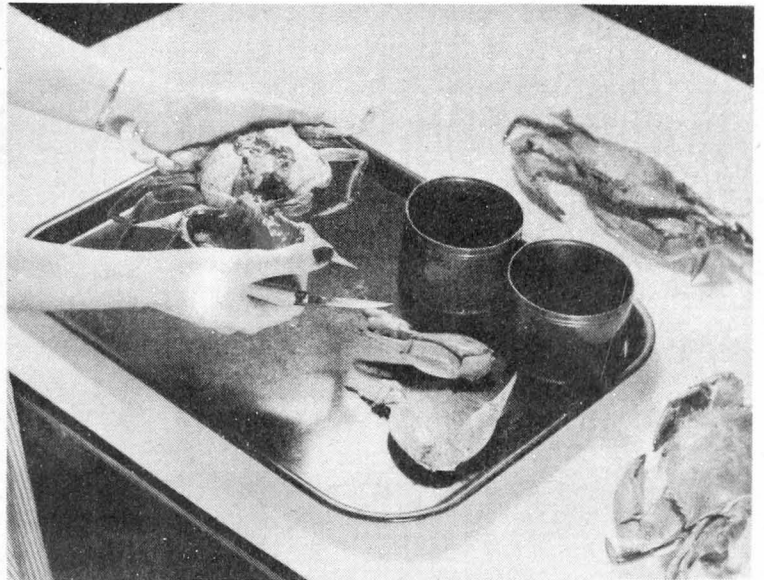
The body

1.

Grasp the body of the crab with the left hand, break off both claws with a downward motion, tossing the claws into the corner of the work table for later operation when only claws are involved.

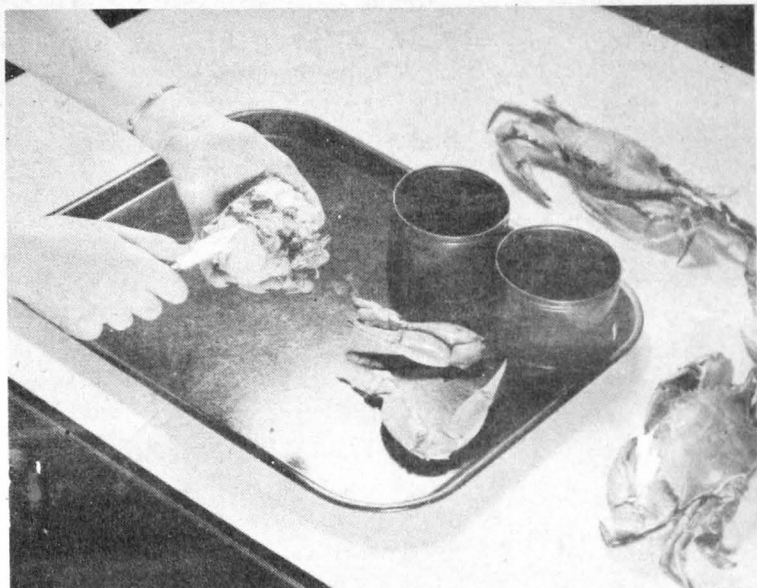
2.

With the crab in the same position, pull off the back shell with the fingers of the right hand clinched under the shell and the thumb and fingers of the left hand holding the legs.



3.

Cut off the legs close to the body by beginning with the leg next to the right claw socket.

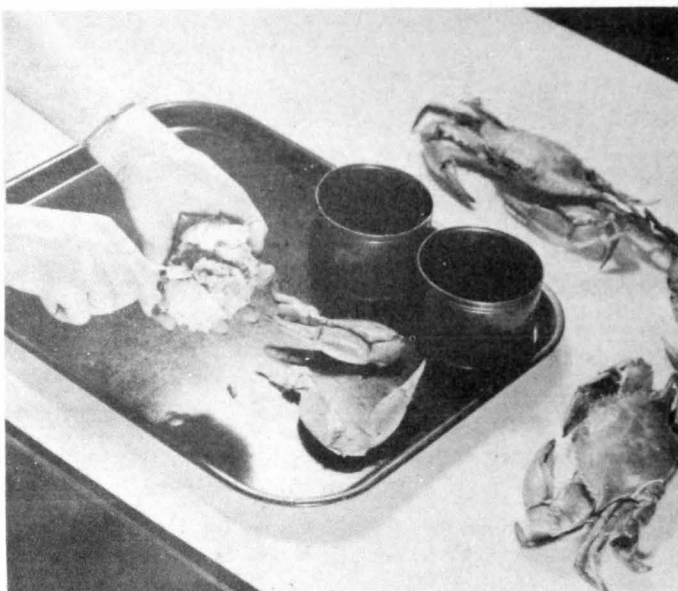


4.

With a scraping motion,
rake off the gills.

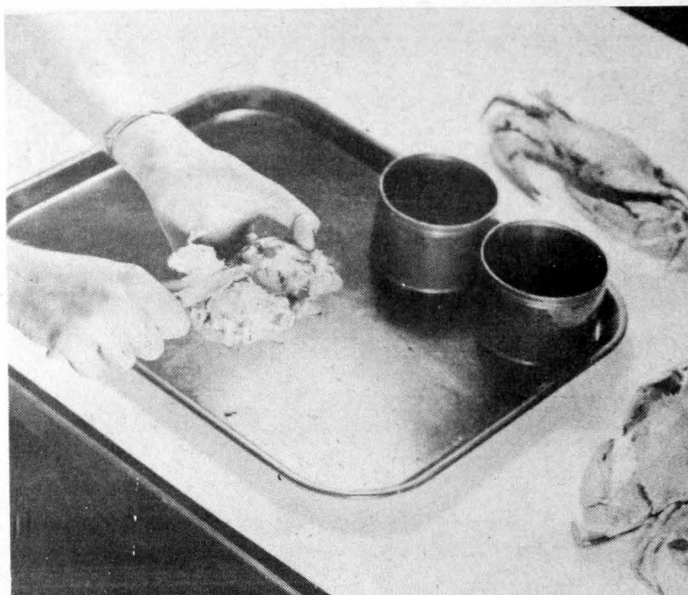
5.

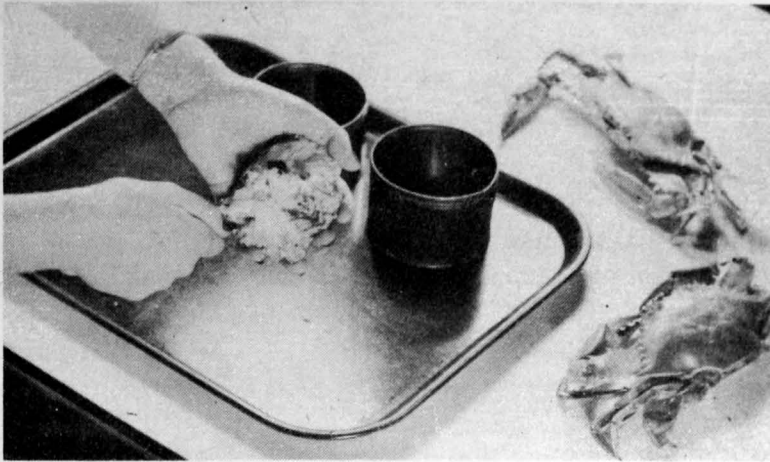
Remove the digestive and
circulatory organs.



6.

Slice off the top of the
right side of the inner
skeleton, beginning
near the front, and re-
move the meat from the
slice.





7.

Starting with the right back fin pocket remove the meat with a U shaped motion of the knife. In the other pockets remove the meat by inserting the knife underneath and prying the meat upward.



8.

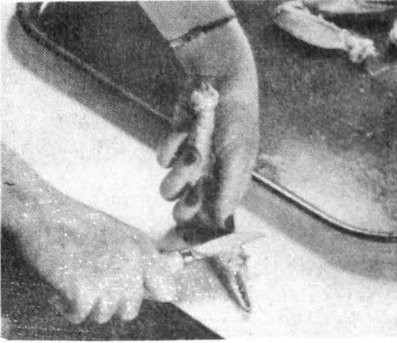
Cut a thin slice from the left side of the inner skeleton and remove the meat.



9.

Remove the meat from the pockets on the left side by beginning with the back fin.

The claws

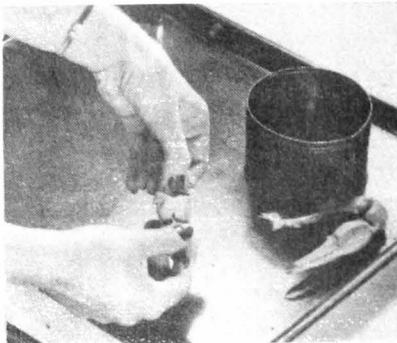
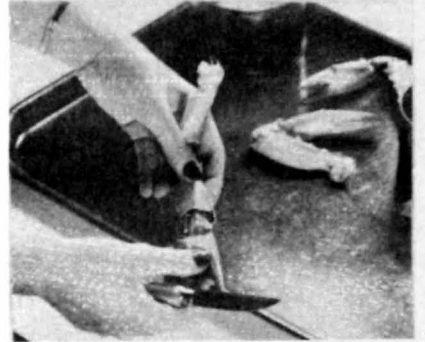


1.

Grasp the claw in the left hand somewhat back of the pincer and hold it on the table with the inside portion of claw on top.

2.

Score the claw deeply with a sharp blow or "whack" of the knife near the pincers, and break the claw at the point of the score.

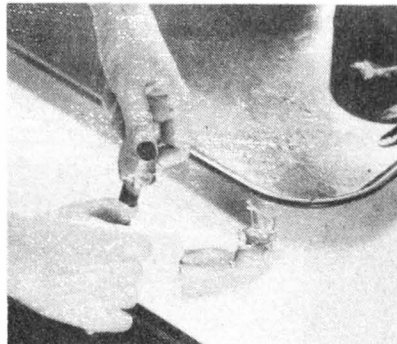
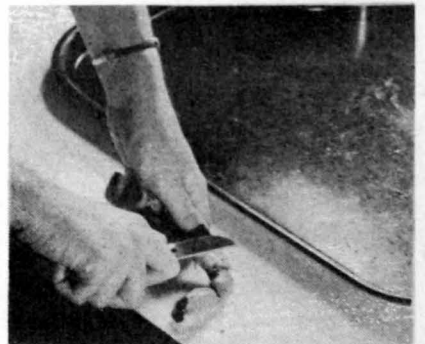


3.

Remove the meat by clamping it with the thumb and fingers of the left hand while pulling out the tendon with the fingers of the right hand.

4.

Score the second section of the claw with a blow on the top near the joint, and break at the point of the blow.



5.

Remove the meat in the same manner as with the first section. If the meat does not pull out readily, it can be removed by projecting the point of the knife into the claw and pulling outward in a circular, prying motion.