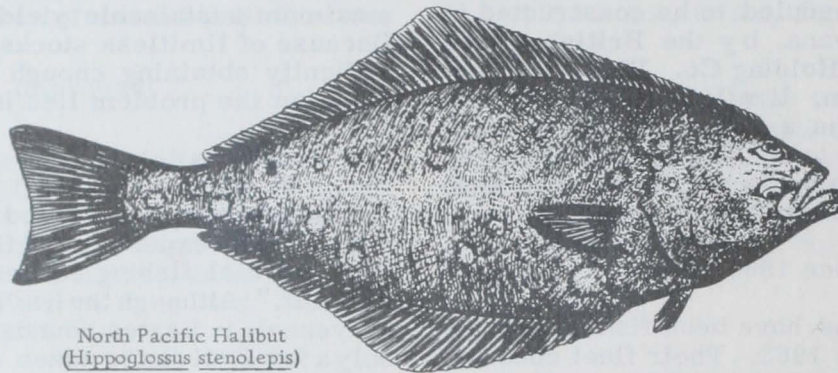


FOOD FISH FACTS

Halibut has been a popular food for people of northern countries since ancient times. Scandinavian fjords and Scottish firths provided halibut for the rugged, early settlers in those regions. The English thought highly of halibut and served it on holy days, calling it "holy-day butte." "Butte" was the middle English word for flatfish or flounder. Over the years "holy butte" evolved into halibut. In America, early explorers along the Pacific Coast found halibut highly prized by coastal Indians. Today, North Pacific halibut, the proud name of the king of flatfishes, is the main commercial source of true halibut.

Description: North Pacific halibut is the largest member of the flatfish family. Halibut matures at about 10 years and may live to be 50. Females, which grow larger than the males, often weigh from 150 to 200 pounds or more. Commercially, halibut is graded according to size: "chicken"--5 to 10 pounds; "medium"--10 to 60 pounds; "large"--60 to 80 pounds; and "whales"--80 pounds and over.



North Pacific Halibut
(*Hippoglossus stenolepis*)

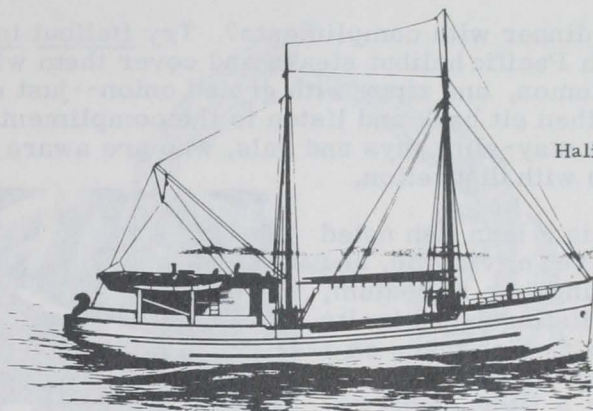
A curious fact about halibut, and other flatfishes, is the position of the eyes. They, like most fish, start life swimming upright and with eyes set wide apart. However, before they are an inch long, one eye, usually the left, begins migrating to the other side of the head and the fish begins to lean instead of swimming upright. Within a few days the migrating eye has moved nearly 120 degrees to join the right eye, and the fish swims with its eyeless side parallel to the bottom. The dark, top side of the flatfish allows it to hide in the sand or rocks and not be seen easily. The white, belly side blends with the light filtering down through the water, thus protecting it from enemies below. The mouth, distorted in the process of becoming a flatfish, wears a crooked, painted look.

Habitat: North Pacific halibut are taken along the continental shelf and slope of the North Pacific adjacent to Alaska, British Columbia in Canada, and off the shores of Washington State. Halibut was once taken from the cold waters of the Atlantic as well as the Pacific but, due to poor conservation methods in the past, Atlantic halibut has become scarce.

Halibut Fishing: North Pacific halibut is brought aboard the fishing vessel alive, dressed at sea, and stored immediately in ice. As soon as the fishing vessel reaches port, the halibut is rushed to processing plants where it is headed, graded for quality and size, and washed. Some of the halibut is packed in ice for fresh shipment to distant markets. Approximately 20 percent or more of the halibut is sold fresh. The bulk of the catch is frozen in -40° F. freezers. After freezing, the fish is glazed by being dipped several times in water at the freezing point. This builds up a jacket of ice over the entire fish and prevents dehydration or oxidation in storage. This process assures the consumer of a top-quality product.

(Continued page 81.)

FOOD FISH FACTS (Contd.)



Halibut Fishing Vessel

Conservation: A fine example of conservation through cooperation was exhibited by Canada and the United States in the early 1920's when the catch of halibut declined because of overfishing. An international commission was created to study the halibut fishery and make recommendations toward conservation. In 1930, the International Pacific Halibut Commission was formed and fishing for halibut by the two countries came under its control.

In 1967, however, the North Pacific halibut industry began to feel the effect of incidental catches of halibut by foreign and domestic trawlers. Halibut fishermen use long-lines, since net-gear is prohibited, and catch 8- to 9-year old fish. Although the trawlers were seeking other species, the massive volume of their catches, especially by the foreign vessels, meant that millions of young halibut were caught and did not survive. Many halibut were taken before maturity also, as halibut do not spawn until they are 8 to 16 years old. Thus the effects of the trawler catches of young halibut has resulted in greatly reduced catches for the halibut fishermen. Negotiations are underway to correct this problem.

Use of Halibut: North Pacific halibut is usually sold as steaks, either fresh or frozen. One pound will make two or three servings. Halibut is an excellent source of high-quality protein and minerals while being low in sodium, fat, and calories. The true North Pacific halibut, which has lean, white, tender flesh with a mild flavor, should not be confused with other species of fish which are sometimes sold as halibut. Ask for true North Pacific halibut at your seafood counter. (Source: National Marketing Services Office, BCF, U.S. Dept. of the Interior, 100 East Ohio, Rm. 526, Chicago, Ill. 60611.)

HEY DIETERS--CHEAT A LITTLE!

Want to crown your dinner with compliments? Try Halibut in Lemon Cream Sauce. Buy tender and tasty North Pacific halibut steaks and cover them with a sauce that is rich with cream, tangy with lemon, and zippy with grated onion--just enough to bring out the flavor. Bake and serve, then sit back and listen to the compliments. With this quick and easy recipe from BCF, the stay-slim guys and gals, who are aware of calories but love to eat well, can cheat a little with discretion.

North Pacific halibut is a lean fish noted for its energy-giving protein, vitamin, and mineral content while being low in sodium, fat, and calories. It is distinguished by its white, flavorful, firm flesh which takes on a flaky texture after cooking. It is a versatile fish, readily adaptable to a wide variety of cooking methods and recipes and is wonderful for dieters when rich sauces are not used. Halibut steaks are available fresh in many markets and frozen in most markets. One pound will make two or three servings. Be sure to ask for true North Pacific halibut when you buy.

HALIBUT IN LEMON CREAM SAUCE

2 pounds halibut steaks, fresh or frozen	1 tablespoon grated onion
1 cup whipping cream	1 teaspoon salt
1 tablespoon lemon juice	Lemon slices
	Chopped parsley

Thaw frozen steaks. Remove skin and bones and cut into 6 portions. Place fish in a single layer in a well-greased baking dish, 12 x 8 x 2 inches. Combine remaining ingredients except lemon slices and parsley. Pour sauce over fish. Bake in a moderate oven, 350° F., for 20 to 25 minutes or until fish flake easily when tested with a fork. Garnish with lemon slices and parsley. Makes 6 servings.

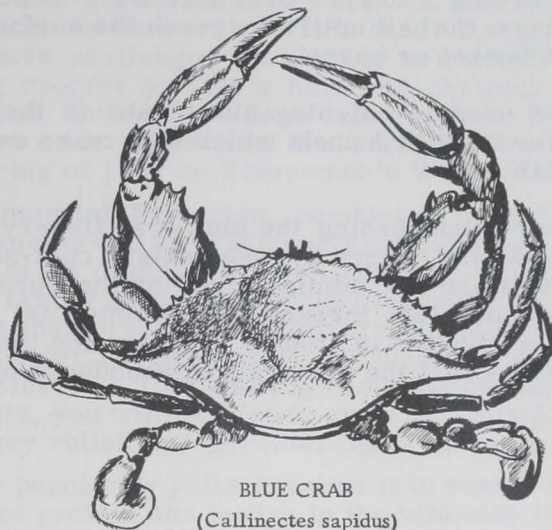


How can you tell when the halibut is cooked? Raw fish have a watery, translucent look. During the cooking process the watery juices become milky colored, giving the flesh an opaque, whitish tint. This color change is unmistakable. When the flesh has taken on this opaque whitish tint to the center of the thickest part, fish are completely cooked. At this point the flesh will easily separate into flakes, and if there are bones present, the flesh will come away from them readily.

Would you like to know more about how to cook fish? Let's Cook Fish (1 49.49/2:8) is a complete guide to fish cookery. This full-color booklet costs 60¢ and gives detailed information on market forms, how to buy, store, and thaw (if frozen), as well as how to cook fishery products. The booklet has many tested recipes and a handy timetable for easy reference on amounts to buy, cooking temperatures, and cooking methods.

How to Cook Halibut (1 49.39:9) is all about halibut, filled with tasty recipes, and costs 20¢. Both booklets are available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. (Source: National Marketing Services Office, BCF, U.S. Dept. of the Interior, 100 East Ohio, Rm. 526, Chicago, Illinois 60611.)

FOOD FISH FACTS



BLUE CRAB
(*Callinectes sapidus*)

The blue crab, one of the most valuable crustaceans in the United States, is partially described by its scientific name. Calli - beautiful, plus nectes - swimmer, and sapidus - savory. The blue crab is a savory shellfish that spends most of its time walking along the bottom of the bays and sounds where it lives. However, when necessary, it swims beautifully through the water with great speed and ease.

DESCRIPTION

Blue crabs, like other crabs, possess five pairs of legs with the first pair always equipped with pincers. Crabs have hard shells or exoskeletons. Periodically, in order to grow, they shed this external armor or shell. This process is called molting. Before the molt starts, a new, soft exoskeleton forms inside and the crab backs out of the old shell as it loosens. The new shell is soft and elastic allowing the crab to grow. It is particularly vulnerable to attack during the soft-shell stage and seeks refuge in a secluded spot until the new shell hardens. Crabs also lose one or more legs during their lifetimes and are able to grow new ones through a regeneration process.

Blue crabs, when fully grown, average 5 to 7 inches across the back of the shell. The shell is brownish green or dark green and is drawn out on each side into a long spine. The underside of the body and the legs are white, while the tops of the claws in both male and female show varying amounts of blue. The tips of the claws in the female blue crab are bright red.

HABITAT

Blue crabs are found along the Atlantic and Gulf coasts from Massachusetts to Texas. Essentially a shallow water crab, it lives in bays, sounds, and channels near the mouths of coastal rivers. Normally an inhabitant of salt water, the blue crab is also found in brackish water or fresh water.

BLUE CRAB FISHING

Blue crabs are caught with trawls, dredges, and baited lines such as the trotline. The trotline is a long length of rope with pieces of bait attached at intervals. It is laid on the bottom, ends anchored and marked with buoys. When the fisherman collects his catch he runs his boat along the line, forcing it to pass over a roller attached to the boat. As the boat

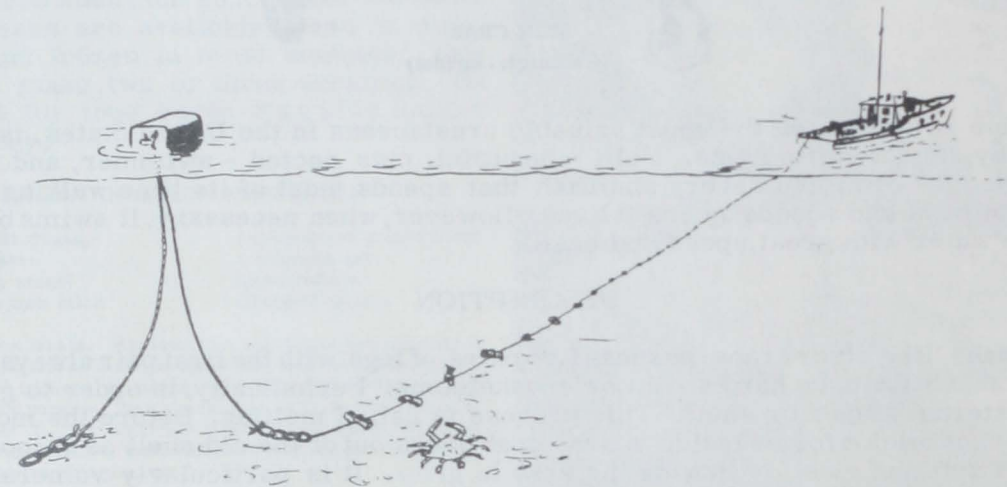
(Continued page 84.)

BLUE CRAB FISHING (Contd.)

runs his boat along the line, forcing it to pass over a roller attached to the boat. As the boat moves forward, the crabs cling to the bait until they reach the surface where they are caught with a dip net and placed in a basket or barrel.

Another efficient method used in catching blue crabs is the crab pot. This traplike device allows the crab to enter through funnels which also make escape difficult. The crab pot is usually baited with fresh fish.

Most conservation measures concerning the blue crab fishery are administered by the individual states involved. However, where the need exists, cost-sharing, cooperative Federal Aid Programs are in effect and are administered by the Bureau of Commercial Fisheries. These programs, made possible through the Commercial Fisheries Research and Development Act of 1964, have resulted in studies to determine the effects of temperature, salinity, and other factors which affect the survival and abundance of this important seafood.



Crab and trotline

USES OF BLUE CRABMEAT

Blue crabs are caught and marketed in both the hard-shelled and soft-shelled states. Soft-shelled crabs are considered a delicacy and bring higher prices. The entire body of a soft-shelled crab may be eaten after cooking. Hard-shelled crabs are either sold alive to the consumer; or they are steamed, the meat picked from the shell and packed into containers, refrigerated, and sold as fresh crabmeat. Crabmeat is marketed as lump meat - whole lumps from the large body muscles which operate the swimming legs; flake meat - small pieces of white meat from the body, flake and lump - a combination of the first two; and claw meat - a brownish tinted meat from the claws.

Pasteurization of blue crabmeat is another method of preparation for marketing. With pasteurization, the crabs are steamed, the meat picked from the shell and immediately packed into cans. The cans are hermetically sealed and immersed in a hog-water bath. This method does not alter the taste or texture of the meat, and it is fresh and table ready. Pasteurized crabmeat must be refrigerated until ready to use. Blue crabmeat is seldom frozen or canned. All crabmeat provides excellent high-quality protein, vitamins, and minerals. (Source: National Marketing Services Office, BCF, U.S. Dept. of the Interior, 100 East Ohio, Room 526, Chicago, Ill. 60611.)

CRAB-IN CREATED FOR CULINARY COMPETITION

"The West Coast is renowned for the tender, succulent meat from the Dungeness crab," says San Francisco. "No, no," says Baltimore, "it's the East coast that is renowned for the tender, succulent meat from the blue crab." This coast-to-coast argument has gone on for years, so the two cities have challenged each other to a CRAB-IN! Each city has rounded up famous, crab-cooking cronies in chef's hats and challenged them to a face-to-face, recipe-to-recipe encounter. Both cities have left no shell unturned in order to establish their claim to the "finest crab cookery in the world." The first National Crab-Cooking Olympics was held in spring of 1969 on Fisherman's Wharf in San Francisco.

The Bureau of Commercial Fisheries, remaining impartial in this great crustacean cooking competition, maintains that all crabmeat is delicious and can be used interchangeably in most recipes. In honor of the crab competition, however, the Bureau offers a sophisticated seafood treat to enjoy as a family luncheon or when you entertain. "Crab Stuffed Artichokes" will make any occasion a memorable affair. Everyone likes crab salad, and in this recipe the crabmeat is nested in tender, cooked artichokes, then topped with a gently-flavored sauce to enhance and blend the flavors. This winning combination can be prepared ahead of time, so, if you are having guests, you will be free to greet and mingle. They will say you have a "touch of genius" when they relish this gourmet salad served with such ease.

Crabmeat wins many popularity polls because it is tender and has a distinctive flavor. It is an excellent source of protein and is rich in the vitamins and minerals needed for good nutrition. Crabmeat is available in the following market forms: live; cooked in the shell; cooked meat, fresh or frozen; canned; or pasteurized.

Among crabs marketed in the United States are the blue crabs found along the Atlantic and Gulf coasts, Dungeness crabs found along the Pacific coast, king and snow or tanner crabs from Alaska, rock crabs found along New England and California coasts, stone crabs found mainly off Florida, and the queen crab found in waters of the North Atlantic.

CRAB STUFFED ARTICHOKES

- | | |
|--|---------------------------------------|
| 1 pound crabmeat, fresh, frozen,
or pasteurized | 2 tablespoons chopped sweet
pickle |
| 1 cup chopped celery | |
| $\frac{1}{2}$ cup mayonnaise or salad
dressing | $\frac{1}{2}$ teaspoon salt |
| 2 hard-cooked eggs, chopped | Dash pepper |
| 2 tablespoons chopped green onion | 6 cooked artichokes |
| 2 tablespoons chopped pimiento | Vinaigrette Sauce |

Thaw frozen crabmeat. Drain crabmeat. Remove any shell or cartilage. Combine all ingredients except artichokes and Vinaigrette Sauce. Gently open artichokes and fill each with $\frac{2}{3}$ cup crab mixture. Chill. Serve with Vinaigrette Sauce. Makes 6 servings.

VINAIGRETTE SAUCE

- | | |
|-----------------------------|--------------------------------|
| $\frac{1}{2}$ cup salad oil | $\frac{1}{4}$ teaspoon paprika |
| 3 tablespoons vinegar | 1 teaspoon minced parsley |
| 1 teaspoon salt | |

Combine all ingredients. Makes approximately $\frac{2}{3}$ cup sauce.



HOW TO COOK ARTICHOKES

- | | |
|-------------------------------------|------------------------|
| 6 artichokes | 1 tablespoon oil |
| $1\frac{1}{2}$ quarts boiling water | 1 clove garlic, sliced |
| $1\frac{1}{2}$ teaspoons salt | |

Wash artichokes. Trim stems. Cut 1 inch off tops of artichokes. With scissors, trim leaf tips. Stand upright in a 5-quart Dutch oven. Add boiling water and seasonings. Cover and cook gently for 20 to 35 minutes or until base can be pierced easily with a fork. Turn upside down to drain. Chill.