ORESU-G-05-004

Catching, Cleaning, and Cooking Bay Crabs

he Dungeness crab and the red rock crab are prominent in Northwest bay and coastal waters. As the name implies, red rock crabs are dark red on top. Dungeness crabs are reddish tan to gray purple above. Both are highly regarded for their sport and table values.

Recreational seasons are open all year in Oregon bays, and about the only time crabs aren't available is when extreme freshets reduce water salinity, forcing crabs oceanward to saltier water.

Biology

Dungeness crabs mature sexually at 1.5 years when they're about 4 inches wide. Males are 3 and 4 years old, respectively, when they reach minimum sport and commercial size. Mating occurs annually from April to September between hardshell males and softshell females.

Eggs (0.7 to 2.5 million) are carried under the females from October to December; they hatch from January through March. Male crabs may grow to 10 inches and live to 10 years.

These carnivorous crabs commonly eat small shrimps, clams, worms, and fish as well as most any other animal flesh. Dungeness crabs are found from the Aleutian Islands, Alaska, to central California.

Red rock crab biology is similar to that of the Dungeness crab. Mating occurs annually from June to August between hardshell males and softshell females.



Figure 1 A crab trap (left) is bulkier than a crab ring net (right), but you can leave the trap unattended longer without fear of losing your crabs.

Eggs are carried under the female from December to March; they hatch from March through May.

Male crabs may grow to 6.75 inches. Information on maturity and age are unknown. Red rock crabs are carnivorous and feed on barnacles as well as other animal matter. They're distributed from the Aleutian Islands, Alaska, to southern California.

Catching

For bay crabbing, you'll need crab ring nets or crab traps (pots), bait, a measuring gauge, gloves, a container for holding crabs, and a boat and motor (figure 1). You can crab from piers and docks, if these are available and if you have permission to do so.

You can learn what part of a bay provides best crabbing success from local bay-front businesses that cater to sportfishing. These establishments usually rent boats, motors, and crab ring nets, and they may sell bait.

An open-top crab ring net consists of two large metal rings connected by netting on sides and bottom. A pulling rope and floats are attached to the top ring. The pulling rope should be twice as long as the water is deep—for example, use a 40-foot rope when you fish water 20 feet deep.

Mark your floats with your name or with distinct colors for easy identification. A bait holder or bait bag completes the equipment. Crab ring nets lie flat on the bay bottom when dropped. When retrieved rapidly with the pulling rope, they form a mesh-type net or basket that holds the crabs.

Crab traps may be collapsible or rigid, square or round. Funnels with triggers are located on the sides and allow the crabs to enter, but bar their escape. A retrieving rope, floats, and bait container also are needed.

Compared to ring nets, crab traps are heavier, bulkier, and more expensive. However, you can leave traps unattended for long periods without fear of losing trapped crabs.

Crabs are attracted by odor, and you can use almost any type of meat for bait (figure 2). Fresh fish carcasses (except cabezon—crabs' natural enemy) are excellent. If sea lions are likely to rob bait from your net, attach fish carcasses on the underside of the ring or secure them in containers made from hardware cloth.

Red meats such as chicken and turkey backs, condemned beef liver, or other animal parts are effective crab baits, and they don't attract sea lions. Cat food in perforated cans will serve in a pinch.

Relate your crabbing to the tides. The best crabbing generally occurs at or just before slack tide—either low or high. The best days for crabbing are those when a minimal difference exists between high and low tidal stages. You can obtain tide tables from most sporting goods stores.

Most bay crab fishing parties use several ring nets or traps when crabbing. The maximum number per person is set by law, so be sure to consult current regulations for your area. The gear usually is placed in 10 to 20 feet of water at intervals of 75 to 100 yards.

Lay out your gear in a straight line parallel to—not across—the main tidal or shipping channel so that passing boats can easily maneuver to avoid hitting your ropes or floats.

Pull your ring nets every 15 to 30 minutes, depending on how fast the crabs are coming to the bait. You can check traps less frequently.



Figure 2. Fish carcasses make good bait; you can attach them with wire to your crab ring net or trap.



Figure 3. To avoid getting pinched, quickly grasp both of the crab's rear legs or the central portion of the shell.

Always approach floats against the tidal current. As your boat nears the ring net, pick up your floats and gather in the line.

Don't pull the net off the bottom until your boat is almost directly overhead. *This is important!* If you don't retrieve the ring net vertically and rapidly, the larger crabs may escape over the top ring. With traps, pulling can be more leisurely.

The best way to handle crabs is by quickly grasping both of the rear legs or the rear central portion of the shell (figure 3). *Don't* run your fingers past the mid point of the underside of the shell. A crab's pinch can be painful and may break the skin. Work fast—crabs have a relatively fast reaction time.

Handle undersized crabs and softshell crabs with care; return them

immediately to the water to assure their survival.

Crab size is measured in a straight line across the back and immediately in front of but not including the points (see figure 4). Retain only hardshell crabs of legal size and sex.

Female crabs are distinguished from male crabs by their relatively broad abdomen (tail flap). This characteristic holds for both Dungeness and red rock crabs (figure 5). Current regulations prohibit the harvest of female Dungeness crabs; if caught, they must

be immediately released unharmed. Female red rock crabs are not currently protected in Oregon.

As crabs grow, they periodically shed and replace their shells. A softshell crab is one that has recently shed its shell. You can recognize it by the light and relatively bright shell color and by the softness and fragility of the shell.

Although such crabs are edible, the flesh is soft and watery, and the shells contain relatively little meat. For best use of the crab resource, softshell crabs should be released unharmed. In 6 to 8

Figure 4. Proper measurement is made across the back immediately in front of, but not including, the points.

Minimum Measurement

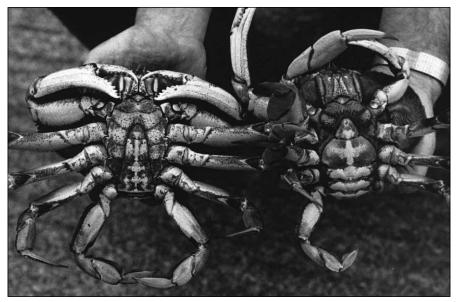


Figure 5. Male Dungeness crab (left) has a narrow abdomen, or shell flap, on the underside. Female (right) has a broad abdomen. Release all females.

weeks, they will grow into prime eating quality.

Cleaning

Crabs may be cleaned either before or after they are cooked.

Cleaning before cooking eliminates visceral taste, facilitates salt penetration into the body meat, and decreases the size of the vessel and the heat required to cook the crabs.

Cleaning after cooking is easier and faster and protects the body meat from residues in the cooking water.

In either case, the cleaning procedure is as follows:

- 1. Remove the carapace (back) of the crab by forcing the edge of the shell against any solid object (figure 6).
- 2. Break the crab in two by folding it like a book-first up and then down (figure 7).
- 3. Shake out the viscera from each half.
- 4. Pull off the gills and tail flap.
- 5. Rinse with fresh water. Nothing remains but shell and edible meat.

Cooking

Crabs should be cooked with or without salt as soon as practical after cleaning. If cooking is delayed, be sure to keep the body segments on ice-uncooked crab spoils readily. To cook with salt, add 3 to 5 ounces of salt per gallon of fresh water (2 ounces of salt per gallon of bay water).

Bring the water to a boil, drop in the body segments, and time for 12 to 15 minutes after the water returns to a boil. Cook whole crabs 20 to 22 minutes in fresh water containing 6 to 8 ounces of salt per gallon.

The procedure is the same for cooking without salt.

After cooking, remove the crabs from the boiling water and immediately immerse them or spray them with cold water until they're cool. This stops the cooking process, prevents drying and shrinkage of the meat, and tends to prevent the meat from sticking to the shell.



Figure 6. Remove the back by forcing the edge of the shell against any solid object.



Figure 7. Fold to break in half and shake out viscera from each half.

A black discoloration of body meat or shell may occur a few days after cooking. While this discoloration isn't harmful in itself, it does indicate that the crab hasn't been adequately cooked.

Regulations

Because regulations for catching crabs may vary from year to year and from state to state, check the *current regulations* before you start on a fishing trip. In Oregon, these regulations are available at most sporting goods stores

where fishing and hunting licenses are sold, and are posted at most crab fishing areas.

Also, check with local authorities to make sure the crab season has not been closed for health-related or any other reasons.

For Further Reading

Oregon Sea Grant offers many other publications on marine and coastal topics. For a free copy of our publications catalog, contact Oregon Sea Grant Communications Oregon State University 322 Kerr Admin. Building Corvallis OR 97331-2131 PHONE: (541) 737-2716

(800) 375-9360 FAX: (541) 737-7958

E-MAIL: sea.grant.communications@

oregonstate.edu

An on-line version of the catalog is also available on our Web site at http://seagrant.oregonstate.edu/sgpubs/index.html



This publication was supported by the National Sea Grant College Program of the U.S. Department of Commerce's National Oceanic and Atmospheric Administration under NOAA grant no. NA76RG0476 (project number A/ESG-4) and by appropriations made by the Oregon State legislature. The views expressed herein do not necessarily reflect the views of any of those organizations.

