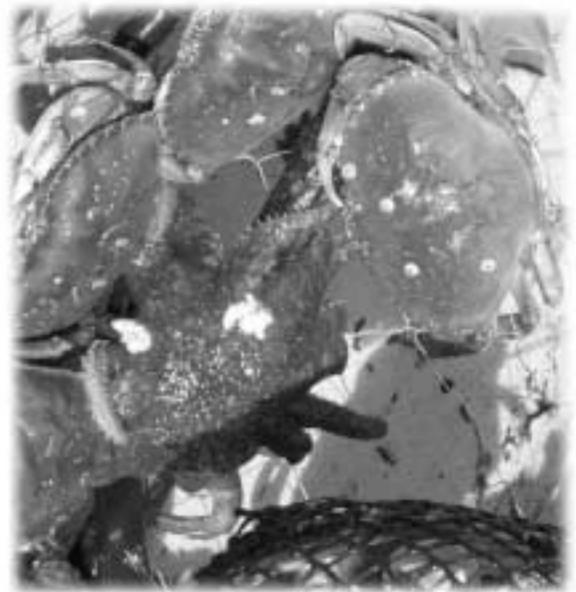


Dungeness Crab

(Cancer magister)

Description

Dungeness crab (*Cancer magister*) are crustaceans, having an exterior skeleton or shell. The shell is purple-tinged, grayish-brown on the back, with white tipped claws. They average 6 to 7 inches across the back. Dungeness crab are found from Alaska to Mexico. They are most abundant in Puget Sound north of Seattle, in Hood Canal, and along the coast.



David Johnson, Washington Department of Fish and Wildlife

Life cycle

- **Mating and egg development (0-4 months)**—Mating occurs between hard-shelled males and newly molted, soft-shelled females from the spring to the fall. Male crabs are polygamous—each male crab may mate with more than one female crab. Only male crabs can be harvested. The female crab stores the sperm until her eggs are fully developed. Fertilization of the eggs occurs when the female extrudes them under her abdomen where they are carried several months until hatching. Large females can carry over 2.5 million eggs.
- **Larval stage (4-12 months)**—Crab larvae are dispersed by currents and progress through a series of stages in which their appearance changes considerably.
- **Juvenile stage (1-2 years)**—After one year, the juvenile crab resembles the adult form and settles on the bottom of shallow intertidal areas and estuaries. Crabs reach an average size of 1-3/4 inches across the back a year after the crab takes up bottom life. As they grow, they tend to move into progressively deeper water. (Small black or gray shore crabs found on the beach should not be confused with young Dungeness crabs).
- **Adult stage (3-8 years)**—Adults grow by shedding their rigid exterior skeleton (or shell). During this process (called “molting”) a crab backs out of its hard shell with a new, soft shell already in place. Crabs tend to molt about seven times during the first year of bottom life and then about once a year after that. Molting periods vary within Puget Sound. Crabs with soft shells are vulnerable to predation, so they tend to hide in the sand or mud on the bottom. It takes about 2 months for them to form another hard shell. Crabs are sexually mature after their second year and reach legal harvest size (6-1/4 inches across the back) in about 4 years.

Habitat

Juveniles live in intertidal and shallow subtidal areas, hiding beneath or among plants, rocks, shell debris and eelgrass beds. Adults prefer eelgrass beds and sandy or muddy substrate. Breeding occurs in nearshore areas and females usually move to deeper water to hatch eggs. Threats to crab habitat include modifications to the shoreline from development (bulkheads), disruption of eelgrass beds and pollution.

Food

Dungeness crab feed on clams, snails, fish and crab eggs, crustaceans, marine worms, squid and small fish.

Predators

Animals that eat Dungeness crab include octopus, halibut, other Dungeness crab, dogfish, Pacific hake, lingcod, salmon, shorebirds and waterfowl.



Harvest

Dungeness crab provide an important commercial, recreational and tribal fishery. In Puget Sound, harvest has increased steadily from more than 2 million pounds in 1992-1993 to a record 7.7 million pounds in 1999-2000. The increased harvest is due to increased numbers of recreational crabbers, easy access to crabbing areas, and the decreasing availability of other harvestable species. Crabs are harvested using crab pots, ring nets or dip nets and are picked by hand. They are also taken or harmed unintentionally by salmon gillnets, bottomfish trawls and dredging activities.

Management

The Tribes and the Washington Department of Fish and Wildlife co-manage crab fisheries.

- **Commercial management**—Closures during the year limit harvest and protect softshell crabs during molting periods. Other conservation measures include biodegradable escapement devices to prevent derelict traps from “ghost fishing” and escape holes to allow undersized crab out of traps.
- **Recreational management**—Estimates of sustainable harvest levels are made during each season. Closures occur during molting periods and when necessary to limit catch levels. Phone surveys, voluntary catch records and buoy counts are used to estimate catch levels. Based on historical results, the average catch for recreational crabbers is 0.5 to 2.5 crab kept per trap per day.
- **Tribal management**—Tribes limit the amount of fishing and use other conservation measures to protect crab populations. Each tribe can determine the number of commercial tribal fishermen allowed to participate.

Status

The Dungeness crab population appears to be healthy despite pressure from the fisheries described above. Harvest pressure is likely to increase, particularly while many other species are in decline.

Sources

- Washington Department of Fish and Wildlife- www.wa.gov/wdfw
- Tulalip Tribes
- Snohomish County Marine Resource Committee

Much of the text for this fact sheet came from Snoh Co PW, SWM fact sheet