Harvest and Identification of Peeler Crabs

Steven Otwell and Frank Lawlor

Introduction: Peeler crabs are simply hard shell blue crabs (*Callinectes sapidus*) that show signs of molting. The molting process, commercially called shedding, is when the hard shell is cast off and the new soft shell emerges. In the soft condition, the shell expands to a larger size before hardening. Peeler crabs is the term given to blue crabs that are in a pre-molt stage. Identification of pre-molt crabs is the key to the success of soft shell crab operations since prolonged time in a shedding facility increases the chance of mortality, requires feeding, decreases water quality and increases operating costs.

Location and Season: Wherever blue crabs are harvested, peeler crabs are available. The abundance of peelers depends on water temperature, salinity and the time of the year. In Florida blue crabs molt yearlong, but are most abundant when water temperatures exceed 68°F. Crabbers can expect varying quantities of peelers to be available from April through November. When blue crabs are molting, they seek protection from predators. Areas that have grassy shoals, shallow shorelines or submerged structures are habitats that often contain larger quantities of pre-molt crabs.

Fishing Methods and Gear: Fishing methods for the harvest of peeler crabs include dip nets, push nets, scrapes, trot lines, bush lines, peeler pounds, crab pots, jimmy pots, bare pots and artificial habitats. All methods of fishing for peelers must be approved by the Florida Marine Fisheries Commission.

Handling: Peelers require special handling on the boat to avoid leg damage and drying out. A shallow container covered with damp burlap helps to prevent exposure to the sun. Leave an air pocket of 3 to 4-inches between the burlap and the crabs. Peelers should be placed in a shedding system with a salinity similar to their harvest area for the most successful shedding.

Identification: Physical changes in the shell and shell color are 'signs' of crabs in the peeler condition. Crabbers must become familiar with the signs to identify crabs in the pre-molt condition.

Paddle fin color: The new soft shell can be seen forming under the hard outer shell. This is most easily seen on the edges of the paddle fin. The new shell first appears as a white line (Figure 1) and gradually darkens to a pink line then changes to a red line (Figure 2). The red line is the sign of a true peeler just prior to busting.

Abdomen color: The abdomen color of male crabs is unreliable. A freshly shed male crab's abdomen color (Figure 3B) is whiter but males can have 'yellow bellies' and still be weeks away from shedding (Figure 3A). The abdomen of immature female crabs is triangular in shape (Figure 4C) as compared to the semi-circular shape of the mature female (Figure 4A). The immature female will have a pinkish, purple triangular apron indicating the development of a new shell (Figures 4B and 5). Mature females do not molt and should not be used in a shedding operation.

Buster Crab: Buster crabs are peelers in the first stage of molting (Figure 6). This may be when the new soft shell crab begins to back out of the old hard shell although you may have busters that have not yet begun to back out.

---

Steven Otwell is the Seafood Technology Specialist for the Florida Sea Grant Program. Frank Lawlor is the Florida Sea Grant Extension Agent for Broward, Indian River, Martin, Palm Beach and St. Lucie counties. (This publication replaces MAFS-26.)