

Crawfish Fact Sheet 1

Identification, Stocking, and Trapping

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For more information about crawfish identification, stocking, and trapping, contact your local Natural Resources Conservation Service.

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Identification, Stocking, and Trapping

Identification



Several species of crawfish exist in Louisiana. There are essentially two species of crawfish utilized in commercial crawfish production systems, the red swamp swamp crawfish (*Procambarus clarkii*) and the white river crawfish (*Procambarus zonangulus*). Red swamp crawfish make up greater than 70% of the annual commercial harvest. The red swamp species appears heartier, and lays more eggs which mature quicker. They also seem more appealing to consumers than the white river species. Adult red swamp crawfish can be easily distinguished from adult white river crawfish. Young specimens may also be differentiated, but it is more difficult. The red swamp crawfish has the two halves of the carapace meeting to form a thin line. White river crawfish exhibit a separation between the two halves of the carapace. Mature white river crawfish have claws that are more elongated and cylindrical than those of the red swamp crawfish. White river crawfish have lighter colored walking legs when viewed from above. Also, red swamp crawfish exhibit a pigmented line on the underside of the tail, which is not present on the white river crawfish.

Crawfish have always been recognized as a delicacy by the "Cajun" people. The numerous bayous, sloughs, and swamps throughout Louisiana support an abundant population of this native invertebrate. In recent decades the demand for crawfish has greatly exceeded that of south Louisiana residents. Crawfish production has become a significant aquaculture venture within the Louisiana agricultural industry. This industry has expanded to supply out-of-state and out-of-country consumers. The industry is constantly undergoing development toward more efficient production. This jobsheet reviews basic information regarding crawfish species and harvest.



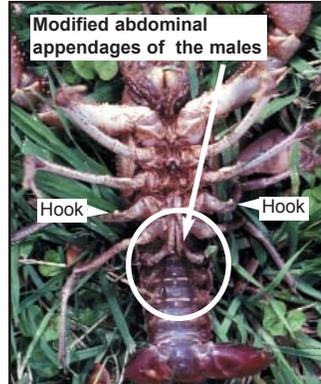
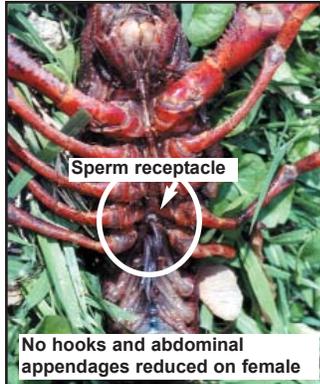
See red swamp crawfish (left) and white river crawfish (right) below. Notice the space between the two halves of the carapace and lighter color of the white river crawfish.



Stocking

Red swamp crawfish should be stocked beginning April 15th, at the rate of 50-60 pounds of seasonally mature crawfish per acre. Stocking later can be more difficult because the supply of broodstock is less certain. Mature brood crawfish should be stocked within two to three hours after capture. Avoid using crawfish that have been in cool storage because mortality can be high. Broodstock should be transported in a covered vehicle to avoid exposure to wind and sunlight. Stocking other species, such as white river crawfish is strongly discouraged due to lack of demand and management limitations. The sex ratio should be close to 50% males and 50% females. Size of the broodstock has no impact on the size of the young crawfish produced. When crawfish ponds are initially stocked in the spring, the ovaries (located in the head) of females should be

observed to determine their stage of maturity. Ideally, about 20% of the females should have tan to darker colored eggs. Crawfish should be stocked in ponds adjacent to baffle or perimeter levees. When stocking a new pond without forage, encourage burrowing by spreading hay along the edge of the pond to provide cover for burrowing and escaping from predators. After an acclimation period of one to two weeks, drain the water slowly over three to four weeks to stimulate the crawfish to burrow. There are usually adequate mature crawfish remaining after a production season to supply juveniles for the next season. Restocking is usually not necessary in permanent ponds or when the physical location of the pond does not change.



Female red swamp crawfish (right). Male white river crawfish (left).

Trap Density and Spacing

The number of traps set per acre (density) and the spacing between traps are important factors to consider before harvesting. Research indicates that 20-25 traps per acre are the optimum number for efficient harvesting in ponds with a moderate to high standing crop of harvestable crawfish. To achieve this density, the distance between rows should be about 40 feet and distance between traps should be about 50 feet. The distance between traps is critical to the efficiency at which traps can be baited and emptied.



Trapping Frequency

Traps are baited and emptied three to six days per week, depending on the catch, price structure for crawfish and market demand. Most baiting regimes are based on a 12-hour or 24-hour trap set. A 12-hour set entails baiting late in the afternoon and emptying the traps the next morning. A 24-hour set entails baiting one day and emptying and re-baiting the trap 24 hours later. Fewer crawfish escape from the traps on a 12-hour set and more crawfish are caught, but more labor and bait costs are involved. Daily crawfish catch is cyclic and influenced by many factors including water temperature, water quality, weather, forage type and quality, crawfish growth, recruitment patterns, trap design, baits and harvesting intensity. The major factor influencing catch is the density of

harvestable crawfish in the pond. Daily catch rates typically range from 1/4 to 3 pounds per trap per day. Premium prices offered for late fall to early winter crawfish have caused many farmers to try to manage for an early harvest. Some crawfish ponds will be ready to fish as early as mid-November. At this time, catches are usually small (1/4 to 1 pound per trap), and are made up of holdover adults, large juveniles that did not mature in the previous year and the rapidly growing juveniles. There is usually a gap between the catch of holdover crawfish and the juveniles. Before harvesting early, consider egg development, population density, pounds per trap harvested, cost of harvesting and the current price per pound.

References

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- iii. 1990. Louisiana State University Agricultural Center, Louisiana Cooperative Extension Service. Southern Regional Aquaculture Center. [Crawfish Production Systems](#). Publication 2426
- iv. 1976 Louisiana Wild life and Fisheries Commission. [Crawfish Farming](#).