Seafood consumers can look forward to new crawfish delicacy

Louisiana’s 105,000 acres of commercial crawfish ponds may, in the not-too-distant future, produce an additional delicacy for seafood consumers: the soft-shelled crawfish.

These soft croutacées are typically found in ponds already; the challenge currently facing LSU’s aquaculture researchers is finding a practical way of raising and marketing them.

Dr. Dudley Culley of LSU’s School of Wildlife and Fisheries, who leads the soft crawfish project, says the key to successful farming is learning how to identify crawfish that are in their old hard shell in order to grow.

“Different coloration patterns on the crawfish help us to recognize those that are still growing but not yet large enough to shed their shells, are placed in holding trays and put on an intensive feeding program to speed the growth and molting process,” Culley said. "Those we put in water-filled holding trays and within 24 to 48 hours, they shed their old hard shell in order to grow. Underneath the old hard shell is a soft shell that will harden and enlarge as the animal begins to grow again,” Culley said.

The normal season for soft crawfish production runs, not surprisingly, concurrent with the crawfish season, according to Culley, who says as long as the crawfish are still growing in the ponds, there are candidates for the soft-shelled crawfish culture system. Once they reach maturity, however, they don’t molt enough to justify keeping them in their system, he said.

“Different coloration patterns on the crawfish help us to recognize those that are still growing but not yet large enough to shed their shells,” Culley said. “Those we put in holding trays and put into cold storage. Crawfish near the molting stage are put into a culture system to accelerate their development.

“Extra care must be given in the harvest however, because molting crawfish are sensitive to high temperatures and low oxygen levels. The normal season for soft crawfish production runs, not surprisingly, concurrent with the crawfish season, according to Culley, who says as long as the crawfish are still growing in the ponds, there are candidates for the soft-shelled crawfish culture system. Once they reach maturity, however, they don’t molt enough to justify keeping them in their system, he said.

But what about the market potential for this “new” dish? Researchers admit they don’t have the data to predict its success—yet.

“We of course currently have no real soft-shelled crawfish industry in the state—we have one man I know of who harvests and sells them in the Baton Rouge area—and we’d need some small scale commercial operations out there working to find out if the industry’s going to pan out. There is definitely a demand to this state, we just don’t know how big. We don’t have a way to measure it yet. Crawfish is a South Louisiana tradition, and another crawfish dish should expect a good reception,” he said. “We’re basically working on a means of getting the supply to the market.”