Life ain't easy for a bay scallop

By Lee Anderson
WaterLine Editor

The life of a scallop ain't easy. And if you're a Florida bay scallop, well, life is even tougher. While some scallops can live more than 20 years, the bay scallop is short-lived — we're talking 12 to 18 months.

Imagine you're a bay scallop. Like any creature, your number-one goal is survival and reproduction. Sounds simple, right? Wrong. There is a heck of a lot to do and worry about in those 12 to 18 months.

It all begins in the fall for the Florida bay scallop. Just as the water temperature starts to drop, the mating season kicks off. But there are no flashy displays of courtship here. Without even introducing themselves to each other, the male releases his sperm into the water, and the female releases her eggs. Now, it all comes down to chance. Somewhere in the estuaries, the sperm from Palm Beach to Pensacola, and the little critters supported both recreational and commercial fisheries in the Sunshine State. Today, consistently healthy populations can be found in prime scallop real estate locations along Florida's Big Bend like Steinhatchee, Homosassa and Crystal River. Why aren't they here anymore? Why not our Harbor? They used to be here, but remember, if you're a bay scallop, your life depends on seagrass beds. More importantly, healthy seagrass beds.

Florida Sea Grant agent Betty Staugler says that scallops in Charlotte Harbor were nonexistent until recently.

"There were several years, from the mid to late 1990s until about 2003, when you were very lucky to find a bay scallop in Southwest Florida," says Betty. "Tampa...

Bay scallop, and red tide is devastating."

After four hours of searching, just one single scallop was documented.

There's a lot of pressure on that single scallop found during this year's Sea Grant search. A scallop is capable of producing millions of eggs at once, but only one egg out of 12 million is likely to reach adulthood. Approximately 90 percent of spat will die within six weeks of settlement. But again, there is hope.

One reason scallop numbers can rebound quickly is their short life cycles. It also helps that currents spread the millions of larval throughout the Harbor.

"We will have another release early next year. Our goal is to restore the bay scallop fishery that collapsed more than 30 years ago due to water quality issues, loss of seagrass beds and overharvesting," says Staugler. "Water quality and seagrass conditions appear to have improved enough to again support bay scallops. Barring any storms or red tide, hopefully we can get these guys back in our Harbor."

To have a healthy bay scallop population would be wonderful for everybody. Fishing towns in Florida's Big Bend flourish during the summer months as locals and tourists flock to them in search of the sweet and succulent bay scallop, which can't be bought or sold on the commercial market. "A healthy bay scallop population will increase tourism and improve the economy," Staugler
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It all begins in the fall for the Florida bay scallop. Just as the water temperature starts to drop, the mating season kicks off. But there are no flashy displays of courtship here. Without even introducing themselves to each other, the male releases his sperm into the water. The female releases her eggs. Now, it all comes down to chance.

Somewhere in the estuaries, the sperm and eggs are born. With hope to meet, creating a new bay scallop and ensuring the future of the species. Fertilized eggs become floating larvae in less than two days, but they soon discover that floating isn’t the bay scallop way. After another two weeks, the delicate larva becomes tiny spat, and finds a comfortable home in the seagrass beds. From here, they develop their shell and eventually drop into the seagrass beds for protection. If you’re a bay scallop that has successfully found a home in the seagrass, the only thing you have to worry about is outside factors. In an ideal world, you only have to worry about food, the occasional predator, and reproduction. Healthy seagrass beds should adequately provide nourishment and shelter for the short life of 12 to 18 months, and we already know how automatic the scallop reproduction process is. So what’s the big deal about being a bay scallop?

Harvesting bay scallops has a long history in Florida that dates to at least A.D. 900, according to a 1992 study. And if you talk to people who lived here in the 1960s and ’70s, they will tell you about the days when they could gather a few dozen scallops for supper, right here in Charlotte Harbor. But that was back in the day. At one time, bay scallops could be found from Palm Beach to Pensacola, and the little Catters supported both recreational and commercial fisheries in the Sunshine State. Today, consistently healthy populations can only be found in prime scallop real estate locations along Florida’s Big Bend like Stein-hatchee, Homosassa, and Crystal River. Why aren’t they here anymore? Why not our Harbor? They used to be here, but remember, if you’re a bay scallop, your life depends on seagrass beds. More importantly, healthy seagrass beds.

Florida Sea Grant agent Betty Staugler says that scallops in Charlotte Harbor were nonexistent until recently. “There were several years, from the mid to late 1970s until about 2003, when you were very lucky to find a bay scallop in Southwest Florida,” says Betty. “In the early 1980s, only a few were seen in the Harbor; says Betty.”

Volunteers search for bay scallops at the 5th Annual Great Bay Scallop Search. This is the only bay scallop found during the Sea Grant’s 5th Annual Great Bay Scallop Search. There is hope for Florida’s bay scallop, and Betty is leading the charge. Sea Grant’s 5th Annual Great Bay Scallop Search was conducted in the Charlotte Harbor estuaries of Lemon Bay and Gasparilla Sound last weekend. The search is a resource-monitoring program in which volunteers scour while looking for scallops, in select areas. Volunteer boat captains and snorkelers monitored and documented the health and status of the bay scallop population.

“We didn’t even start monitoring scallops in Charlotte Harbor until 2008, when we started hearing anecdotal information that scallops were seen in the Harbor,” says Betty. Volunteers showed up in numbers to search for scallops in the name of science. Volunteers registered online and brought their own boats and snorkeling gear. Sea Grant provided all the necessary equipment: a Dive flag; a 50-meter weighted transect line with weights; one 2-meter PVC pipe to measure water depth; two 1-meter PVC pipes to indicate how far to search along the transect line; maps of dense and more spotty seagrass areas; calipers to measure the scallops; informational sheets and data sheets for recording findings; and a 5-gallon bucket to hold it all. Each team was given a field resource guide with pictures of bay scallops and other bivalves that are often mistaken for bay scallops.

“All the data collected is crucial,” says Betty. Even if it is zero.” This year’s results pointed to what Betty already knew. More than eight million scallop larvae were released last year, but a week after the larvae were released, local waters were infested with the toxic red tide algae. “I know we would not have good numbers,” says Betty. “It doesn’t take a lot to disturb the life cycle of a bay scallop, and red tide is devastating.” After four hours of searching, just one single scallop was documented.

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“A healthy bay scallop population will increase tourism and improve the economy,” says Staugler.

That’s why we are making this a priority. I like to think that our one scallop will be the start of a thriving scallop community, but that’s a lot to hope for.”

Hopefully, come this fall, that single scallop’s sperm or eggs will end up on the successful side of chance. But even if they do, one thing is certain — life sure ain’t easy for a bay scallop.