



Betty Staugler, Florida Sea Grant Marine Agent - Charlotte County UF/IFAS Extension Service

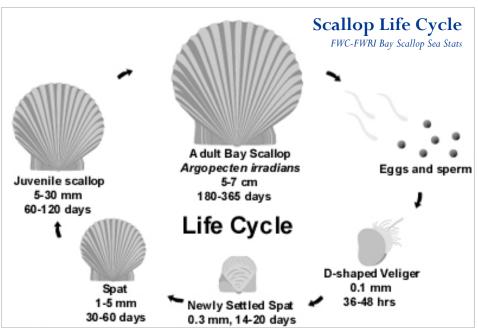
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2008 has been a very good year for bay scallops in southwest Florida. In August 2008, 62 Sarasota Bay Watch volunteers logged 947 scallops from Longboat Pass in Manatee County to Big Pass in Sarasota County. Reports of scallop sightings have been made throughout southwest Florida, all the way down to Florida Bay.

Bay scallops were once plentiful enough to support a commercial fishery in southwest Florida. But that was 30 to 40 years ago. Scientists believe poor water quality is responsible for the collapse of this fishery. Today, harvest of bay scallops for commercial sale is illegal in Florida water. Recreational harvest for personal consumption is only allowed north of the Suwannee River and only between July 1st and September 10th of each year.

Bay scallops are extremely sensitive to fluctuations in temperature and salinity. They are also very vulnerable to changes in water quality. A scallop can close its shell to protect its gills from murky water, but only for about two hours.

So what is causing the increase in bay scallops? No one knows for sure, most likely a combination of factors. Water quality in many southwest Florida estuaries has improved considerably since the 1960s and 1970s. This is particularly true for Tampa and Sarasota Bays. Also, over the last several years, scientists have been attempting to jump start populations by rearing scallops in laboratories and then releasing the juveniles into selected estuaries where water quality is deemed healthy enough to support bay scallops.



These factors, combined with two years of drought and very minimal red tide occurrences may well be the recipe for a bay scallop recovery.

Is this the real deal? It's far too early to tell what the future holds for bay scallops in southwest Florida. Bay scallops only live 12-18 months, so one bad year could spell disaster. Bay scallops spawn in the fall. To increase their reproductive success, a bay scallop has the ability to produce both eggs and sperm, although, a delay occurs between the release of eggs and sperm to prevent inbreeding.

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About 36 hours after fertilization, a tiny scallop egg becomes floating larvae. Two weeks later the larvae becomes spat and attaches itself to the base of seagrass blades. The spat will eventually move up the blade to avoid predation from bottom dwellers. In spring to early summer, the scallops fall off of the seagrass blade and onto the bottom where they will spend the rest of their lives as free swimmers. Although a single scallop is capable of producing millions of eggs at once, only one egg out of the millions may survive to adulthood.

Over the last several years, researchers have been evaluating scallop populations in Tampa Bay and Pine Island Sound. Earlier this year monitoring began Sarasota Bay and upper Lemon Bay through a collaboration of Sarasota County and the Florida Fish and Wildlife Conservation Commission-FWRI (FWC-FWRI). In October, we extended the monitoring into Charlotte County (Lemon Bay and Gasparilla Sound) through a collaboration of FWC-FWRI and Florida Sea Grant/Charlotte County. Our efforts involve placing spat collection traps in seagrass areas. The traps will serve a substrate for the spat to attach to. Monthly, a trap will be pulled and another deployed. Each trap pulled will be analyzed by FWC-FWRI to determine if bay scallop spat are present. If spat is present then we will look at additional monitoring techniques to see how many are making it to adulthood and/or whether these areas may be suitable for restoration efforts.

I should mention, also helping us is the FDEP Charlotte Harbor Aquatic Preserves who are looking for scallops while conducting their annual seagrass surveys (October-December



each year). The Aquatic Preserve staff have already made one scallop observation report for the southern end of Lemon Bay.

Sources:

- Florida Fish and Wildlife Research Institute http://research.myfwc.com/features.
- Sarasota Bay Watch
 <u>www.sarasotabaywatch.org</u>.

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