

2012 BAY SCALLOP SUMMARY: FOR THE CHARLOTTE HARBOR ESTUARIES OF LEMON BAY & GASPARILLA SOUND

On August 4th, one hundred and thirty-seven citizen scientists participated in the 4th Annual Great Bay Scallop Search conducted in the Charlotte Harbor estuary waters of Lemon Bay and Gasparilla Sound. The search is a way of assessing bay scallop distribution and trends in abundance over time in local waters. This event was the first of four volunteer based scallop searches scheduled in southwest Florida. The others occurred in Sarasota Bay, Tampa Bay and Pine Island Sound.

Volunteers who participated in the search attended a required training session where they received monitoring gear and instructions on how and where to sample. The methods used are designed to provide uniform data that can be used to compare different areas of the bay, different areas of southwest Florida (Tampa to Pine Island Sound) and one year to the next. It is important to note, volunteers do not look for every scallop in the study area, just those that fall within their narrowly defined search area.



Photo Credit: Jeff Lafferty

A Scallop Searcher Finds What He's Looking For

All total 30 teams went out in the Charlotte event. That comprised 24 boats & 6 groups of kayakers. Each team was assigned an area to sample. Sites ranged from just north of the Tom Adams Bridge down to Boca Grande and then east to Turtle Bay.

This year's event documented 20 live scallops during the search. A slight decrease from the 24 observed in 2011. Although these numbers are low, they still represent a positive sign for our area.

These results demonstrate the importance of collecting information in a number of areas over a number of years. This is the only way to develop a comprehensive picture of what is happening.

Scallop Searches	2008	2009	2010	2011	2012
Tampa Bay	624	674	32	5	12
Sarasota Bay	947	136	15	10	93
Charlotte Harbor	N/A	94	163	24	20
Pine Island Sound	N/A	N/A	335	1026	400
Total SWFL	1571	904	545	1065	515

We monitor bay scallops in southwest Florida because they are an important species to both humans and the environment. When coastal waters are able to support bay scallops it is a sign of reasonably good water quality and seagrass conditions. Many volunteers participating in the search this year commented about how healthy the seagrass looked. Healthy seagrass is very important habitat for bay scallops, but it's only part of the story.

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2012 Bay Scallop Summary:

August 19, 2012

Bay scallops are essentially an annual crop, completing their life cycle over the course of a year. In Florida, spawning typically occurs in the autumn. Scallops rapidly grow and mature in the spring and summer of the following year and then rapidly die after spawning. Predators take their toll and following spawning scallops are in a weakened condition and often become riddled with parasites. An 18-month old scallop is indeed a very, very old scallop. Hence the abundance of scallops in an area depends upon the success of the spawn and the ability of larvae, being transported by water currents to reach suitable seagrass habitat.

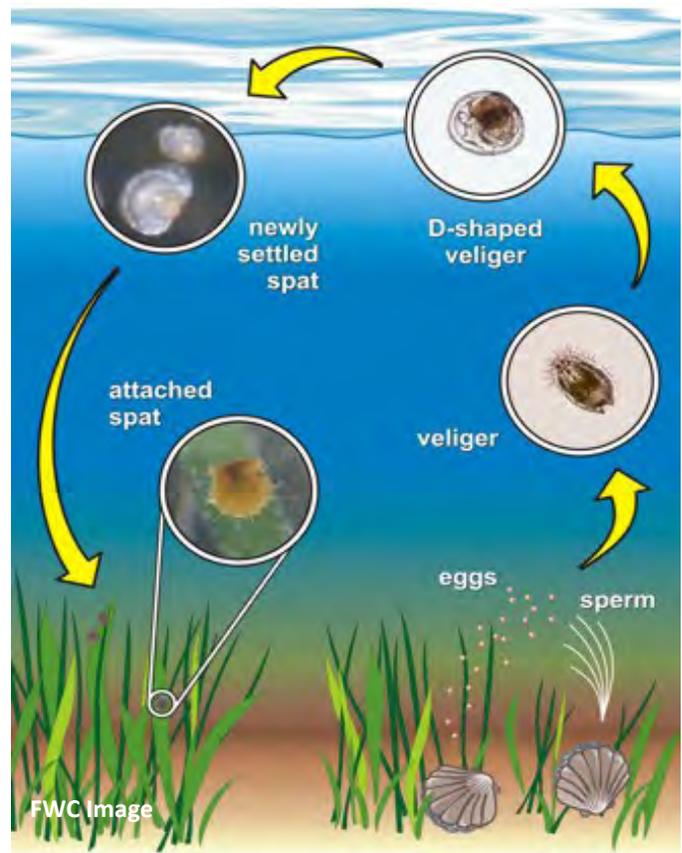
In addition to the scallop search, bay scallops are monitored throughout the year by counting recruiting scallops, referred to as spat (phase when scallops first settle on seagrass blades). If you see a yellow and red float located close together while out on the water, chances are you are looking at spat collectors. The Spat is monitored by the Florida Fish and Wildlife Conservation Commission (FWC), with the support of partners, from St. Andrew's Bay to Pine Island Sound, including eight sites in coastal Charlotte County.

Twelve volunteers in Charlotte County are also monitoring scallops in cages at their docks. The caged



Photo Credit: Renee' Galloway

Volunteer Cage Monitoring Program



Annual Bay Scallop Life Cycle

scallops are part of a community restoration program where bay scallops are placed in areas to spawn, thus adding additional recruitment potential. Monthly, volunteers who have adopted the cages, collect data on their scallops. We use this information to determine the percent of survival and growth rate of the scallops.

The results of these combined monitoring programs provide resource managers with information needed to effectively manage and hopefully restore bay scallop populations.

Bay scallops are extremely sensitive organisms and so short lived that their success depends upon large populations in large areas over a long enough time period to ensure one red tide event or one rainy year will not result in a collapse of this species.

Looking to the future—New restoration plans using hatchery reared larvae are in the works for the later part of 2012. Adult bay scallops (brood stock) will be collected for hatchery spawning in late summer 2012. Once the larvae are ready to settle in the seagrass beds, they will be released. It is anticipated that larvae will be released in two locations (one in Lemon Bay and the other in Gasparilla Sound). These restoration sites will be carefully monitored for some time. It should be noted that more releases will most definitely be needed if we are to stand a chance at restoring local bay scallop populations.

Acknowledgements—*The Great Bay Scallop Search* was made possible by many organizations and people. The event was organized by Florida Sea Grant/UF/IFAS Charlotte County Extension (FSG/UF-IFAS/CCE) with support of the Florida Fish and Wildlife Conservation Commission (FWC). Gasparilla Marina generously donated the use of its facility and dock space. Charlotte County waived parking fees for use of its nearby Placida Boat Ramp. Grande Tours provided kayaks free of charge to snorkelers who wished to participate via kayak. Coastal Engineering Consultants, for the fourth year in a row, provided boxed lunches for everyone who participated in the event. The Charlotte Harbor National Estuary Program, Charlotte Harbor Reef Association, Friends for Extension and Gregg's Automotive contributed funds to cover supplies. Most importantly community members, avid snorkelers, first timers and all around salt water enthusiasts donated their time, boats, fuel, skills and fantastic energy and attitudes to make the event a huge success.

The *Volunteer Cage Program* has also been made possible as a result of a strong collaboration. The FWC provides bay scallops for the cages. FSG/UF-IFAS/CCE recruits and trains volunteers and receives the monthly data sheets. Volunteers, including homeowners and businesses generously dedicate dock space for the cages. Additionally, they devote their time each month to measure scallops, record data and clean cages (a very messy job indeed!).

The *Recruitment Sampling* is conducted monthly through a joint arrangement between FWC and FSG/UF-IFAS/CCE. FWC provides field supplies, coordinates the monitoring, analyzes the recruitment samples and compiles the data. FSG/UF-IFAS/CCE assists by conducting the monthly field monitoring with volunteer support and/or assistance from Charlotte County Natural Resources staff.

The *Larval Releases* scheduled for the later part of 2012 are being conducted by FSG/UF-IFAS/CCE with technical assistance provided by FWC. Bay Shellfish Company, a state authorized hatchery will assist FSG/UF-IFAS/CCE with brood stock collection. They will also be responsible for all hatchery related activities. Release and follow-up monitoring will be conducted by FSG/UF-IFAS/CCE. Funding for this project has been provided by the West Coast Inland Navigation District.

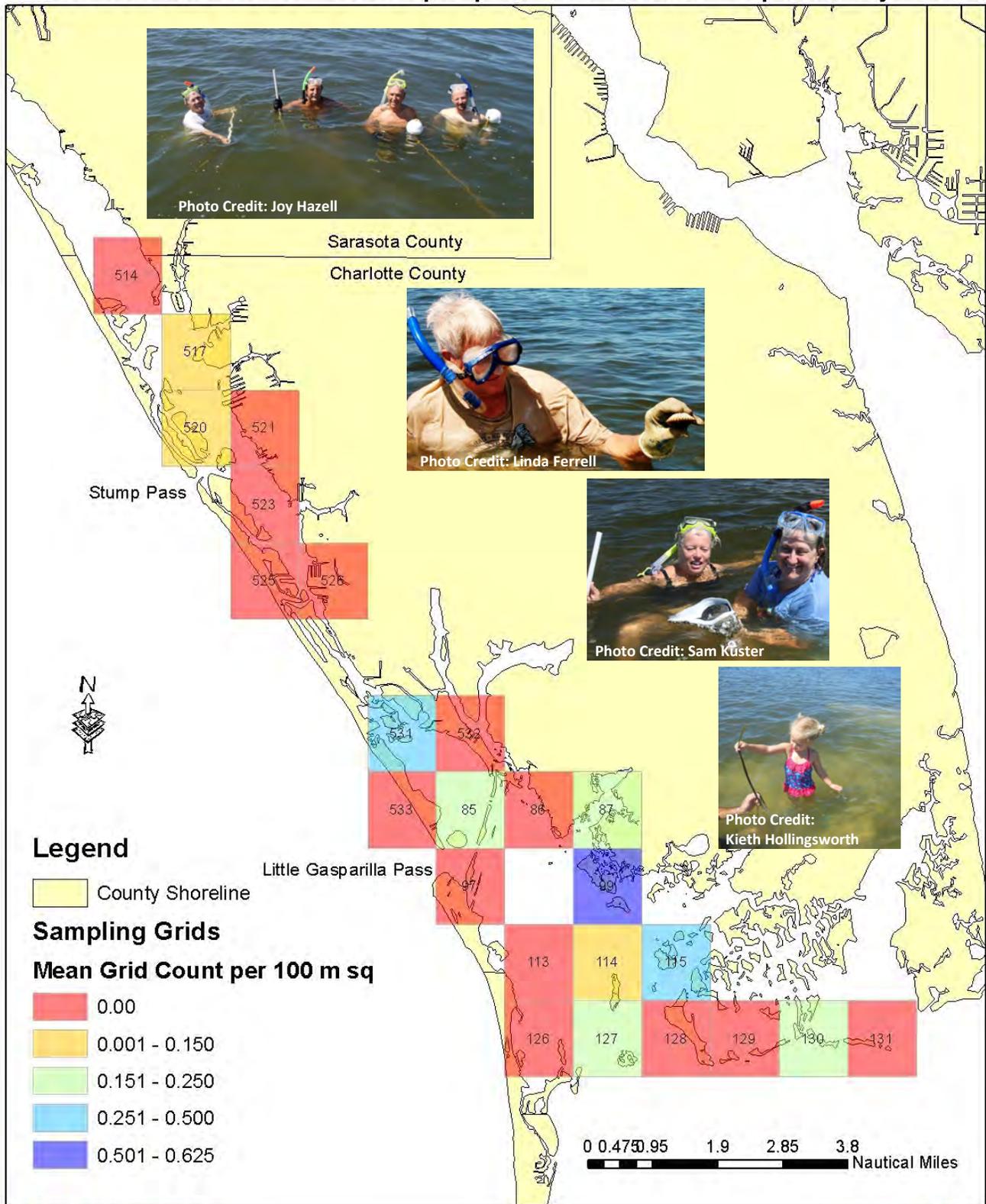
Acknowledgements would not be complete without recognizing the awesome volunteers who have devoted their time in the office assisting with data management in addition to those who have provided on-site land based support of these bay scallop efforts.

*Hopefully someday we will see a sustainable bay scallop population in southwest Florida.
Until then, it is nice to know there are some happy ones out there.*

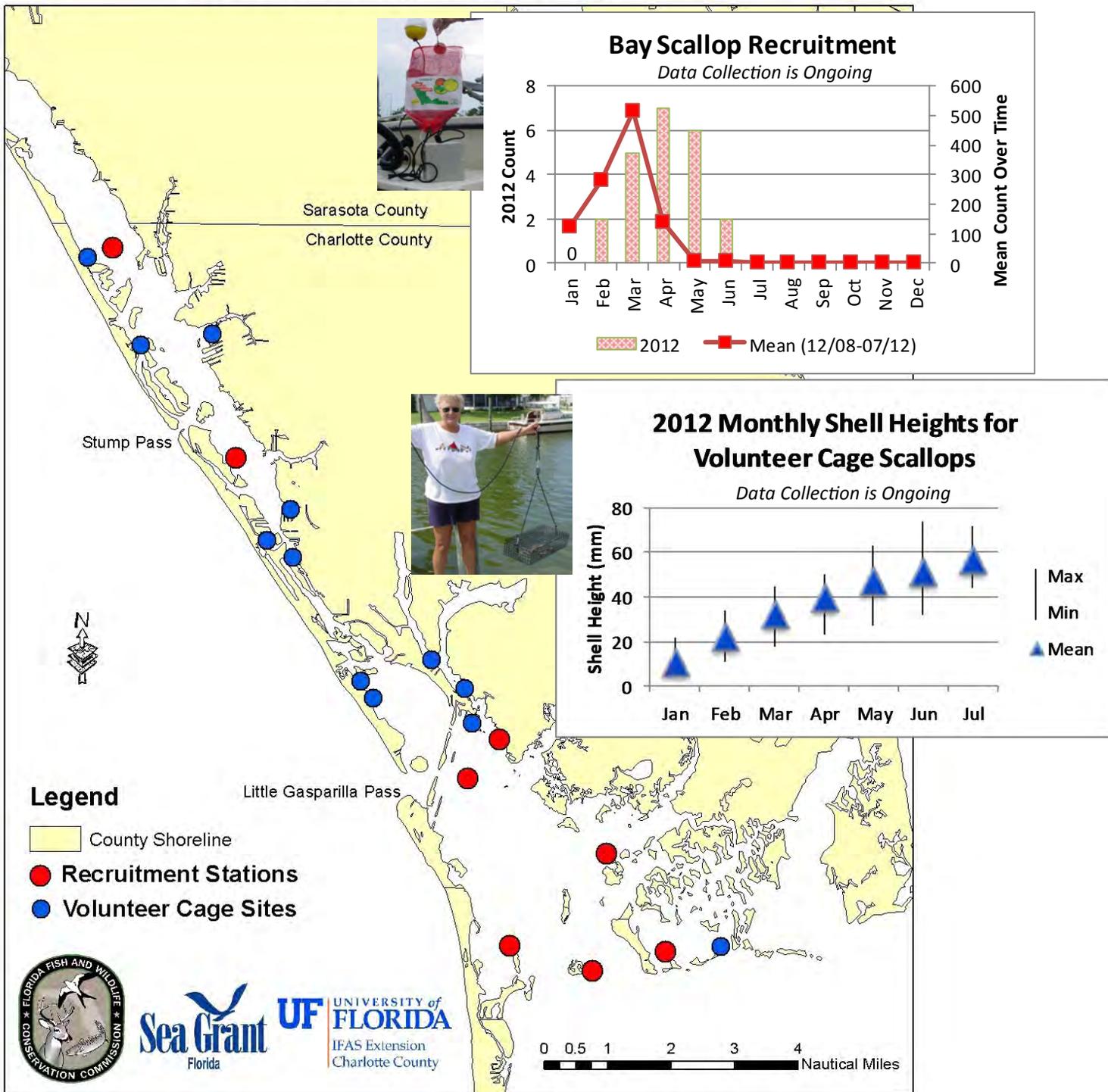
Bay scallops in Southwest Florida are protected.
It is illegal to harvest bay scallops south of the Pasco/Hernando county line.
For more information <http://myfwc.com/fishing/saltwater/regulations/bay-scallops/>

2012 Great Bay Scallop Search

Mean Number of Scallops per 100 Meter Square by Grid



2012 Scallop Recruitment & Volunteer Cage Monitoring Stations



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