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## New Boater's Guides Now Available

Just in time for the summer boating season, new boater's guides for Tampa Bay and both Hillsborough and Boca Ciega bays are hot off the press.

The Boating and Angling Guide to Tampa Bay, produced by the Tampa Bay Estuary Program and the Florida Fish and Wildlife Research Institute, includes a fold-out map of regional waters. The flip side features information about bay habitats and inhabitants, smaller maps showing boating speed zones and a resource directory with important phone numbers.

The Hillsborough Bay Boater's Guide, produced by Audubon of Florida with funding from the Tampa Bay Estuary Program, provides more in-depth information on the natural features of the area which has been identified as globally significant for bird populations. Key habitats – like the Richard T. Paul Alafia Bank Bird Sanctuary, nearby spoil islands and important preserves – are highlighted along with the birds and fish of the bay.

To get a free copy of the guides, visit [www.tbep.org](http://www.tbep.org), email [colleen@tbep.org](mailto:colleen@tbep.org) or call 727-893-2765. Bulk copies also are distributed through local marinas and bait and tackle shops. You can also get it online...now it's more interactive. [http://ocean.floridamarine.org/Boating\\_Guides/](http://ocean.floridamarine.org/Boating_Guides/).

**Source:** Bay Soundings, Spring 2009.

## Crab Trap Clean-Up This Summer

Earlier this year, the Florida Fish and Wildlife Conservation Commission (FWC) passed a new rule that established six regional closed seasons for the harvest of blue crabs using traps. This rule applies to both commercial and recreational harvesters. The region we are in (Broward to Pasco counties) will be closed July 10<sup>th</sup> through the 19<sup>th</sup>. During this time, organized groups, who have received permission from FWC, may conduct cleanup activities. For more information on conducting a cleanup during the closure, the following website is a great place to start: [http://myfwc.com/RULESANDREGS/SaltwaterTraps\\_index.htm](http://myfwc.com/RULESANDREGS/SaltwaterTraps_index.htm). You may also contact the Sea Grant Extension Agent in your area for information and/or assistance. Some agents may be organizing cleanups during the closures.

Collier – Bryan Fluech, 239-417-6310 ext. 204 [fluech@ufl.edu](mailto:fluech@ufl.edu)

Lee - Joy Hazell, 239-533-7518 [jhazell@ufl.edu](mailto:jhazell@ufl.edu)

Charlotte – Betty Staugler, 941-764-4346 [staugler@ufl.edu](mailto:staugler@ufl.edu)

Sarasota/Manatee/Hillsborough – John Stevely, 941-721-4524 [jsmarine@ufl.edu](mailto:jsmarine@ufl.edu)

## New Shoreline Saltwater Fishing License

Effective August 1, 2009, many Florida residents who were previously exempt from purchasing a saltwater fishing license will be required to purchase a saltwater fishing license before fishing from the shore or a pier, bridge or jetty attached to the shore, unless they are a member of a group\* that is still exempted from the license requirements.

Residents, who only saltwater fish from the land or a structure attached to land, may purchase the new \$9 resident recreational saltwater fishing license. This license does NOT cover anyone fishing from a boat or from an island that they arrived at by boat.

If you have a resident recreational saltwater fishing license, you do not need a shoreline fishing license; because the resident recreational saltwater fishing license covers fishing from the shore, a dock, a jetty or a boat.

Nonresidents have always needed a 3 day, 7 day or annual nonresident saltwater fishing license, unless fishing on a pier with a pier license, when saltwater fishing from the shore or a pier, bridge or jetty attached to the shore and still need a 3 day, 7 day or annual nonresident saltwater fishing license to do so.

\*The groups of people that are exempt from purchasing a recreational license are listed on the Web site: [http://myfwc.com/License/LicPermit\\_RecreationalHF.htm#exempt](http://myfwc.com/License/LicPermit_RecreationalHF.htm#exempt).

The reason for requiring the shoreline license is to avoid a newly-created federal requirement for monitoring recreational fishing. As a result, Florida anglers will not have to buy a federal license that may cost from \$15-25.

**Source:** Florida Wildlife Commission.

## Florida Ranks 7<sup>th</sup> in U.S. Aquaculture Value

Every five years USDA farms for production, sales, crop, and other statistical data. Their recently released report for 2007 reported 2.2 million farms sold \$297 billion in agricultural production. Aquaculture across the United States ranked 12<sup>th</sup> amongst all agricultural sectors, with 6,409 farms reporting farm-gate income of \$1.4 billion. Florida aquaculture ranked 7<sup>th</sup> – amongst all states, with 469 farms reporting farm income of \$61.3 million. Aquatic plant production is not included in these statistics.

Ornamental fish (freshwater and marine tropical's, koi, and goldfish) continue to be the largest segment of Florida aquaculture with 203 farms reporting farm-gate income of \$32.1 million. Florida is the leading producer of ornamental fish in the United States followed by California at \$13.4 million. Mollusc production (hard clam) is the next largest segment with 130 farms reporting \$15.2 million in sales. Florida ranked fourth in the nation behind Washington (\$85.2 million), Louisiana (\$37.3 million), and Virginia (\$36.9 million). Other aquaculture products (alligator, turtle, triploid grass carp, live rock, snails, frogs) produced by 43 farms yielded \$6.2 million. Other food fish production (hybrid striped bass, tilapia, sturgeon) from 37 farms reported \$3.4 million in sales. Crustacean production (shrimp, crawfish, and prawn) from 17 farms reported \$2.5 million in sales. Catfish production by 54 farms sold \$979,000. Sport and game fish (largemouth bass, sunfish) production from 31 farms totaled \$622,000. Five bait farms reported \$71,000 in sales.

The complete 2007 Census of Agriculture report can be accessed at:  
<http://www.agcensus.usda.gov/Publications/2007/index.asp>.

**Source:** Florida Aquaculture, Issue No. 69, March 2009.

## Paddling Emerson Point

Every month or so, visitors to Bradenton's Emerson Point can kayak or canoe the spectacular preserve with naturalists and guides from Manatee County. These specially arranged eco-paddle trips, typically conducted on evenings or weekends, are BYOB (bring your own boat) and reservations are required.

Of course, you can paddle the preserve on your own, but these small group outings with experts on hand to point out flora and fauna and answer questions would be more than worth the price of admission, if there was one. But just as the best things in life are free, so too are county-hosted paddling excursions.

The peaceful paddling excursion is part of a much larger Manatee County "blueways trail" that has gained national acclaim for making the region's spectacular river and bayous more accessible by canoe or kayak.

For more information on Emerson Point and other Manatee County preserves, or to request a free copy of the Manatee County Paddle Guide, visit [mymanatee.org/conservation.html](http://mymanatee.org/conservation.html) or call 941-748-4501 ext. 4605.

**Source:** Bay Soundings, Spring, 2009.

## Anglers Can Provide Biologists Vital Tarpon Genetic Data

Anglers from across the state are helping biologists with the Florida Fish and Wildlife Conservation Commission's (FWC) Fish and Wildlife Research Institute and the Mote Marine laboratory gather valuable information about tarpon. Results from the Tarpon Genetic Recapture Study yield new insight into how tarpon can survive catch-and-release angling and how tarpon move throughout Florida waters.

FWRI biologists analyze tarpon DNA samples submitted by anglers. Each sample identifies a tarpon's genetic "fingerprint," providing a unique and natural tag for that individual fish. Scientists compare new tarpon DNA samples with cataloged samples to determine if someone caught and sampled the tarpon previously.

Using DNA as a tag is a cost-effective, less-invasive way to identify individual tarpon. Because a genetic code never changes, it is a permanent way to identify fish; conventional tags tend to break or dislodge.

So far, anglers have provided more than 3,000 DNA samples. Biologists have recorded 23 recaptured tarpon from locations across the state, including Miami, the Florida Keys, Fort Myers, Boca Grande, Sarasota, Tampa Bay and the Indian River Lagoon. Biologists welcome samples from tarpon caught regardless of capture location or fish size.

Anglers who would like to participate in this study can obtain a free, easy-to-use tarpon DNA sampling kit by e-mailing [TarponGenetics@MyFWC.com](mailto:TarponGenetics@MyFWC.com) or by calling 800-367-4461. Biologists will send participating anglers an annual newsletter with updates on the Tarpon Genetic Recapture Study. Anglers will also receive additional information about specific fish they caught as it becomes available. Anglers who submit a tarpon DNA sample to this program are entered into random drawings for various prizes.

For more information on the Tarpon Genetic Recapture Study, visit <http://research.MyFWC.com>.

**Source:** Florida Fish and Wildlife Conservation Commission (FWC) News Release May 12, 2009.

## Lionfish Decimating Caribbean's Tropical Fish Populations

The spectacularly beautiful Lionfish with its undulating venomous spines is quite the sight to see, but its invasion of Caribbean coral reefs may pose a very serious threat. For the past five years or so, I have been reading about the population explosion of Lionfish in the Caribbean. However, the magnitude of the problem did not strike home until a recent dive trip to the Bahamas. I was surprised to see how common they had become and many divers (professional lobster and sponge divers) told me they had seen a huge increase in abundance in just the last 1-2 years. The Lionfish invasion in the North Western Atlantic and Caribbean represents one of the most rapid marine finfish invasions in history.

Lionfish are not native to the Caribbean and until recently, these were only found in the Pacific and Indian Oceans. They were documented in southeast Florida beginning in 1992. Since then, they have been reported from south Florida to North Carolina and throughout much of the Caribbean. A recent study found a tenfold increase in abundance in some areas from 2004 to 2008.

**How did they get here?** They were probably introduced from local aquariums or fish hobbyists. One popular story mentions that Hurricane Andrew resulted in the inadvertent release of lionfish when homes and aquariums were flooded. It is thought that hobbyist release the fish rather than kill them when they grow too large or the fish hobbyist moves on to other interests. Lionfish are a popular and spectacular aquarium fish

(8,000 are annually imported to the Tampa Bay area alone). By-the-way, releasing non-native animals into the wild is against Florida law and can result in a \$1,000 fine or a year in jail.

**So what?** The predatory Lionfish are voracious eaters. A study conducted by an Oregon State University scientist found that within a short period after the entry of Lionfish into an area, the survival of other reef fish is slashed by about 80%. Many species were affected, including cardinal fish, parrot fish, damselfish and others. Research in the Bahamas has documented consumption of juvenile economically important fish. Therefore, the potential to upset the natural balance of coral reef ecosystems is very real.

Evidently the Lionfish's venomous spines are an impressive defense and I was unable to find much information on what critters eat Lionfish. They are considered a top level predator with few if any enemies. Lionfish have been reported in the stomachs of large grouper, but laboratory behavioral experiments suggest that groupers actively avoid Lionfish. Given the observed population explosion in the Caribbean, it appears that natural population control factors have not yet come into play. Although data is limited and it is difficult to accurately count them because of their cryptic nature, Lionfish densities in the Bahamas are more than eight times higher than estimates from their native range.

**What can be done to control lionfish populations?** This is indeed a very difficult question to answer. In some areas, dive shops and clubs have organized "Lionfish Rodeos" where divers take on the mission of searching for and destroying Lionfish. Throughout the Caribbean anglers and divers are encouraged to destroy any Lionfish they encounter. In fact, the consumption of Lionfish is now being promoted. They are reported to be delicious table fare. The venom is only found in the dorsal spines, not in the flesh. Also, cooking destroys the toxin so there is no danger in eating the flesh. The first question that comes to my mind was "how do you safely clean a Lionfish?" The short answer is: very carefully! However, there are brochures on cleaning and it appears that when the fish is dead it is fairly easy to remove the dorsal spines. Although NOAA researchers have developed techniques to trap Lionfish from deeper waters and larger areas that are impractical for diver removal, these measures will fail to completely eliminate Lionfish. The only hope is that these measures can somewhat control abundance in some areas.



**Cleaning Lionfish. Step –  
Removing dorsal spines.**

**Some additional Lionfish biology:** Females release two buoyant egg masses that are fertilized by the male as they ascend to the surface. The eggs hatch after about two days. The larval stage probably last 30-45 days, during which they are distributed far and wide. Lionfish collected off North Carolina and the Bahamas suggests that Lionfish are reproducing during all seasons of the year.

I mentioned that Lionfish can be voracious feeders. It has been reported that they can expand their stomachs 30 fold when consuming a large meal. This suggests they are capable of long term fasting and they can survive starvation for over 12 weeks.

## Seagrass in Sarasota Bay Increases by 28% from 2006-2008

The Southwest Florida Water Management District's Surface Water Improvement and Management (SWIM) Program's District Seagrass Mapping Project recently released the finding from its 2008 seagrass mapping study, and the results for Sarasota Bay were the most impressive in southwest Florida. Seagrass acreage in Sarasota Bay increased by almost 2,800 acres in the past two years, a 28 percent increase! This follows on the heels of a seven percent increase between 2004 and 2006. "The stunning jump in seagrass in Sarasota Bay represents the payoff of hundreds of millions of dollars of public investment over the last 20 years," comments Mark Alderson, executive director of the Sarasota Bay Estuary Program. "Improved sewer and storm water systems keep pollution out of the bay, and the mangroves on restored shorelines eat up nitrogen, making the water clearer."

These increases may be due, in part, to the recent drought, since less rain means less storm water runoff flowing into the bay. Polluted runoff clouds the water and prevents sunlight from reaching seagrasses growing on the bottom of the bay. The lack of rain also results in clearer water and allows for better views of deeper growing seagrass. However, when compared to its neighbors to the north and south, which essentially showed no changes in overall seagrass cover, the increases in Sarasota Bay were significantly greater than what could be accounted for by weather and mapping alone.

"As important as seagrasses are to fish and other living resources, the 2008 survey results are equally important in assisting the SBEP in setting targets, or desired levels, of seagrass acreage for the long term," says Jay Leverone, senior scientist SBEP. "Once the seagrass targets are established, then we can develop appropriate water quality targets that, through proper watershed management, will ensure the persistence of seagrass meadows throughout Sarasota Bay for years to come."

**Source:** Sarasota Bay Estuary Program Newsletter, Spring 2009.



### **"Vandenberg" Artificial Reef Successfully Deployed**

The highly anticipated placement of the world's second-largest ex-military ship as an artificial diving and fishing reef, near Key West, is finally a reality. The Florida Fish and Wildlife Conservation Commission (FWC) worked closely with its many projects partners to successfully deploy the decommissioned military ship "Gen. Hoyt S. Vandenberg" at 10:24 a.m., May 27.

Thousands of delighted onlookers watched as 44 carefully placed explosive charges were detonated to blast holes in the hull of the 523-foot vessel. It took just one minute and 54 seconds for the "Vandenberg" to slip below the water's surface and settle right-side-up, on the sea bottom, at a site about 7 miles south-southeast of Key West, in 140 feet of water in the Florida Keys National Marine Sanctuary.

According to the FWC, the "Vandenberg" will provide recreational diving, ecotourism and fishing enhancements to the Florida Keys and provide a needed lift to the economy of Key West and its neighboring communities.

The ship was placed in the Florida Keys National Marine Sanctuary near Key West to help divert fishing and diving pressure away from natural reefs near the ship. The FWC estimates the vessel's minimum 100-year lifespan will contribute stable, long-term habitat for scores of marine fish species and provide exceptional diving and fishing opportunities for Florida residents and visitors from around the world.

According to National Oceanic and Atmospheric Administration projections, the "Vandenberg" artificial reef will result in an annual increase of about \$7.5 million in expenditures in the Monroe County economy, and will create about 195 full – and part-time jobs.

The FWC managed nearly \$2.5 million in funding for the "Vandenberg" preparation, cleanup and monitoring out of total project costs of about \$8.5 million. FWC founding partners included the Governor's Office of Tourism, Trade and Economic Development; MARAD; City of Key West; Monroe County; and Keys Tourist Development Council.

**Source:** FWC new release, May 27, 2009.

## Scallop Searches Need Volunteers

A past Marine Scene article discussed what appears to be a significant rebound in Bay Scallop populations in local waters. The formerly abundant bay scallop has been nowhere near its former abundance for over three decades. We don't know if the trend will continue, but it is encouraging.

An extremely important aspect in determining if we are really seeing bay scallop recovery is the local scallop searches that have been organized by local environmental groups. This is the only way we can document a long-term trend. The Tampa Bay Watch program started scallop searches over 10 years ago. Now other organizations are joining in this effort.

The success of these searches depends on citizen volunteers. Please check the information below to see if you can help.

- Tampa Bay Watch – The date of the scallop search this year is Saturday, August 22<sup>nd</sup> at 9:00 a.m. Contact Rachel Arndt, her email address is [rarndt@tampabaywatch.org](mailto:rarndt@tampabaywatch.org), or call 727-867-8166 to sign up. Registration will **begin** a month before the event.
- Sarasota Bay Watch – August 8<sup>th</sup>. Check web site as event nears ([Sarasotabaywatch.org](http://Sarasotabaywatch.org)) or contact Dr. Jay Leverone, SBEP, ([jay@sarasotabay.org](mailto:jay@sarasotabay.org) 941-955-8085).
- Charlotte Harbor Search – September 12<sup>th</sup>. Contact Betty Staugler, Sea Grant Extension Agent ([staugler@ufl.edu](mailto:staugler@ufl.edu) 941-764-4343).

### **Reminder – Marine Scene Moving Towards Electronic Format**

Because of budget cuts, etc., we are working towards distributing the Marine Scene electronically. For the time being, we will still send printed copies for those who do not have Internet access or still prefer a printed copy. However, if you would prefer to receive the newsletter electronically, please email my assistant Ms. Barbara Beach at [bmbeach2@ufl.edu](mailto:bmbeach2@ufl.edu). and you will receive future editions via email.

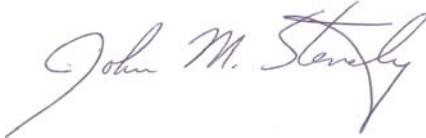
## Florida's Recreational Spiny Lobster Season

Each year there is a special 2-day recreational spiny lobster season (last consecutive Wednesday and Thursday of July) that is intended to provide access to recreational harvesters before the commercial season opens (August 6<sup>th</sup>). FWC recently completed a survey of folks who participate in this special season and I thought Marine Scene readers would be interested in some of the results.

A total of 356,000 lobsters were caught statewide during the two day season. Approximately 230,000 lobsters were landed on the first day (Wednesday) and 126,000 landed on the second day (Thursday). It was estimated that 55,000 lobster fishers participated in the two-day season. Approximately 606,000 lobsters were landed from the opening day of the regular season through Labor Day (August 6<sup>th</sup> through September 1<sup>st</sup>).

Most respondents (59%) thought the bag limit of 6 lobsters per person was "about right," 6% thought it was "too high" and 16% thought it was "too low." Seventeen percent had no opinion. People were also asked their opinion of the "Special Two-Day Season." Forty-seven percent "like it," 15% "neither like it nor dislike it" and 18% dislike it."

Sincerely,



John Stevely  
Sea Grant Extension Agent

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