



## FWC update

### Commissioners approve new rules and work plans

The FWC directed its staff to follow through on suggestions from the public concerning FWC's Alligator Management Program. FWC Commissioners took the action during their two-day January meeting at Key Largo.

The suggestions came amid an online survey, during which some respondents suggested broader alligator hunting and more flexibility in dealing with nuisance gators.

Commissioners also passed a new rule to change state manatee protection zones in the St. Johns River between the Fuller Warren Bridge and Reddie Point. The rule will bring FWC zones into line with federal rules in the area.

Another new rule will establish a no-anchor zone for sailboats and other vessels with masts in an area between Big Pine Key and Little Torch Key, south of U.S. 1. Masts from anchored vessels in that area have hit power lines during storms in the past and caused outages for much of the Keys. The new rule will take effect in January.

In other business, Commissioners approved a new rule to extend the current moratorium on reducing traps in the spiny lobster fishery through the 2007-08 license year and directed staff to continue working with the ad hoc Spiny Lobster Advisory Board on management recommendations.

Commissioners also approved its marine fisheries work plan for 2007-08, which will include a collaborative effort with federal fishery managers to gather more information regarding goliath grouper to determine whether a limited fishery might be re-established for this protected fishery.

The Commission also reviewed and discussed the impact of 2005's red tide and directed staff to proceed with a proposed rule to correct a loophole in regulations pertaining to possession of monofilament nets.

The next FWC meeting will take place April 11-12 in Tallahassee.

### 2005 red tide impacts Florida fisheries and reef communities

In 2005, an intense and prolonged red tide significantly impacted the juvenile spotted seatrout fishery.

The news was better for red drum and snook anglers in Southwest Florida because juvenile red drum fared better and juvenile snook suffered little impact from the severe red tide.

Gil McRae, director of FWC's Fish and Wildlife Research Institute (FWRI) outlined the impact of last year's red tide on Southwest Florida's recreational fisheries during a presentation at the FWC's regular meeting in January at Key Largo.

Through an analysis of data from its long-term juvenile fish monitoring program and a species-specific study, FWRI evaluated the three popular sportfish.

"Biologists attribute the juvenile snook population's resiliency to the species' use of low-salinity nursery habitats," McRae said. "The red tide organism does not thrive in low-salinity areas or brackish water, so juvenile snook were able to avoid the bloom."

The red tide bloom, a naturally-occurring phenomenon caused by a



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The microscopic alga, *Karenia brevis*, magnified 3,000 times.

microscopic alga called *Karenia brevis*, persisted from early January to mid-December and was responsible for thousands of dead fish along Florida's beaches.

In Tampa Bay, red tide hit the seatrout population at a popular spawning site particularly hard. Biologists monitoring the site, using ultrasonic transmitters implanted in fish, consistently heard sounds of spawning trout – until red tide hit the area. Although spawning season continues through September, researchers never heard the fish with implants after July 12, 2005 – something they attribute to red tide. Preliminary 2006 data show the spawning fish have not returned to the area. However juvenile

recruitment data for 2006 show the species is making a very slow recovery in other areas.

The 2005 red tide bloom also affected bottom communities offshore from Tarpon Springs to Sarasota. Bottom-dwelling organisms like sponges, corals, mollusks, crabs and fish died due to the effects of red tide and hypoxic and anoxic (oxygen-depleted) conditions resulting from decomposition of dead organisms. Survey results from the area indicated the red tide impacted some reef communities heavily while other reefs appeared to be unaffected.

FWRI researchers continue to monitor spotted seatrout, red drum and snook populations. In addition, monitoring of the spotted seatrout spawning area in Tampa Bay will continue so scientists can determine if levels of spawning activity return to pre-red tide levels.

To report a fish kill, call the FWC's Fish Kill Hotline at 1-800-636-0511 or e-mail FishandWildlifeHealth@MyFWC.com. For the latest red tide conditions throughout the state, visit Research.MyFWC.com.

## FWC reports 416 manatee deaths in 2006

A preliminary report from the FWC says there were 416 manatee deaths in state waters in 2006. That compares to 396 in 2005.

Scientists are unsure whether the increase reflects manatee population growth, increased mortality or better detection of carcasses. However, the best available science indicates Florida's manatee population is stable or growing in all regions of the state except the Southwest, which may contain more than a third of the statewide population.

The FWC report indicates watercraft-related mortalities and red tide contributed to more than half of the total deaths in 2006 in instances where scientists could determine the cause of death.

Researchers classify manatee mortalities in eight categories – watercraft, floodgate/lock, other human, perinatal (newborn), cold stress, other natural, undetermined and unrecovered carcasses. The number of manatee deaths declined in every category except watercraft, undetermined and unrecovered.

"It is always sad to see such high numbers, especially in watercraft-caused mortality, but these numbers shed some light on the measures we can take in our commitment to reducing human-related threats to manatees and possibly other threats," said FWC Chairman Rodney Barreto. "With continued human population growth and enjoyment of the outdoors, we must all be diligent in the conservation and protection of this gentle animal."

FWC scientists report that red tide continues to threaten manatees in Southwest Florida, with 37-96 deaths annually in four of the past five years. Preliminary findings suggest red tide may have been responsible for the deaths of 61 manatees in 2006.

The 86 watercraft-related manatee deaths in 2006 are the

second highest on record for that category. The FWC urges boaters to abide by manatee speed zones and assures law-abiding boaters who hit manatees that they will not receive citations if they report such accidents. Accident reports provide valuable information for sharpening manatee protection efforts.



ALLISON BOZARTH

Manatees suspected to have died from exposure to red tide await necropsy at the FWC's Fish and Wildlife Research Institute Marine Mammal Pathobiology Laboratory in St. Petersburg.



ALLISON BOZARTH

"The FWC's seizing every option in helping manatees continue to recover," Barreto said. "We'll be exploring other options to ensure recovery stays on track."

For instance, manatee mortality figures provide useful information on why manatees die and the risks they face. Information from necropsies (non-human autopsies) help FWC scientists develop conservation measures to reduce risks to manatees. One such measure is development of the state's first manatee management plan.

The draft plan examines past protections and outlines additional

measures such as protection of warm-water refuges to reduce stress on manatees during the winter. It also proposes new measurable biological goals and objectives that will provide benchmarks and timelines to help guide future management decisions.

The number of manatees for which a cause of death could not be determined because of decomposition of carcasses was unusually high in 2006, representing 37 percent or 155 of the total.

"Every year a substantial portion of deaths cannot be attributed to a specific cause because of the advanced decomposition of the carcasses," said FWC research scientist, Leslie Ward.

Scientists use population models to estimate manatee population growth. Although the most recent analysis indicates manatee numbers have been stable or growing in many parts of the state, some areas may require more attention.

"The FWC is aware of that," Barreto said. "But the bottom line is the FWC and other parties are taking steps that have moved manatees away from the threat of imminent extinction, and will continue to nurture them along the road to full recovery and use whatever tools it takes."

Manatee mortality information is maintained by FWC staff at the agency's Fish and Wildlife Research Institute Marine Mammal Pathobiology Laboratory in St. Petersburg. It is the primary facility in Florida for manatee necropsies. Research done by the biologists at the lab includes aging and life history, skeletal anatomy and biology, pathology and forensics.

For more information on manatee mortality research, visit [MyFWC.com](http://MyFWC.com) and click on "manatees."