GSARP APRIL 2014

Marine Aquatic Nuisance Species

LIONFISH SUMMIT

In October 2013, FWC's Lionfish Team organized and hosted a Lionfish Summit. The goal of the Summit was to develop a collaborative framework for partnering on future lionfish management that includes identification of research priorities, management actions, and outreach initiatives. To meet these goals, researchers, managers, and marine resource users involved in lionfish control activities were invited to provide oral and poster presentations in an effort to inform Summit participants of the work being done in Florida and elsewhere on lionfish. Participants were asked to provide comments on the desired future conditions for lionfish in Florida and to provide input on needs for research and management actions through a series of facilitated discussions. Participants generated potential actions that were categorized under research, policy and regulations, control strategies, education and outreach, and other activities. Actions in the categories were ranked by their relative importance by the participants.

The Lionfish Team is evaluating the action items made at the Summit. Outcomes of the Summit include; examining potential incentive programs; development of a formalized lionfish management plan; relax area-specific spearfishing regulations; consider the establishment of a directed trap fishery for areas with high lionfish densities; create a license tag with funds going to lionfish control; and continue research to fill information needs.

PROPOSED LIONFISH REGULATIONS

In 2013 FWC passed into Rule a regulation that waived the license requirement for lionfish harvest by specific gear and removed the bag limit for recreational and commercial fishermen. Proposed 2014 legislation includes; prohibiting the import and commercial aquaculture of lionfish in Florida; to review the diving rule to allow rebreathers while SCUBA diving for lionfish; and to allow FWC to issue permits to allow spearfishing for lionfish in areas where spearfishing is not allowed.

Asian tiger prawns

FWC continues to receive a small number of reports of tiger shrimp from around the state, generally of one or two specimens per report. However, commercial shrimpers reported to USGS that on the same day, they had caught 25 and 40 pounds of tiger prawns in individual trawls off the coast near St. Augustine which is highly unusual based on our records. Subsequently, only one additional report of 3-5 large adults has come from that area.

NON-NATIVE FISH STATUS REPORT

Bullseye Snakehead Range Expansion and Implications

A population of bullseye snakehead (Channa marulius) was recently confirmed in the City of Wellington's canal system in central Palm Beach County. This canal system empties into to the West Palm Beach Canal, a major east-west canal that is interconnected with canals leading to Lake Okeechobee to the north and water conservation areas (including the Loxahatchee National Wildlife Refuge) and ultimately Everglades National Park to the south.

This finding represents a 12.5 mile "jump" north from their previous northern boundary. The most likely pathway for this introduction was an illegal angler introduction (bucket biology) rather than a range expansion. A follow-up electrofishing effort in the West Palm Beach Canal did not yield additional snakeheads but once they penetrate this canal, they will have access to hundreds of miles of canals in central and northern Palm Beach County that support an important recreational sportfishery comprised primarily of native species. The fish communities in Palm Beach County canals differ from canals further south due in part to canal morphology (bowl-shaped with wide, vegetated littoral zone vs box-cut with narrow, less vegetated littoral zone), and fewer and less abundant exotic forage species. Although no measureable negative impacts have been documented for bullseye snakehead in their core range, it is unclear what, if any impacts they have in this new habitat.

Paraneetroplus sp. and Asian Swamp eels

The follow-up sampling trip in the to determine presence/absence of bullseye snakehead in the West Palm Beach Canal mentioned earlier yielded the collection of two non-native fish species new to this canal, Paraneetroplus (Theraps) melanurus x P. zontaus (left), and Asian swamp eel. This location is >50 miles north of the small but reproducing population of Paraneetroplus and >40 miles north of the Snake Creek Canal in Miami-Dade County where swamp eels were first discovered in 1997. Both of these collections represent illegal introductions rather than range expansions.

Bullseye and Bowfin Prey Size and Prey Type Study

A collaborative study between FWC and researchers at the University of Florida's Tropical Aquaculture Laboratory is underway to examine potential interactions between the morphologically similar non-native bullseye snakehed and native bowfin. A study of selected life history attributes of bowfin collected from everglades-type habitats has been completed and will be compared to bullseye snakehead. An experimental bullseye snakehead prey selectivity and gape analysis has been completed and similar experiments are underway for bowfin. Results from these studies will provide insight on

potential competitive interactions where these species co-occur and baseline information on bowfin diet in their preferred habit prior to the expansion of bullseye snakehead into these areas.