

FWC Fish Sampling Q&A



Water LIFE Staff Report

Last month we spent a morning with the FEC Charlotte Harbor Field Laboratory staff while they did sampling at Catfish Creek. John Hadden led the trip. The crew was Chrystal Murray, Dave Shultz, and John Halvorsen (volunteer; Lemon Bay resident)



Below are the answers to a few questions we had for Philip Stevens, PhD, from the Florida Fish & Wildlife Conservation Commission, Fish & Wildlife Research Institute, Charlotte Harbor Field Laboratory.

Is everything you are seeing right now in the net pretty much normal?

Yes, the fish community is pretty typical for this time of year. I can't think of anything too unusual.

Is it accurate to say that sampling is one of the tools used for fish stock assessment?

Yes, the fisheries-independent monitoring provides critical pieces of data for stock assessments (for example, red drum, snook, trout, mullet). The critical pieces of information are relative abundance and age. The importance of the relative abundance measures are pretty obvious (are there decreasing or increasing trends in abundance). The ages of the fish are deter-

mined from counting the annual rings on the otoliths (ear bones). The stock assessments rely heavily on our estimates of the age and length structures of the population. Increasing fishing pressure on large fish, for example, can result in populations that are more greatly represented by fish that grow up to smaller sizes and mature early. This is not a good thing for a recreational fishery where anglers prefer larger, older fish. The effects of management actions, such as size restrictions (slots), on length and age structure of the fish populations come mostly from the fisheries-independent monitoring.

What other purposes does sampling serve?

All species of fish that are collected in the gear are measured and counted. The approach of the fisheries-independent monitoring has always been ecosystem based. Changes in fish community structure are a useful way of understanding impacts to the coastal environment. We can't always predict what the next fishery will be or what stochastic event will affect the estuary, so it's critical that we are looking at all aspects of the fish community. Some recent examples of sto-

chastic events include Hurricane Charley in Charlotte Harbor and red tide in Tampa Bay. We have several articles that were produced related to these events. In the near future, we'll be looking at these data to track changes in snook abundance after the freeze and heaven forbid any oil impacts (keep in mind that we have field labs that monitor the panhandle). Multiyear time series of data allow us to tease out the effects of varying freshwater inflow on fish communities for water managers, which continues to be a big issue in Florida.

