# Fisheries Management Issue: Pro-active Management of Harvest Allocation in the Florida Spiny Lobster Fishery

**A report provided to the Ad Hoc Spiny Lobster Advisory Board by the Florida Fish and Wildlife Conservation Commission Staff**

**April 11, 2006**

**Background and Rationale:** We have landings records for all sectors of the spiny lobster fishery from the fishing seasons from 1993/94 through 2003/2004. During that time, the allocation of the lobster harvest among the different sectors has changed. During the initial years of trap reductions, annual landings were generally higher than they had been in a decade. Landings by commercial divers increased, but because landings were so high, the progressive shift in the landings allocation toward that group appeared subtle. However, a period of lower landings beginning with the 2000/01 season underscored this shift toward the commercial dive fishery and the recreational fishery as well. Regulations limiting harvest of commercial divers were enacted beginning with the 2003/04 season. The effects of these rules can be seen by comparing allocations in the 2002/03 and 2003/04 seasons. Landings were essentially the same in both seasons, but the harvest share of commercial divers was reduced because of trip limits and banning harvest from artificial habitat. It appears that in high landing years, trappers have a larger harvest share because lobsters are available to be captured later in the season when there is little diving activity. Harvest from casitas is most effective early in the season. In low landings years, these early landings make up a larger harvest share than in high landings years. There is a need to understand current allocations in the spiny lobster fishery, how those allocations have shifted over time, and how rule changes have likely impacted allocation.

**Current regulations:** Commercial Trapping - The spiny lobster trap certificate program, implemented in 1993, reduced the number of trap certificates in the spiny lobster fishery from approximately 939,000 in 1991/92 to 474,000 during the 2004/2005 season, and traps have not been reduced since that time. Commercial Diving - During 2003, the harvest of spiny lobsters from illegal artificial habitat was banned, and the commercial dive trip limit was reduced to 250 lobsters per day in Monroe County (extended to Dade, Broward, Collier and Lee Counties the following year). Recreational Diving: Beginning with the 2003/04 fishing season, the recreational bag limit during the regular season was reduced from 24 per boat or 6 per person, whichever is greater, to 6 per person per day. The bag limit in Biscayne National Park during the Special Two-Day Sport Season was also reduced from 12 to 6 lobsters per person per day. Additionally, the SRL daily bag limit was reduced by 5 lobsters each year beginning in the 2004/2005 season.

**Discussion points:**

No proactive management of allocation: If there is no management of allocation, future shifts in harvest between the sectors of the fishery would be allowed to continue without regulatory intervention by the FWC. It is possible that there will be no change from current allocation between sectors, but it is also possible that there is a large increase in landings by one or more sector. For example, regulation of the trap sector led to an increase in the commercial dive sector. Even though regulations have reversed this trend, the potential exists for further allocation shifts. Additionally, there could be a continued increase in the proportional share of the bullynet sector. There may also be potential for one group to hide their landings by reporting them in another sector.

Proactive management of allocation: If you chose to pro-actively manage harvest allocation between sectors, the Board needs to determine allocation goals for each group and provide guidance on the how these goals will be met. You will need to establish target baseline allocations for each sector. These could be established by adopting the harvest proportions from the most recent season, from some other season, or by agreeing on some other proportion. You will also need to define what constitutes a departure from baseline allocation. We know that harvest and allocations vary somewhat between years because of weather and a host of other factors. You will need to decide how much of a shift in baseline is significant enough to warrant regulatory action (for example 2% or 5%). You will also need to determine the how long the departure lasts before management kicks in. Will that time be immediately after detecting a shift or if a change persists for 2 seasons, for example? Lastly, you will need to determine what management action will be taken to redistribute harvest to target allocation level. Will sectors be managed by regulating the number of fishers/license holders, or by regulating landings by sector, or by some other method? There is an inherent lag between the time when lobsters are harvested and when landings data are final and available to managers. However, if there is a pre-determined process that is triggered by some level of allocation shift, management will immediately follow determination of that allocation shift.