

Brief Summary of FWRI-FDM Tag-Recapture Program

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Brief Summary of FWRI-FDM Tag-Recapture Program

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The Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute's Fisheries Dependent Monitoring (FWRI-FDM) tag-recapture program has been operating since 2009. Staff ride along on head-boat and charter fishing trips in order to measure and tag reef fish that are released as a consequence of harvest restrictions. The project has tagged over 90,000 reef fish in Florida's coastal waters; of which 1,230 were scamp grouper (*Myteroperca phenax*). Each tag is printed with the number for a toll-free telephone hotline, a unique tag number, and the word "REWARD" (t-shirt). Commercial and recreational fishers may call this number 24 hours a day and leave a recorded message with information on recaptured fish. Recapture information is also collected by FDM biologists whenever tagged fish are subsequently observed during sampled for-hire fishing trips.

Fifty-five individual scamp (4.6%) have been recaptured by anglers or subsequent FDM sampling trips. Scamp recaptured on the same day as tagging, or recaptures that did not provide a recapture location or a vessel departure port, were removed from the analysis. If a scamp was recaptured more than once in a day, one of those recaptures was removed from the analysis. With the exception of two fish that were recaptured twice each, all recaptured scamp were reported one time, with an end total of 57 tag returns. Recaptured fish spent between 6 and 1,106 days at large, with an average of 173 days at large and a median of 91 days at large.

Twenty-five of the original 57 tag returns had associated GPS coordinates. Of those 25 returns with GPS coordinates, six did not move, sixteen moved less than ten miles, and three moved more than ten miles. Two of the three fish that travelled more than ten miles were recaptured closer to shore and east of the original tag location; the third fish was recaptured about 10.5 miles southwest of its original tag location. The table below provides more in-depth information on the three scamp returns with GPS coordinates that travelled more than ten miles.

Tag Number	Miles Travelled	Date Tagged	Tag Coordinates	Recapture Date	Recapture Coordinates
FD53124	11	2/22/2013	27.98 -84.13	3/9/2013	27.83 -84.166
FD26247	38	7/15/2010	27.6 -83.48	12/29/2011	27.98 -83.03
FD00034	44	4/7/2010	30.2 -85.866	10/4/2011	30.06 -86.58

Table 1. Information on scamp travelling more than ten miles. Miles travelled are rounded to the nearest integer. Coordinates are in decimal degrees.

Thirty-two of the original 57 tag returns gave a general description of the recapture location or at least provided a vessel departure port. Twenty-eight of these fish were recaptured in the same general area less than ten miles away; and four may have moved more than ten miles, with a possible range of 11-25 miles.

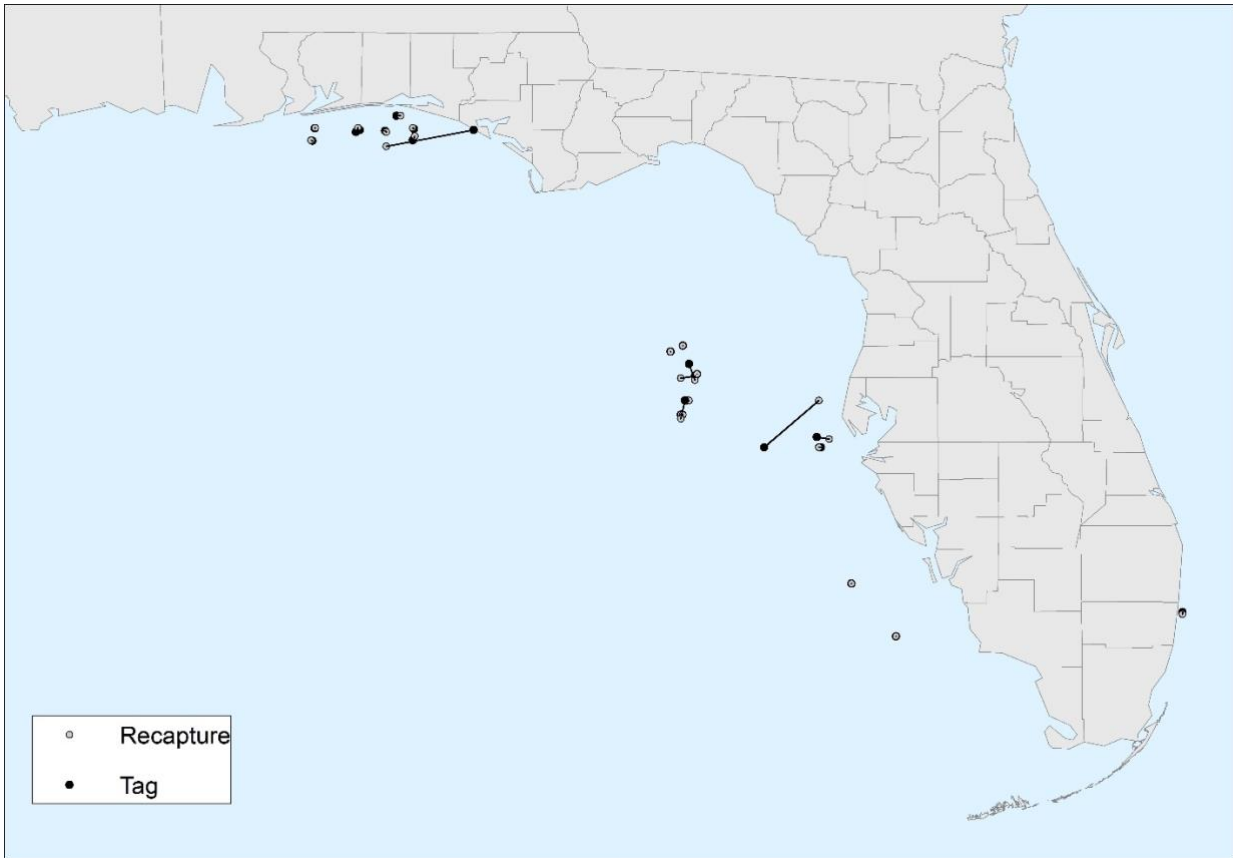


Figure 1. Map of scamp tags and recaptures with coordinates. Points represent stations where scamp were tagged (black) or recaptured (gray). Each point may represent more than one fish. Lines between points represent distance between the tag and recapture location of individual fish. Gray recapture points without a line to a black tag point indicate fish that did not move.