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Managing fish and wildlife resources for their long-term well-being and the benefit of people.

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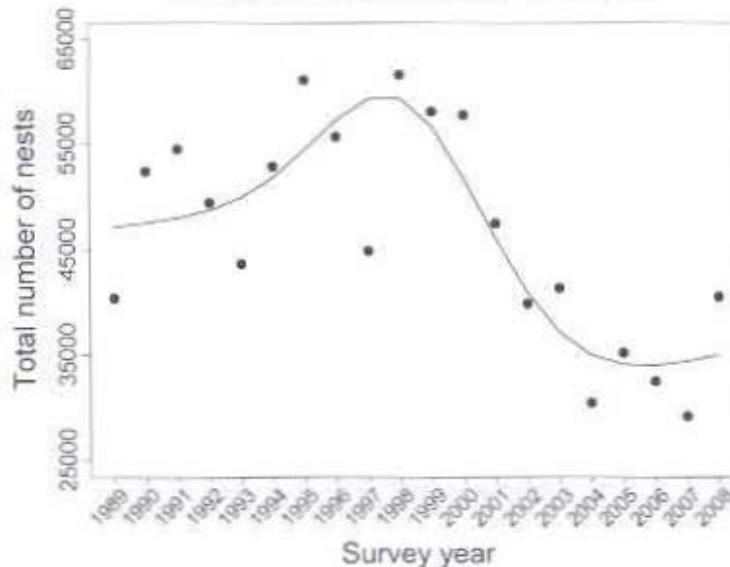
Dr. Roy Crabtree
Regional Administrator, NOAA Fisheries, Southeast Region
263 13th Avenue South
St. Petersburg, FL 33701

Dear Dr. Crabtree:

I am writing in response to the Notice of Intent by NMFS to prepare a draft environmental impact statement regarding management alternatives to reduce bycatch of sea turtles in the bottom longline component of the Gulf of Mexico reef fish fishery (Federal Register Vol. 73, No. 228 (25 November 2008), pp.71605-71606). Florida's loggerhead sea turtle nesting population has experienced a long-term decline (detailed below) that is of great concern to the state, as it is to the nation and world. In a paper in press (Ecological Applications 19(1): 136-160), FWC biologists have presented evidence that suggests that the decline in annual nest counts in Florida can best be explained by a decline in the number of adult female loggerheads in the population. In their analysis of the potential causes of the decline, they concluded that the factor that best fits the nesting decline is fisheries bycatch, based on temporal and spatial characteristics of the loggerhead nesting data, and concurrent nesting increases documented for Florida green turtles. Thus, the recent report by NMFS on the estimated take of sea turtles (primarily loggerheads) by the bottom longline reef fish fishery in the eastern Gulf of Mexico is of particular concern to us. I am writing to make you aware of two FWC datasets that suggest a potential spatial overlap of this fishery with the foraging grounds and migratory pathways of Florida loggerheads.

I'd first like to make you aware of our agency's long-term trend evaluation of the loggerhead turtle population that nests in Florida. The FWC/FWRI Index Nesting Beach Survey Program was created to generate representative sea turtle nesting data that would

Annual Total Nest Counts for Loggerhead Sea Turtles on Florida Index Beaches, 1989-2008



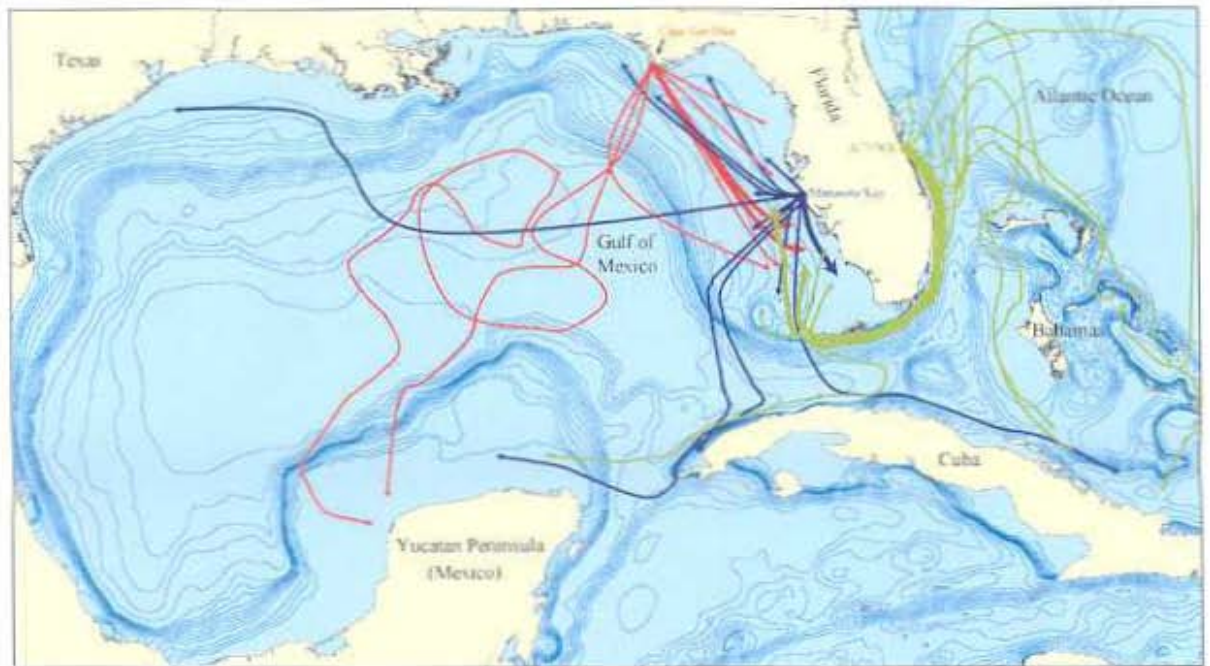
accurately reveal both spatial and temporal trends in Florida. INBS nest counts represent

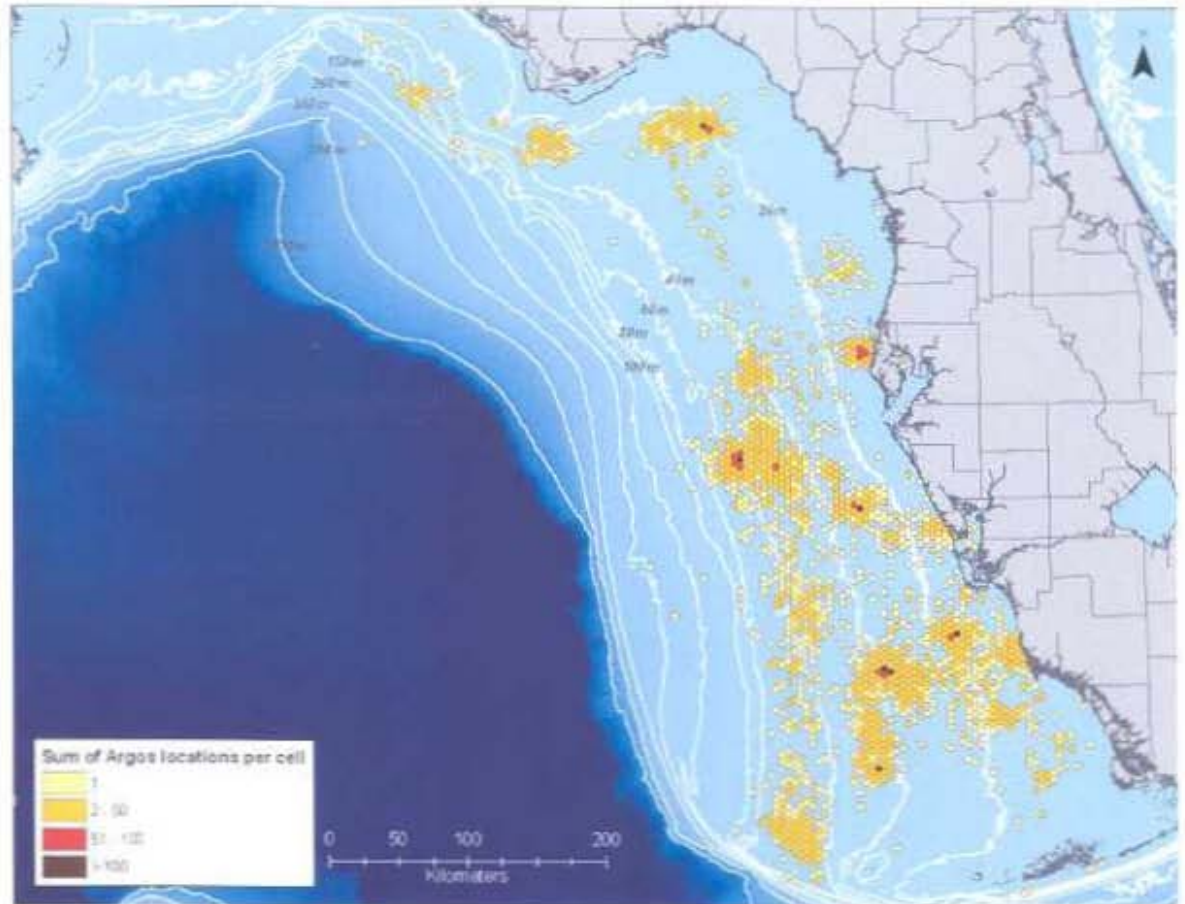
approximately 69 percent of known loggerhead nesting in Florida. Trend analysis of the last 20 years (1989–2008) of nest survey data shows a decrease of 26% in the annual nest density on surveyed shoreline over the 20-year period, and a 41% decline since 1998. Loggerhead nest numbers in 2008 were higher than in 2007, but this increase did not reverse the long-term declining trend that has occurred between 1998 and 2008.

The first dataset we have that is relevant to the potential overlap of loggerheads and the bottom longline reef fish fishery involves subadult and adult sea turtles that were observed by FWC staff ancillary to a study of neonate sea turtle ecology in the eastern Gulf of Mexico. Observations of sea turtles were made from a vessel launched at four ports along Florida's Gulf coast, July through August, 2005–2008. Vessel position and water depth (from WAAS GPS and integrated sonar) were recorded automatically, approximately every minute during vessel operation. Positions of adult and subadult loggerheads, one Kemp's ridley, and two unidentified turtles are represented below. Loggerheads were distributed between the coast and the 100 m depth contour. The mean water depth of vessel tracks from each port (34–58 m, n=4) was similar to the mean water depth of turtle observations off each port (33–49 m, n=4). The data show that the shelf waters of the eastern Gulf of Mexico off Florida provide habitat for important numbers of loggerhead sea turtles, including individuals with the highest reproductive value (subadults and adults) (Witherington and Hirma, unpublished data).



A second dataset relevant to the potential overlap of loggerheads with the longline reef fish fishery is from a study in which 38 adult female loggerheads were satellite-tracked after they nested in Florida between 1998 and 2002. The loggerheads originated from three widely separated nesting beaches (one in the Florida Panhandle, one in southwest Florida, and one in central-east Florida) and represented two Recovery Units of loggerheads in the Western North Atlantic (the Peninsular Florida Recovery Unit and the Northern Gulf of Mexico Recovery Unit). The most common destination after nesting for all of these turtles was the continental shelf in the eastern Gulf of Mexico with about 60% of the turtles taking up residence here. They were all known to remain in this area for the duration of their satellite transmitters' battery life. In the first figure below, thicker lines represent two or more turtles following the same migratory pathway. The second figure shows the total number of satellite-received locations from 24 loggerheads that exhibited residency in the eastern Gulf of Mexico. Filtered ARGOS satellite locations were summed within 5 km hexagonal bins in order to display areas frequented by these animals. The absence of data points does not imply absence of turtles. (Sources: Foley *et al.*, poster presentation at 25th International Sea Turtle Symposium; Schroeder *et al.*, manuscript in prep.)





I wanted to make these various datasets available to you for your consideration in this critical matter and to offer further assistance and expertise as needed to NMFS and the Council. If you have any questions about the methodologies used in the studies, or any other aspects, please contact Dr. Anne Meylan @ 727-896-8626 ext. 1916 or Anne.Meylan@MyFWC.com.

Sincerely,

Gil McRae, Director  
Fish and Wildlife Research Institute

cc: Jennifer Lee  
Ken Haddad  
Mark Robson  
Richard Leard  
Carrie Simmons