

Bottom longline fishery bycatch of golden tilefish from observer data
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Abstract

Observations of the shark-directed bottom longline fishery in the Atlantic Ocean and Gulf of Mexico have been conducted since 1994. The objectives of this study were to report observations on the catch and bycatch of golden tilefish (*Lopholatilus chamaeleonticeps*) in the U.S. waters of the South Atlantic Ocean for 2005–2010. A total of 179 trips on 25 vessels (305 bottom longline sets) were observed in the U.S. waters of the South Atlantic Ocean from July of 2005 through December of 2010. There were 11 trips on four (4) vessels with 45 sets (14.8% of sets) that targeted or caught golden tilefish. On these trips, 2,626 golden tilefish were observed caught; Of those, 98.3% were kept for landing, 0.3% were discarded dead, 0.1% were released alive, and 1.3% were released with an unknown status. Since so few golden tilefish were discarded dead or released alive, no further analysis was done.

Introduction

Observations of the shark-directed bottom longline fishery in the Atlantic Ocean and Gulf of Mexico have been conducted since 1994. From 1994 through 2001, observer coverage was conducted on a voluntary basis, but beginning with the 2002 fishing season, observer coverage became mandatory under authority of 50 CFR 635.7. Observer coverage from 1994 through the 1st trimester of 2005 was coordinated by the Commercial Shark Fishery Observer Program (CSFOP), Florida Museum of Natural History, University of Florida, Gainesville, FL (Morgan et al. 2009). Observer coverage for this

fishery is required under the current federal management plan for highly migratory species (NMFS 2007). Starting with the 2nd trimester season of 2005, responsibility for the fishery observer program was transferred to National Marine Fisheries Service (NMFS), Southeast Fisheries Science Center (SEFSC), Panama City Laboratory.

Initially, shark bottom longline vessels were selected randomly each trimester shark season based on the following criteria: (1) the vessel/owner possessed a current directed shark permit, (2) the permit holder (i.e. vessel/owner) reported fishing for sharks with bottom longline gear in the same season of the previous year, and (3) the permit holder had not been selected for observer coverage during the prior three consecutive shark seasons. Vessels were selected from three fishing regions: northern Atlantic Ocean, southern Atlantic Ocean, and Gulf of Mexico. The northern Atlantic Ocean was defined from Virginia through Maine, the southern Atlantic Ocean was from the east coast of Florida through North Carolina and the Caribbean, and the Gulf of Mexico was defined from Texas through the west coast of Florida including the Florida Keys (NMFS 2005). Regardless of the target species, if a vessel was selected during the coverage period it was required to carry an observer. Thus, observers worked bottom longline fishing trips that targeted grouper, snapper, and tilefish, as well as sharks. Because of the overlap observed in 2005 with grouper/snapper and tilefish longline sets and those vessels possessing directed shark permits, the vessel pool was expanded in 2006 to cover all bottom longline vessels regardless if they reported fishing for sharks with bottom longline gear in the same season of the previous year.

The objectives of this study were to report observations on the catch and bycatch of golden tilefish (*Lopholatilus chamaeleonticeps*) in the U.S. waters of the South

Atlantic Ocean for 2005–2010. For further information on observations of the bottom longline fishery, please see yearly technical memoranda (Hale and Carlson 2007, Hale et al. 2007, Hale et al. 2009, Hale et al. 2010, Hale et al. 2011)

Methods

Selection letters requiring observer coverage were issued to permit holders via U.S. certified mail approximately one month prior to the upcoming fishing season. Once the permit holder received the selection letter, he or she was required to contact the observer coordinator and indicate intent to fish during the upcoming fishing season. If the permit holder intended to fish, the observer coordinator deployed an observer to the port of departure (Hale et al. 2007).

For consistency among longline observer programs throughout the Southeast Fisheries Science Center, we adopted the methods outlined for the Pelagic Longline Observer Program (Beerkircher et al. 2004). While aboard the vessel, the observer completes three data forms: Longline Gear Characteristic Log, Longline Haul Log, and Individual Animal Log. The Longline Gear Characteristic Log is used to record the type and length of the mainline used, number and length of gangions, and make and model of hooks used. The Longline Haul Log is used to record the length, location, and time duration for each set and haulback, as well as environmental information and the type(s) of bait used. The Individual Animal Log records all species caught, condition of the catch (e.g. alive, dead, damaged, or unknown) when brought to the vessel, and the final disposition of the catch (e.g. kept, released, finned, etc.). When an animal is brought aboard the vessel, the observer records species, sex (sharks only), and length. Mortality was determined visually. The soak duration of a set was defined as the time from when

the last hook entered the water until the first hook was hauled back, and hook hours were defined as the sum of the total hooks fished multiplied by the soak duration for each set.

Results

A total of 179 trips on 25 vessels (305 bottom longline sets) were observed in the U.S. waters of the South Atlantic Ocean from July of 2005 through December of 2010. All sets utilized bottom longline gear with 85.2% (260 sets) targeting shark. There were 11 trips on four (4) vessels with 45 sets (14.8% of sets) that targeted or caught golden tilefish (Figure 1). The gear characteristics of these trips include an average number of hooks set of 594, an average soak duration of 0.9 hrs, and an average depth of 218.1 m (ranging from 178 – 272 m). On these trips, 2,626 golden tilefish were observed caught; Of those, 98.3% were kept for landing, 0.3% were discarded dead, 0.1% were released alive, and 1.3% were released with an unknown status. The golden tilefish observed ranged in length from 24 to 102 cm FL, with an average of 60.1 cm FL. Since so few golden tilefish were discarded dead or released alive, no further analysis was done.

Literature Cited

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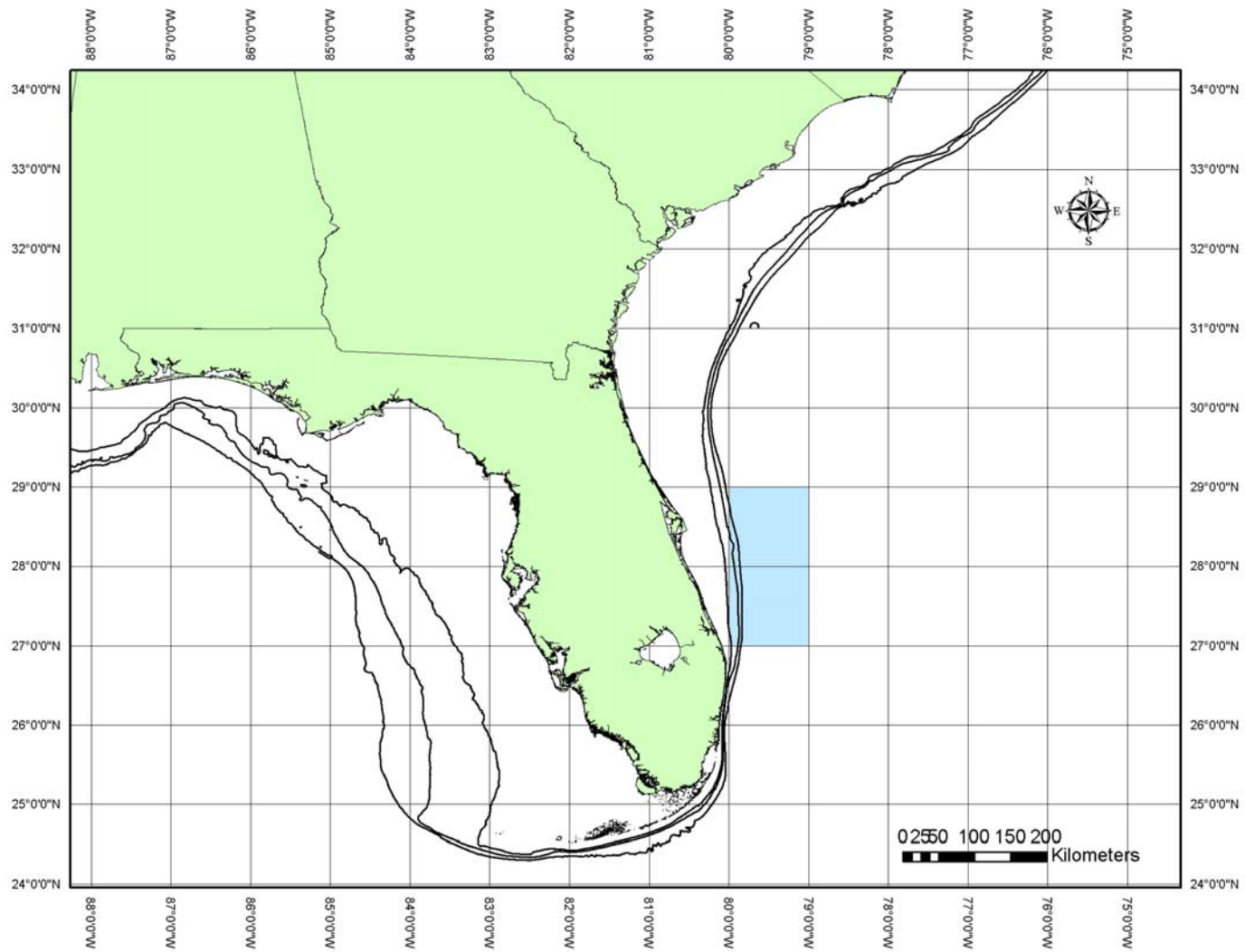


Figure 1. Map of set locations for tilefish-targeted bottom longline sets observed from 2005-2010.