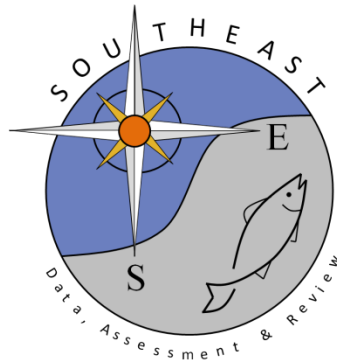


South Atlantic Tilefish (*Lopholatilus chamaeleonticeps*) length
compositions from the recreational fishery

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SEDAR89-WP-04

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Introduction

This document outlines the data and methodologies used to estimate length compositions of recreational landings for the SEDAR 89 Tilefish (*Lopholatilus chamaeleonticeps*) assessment. Length compositions were developed using data from the Marine Recreational Information Program (MRIP) and Southeast Region Headboat Survey (SRHS), which were also used in SEDAR 66. A small number of length samples (n=25) from the Trip Interview Program (TIP) and Florida Fish and Wildlife Research Institute (FWRI) were also included when developing length compositions for SEDAR 89.

Sample sizes were not sufficient to develop weighted length compositions and only nominal length compositions were produced for SEDAR 89. Only 52 rec age samples were available, so age compositions were not developed.

Data Description

SEDAR 89 assesses all South Atlantic Tilefish in federal waters extending from North Carolina south to the east coast of Florida (including Monroe County). There were 649 lengths provided for recreational length compositions. The majority of length samples were provided by MRIP and SRHS (Table 1), which are described below.

Marine Recreational Information Program (MRIP)

MRIP (formally known as the Marine Recreational Fishing Statistics Survey, MRFSS) began in March 1981. The access point angler survey (APAIS) component of MRIP collects information on recreational catch and fishing trip characteristics, including fish lengths and weights, from anglers at public marine fishing access sites. In the South Atlantic, APAIS samples recreational fishers from private, shore, and charterboat modes. APAIS sampling was temporarily suspended during Wave 2 in 2020 because of the COVID pandemic. APAIS sampling resumed in all states by August 2020 (Wave 4), however, sampling of fish lengths and weights were reduced due to social distancing guidelines and field officer safety protocols (NMFS OST 2023). For intercepted angler trips where both fish length and weight are missing, MRIP imputes missing lengths and/or weights (NMFS OST 2023). Imputed lengths were excluded from length composition analyses. The majority of fish sampled for length were provided by MRIP (n=549).

Southeast Regional Headboat Survey (SRHS)

The SRHS program began in North Carolina and South Carolina in 1972. Only North Carolina and South Carolina were sampled from 1972-1975. In 1976, the survey expanded southward to include Georgia and northeast Florida (Nassau-Indian River counties). In 1978, the survey was further expanded to include southeast Florida (St. Lucie-Monroe counties; Fitzpatrick et al. 2017). Biological samples (e.g. length, weight, and otoliths) are collected as part of the SRHS dockside intercept sampling program (DISP) component of the SRHS program (Fitzpatrick et al. 2017). DISP sampling was temporarily suspended in March 2020 due to the COVID pandemic and no biological samples were collected. DISP biological sampling resumed in July 2021 once NMFS/SEFSC safety measures were approved (Cheshire et al. 2023). SRHS provided 75 Tilefish lengths.

Fleet Structure

One general recreational (GR) fishing fleet was defined. This fleet includes private, charterboat, and headboat fishing modes. The majority of fish samples (n=465) came from the charterboat mode (Table 2).

Length Compositions of Recreational Landings

To compute the nominal length compositions, fish were assigned to 30 mm maximum total length (TL) bins with bins ranging from 340 - 1,000 mm. The label represents the midpoint value of the bin. Both the 340 and 1,000 mm bins are aggregate bins and the 340 mm bin contains all fish less than 355 mm and the 1,000 mm bin contains fish greater than 985 mm. Nominal length compositions are only presented if a minimum of 30 fish per year were sampled for length (Fig. 1).

References

- Cheshire, R.T., K. Brennan, and M.E. Green. 2023. SEDAR85-WP-02. Headboat Data for Yellowedge Grouper in the US Gulf of Mexico. National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC). Beaufort, NC.
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Tables

Table 1: Number of length samples provided by each data source. MRIP = Marine Recreational Information Program, SRHS = Southeast Region Headboat Survey, FWRI = Florida Fish and Wildlife Research Institute, and TIP = Trip Interview Program.

Year	MRIP	SRHS	FWRI	TIP
1981	10	1	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	1	0	0	0
1985	1	0	0	0
1986	1	0	0	0
1987	6	0	0	0
1988	1	0	0	0
1989	0	17	0	0
1990	1	13	0	0
1991	2	0	0	0
1992	0	1	0	0
1993	0	0	0	0
1994	3	0	0	0
1995	0	0	0	0
1996	2	0	0	0
1997	14	0	0	0
1998	3	0	0	0
1999	2	2	0	0
2000	6	0	0	0
2001	21	2	0	0
2002	28	0	0	10
2003	64	0	0	0
2004	26	0	0	0
2005	132	0	0	0
2006	15	0	0	0
2007	1	0	0	0
2008	0	0	0	0
2009	10	2	0	0
2010	11	0	0	0
2011	7	0	0	0
2012	9	0	0	0
2013	16	11	0	0
2014	7	0	0	0
2015	26	13	0	0
2016	24	5	0	0
2017	5	4	3	0
2018	24	3	2	0
2019	8	0	0	0
2020	7	0	6	0
2021	11	0	0	0

Year	MRIP	SRHS	FWRI	TIP
2022	23	1	4	0
2023	21	0	0	0

Table 2: Number of fish (nfish) and trips (ntrip), by fishing mode, where Tilefish were sampled for length. CB = charterboat, HB = headboat, and PR = private

Year	nfish_CB	ntrip_CB	nfish_HB	ntrip_HB	nfish_PR	ntrip_PR
1981	0	0	1	1	10	1
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	1	1
1985	0	0	0	0	1	1
1986	1	1	0	0	0	0
1987	6	2	0	0	0	0
1988	0	0	0	0	1	1
1989	0	0	17	10	0	0
1990	1	1	13	6	0	0
1991	2	1	0	0	0	0
1992	0	0	1	1	0	0
1993	0	0	0	0	0	0
1994	3	2	0	0	0	0
1995	0	0	0	0	0	0
1996	0	0	0	0	2	1
1997	1	1	0	0	13	2
1998	3	1	0	0	0	0
1999	2	1	2	1	0	0
2000	6	3	0	0	0	0
2001	20	7	2	2	1	1
2002	38	7	0	0	0	0
2003	64	7	0	0	0	0
2004	26	3	0	0	0	0
2005	117	10	0	0	15	1
2006	15	3	0	0	0	0
2007	0	0	0	0	1	1
2008	0	0	0	0	0	0
2009	4	1	2	1	6	3
2010	9	3	0	0	2	2
2011	3	2	0	0	5	2
2012	7	4	0	0	2	1
2013	16	6	11	2	0	0
2014	3	2	0	0	4	4
2015	23	11	13	5	3	3
2016	19	8	5	2	5	4
2017	4	2	4	1	4	2
2018	22	14	3	2	4	2
2019	4	4	0	0	4	2
2020	13	7	0	0	1	1
2021	7	4	0	0	4	2
2022	16	6	1	1	11	9
2023	10	5	0	0	11	7

Figures

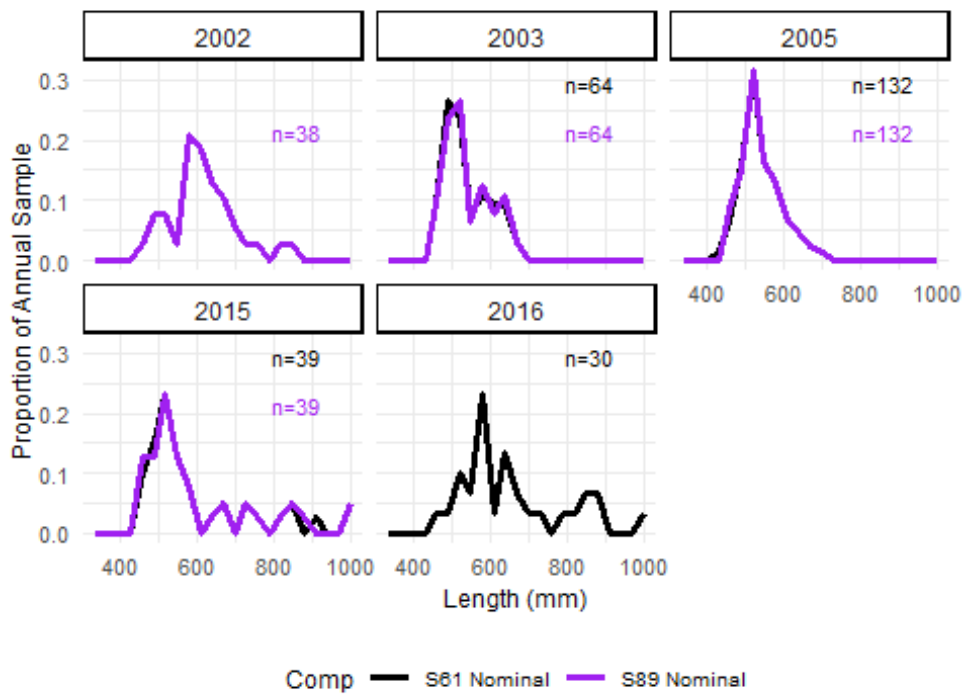


Figure 1. Comparison of nominal length compositions from SEDAR 66 (black) and SEDAR 89 (purple). The length type used for S89 is maximum total length.