



Butterfish Fishery Information Document

April 2023

This document provides an overview of the biology, stock condition, management system, and fishery performance for butterfish, with an emphasis on 2022. Data sources for Fishery Information Documents include unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and should be considered preliminary. For additional resources, including previous Fishery Information Documents, please visit <http://www.mafmc.org/msb>.

Key Facts

- Landings have been variable and well below the quota in recent years. 2022 landings and revenues were down compared to 2021. The average ex-vessel price for butterfish increased slightly from 2021 to 2022.
- The 2022 management track assessment found that butterfish was neither overfished nor experiencing overfishing, and biomass in 2021 was above the biomass target.
- Considerable variability is expected in abundance, availability, and landings due to butterfish's relatively short lifespan, environmental factors, and market conditions.
- R/V Bigelow indices are provided at the end of this document. 2022 values (both spring and fall) were the highest in the 2009-2022 time series.

Basic Biology

Atlantic butterfish is a semi-pelagic/semi-demersal loose-schooling fish species primarily distributed between Nova Scotia, Canada and Florida. They are most abundant from the Gulf of Maine to Cape Hatteras. They winter near the edge of the continental shelf and migrate inshore in the spring and offshore in the fall.

Butterfish are relatively short-lived and grow rapidly; few individuals live beyond 3 years. The maximum age reported is 6 years. The recent assessment re-evaluated median length (L50) at maturity and median age at maturity (A50). For both females and males, the median length at maturity was just over 11 cm and the median age at maturity was about 3/4 of one year.

See the 2022 Research Track Assessment report (long version) for more life history information at: https://apps-nefsc.fisheries.noaa.gov/saw/sasi/sasi_report_options.php.

Status of the Stock

Based on the 2022 management track assessment (MTA), the status of butterfish in 2021 was not overfished, with no overfishing occurring, and the stock size was above the target (available at https://apps-nefsc.fisheries.noaa.gov/saw/sasi/sasi_report_options.php). (Figure 1). Updated R/V Bigelow indices are provided on the last page of this document.

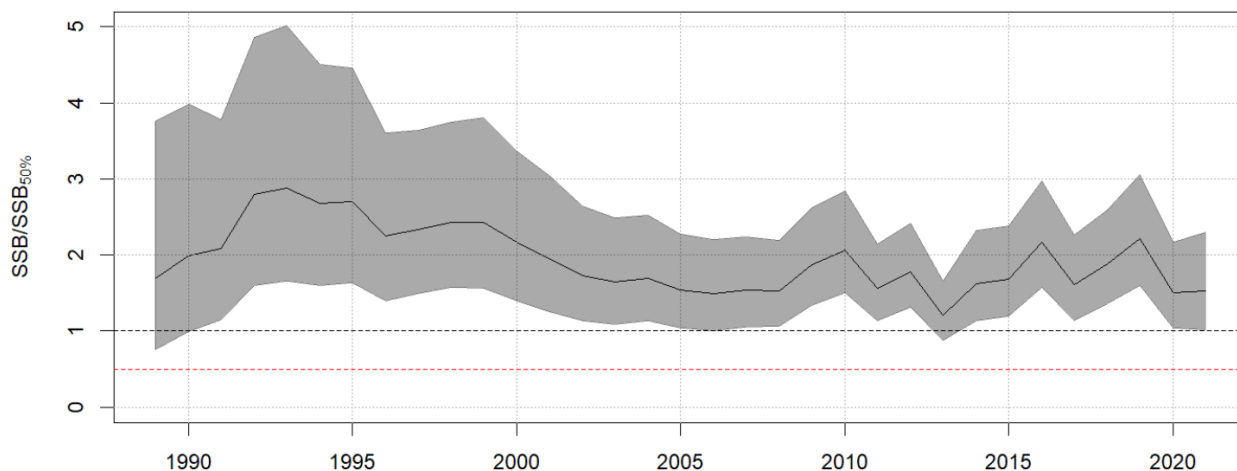


Figure 1. Butterfish stock status, 1989–2021, relative to the current biological reference points, biomass target = “1” or 39,436 MT (upper horizontal dashed line) and overfished threshold = 0.5 or 19,718 MT (lower horizontal dashed line).

Management System and Fishery Performance

Management

The Mid-Atlantic Fishery Management Council (the Council or MAFMC) established management of butterfish in 1978 and the management unit includes all federal East Coast waters.

Limited access commercial vessels can fish year-round until quotas are achieved, subject to applicable gear requirements. If landings get within 1,000 MT of the quota, a 5,000-pound trip limit is implemented to slow the fishery and avoid having to go to the lower 600-pound trip limit that is implemented once the full quota is reached. Incidental permits are limited to 600 pounds per trip.

Recreational landings are negligible. There are no recreational regulations except party/charter vessels need permits to catch/possess butterfish in federal waters, and any vessel that has any Mid-Atlantic party/charter permit must report ALL catch on ALL trips via Vessel Trip Reports.

Additional summary regulatory information is available at <https://www.fisheries.noaa.gov/region/new-england-mid-atlantic>.

2023-2024 specifications, as previously adopted, are described in Table 1 below.

Table 1. Preferred 2023-2024 Butterfish Specifications

	Specification	2023	2024	Rationale Summary
	OFL	17,631	16,096	from projections
a	ABC	17,267	15,764	from SSC, scientific uncertainty
b	ACT Buffer %	5%	5%	for management uncertainty
c	ACT Buffer	863	788	a times b
d	ACT (a-c)	16,404	14,976	a-c
e	Butterfish Cap (longfin discards)	3,884	3,884	set by Council
f	Assumed other discards	1,248	1,248	2013-2021 average plus 1 SD
g	Total discard set-aside	5,132	5,132	e+f
h	Landings or "Domestic Annual Harvest" (DAH)	11,271	9,844	d-g
i	Close primary directed at this amount, i.e. with 1,000 mt left; go to 5,000 pound trip limit	10,271	8,844	h-1000

Commercial Fishery

Figure 2 below, from the 2022 assessment, describes U.S. butterfish catches 1989-2021. Following, Figures 3-4 describe domestic landings, ex-vessel revenues and prices (inflation adjusted) since 1996. The Gross Domestic Product Implicit Price Deflator was used to report revenues/prices in “2022 dollars.” Table 2 describes 2022 butterfish landings by state, and Table 3 describes 2022 butterfish landings by gear type. Table 4 describes 2022 butterfish landings by NMFS Statistical Area as reported in Vessel Trip Reports (Figure 5 shows where the NMFS Statistical Areas are located).

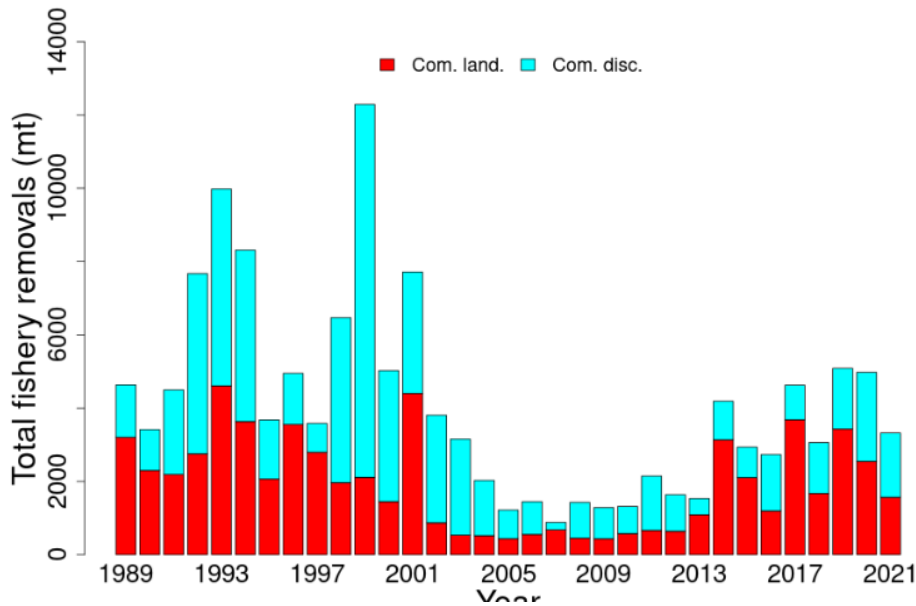


Figure 2. Total commercial catch of butterfish between 1989 and 2021 (landings and discards).

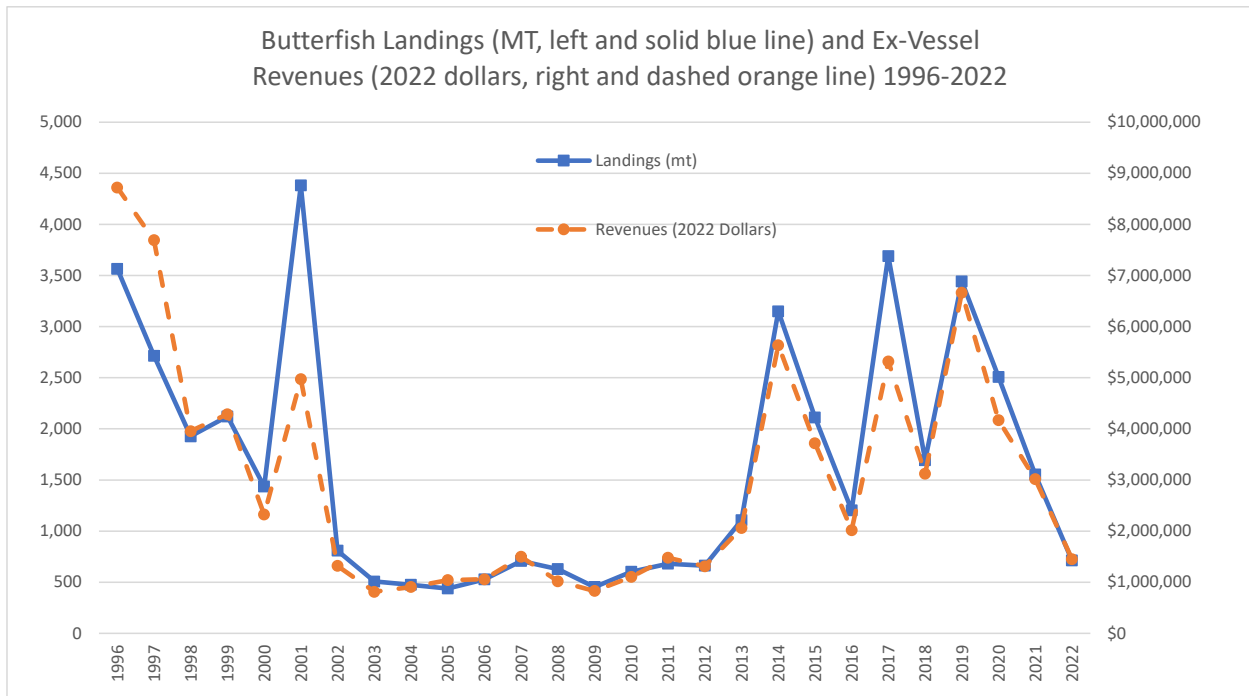


Figure 3. U.S. Butterfish Landings and Butterfish Ex-Vessel Values 1996-2022. Source: NMFS unpublished dealer data.

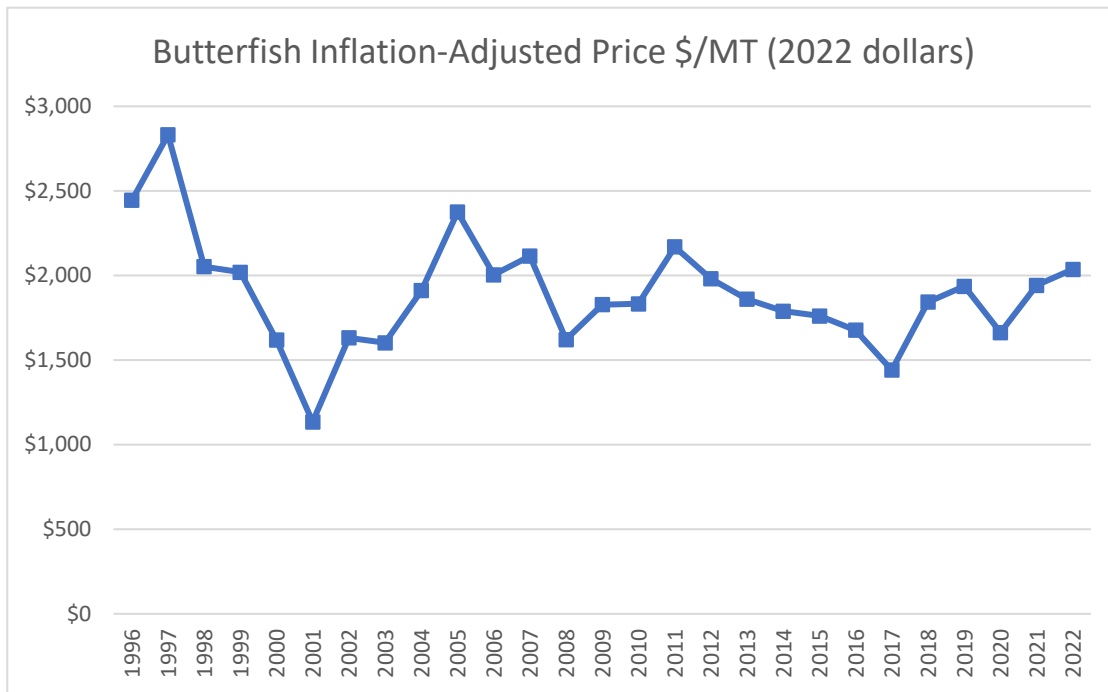


Figure 4. Ex-Vessel Butterfish Prices 1996-2022 Adjusted to 2022 Dollars Source: NMFS unpublished dealer data.

Table 2. Commercial Butterfish landings by state in 2022. Source: NMFS unpublished dealer data.

State	Metric Tons 2022
RI	373
NY	169
MA	96
NJ	38
CT	19
VA	14
MD	2
Other	2
Total	713

Table 3. Commercial Butterfish landings by gear in 2022. Source: NMFS unpublished dealer data.

Gear	Metric Tons 2022
Otter Trawl, Bottom	654
Other	59
Total	713

Table 4. Commercial butterfish landings by statistical area in 2022. Source: NMFS unpublished VTR data.

Statistical Area	Metric Tons 2022
537	156
539	149
611	79
613	59
562	58
616	54
622	52
522	20
514	15
525	12
538	9
612	6
521	6
533	6
626	5
526	3
Other	24
Total	713

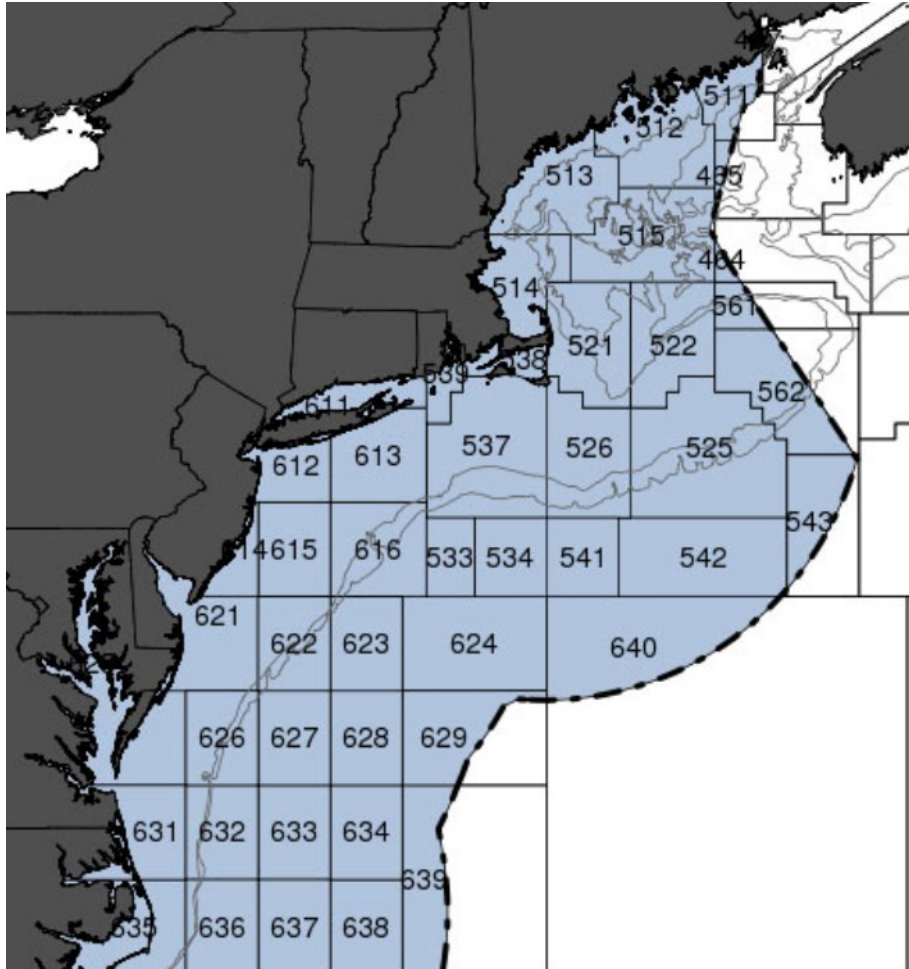


Figure 5. NMFS Statistical Areas

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Data updates from NMFS Northeast Fisheries Science Center (NEFSC)

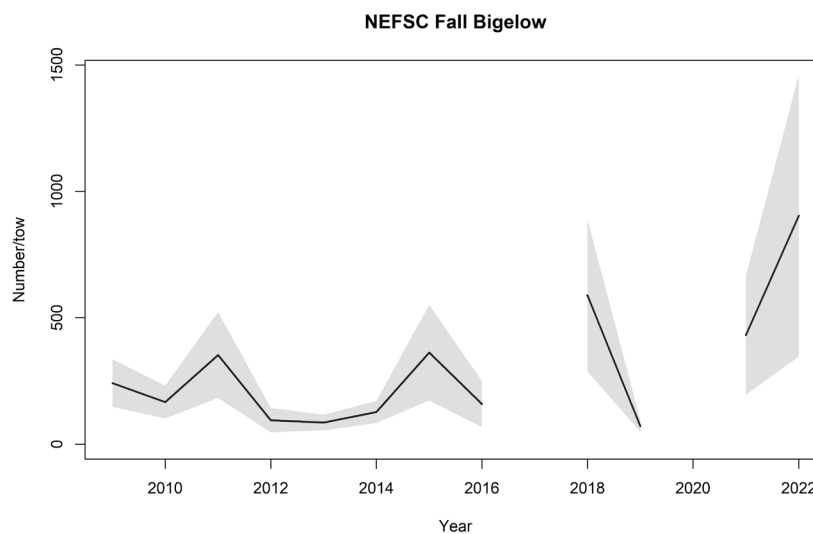
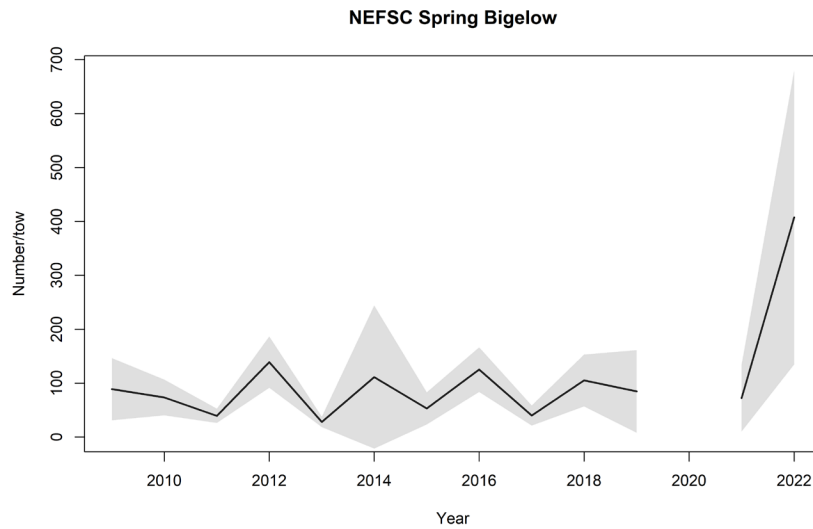
Bigelow indices for butterfish with 90% confidence intervals are below. Notes are from Chuck Adams, NEFSC butterfish lead:

Spring 2022 Notes

- Had 3 of the 10 biggest tows in the time series (including the biggest)
- 2nd highest percent positive in the time series (48.3%)
- 3rd highest bottom temperature in the spring time series (8.4°C)

Fall 2022 Notes

- Had 2 of the 10 biggest tows in the time series
- Highest percent positive in the time series (88.1%)
- 4th highest bottom temperature in the fall time series (12.8°C)



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