Butterfish Fishery Information Document

July 2020

This Fishery Information Document provides a brief overview of the biology, stock condition, management system, and fishery performance for butterfish, with an emphasis on 2019. Data sources for Fishery Information Documents include unpublished National Marine Fisheries Service (NMFS) survey, dealer, vessel trip report (VTR), permit, and Marine Recreational Information Program (MRIP) databases and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 more resources, including previous Fishery Information Documents, please visit http://www.mafmc.org/msb.

Key Facts

- 2019 landings were about double 2018 landings and similar to 2017. Landings have generally been variable and well below the quota in recent years.
- Butterfish just had a management track assessment update, which concluded biomass has been trending down but the stock is not overfished nor experiencing overfishing. Recruitment is variable but has been trending lower since 1999. Spawning stock biomass (SSB) in 2019 was estimated to be 69% of the target.
- Considerable variability is expected in abundance, availability, and landings.

Basic Biology

Atlantic butterfish is a semi-pelagic/semi-demersal schooling fish species primarily distributed between Nova Scotia, Canada and Florida. They are most abundant from the Gulf of Maine to Cape Hatteras and are fast-growing, short-lived, and form loose schools. They winter near the edge of the continental shelf in the Middle Atlantic Bight and migrate inshore in the spring into Mid-Atlantic, southern New England, and Gulf of Maine waters. During the summer, butterfish occur over the entire mid-Atlantic shelf from sheltered bays and estuaries out to about 200 m. In late fall, butterfish move southward and offshore in response to falling water temperatures.

Butterfish are short-lived and grow rapidly; few individuals live beyond 3 years and most are sexually mature at 1-2 years of age. The maximum age reported is 6 years. Juvenile butterfish range from 16 mm to about 120 mm. During their first year, they grow to 76-127 mm, or about half their adult size. Early-spawned individuals are 76-102 mm in the fall; late-spawned individuals are 51-76 mm in the fall and 76-127 mm the following spring. Adult butterfish range from about 120 mm to 305mm with an average length of 150-230 mm. See https://www.nefsc.noaa.gov/nefsc/habitat/efh/ for more life history information.

Status of the Stock

Based on a recent management track assessment, the status of butterfish is not overfished with no overfishing occurring (available at https://apps-nefsc.fisheries.noaa.gov/saw/sasi/sasi_report_options.php). However, declining recruitment has led to declines in biomass (Figure 1), and as of 2019 biomass is estimated to have been only 69% of the target. Projections run based on typical long-term recruitment predict a rapid increase in biomass, but that will only occur when the trend in recruitment reverses. Initial projections using lower, more recent (last 10 years) recruitment and a high level of uncertainty suggest that considering substantial reductions in acceptable biological catch (ABC) may be warranted.

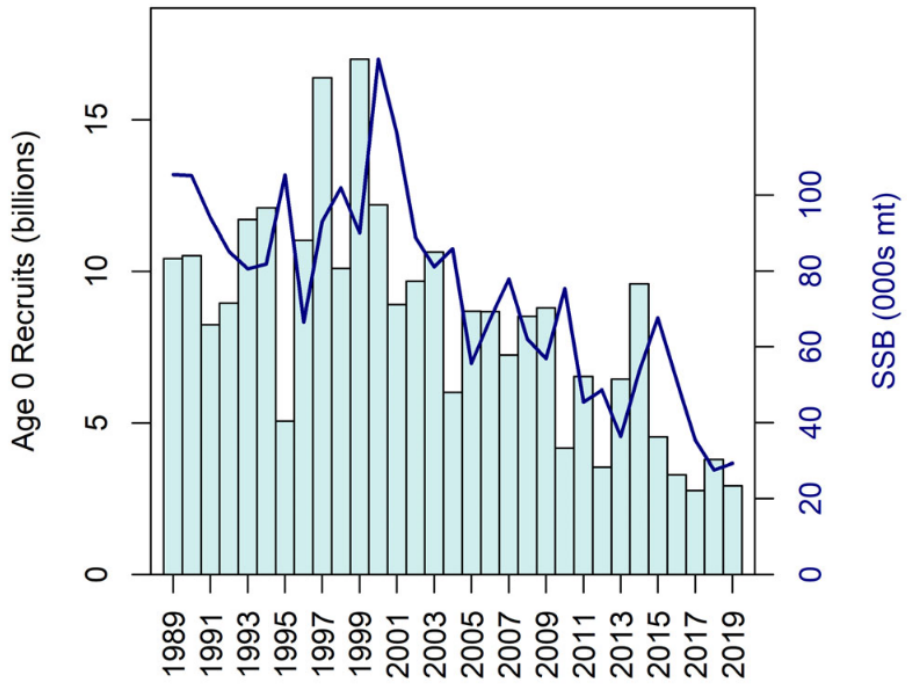

Figure 1. Butterfish recruitment (vertical bars), and the spawning stock biomass (blue line) 1989-2019.

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, subject to applicable gear requirements. Trip limits are triggered when the quota is approached. Incidental permits are limited to 600 pounds per trip. Additional summary regulatory information is available at

https://www.fisheries.noaa.gov/region/new-england-mid-atlantic. The ABC for 2020 is 32,063 MT, with a commercial quota of 23,752 MT.

Recreational landings are negligible. There are no recreational regulations except for party/charter vessel permits and reporting.

Commercial Fishery

Figure 2 describes U.S. butterfish catch 1965-2019. Figures 3-4 describe domestic landings, ex-vessel revenues (nominal), and prices (inflation adjusted) since 1996.

Table 1 describes 2019 butterfish landings by state, and Table 2 describes 2019 butterfish landings by gear type. Table 3 describes 2019 butterfish landings by NMFS Statistical Area as reported in Vessel Trip Reports.

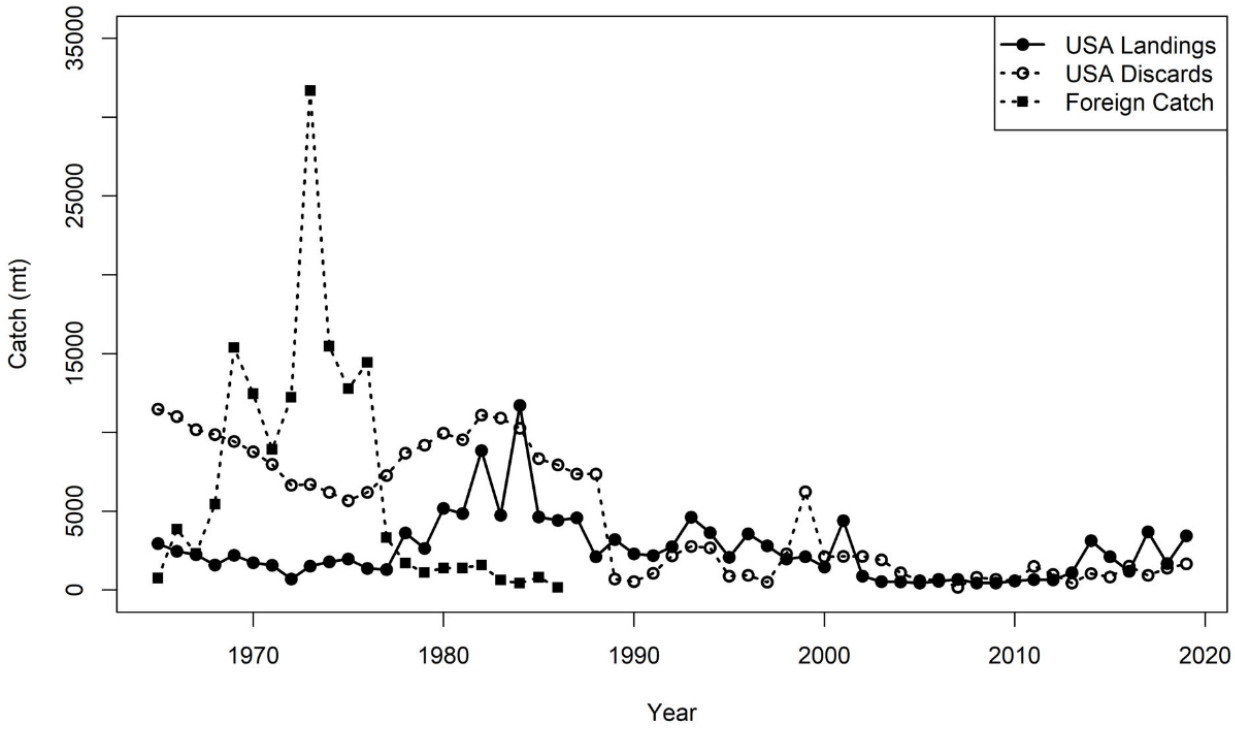

Figure 2. US landings, US discards, and foreign catch of butterfish, 1965–2019. Source: NEFSC Butterfish Management Track Assessment, available at https://apps-nefsc.fisheries.noaa.gov/saw/sasi/sasi_report_options.php.

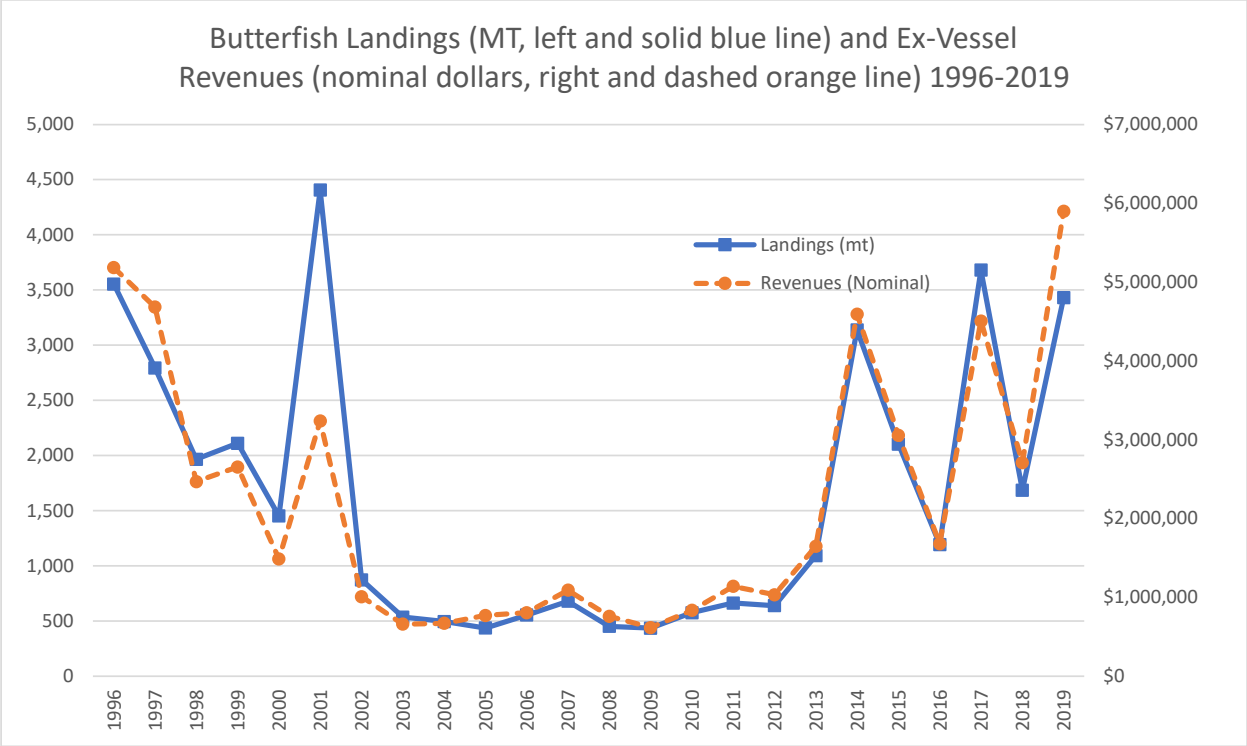

Figure 3. U.S. Butterfish Landings and Nominal Butterfish Ex-Vessel Values 1996-2019. Source: NMFS unpublished dealer data.

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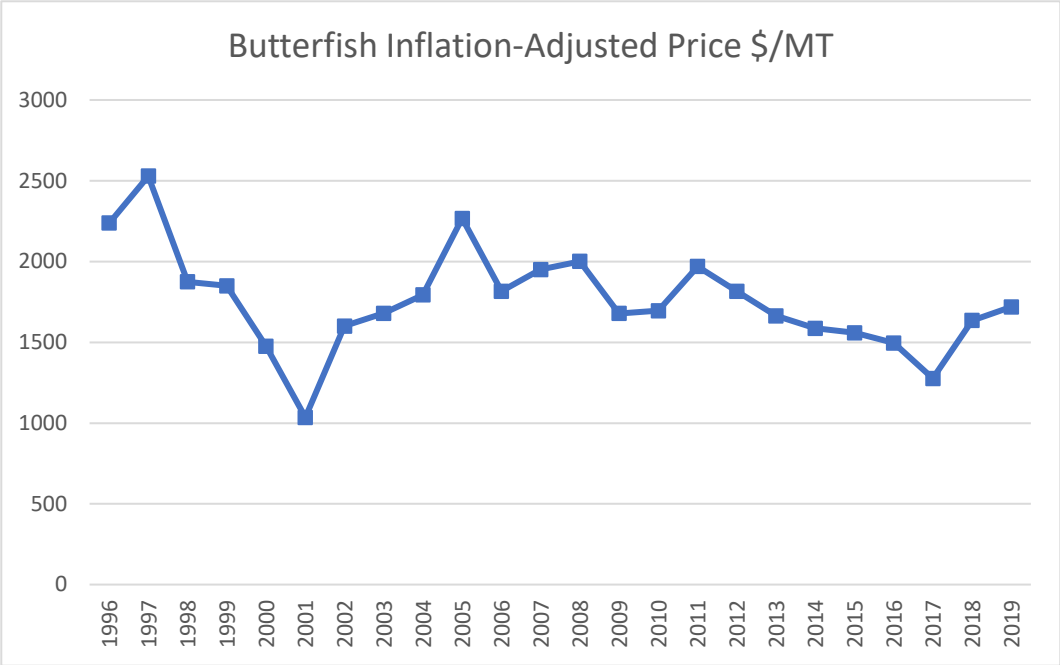

Figure 4. Ex-Vessel Butterfish Prices 1996-2019 Adjusted to 2019 Dollars Source: NMFS unpublished dealer data.

Table 1. Commercial Butterfish landings (live weight) by state in 2019. Source: NMFS unpublished dealer data.

State	Metric_Tons
RI	2,969
NY	224
CT	100
MA	85
NJ	40
Other	13
Total	3,431

Table 2. Commercial Butterfish landings (live weight) by gear in 2019. Source: NMFS unpublished dealer data.

GEAR	Landings (MT)
TRAWL,OTTER,BOTTOM,FISH	3,214
Other	217
Total	3,431

Table 3. Commercial butterfish landings by statistical area in 2019. Source: NMFS unpublished VTR data.

Stat Area	Metric_Tons
526	1,878
537	732
616	630
539	229
541	167
611	89
525	86
622	49
613	45
562	42
Other	116
Total	4,062

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