



Blueline tilefish negotiations between the Mid- and South Atlantic Council SSCs

Scott Crosson

South Atlantic Fishery Management Council
Scientific and Statistical Committee

Synopsis

- A directed fishery for Blueline Tilefish has operated in the US South Atlantic for decades (c. 1980)
- Commercial landings increase in NC north of Cape Hatteras in 2006
- Rec landings increase in Mid-Atlantic beginning in 2003 as deep-drop fishery gains popularity and records are awarded
- MAFMC begins to regulate, MAFMC and SAFMC must decide how to divide the ABC (Acceptable Biological Catch) following a 2017 assessment



Outline

- Blueline Tilefish basics
- The story of northward expansion
- SEDAR 50 findings
- SSCs form a joint working group to figure out how to divide the stock
- What information was available and used?
- How did the two SSCs decide to divide?



Blueline Tilefish basics

- Deepwater species (75-250 m)
- Locally abundant in canyons
- Spatial range
 - “Cape Henry VA.. ..probably through the Gulf [of Mexico]” (Dooley 1978)
 - Off Montauk NY to Key West through Gulf of Mexico (Farmer and Klibansky 2016)
- Considered non-migratory
- May live 40+ years



https://www.researchgate.net/figure/Blueline-tilefish-on-Alligator-bioherm-Kraken-dive-2-18_fig2_239522813



The story of northward expansion

Many recreational state records since 2006

- NC 2006, off of Oregon Inlet, 16 lb 8 oz
- VA
 - 2006 records begin
 - 2007-03-10 Norfolk Canyon, 18 lb 10 oz
 - 2007-03-31 100 m depth, 19 lb 14 oz
 - 2009-03-19 Norfolk Canyon, 20 lb 4 oz
 - 2009-06-28 Norfolk Canyon, 20 lb 10 oz
 - 2009-07-04 Norfolk Canyon, 23 lb 5 oz
- MD 2012-09-12 Norfolk Canyon, 20 lb 0 oz
- DE
 - 2015-06-19 Baltimore Canyon, 19 lb 11 oz
 - 2015-07-25 Norfolk Canyon, 21 lb 13 oz
 - 2015-08-18 Baltimore Canyon, 22 lb 3 oz
- NJ
 - 2014-11-09 Wilmington Canyon, 23 lb 1 oz
 - 2015-05-15 Linden Kohl Canyon, 23 lb 4 oz



https://mrc.virginia.gov/vswft/state_records/state-record-bluefish_tilefish_03-19-09.shtm



The story of northward expansion

Popular news articles write about BlueLine Tilefish shifting north, implying climate change as the cause

“Climate change ultimately changes the haves and have-nots in society,” said Mr. Fenichel, who believes changing migratory patterns in the sea and on land could fuel a major reallocation of wealth.

East Coast species that are moving northward since precise records began being kept in the 1960s include black sea bass, hake, American lobsters, **blueLine tilefish** and squid.’

2015. Changing Migration Patterns Upend East Coast Fishing Industry. Wall Street Journal

‘We can already see that climate change is reshuffling ocean life like a deck of cards. For some, this is a winning hand. Fishermen have caught species they’ve never caught before, including **blueLine tilefish** off New Jersey and Humboldt squid in Washington state.’

2016. Opinion: These two changes in the ocean are downright scary. Market Watch



The story of northward expansion

Peer reviewed journal articles write about Blueline Tilefish shifting north, implying climate change as the cause

“Shifting species distributions also present internal challenges for nations. In the United States, **Blueline tilefish** (*Caulolatilus microps*) were historically caught and managed south of the Virginia–North Carolina border. When tilefish appeared farther north, a fishery exploited the stock for nearly a decade without regulation.”

2018. Preparing ocean governance for species on the move. Science.

“We have assessed the exposure of communities to risk based on their recent catch and revenue portfolios. However, one of the most important ways that communities can adapt to a changing ocean environment is by shifting their species portfolio. There is evidence that this is already happening, including the **blueline tilefish** fishery that emerged north of Cape Hatteras, NC in the early 2000s [cites 2018 Science paper].”

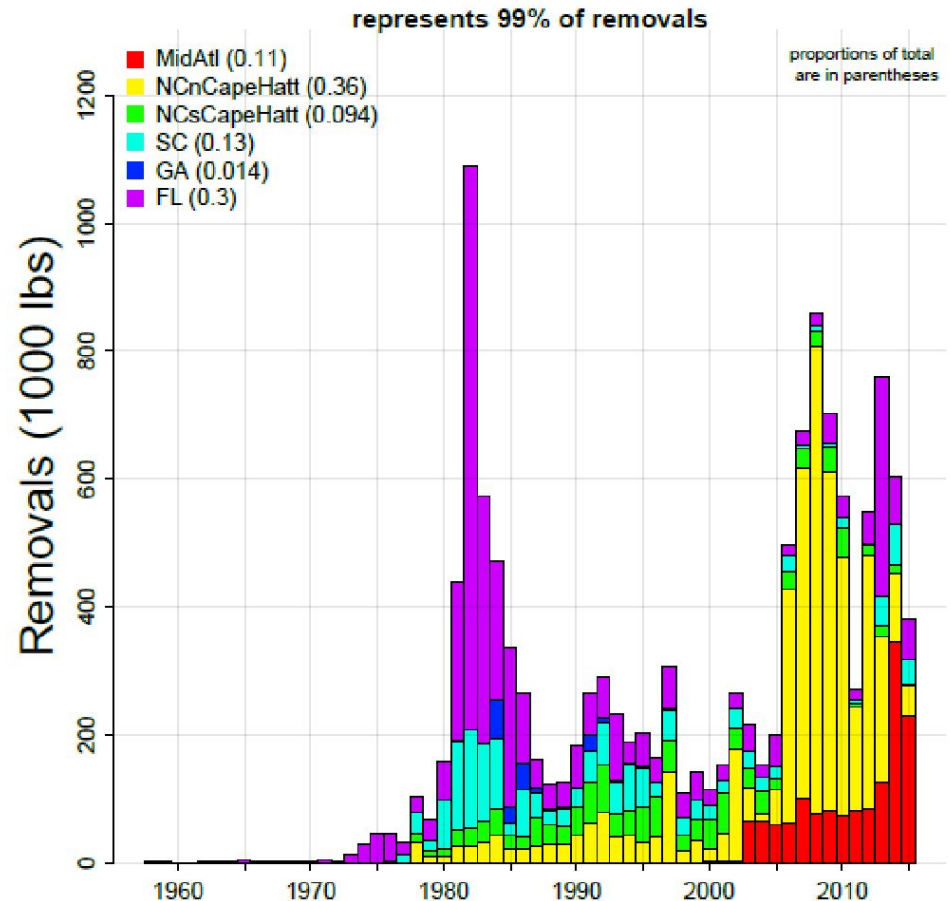
2019. Shifting habitats expose fishing communities to risk under climate change. Nature Climate Change

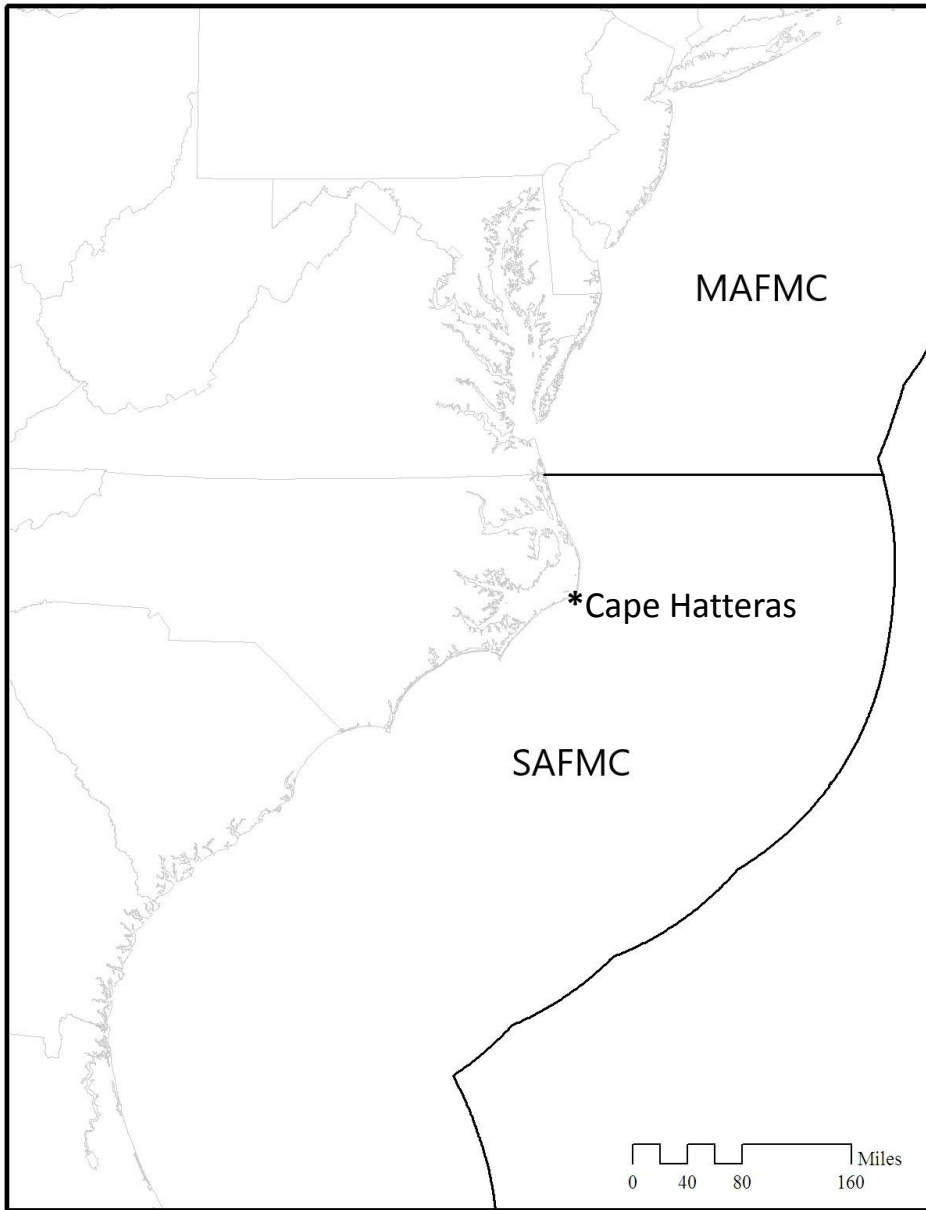


Blueline Tilefish stock structure

History of Atlantic Removals

- Limited catch back to 1958
- Large increases in 1980s, especially in Florida
- NC north of Cape Hatteras show large increase beginning in 2006
- Mid-Atlantic records begin in 1999 and show increase after 2003
 - 11% of all removals
 - 3% commercial
 - 8% recreational





SEDAR 50 assessed Blueline Tilefish stock from FL Keys to NY

Assessed FL to Hatteras using Production Model

Able to get stock status and ABC for this area

Assessed Hatteras north using data limited methods

Data gaps

Changes in fishery late in the time series

No stock status, ABC is for entire area from Hatteras north

Councils want to manage within their jurisdictions

Need separate ABCs for Hatteras to NC-VA border and VA north



Working Group Terms of Reference

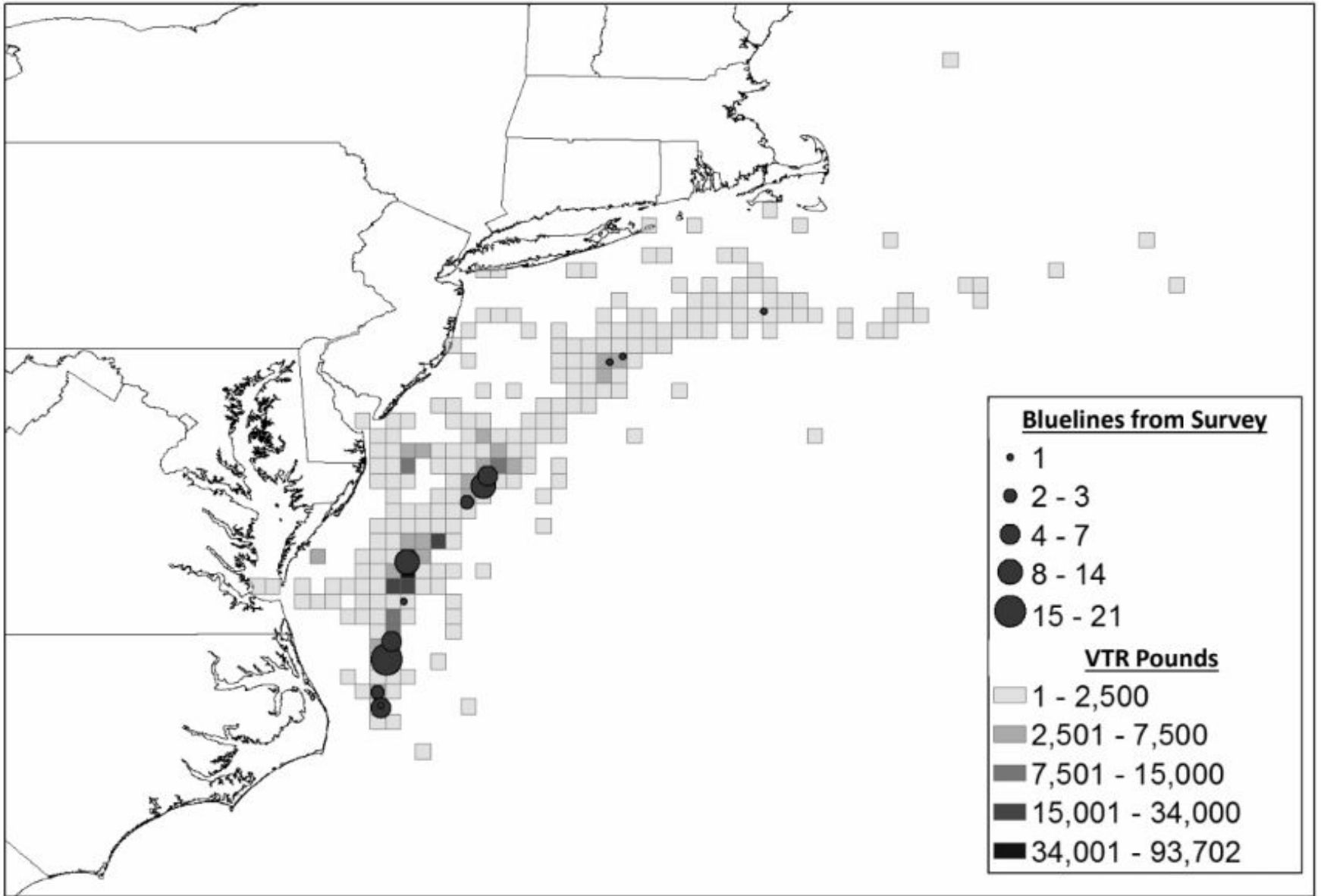
1. Develop a process for coordinating ABC recommendations from both SSCs for the portion of the blueline tilefish stock north of Cape Hatteras.
2. Decide on which data sets are most appropriate to use to develop ABCs for both areas. This includes both catch and biological data, specific to each area if possible.
3. Decide on the appropriate methodology or methodologies for developing ABCs based on the available data for each spatial region.
4. Propose ABC recommendations for the two SSCs.



Progress

1. The group decided that landings histories were not indicative of stock distribution. Wide fluctuations from year to year in different areas due to changing regulatory structure. This was the same conclusion reached by the Review Panel of SEDAR 50.
2. Group considered the use of the fishery independent results of the SUNY-Stonybrook sampling (Frisk et al 2018). The largest samples of blueline were found in the areas surrounding the Council jurisdictional boundary, which is where the fishery is largely located.





Recommendations

1. Rerun the DLMTool runs for the area of north of Cape Hatteras with some minor modifications, primarily using a shorter time series (2002-2015) to reduce the high coefficient of variation (CV). The working group agreed that the mode of the TAC distribution from the runs would be the total ABC recommendation to the SSCs.
2. Recommend that the SSCs split the ABC by weighting from Frisk survey.
3. After these adjustments, stratified proportional estimates of blueline tilefish caught north and south of the Virginia-North Carolina border result in an allocation of 56% of the north of Cape Hatteras ABC to the MAFMC and 44% to the SAFMC.



Conclusion

Both SSCs accepted the ABC split and applied their respective control rules, but there is no single solution to dividing up fishery stocks between neighboring regulatory jurisdictions:

Our solution was only feasible because the MAFMC had contracted with Frisk et al.

One regulatory body could be assigned the authority to regulate all of the stock irrespective of geographical location (mahi, bluefish)

Or you could listen to Olaf!

