## **Virginia Seafood Sustainability**

### A report requested by the Virginia Marine Products Board

# Robert A. Fisher Virginia Institute of Marine Science Virginia Sea Grant-Affiliated Extension

March 2018







#### VSG-18-01

#### VIMS Marine Resource Report No. 2018-2

Additional copies of this publication are available from:

Robert A. Fisher

Marine Advisory Services / Virginia Sea Grant Extension Program

Virginia Institute of Marine Science

P.O. Box 1346

Gloucester Point, VA 23062

804/684-7168

rfisher@vims.edu

Front and back cover photos: Robert A. Fisher

This work is a result of research sponsored in part by NOAA Office of Sea Grant, U.S. Department of Commerce, under Grant No. NA180AR4170083 to the Virginia Sea Grant Program. The views expressed herein do not necessarily reflect the views of any of those organizations.





#### Virginia Seafood Sustainability<sup>1</sup>

Virginia's commercial fisheries operate sustainably under a suite of management tools based upon information received from marine scientists and fishery managers who regularly conduct biological sampling of fish while tracking commercial landings and other gathering of required information. Analyses of fishing effort and overall stock conditions, as well as formulas designed to calculate threshold limits for maintaining sustainable stocks are regularly performed. Restrictions on seasons, size, days at sea, and gear are imposed as needed to achieve management supporting long-term biological sustainability

Virginia's marine fisheries are managed by the Virginia Marine Resources Commission (VMRC). Virginia wild fisheries have plans to sustain harvests and to rebuild stock sizes fallen below scientifically derived target sustainability levels. Producers provide mandatory information on their harvest levels and practices and are subject to operational monitoring to ensure compliance. The VMRC and National Marine Fisheries Service (NMFS) maintain cooperative law enforcement at the harvest and wholesale distribution levels, enforcing regulations that insure the chain of custody of seafood products is documented with harvesters and seafood dealers. Virginia shellfish aquaculture products are grown and harvested under strict regulation by the VMRC and the Virginia Department of Health (VDH), Division of Shellfish Sanitation, which includes mandatory educational training on safe harvest and handling for harvesters and dealers. In addition there are educational resources such as Best Management Practices (BMP's) developed for Virginia's shellfish culture industry which encourage and support sustainable practices.

All migratory fish moving through Virginia coastal waters are co-managed with the Atlantic States Marine Fisheries Commission (ASMFC). Through interstate fishery management plans, the ASMFC oversees 22 species of marine fish (including 7 species of shark) and promulgates regulations for those species that all Atlantic Coast states must follow. Fish that primarily inhabit offshore waters (more than 3 miles off the Virginia coast) are managed by the Mid-Atlantic Fishery Management Council (MAFMC), part of the National Marine Fisheries Service. Other states represented in the Mid-Atlantic region include North Carolina, Maryland, Delaware, Pennsylvania, New Jersey, and New York. The MAFMC currently manages 13 offshore marine fish species, including Atlantic mackerel, butterfish, spiny dogfish, surf clam, tilefish, bluefish, summer flounder, and black sea bass. Highly migratory species, such as swordfish, are managed in federal waters directly by the National Marine Fisheries Service (NMFS). Additionally other import products such as the Atlantic Sea Scallop are co-managed by the MAFMC and the New England Fishery Management Council (NEFMC).

<sup>&</sup>lt;sup>1</sup> Source: Marine Advisory Service, Virginia Institute of Marine Science, College of William & Mary. February 2018. Previous versions of this report include: VIMS Marine Resource Report No. 2015-5 (May 2015) and VIMS Marine Resource Report No. 2011-1 (January 2011)

# Summary of Sustainability Measures for Primary Virginia Marine Fishery Products<sup>2</sup>

Common Name	Scientific Name	Managing Agencies	Size Limit	Quota	Overfished	Gear Limits	Seasonal closures
Black Sea Bass	Centropristis striata	ASMFC MAFMC	Υ	Υ	N	Υ	Υ
Bluefish	Pomatomus saltatrix	ASMFC MAFMC	N	Υ	N	N	N
Butterfish	Peprilus triacanthus	MAFMC	N	Υ	N	Υ	Υ
Catfish, Blue	Ictalurus furcatus	N/A	N	N	N	N	N
Crab, Blue	Callinectes sapidus	Ches. Bay Watershed Agreement <sup>3</sup>	Υ	Y	N	Y	Υ
Crab, Blue (softshell)	Callinectes sapidus	VMRC	Υ	N	N	Υ	Υ
Crab, Red	Chaceon quinquedens	NEFMC	Male only fishery	Υ	N	Υ	
Croaker	Micropogonias undulates	ASMFC	N	N	N	N	N
Dogfish (spiny)	Squalus acanthias	ASMFC MAFMC	N	Υ	N	Υ	Υ
Eastern Oyster (aquaculture)	Crassostrea virginica	VMRC VDH	N	N	N	Υ	N
Eastern Oyster (wild)	Crassostrea virginica	VMRC VDH	Υ	N	N	Υ	Y
Flounder (summer)	Paralichthys dentatus	ASMFC MAFMC	Υ	Υ	N	Υ	Υ
Grey Trout/ Weakfish	Cynoscion regalis	ASMFC	Υ	N	N	Υ	Υ
Hard Clam (aquaculture)	Mercenaria mercenaria	VMRC VDH	N	N	N	N	N
Hard Clam (wild)	Mercenaria mercenaria	VMRC	Υ	N	N		N
Monkfish/Goosefish	Lophius americanus	MAFMC NEFMC	Υ	Υ	N	Υ	Υ
Scallop (sea)	Placopecten magellanicus	NOAA NEFMC	Υ	Υ	N	Υ	Y (Areas)
Northern Puffer / Sugar Toad	Sphoeroides maculatus	N/A	N	N	Unknown	N	N
Scup/Porgy	Stenotomus chrysops	ASMFC MAFMC	Υ	Υ	N	Υ	Υ
Spot	Leiostomus xanthurus	ASMFC	N	N	Unknown	N	N
Spotted Seatrout/ Speckled Trout	Cynoscion nebulosus	ASMFC	Υ	Υ	N	N	N
Striped Bass	Morone saxatilis	ASMFC	Υ	Υ	N	N	Y
Whelk, Channeled	Busycotypus canaliculatus	VMRC	Υ	Υ	N	Υ	N

<sup>&</sup>lt;sup>2</sup>Sources: N.O.A.A. National Marine Fisheries Service (NMFS), New England Fishery Management Council (NEFMC), Mid-Atlantic Fishery Management Council (MAFMC), Atlantic States Marine Fisheries Commission (ASMFC). Virginia Marine Resources Commission (VMRC).

<sup>&</sup>lt;sup>3</sup>The Chesapeake Bay blue crab fishery is managed by three jurisdictions: the State of Maryland, the Commonwealth of Virginia, and the Potomac River Fisheries Commission, all participating in the Chesapeake Bay Watershed Agreement. https://www.chesapeakebay.net/documents/22029/1a\_blue\_crab\_6-24-15\_ff\_formatted.pdf

#### Resources

Atlantic States Marine Fisheries Commission (ASMFC) http://www.asmfc.org/

Mid-Atlantic Fishery Management Council http://www.mafmc.org/

http://www.mafmc.org/sf-s-bsb/

Summer Flounder, Scup, Black Sea Bass
Atlantic Mackerel, Squid, Butterfish

http://www.mafmc.org/msb/

New England Fishery Management Council (NEFMC) https://www.nefmc.org/

#### N.O.A.A. National Marine Fisheries Service (NMFS) https://www.fisheries.noaa.gov/welcome

• Greater Atlantic Region : Atlantic Mackerel, Squid, Butterfish https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/msb/index.html#el111022

#### Virginia Marine Resources Commission (VMRC)

http://www.mrc.state.va.us/

- http://www.mrc.state.va.us/fmac/fmoverview.shtm
- Black Sea Bass, Bluefish, Dogfish (spiny), Flounder (summer), Grey Trout (weakfish), Monkfish/Goosefish, Spotted Seatrout/Speckled Trout: http://www.mrc.virginia.gov/Regulations/regindex.shtm (finfish)

#### N.O.A.A. Fishwatch (U.S. Seafood Facts)

https://www.fishwatch.gov/

#### Black Sea Bass

- http://www.asmfc.org/species/black-sea-bass
- http://www.mafmc.org/sf-s-bsb/
- https://www.fisheries.noaa.gov/species/black-sea-bass
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/bsbass/index.html
- https://www.fishwatch.gov/profiles/black-sea-bass
- http://www.mrc.state.va.us/Regulations/fr950.shtm

#### Bluefish

- http://www.asmfc.org/species/bluefish
- http://www.mafmc.org/bluefish/
- https://www.fisheries.noaa.gov/species/bluefish
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/bluefish/index.html
- https://www.fishwatch.gov/profiles/bluefish
- http://www.mrc.state.va.us/Regulations/fr450.shtm

#### **Butterfish**

- http://www.mafmc.org/msb/
- https://www.fisheries.noaa.gov/species/butterfish
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/msb/index.html
- https://www.fishwatch.gov/profiles/butterfish

#### Catfish (blue)

- http://safinacenter.org/documents/2015/02/blue-catfish-chesapeake-bay-full-species-report-2.pdf
- http://www.seafoodwatch.org/seafood-recommendations/groups/catfish?type=blue&q=Catfish,%20 Blue&t=blue%20catfish%20

#### Crab (blue)

- http://www.mrc.state.va.us/Regulations/regindex.shtm (scroll down to "crab" section)
- http://www.mrc.state.va.us/regulations/fr270.shtm

#### Crab (red)

- https://www.nefmc.org/management-plans/red-crab
- https://www.nefmc.org/management-plans/red-crab
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/redcrab/index.html
- http://s3.amazonaws.com/nefmc.org/1\_Red-Crab-press-release.pdf

#### Croaker

• http://www.asmfc.org/species/atlantic-croaker

#### Dogfish (spiny)

- http://www.asmfc.org/species/spiny-dogfish
- http://www.mafmc.org/dogfish/
- https://www.nefmc.org/management-plans/dogfish
- https://www.fisheries.noaa.gov/species/atlantic-spiny-dogfish
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/sdogfish/index.html
- https://www.fishwatch.gov/profiles/atlantic-spiny-dogfish
- http://www.mrc.state.va.us/regulations/fr490.shtm

#### Eastern Oyster (wild)

- http://www.mrc.state.va.us/Regulations/regindex.shtm (scroll down to "oyster" section)
- http://www.mrc.state.va.us/regulations/er720.shtm

#### Eastern Oyster (hatchery-based aquaculture) and Hard Clam (hatchery-based aquaculture)

- https://www.fishwatch.gov/profiles/eastern-oyster-farmed
- http://www.mrc.virginia.gov/Shellfish\_Aquaculture.shtm
- Best Management Practices: http://www.vims.edu/research/units/centerspartners/map/aquaculture/docs\_aqua/MRR\_2008\_10.pdf http://www.vdh.virginia.gov/environmental-health/environmental-health-services/shellfish-sanitation/

#### Flounder (summer)

- http://www.asmfc.org/species/summer-flounder
- http://www.mafmc.org/sf-s-bsb/
- https://www.fisheries.noaa.gov/species/summer-flounder
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/fluke/index.html
- https://www.fishwatch.gov/profiles/summer-flounder
- http://www.mrc.state.va.us/regulations/fr620.shtm

#### Grey Trout (weakfish)

• http://www.mrc.state.va.us/regulations/fr380.shtm

#### Monkfish/Goosefish

- http://www.mafmc.org/monkfish/
- https://www.nefmc.org/management-plans/monkfish
- https://www.fisheries.noaa.gov/species/monkfish
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/monkfish/index.html
- https://www.fishwatch.gov/profiles/monkfish
- http://www.mrc.state.va.us/regulations/fr1080.shtm

#### Scallop (sea)

- https://www.nefmc.org/management-plans/scallops
- https://www.greateratlantic.fisheries.noaa.gov/sustainable/species/scallop/index.html
- https://www.fishwatch.gov/profiles/atlantic-sea-scallop

#### **Spot**

http://www.asmfc.org/species/spot

#### Spotted Seatrout/Speckled Trout

- http://www.asmfc.org/species/spotted-seatrout
- http://www.mrc.state.va.us/regulations/fr280.shtm

#### Striped Bass

- http://www.asmfc.org/species/atlantic-striped-bass
- https://www.fisheries.noaa.gov/species/atlantic-striped-bass
- https://www.fishwatch.gov/profiles/atlantic-striped-bass
- http://www.mrc.state.va.us/regulations/fr252.shtm

#### Whelk (channeled)

• http://www.mrc.state.va.us/regulations/fr890.shtm





