

Accomplishments, Current Priorities, and What's Next

Sustainable Fisheries Goal Implementation Team

Objectives

1. Review past accomplishments and history of the SFGIT
2. Gather feedback on our current priorities
3. Dialogue about future directions

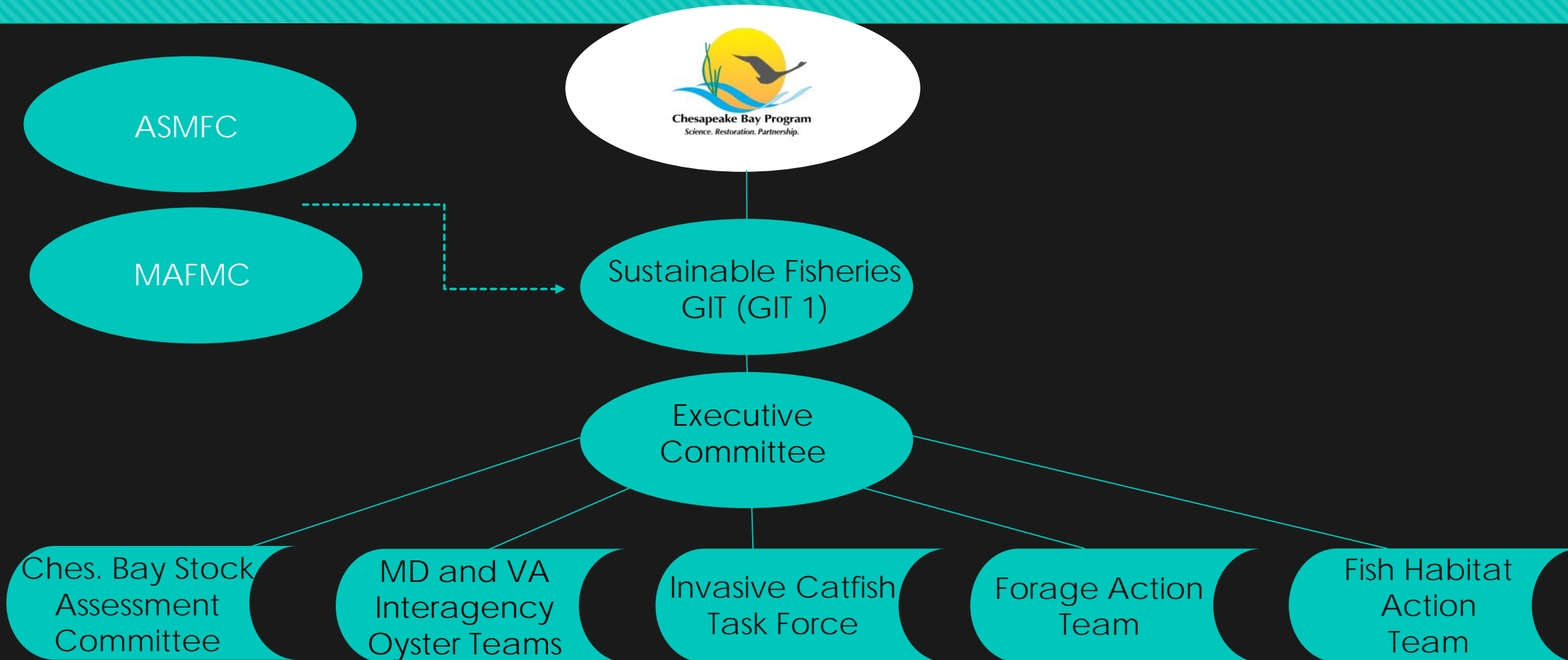


Mission (from 2015 charter)

Restore, enhance, and protect the finfish, shellfish, and other living resources as well as their habitats and ecological relationships in order to sustain all fisheries and provide for a balanced ecosystem in the watershed and Bay



Sustainable Fisheries GIT Structure



Key Features of the SFGIT



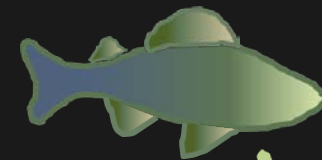
- Baywide, regional scope
- Participation by fishery managers
- Positioned within the Chesapeake Bay Program (influential)
- Bringing science to management

Our Outcomes (species-specific)

- Blue Crab Abundance: Maintain a sustainable blue crab population based on the current 2012 target of **215 million adult females**. Refine population targets through 2025 based on best available science.
- Blue Crab Management: Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework.
- Oyster: Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in **10 tributaries by 2025** and ensure their protection.

Our Outcomes (continued)

- Forage: Continually improve the Partnership's capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.
- Fish Habitat: Continually improve effectiveness of fish habitat conservation and restoration efforts by identifying and characterizing critical spawning, nursery and forage areas within the Bay and tributaries for important fish and shellfish, and use existing and new tools to integrate information and conduct assessments to inform restoration and conservation efforts.



Our Outcomes (continued)


Forage

Key Forage*


-  Bay Anchovy
-  Polychaetes
-  Mysids
-  Amphipods and isopods
-  Weakfish (juveniles)
-  Spot (juveniles)
-  Mantis shrimp
-  Razor clams
-  Sand shrimp
-  Atlantic croaker (juveniles)
-  Macoma clams

* Based on wet weight of prey in stomach analysis of 5 representative predators in the Chesapeake Bay (ChesMAPP)

**Assessing the Chesapeake Bay Forage Base:
Existing Data and Research Priorities**



STAC Workshop Report
November 12-13, 2014
Solomons, Maryland



STAC Publication 15-005

Fish Habitat

Best Management Practice	Fish Habitat	Additional Co-Benefits						
		Protected Lands	Habitat Biodiversity	Brook Trout	Blue Crab	Recreation	Forage Fish	Wetlands
Agricultural Forest Buffer	4.5	3.5	4	4.5	4.5	4	4	3.5
Narrow Forest Buffer	3.5	2	2.5	3.5	3	1.5	2	2
Streamside Forest Buffer	4.5	3	4	4.5	4	3	3	3
Urban Forest Buffer	4	3.5	5	5	2.5	3	3	3.5
Forest Conservation	4	5	5	4	3	3.5	3	2.5
Urban Shoreline Management	4.5	4.5	4	1.5	5	4.5	4.5	4.5
Wetland Restoration	3.5	3.5	3	1.5	2.5	2	1.5	5
Urban Stream Restoration	4	3	3.5	4	3	3	4.5	3.5

-5 -4.5 -4 -3.5 -3 -2.5 -2 -1.5 -1 -0.5 0 0.5 1 1.5

Factors Influencing Fish Habitat Function in the Chesapeake Bay Watershed: Application to Restoration and Management Decisions
A Scientific and Technical Advisory Committee (STAC) Workshop



Dates: April 25-26, 2018

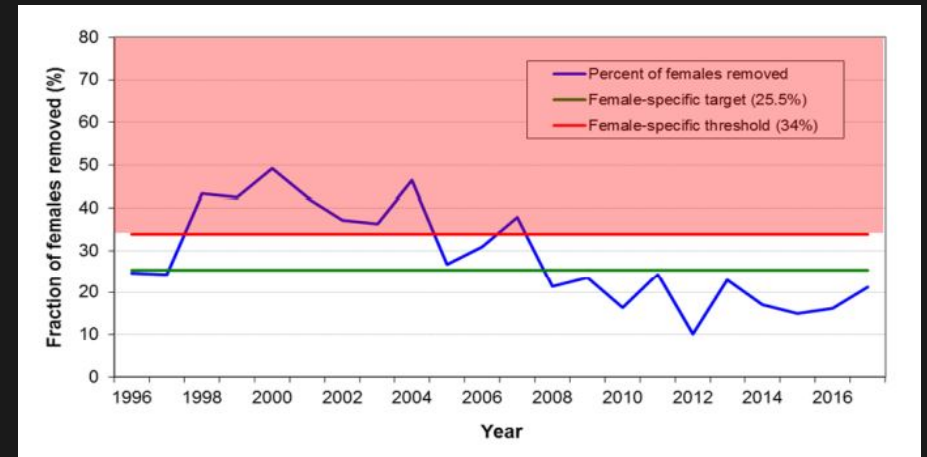
Location: [Maymont Estate](#), 1700 Hampton Street, Richmond VA 23220
Garden Hall

Agenda, Materials, and Presentations (as available) are accessible on the [workshop webpage](#)



Blue Crab

- Management goals in Chesapeake 2000 and 2014 Watershed Agreement
- Consistently produce annual advisory report
- Continued success of 2008 management framework
- Draft Terms of Reference
- Stock Assessment Update
- Various GIT funded projects



Oysters

- Quantifiable, place-based goal (Executive Order through 2014 Watershed Agreement)
- Oyster Metrics: SFGIT established a technical workgroup comprised of representatives from NOAA, USACE, Maryland DNR, Virginia MRC, and scientists from UMCES and VIMS
- Harris Creek restoration complete, Lafayette nearing completion
- Almost all the designated tributaries have been named
- Oyster Reef Ecosystem Services
- Best Management Practice (BMP) Panel
- Oyster Summit



The (other) Big Five Species

Alosines

- American Shad Indicator Action Team (ASIAT) was assembled in summer 2012 as a joint effort between the Scientific and Technical Analysis and Reporting (STAR) Team and the Fisheries GIT
 - purpose was to determine how to most accurately track the recovery progress of American Shad in the Chesapeake Bay and its tributaries
 - Shad indicator was revised in 2013 to include Susquehanna, Potomac, Lower James, Boshers' Dam, York, and Rappahannock
- Fish passage efforts

Menhaden

- Identified under multispecies management in Chesapeake2000
- Work funded by NCBO

Striped Bass



CBP

- Multispecies management
- Broader outcomes: forage and fish habitat
- GIT Funded study on mycobacteriosis
- Efforts to develop striped bass predator/prey indicator

2. Interjurisdictional, Bay-wide Issues



The Invasive Catfish Task Force (ICTF) was established in 2012, tasked with recommending management options that could be applied Bay-wide:

- Cross-jurisdiction fishery-independent removals
- Efforts and incentives to develop large-scale commercial fishery
- Incentivize harvest and investigate electrofishing for commercial use
- Establish monitoring programs
- Consider invasive catfish spread when exploring dam removal projects
- Cross-jurisdiction review of fishing policies and regulations
- Make information on invasive catfish accessible, clear, and consistent



Invasive Catfish Activities

Funding

- Over \$1 million in NOAA funding to research the impacts of invasive catfish on native species
- Projects at VIMS, VCU, and Smithsonian



Symposium

- November 2017
- Summarized and communicated the latest research findings for managers
 - Diet
 - Population dynamics
 - Movement ecology
 - Fishery statistics
- Representatives from seafood industry, commercial and recreational fishing

Cownose Ray Workshop

- Workshop Goal: characterize what is known about the life history and population dynamics of cownose rays in the Chesapeake Bay as well as fishing effort and ecosystem interactions. Identify a mechanism to determine the stock status of Atlantic cownose rays (*Rhinoptera bonasus*) in the Chesapeake Bay to inform future fishery management.
- Open to the public, content was presented by cownose ray researchers and scientists
- Scientists produced recommendations on conducting outreach to address the misconceptions about cownose rays in the Chesapeake Bay, working with the shellfish industry to deter cownose ray predation, and continue to prioritize and support research to address information gaps

Cownose Rays in the Chesapeake Bay: What do we know?

October 22, 2015

National Aquarium

Baltimore, MD



Photo credit: Becky Gregory/Flickr

3. NOAA Requests for Proposals

Previous

- Oyster Reef Ecosystem Services
- Invasive catfish research
- Connections between forage and habitat



FY18

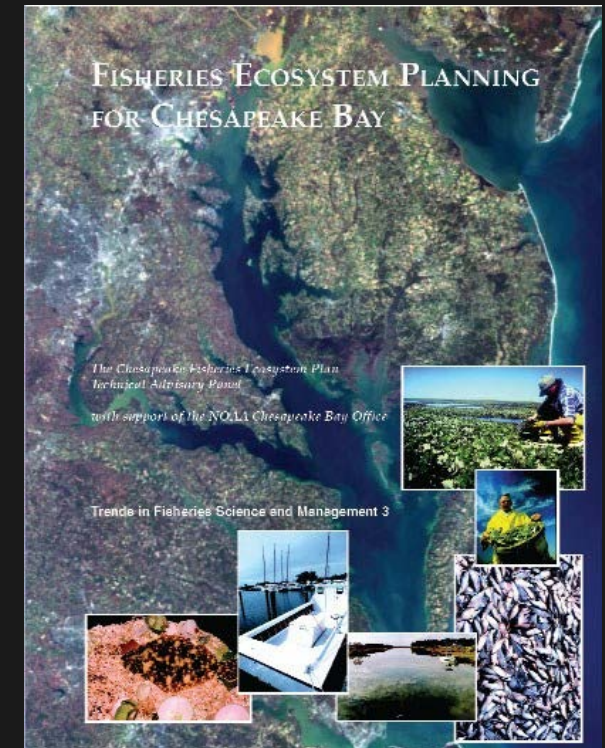
- Black sea bass and summer flounder
 - VIMS: complementary approaches at 2 spatial scales to characterize habitats and environmental conditions that support production of juvenile black sea bass and summer flounder
 - CFF: Pilot tagging study to examine movement and habitat utilization of black sea bass
 - SERC: through trawl surveys and acoustic tagging, quantify the value of shallow tributary habitats of upper Chesapeake Bay as nursery and foraging habitat for summer flounder
 - VIMS: Using data from 3 fishery-independent bottom trawl surveys, quantify habitat preferences for summer flounder, black sea bass, and an array of other benthic and pelagic species in Chesapeake Bay, the nearshore coastal ocean, and Delaware Bay

4. Ecosystem-based Fisheries Management



Photo by Matt Rath/CBP

- Fishery Ecosystem Planning for Chesapeake Bay: a consensus document developed in response to key recommendations by the NMFS Ecosystem Principles Advisory Panel
- Forage and Fish Habitat outcomes in 2014 Agreement



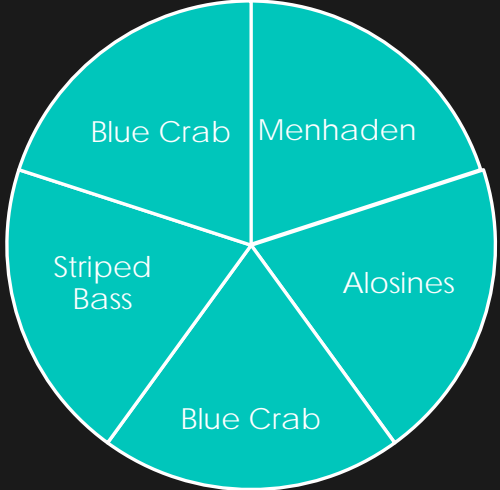
Maryland SeaGrant EBFM Project

EPA Chesapeake Bay Program

Quantitative Ecosystem Teams

- Habitat Suitability
- Stock Dynamics
- Socioeconomics
- Foodweb

Species Teams

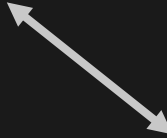


Fisheries Ecosystem Workgroup

Goal Implementation Team 1 Sustainable Fisheries

Science and Technology

Management



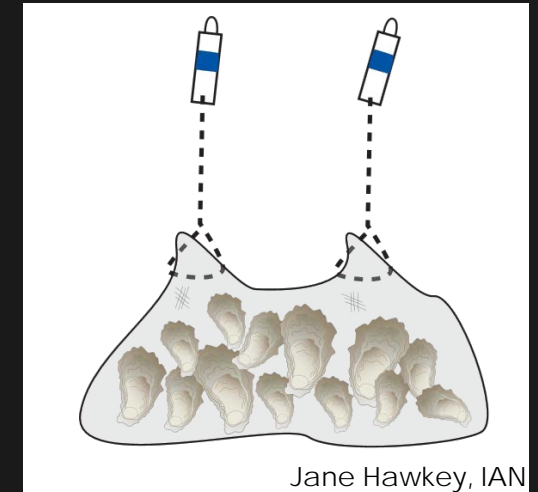
Conclusion

- There has been a progression from single-species focus towards ecosystem-based management
- We are committed to the five outcomes under the 2014 agreement
- With limited time and resources, what else can/should we add?
- Certain items need next steps and resolution
 - Invasive catfish
 - Cownose rays



Future Directions

- Forage and fish habitat in the context of striped bass
- Updating/incorporating FEP
- Monitoring: improving fish stock data
- Citizen science efforts
- Aquaculture
- Telemetry
- Climate connections



Discussion

Are we focused on the right things?

- Which of the GIT outcomes or focus areas is most important to your agency? What issues are you already working on?
- We've heard your priorities are oysters, menhaden, blue crab, and striped bass... How does this overlap with GIT outcomes? (species, management challenges, etc.)
 - Are there other species we should focus on?