"SAV" the Bay:

The Role of Law in Achieving the Chesapeake Bay Program's Submerged Aquatic Vegetation (SAV) Restoration Goals

James Duffy
J.D., University of Baltimore School of Law

Presentation

1. Personal Background
2. Research Concept
3. Summary of Findings
4. Questions

SAV Watchers Kayak Trip at Marshy Point

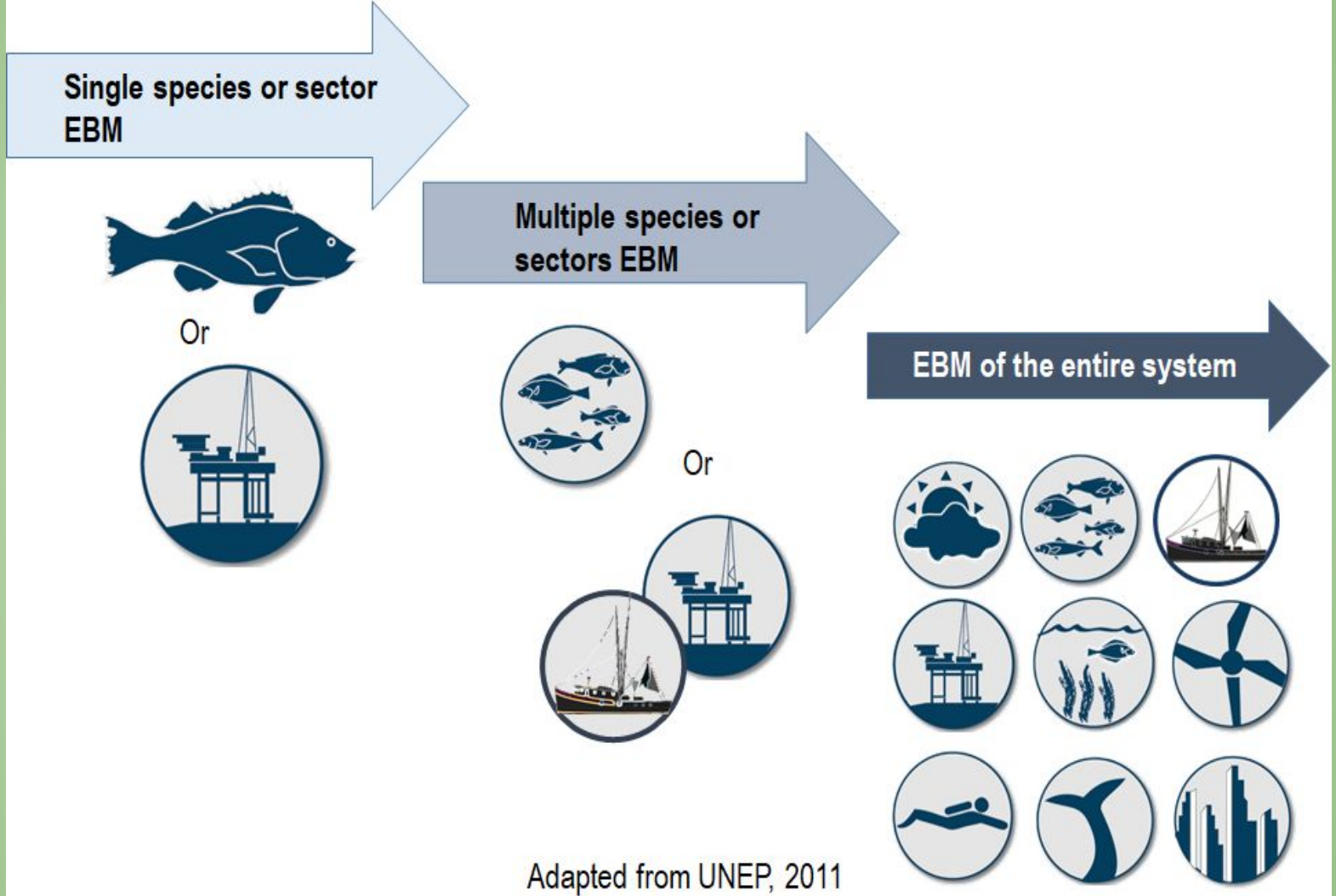
"SAV" THE BAY: ACHIEVING THE CHESAPEAKE BAY PROGRAM'S SUBMERGED AQUATIC VEGETATION (SAV) RESTORATION GOALS THROUGH LAW

James Duffy[*]

Duffy, J. (2024) *"SAV" the Bay: Achieving the Chesapeake Bay Program's Submerged Aquatic Vegetation (SAV) Restoration Goals Through Law,* U. Balt. L. Rev. 53, 667 (2024).

Full text available on ScholarWorks here.

Ecosystem Function	Ecosystem Service
Food sources for waterfowl, plankton, and macroinvertebrates	Coastal habitats that support biodiverse, stable fisheries and wildlife
Physical cover and protection for aquatic species in shallow tributaries	
Oxygenation of water through photosynthetic processes	
Uptake of nutrients like nitrogen and phosphorous	Prevention of algal blooms and dead zones
Dissipation of wave energy	Prevention of shoreline erosion
Absorption of carbon dioxide through photosynthetic processes	Buffer for excess blue carbon



National Oceanic and Atmospheric Administration, *Integrated Ecosystem Assessment* https://www.integratedecosystemassessment.noaa.gov/about-iea/ecosystem-based-management

Protective SAV Management Implicates Federal and State Regulatory Frameworks

Framework	Actor(s)	Function	Suggestions
Clean Water Act, Section 402 (33 U.S.C 1311)	- U.S. Environmental Protection Agency - Md. Department of the Environment	To preserve water quality and limit point and nonpoint source pollution	1. Improve funding for water quality assessments and monitoring 2. Value ecosystem services
Clean Water Act, Section 404 (33 U.S.C. 1344)	- U.S. Environmental Protection Agency - U.S. Army Corps of Engineers - Md. Department of the Environment	To preserve water quality and limit dredging and filling activities	1. Expand protections for special aquatic areas to include water-dependent activities 2. Pursue higher mitigation ratios and banking for open water wetlands
Md. Fisheries Laws (Md. Code Ann., Nat. Res. et seq.)	- Md. Department of Natural Resources	To sustainably manage fisheries and prevent depletion	1. Expand SAV protection zones in northern regions of the estuary

The Law Must Address Technical, Political, and Structural Barriers to Restorative SAV Management

Category	Challenges	Potential Solutions	Actor(s)
Technical	- Labor - Expenses - Monitoring capabilities	Increased funding for monitoring agencies and projects	State policymakers, MDE and DNR managers
Political	- Salience of SAV loss	Increased opportunities for engagement with SAV, such as participatory-science	The public, DNR managers, DNR scientists
Structural	- Baywide issue demanding local management solutions - Local, state, and federal coordination required	State-managed, locally-implemented mitigation requirements for coastal activities impacting SAV	State policymakers, local policymakers, DNR and CAC managers

Wild celery in Dundee Creek, 2021. Photograph by the author