Use of Adaptive Implementable Management (AIM) and the Harvest Control Rule Design Tool to Enhance Management of Wreckfish in the U.S. South Atlantic

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12-14 November 2025
North Charleston, SC

BRIDGE ENVIRONMENT
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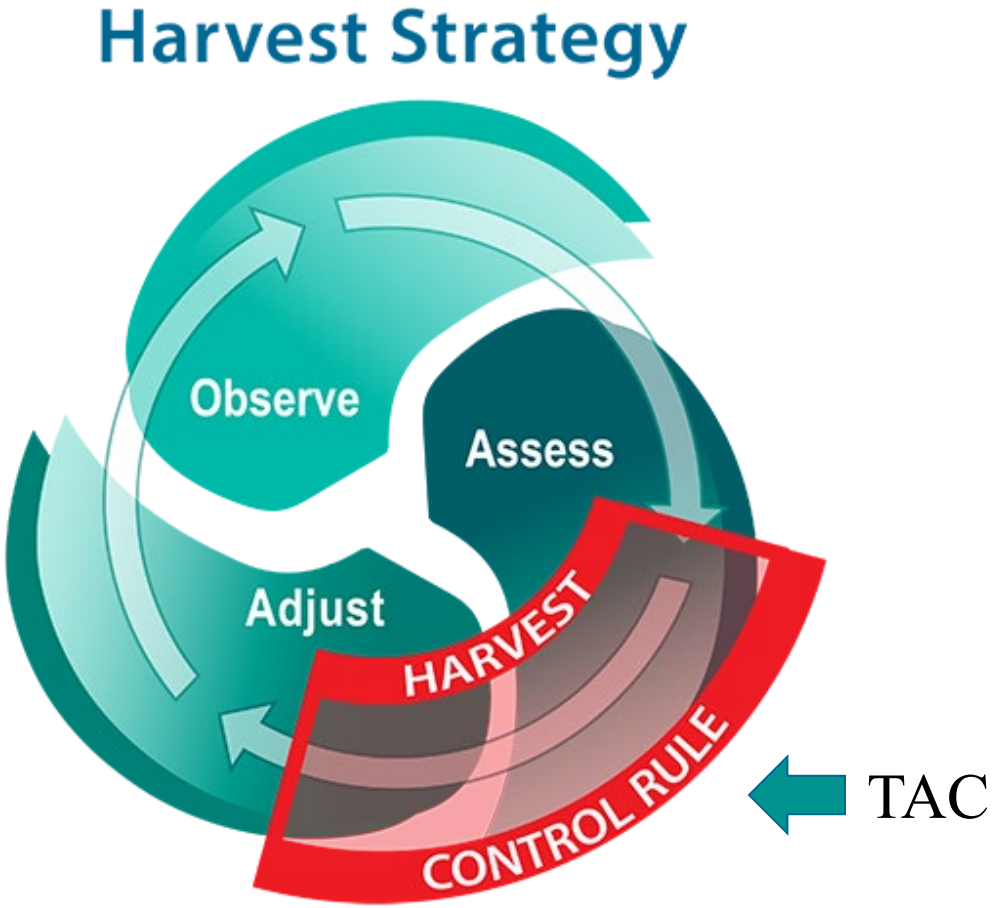
Harvest Strategies/Harvest Control Rules



Risk Management Approach

Uncertainty

- There is a plausible range of assumptions for potential models

Robustness

- With our approach, this range is as important as the specific details of the base model

Participatory Engagement

- Using the HCR Design Tool empowers stakeholders to negotiate their own compromise trade-offs among competing objectives

Ceteris paribus Objectives

- "All else being equal"
  - Maximum or minimum amounts of this outcome would be good for at least some people, all else being equal

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Four Primary Objectives—'The Big 4'

- Production (more fishing)
  - Food
  - Income
  - Employment
- Abundance (more fish)
  - Ecosystem function
  - Faster, cheaper, safer fishing
- Constancy (consistent catch)
  - Food security
  - Income security
  - Supply chain benefits
- Robustness (avoid crashes)
  - Ability to maintain acceptable performance with uncertainty
    - Data limitations
    - Climate

Stakeholder-Identified Objectives

PRODUCTION	ABUNDANCE	CONSTANCY	ROBUSTNESS	OTHER
Maximize ACL	Abundant stock	Stability in quota	Avoid stock crash	Minimize compliance burden
Maximize revenue (profit)	Minimize costs (profit)	Consistent stock health	Cooperative research and better research and assessment	Streamline reporting
		Market and supply consistent throughout year and over the years		Professionalize fishery
		Comfort in the fishery meaning you know you can fish the 9 months allowed		Reasonable timeline for next assessment
		Consistent work and fishing opportunity		Accuracy in reporting
				Accountability
				Expand data input (i.e., explore unfished areas)
				Observers on trip to maximize science
				Protect habitat

The Harvest Control Rule (HCR) Design Tool

https://bridgeenvironment.shinyapps.io/hcr_design_tool_SAFMC/