

MAFMC SSC-ESC Topics

March 2012 Mtg

- Review Purpose and Needs Statement
- Review Goals and Objectives
- Benefits and rationale
- Review Recommendations
- Discuss Ecosystem Guidance Doc TOC and timeline (other doc)
 - Drafting team
- Revisit Forage Issue (1 last time)

Draft MAFMC Ecosystem-Based Fishery Management Guidance (EBFMG) Document Purpose and Need Statement

“The purpose of the EBFMG document is to enhance the Council’s species-specific management programs with more ecosystem science, broader ecosystem considerations and management policies that coordinate Council management across its Fishery Management Plans (FMPs) and the relevant ecosystems. The EBFMG document should provide a framework for considering policy choices and trade-offs as they affect FMP species and the broader ecosystems.”

Draft MAFMC Ecosystem-Based Fishery Management Guidance (EBFMG) Document Purpose and Need Statement

“The needs for an ecosystem-based fishery guidance document within the Council process are:

1. Improve management decisions and the administrative process associated with providing biophysical and socio-economic information on ecosystem climate conditions, climate change, habitat conditions and ecosystem interactions.
2. Provide adequate buffers against the uncertainties of environmental and human-induced impacts to the marine environment by developing safeguards in fisheries management measures.
3. Develop new and inform existing fishery management measures that take into account the ecosystem effects of those measures on ecosystem species, habitat, and fishing communities.

Draft MAFMC Ecosystem-Based Fishery Management Guidance (EBFMG) Document Purpose and Need Statement

“The needs for an ecosystem-based fishery guidance document within the Council process are (cont.):

4. Coordinate information across FMPs for decision-making within the Council process and for consultations with other regional, national, or international entities on actions affecting ecosystems or FMP species.
5. Identify and prioritize research needs and provide recommendations to address gaps in ecosystem knowledge, particularly with respect to the cumulative effects of fisheries management on marine ecosystems and fishing communities.”

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Proposed Goal Statement- Old

“Maintain ecosystem productivity, structure, and function to allow for sustainable harvest of living marine resources in the ecosystem”

Proposed Goal Statement- New

“To allow for ecologically sustainable utilization of living marine resources while maintaining ecosystem productivity, structure, and function”

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New

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Benefits of EBFM Goals

The benefits of adopting EBFM goals includes:

- Enhanced coordination across FMPs, other jurisdictions, and other ocean-use sectors
- Managing cognizant of the fundamental, emergent features of an ecosystem that warrant maintaining
- Managing cognizant of a more stable level of biological dynamics, implying more stable business dynamics
- Specifically and transparently addressing tradeoffs in ecosystem structuring as it pertains to Council policy
- X, Y, Z...

EBFM Represents a Shift in Management Priorities and Perspective

- Conserve ecosystem integrity and resilience
- Explicitly address tradeoffs among spp., fleets, objectives
- Promote non-fish attributes (e.g. habitat and water quality)
- Pay particular attention to maintenance of key ecological relationships
- Manage & coordinate total removals from the ecosystem

Recommended Immediate Steps & Objectives to Adopt EBFM

- Continue risk-averse, single-species fisheries management
 - Set target fishing mortality levels below those that yield MSY
 - Maintain adequate spawning stock biomass and fecundity
- Regulate [or deny] use of gears that are destructive of key habitats or which result in unwanted bycatch
- Reduce [or eliminate] bycatch
 - Young and small individuals of targeted species
 - Untargeted species, including threatened and endangered species
- Consider and initiate development of new indicators and reference points
- Rigorously enforce fisheries and environmental laws and regulations

Recommended Intermediate Steps & Objectives to Adopt EBFM

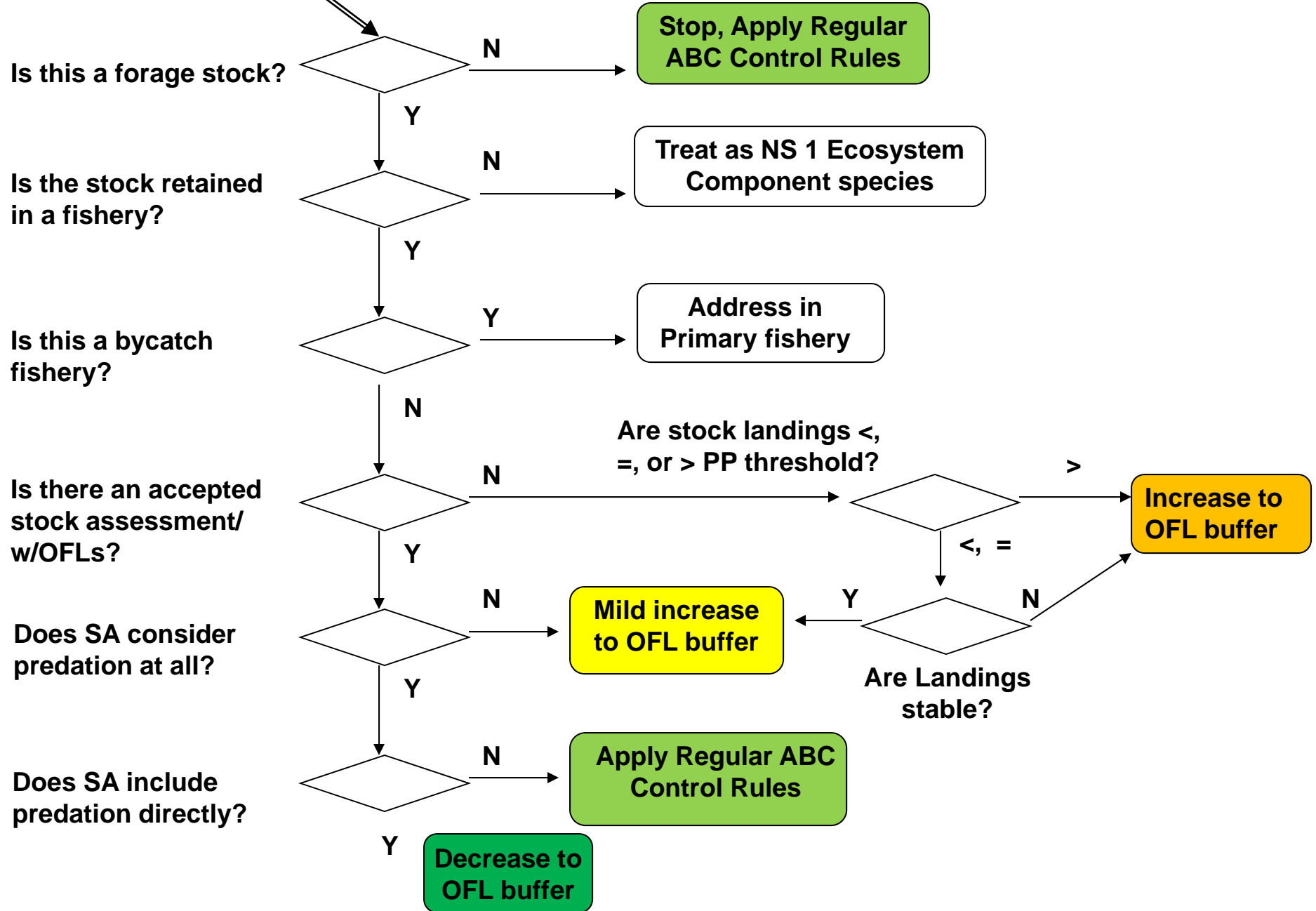
- Place a cap on total fisheries removals from the ecosystem
 - The cap should be flexible and adaptive, responsive to shifts in productivity of the ecosystem
- Explicitly account for predator-prey interactions
 - Recognize critical predator-prey interactions and manage to conserve prey resources
 - Develop and incorporate multispecies modeling into assessments.
- Expand the use of spatially-explicit management approaches
 - Managed areas
 - Temporal-spatial management measures
- Increase stakeholder involvement in the management process.
 - Further democratize diverse stakeholder inputs
 - Recognize the diverse stakeholder interests (including, but beyond fisheries)
- Develop An “Ecosystem” Plan

Is the stock a “forage” fish ? Forage is defined as a species that:

- is small to moderate in size (average length of ~5-25 cm) throughout its lifespan, especially including adult stages;
- is subject to extensive predation by other fishes, marine mammals, and birds throughout its lifespan;
- comprises a considerable portion of the diet of other predators in the ecosystem in which it resides throughout its lifespan (usually >5% diet composition for >5 yrs);
- has or is strongly suspected to have mortality with a major element due to consumptive removals;
- is typically a lower to mid trophic level (TL) species; itself consumes food usually no higher than TL 2-2.5;
- has a high number of trophic linkages as predator and prey; serves as an important, major (as measurable by several methods) conduit of energy/biomass flow from lower TL to upper TL;
- often exhibits notable (pelagic) schooling behavior;
- often exhibits high variation in inter-annual recruitments; and
- relative to primary production and primary producers, has a ratio of production and biomass, respectively, to those producers no smaller than on the order of 10^{-3} to 10^{-4} .

Regular info input to OFL/
ACL/ABC process

OLD



NEW

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ACL/ABC process

