

eFEP Components

Options for Incentive Based Measures

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Discussion document 14

- **Developed by the PDT during 2019**
- **Augment and compliment the stock complex catch limit framework**
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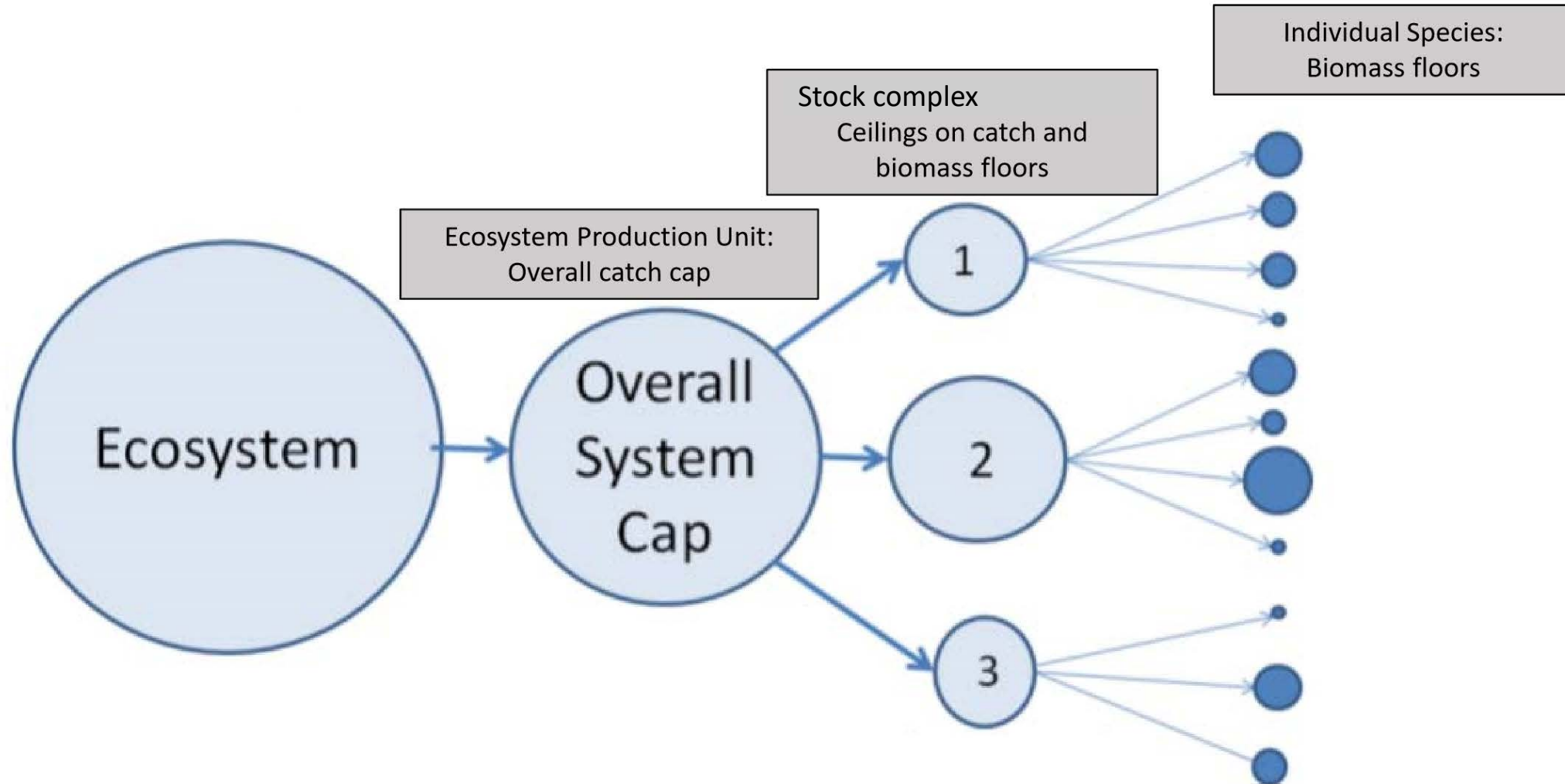
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Stock complexes and Fishery functional groups

- **Definitions** (see also <https://s3.amazonaws.com/nefmc.org/Glossary.pdf>)
- **Trophic guild** - A group of species that feed on similar items or have similar dietary requirements and therefore have a similar ecological function within the structure of an ecosystem.
- **Stock complex** - A group of related species at a defined trophic level that have similar diets and life-history characteristics. Catch limits for stock complexes would be set, their total not to exceed the overall EPU catch limit.
- **Fishery functional group** - A group of species that are typically caught together in a particular type of gear and feed on similar food items. In terms of EBFM, a functional group is the intersection of stock complexes (see definition below) with a fishery, i.e. they are caught together.

Stock complex harvest control rules



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- **Stock complexes**
 - **Similar ecosystem roles and trophic relationships**
- **Fishery functional groups**
 - **Species in stock complexes that are caught together**
- **Stocks**
 - **Species of fish in a defined area that act as a semi-independent sustainable population**

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- **Stock complexes**
 - **658 of 913 stocks aggregated into stock complexes**
 - **May be grouped:**
 - **Cannot be targeted independent of one another**
 - **Insufficient data to measure a stock's status**
 - **Not feasible to distinguish species in the catch**
 - **Species-level control have inherent limitations**

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Options for incentive-based measure (IBMs)

- **Discusses potential uses and application of IBMs**
 - **Not an extensive listing (see Pascoe et al. 2010)**
 - **Mis-aligned incentives and goals/objectives**
- **Highlights two potential IBM options**
 - **Advantages and concerns about implementation**
- **IBMs can be applied in variety of levels**
 - **Stock complex**
 - **Individual stocks**
 - **Gears/fishing methods**

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- **Introduction**
 - **Importance of well-defined goals and objectives**
- **Background**
 - **IBMs can aid management success**
 - **Create positive feedback loop**
 - **Better stock assessments**
 - **Lower precautionary buffers**
 - **Increased trust**

Incentive based measures

- **Approaches to align fishing incentives with management objectives**
 - **Enforceable and long-term privileges to benefit from fish left in the ocean (enhancing productivity)**
 - **Build an appropriate incentive program**
- **Could address stocks that are:**
 - **High margin (high price or low cost)**
 - **Vulnerable to exploitation**
 - **Overfished (rebuilding productivity)**

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- **Options**
 1. **Quota shares (percent of allowable catch)**
 2. **Individual entity credits**
- **Supporting elements**
 - **Maximum retention**
 - **Auctions**
 - **Re-allocation schedules**

Option 1 – Quota shares, ITQ

- **Annual Quotas (stock complex or stock) allocated to entities**
 - **Individual or community of fishermen.**
 - **May allow risk pools or carry forward provisions**
 - **Allowed to sell, trade, or transfer to balance quota share or catch with actual catch**
 - **Increase flexibility, reduce bycatch, fulfills need**
- **Can reduce need for some input controls**
- **Decoupling stock allocations at aggregate level can lead to race for most valuable fish**

Option 2 – Individual entity credits

- **Entities receive credits (instead of pounds) that can be used to catch fish or sold/traded**
- **Similar to Northeast Seafood Coalition proposal**
- **Credit costs depend on status, vulnerability, abundance, and economic value**
- **Credit differential may change via ongoing updates**
 - **More robust to allocation mismatches/error**

Option 2 – Individual entity credits

- **Credits may align with additional objectives**
 - **Gear/area/seasonal modification**
 - **Habitat conservation**
 - **Endangered/threatened species risk**
 - **Incentivize development and adoption of more selective and less impactful fishing gears and methods**
 - **Bycatch avoidance**
 - **Special access programs**
 - **Incentivize participation of enhanced monitoring and data collection**

Implementation issues

- **Allocation errors**
 - Overharvesting, missed opportunity
- **High grading**
 - Degree of monitoring and penalty for non-compliance
 - Allocation at market category/species size can mitigate discarding incentives
- **Discard ban (landings obligation or full retention)**
 - Improves catch information
 - Can support IBMs
 - Does not align incentives with management objectives
 - Does not relieve monitoring and enforcement

Implementation issues

- **Initial allocations**
- **Auctions**
 - **More transparent allocation**
 - **Provision for new entrants**
 - **Collecting resource rent**
 - **Decreasing windfall from initial allocations**
 - **Participation by communities**
- **Shorter allocation privileges**
 - **Economic efficiency and redistribution**
 - **Could reward conservation behavior**
 - **May reduce incentives for existing participants**