Discussion Document 7

Jurisdictional authority, cooperation and coordination

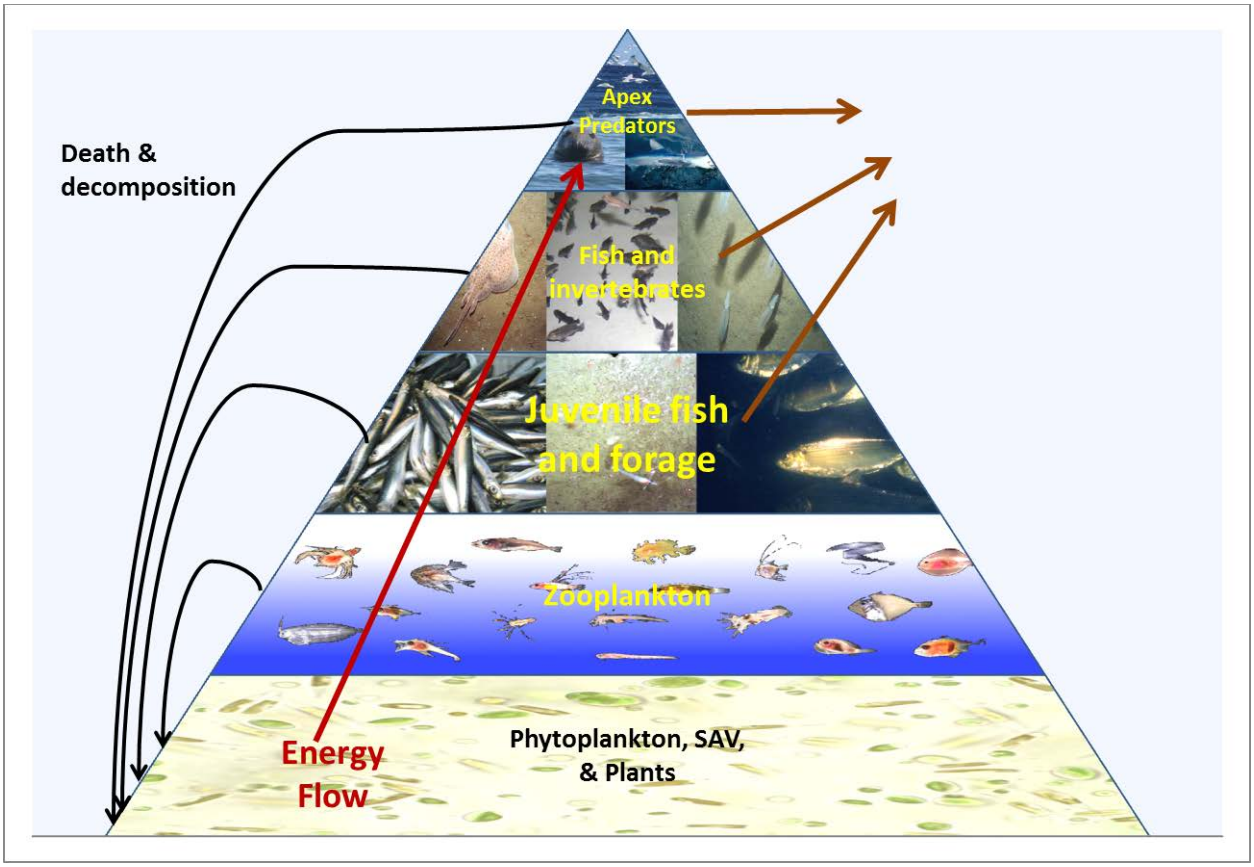
Under existing governance and management authorities, any EPU- or place-based fishery ecosystem plan will require a considerable amount of cooperation and coordination to be effective. Species and stocks managed by the NEFMC, the MAFMC, the ASMFC, NMFS (highly migratory species, lobsters, and striped bass in federal waters), coastal states, and Canada often have overlapping distributions and ecological interactions. The ecological interactions include predation and competition for resources (food, habitat, etc.).

Besides species-based management by a Council (or Commission, etc.), separate and often uncoordinated management of energetically-related species and stocks by different management authorities is at the heart of the issue supporting the need for ecosystem-based fishery management. This document discusses how the existing management authorities can work together to manage place-based fisheries that are defined by EPU catch control rules.

The hierarchical management system being developed by the Council and EBFM PDT has a core constraint that total removals from fishing should not exceed a threshold percent of total productivity of the EPU. This constraint reserves a proportion of the system productivity for other purposes within the ecosystem, such as supporting populations of higher trophic level species that are not captured by fishing (e.g. marine mammals, turtles, seabirds, etc.). Of course the calculation of the productivity must also include recycling of this energy through death and decomposition of these top level predators (Figure 1).

All fishery management bodies must agree to abide by ecosystem constraints and major goals in the aggregate or else achieving the goals of a FEP will be severely compromised.

Figure 1. Schematic energy flow in a marine ecosystem, showing removals due to fishing. Other energy pathways such as emigration and losses to land from consumption in estuaries and guano are not shown.



Subordinate to ecosystem constraints on total removal, the composition of those removals will need to be managed by limits on catch by guild. Doing so is a core requirement to achieving the goals and operation objectives to ensure sufficient forage availability, species diversity, and fish demographics to meet multiple (sometimes conflicting) goals and objectives.

As with total ecosystem removals, all fishery management bodies will need to build a general consensus about what the optimal mix of results should be and abide by the catch limits for the guilds in the EPU.

Some species and stocks may need some additional limits to prevent a species or stock from becoming depleted or overfished. Other technical measures (such as gear configurations and mesh, area closures, etc.) or special catch limits will be needed to improve yield (subject to the guild ecosystem constraints) or conserve essential fish habitat.

Fishery measures that pertain to specific species or stocks would be developed and approved by the management body that has authority to manage that species or stock.

Within the FEP, specific management units (MU) will be identified based on a region having common fishery characteristics. Catch limits for ecosystem guilds would be allocated to MUs (and vessels authorized to fish in them) based on (relatively) recent catch histories.

Fishing activities in an MU would be governed by the existing management authorities that are authorized to managed species and stocks caught there. A lead management authority would be named based on the preponderance of catch within the MU, similar to how management authority is identified now, but by area rather than by species or stock. Other management authorities would collaborate through joint management where appropriate, similar to what currently occurs with summer flounder, monkfish, and dogfish.

These recommendations by an MU management board would be approved by the lead management authority and any management partners as needed as appropriate.

It is likely that place-based management authority would be distributed in a manner that is not very different than the system that currently exists, except that the lead authority for an MU would approve measures for ALL fisheries that occur within the MU. State water fisheries would probably comprise a separate MU, either governed by the ASMFC and/or individual states. This governance would include all fishing activity whether it targeted inshore species now regulated by the ASMFC or offshore species now regulated by the NEFMC, MAFMC, or NMFS. The lead management authority for federal waters in the Gulf of Maine and on Georges Bank MUs would likely be the NEFMC with ASFMC partnership (on species like northern shrimp and lobster), governing fisheries that target groundfish, monkfish, tunas, as well as lobster, squid, and summer flounder. Southern New England MUs would likely be split between the NEFMC and MAFMC, depending on the dominant species in the catch for each. The lead management authority for federal waters (or some other boundary) in the Mid-Atlantic would likely be the MAFMC, with ASMFC partnership.