

# Case Study Species for EC Evaluation

The NEFMC technical staff and Ecosystem Component Species Project Oversight Team (POT) selected 8 species for which to apply the Ecosystem Component (EC) Evaluation as case study species across three existing FMPs and 2 species that are not currently within their management purview. The overall rationale for the selection was to cover a suite of species and scenarios that the Council may experience when there is a desire to manage a species/stock as an ecosystem component.

## Northeast Multispecies (Groundfish) FMP

### 1. Southern windowpane flounder

**Rationale:** The stock is currently not overfished, and overfishing is not occurring (NEFSC 2023). It is a zero-possession stock and is a non-allocated stock to sectors in the Groundfish FMP. It is not targeted by the commercial fishery and thus under-utilized by the fishery. However, the stock is allocated to the scallop fishery with accountability measures when their sub-ACL is exceeded; the scallop fishery has not exceeded this sub-ACL in recent years. There are also accountability measures that can be triggered for large-mesh non-groundfish trawl fisheries (e.g., summer flounder and scup trawl fisheries), which are evaluated as part of the “other fisheries” sub-component catches. This stock is proposed for inclusion in the EC evaluation due to its under-utilization by both the commercial groundfish fishery and the scallop fishery as well as its positive stock status.

### 2. Atlantic wolffish

**Rationale:** This stock is overfished but overfishing is not occurring (NEFSC 2022). It is a zero-possession stock and is a non-allocated stock to sectors in the Groundfish FMP, although the species is caught recreationally and would be targeted commercially and recreationally if permitted. It is empirically assessed and considered to be a data-limited species. The SSC has [recommended](#) that this species be considered for managing as an EC, given the species does not appear to be responding to restrictive management. Additionally, inclusion of this species would serve as a demonstration for other species that are data-limited in their assessment and are of commercial and recreational interest.

### 3. Witch flounder

**Rationale:** The stock is overfished with an unknown overfishing status (NEFSC 2024) and is empirically assessed. It is allocated and highly utilized by the sectors within the commercial groundfish fishery. Thus, it would not currently be suitable for an ecosystem component designation, but it is included to demonstrate where the EC evaluation process might fail or signal the inability to designate a given species or stock as an ecosystem component.

### 4. SNE/MA yellowtail flounder

**Rationale:** This stock is overfished but overfishing is not occurring (NEFSC 2025). The analytical assessment model includes an environmental covariate; more specifically, a Gulf Stream Index is used to inform recruitment. The stock is currently underutilized by the commercial groundfish

fishery but once was a vibrant and lucrative fishery. Declines in quota and availability led to a loss of markets and now little processing capacity remains. This stock is proposed for inclusion in the EC evaluation due to its significant under-utilization, primarily caught and discarded by the scallop fishery, and the inclusion of an environmental covariate in its assessment, indicating an ecological influence on its population dynamics.

## Northeast Skate Complex FMP

The Northeast skate complex is an unusual FMP, since the seven species are managed as a stock complex under one ACL, and allocated to a “bait” and “wing” fishery. Evaluating one or more skates as a case study would help determine impacts of removing one or more species from the complex-approach to management.

### 5. Thorny Skate

**Rationale:** This stock is assessed empirically and is overfished, but overfishing is not occurring (NEFSC 2023). It is not a target of the skate fishery and possession has been prohibited since 2003, but the stock is not rebuilding despite the prohibitions (index value was 4.9% of  $B_{\text{target}}$  in 2024 at 0.15 kg/tow, relative to a target of 3.08 kg/tow). This stock is proposed for inclusion in the EC evaluation due to recent findings that there are two reproductive morphs that do not seem to interbreed as well as other indicators that there may be environmental factors inhibiting its rebuilding.

### 6. Rosette Skate

**Rationale:** This stock is assessed empirically and currently is not overfished, nor is overfishing occurring (NEFSC 2023). It is not a target of the skate fishery and is generally known to be a more offshore (generally along the continental shelf edge), mid-Atlantic skate species within the Skate Complex. This stock is proposed for inclusion in the EC evaluation due to its lack of targeting by the skate fishery and positive stock status.

## Small-Mesh Multispecies FMP

### 7. Red Hake

**Rationale:** The southern stock unit is overfished and in a rebuilding program. It is not a target in the commercial whiting fishery of any area with around 85% of the catch being discarded since 2012; though it is a 'target' of recreational party boat anglers in the Mid-Atlantic. This stock is proposed for inclusion in the initial evaluation because it has been noted that "fishing is an unlikely cause of low biomass," and lack of rebuilding.

### 8. Offshore Hake

**Rationale:** This stock is not formally assessed because most of the biomass is offshore of the continental shelf and the survey index reflects inter-annual variability more than it tracks trends in stock biomass; therefore, stock status is unknown. It is occasionally targeted by whiting fishery but landed as 'whiting'. In some years, the proportion of whiting catch comprised of offshore hake can be as much as 20%, higher yet on individual trips and can be 100% on individual commercial tows depending in part on the gulf stream currents and where fishing occurs. Two

independent analyses during a previous assessment (Sosebee and Applegate) arrived at an average of 4% and the southern whiting assessment is adjusted to account for this commercial catch proportion. This stock is proposed for inclusion in the initial evaluation due to its lack of a formal assessment and the influence of an environmental factor on its availability to the fishery.

## Not in an existing NEFMC FMP

### 9. Sand lance

**Rationale:** Landings and targeting of sand lance in the large-mesh regulated areas is uncommon. Occasionally there is some targeting and landing small amounts of sand lance using beach seines. Mesh regulations allow for sufficient escapement of live sand lance, but there may be some habitat impacts caused by mobile fishing gears where sand lance is abundant. This species is not currently assessed or managed by the Council. It was designated as an ecosystem component by the Mid-Atlantic Fishery Management Council and is being managed accordingly with possession limits alongside other forage fish. Including this species as an ecosystem component managed species by the NEFMC would allow for contiguous management as an ecosystem component across the Northeast continental shelf and would provide a demonstration of how the Council might add a species/stock to an FMP(s) when it is not currently managing them.

### 10. Cusk

**Rationale:** This species is commonly caught by recreational anglers and is currently unassessed. [A petition has been submitted to NOAA Fisheries to list under the Endangered Species Act \(ESA\).](#) According to the petition, Canadian fishery-independent surveys have seen up to a 95% decline in abundance, while the U.S. bottom trawl survey has seen up to an 80% decline. Cusk has also been shown to have a thermal preference in bottom temperature within rocky habitats making it susceptible to the warming waters of the Gulf of Maine of its range. In response, voting members of the NEFMC chose to add the evaluation of possible management approaches for cusk to inform ESA listing review as a revision to its 2026 Council priority work items. This species is included in the EC evaluation to fulfill the Council's work priority and inform the ESA listing review.