



Forage Management in the Mid-Atlantic

Forage species are small, low trophic level fish and invertebrates that play an important role in marine food webs. These species facilitate the transfer of energy to higher trophic levels by consuming very small prey and then being eaten by larger fish, marine mammals, and seabirds. Many forage species are short-lived and undergo substantial cyclic fluctuations in stock size. Abundance of forage species is often sensitive to environmental variables. These factors pose challenges for traditional stock assessment and management approaches. In 2016, as part of its Ecosystem Approach to Fisheries Management (EAFM) Guidance Document, the Mid-Atlantic Council adopted a policy of supporting the “maintenance of an adequate forage base in the mid-Atlantic to ensure ecosystem productivity, structure and function, and to support sustainable fishing communities.” The EAFM Guidance Document also outlined the Council’s science and management goals and strategies of both managed and unmanaged forage species related to their roles in the ecosystem, the economy, and society more generally.

Managed Forage Species

Mackerel, Squid, Butterfish

Since 1983, the Mid-Atlantic Council has managed four forage species – Atlantic mackerel, *Illex* squid, longfin squid, and butterfish – under a single Fishery Management Plan (FMP). In 2020, chub mackerel was added to this FMP. The Council sets annual catch limits, accountability measures, and other management measures that are intended to prevent overfishing while allowing these fisheries to achieve optimum yield.

River Herring and Shad

The Atlantic States Marine Fisheries Commission (ASMFC) has primary management responsibility for river herring (i.e., alewife and blueback herring) and American and hickory shad. There are no directed fisheries in federal waters for these species. However, because they are caught in fisheries targeting other species, the Mid-Atlantic Council limits the incidental catch of river herring and shad in the Atlantic mackerel fishery through a catch cap that can close, and has previously closed, the directed mackerel fishery if the cap is reached. The Mid-Atlantic Council reviews river herring and shad catch and abundance information when setting the cap and also collaborates with NOAA Fisheries and the ASMFC on the Atlantic Coast River Herring Collaborative Forum to help address broader river herring conservation issues.

Ecosystem Component Species

In 2016, the Mid-Atlantic Council designated over 50 forage species as ecosystem components in all of the Council’s FMPs. Vessels fishing between New York and Cape Hatteras, North Carolina are subject to an incidental possession limit of 1,700 pounds for all ecosystem component species combined. These species were previously unmanaged in Mid-Atlantic federal waters. The intent of this action was to prohibit the development of new and expansion of existing directed commercial fisheries on these species in Mid-Atlantic federal waters until the Council has had an adequate opportunity to assess the scientific information relating to the fisheries and any potential impacts to existing fisheries, fishing communities, and the marine ecosystem.

Mid-Atlantic Forage Species and Species Groups Designated as Ecosystem Component Species

- Anchovies
- Argentines/Smelt Herring
- Greeneyes
- Halfbeaks
- Lanternfishes
- Round Herring
- Scaled Sardine
- Atlantic Thread Herring
- Spanish Sardine
- Pearlsides/Deepsea Hatchetfish

- Sand Lances
- Silversides
- Cusk-eels
- Atlantic Saury
- Unmanaged pelagic mollusks except sharp-tail shortfin squid
- Species under 1 inch as adults (Copepods, Krill, Amphipods)

Actions Under Development

Bullet and Frigate Mackerel

In 2021 the Council will begin work on an action to implement a possession limit for frigate and bullet mackerel in the Mid-Atlantic. The goal of this action is to prevent expansion of unmanaged fisheries for these species which are important prey for predators such as wahoo, blue marlin, yellowfin tuna, and dolphin.

MAFMC Staff Contacts

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Additional Resources

- River Herring and Shad Management: <http://www.mafmc.org/rhs>
- Unmanaged Forage Amendment: <http://www.mafmc.org/actions/unmanaged-forage>
- Chub Mackerel Amendment: <http://www.mafmc.org/actions/chub-mackerel-amendment>
- Mid-Atlantic Forage Species Identification Guide: <http://www.mafmc.org/s/NOAA-Mid-Atlantic-Forage-Species-ID-Guide.pdf>
- Mid-Atlantic Council Ecosystem Approaches to Fisheries Management: <http://www.mafmc.org/eafm>