NOAA/NMFS Resource Management in Mid-Atlantic Canyons

David Stevenson
NOAA Fisheries Service
Greater Atlantic Regional Office
Gloucester, MA

Endangered Species Act (1973)

- Establishes policy to protect and conserve threatened and endangered species and the ecosystems upon which they depend.
- Each Federal agency shall, in consultation with the [Service] insure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of [critical] habitat…
- The action agency determines (e.g. in an EIS) if the activity it is authorizing, funding or carrying out "may affect" species or their critical habitat in the project area.
- If the answer is "yes", the action agency requests a consultation with NMFS or USFWS and provides description of action with associated EA, EIS, or Biological Assessment.
- NMFS notifies action agency if the information provided is sufficient for consultation to be formally initiated; if additional information is needed, additional information is requested.
- After receiving all requested information, consultation is initiated. Depending on effects, either an informal consultation will be issued or, per the formal consultation process, a biological opinion, with an incidental take statement will be issued.

Marine Mammal Protection Act (1972)

- Purpose: To ensure that marine mammals are maintained or restored to healthy population levels.
- Established a moratorium on the “taking” of marine mammals except during certain activities that are regulated and permitted such as commercial fishing and take incidental to non-fishing commercial activities.
- The unintentional taking of small numbers can be authorized for a defined period of time if the impact on the affected species is determined to be negligible.
- Permission can be withdrawn if regulations re method of taking, monitoring, or reporting are not complied with, or if taking is having more than a negligible impact.

Magnuson-Stevens Fisheries Conservation & Management Act

Essential Fish Habitat (EFH) provisions of the 1996 Amendment:

- Fishery Management Councils (FMCs) must describe and identify EFH for managed species, minimize to the extent practicable adverse effects on EFH caused by fishing, and identify other actions to encourage the conservation and enhancement of EFH;
- Federal agencies must consult with NOAA Fisheries Service on any actions that may adversely effect EFH, but NOAA's role is only advisory;
- Conservation recommendations must include measures to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH;
- FMCs must develop mitigation measures for minimizing the adverse effects of fishing that are more than minimal and not temporary in nature.

In 2007, the FMCs were granted discretionary authority to designate zones where, and periods when, fishing may be restricted to protect deep-sea corals.

Types of EFH Consultation

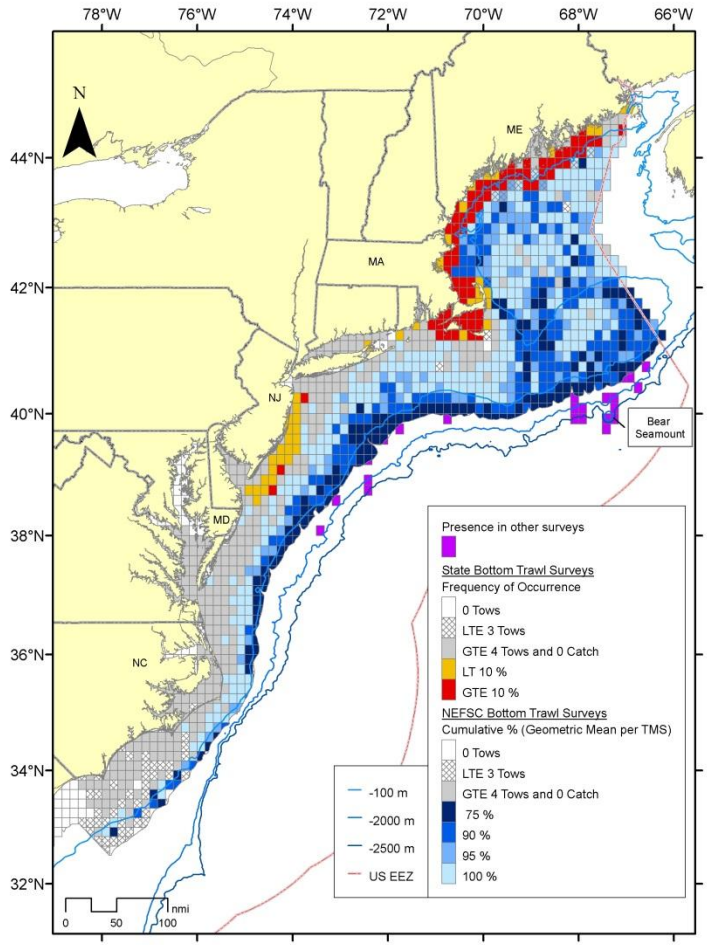
- **General Concurrence:** Specific types of federal actions that will likely result in *no more than minimal adverse effects on EFH*, and for which no further consultation is required.

- **Abbreviated Consultation:** Actions that do not qualify for a General Concurrence but *do not have the potential to cause substantial adverse effects on EFH*.

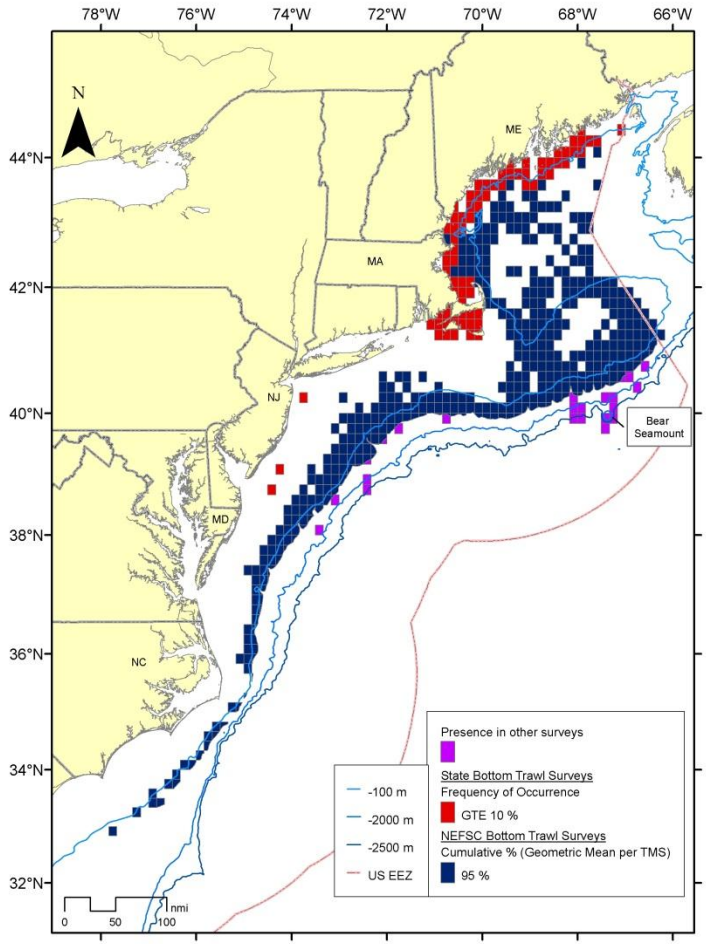
- **Expanded Consultation:** Additional coordination required, used for actions that *would result in substantial adverse effects on EFH*.

- **Consultation may be completed at either a *programmatic or project-specific level*, as appropriate**.

EFH Maps for Adult Illex Squid



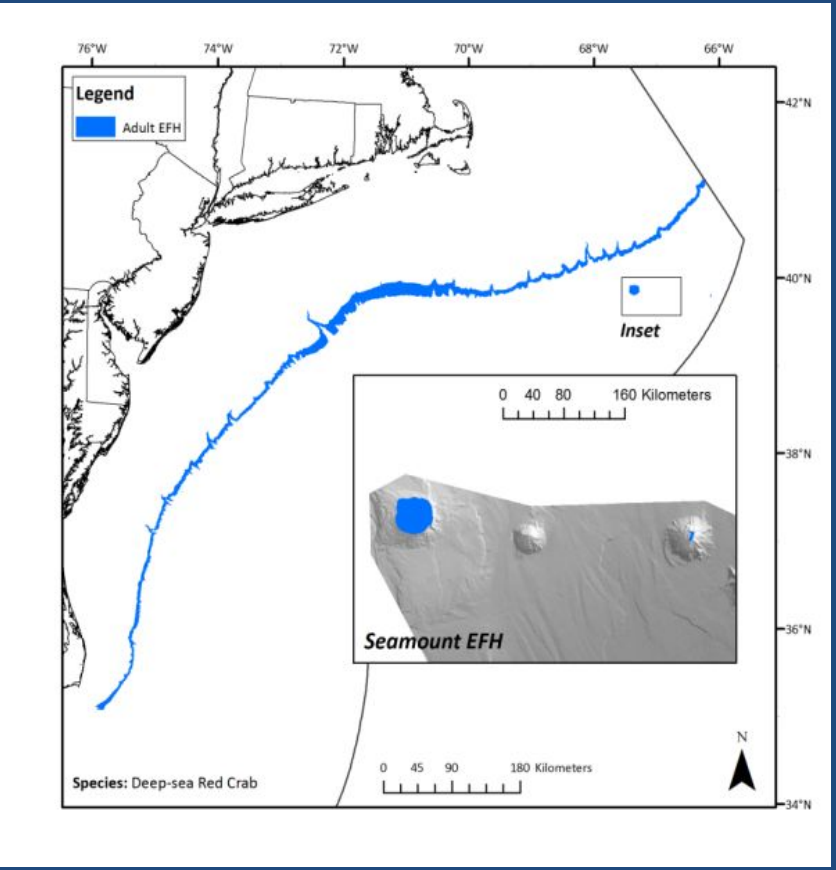
Adult *Illex illecebrosus* EFH



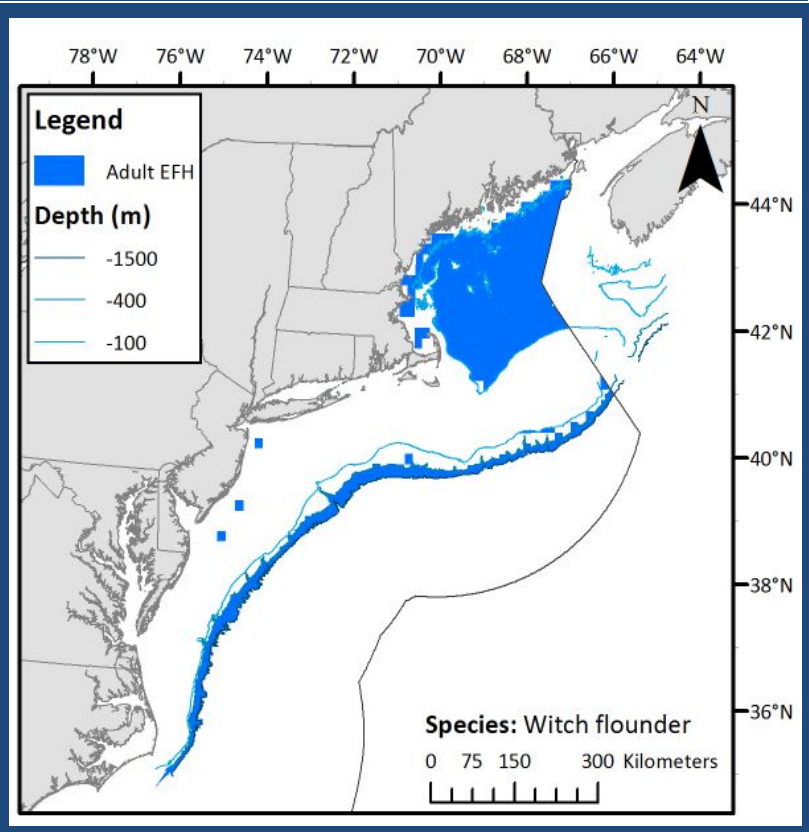
Adult *Illex illecebrosus* EFH - Preferred Alternative

EFH for Two Outer Shelf Benthic Species

Deep-Sea Red Crab



Witch Flounder



Maximum EFH Depths

Species	Life Stage	Maximum Depth (meters)
Acadian redfish	Juvs/adults	600
Atlantic halibut	Juvs/adults	700
Barndoor skate	Juvs/adults	750
Deep-sea red crab	Juvs/adults	2000
Monkfish	Juvs/adults	1000
Red hake	Adults	750
Thorny skate	Juvs/adults	900
White hake	Adults	900
Witch flounder	Adults	1500

EFH Substrates

Species	Life Stage	Substrate
Acadian redfish	Juvs/adults	Offshore rocky reef substrates with associated structure-forming epifauna (e.g., sponges, corals) , and soft sediments with cerianthid anemones
Atlantic halibut	Juvs/adults	Sand, gravel, or clay substrates
Barndoor skate	Juvs/adults	Mud, sand, and gravel substrates
Deep-sea red crab	Juvs/adults	Unconsolidated and consolidated silt-clay sediments
Monkfish	Juvs/adults	Hard sand, pebbles, gravel, broken shells, and soft mud
Red hake	Adults	Shell beds, on soft sediments (usually in depressions), also found on gravel and hard bottom and artificial reefs
Thorny skate	Juvs/adults	Wide variety of bottom types, including sand, gravel, broken shells, pebbles, and soft mud
White hake	Adults	Fine-grained, muddy substrates and in mixed soft and rocky habitats
Witch flounder	Adults	Mud and muddy sand substrates

Data and Information Needs

- ESA – Biological Assessment (eg in EA) of potential impacts based on knowledge of species distributions and effects of proposed activities on listed species
- EFH – EFH Assessment that identifies species that are designated in proposed project area and habitat effects of activities
- DSC – Presence/abundance of corals and coral habitats documented in an EA or EIS

Data Gaps and Improvements

- For all consultations, better information on species distribution and abundance, seasonality, habitat requirements (pelagic and benthic), effects of climate change, and impacts of fishing and non-fishing activities
- For EFH, maps of bottom habitat types in the canyons (eg based on backscatter acoustic data)