



Ray-finned Fishes

Cusk

Brosme brosme

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: Ray-finned Fishes (*Actinopterygii*)

Order: Cods, Haddock, Grenadiers (*Gadiformes*)

Family: Hakes And Burbot (*Lotidae*)



General comments:

The Cusk (*Brosme brosme*) is a bottom-dwelling fish found in deep, rocky habitats of the North Atlantic, including the Gulf of Maine. It is an ESA Candidate Species throughout its range and listed as a Species of Concern in the Atlantic. Cusk populations are vulnerable to bycatch in commercial groundfish and lobster fisheries and are considered at risk from habitat degradation.

No Species Conservation Range Maps Available

SGCN Priority Ranking - Designation Criteria:

Recent Significant Declines:	Cusk is currently undergoing steep population declines, which has already led to, or if unchecked is likely to lead to, local extinction and/or range contraction. Notes: Recent significant declines:
High Climate Change Vulnerability:	Vulnerability: 3, Confidence: , Reviewers:

Habitat Associations:

Formation: Subtidal

Macrogroup: Subtidal Bedrock Bottom

★ **Primary Habitat**

Habitat System: Bedrock Bottom Macrogroup - Unknown Habitat System

Macrogroup: Subtidal Coarse Gravel Bottom

★ **Primary Habitat**

Habitat System: Coarse Gravel Bottom Macrogroup - Unknown Habitat System

Macrogroup: Subtidal Mud Bottom

Habitat System: Mud Bottom Macrogroup - Unknown Habitat System

Habitat System: Unvegetated

Macrogroup: Subtidal Pelagic (Water Column)

Habitat System: Offshore

Macrogroup: Subtidal Sand Bottom

Habitat System: Unvegetated

Threats

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Threat Priority Level based on Severity and Actionability		Moderate Severity	High Severity
	Highly Actionable	Medium-High	High
	Moderately Actionable	Medium	Medium-High
	Actionable with Difficulty	Low	Low

IUCN Level 1 Threat Biological Resource Use

IUCN Level 2 Threat: Fishing and Harvesting of Aquatic Resources

Severity: Moderate Severity

Actionability: Moderately Actionable

Notes: Historic heavy fishing pressure has drastically reduced cusk stocks in the Gulf of Maine and Maine waters. There are currently no regulatory measures in place to limit commercial cusk take, however, annual landings are small and few fishermen report landings.

IUCN Level 1 Threat Human Intrusions and Disturbance

IUCN Level 2 Threat: Recreational Activities

Severity: Moderate Severity

Actionability: Moderately Actionable

Notes: Historic heavy fishing pressure has drastically reduced cusk stocks in the Gulf of Maine and Maine waters. There are currently no regulatory measures in place to limit recreational cusk take (size or number). This is largely because they are caught with hook and line during trips targeting groundfish, and cusk do not survive the change in pressure during landing, therefore catch-and-release is not a viable option.

IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Changes in Temperature Regimes

Severity: High Severity

Actionability: Actionable with Difficulty

Notes: As a coldwater species, changes in habitat associated with climate change and other environmental variables may limit the ability of the population to reach its potential, and may cause shifts in range or range truncation.

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IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Habitat Shifting or Alteration

Severity: High Severity

Actionability: Actionable with Difficulty

Notes: As a coldwater species, changes in habitat associated with climate change and other environmental variables may limit the ability of the population to reach its potential, and may cause shifts in range or range truncation.

IUCN Level 1 Threat Energy Production and Mining

IUCN Level 2 Threat: Oil and Gas Drilling

Severity: Moderate Severity

Actionability: Actionable with Difficulty

Notes: There is potential for offshore oil spills in the Gulf of Maine from tankers. The use of oil dispersants increases the effect on groundfish and pelagic species by increasing the toxicity of oil globules, though the exact effects are not well documented.

IUCN Level 2 Threat: Renewable Energy

Severity: Moderate Severity

Actionability: Actionable with Difficulty

Notes: The effects of offshore wind to species in Maine is unknown but there are potential impacts to various marine species from renewable energy infrastructure built in the ocean.

Species Level Conservation Actions:

None. Only species specific conservation actions that address high (red) or medium-high (orange) priority threats are summarized here.

Conservation Actions Associated with the Groundfish Guild:

Conservation Action	Category	Biological Priority	Type
Continue inshore long-term surveys for groundfish species to quantify abundance, biomass, and spatial distribution of these species.	Survey and Monitoring	high	on-going

Threat(s) Addressed By This Conservation Action

- Renewable Energy
- Changes in Temperature Regimes
- Habitat Shifting or Alteration

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Conservation Action	Category	Biological Priority	Type
Conduct species distribution modeling to understand how species distributions are changing due to environmental change.	Research	moderate	on-going

Threat(s) Addressed By This Conservation Action

- Changes in Temperature Regimes
- Habitat Shifting or Alteration

Conservation Action	Category	Biological Priority	Type
Develop marine benthic habitat maps. Data from these maps could then be used to inform species distribution modeling.	Habitat Management	high	new

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's Wildlife Action Plan: Element 4.

Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's Wildlife Action Plan: Element 4. Click on the Habitat Grouping of interest to launch a habitat based report summarizing relevant conservation actions and associated SGCN.

The Wildlife Action Plan was developed through a lengthy participatory process with state agencies, targeted conservation partners, and the general public. The Plan is non-regulatory. The species, threats, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work