

Chelonia mydas (Green Seaturtle)

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: *Reptilia* (Reptiles)
Order: *Testudines* (Turtles And Tortoises)
Family: *Cheloniidae* (Sea Turtles)

General comments:

Maine DMR jurisdiction; pelagic species & accidental (?) in ME (although never MESA listed)

No Species Conservation Range Maps Available for Green Seaturtle

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation:

Federal Status: **Endangered**
 IUCN Red List Status: **Endangered**

State Special Concern or NMFS Species of Concern: NA

Recent Significant Declines: NA

Regional Endemic: NA

High Regional Conservation Priority:

Northeast Partners In Amphibian and Reptile Conservation (NEPARC):
 Regional Responsibility: < 50 % US Distribution, Concern: >= 75% of States Listed in WAP

High Climate Change Vulnerability: NA

Understudied rare taxa: NA

Historical: NA

Culturally Significant: NA

Professional Discretion:

Current criteria ranked *Chelonia mydas* as SGCN priority 1, however, species should be SGCN priority 2 based on professional discretion.
 Justification: Limited population data in the Gulf of Maine; no breeding evidence in Maine

Habitats Assigned to Green Seaturtle:

Formation Name	Subtidal
Macrogroup Name	Subtidal Pelagic (Water Column)
Habitat System Name: Nearshore	Notes: <i>adult, juvenile</i>
Habitat System Name: Offshore	**Primary Habitat** Notes: <i>adult, juvenile</i>
Habitat System Name: Upwelling Zones	Notes: <i>adult, juvenile</i>

Stressors Assigned to Green Seaturtle:

Stressor 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: Severe	Actionability: Highly actionable
Notes: Sea turtles are at risk as bycatch in mobile gear, gillnets, and fixed gear. DMR keeps records of turtle/fishing gear entanglements.	

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IUCN Level 1 Threat Energy Production and Mining

IUCN Level 2 Threat: Oil and Gas Drilling

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: Increases the risk of oil spills. Turtles breathing at the surface during an oil spill can be effected by both coverage of oil and inhalation of fumes.

IUCN Level 2 Threat: Renewable Energy

Severity: Moderate Severity **Actionability:** Moderately actionable

Notes: There is currently little information on how wind turbines in the ocean environment affect different species

IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Habitat Shifting or Alteration

Severity: Severe **Actionability:** Actionable with difficulty

Notes: The major impact from habitat shifting due to climate change would likely be a loss or relocation of prey and nesting beaches.

IUCN Level 2 Threat: Temperature Extremes

Severity: Moderate Severity **Actionability:** Actionable with difficulty

Notes: This would likely affect these species through their access to prey items and potentially breeding grounds (nesting beaches). In New England we are likely to see an increase in cold stunned turtles as the sea temperature rises and turtles make their way further north in colder water than they've previously inhabited. Ability to mitigate sea temperature change is low.

IUCN Level 1 Threat Human Intrusions and Disturbance

IUCN Level 2 Threat: Recreational Activities

Severity: Moderate Severity **Actionability:** Actionable with difficulty

Notes: Recreational boaters, fishermen, and beach goers can negatively impact individuals but it is hard to track. Education efforts are done by NMFS with varying degrees of success. Also collisions with boats.

IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Excess Energy

Severity: Severe **Actionability:** Actionable with difficulty

Notes: Increased light and noise in ocean can negatively affect sea turtles. Light is often a cue for navigation and light pollution at the shore can change behavior.

IUCN Level 2 Threat: Garbage and Solid Waste

Severity: Severe **Actionability:** Actionable with difficulty

Notes: Marine turtles often ingest plastic which can be harmful. Plastic waste, as well as marine debris from fixed fishing gear can negatively impact sea turtles through ingestion and entanglement in gear. There are marine debris clean up programs for derelict gear but they are likely only getting a fraction of what is out there. plastics and trash in the ocean comes from such a variety of places and can travel vast distances so getting a handle on the problem would be difficult.

IUCN Level 2 Threat: Industrial and Military Effluents

Severity: Moderate Severity **Actionability:** Actionable with difficulty

Notes: Sea turtles are susceptible to toxins in coastal environments. There is a low likelihood that legislation will improve this in the short term.

Species Level Conservation Actions Assigned to Green Seaturtle:

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

Conservation Actions Associated with the Seaturtles Guild:

Conservation Action	Category: Survey and Monitoring	Biological Priority: critical	Type: on-going
Conduct baseline surveys to determine the seasonal density and distribution of fixed fishing gear			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Survey and Monitoring	Biological Priority: high	Type: on-going
Gather baseline data on the configurations of fixed fishing gear used as a function of seasonality and distance from shore.			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Public Outreach	Biological Priority: moderate	Type: on-going
Continue to work with the fishing industry to develop gear modifications that reduce the risk of entanglement and conduct outreach on gear best practices to use			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Survey and Monitoring	Biological Priority: moderate	Type: new
Conduct surveys (aerial, boat based) to determine the distribution of sea turtles in the coastal waters of Maine			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Public Outreach	Biological Priority: moderate	Type: new
Conduct outreach and trainings to improve the detection of and response time to entangled turtles in Maine waters			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Public Outreach	Biological Priority: high	Type: new
Conduct outreach with fishermen to increase reporting for entangled turtles			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Conservation Action	Category: Habitat Management	Biological Priority: moderate	Type: on-going
Reduce the amount of ghost gear that could increase the risk of entanglement for sea turtles			

Stressor(s) Addressed By This Conservation Action

Fishing and Harvesting of Aquatic Resources

Broad Taxonomic Group Conservation Actions:

Additional relevant conservation actions for this species are assigned within broader taxonomic groups in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-1.

Habitat Based Conservation Actions:

Additional conservation actions that may benefit habitat(s) associated with this species can be found in Maine's 2015 Wildlife Action Plan: Element 4, Table 4-15. Click on the Habitat Grouping of interest to launch a habitat based report summarizing

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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, stressors, and voluntary conservation actions identified in the Plan complement, but do not replace, existing work programs and priorities by state agencies and partners.