# Ardea herodias (Great Blue Heron)

# Priority 2 Species of Greatest Conservation Need (SGCN)

Class: Aves (Birds)

**Order:** *Pelecaniformes* (Pelecans, Herons, Ibises, And Allies)

Family: Ardeidae (Bitterns, Egrets, Herons, And Night-herons)

### **General comments:**

Steady decline in coastal breeding population since early 70s; confirmed by 2009 census. Coastal island breeding population declined 73% from 1983-2013. In 2009, 83 active colonies statewide hosting 1,071 pairs. Far too large of a population to list above SC.

## **Species Conservation Range Maps for Great Blue Heron:**

Town Map: <u>Ardea herodias\_Towns.pdf</u> Subwatershed Map: <u>Ardea herodias\_HUC12.pdf</u>

## SGCN Priority Ranking - Designation Criteria:

#### **Risk of Extirpation: NA**

#### State Special Concern or NMFS Species of Concern:

Ardea herodias is listed as a species of Special Concern in Maine.

#### **Recent Significant Declines:**

Great Blue Heron 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:

Coastal island breeding population declined 73% from 1983-2013. [1983: 1208 prs on 20 islands; 2013: 330 prs on 10 islands.]

#### **Regional Endemic: NA**

High Regional Conservation Priority: NA High Climate Change Vulnerability: NA Understudied rare taxa: NA Historical: NA Culturally Significant: NA

## Habitats Assigned to Great Blue Heron:

Formation Name Agricult	ıral
Macrogroup Name	Agricultural
Habitat System Name:	Pasture-Hay Notes: Forage for small mammals and/or reptiles.
Formation Name Boreal U	pland Forest
Macrogroup Name	Boreal Upland Forest
Habitat System Name:	Acadian Low Elevation Spruce-Fir-Hardwood Forest Notes: Nesting colonies
Habitat System Name:	Acadian Sub-boreal Spruce Flat Notes: Nesting colonies
Formation Name Cliff & Re	ock
Macrogroup Name	Rocky Coast
Habitat System Name:	North Atlantic Cobble Shore Notes: Foraging area
Formation Name Coastal S	Scrub-Herb
Macrogroup Name	Coastal Grassland & Shrubland
Habitat System Name:	Northern Atlantic Coastal Plain Dune and Maritime Grassland Notes: Foraging area

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Formation Name Develo	ped		
Macrogroup Name	Maintained Grasses and Mixed Cover		
-	: Urban & Recreational Grasses Notes: Forage for small mammals and/or reptiles.		
	ater Marsh		
Macrogroup Name	Coastal Plain Pond		
Habitat System Name wetland.	: Northern Atlantic Coastal Plain Pond <b>Notes:</b> <i>Nest in snags and live trees on edges; forage in</i>		
Macrogroup Name	Emergent Marsh		
Habitat System Name wetland.	: Laurentian-Acadian Freshwater Marsh Notes: Nest in snags and live trees on edges; forage in		
Macrogroup Name	Modified-Managed Marsh		
•	: Modified-Managed Marsh Notes: Nest in snags and live trees on edges; forage in wetland.		
Macrogroup Name	Wet Meadow-Shrub Marsh		
Habitat System Name in wetland.	: Introduced Wetland and Riparian Vegetation Notes: Nest in snags and live trees on edges; forage		
Habitat System Name forage in wetland.	: Laurentian-Acadian Wet Meadow-Shrub Swamp Notes: Nest in snags and live trees on edges;		
Formation Name Grassla	nd & Shrubland		
Macrogroup Name	Lake & River Shore		
Habitat System Name	: Laurentian-Acadian Lakeshore Beach Notes: Forage where shallow water.		
Macrogroup Name	Ruderal Shrubland & Grassland		
	: Ruderal Upland - Old Field Notes: Foraging area		
Formation Name Intertid			
Macrogroup Name	Intertidal Gravel Shore		
Habitat System Name	: Lower Intertidal Notes: Foraging area		
Macrogroup Name	Intertidal Mudflat		
	: Freshwater Tidal Marsh Notes: Foraging area		
-	:: Non-Vascular Mudflat Notes: Foraging area		
	: Submerged Aquatic Vegetation Notes: Foraging area		
Macrogroup Name	Intertidal Sandy Shore		
•	: Sand Flat Notes: Foraging area		
-	: Submerged Aquatic Vegetation Notes: Foraging area		
Macrogroup Name	Intertidal Tidal Marsh (peat-forming)		
•	e: Acadian Coastal Salt Marsh <b>Notes:</b> <i>Foraging area</i> e: Coastal Plain Tidal Marsh <b>Notes:</b> <i>Foraging area</i>		
	astern Upland Forest		
Macrogroup Name	Central Oak-Pine		
	: North Atlantic Coastal Plain Maritime Forest Notes: Nesting colonies		
Macrogroup Name	Northern Hardwood & Conifer		
• .	: Laurentian-Acadian Pine-Hemlock-Hardwood Forest Notes: Nesting colonies		
	: Laurentian-Acadian Red Oak-Northern Hardwood Forest <b>Notes:</b> Nesting colonies		

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Formation Name Northeastern Upland Forest			
Habitat System Name: Northeastern Coastal and Interior Pine-Oak Forest	Notes: Nesting colonies		
Macrogroup Name Plantation and Ruderal Forest			
Habitat System Name: Ruderal Forest - Northern and Central Hardwood and	Conifer Notes: Nesting colonies		
Formation Name Northeastern Wetland Forest			
Macrogroup Name Northeastern Floodplain Forest			
Habitat System Name: Laurentian-Acadian Floodplain Systems Notes: Nest	ing and foraging.		
Macrogroup Name Northern Swamp			
Habitat System Name: North-Central Appalachian Acidic Swamp Notes: Ne	esting Colonies		
Habitat System Name: Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp Notes: Nesting colonies			
Formation Name Subtidal			
Macrogroup Name Subtidal Bedrock Bottom			
Habitat System Name: Kelp Bed Notes: Forage at low tide			
Macrogroup Name Subtidal Coarse Gravel Bottom			
Habitat System Name: Kelp Bed Notes: Forage at low tide			
Macrogroup Name Subtidal Mud Bottom			
Habitat System Name: Submerged Aquatic Vegetation Notes: Forage at low	w tide		
Habitat System Name: Unvegetated Notes: Forage at low tide			
Stressors Assigned to Great Blue Heron:			

		Moderate Severity	High Severity
Stressor Priority Level based on Severity and Actionability	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 Thr	reat: Logging and Wood Harvesting
Severity:	: Moderate Severity Actionability: Highly actionable
Notes:	Upland heron colonies very vulnerable to logging of nest trees as well as disturbance associated with logging activities. BMPs with timing restrictions and no-harvest buffers can prevent colony loss and abandonment.
IUCN Level 1 Threat	Biological Resource Use
IUCN Level 2 Thr	reat: Hunting and Collecting Terrestrial Animals
Severity:	: Moderate Severity Actionability: Moderately actionable
Notes:	Beaver flowages are prime nesting habitat; by removing beavers completely from individual wetlands, contribut to nesting habitat loss and the need to relocate colony.
IUCN Level 1 Threat	Human Intrusions and Disturbance
IUCN Level 2 Thr	reat: Recreational Activities
Severity:	: Moderate Severity Actionability: Moderately actionable
Notes:	Outdoor recreation can cause disturbance to nesting birds; would need to restrict activities within and adjacent to colonies during nesting.

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IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases		
IUCN Level 2 Threat: Problematic Native Species-Diseases		
Severity: Moderate Severity Actionability: Moderately actionable		
Notes: Raccoons known to cause complete colony failure at individual colonies - may be a widespread issue; can prevent with predator guards on nest trees?		
IUCN Level 1 Threat Other Options		
IUCN Level 2 Threat: Lack of knowledge		
Severity: Moderate Severity Actionability: Moderately actionable		
Notes: Cause of coastal decline still unknown, although possibilities include forage base and/or predators. More research needed.		
IUCN Level 1 Threat Residential and Commercial Development		
IUCN Level 2 Threat: Commercial and Industrial Areas		
Severity: Moderate Severity Actionability: Moderately actionable		
<b>Notes:</b> Disturbance associated with human activity in developed areas can cause colony abandonment.		
IUCN Level 1 Threat Invasive and Other Problematic Species, Genes and Diseases		
IUCN Level 2 Threat: Problematic Native Species-Diseases		
Severity: Moderate Severity Actionability: Actionable with difficulty		
<b>Notes:</b> Bald eagles increasingly known to discourage heron nesting in areas; also known to attack and kill juveniles and adults.		

## **Species Level Conservation Actions Assigned to Great Blue Heron:**

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

#### **Guild Level Conservation Actions:**

This Species is currently not attributed to a guild.

# **Broad Taxonomic Group Conservation Actions:**

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 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.