
1.5 DESIGNATION CRITERIA FOR MAINE'S SGCN - 2025

MDIFW biologists, with review and cooperation from conservation partners and species experts, offer the following criteria (and subcriteria) for designating Maine's eligible Species of Greatest Conservation Need (SGCN). The criteria and process for selecting SGCN are intended to be comprehensive, transparent, and based on best available science for prioritizing species of conservation concern at local, regional, and global scales. As proposed, fish and wildlife species (and subspecies) designated as priority 1 or 2 or 3 qualify as SGCN, and are thus eligible for State Wildlife Grant funding. The primary themes for SGCN prioritization include risk of extirpation, population trend, endemism, and regional conservation responsibility. Secondary themes for SGCN prioritization include climate change vulnerability, survey knowledge, and cultural significance to Maine tribes (Table 1-2). Finally, only Maine extant species or species with a reasonable possibility of rediscovery were considered for designation as SGCN in 2025.

"The criteria and process for selecting SGCN are intended to be comprehensive, transparent, and based on best available science for prioritizing species of conservation concern at local, regional, and global scales."

1.5.1 PRIORITY 1 (HIGHEST PRIORITY) SGCN

Generally, Priority 1 species include those that meet two or more of the following criteria:

1. **Risk of Extirpation** – Have current state or federal E/T status, or global endangerment status (International Union for the Conservation of Nature [IUCN])
2. **Recent Significant Declines** – A species currently (within 15 years) undergoing biologically significant population decline or significant range contraction, statewide or regionally.
3. **Regional Endemic** – A species whose global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).
4. **High Regional Conservation Priority** -- Identified as a high regional or global species of conservation concern by one of the following species assessment authorities (see Table 1-2 for Priority 1 subcriteria):
 - a. Northeast Regional Synthesis [RSGCN] (all vertebrates, invertebrates with regional species status assessments) – Terwilliger 2023
 - b. NatureServe (all taxa) – NatureServe 2024
 - c. Partners In Flight Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp.
 - d. Partners in Flight.(All birds) 2021. Avian Conservation Assessment Database, version 2021.

- e. North American Waterbird Conservation Plan [NAWCP] (all waterbirds) – Kushlan et al. 2002 and 2006 (marsh birds)
- f. U.S. Shorebird Conservation Plan [USSCP] (shorebirds) – U.S. Shorebird Conservation Plan 2004
- g. Birds of Conservation Concern 2021 (all birds) – USFWS 2021
- h. Northeast Partners In Amphibian and Reptile Conservation [NEPARC] (herpetofauna) – NEPARC 2010
- i. American Fisheries Society (freshwater & diadromous fish) – Jelks et al. 2008
- j. Atlantic States Marine Fisheries Commission Stock Assessments [ASMFC] - ASMFSC 2017-2023

Note: Priority 1 designation is not intended for:

- species that have expanded their range into Maine within the past 50 years, OR species with only historic documentation (generally prior to mid-1980s)

1.5.2 PRIORITY 2 (HIGH PRIORITY) SGCN

Generally, Priority 2 species include:

- all other current State (Endangered, Threatened,), Federal (Endangered, Threatened, or Candidate,) or Global (IUCN Critically Endangered or Threatened) risk of extirpation species, OR
- those that meet at least two of the following criteria:
 1. **Global Vulnerability** – A species designated as Vulnerable by the International Union for the Conservation of Nature (IUCN).
 2. **State Special Concern** – Listed as a current species of Special Concern in Maine.
 3. **Recent Significant Declines** – A species currently (within 30 years) undergoing biologically significant population decline or significant range contraction, statewide or regionally.
 4. **Regional Endemic** – A species whose global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).
 5. **High Climate Change Vulnerability** – A species identified as highly vulnerable by Whitman et al. 2013, Galbraith et al. 2014, Hare et al. 2016, or Staudinger et al. 2024 (or other published source).
 6. **Historical** -- Species currently listed as state (SH) or global (GH) Historical (by MDIFW or NatureServe) that have a reasonable probability of population rediscovery with further survey.
 7. **Culturally Significant** -- Species identified as both biologically vulnerable and culturally significant by Maine's tribes.

8. **High Regional Conservation Priority** -- Identified as a high regional or global species of conservation concern by one of the following authorities (see Table 1-2 for Priority 2 subcriteria):
- a. Northeast Regional Synthesis [RSGCN] (all vertebrates, freshwater mussels, and tiger beetles) – Terwilliger 2013
 - b. NatureServe (all taxa) – NatureServe 2014
 - c. Partners in Flight Landbird Conservation Plan. 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp.
 - d. Partners in Flight. (All birds) 2021. Avian Conservation Assessment Database, version 2021.
 - e. North American Waterbird Conservation Plan [NAWCP] (all waterbirds) – Kushlan et al. 2002 and 2006 (marsh birds)
 - f. U.S. Shorebird Conservation Plan [USSCP] (shorebirds) – U.S. Shorebird Conservation Plan 2004
 - g. Birds of Conservation Concern 2021 (all birds) – USFWS 2021
 - h. Northeast Partners In Amphibian and Reptile Conservation [NEPARC] (herpetofauna) – NEPARC 2010
 - i. American Fisheries Society (freshwater & diadromous fish) – Jelks et al. 2008
 - j. Atlantic States Marine Fisheries Commission Stock Assessments [ASMFC] - ASMFSC 2017-2023
 - k. Eastern Brook Trout Joint Venture [EBTJV] - EBTJV 2011
 - l. Northeast Odonate Assessment (damselflies & dragonflies) – White et al. 2014
 - m. Committee on the Status of Endangered Wildlife in Canada [COSEWIC] (all taxa) – COSEWIC 2024

Note: Priority 2 designation is not intended for species that have expanded their range into Maine within the past 25 years.

1.5.3 PRIORITY 3 (MODERATE PRIORITY) SGCN

Generally, Priority 3 species include those that meet at least one of the following criteria:

1. **Global Vulnerability** – A species designated as Vulnerable by the International Union for the Conservation of Nature (IUCN).
2. **State Special Concern** – Listed as a current species of Special Concern in Maine.
3. **Recent Significant Declines** – A species currently (within 30 years) undergoing biologically significant population decline or significant range contraction, statewide or regionally.
4. **Regional Endemic** – A species whose global geographic range is at least 90% contained within the area defined by USFWS Region 5, the Canadian Maritime Provinces, and southeastern Quebec (south of the St. Lawrence River).

5. **High Climate Change Vulnerability** – A species identified as highly vulnerable by Whitman et al. 2013, Galbraith et al. 2014, Hare et al. 2016, or Staudinger et al. 2024 (or other published source).
6. **Understudied Rare Taxa** -- Recently documented or poorly surveyed species for which risk of extirpation is potentially high (e.g. few known occurrences), but insufficient data exist to conclusively assess distribution and status.
7. **Historical** -- Species currently listed as state (SH) or global (GH) Historical (by MDIFW or NatureServe) that have a reasonable probability of population rediscovery with further survey.
8. **Culturally Significant** -- Species identified as both biologically vulnerable and culturally significant by Maine's tribes.
9. **High Regional Conservation Priority** -- Identified as a high regional or global species of conservation concern by one of the following authorities (see Table 1-2 for Priority 2 subcriteria):
 - a. Northeast Regional Synthesis [RSGCN] (all vertebrates, freshwater mussels, and tiger beetles) – Terwilliger 2013
 - b. NatureServe (all taxa) – NatureServe 2014
 - c. Partners In Flight Landbird Conservation Plan. 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp.
 - d. Partners in Flight. (All birds) 2021. Avian Conservation Assessment Database, version 2021.]
 - e. North American Waterbird Conservation Plan [NAWCP] (all waterbirds) – Kushlan et al. 2002 and 2006 (marsh birds)
 - f. U.S. Shorebird Conservation Plan [USSCP] (shorebirds) – U.S. Shorebird Conservation Plan 2004
 - g. Birds of Conservation Concern 2021 (all birds) – USFWS 2021
 - h. Northeast Partners In Amphibian and Reptile Conservation [NEPARC] (herpetofauna) – NEPARC 2010
 - i. American Fisheries Society (freshwater & diadromous fish) – Jelks et al. 2008
 - j. Atlantic States Marine Fisheries Commission Stock Assessments [ASMFC] - ASMFSC 2017-2023
 - k. Eastern Brook Trout Joint Venture [EBTJV] - EBTJV 2011
 - l. Northeast Odonate Assessment (damselflies & dragonflies) – White et al. 2014
 - m. Committee on the Status of Endangered Wildlife in Canada [COSEWIC] (all taxa) – COSEWIC 2024

Note: Priority 3 designation is not intended for species that have expanded their range into Maine within the past 10 years.

Table 1-2. Vulnerability concepts and criteria for designating Maine's SGCN.

Vulnerability Factor	Authority (Source)	Metric¹	Potential Priority	Primary Taxa
Extirpation	IUCN	"CR" or "EN"	1-2	all
Extirpation	IUCN	"VU"	2-3	all
Extirpation	ESA (USFWS)	"E" or "T" or "C"	1-2	all
Extirpation	ESA (NOAA)	"E" or "T" or "C"	1-2	all
Extirpation	MESA (MDIFW)	"E" or "T"	1-2	all
Extirpation	E/T Marine Animals (DMR)	"E" or "T"	1-2	marine
Extirpation	E/T Plants (MNAP)	"E" or "T"	1-2	plants
Potential Extirpation	MDIFW	"Special Concern"	2-3	all
Potential Extirpation	MNAP	"Special Concern"	2-3	plants
Recent Decline	MDIFW, MNAP, & MDMR (multiple)	Steep declines < 15 yrs.	1	all
Recent Decline	MDIFW, MNAP, & MDMR (multiple)	Steep declines < 30 yrs.	2-3	all
Regional Endemics	MDIFW (multiple)	>90% of geographic range in the Northeast	1-3	all
Specialist Group Assessment	RSGCN (Terwilliger & NEFWDC 2023)	"RSGCN"	1-3	all
Specialist Group Assessment	NatureServe (2024)	"G1-G2" (global rank) "S1" (subnational rank)	1	all
Specialist Group Assessment	NatureServe (2024)	"G1-G3" (global rank) "S2" (subnational rank)	2	all
Specialist Group Assessment	NatureServe (2024)	"G1-G3" (global rank) "S3" (subnational rank)	3	all
Specialist Group Assessment	COSEWIC (2024)	"E" or "T" in Atlantic Canada	2-3	all
Specialist Group Assignment	Partners in Flight (2016)	Listed in BCR 14 or 30	1-3	landbirds
Specialist Group Assessment	Partners in Flight (2021)	Regional Concern, Regional Stewardship, Regional Importance, or Continental Importance in Region for BCR 14 or 30	1-3	birds
Specialist Group Assessment	NAWCP (Kushlan et al. 2002, 2006)	"high concern"	1-3	waterbirds

Table 1-2. continued: page 2 of 2.

Vulnerability Factor	Authority (Source)	Metric ¹	Potential Priority	Primary Taxa
Specialist Group Assessment	USSCP (USSCP 2004)	“highly imperiled” OR species of “high concern”	1-3	shorebirds
Specialist Group Assessment	Birds of Conservation Concern (USFWS 2021)	Listed in BCR 14 or 30	1-3	birds
Specialist Group Assessment	NEPARC (2010)	“high responsibility”	1-3	reptiles & amphibians
Specialist Group Assessment	American Fisheries Society (Jelks et al. 2008)	Imperiled	1-3	fish
Specialist Group Assessment	ASMFC (2012)	“decreasing, depleted, unstable/decreasing, or local subpopulation”	1-3	marine fish
Specialist Group Assessment	EBTJV (2011)	“imperiled”	2-3	brook trout
Specialist Group Assessment	Northeast RCN Odonate Assessment (White et al. 2014)	“high vul” OR [“mod vul” + “primary-significant” responsibility]	2-3	damselflies & dragonflies
Climate Change	Manomet (Whitman et al. 2013)	“high vulnerability” + > “low confidence”	2-3	all
Climate Change	(Galbraith et al. 2014)	“high concern, highly imperiled, or critical”	2-3	shorebirds
Climate Change	Hare et al. 2016	“very high” or “high”	2	marine fish
Climate Change	Hare et al. 2016	“moderate”	3	marine fish
Climate Change	Staudinger et al. 2024	“Most Vulnerable”	2-3	animals
Climate Change	Multiple	miscellaneous	2-3	all
Rare & Poorly Surveyed	MDIFW, MNAP, & MDMR	specialized habitat + <5 EOs and “G4-G5” OR < 10 EOs and “G3”	3	all
Historical	MDIFW & NatureServe (2024)	SH/GH and high rediscovery potential	2-3	all
Culturally Significant	Maine Tribes	culturally significant + biologically vulnerable	2-3	all

¹**Metric Notes:** CR = Critically Endangered, EN = Endangered, VU = Vulnerable, E = Endangered, T = Threatened, C = Candidate, P = Proposed, G1-G5 & GH = NatureServe Global rarity ranks (range ranks rounded as follows: G1G2=G1, G1G3=G2), SH = State Historic, BCR = Bird Conservation Region, EO = Element Occurrences