



Birds

Cliff Swallow

Petrochelidon pyrrhonota

Priority 1 Species of Greatest Conservation Need (SGCN)

Class: Birds (*Aves*)

Order: Perching Birds (*Passeriformes*)

Family: Martins And Swallows (*Hirundinidae*)

General comments:

The Cliff Swallow is a small, resplendent, colonial-nesting songbird with dark iridescent upperparts, pale underparts, a buffy rump, a chestnut throat, and a distinctive tan-white forehead patch. Historically, these birds nested on vertical cliff faces near suitable mud and food sources, but the massive expansion of human-associated structures that mimic these habitats (such as buildings and bridges) has shifted their usage. In Maine, they now nest in clusters of gourd-shaped mud nests, typically attached to human-made structures like bridges, barns, and culverts near open areas for foraging. Once more widespread, the species has declined sharply in the state and is now listed as Threatened, with likely drivers including loss of nesting colonies (e.g., nest removal during maintenance of structures), competition with invasive species, and broader pressures affecting aerial insectivores, such as prey declines and pesticide exposure.

Species Conservation Range Maps:

Town Map: [Petrochelidon pyrrhonota_Towns.pdf](#)

Subwatershed Map: [Petrochelidon pyrrhonota_HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation:	Maine Status: Threatened	Federal Status: None	IUCN Red List Status: None
Recent Significant Declines:	Cliff Swallow 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: 30 yr = -6.81 (-9.18 to -4.49); 10 yr = -7.36 (-13.26 to -2.92); n=60 routes, RA = 23.5 birds per route		

Professional Discretion:

Current criteria ranked *Petrochelidon pyrrhonota* as SGCN priority 2, however, species should qualify as SGCN priority 1 based on professional discretion.

Justification: Threatened in Maine, Recent significant declines across all sources. BBS data are flagged for potential issues with precision but suggest a -8.7% annual trend for Maine and similar trends can be seen in NH, VT, New Brunswick, Nova Scotia, and Quebec. Bree

Habitat Associations:

Formation: Agricultural

Macrogroup: Agricultural

Habitat System: Agricultural Macrogroup - Unknown Habitat System
foraging habitat



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Formation: Agricultural

	Habitat System: Cultivated Crops <i>foraging habitat</i>
	Habitat System: Pasture-Hay <i>foraging habitat</i>

Formation: Cliff & Rock

Macrogroup: Eastern North American Cliff & Rock Vegetation

	Habitat System: Eastern North American Cliff & Rock Vegetation Macrogroup - Unknown Habitat System <i>Historical habitat</i>
	Habitat System: Laurentian-Acadian Acidic Cliff and Talus <i>Historical habitat</i>
	Habitat System: Laurentian-Acadian Calcareous Cliff and Talus <i>Historical habitat</i>

Formation: Coastal Scrub-Herb

Macrogroup: North American Atlantic Coastal Dune, Grassland & Rocky Headland

	Habitat System: North American Atlantic Coastal Dune, Grassland & Rocky Headland Macrogroup - Unknown Habitat System <i>Foraging and nesting via nearby structures</i>
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Formation: Developed

Macrogroup: Urban-Suburban Built

	Habitat System: Commercial-Industrial <i>nesting on buildings near mud source and foraging habitat</i>
	Habitat System: Residential - High Intensity <i>nesting on buildings near mud source and foraging habitat</i>
	Habitat System: Residential - Low Intensity <i>nesting on buildings near mud source and foraging habitat</i>
	Habitat System: Residential - Medium Intensity <i>nesting on buildings near mud source and foraging habitat</i>
	Habitat System: Residential - Rural-Sparse <i>nesting on buildings near mud source and foraging habitat</i>
	Habitat System: Urban-Suburban Built Macrogroup - Unknown Habitat System <i>nesting on buildings near mud source and foraging habitat</i>

Formation: Freshwater Aquatic

Macrogroup: Lentic

	Habitat System: Ponds (<10 acres)> <i>mud collection, and nearby foraging</i>
	Habitat System: Shallow and Intermediate Depth Littoral Lakes <i>mud collection, and nearby foraging</i>



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Formation: Freshwater Aquatic

Macrogroup: Lotic

	Habitat System: Cold Rivers <i>mud collection, and nearby foraging</i>
	Habitat System: Non-cold Large Rivers <i>mud collection, and nearby foraging</i>
	Habitat System: Transitional Small and Medium Rivers <i>mud collection, and nearby foraging</i>
	Habitat System: Warm Small and Medium Rivers <i>mud collection, and nearby foraging</i>

Threats

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 Invasive and Other Problematic Species, Genes and Diseases

IUCN Level 2 Threat: Invasive Non-native-Alien Species-Diseases

Severity: High Severity **Actionability:** Moderately Actionable

Notes: Competition and nest usurpation by House Sparrows, which aggressively take over Cliff Swallow nests and reduce colony success.

IUCN Level 1 Threat Other Options

IUCN Level 2 Threat: Lack of knowledge

Severity: High Severity **Actionability:** Moderately Actionable

Notes: Lack of understanding of colony persistence, overwintering threats, and the drivers of regional decline in northeastern populations limit conservation effectiveness.



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IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Agricultural and Forestry Effluents

Severity: Moderate Severity	Actionability: Moderately Actionable
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Notes: Bioaccumulation of pesticides and heavy metals (e.g., mercury, etc.) from aquatic-to-terrestrial food pathways. Reduced prey availability due to insecticide use.

IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Commercial and Industrial Areas

Severity: Moderate Severity	Actionability: Moderately Actionable
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Notes: Nest removal from buildings by landowners, and retrofitting of structures (e.g., painting barns, adding siding) that make surfaces unsuitable for nest adhesion.

IUCN Level 1 Threat Transportation and Service Corridors

IUCN Level 2 Threat: Roads and Railroads

Severity: Moderate Severity	Actionability: Moderately Actionable
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Notes: Bridge maintenance, construction, or demolition can destroy active colonies or prevent nesting through deterrents

Species Level Conservation Actions:

Only species specific conservation actions that address high (red) or medium-high (orange) priority threats are summarized here.

Conservation Action	Category	Biological Priority	Type
Support pilot projects testing artificial nest ledges or clay/plaster nests in areas with historic colonies. Evaluate success and develop recommendations for effective installation (ideally coupled with House Sparrow control when appropriate).	Research	moderate	new

Threat(s) Addressed By This Conservation Action

Invasive Non-native-Alien Species-Diseases



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Conservation Action	Category	Biological Priority	Type
Investigate impact of House Sparrows on key colonies in Maine. If significant, implement House Sparrow management (e.g., fall and winter nest removal, active deterrence, etc.).	Survey and Monitoring	high	new

Threat(s) Addressed By This Conservation Action

- Invasive Non-native-Alien Species-Diseases

Conservation Action	Category	Biological Priority	Type
Develop a comprehensive conservation management plan for Cliff Swallow in Maine to guide coordinated efforts to halt and reverse population declines. The plan should identify key nesting sites, assess habitat availability and use, quantify threats (e.g.,	Species Management	critical	new

Threat(s) Addressed By This Conservation Action

- Invasive Non-native-Alien Species-Diseases
- Agricultural and Forestry Effluents

Conservation Actions Associated with the Aerial Insectivores Guild:

Conservation Action	Category	Biological Priority	Type
Advocate for reduced use of pesticides that reduce aerial insect abundance - aerial insectivores rely on robust flying insect populations. Widespread pesticide use contributes to declining insect biomass, which in turn reduces prey availability. Shifts to integrated pest management and pesticide regulations should benefit all aerial insectivores.	Policy	high	new

Threat(s) Addressed By This Conservation Action

- Agricultural and Forestry Effluents

Conservation Action	Category	Biological Priority	Type
Increase public awareness of aerial insectivore declines and opportunities for stewardship - Public engagement is essential for encouraging behaviors like preserving nest sites (particularly for the birds that utilize human-associated structures like chimneys, barns, gravel pits etc.), reducing pesticide use, and installing/maintaining nest boxes.	Public Outreach	critical	new

Threat(s) Addressed By This Conservation Action

- Education & Outreach



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Conservation Action	Category	Biological Priority	Type
Support long-term monitoring programs for aerial insectivores to improve understanding of population trends and inform conservation actions. Several species in this guild (e.g., Whip-poor-will, Common Nighthawk) remain poorly monitored. Continued investment in programs like the Maine Nightjar Monitoring Project, Nest Box Monitoring efforts, Maine Cliff Swallow Colony Monitoring Program, breeding bird surveys, etc. Supplement with targeted monitoring (e.g., automated acoustic units or colony counts) as needed.	Survey and Monitoring	critical	on-going

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

Conservation Action	Category	Biological Priority	Type
Promote maintenance and protection of known nest sites across varied structure types (e.g., chimneys, culverts, barns, snags, cliff faces). Many aerial insectivores use human structures for breeding and roosting. Actions that protect or retrofit such structures (e.g., keeping chimneys open, preserving snags, managing bridge culverts) can be highly beneficial.	Habitat Management	high	new

Threat(s) Addressed By This Conservation Action

- Housing and Urban Areas
- Removing or Reducing Human Maintenance

Conservation Action	Category	Biological Priority	Type
Encourage design of infrastructure projects to minimize nesting disturbances, incorporating bird-friendly design and maintenance practices into transportation, energy, and construction planning can reduce mortality.	Habitat Management	high	on-going

Threat(s) Addressed By This Conservation Action

- Commercial and Industrial Areas
- Roads and Railroads



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Conservation Action	Category	Biological Priority	Type
Statewide inventory of aerial insectivore nesting and roosting habitat use. Conduct a comprehensive statewide survey of nesting and roosting habitat availability and use for aerial insectivores that utilize human-associated structures (e.g., barns, chimneys, culverts, bridges, nest boxes). This project will also quantify the availability and use of natural nesting habitats (e.g., banks, snags, cavities) to assess current habitat use patterns and identify gaps. The results will guide species-specific conservation actions and infrastructure policy recommendations.	Survey and Monitoring	critical	new

Threat(s) Addressed By This Conservation Action

- Other Ecosystem Modifications
- Housing and Urban Areas
- Removing or Reducing Human Maintenance
- Lack of knowledge
- State Specific Issues

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