



Insects

Southern Pygmy Clubtail

Lanthus vernalis

Priority 3 Species of Greatest Conservation Need (SGCN)

Class: Insects (*Insecta*)

Order: Dragonflies And Damselflies (*Odonata*)

Family: Clubtails (*Gomphidae*)



General comments:

Regional endemic; only 7 modern sites; headwater habitat abundant but vulnerable

Species Conservation Range Maps:

Town Map: [Lanthus vernalis_Towns.pdf](#)

Subwatershed Map: [Lanthus vernalis_HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

Regional Endemic:	<i>Lanthus vernalis</i> 's 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).
High Regional Conservation Priority:	NatureServe: Global Rank: G4 State Rank: S1

Professional Discretion:

Current criteria ranked *Lanthus vernalis* as SGCN priority 2, however, species should be SGCN priority 3 based on professional discretion.

Justification:

updated S-rank

Habitat Associations:

Formation: Freshwater Aquatic

Macrogroup: Lotic

* Primary Habitat	Habitat System: High Slope Headwater <i>small, wooded, headwater streams</i>
	Habitat System: Low Slope Headwater <i>small, wooded, headwater streams</i>
	Habitat System: Moderate Slope Headwater <i>small, wooded, headwater streams</i>

Formation: Northeastern Upland Forest

Macrogroup: Acadian-Northern Appalachian Forest

Macrogroup: Appalachian Oak - Pine Forest & Woodland

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Formation: Northeastern Upland Forest

Threats

No Threats Currently Assigned to Southern Pygmy Clubtail or other Priority 3 SGCN.		Moderate Severity		High Severity	
Threat 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 Other Options

IUCN Level 2 Threat: Lack of knowledge

Severity: Moderate Severity

Actionability: Highly Actionable

Notes: lack of comprehensive survey effort to identify additional occurrences and determine species status

IUCN Level 1 Threat Biological Resource Use

IUCN Level 2 Threat: Logging and Wood Harvesting

Severity: Moderate Severity

Actionability: Moderately Actionable

Notes: Headwater streams receive limited protections; intensive forestry in the shoreland zone can affect water quality and riparian habitat

IUCN Level 1 Threat Pollution

IUCN Level 2 Threat: Domestic and Urban Waste Water

Severity: Moderate Severity

Actionability: Moderately Actionable

Notes: Headwater streams receive limited protections; aquatic larvae sensitive to water quality

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IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Housing and Urban Areas

Severity: Moderate Severity

Actionability: Moderately Actionable

Notes: Headwater streams receive limited protections; degradation of the riparian zone affects water quality and roosting/feeding habitat

Species Level Conservation Actions:

No Species Specific Conservation Actions Currently Assigned to Southern Pygmy Clubtail or other Priority 3 SGCN.

Conservation Actions Associated with the Riverine Odonates Guild:

Conservation Action	Category	Biological Priority	Type
Analyze results of the Maine Dragonfly & Damselfly Survey, research and incorporate external Maine records (historical and modern), and produce a summary document and conservation assessment.	Research	high	on-going

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

Conservation Action	Category	Biological Priority	Type
Increase MDIFW staff capacity for survey, research, and conservation of SGCN invertebrates.	Policy	critical	new

Threat(s) Addressed By This Conservation Action

- Education & Outreach
- Lack of knowledge
- Resource Needs

Conservation Action	Category	Biological Priority	Type
Develop/distribute outreach materials to raise public awareness and appreciation of freshwater aquatic insect ecology, threats and conservation needs.	Public Outreach	moderate	on-going

Threat(s) Addressed By This Conservation Action

- Education & Outreach

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Conservation Action	Category	Biological Priority	Type
Conduct comprehensive statewide surveys to inform status, distribution, threats, and habitat use.	Survey and Monitoring	high	on-going

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

Conservation Action	Category	Biological Priority	Type
Develop/distribute Best Management Practices for landowners, land managers and conservation partners to avoid and minimize impacts of intensive land use activities (e.g., forestry, stream crossings, agriculture, development, hydro facilities).	Habitat Management	high	on-going

Threat(s) Addressed By This Conservation Action

- Roads and Railroads
- Housing and Urban Areas
- Commercial and Industrial Areas
- Domestic and Urban Waste Water
- Agricultural and Forestry Effluents
- Education & Outreach
- Logging and Wood Harvesting
- Annual and Perennial Non-timber crops

Conservation Action	Category	Biological Priority	Type
Develop/distribute guidelines and outreach materials to inform conservation partners, land use managers, and the general public about the impacts of pesticides on native insects and to promote the alternative use of Integrated Pest Management practices.	Public Outreach	moderate	on-going

Threat(s) Addressed By This Conservation Action

- Education & Outreach
- Other Threat

Conservation Action	Category	Biological Priority	Type
Conduct a statewide dragonfly/damselfly atlas project.	Survey and Monitoring	high	completed

Threat(s) Addressed By This Conservation Action

- Lack of knowledge
- Education & Outreach

Conservation Action	Category	Biological Priority	Type
Update NatureServe S-ranks for all Maine Odonata based on results of the Maine Damselfly and Dragonfly Survey.	Research	high	completed

Threat(s) Addressed By This Conservation Action

- Lack of knowledge

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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