

Vertigo paradoxa (Mystery Vertigo)

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: *Gastropoda* (Aquatic And Terrestrial Snails)
Order: *Stylommatophora* (Air-breathing Snails Land Snails)
Family: *Pupillidae* (Land Snails)

General comments:

2007 surveys targeting *V. paradoxa* found ~18 additional sights (for a total of 21). *Thuja* swamp populations are very small (e.g., <5 shells per 500 shell community sample) while the limestone cliff/ledge sites can become rather impressive (>200 shells).

V. paradoxa is limited to the northeast part of the state and is found in very low densities in *Thuja* swamps but in high densities at a 4 very small limestone cliff ledges. The dual habitat association is not understood and the cliff ledge sites where most of these snails occur are vulnerable because they are few and very small in size.

Species Conservation Range Maps for Mystery Vertigo:

Town Map: [Vertigo paradoxa Towns.pdf](#)

Subwatershed Map: [Vertigo paradoxa HUC12.pdf](#)

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation: NA

State Special Concern or NMFS Species of Concern:

Vertigo paradoxa is listed as a species of Special Concern in Maine.

Recent Significant Declines: NA

Regional Endemic: NA

High Regional Conservation Priority: NA

High Climate Change Vulnerability: NA

Understudied rare taxa: NA

Historical: NA

Culturally Significant: NA

Professional Discretion:

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

Justification: Recent surveys (2007) bring total known sites to 21. Swamp populations are very small while the limestone cliff/ledge sites can become rather impressive. Main interest will be on cliff/ledge locales only (N=4)

Habitats Assigned to Mystery Vertigo:

Formation Name Cliff & Rock

Macrogroup Name Cliff and Talus

Habitat System Name: Laurentian-Acadian Calcareous Cliff and Talus ****Primary Habitat**** Notes: Primary

Formation Name Grassland & Shrubland

Macrogroup Name Outcrop & Summit Scrub

Habitat System Name: Laurentian-Acadian Calcareous Rocky Outcrop ****Primary Habitat**** Notes: Primary

Formation Name Northeastern Wetland Forest

Macrogroup Name Northern Swamp

Habitat System Name: Acadian-Appalachian Conifer Seepage Forest ****Primary Habitat**** Notes: Primary

Habitat System Name: Laurentian-Acadian Alkaline Conifer-Hardwood Swamp ****Primary Habitat**** Notes: Primary

Habitat System Name: Northern Appalachian-Acadian Conifer-Hardwood Acidic Swamp Notes: Secondary

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Stressors Assigned to Mystery Vertigo:

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 Other Options

IUCN Level 2 Threat: Lack of knowledge

Severity: Moderate Severity **Actionability:** Highly actionable

Notes: Lack of comprehensive survey and monitoring effort is needed to adequately understand population status, species distribution, and habitat associations

IUCN Level 1 Threat Biological Resource Use

IUCN Level 2 Threat: Logging and Wood Harvesting

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

Notes: Since outcrops where this species occurs in dense colonies can be very small in size they are susceptible to damage from heavy equipment

IUCN Level 1 Threat Energy Production and Mining

IUCN Level 2 Threat: Mining and Quarrying

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

Notes: Development around the few small base-rich outcrops where this snail occurs in dense colonies could extirpate local populations

IUCN Level 2 Threat: Renewable Energy

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

Notes: Development around the few small base-rich outcrops where this snail occurs in dense colonies could extirpate local populations

IUCN Level 1 Threat Residential and Commercial Development

IUCN Level 2 Threat: Housing and Urban Areas

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

Notes: Development around the few small base-rich outcrops where this snail occurs in dense colonies could extirpate local populations

IUCN Level 1 Threat Transportation and Service Corridors

IUCN Level 2 Threat: Utility and Service Lines

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

Notes: Development around the few small base-rich outcrops where this snail occurs in dense colonies could extirpate local populations

Species Level Conservation Actions Assigned to Mystery Vertigo:

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

Guild Level Conservation Actions:

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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.