Somatochlora brevicincta (Quebec Emerald)

Report Date: January 13, 2016

Priority 2 Species of Greatest Conservation Need (SGCN)

Class: Insecta (Insects)

Order: Odonata (Dragonflies And Damselflies)

Family: Corduliidae (Emeralds)

General comments:

High vulnerability rank in Conservation Assessment by White et al.; only 9-10 peatlands known

Species Conservation Range Maps for Quebec Emerald:

Town Map: <u>Somatochlora brevicincta_Towns.pdf</u>
Subwatershed Map: <u>Somatochlora brevicincta_HUC12.pdf</u>

SGCN Priority Ranking - Designation Criteria:

Risk of Extirpation: NA

State Special Concern or NMFS Species of Concern:

Somatochlora brevicincta is listed as a species of Special Concern in Maine.

Recent Significant Declines: NA

Regional Endemic: NA

High Regional Conservation Priority:

Northeast Odonate Conservation Assessment: Vulnerability: High, Responsibility: Significant Notes: Occurs in one or two states only

High Climate Change Vulnerability:

Vulnerability: 3, Confidence: Medium, Reviewers: 1

Understudied rare taxa: NA

Historical: NA

Culturally Significant: NA

Habitats Assigned to Quebec Emerald:

Formation Name Boreal Upland Forest

Macrogroup Name Boreal Upland Forest

Habitat System Name: Acadian Low Elevation Spruce-Fir-Hardwood Forest Notes: secondary (riparian only)

Habitat System Name: Acadian Sub-boreal Spruce Flat Notes: secondary (riparian only)

Formation Name Freshwater Marsh

Macrogroup Name Wet Meadow-Shrub Marsh

Habitat System Name: Laurentian-Acadian Wet Meadow-Shrub Swamp Notes: secondary

Formation Name Northeastern Upland Forest

Macrogroup Name Northern Hardwood & Conifer

Habitat System Name: Laurentian-Acadian Northern Hardwoods Forest Notes: secondary (riparian only)

Habitat System Name: Laurentian-Acadian Pine-Hemlock-Hardwood Forest Notes: secondary (riparian only)

Formation Name Northeastern Wetland Forest

Macrogroup Name Northern Swamp

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

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Formation Name Peatland

Macrogroup Name Northern Peatland & Fens

Habitat System Name: Boreal-Laurentian Bog **Primary Habitat** Notes: shallow patterned fens with sedges and

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mosses

Habitat System Name: Boreal-Laurentian-Acadian Acidic Basin Fen **Primary Habitat** Notes: shallow patterned

fens with sedges and mosses

Stressors Assigned to Quebec Emerald:

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 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: Intensive forestry in the shoreland zone could affect peatland hydrology and riparian habitat

IUCN Level 1 Threat Climate Change and Severe Weather

IUCN Level 2 Threat: Habitat Shifting or Alteration

Severity: Moderate Severity **Actionability:** Actionable with difficulty

Notes: Climate change; mostly boreal specialist of peatland habitats at the southern edge of its range

Species Level Conservation Actions Assigned to Quebec Emerald:

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

Conservation Actions Associated with the Palustrine Odonates Guild:

Conservation Action Category: Research Biological Priority: high Type: new

Prepare a statewide atlas and conservation assessment.

Stressor(s) Addressed By This Conservation Action

Lack of knowledge

Broad Taxonomic Group Conservation Actions:

Additional 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

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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.