



Quebec Emerald • *Somatochlora brevicincta* • male • 27 Jun 07 Foxboro Co. ME • © Ed Lam

Photo: Ed Lam

## MAINE DEPARTMENT OF INLAND FISHERIES AND WILDLIFE



### Forest Management Recommendations for the Quebec Emerald Dragonfly

#### **Background**

Damselflies and dragonflies (Order: Odonata) are a diverse and ecologically important group of aquatic insects in Maine. The Quebec Emerald (*Somatochlora brevicincta*) is a rare dragonfly listed as Special Concern in Maine because of its narrow state distribution (southern edge of its range), specialized habitat, and low number of populations. The breeding habitat of the Quebec Emerald is typically large peatlands, with scattered shallow pools among saturated sphagnum moss.

The larvae overwinter in the peat where they may require several years to mature. Adults usually emerge in July and may be active through September. Adults forage on smaller aerial insects (mosquitoes, mayflies, etc.) and spend some of their time foraging and taking refuge within riparian forest vegetation.

#### **Management Recommendations**

Many of Maine's wildlife species require or make use of intact riparian forest habitat. MDIFW recommends the following practices, adapted from *Threatened and Endangered Species in Forests of Maine: A Guide to Assist with Forestry Activities* (1999), for the Quebec Emerald to protect water quality for larvae and riparian vegetation for adults:

1. **Extent:** Maintain a 250-foot wide forested riparian management zone around peatlands hosting documented populations
2. **Activity within the Riparian Management Zone (0 to 250 feet):**
  - Avoid any harvest activity or disturbance within 100 feet of the upland peatland ecosystem boundary
  - Beyond 100 feet, manage with single-tree or small group-selection cuts that maintain a 60-70% canopy cover in an evenly distributed stand
  - Harvest only during dry or frozen ground conditions
  - Avoid or minimize the construction of permanent roads or openings
  - Build temporary bridges across perennial streams prior to any motorized equipment crossing
  - Avoid the use of herbicides and insecticides
3. **Activity within the Local Watershed Zone (0 to 1320 feet):**
  - Maintain a 100-foot riparian management zone on each side of all perennial streams that drain into or out of the peatland, with no harvest from 0-25 feet and limited harvest (60-70% canopy cover in an evenly distributed stand) from 25-100 feet
  - Harvest only during dry or frozen ground conditions
  - Use Maine Forest Service BMPs for stream culverts and road crossings
  - Minimize potential runoff or drift impacts to streams from herbicides or pesticides