

MAINE DEPARTMENT OF  
INLAND FISHERIES AND WILDLIFE



Photo: Gale McCullough

## Forest Management Recommendations for the Arrowhead Spiketail

### **Background**

Damselflies and dragonflies (Order: Odonata) are conspicuous and ecologically important aquatic insects with approximately 155 species documented in Maine. The Arrowhead Spiketail (*Cordulegaster obliqua*) is one of the state's rarest dragonflies, listed as Special Concern due to low population numbers, limited regulatory protections for small headwater streams, and sensitivity to aquatic and riparian habitat degradation.

The larvae of these dragonflies are aquatic with the adults emerging and flying in June and July. Adults forage on smaller aerial insects (mosquitoes, gnats, etc.) while patrolling the shorelines of small headwater streams and seepages. Intact riparian vegetation provides cover and foraging habitat for adults and helps to protect water quality for the aquatic larvae.

### **Management Recommendations**

A high diversity of Maine's wildlife species require or benefit from intact shoreline forest habitat. The following practices, adapted from "Threatened and Endangered Species in Forests of Maine: A Guide to Assist with Forestry Activities" (1999), are recommended for the Arrowhead Spiketail to protect water quality for larvae and riparian vegetation for adults:

- 1. Extent:** Maintain a 100 ft-wide forested riparian management zone around streams, seepages, and adjacent forested wetlands hosting any documented occurrences of Arrowhead Spiketail.
- 2. Activity within the Riparian Management Zone:**
  - Avoid any harvest activity within 25 ft of the high water shoreline
  - Beyond 25 ft, manage with single-tree or small group-selection cuts that maintain a 60-70% canopy cover
  - Harvest during dry or frozen ground conditions
  - Avoid the construction of permanent roads or openings
  - Avoid the use of herbicides and insecticides