

MAINE DEPARTMENT OF  
INLAND FISHERIES AND WILDLIFE



Photo: Blair Nikula

## Forest Management Recommendations for the Pygmy Snaketail and Arrow Clubtail Dragonflies

### **Background**

Damselflies and dragonflies are conspicuous and ecologically important aquatic insects in Maine where nearly 160 distinct species have been documented. The Pygmy Snaketail (*Ophiogomphus howei*) and Arrow Clubtail (*Stylurus spiniceps*) are two of the state's rarest dragonflies, both listed as Species of Special Concern due to low population numbers and sensitivity to aquatic and riparian habitat degradation.

The aquatic larvae of these dragonflies is found in moderate to large, clean, free-flowing forested streams and rivers. Adults emerge in June (Pygmy Snaketail) and July (Arrow Clubtail) and have a flight period that lasts at least into August. Adults forage on smaller aerial insects (mayflies, mosquitoes, etc.) along the riverine corridor and spend much of their time taking refuge within riparian forest vegetation.

### **Management Recommendations**

A high diversity of Maine's wildlife species require or make use of intact riparian 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 Pygmy Snaketail and Arrow Clubtail to protect water quality for larvae and riparian vegetation structure for adults:

1. **Extent:** Maintain a 330 ft-wide forested riparian management zone (RMZ) for 1.6 mi upstream and 1.6 mi downstream of any documented occurrences.
2. **Activity within the RMZ:**
  - No harvest activity within 25 ft of the high water shoreline; and
  - Beyond 25 ft, manage with single-tree or small group-selection cuts that maintain a 60-70% canopy cover; and
  - Avoid or minimize the construction of roads and log landings; and
  - Avoid the use of herbicides and insecticides.