

MAINE DEPARTMENT OF
INLAND FISHERIES AND WILDLIFE



Photo: Blair Nikula

Forest Management Recommendations for the Cobra Clubtail Dragonfly

Background

Damselflies and dragonflies (Order: Odonata) are conspicuous and ecologically important aquatic insects with nearly 160 distinct species in Maine. The Cobra Clubtail (*Gomphus vastus*) is one of the state's rarest dragonflies, listed as Special Concern due to low population numbers and sensitivity to aquatic and riparian habitat degradation.

The aquatic larvae of these dragonflies are found in moderate to large, clean, free-flowing forested rivers where they may require several years to mature. Adults emerge in June and have a flight period that lasts through August. Adults forage on smaller aerial insects (e.g., mosquitoes, blackflies, mayflies) and take 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 Cobra Clubtail to protect water quality for larvae and riparian vegetation for adults:

1. **Extent:** Maintain a 250 ft-wide forested riparian management zone around streams and rivers hosting any documented occurrences.
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 or minimize the construction of permanent roads or openings
 - Avoid the use of herbicides and insecticides