



## **Standard 4: Trees and Stands**

**Principle:** Trees and forests are an important part of the Canadian landscape. Knowledge of tree biology and stand structure and dynamics forms the basis for understanding how forested ecosystems function, and for predicting the effects of natural disturbances and human intervention.

### **Demonstrable competencies and descriptions**

A candidate for certification shall provide evidence of the ability to:

#### **4.1 Identify trees and other plants and describe their growth characteristics.**

- Tree and other plant recognition (regional context), including the use of identification keys
- Plant anatomy, morphology and physiology
- Tree genetics, silvics and life cycle
- Plant and tree autecology
- Plant and tree synecology

#### **4.2 Describe tree attributes and their relationship to forest values.**

- Attributes - size, form, age, health, quality, etc.
- Factors affecting tree attributes
- Tree values (wildlife habitat, shade, wood fibre, air quality, etc.)

#### **4.3 Explain past, current and possible future stand conditions and the processes that lead to them.**

- Stand origin and structure (species composition, size distributions, age and spatial arrangements)
- Forest soil properties and influences on stand origin and development
- Stand values (wildlife habitat, wood fibre, water management, recreation, etc.)
- Stand dynamics
- Biotic and abiotic agents, including climate, affecting stand dynamics
- Silviculture and silvicultural prescriptions