Standard 5: Forested Landscapes

Principle: Canada's forested ecosystems are diverse and complex systems arising from the interaction between living and non-living components over time. Knowledge of composition, structure and function of forests and urban forests at scales ranging from aggregates of stands to landscapes is essential to describe and to evaluate current conditions, to predict the effects of environmental change, and to practise conservation and management.

Demonstrable competencies and descriptions

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

5.1 Identify the components, characteristics and processes in forested ecosystems and how they interact.

- Concepts and principles of landscape-level ecology
- Forest ecosystem components and connectivity
- Concepts and measures of diversity including spatial and temporal diversity
- Forest ecosystem function and dynamics (e.g. carbon capture and storage, forest hydrology, forest nutrient cycling, fish and wildlife)

5.2 Apply ecological classification systems in a regional context.

- Principles of forest ecological classification systems
- Forest soil classification
- Forest climatology

5.3 Apply knowledge of the influences and interactions of agents of change in the management of forested landscapes.

- Biotic and abiotic disturbance factors (insects, disease, fire, meteorological effects, human interventions, etc.) and their effects on forest ecosystem function
- Invasive species
- Climate change
- Ecosystem resilience
- Protection and mitigation activities