

Appendix F - Snag volume functions

Snag volumes were estimated based on regression relationships derived from provincial inventory data (Townsend 2004). A cubic model was used to estimate individual snag volume based on diameter for both softwoods and hardwoods. Snag tree volume data were then combined with FEC prism plot data to estimate snag volumes on a per hectare basis.

Function:

$$Y = b_0 + (b_1 \times dbh) + (b_2 \times dbh^2) + (b_3 \times dbh^3).$$

Where:

Y = total snag tree volume

dbh = snag tree diameter at 1.3 m

b₀ = constant

b₁, b₂, b₃ = coefficients

Softwood Results:

$$b_0 = 0.043$$

$$b_1 = -0.010$$

$$b_2 = 0.001$$

$$b_3 = -5.239 \text{ E-}6$$

$$r^2 = 0.799$$

Hardwood Results:

$$b_0 = -0.018$$

$$b_1 = -0.000$$

$$b_2 = 0.000$$

$$b_3 = -9.805 \text{ E-}7$$

$$r^2 = 0.813$$