Supplement to Van der Sluijs et al., Characterizing tree species in northern boreal forests using multiple-endmember spectral mixture analysis and multi-temporal satellite imagery.

**S1: Distributions of forest inventory metrics for calibration and validation plots.**



Figure S1: Boxplot of forest inventory metrics by sunlit canopy endmember selection method and by purpose. The selection methods have similar distributions for Lorey height and stem density, while the *HighestCC* calibration plots have higher crown closures compared to Basalarea calibration plots, as expected.

**S2: Spectral reflectance of sunlit canopy and background endmembers.**

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Figure S2: Boxplot of band reflectance values by conifer species and phenological period for the *Basalarea* image endmember sets (sunlit canopy). Plot highlights small differences in spectral reflectance between conifer species (A) and throughout the phenological period (B). Tree species: white spruce (Sw), black spruce (Sb), and jack pine (Pj).



Figure S3: Boxplot of band reflectance values by conifer species and phenological period for the *HighestCC* image endmember sets (sunlit canopy). Plot highlights small differences in spectral reflectance between conifer species (A) and throughout the phenological period (B). Tree species: white spruce (Sw), black spruce (Sb), and jack pine (Pj).

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Figure S4: Band reflectance values for the *PurestBg* (A) and *HighestCC* (B) image endmember sets (background). Medians are shown for legibility. Tree species: white spruce (Sw), black spruce (Sb), and jack pine (Pj).