

Exercise 2C: Shrub & Tree Canopy Surveys

— Length-intercept method

Species Relationship Formulas

- **Total Canopy Cover** (combined for all species) =

$$\frac{\text{total transect length (50m)} - \text{total of length without canopy}}{\text{total transect length (50m)}} \times 100 =$$
- **Relative Density** (number of individuals of each species compared to that of all other species on transect) =

$$\frac{\text{total individuals of a species intercepting transect}}{\text{total individuals of all species intercepting transect}} \times 100 =$$
- **Dominance** (contribution of one species to the total canopy cover) =

$$\frac{\text{total of intercept lengths for a species}}{\text{total transect length (50m)}} \times 100 =$$
- **Relative Dominance** (dominance of one species in terms of cover relative to all other species on transect) =

$$\frac{\text{total of intercept lengths for a species}}{\text{total of intercept lengths for all species}} \times 100 =$$
- **Frequency** (interval frequency) =

$$\frac{\text{\# of intervals in which the species occurs}}{\text{total \# of transect intervals (5)}} \times 100 =$$
- **Relative Frequency** (interval frequency of one species relative to all other species) =

$$\frac{\text{frequency value for a species}}{\text{frequency values for all species}} \times 100 =$$
- **Importance Value** (a measure of a species overall ecological & physical significance to this community) =

relative density + relative dominance + relative frequency =

