Example of stand description, based on individual tree data from fixed-area plots.
[***NOTE***: density and basal area are commonly expressed as "per hectare" versus per plot. For my study, a 10x10 m plot = 100 m^2 area = 0.01 hectare.]

Table 1. Raw data for three tree species in each of the four **0.03 hectare** plots (*total area sampled* = 0.120 hectares). Each number represents the diameter (cm) of an individual tree.

Species	Plot 1	Plot 2	Plot 3	Plot 4
Tsuga heterophylla (eastern hemlock)	23	22 24		31
Picea mariana (black spruce)		10 10 12	10 11	12
Thuja occidentalis (northern white cedar)	13 17 44	20	11 30	10 32

Table 2. Frequencies, counts, total basal areas, stand densities, and stand basal areas

Species	Plot Frequency	Plot Density (trees/plot)	Basal Area (dm^2)	Frequency (%)	Density (trees/ha)	BA (dm^2/ha)
T. heterophylla	3	4	20.0	75	33.3	166.9
P. mariana	3	6	5.6	75	50.0	46.4
T. occidentalis	4	8	38.8	100	66.7	323.3
Totals	**10**	**18**	**64.4**		**150.0**	**536.56**

Plot Frequency (aka Abundance): total number of plots species present
Plot Density (trees/plot): total number of trees in all sample plots
Basal Area (in square decimeters): Area = $\pi r^2 = \pi*(d/2)^2$
BA for *Tsuga*:

	Tsuga dbh (cm)	Tsuga dbh (dm)	r (dm)	r^2	pi*(r^2)
Plot 1	23	2.3	1.15	1.3225	4.15265
Plot 2	22	2.2	1.1	1.21	3.7994
Plot 2	24	2.4	1.2	1.44	4.5216
Plot 3	31	3.1	1.55	2.4025	7.54385
					20.0175

Frequency (%) = number of plots species present per total plots sampled
Density (trees/hectare) = plot density per total area sampled in hectares (e.g. *Tsuga*, 4/0.120 ha)
Basal Area (decimeters/hectare) = basal area per area sampled in hectares (e.g. *Tsuga*, 20.0/0.120 ha)

Table 3. Relative abundances and importance values

Species	**Relative Abundance**			
	Frequency	Density	Dominance	IV (%)
T. heterophylla	30.0	22.2	31.1	27.8
P. mariana	30.0	33.3	8.7	24.0
T. occidentalis	40.0	44.4	60.3	48.2

Relative Frequency = plot frequency * 100 divided by total plot frequency
Relative Density = density * 100 divided by total density (NOT plot density for either)
Relative Dominance = basal area * 100 divided by total basal area (either
Importance Value = summation and average of relative frequency, relative density, and relative dominance

Summary Statistics
Number of plots = 4
Empty plots = 0
Plot size = 0.030 hectares
Area sampled = 0.120 hectares (= 0.030 * 4)
BA/hectare = 5.366 m^2/hectare (from totals row in Table 2, but converted from decimeters)
Trees/hectare = 150 (from totals row in Table 2)
Trees/plot = 4.5 (= 18 total plot density/4 plots sampled)