

Lab 1 Example Vegetation Analysis Exercise: Oaks Bottom Wildlife Refuge / Sellwood Community House / Instructor: John Marshall / Dates: October (3, 10, 12) 2019

UnID	SPlotNo	Latitude	Longitude	Genus	Species	PCover	SIndex	Wt_SIndex	MIndex	Wt_MInd	WIndex	Wt_WInd
1	1	45.459966	-122.642268	Phalaris	arundinaceae	62.5	3	187.5	2	125	5	325
2	1			Sonchus	asper	37.5	3	112.5	4	150	3	337.5
3	1			Holcus	lanatus	15	3	45	3	45	3	45
4	1			Senecio	jacobaea	2.5	3	7.5	4	10	5	12.5
5	1			Agrostis	stolonifera	62.5	3	187.5	3	187.5	3	187.5
6	1			Rubus	armeniacus	15	5	75	4	60	5	75
7	1			Clematis	vitalba	15	5	75	3	45	5	75
8	1			Fraxinus	latifolia	15	5	75	2	30	1	15
9	1											
Sum						225		765		652.5		1072.5

Moisture Index	MIndex	Weed Index	WIndex	Structural Index	SIndex	Operations	Calculated Interim Data
OBL	1	Native	1	Herbs (Nonwoody)	3	PCover x MIndex =	Wt_MInd
FACW	2	Nonnative	3	Shrubs (Woody <= 20-feet)	5	PCover x WIndex =	Wt_WInd
FAC	3	Nonnative Invasive	5	Trees (Woody > 20-feet)	7	PCover x SIndex (H) =	Wt_SIndex (H)
FACU	4					PCover x SIndex (S) =	Wt_SIndex (S)
Upland	5					PCover x SIndex (T) =	Wt_SIndex (T)

- Sample Plot Moisture Index (SPMInd) =  $\text{Sum}(\text{Wt\_MInd}) / \text{Sum}(\text{PCover})$ :  $625.5 / 225 = 2.78$
- Sample Plot Weed Index (SPWIndex) =  $\text{Sum}(\text{Wt\_WInd}) / \text{Sum}(\text{PCover})$ :  $1072.5 / 225 = 4.77$
- Total Sample Plot Structure Index (TSPSIndex) =  $\text{Sum}(\text{Wt\_SIndex (H)}) + \text{Sum}(\text{Wt\_SIndex (S)}) + \text{Sum}(\text{Wt\_SIndex (T)})$ :  $540 \text{ (H)} + 225 \text{ (S)} + 0 \text{ (T)}$ 
    - Relative Sample Plot Structural Index Herbs (RSPSIndex (H)) =  $\text{Sum}(\text{Wt\_SIndex (H)}) / \text{TSPSIndex}$ :  $540 / 765 = 0.71$
    - Relative Sample Plot Structural Index Shrubs (RSPSIndex (S)) =  $\text{Sum}(\text{Wt\_SIndex (S)}) / \text{TSPSIndex}$ :  $225 / 765 = 0.29$
    - Relative Sample Plot Structural Index Trees (RSPSIndex (T)) =  $\text{Sum}(\text{Wt\_SIndex (T)}) / \text{TSPSIndex}$ :  $0 / 765 = 0.00$

SPMInd	SPWIndex	RSPSIndex (H)	RSPSIndex (S)	RSPSIndex (T)	TSPSIndex
2.78	4.77	0.71	0.29	0.00	765

$\geq 0.33$  RSPSIndex: Dominant Structural Class /  $\geq 0.14$  RSPSIndex: Subordinate Structural Class

Analysis: Sample Unit = Dominant Herbaceous / Subordinate Scrub-shrub with possible wetland vegetation of extremely high weed content.