

Cornell Ranch – Transect 1

Table 1. Line Point Intercept. Cover summary, plant functional group composition, and woody species density.

Cover Summary	% Cover
Canopy	76
Basal	20
Litter	36
Bare Ground	2
Soil Biological Crusts	28
Other	0

Plant Functional Group Composition*	
Perennial grass	90.5
Perennial forb	2.4
Perennial sub-shrub	7.1
Annual grass	-
Annual forb	-

Woody Species Density	# plants per acre
<i>Yucca glauca</i>	101.17
<i>Opuntia</i>	60.70

*Functional group composition relativized as percentage of total canopy.

Line-point intercept is a method for quantifying cover, including soil, vegetation, litter, rocks and soil biological crusts. These measurements are related to wind and water erosion potential, water infiltration and the ability of the site to resist and recover from degradation.

TYPICAL EFFECT ON EACH ATTRIBUTE OF AN INCREASE IN THE LINE-POINT INTERCEPT INDICATOR VALUE			
Indicator	Attributes		
	Soil and site stability*	Hydrologic function**	Biotic integrity
Foliar cover %	↑	↑	↑
Bare ground %	↓	↓	↓
Basal cover %	↑	↑	↑

Figure 1. Typical effect on each attribute of an increase in the indicator value.

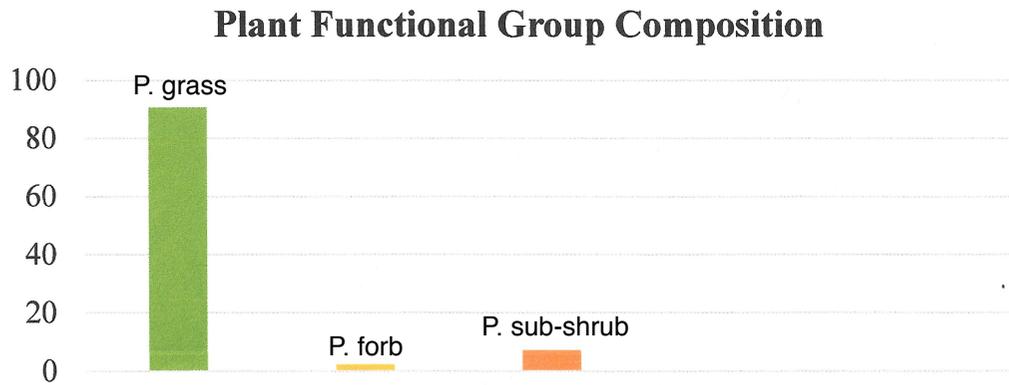
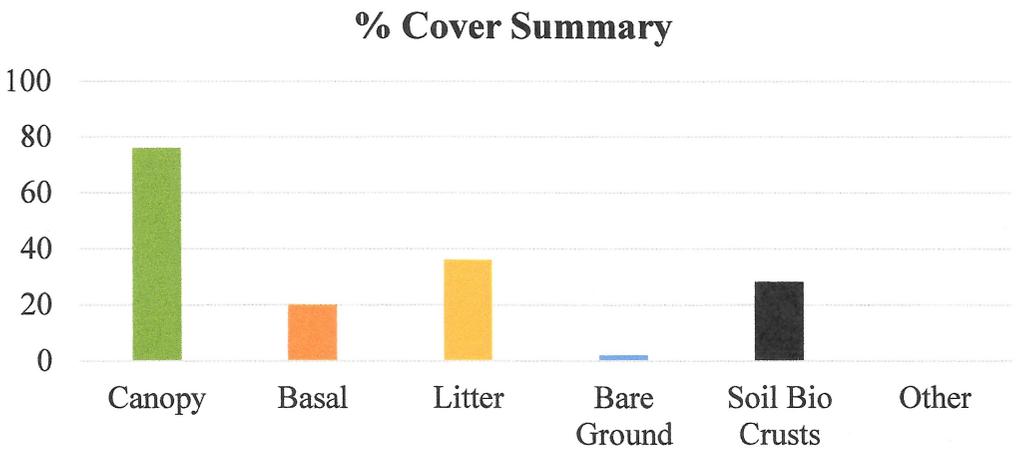


Figure 2 and 3. Percent cover summary and relativized plant functional group composition.

Table 2. Visual Obstruction. Average measurement (cm) along sampling transect.

Average Measurement	Range
4.3	0 – 12.5

Visual obstruction is commonly used as a measure of cover density and is a functional parameter in wildlife-related studies. Higher degrees of obstruction of the Robel pole correlate with more aboveground biomass, and greater obstruction indicates more cover for birds and small mammals for nesting, escaping predators and thermo-regulating body temperatures.

Table 3. Basal and canopy gap measurements represented by percentage and average gap size (cm).

	% Gaps	Average Gap Size (cm)
Basal Gap	38.2	43.7
Canopy Gap	11.0	30.7

Gap intercept measurements provide information about the proportion of the sampling transect covered by large gaps between plants. Large (>20 cm) gaps between plant canopies are important indicators of potential wind erosion and weed invasion. Large gaps between plant bases are important indicators of runoff and water erosion.

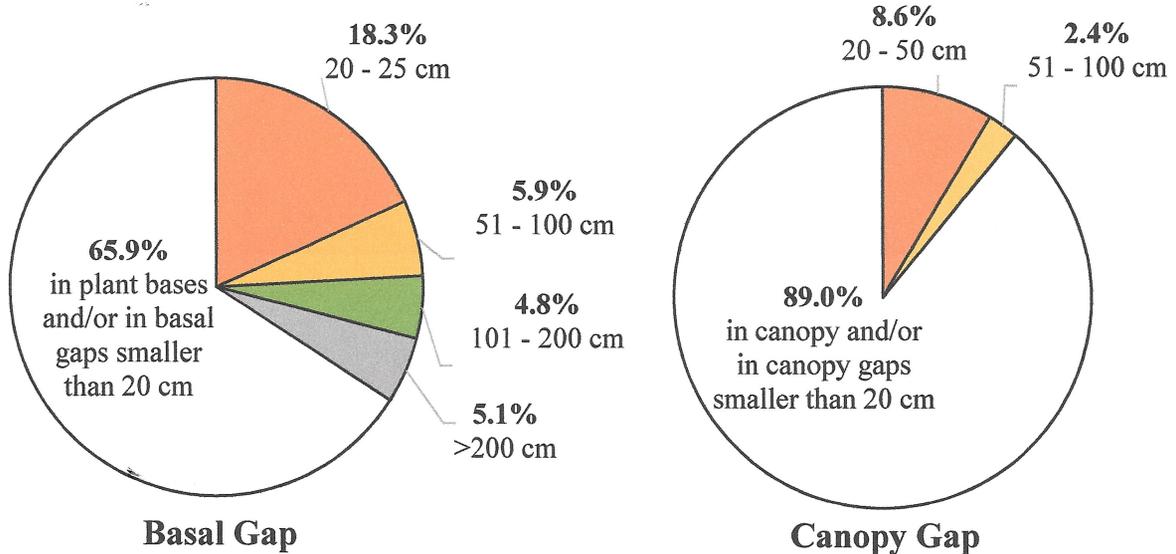


Figure 4. Basal and canopy gap percentage.

TYPICAL EFFECT ON EACH ATTRIBUTE OF AN INCREASE IN THE GAP INTERCEPT INDICATOR VALUE			
Indicator	Attributes		
	Soil and site stability	Hydrologic function	Biotic integrity
Canopy gaps (%)	↓	↓	↓
Basal gaps (%)	↓	↓	↓

Figure 5. Typical effect on each attribute of an increase in the indicator value.

Image Name: SJT1s-2019-Mar-26 point
Transect 1 Start – Spring 2019



Image Name: SJT1e-2019-Mar-26 point
Transect 1 End – Spring 2019

