

David Little Livestock Range Management Endowment

AT THE UNIVERSITY OF IDAHO

2011 Project Progress Report:

Dynamics of grazed and ungrazed slickspot peppergrass populations on the Snake River Plain

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PRELIMINARY RESULTS:

Sampling occurred during the period of June 1 to June 12, 2011. Data collected on the slickspots included: number of slickspot peppergrass (*Lepidium papilliferum*) plants and evidence of cattle trampling (percentage of slickspot covered by animal hoof prints). Up to 25 slickspots were sampled at each site. However, 2011 was a relatively poor year for *Lepidium* and at some sites only a few occupied slickspots were found. It is hoped that additional occupied slickspots can be located at these sites in 2012.

Fifteen *Lepidium* sites were sampled during June 2011. Five sites are located within cattle exclosures (Holding Pen Seeded, Holding Pen Native, Airbase, Three Creek and Juniper Butte). All exclosures except Juniper Butte were a part of a previous study and have been sampled annually since 2003. Sampling began in June 2010 for the Holding Pen Grazed and South Clover Sites and those sites were resampled in 2011. Nine new sites were added in the 2011 season (1 exclosure and 8 grazed sites).

Examinations in 2010 and 2011 reveal an overall greater number of flowering and total *Lepidium* plants per slickspot occur on grazed compared to ungrazed locations (Figure 1).

The mean number of flowering and total *Lepidium* plants per slickspot at each site is provided in Table 1. All slickspots sampled have a history of known *Lepidium papilliferum* occupancy. However, many of these did not have actively growing plants in 2011. The average number of plants is provided for the occupied slickspots.

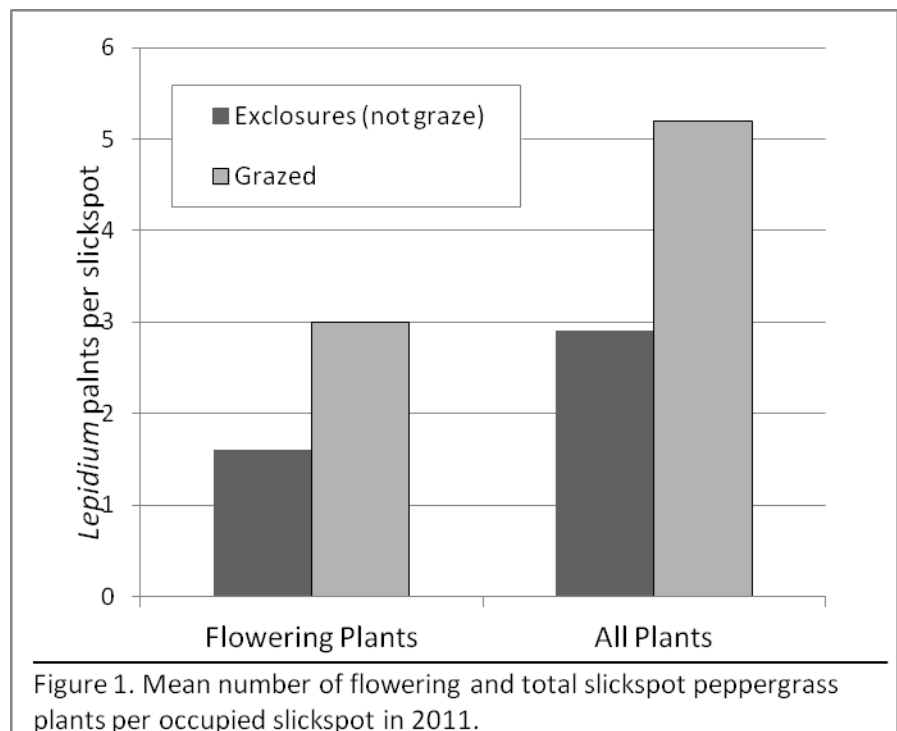


Table 1. Average number of flowering (annual + biennial) and total plants [flowering + non-flowering (rosette)] per slickspot for each of 15 study sites sampled in 2011. Density values are calculated based on slickspots sites occupied *Lepidium* only.

Site	Lepidium Plant Count and Average per Slickspot					
	2010			2011		
	Total Flowering	Total Plants		Total Flowering	Total Plants	
Holding Pen Seeded Exclosure	5	58		0	2	
Ave/slickspot	0.63	7.25		0.00	1.00	
Holding Pen Native Exclosure	176	696		50	106	
Ave/slickspot	9.78	38.67		3.57	7.57	
Three Creek Exclosure	1	1		1	1	
Ave/slickspot	1.00	1.00		1.00	1.00	
Airbase Exclosure	34	52		17	24	
Ave/slickspot	3.78	5.78		2.83	4.00	
Juniper Butte Exclosure				13	29	
Ave/slickspot				0.52	1.16	
Holding Pen Grazed	310	473		15	39	
Ave/slickspot	14.76	22.52		0.83	2.17	
South Clover	775	1966		23	36	
Ave/slickspot	33.70	85.48		1.92	3.00	
South Clover West				0	3	
Ave/slickspot				0	3	
Juniper Butte				54	78	
Ave/slickspot				3.60	5.20	
Juniper Butte South				7	20	
Ave/slickspot				1.40	4.00	
Clover Butte				141	250	
Ave/slickspot				8.29	14.71	
Airbase Grazed				10	11	
Ave/slickspot				5.00	5.50	
Inside Desert				1	3	
Ave/slickspot				0.50	1.50	
Three Creek New				17	24	
Ave/slickspot				8.50	12.00	
Middle Butte				1	2	
Ave/slickspot				0.50	1.00	

PROCEDURES FOR 2012:

The sites examined in 2010 and 2011 will be revisited and presence and density of slickspot peppergrass plants will be recorded. These data will become the baseline against which future changes in *Lepidium papilliferum* populations will be contrasted.