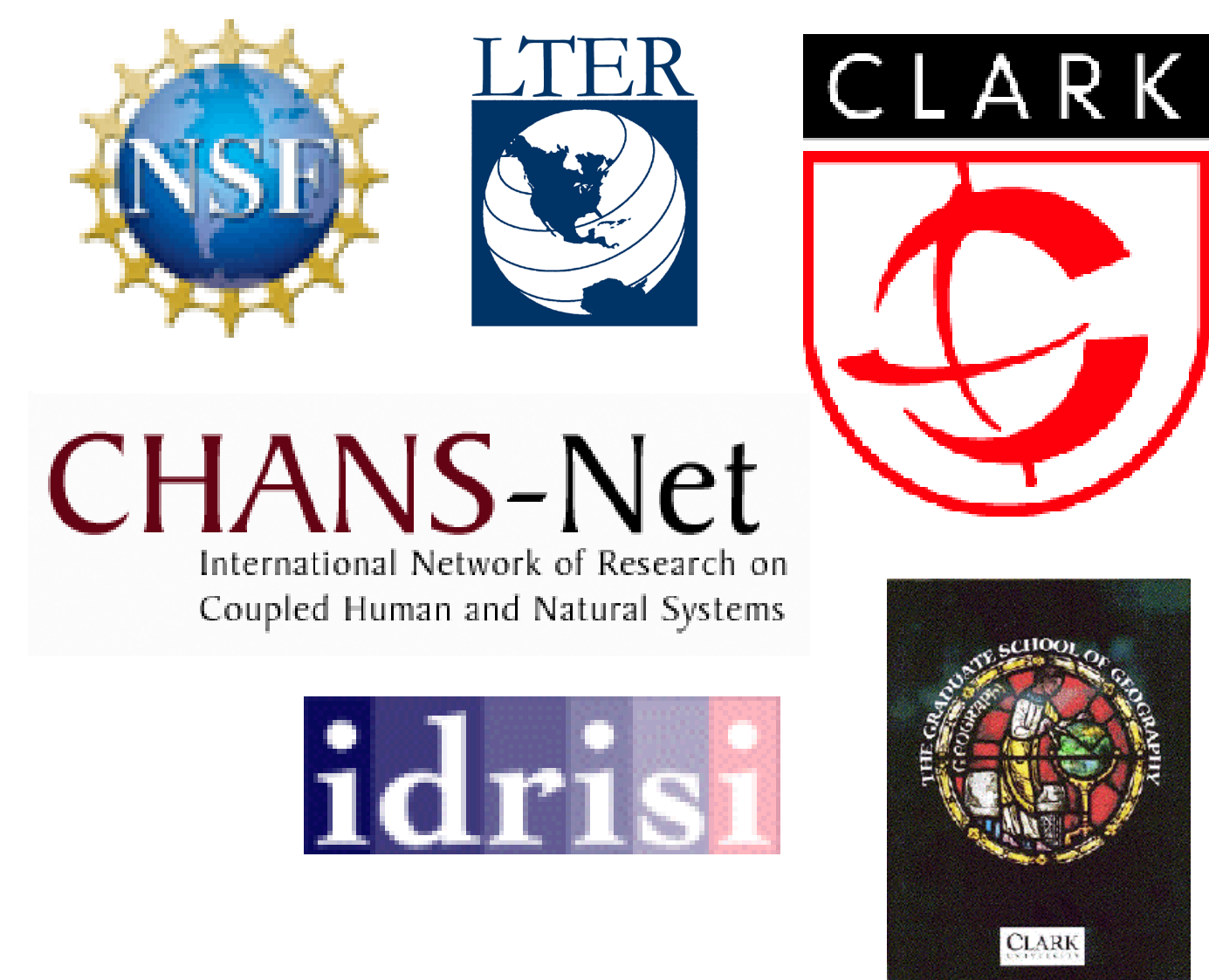


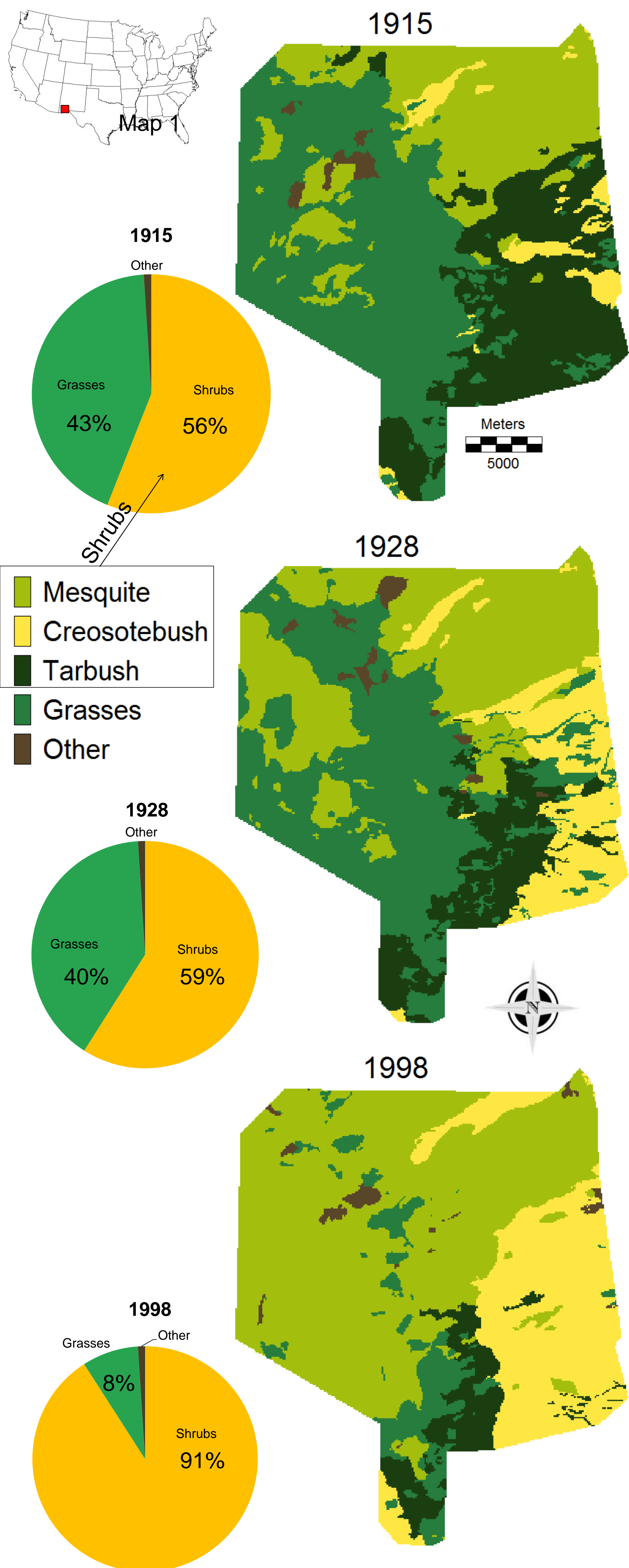
# Jornada Basin Long Term Ecological Research Site: Conversion of Grassland to Shrubland



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## Introduction

Located in southern New Mexico, the Jornada Basin Long Term Ecological Research Site has vegetation characterized by grasses and shrubs such as Mesquite, Creosotebush, and Tarbush. The maps below illustrate the site's transition from **grasses** to **shrubs**.

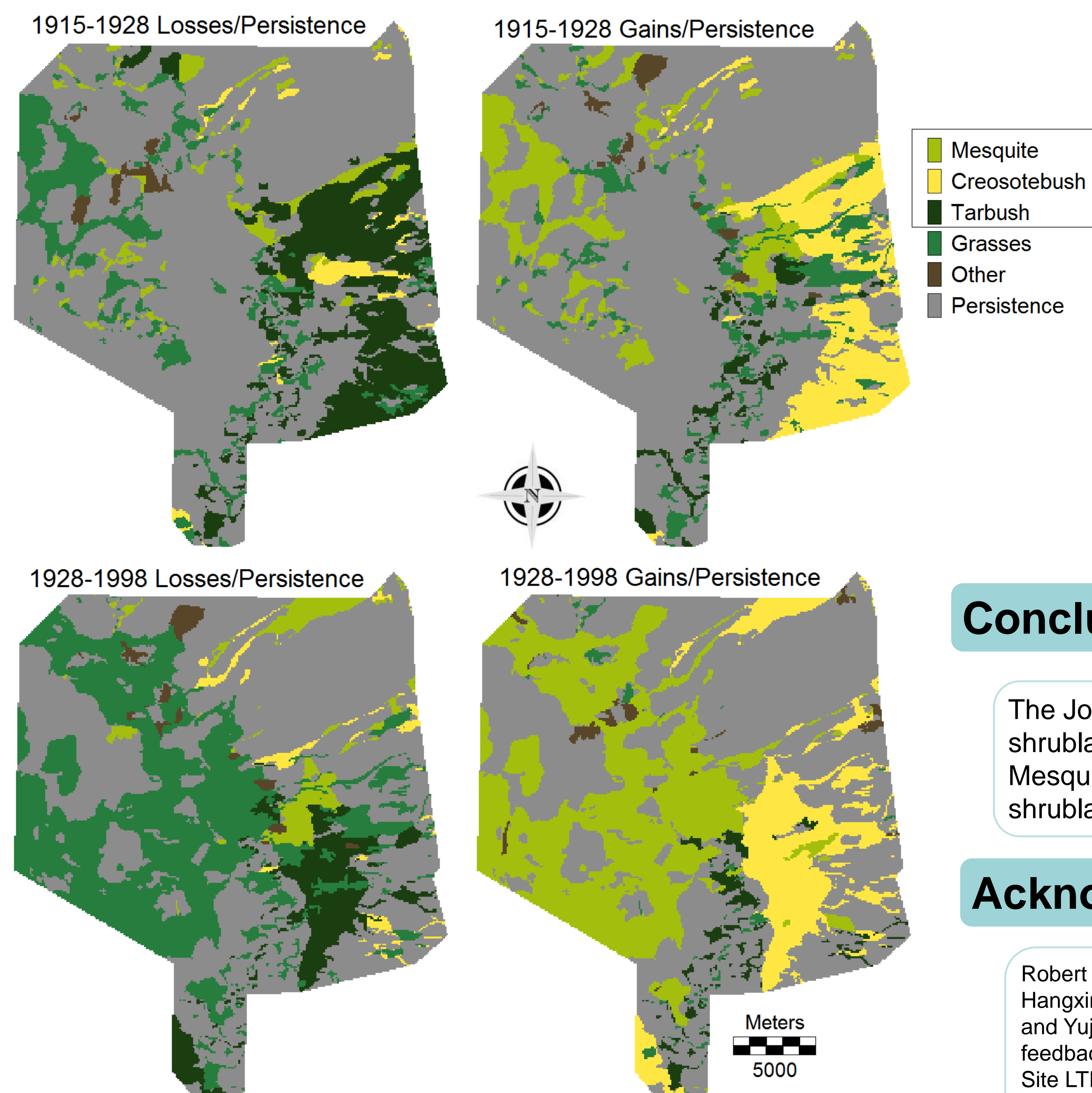


## Transition Matrices

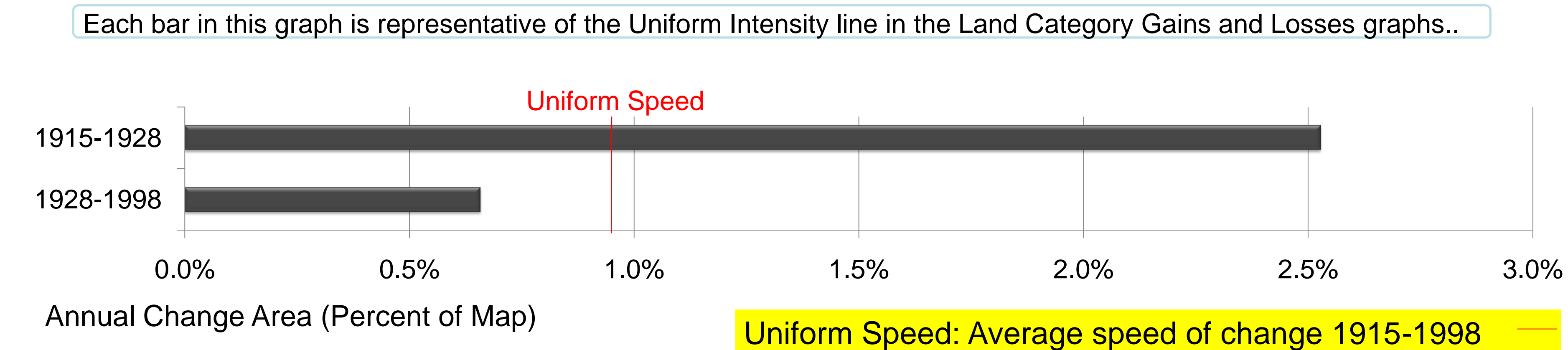
		1928	1928	1928	1928	1928	Total	Loss
		Mesquite	Creosotebush	Tarbush	Grasses	Other	1915	
1915	Mesquite	23	1	0	2	1	27	4
1915	Creosotebush	0	2	1	1	0	4	2
1915	Tarbush	2	10	9	4	0	25	16
1915	Grasses	7	1	2	33	1	43	10
1915	Other	0	0	0	1	0	1	1
Total	1928	34	14	11	40	1	100	33
	Gain	10	11	3	7	1	33	

		1998	1998	1998	1998	1998	Total	Loss
		Mesquite	Creosotebush	Tarbush	Grasses	Other	1928	
1928	Mesquite	30	3	0	0	0	34	4
1928	Creosotebush	1	12	0	0	0	14	2
1928	Tarbush	1	6	5	0	0	11	7
1928	Grasses	27	3	2	7	1	40	33
1928	Other	1	0	0	0	0	1	1
Total	1998	59	24	7	8	1	100	46
	Gain	30	12	2	1	1	46	

## Gains, Losses, and Persistence Maps

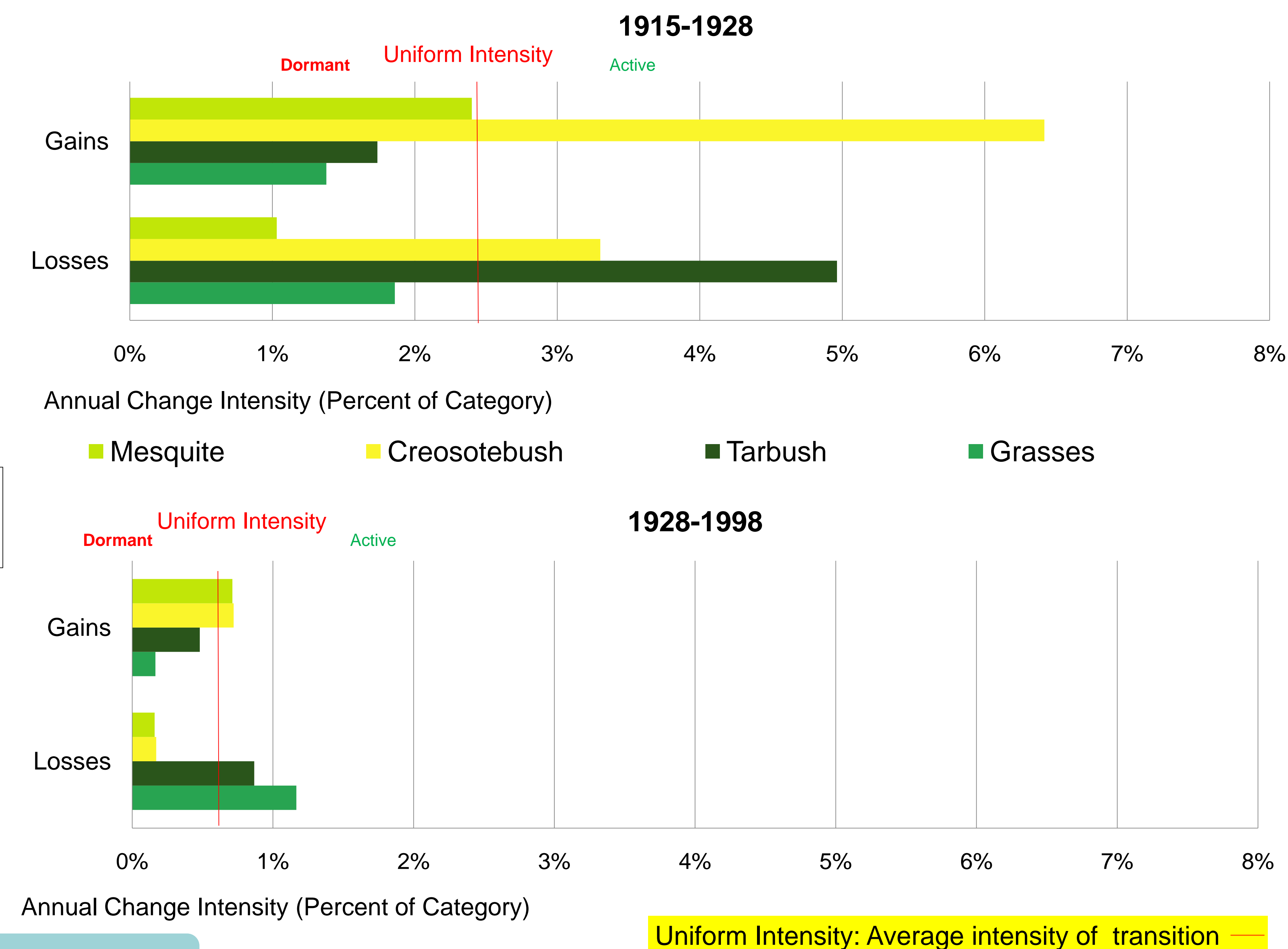


## Land Change Speed



## Land Category Gains & Losses

Category gains and losses show categories that are actively gaining or losing in each time interval. The category 'other' was eliminated from these graphs due to its large change and minimal percentage of the landscape.



## Conclusions

The Jornada Basin Long Term Ecological Research Site experienced transitions from grasslands to shrublands in the 20<sup>th</sup> century. The most pronounced of these transitions was the transition from Grasses to Mesquite. According to research being done at the Jornada site, such a transition from grasslands to shrublands is evidence of desertification (<http://jornada-www.nmsu.edu/>).

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