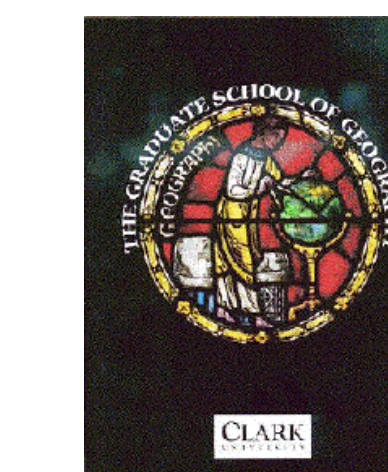




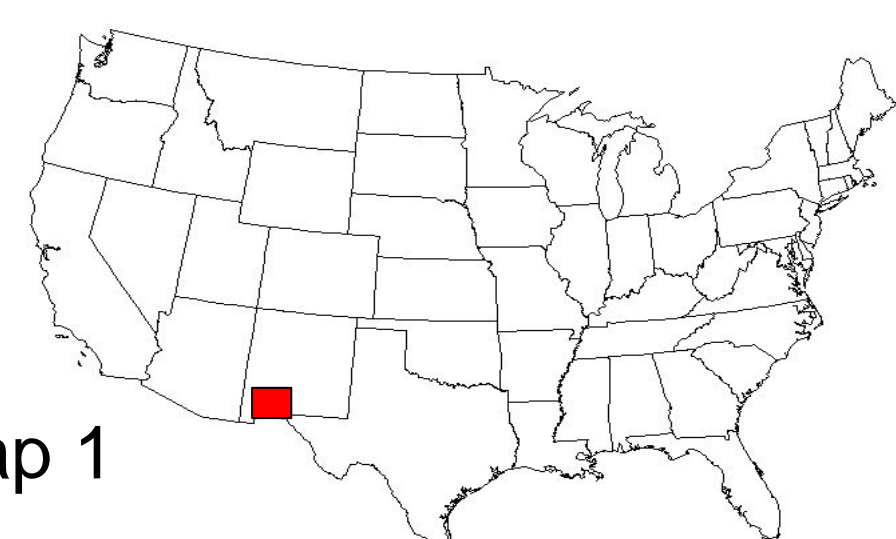
Jornada LTER Site: Three Level Analysis of Land Category Change.



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Introduction

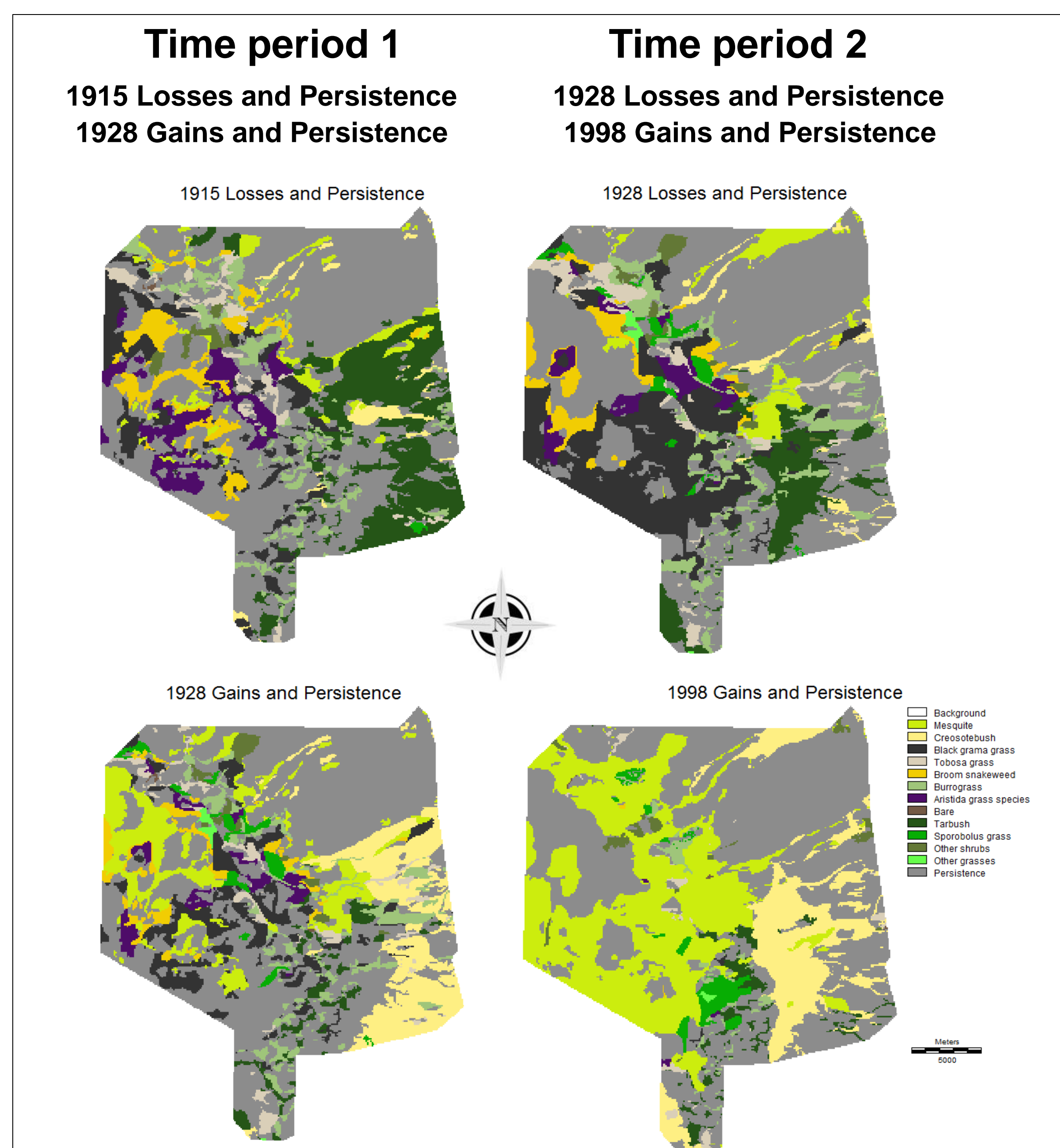
The Jornada site is located in the Jornada Basin, which extends from Southern New Mexico to Northern Mexico. The LTER study site is located within Southern New Mexico. This study is looking to aid in cross-site analysis by looking at changes in a standardized three level study.



Data

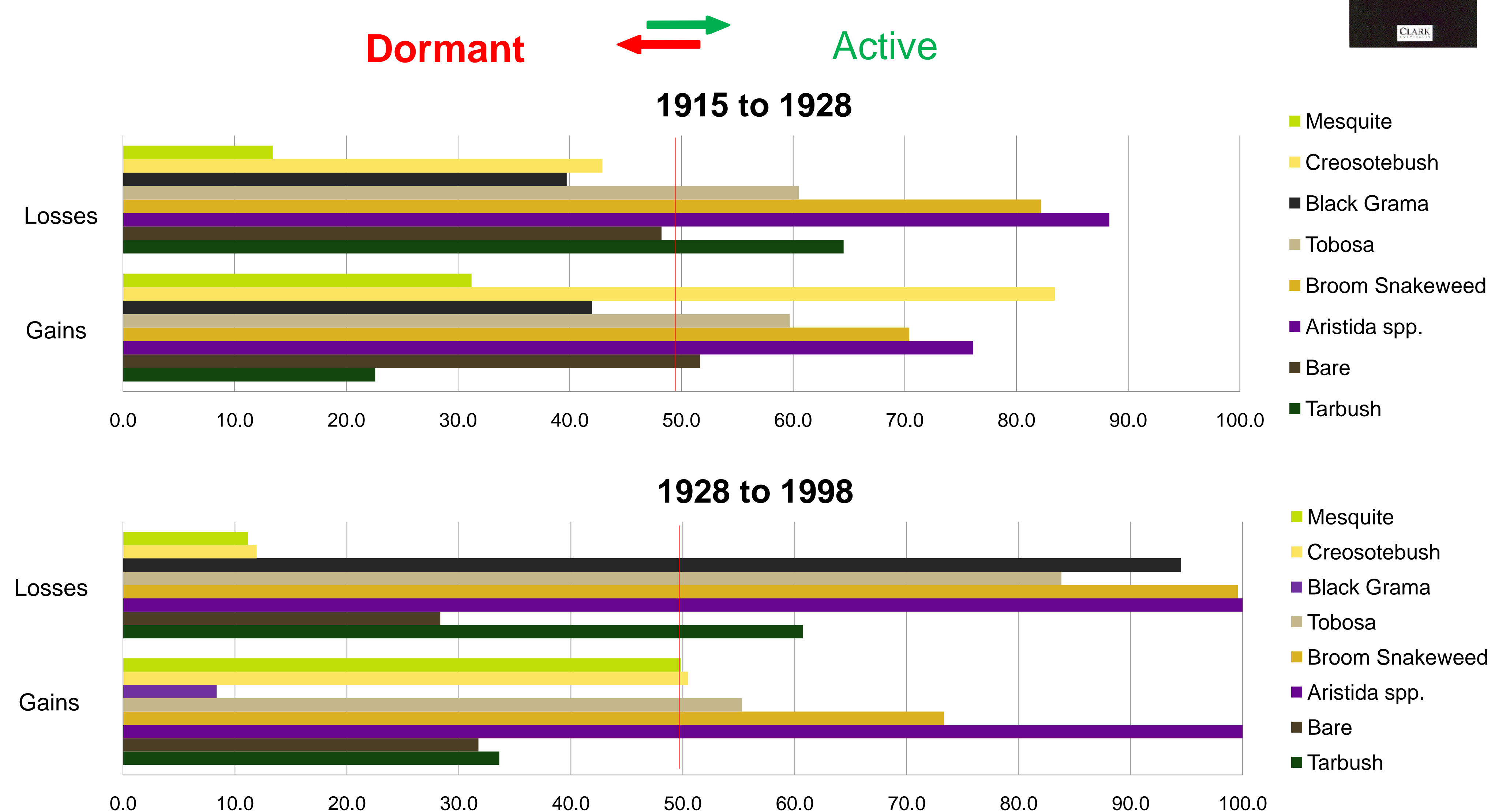
Below: The dates of the three time periods are 1915, 1928, and 1998. As can be seen by the diagrams below the area sees large amounts of change through time..

Right: On the top these maps show losses/persistence for 1915 in time period one, and 1928 in time period two. On the bottom these maps show gains/persistence for 1928 in time period one, 1998 in time period two.



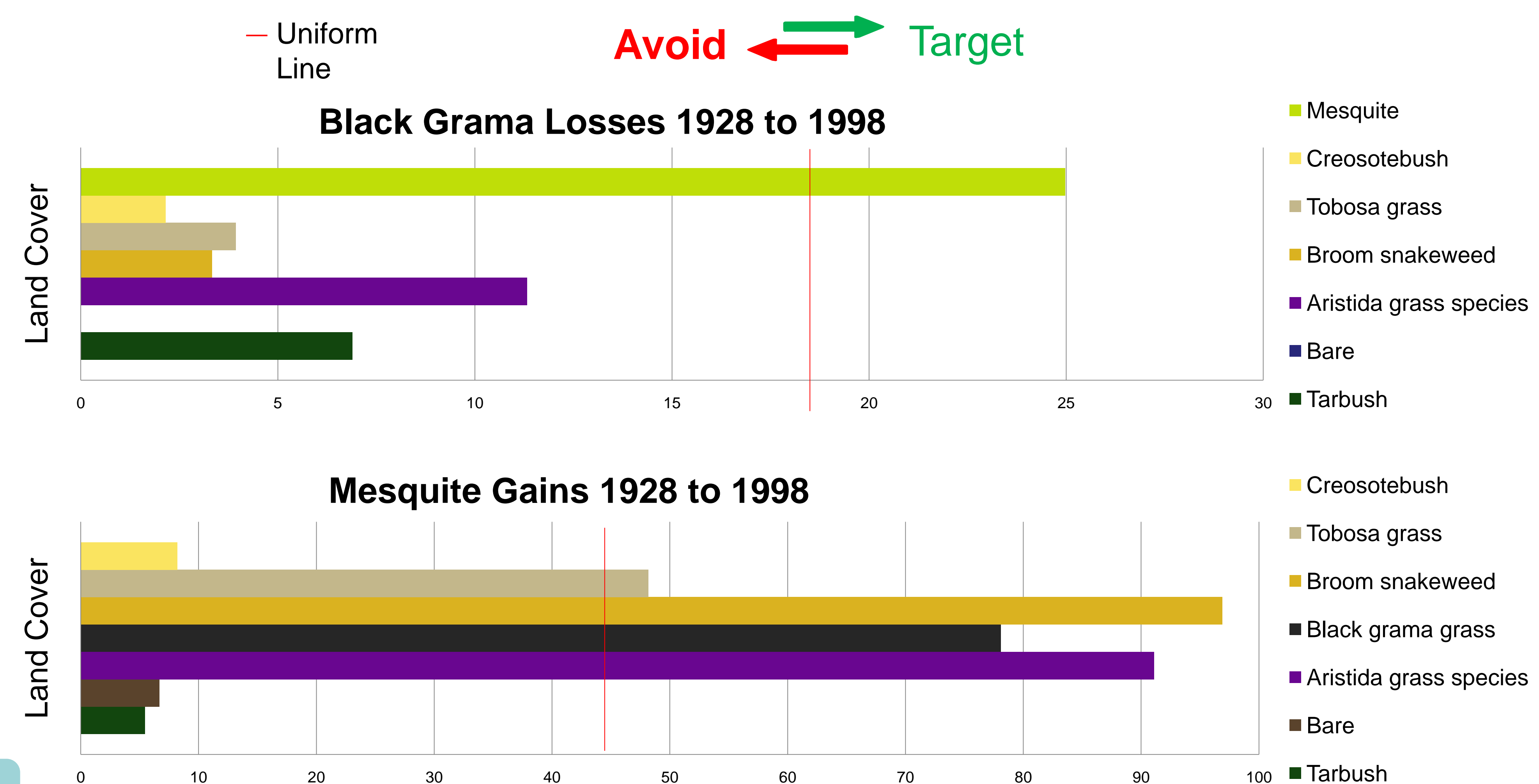
Level 2

Level two shows categories which are dormant or active in gains or losses, based on a percentage of 100 for each land cover category. A selection of the largest and most important categories have been selected for simplification.



Level 3

Level three shows two individual transitions which were the most interesting. Black Grama lost a good deal of its percentage during time period two, here we can see Mesquite is actively targeting Black Grama for its gains, as well as three other forms of grass, while avoiding bare and other species of bushes.



Conclusions

This analysis provides insight into the changing face of the Jornada site.. The site has been transitioning from grassland to shrubland. As can be seen in this data Creosotebush and Mesquite (two species of shrubs) have become the dominant species on the landscape. The demise of grass species and rise of shrub species are the phenomena being studied at the Jornada LTER site. The effects of human activities, and livestock grazing, have contributed to desertification and resulting shrub growth on the site. Level three shows this trend well Mesquite targets Black Grama in 1915 to 1928, and avoids Creosotebush. And in 1928 to 1998 Mesquite targets all grass species and avoids shrub species.

Acknowledgements

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References

Google Maps (map one), Jornada LTER Site (Picture 1), Idrisi Tiaga

Level 1

