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Rebecca R. OWENS*, rebecca.owens@ttu.edu. *Changes in Texas Playas Over The Past Three Decades.*

Playas are ephemeral freshwater wetlands that are important resources for people and wildlife in Texas. Due to intense land conversion, playas have been deliberately or inadvertently modified. Activities such as drainage and infill have caused some playas to be lost altogether. However, it is unknown the quantity of playas that have been lost, particularly given the seasonal and interannual wet/dry periods, and the inherently dynamic nature of playas. This is important information to know in light of projected climate change in this area. In my project, I used satellite imagery to identify playas containing water during wet and dry portions of three decades (1980's, 1990's, 2000's) relative to historic locations of playas based on hydric soils in a 34000 km² portion of the Texas panhandle. I then examined the number and size distributions of playas that held water at least once versus those that were either wet or dry the entire time. There were over 8000 playa basins identified in my stud area based on hydric soil. I found that a large number of the playa basins no longer held water even during wet times; in contrast, there were relatively few playas that never went dry. My research provides important foundational information of temporal changes in playa wetlands. (Received February 05, 2014)