ABSTRACT

TITLE:	Genetic and Morphological Evidence of Gene Flow Among Oaks (Quercus) in the Four Corners Region
AUTHOR(S):	Schendel, Matthew
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ABSTRACT: Gene flow is a common occurrence among plant taxa with low barriers to reproduction. Oaks (Quercus) are known for their low levels of reproductive isolation and production of fertile hybrids. In the Four Corners Region a number of Oak taxa occur sympatrically and give rise to various hybrid forms which are generally well segregated based on morphology. To understand the extent with which gene exchange is occurring among the oak species of the Four Corners Region I evaluated a set of five taxa in nine populations for both phenotypic and genotypic divergence. Genetic measures showed that gene flow was extensive among all the taxa while phenotypic identity continued to be largely preserved. This indicates that even under conditions of high gene exchange unique morphological forms can be maintained, likely the result of secondary interactions between genetic structure and ecological factors.