

AN ENDANGERED HABITAT

**A STUDY OF DESERT TORTOISE HABITAT IN SOUTHWESTERN UTAH
USING REMOTE SENSING APPLICATIONS AND GIS**



Image Courtesy: Lee Vigar, SW

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INTRODUCTION

Southwestern Utah lies at the convergence of three great ecosystems, the Colorado Plateau, the Great Basin, and the Mojave Desert. This setting creates a biologically diverse area unlike any other. Animals and plants unique to each region are found together in this corner of the state. Several endemic species also make this region home as the merging ecosystems create a specialized habitat found no where else on earth (redcliffsdesertreserve).

Among the throng of wildlife is found a quiet and evanescent resident. Added to the Threatened Species list by the United States Fish and Wildlife Service in 1980, the desert tortoise (*Gopherus agassizii*) is a hot topic in southern Utah. Preservation of the reptile's habitat has been a point of contention between land owners and developers and those who wish to protect the tortoise in this area. Many view the tortoise as a nuisance in their plans for development and land use, and advocates of the tortoise insist that it is a creature worthy of our protection.

A huge step toward the protection of the tortoise's habitat was taken in 1996 when the Red Cliffs Desert reserve was established to not only protect the tortoise, but also the other plants and animals that call the region home. Encompassing an area of 62,000 acres, the reserve sits directly to the north of St. George and stretches westward and eastward to the cities of Ivins and Hurricane, respectively.

Through a study of the tortoise and its requirements for habitat, I was able to locate areas within Washington County that could provide it with the required necessities of life. These necessities include water, vegetation, elevation, and climate.