

Culturally Significant Medicinal Plants Within Emory Oak (*Quercus emoryi*) Ecosystems

Shawna Woody

Northern Arizona University, Flagstaff, AZ, USA

Emory oak (*Quercus emoryi*) is a cultural keystone species that supports woodland and savanna ecosystems in Arizona. Within these systems are medicinal plants that hold value for the past, present, and future generations of the Apache Tribes (Yavapai, San Carlos, Tonto, White Mountain). There is little understanding of the dynamic between medicinal plant species occurrence within *Q. emoryi* ecosystems and climate change. This research relies on traditional ecological knowledge and scientific research to create a foundation that could help in future management decisions. These ecosystems are threatened by climate change (drought), fire suppression, invasive species, and human impacts. To better understand if there is a conservational connection with medicinal species occurrence with Emory oak ecosystems. Extensive research of existing cited literature is needed to create a database of all cultural significant plants. Followed by interviews with Elders to fill in the gap and gain more cultural knowledge. To recognize how will climate change affect the distribution of culturally significant medicinal plants in Emory oak habits. Spatial Distribution Models (SDM) will be used to predict environmental changes and trends for species under various climate change scenarios. Land Surveying is of interest in providing physical evidence in co-occurrence. Applying scientific knowledge and Apache wisdom is the start to protecting, preserving cultural significance plants.

Contact Information: Shawna Woody, Post-Bacc Scholar, Northern Arizona University, Biology, NAU School of Forestry, Flagstaff, AZ, 86011, USA, Phone: 928-523-2669, Email:shawna.woody@nau.edu or anita.antoninka@nau.edu