

Demography Monitoring of *Pediomelum pentaphyllum* in Southwest New Mexico

For the past five years, The Arboretum at Flagstaff has been working with the Bureau of Land Management in Arizona and New Mexico to study the Chihuahua scurfpea, or *Pediomelum pentaphyllum*. Scurfpea has been petitioned for listing on the endangered species list and is at risk due to various range management treatments. This plant is a member of the Pea family (Fabaceae) and lives in dune-like habitats in southwestern Arizona and southeastern New Mexico. This species has an interesting adaptation to life in the desert – it is able to withdraw all of its stems and leaves belowground when it is too hot and dry! The “life” of the plant exists in the tubers, which make up the root system. While a great survival tactic for the plant, this is a difficult trait for the researcher!

The Arb has established two demography plots in southeastern New Mexico to study the life cycle of the plant. Once a year, we visit the two plots and count the number of individuals, measure their size, and count how many flowers (reproductive effort) they have. We also count the number of new seedlings that occur. These data will be input to a mathematical model to help determine whether the population is declining, remaining stable, or growing over time. Knowing what the population is expected to do in the future is an important conservation tool for developing future management plans.

For more information please contact Kristin.Haskins@thearb.org.

