



March 22, 2024

DESERT CONSERVATION PROGRAM PROJECT COMPLETION SUMMARY  
**Pocket Mouse Landscape Genomics**  
**2021-BEC-2095D**

The work for the above referenced project has been completed. Below is a summary of project related information.

**The purpose of the above referenced project was:**

The purpose of this project was to help develop an effective conservation strategy for the *Chaetodipus penicillatus* (desert pocket mouse) in Clark County by assessing population genomic structure and potential landscape connectivity of the species. Tissue samples were collected to conduct analysis on the genetic diversity of the species, identify distinct populations, evaluate the extent of the effective population size of the tested populations and identify the degree and direction of gene flow.

**The major accomplishments or findings of this project include:**

Results indicate that interbreeding has occurred between the subspecies of *C.p sobrinus* and *C.p. penicillatus*. Three genetically distinct and geographically isolated populations of *C.p. sobrinus* were identified in southern Nevada. It is recommended to not move individuals between populations to keep the distinct populations. Effective population size for the populations is below recommended population minimums, but there is an indication of healthy population growth. Potential threats to the populations include habitat conversion, loss of habitat quality, connectivity, disease, and climate change. Multiple recommendations for management actions were developed to help support conservation efforts.

For more information about this project and/or for other Project Reports or Symposium Reports, please visit our [website](#).

If you have any questions about this project, please contact Kimberley Jenkins, at (702) 455-5529.