

Ecological Study of Wildlife and Vegetation Resources on the Kaibab-Paiute Reservation

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The purpose of the study is to examine the composition of wildlife and vegetation resources on the Kaibab Paiute Reservation. Areas of focus for the study include small mammals, bats, birds, mule deer populations. A capture and release study will be conducted on small mammals and bats to provide accurate information on which species are present in key locations on the reservation during different seasons of the year. Observations will be made to identify bird species located on burned and unburned habitat sites. Mule deer census data from 2000 through 2006 will be compiled and analyzed. In addition pre and post fire vegetation response of a shrub dominated habitat will be analyzed. Random plots and line transects will be used to measure abundance and diversity of vegetation within the non-burned and burned sites. The results of this study will be used inform the Kaibab Paiute community.

Response to Capture and Handling Stress in *Antrozous pallidus* and *Pipistrellus hesperus*

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The misconception of bats as dark, blood thirsty, frightening animals that tangle peoples' hair and bite their ears has given the bat population a bad reputation. Actually, aggressive behavior in healthy bats is rare. Behavior such as biting, hissing, and hasty movements can be mistaken as aggressive behavior but may be only a defensive response to capture and handling stress. This behavioral study of bats is part of a larger ecological research study of wildlife resources on the Kaibab-Paiute reservation. It is meant to compare the aggressive behavior between the Pallid, *Antrozous pallidus* and the Western Pipistrelle, *Pipistrellus hesperus*. This study will examine the anatomy, feeding behavior, and locomotion of the bats that work simultaneously to influence their behavioral response to capture and handling stress. Preliminary observations indicate that ground feeding Pallid bats tend to exhibit more extreme defensive behaviors in response to being captured and handled than the Western Pipistrelle which feeds on aerial insects and is more docile when handled.