

Is this a proposal?
NOT ON SHEET



MULE DEER MOVEMENT IN GAME MANAGEMENT UNIT 1

Problem Statement:

Over the last few years wildlife managers have noticed mule deer in game management unit 1 (GMU 1) are not consistently available to observers during the January survey period. Furthermore the timing of the fall general firearms hunt may be influencing hunter success rates. If the timing is such that the hunt dates fall significantly into the November time period it seems hunt success may be drastically reduced. The available information indicates there may be movement by these deer into other locations adjacent to GMU 1 such as GMU 27, GMU 3B, and the White Mountain Indian Reservation.

Management Objective:

Department wildlife managers need to develop survey methodologies that provide a high degree of confidence, and is reflective of the GMU1 mule deer population during the fall hunt periods. Also, wildlife managers would like to be able to say, with equal confidence, that keeping the fall general deer hunt in GMU 1 prior to a specific date would likely ensure the availability of mule deer to hunters offering a consistent and predictable hunt success.

Proposal:

Wildlife managers are proposing to radio collar 20 mule deer in three general areas within GMU 1. 1) Big Lake area and south to Black River, 2) Escudilla Mountain area, and 3) northwest portion of GMU 1 from CC Flat to Butler Mountain. Of those deer collared 80% or more would likely be does to get consistent movement patterns of matriarchal populations, the bucks collared would be used to compare relative dispersion related to those groups. The movement study will incorporate the use of GPS tracking collars. The type of collar suitable for this study would be a collar that can be preprogrammed to pick up location information at set intervals and to automatically drop off the animal at a set interval several months after placement.

The study will target installation of collars during June, July, and August and be programmed to drop off in late September of the following year. The collars will be programmed to collect location information at least 3 times per week during the study period. This will allow for collection of at least one year of movement and for the collar to likely drop off in a location readily accessible by department personnel. Location data for any locations on tribal lands will be treated as proprietary information and given directly to tribal game managers and not shared with the public. This information will be listed as locations not specified but outside of GMU 1.

Management alternatives:

Use study results, movement patterns and timing, to determine if changes are necessary for population survey techniques and timing and to address timing of fall hunts. Changes will incorporate new data to allow surveys and hunts to be timed with annual availability. If the mule deer movement study demonstrates a large segment of the unit 1 deer population exists wholly or in part in another game management unit during the fall hunt period we will assess the possibility of providing additional hunter opportunity within those units.

Cost Estimate:

20 collars with collar release mechanisms and annual subscription	\$100,000.00
Capture costs (non-PS/ERE)	\$15,000.00
Total cost for implementation	\$115,000.00

Collars can be refurbished at a reduced rate for use on future studies.

Submitted by:

Michael Godwin
Wildlife Manger Supervisor
Pinetop Region
Arizona Game and Fish Department
2871 White Mountain Blvd
Pinetop, AZ 95935
928-242-3716
928-367-4281