

Large Mammal Advisory Committee

Approved Project

QUARTERLY/ANNUAL PROGRESS REPORT

**Project Name:** Migration, Habitat Use, Health and Survival of the Eastern Tehama Deer Herd

**Quarter:** Fourth (October-December 2014)

**Project Objective:**

The Eastern Tehama deer herd is the largest migratory herd in the State and has experienced population declines in the past several decades. These declines have resulted in the substantial loss of recreational activities, declines in revenues to local economies associated with deer hunting or viewing, and public concerns over the effectiveness of the Department's management strategy for this herd. Contemporary data identifying important habitat use areas (seasonal ranges and migration routes) are lacking and are needed to effectively manage and conserve the Eastern Tehama deer herd. This information will also be used to update the Deer Conservation Unit (DCU) plan for the Klamath Mountains and Cascades Range, which includes the Eastern Tehama deer herd as well as other herds within the C Zones in northern California.

We propose to capture at least 25 adult female black-tailed deer by free range darting from 2013-2015. All deer will be assessed for physical condition and standard weights and measurements will be taken. Blood will be drawn for disease analysis and collection of ectoparasites will be conducted. Each deer will have a timed release GPS collar affixed. GPS collars will be programmed to record a location every 4 hours and release after one year. Telemetry monitoring will take place to check survival of individuals throughout the year.

**Work Performed:**

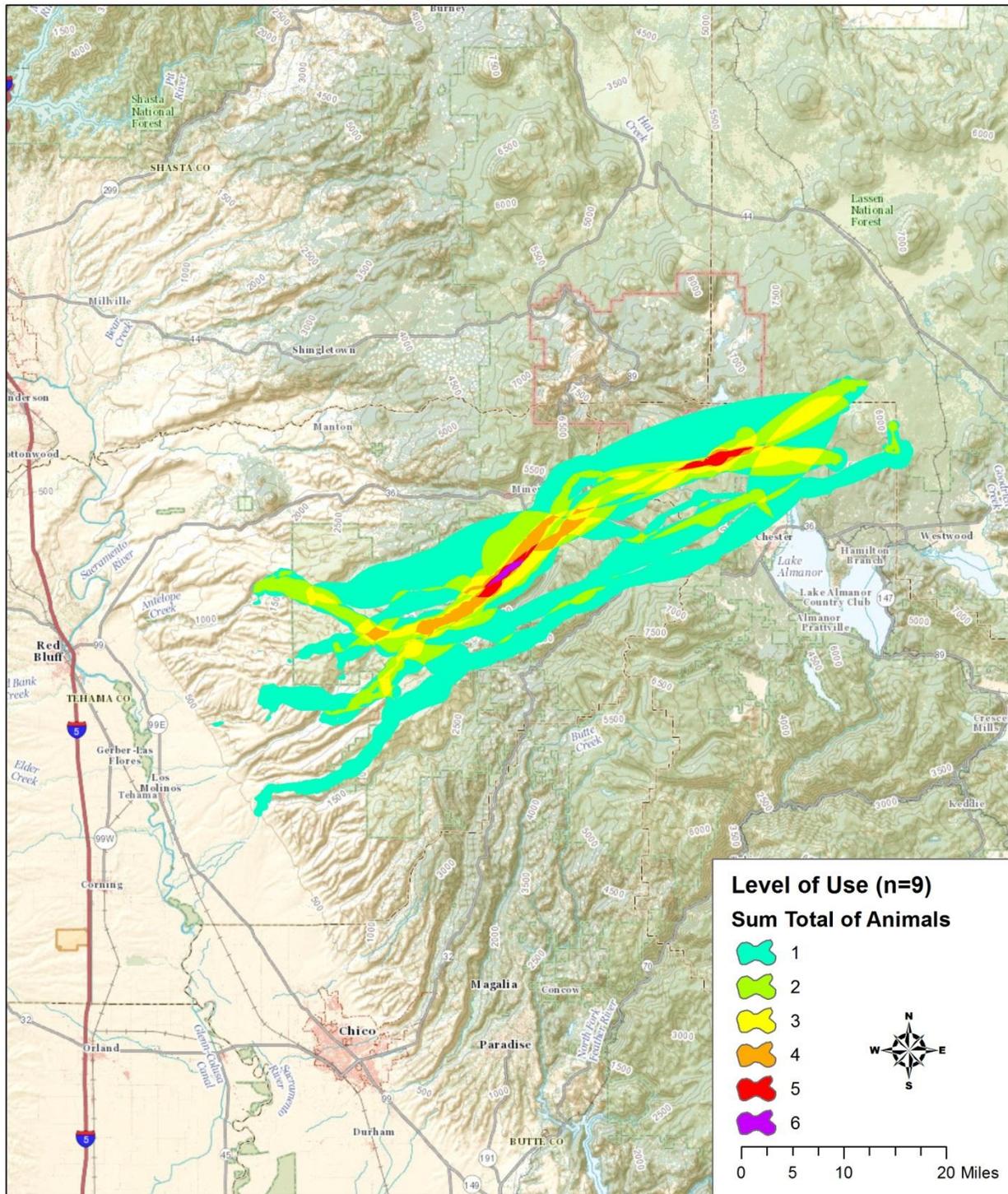
**Capture Activities:**

No captures were conducted during this quarter.

**GIS Analysis:**

Initial testing of Brownian bridge movement model was performed on the GPS location data collected from the 9 collars recovered. Although the sample size is small, this analysis looks promising for delineating varying levels of animal use during migration and staging which can guide potential conservation actions.

**Summarizing population level use by combining individual animal home ranges, can be used to prioritize importance of a particular geographic area for conservation.**



**Telemetry Monitoring:**

Two telemetry flights were conducted during the quarter. The first flight was conducted on October 2. Seven of the 9 does collared during the previous spring and summer were located. One collar was in mortality mode and was recovered later that week near the area where she was originally captured on the summer range. It appeared that the collar had slipped off; no sign of a carcass was found in the area. The remainder of the collars were functioning normally. The second flight was conducted on November 12

and all 9 of the does were located. One collar was in mortality mode and the carcass and collar were located the following day. Very little of the carcass remained and cause of death could not be determined.

Ground telemetry was also conducted periodically to check individual deer.

#### Survival:

To date a total of 19 does have been captured and collared (2013 and 2014). Three collared does are known to have died, 1 from unknown causes (May 2013), 1 hunter harvested (October 2013) and 1 from unknown causes (October 2013). One doe was unaccounted for either due to a collar failure or it moved out of the area and one had its collar slip off.

#### Purchasing:

No project purchases were made during this quarter.

#### **Funds Expended:**

Fiscal Year 14-15 Operating Budget: \$12,000.00

Total expended for the quarter: \$ 453.00

#### **Work Anticipated for Next Quarter:**

Winter range capture activities are planned for February or March, 2015. The goal will be to collar 2 does to replace the 2 lost during the last quarter; additional does may be captured if time permits. Telemetry monitoring of radio collared deer via ground and air will be conducted to check for survival and collar performance. Purchase and procurement of additional capture supplies including miscellaneous equipment will also take place.

Continue to coordinate with Northern Region GIS Research Analyst to analyze data and to investigate the potential of developing a web page describing the project which will be installed on the DFW Northern Region web page.