

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:** Third (July - September 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 a total of 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:**

Summer range capture activities took place during the weeks of July 28-31 and September 3-4. Six does were captured and had GPS collars affixed. An additional doe was captured but was too small to collar and another doe was darted but was not found. Capture data sheets and IDS forms were completed and sent to WIL.

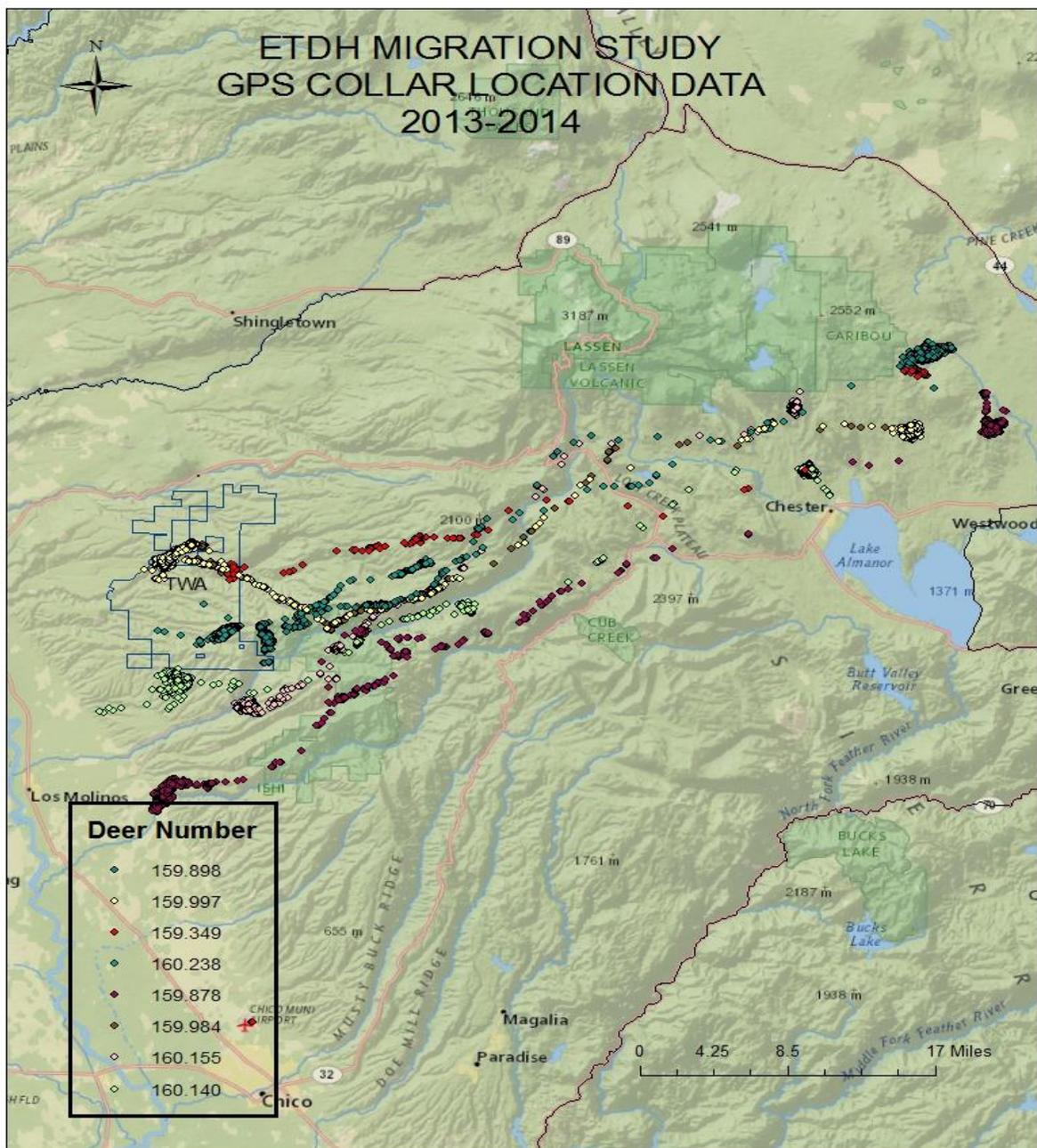
A total of 19 does have been captured and collared during this study.



DFW staff monitoring the respiration rate of a radio collared doe prior to release July 29, 2014.

GPS Location Data:

Seven GPS collars, that were deployed last year, were recovered during the quarter. All collars successfully collected location data for one year and released. The collars each averaged over 1900 location points during the year of deployment.



GPS location data from 8 deer captured in 2013.

**Migration Distances:** The does traveled an average of 43 miles (straight line distance) between their summer ranges and winter ranges with the longest being almost 54 miles and the shortest was 37 miles. Most does stopped at staging areas during both the fall and spring migrations (only one doe did not stop at a fall staging area but that doe did use a spring staging area). And in most instances these staging areas were different in the fall and spring. Staging areas tended to be closer to the winter range, averaging about 11 miles from winter concentration areas.

**Migration Timing:** Two does left the summer ranges during the first week of September. The remainder of the does had left their respective summer ranges by the third week of September. They arrived on the fall staging areas between September 8 and September 28 and remained at the staging areas for an average of 28 days (range of 0-50 days). The does arrived at their respective winter concentration areas on the winter

range between October 2 (the doe that did not stop at a fall staging area) and November 3 but averaged around the third week of October.

During the spring migration, the does left the winter concentration areas between April 13 and April 30 and generally arrived on the spring staging areas within a couple of days. They spent an average of 12.6 days on the spring staging areas and moved rapidly to the summer areas covering 30 to 40 miles in an average of 5.4 days. Two does traveled approximately 30 miles in 3 days from the spring staging areas to the summer range. The does arrived on their respective summer ranges between May 2 and May 14. This timing may be earlier than a typical year because the summer range was free of snow earlier than normal.

#### Telemetry Monitoring:

Two telemetry flights were conducted during the quarter. The first flight was to locate the does marked last year prior to the collars releasing and the second to locate the deer marked this year after capture to check the status of the collars, all collars were functioning normally. 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). Two collared does are known to have died, 1 hunter harvested (October 2013) and 1 from unknown causes (May 2013). A third doe was unaccounted for either due to a collar failure or it moved out of the area.

#### Purchasing:

Capture supplies were purchased during this quarter which included needles and syringes and batteries for trail cameras.

#### Funds Expended:

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

Total expended for the quarter: \$ 2,737.32

#### Work Anticipated for Next Quarter:

Telemetry monitoring of radio collared deer via ground and air will be conducted during this quarter to check for survival and collar performance. Purchase and procurement of additional capture supplies including miscellaneous equipment will also take place.

Additionally, coordination with Northern Region GIS Research Analyst to begin analysis of 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.