

Large Mammal Advisory Committee

Approved Project

JANUARY QUARTERLY PROGRESS REPORT

**Project Name:** Peninsular Ranges Bighorn Sheep Population Monitoring and Assessment

**Quarter:** 1 October - 31 December, 2013

**Feasibility Project Objective:**

The primary objective of the peninsular ranges bighorn sheep monitoring and assessment project is to improve the monitoring capabilities for the on-going peninsular bighorn sheep population recovery program. This will be accomplished through the deployment of Very High Frequency (VHF) telemetry-collars (MOD 500, Telonics, Inc., Mesa AZ, USA) with Global Positioning System (GPS) "pods" (Quantum 4000 Enhanced GPS Pod, Telemetry Solutions, Concord CA, USA) on Desert Bighorn Sheep (*Ovis Canadensis Nelsoni*) along with aerial fixed-wing aircraft telemetry monitoring.

A population monitoring and assessment program designed to determine and track population status, distribution, habitat use, recruitment, survival, and mortality using radio-telemetered bighorn sheep has been in place since 1992. Continued implementation of this program remains crucial to the development and refinement of recovery strategies and achieving established population conservation objectives. Deployment of radio-telemetry collars on bighorn sheep and subsequent ground and aerial monitoring is vital to the collection of data crucial to the development of new management strategies, refinement of existing management strategies, and to achieving established population conservation strategies.

**Work Performed:**

This project was proposed as a one year project with work to be carried out between 1 July, 2013 and 30 June, 2014 in the Peninsular Ranges occurring within eastern San Diego and western Riverside and Imperial Counties. Work to be undertaken during this timeframe includes the purchase of VHF telemetry collars and GPS units, capture and fitting of telemetry collars on bighorn sheep (fall 2013) in the Carrizo Canyon, Vallecito, North San Ysidro, and Southern Santa Rosa Mountain areas of the Peninsular Ranges and aerial monitoring of collared bighorn sheep in all areas via fixed-wing aircraft three to four times per month. Work completed between 1 October and 31 December, 2013 included the refurbishment of four previously used GPS pods and purchase of 18 new GPS pods. Due to the unavailability of helicopter services required to capture bighorn

during fall 2013 collaring work could not be undertaken as planned. Further, due to the timing of lamb birth in the Peninsular Range and helicopter scheduling collaring work will not be possible until fall of 2014. Project funds originally allocated to helicopter time will be re-allocated to telemetry equipment purchase and/or fixed-winged aircraft flight support.

**Funds Expended:**

This quarter: 1 October - 31 December, 2013

Total to date: \$45,671.88

Equipment Purchase: \$ 45,671.88

**Work Anticipated Next Quarter:**

Work anticipated next quarter includes the purchase of VHF collars and implementation of aerial fix-wing telemetry flights through the Department's Air Services Branch for existing collared bighorn sheep. Once acquired, all telemetry equipment to be deployed in the areas previously described will be programmed, field tested, and readied for deployment during fall 2014.