

**ARIZONA GAME AND FISH DEPARTMENT
HABITAT PARTNERSHIP COMMITTEE
HABITAT ENHANCEMENT AND WILDLIFE MANAGEMENT PROPOSAL**

Game Branch / HPC Project Number:	11-103
Possible Funding Partners:	

PROJECT INFORMATION

Project Title: GMU 1 Pronghorn Seasonal Movement Study

Region and Game Management Unit: Region 1/ GMU 1

Local Habitat Partnership Committee (LHPC):
 • Alpine/Springerville

Was the project presented to the LHPC?
 YES NO

Has this project been submitted in previous years? YES NO

If Yes, was it funded? YES NO → **HPC Project #:**

Project Type: Game Management

Brief Project Summary:

GPS tracking collars will be applied to a sample of pronghorn summering in high elevation grasslands in GMU 1. Tracking collars will be programmed to increase waypoints recorded during fall and spring migration periods. The location information will be used to determine selected migration routes and highway crossings. Department personnel would conduct the capture operation, retrieve collars, and analyze location/movement data. The completed report would be shared with staff from the Apache-Sitgreaves National Forest and the Arizona Department of Transportation.

Big Game Wildlife Species to Benefit: Pronghorn

Implementation Schedule (Month/Day/Year):

Project Start Date: 9/2012

Project End Date: 10/2014

Environmental Compliance:

NEPA Completed: YES No N/A

Projected Completion Date: _____

State Historic Preservation Office - Archaeological Clearance:

YES No N/A

Projected Completion Date: _____

Arizona Game and Fish Department EA Checklist: N/A

To be Completed by: Tyler Richins

Projected Completion Date: December 2011

PROJECT FUNDING

Special Big Game License Tag Funds Requested: \$ 59,950.00

Cost Share or Matching Funds: \$ 16,360.00

Total Project Costs: \$ 76,310.00

PARTICIPANT INFORMATION

Applicant (please print):
 Tyler Richins Wildlife Manager
 AGFD,
 Jason Capps Wildlife Manager
 AGFD

Address:
 2878 E. White Mountain Blvd.,
 Pinetop, AZ 85935

E-mail:
 trichins@azgfd.gov

Telephone: Tyler (928) 240-2493 Jason (928) 358-0813		Date: 8/28/2011
AGFD Contact and Phone No. (If applicant is not AGFD personnel):		
Project has been coordinated with: United States Forest Service, Apache-Sitgreaves National Forest		

NEED STATEMENT – PROBLEM ANALYSIS:

The majority of land in GMU 1 is Public Land. It is comprised of approximately 75% United States Forest Service land and 16% State Trust land. This provides a great management opportunity that may allow the maintenance of a substantial pronghorn population in Arizona. Within GMU 1 there are high quality summer ranges that occur on United States Forest Service land above elevations of approximately 9,000 feet. On these high elevation ranges fawn:doe ratios are often much higher than those found at lower elevations. These ranges are separated from each other by large stands of ponderosa pine and mixed conifer forests. Pronghorn leave the high elevation ranges during winters with snow accumulation. The migration corridors by which these pronghorn move between lower and higher elevations are unknown.

The main objective of this project is to identify the pronghorn migration corridors between winter and summer ranges in GMU 1. The data will allow the United States Forest Service in cooperation with Arizona Game and Fish Department to direct future habitat projects to improve these corridors to allow for optimal pronghorn movement.

In addition to identifying these migration corridors the collected data may also help identify locations where pronghorn cross and do not cross AZ State Highways 260, 273, 261 and to a lesser extent AZ State Highway 60. The identification of highway crossings and locations where crossings could occur will help guide decisions relative to highway and fencing permeability for pronghorn and with future projects to improve highway permeability for pronghorn and to address mitigation measures for any future highway expansion projects. The final report will be shared with ADOT.

AGFD Region I personnel have ranked this project as a top priority research/management need in the Region.

PROJECT OBJECTIVES:

Primary

- a) Identify pronghorn migration corridors from high elevation to low elevation grasslands and direct habitat and forest treatments to these areas in order to maintain access to high quality seasonal habitats via these areas.
- b) Identify highway crossings used by pronghorn in order to address future highway expansion projects and maintain/ improve their permeability to pronghorn. Also identify those areas where permeability does not exist and may need to be addresses in future projects.

Secondary

- c) Identify fawning areas in the higher elevation grasslands.
- d) Identify mortality rates of pronghorn using the higher elevation grasslands.

- e) Identify how pronghorn are using the higher elevation grassland habitat.

PROJECT DESCRIPTION AND STRATEGIES:

- a) Capture and affix GPS tracking collars to a subset of pronghorn utilizing high elevation habitats.
- b) Analyze GPS location data to identify migration corridors and highway crossings.
- c) Collars will be collected by AZGFD employees when they drop off the animals.
- d) Any mortalities will be investigated by area wildlife managers.

PROJECT LOCATION:

Captures/collaring will occur on the grasslands north and northeast of Big Lake (From Pool Corral Lake southeast to Crosby Crossing) and possibly at one or more of the following locations: Lee Valley north to the grasslands surrounding Norton Reservoir and CC and Gillespie Flats (west-northwest of Greens Peak).

LAND OWNERSHIP AT PROJECT SITE (Please state specifically if PRIVATE PROPERTY and provide landowner's name):

The project will take place on public lands that are administered by the United States Forest Service, Apache-Sitgreaves Forest, Alpine and Springerville Ranger Districts.

HABITAT DESCRIPTION:

Subalpine grasslands dominated by bunchgrasses, principally *Festuca arizonica*. Elevation averages over 2,750 meters (~9,000 feet).

ITEMIZED USE OF FUNDS:

Special Big Game License Tag Funds

\$10,550.00 -Helicopter capture time (\$5,275.00/day x 2 days)
\$35,000.00 -Globalstar Satellite Tracking collars (10 x \$3,500.00 each)
\$14,400.00 -Airtime charges (12 @ \$48.00/month x 25months)
Total = \$59,950.00

Cost Share or Matching Funds

\$7,000.00 -Globalstar Satellite Tracking collars by USFS, Apache-Sitgreaves (2 x \$3,500.00 ea)
\$3,300.00 -Fixed Wing Aircraft (22 hours x \$150.00/day)
\$3,240.00 -Wildlife Specialist (12 personnel x \$135.00/day x 2 days)
\$1,050.00 -Project biologist (3 personnel x \$175.00/day x 2 days)
\$1,020.00 -Per Diem (15 personnel x \$34.00/day x 2 days)
\$550.00 -Mileage (1000 miles x \$0.55/mile)
\$200.00 -Miscellaneous items (paper, batteries, etc.)
Total = \$16,360.00

LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:

The United States Forest Service, Apache-Sitgreaves Forest, Alpine and Springerville Ranger Districts

E-mail note from the Apache-Sitgreaves National Forest:

Hi Tyler! I just wanted to send you a note to let you know that the ASNFs is committed to providing a minimum of \$7000 towards your pronghorn movement study near Big Lake and Greens Peak for FY2012. If more funding becomes available, we will work with you to increase that dollar amount. We appreciate the work you're doing and look forward to working with you on this and other projects through the HPC. Thank you! Beth Humphrey

Beth Humphrey
Forest Wildlife Biologist
Apache-Sitgreaves National Forests
P.O. Box 640
Springerville, AZ 85938
(928) 333-6265
e-mail: [@fs.fed](mailto: @fs.fed).

PROJECT MONITORING PLAN:

Collars and animals will be monitored several times a week for movement and mortalities.

PROJECT MAINTENANCE:

None

PROJECT COMPLETION REPORT TO BE FILED BY:

The GMU 1 wildlife manager will file the completion report.

WATER DEVELOPMENT PROJECTS (see attached worksheet):

N/A

TREE SHEARING (AGRA-AXE, PUSH) PROJECTS (see attached worksheet):

N/A

