

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

Game Branch / HPC Project Number:	13-409
-----------------------------------	--------

**PROJECT INFORMATION**

<b>Project Title:</b> Mountain Lion Detection and Trail Use Analysis in Region 4	
<b>Region and Game Management Unit:</b> Region 4 / GMU 39, 41, 43	
<b>Local Habitat Partnership Committee (LHPC):</b> •	<b>Was the project presented to the LHPC?</b> YES[] NO[]
<b>Has this project been submitted in previous years?</b> YES[] NO[x] <b>If Yes, was it funded?</b> YES[] NO[] → <b>Funded HPC Project #(s):</b>	
<b>Project Type:</b> Wildlife Monitoring	
<b>Brief Project Summary:</b> To facilitate the detection of uncollared mountain lions, the trails they use, and the frequency of use. Purpose is to support the Kofa Adaptive Predation Management Plan and aid in the effective detection, capture, and deployment of satellite collars on individual mountain lions within the greater area surrounding the Management Plan. Additionally, more satellite collars will be needed to monitor captured mountain lions, as our current inventory of collars is sufficient for the animals we detect in the Predation Management Area.	
<b>Big Game Wildlife Species to Benefit:</b> mountain lion, desert bighorn sheep, desert mule deer, javelina	

<b>Implementation Schedule</b> (Month/Day/Year):  <u>Project Start Date:</u> January 2014  <u>Project End Date:</u> January 2015	<b>Environmental Compliance:</b> NEPA Completed: Yes[] No[] N/A[x] Projected Completion Date: _____  State Historic Preservation Office - Archaeological Clearance: Yes[] No[] N/A[x] Projected Completion Date: _____  Arizona Game and Fish Department EA Checklist: N/A[x] To be Completed by: _____ Projected Completion Date: _____
--	--

**PROJECT FUNDING**

<b>Special Big Game License Tag Funds Requested:</b>	\$ 28,150
<b>Cost Share or Matching Funds:</b>	\$
<b>Total Project Costs:</b>	\$ 28,150

**PARTICIPANT INFORMATION**

<b>Applicant</b> (please print): Brian Jansen	<b>Address:</b> 9140 E 28 <sup>th</sup> St, Yuma, AZ 85365	<b>E-mail:</b> bighorns101@yahoo.com
<b>Telephone:</b> 928-925-8189		<b>Date:</b> 8/6/2013

<b>AGFD Contact and Phone No.</b> (If applicant is not AGFD personnel):
---

**Project has been coordinated with:** John Hervert, Wildlife Program Manager, Region IV

### **NEED STATEMENT – PROBLEM ANALYSIS:**

Currently, the Kofa Complex Adaptive Predation Management Plan calls for the capture and collaring of mountain lions in a broader geographic area than the specific predation management area. The Predation Management area encompasses the mountain ranges in and adjacent to the Kofa National Wildlife Refuge (e.g., South Plomosa, New Water, Kofa, Little Horn, Tank, and Castle Dome). However, the Adaptive Management Area encompasses the land between I-8 (South) and I-10 (North) and Colorado River (West) to SR-85 (East). Arizona Game and Fish Department along with the US Fish and Wildlife Service (Kofa NWR) have been closely monitoring and capturing mountain lions in the Predation Management area since 2007. The collared mountain lions have routinely moved throughout the greater Adaptive Management Area. Because the mountain lions have such large home ranges that often span the Adaptive Management Area, it has become necessary to detect uncollared mountain lions outside the Predation Management Area, to facilitate capture and collar deployment, to better address the mountain lions occurring outside the Predation Area, but that use the Predation Area during various times of the year. The Kofa Bighorn Sheep Recovery Project (AGFD, USFWS) has purchased the equipment needed to closely monitor the Predation Management Area via 40-50 trail-cameras to accurately assess the number, whereabouts, and frequency of use of mountain lions inside the area. We are in need of additional trail cameras and related equipment (i.e., batteries, memory cards) to detect and capture mountain lions outside the Predation Management Area.

Trail-cameras and skilled trackers are the required tools to detect and monitor trail use of mountain lions. The AGFD currently has 1 person employed to detect, capture, and collar mountain lions in the greater geographic area of the Adaptive Management Area. This area is too large to be effectively monitored with only 1 person. Because these mountain lions cover a large geographic area, they are difficult to detect and determine the area of use without constant monitoring of the area.

The ability to deploy 100 trail-cameras on suspected mountain lion travel routes, springs, and water developments would give the project the ability to effectively monitor potential capture-sites, detect, and capture uncollared individuals, while continuing to closely monitor the Predation Management Area.

In addition to the need for trail cameras, additional collars will be needed to monitor the captured lions. We currently have 4 satellite collars that are dedicated to deployment on animals that are detected and captured on the Predation Management Area (e.g., Kofa NWR). Therefore, a few additional collars will be necessary to monitor lions captured in the greater Adaptive Management Area, for movements into and predation within the Predation Management Area.

### **PROJECT OBJECTIVES:**

- Scout the Adaptive Management Area
- Deploy 100 trail-cameras on trails, springs, and water developments with observed or suspected mountain lion use
- Detect uncollared mountain lions
- Determine frequency of use of specific potential capture sites
- Gain an understanding of the potential number of mountain lions occupying the Adaptive Management Area
- Capture and Monitor movements and predation of mountain lions within the Adaptive Management Area

**PROJECT DESCRIPTION AND STRATEGIES:**

The project would consist of the Kofa Bighorn Sheep Recovery Specialist scouting and deploying 100 trail cameras throughout the Adaptive Management Area on observed or suspected lion travel routes and periodically check and maintain the cameras. The cameras are to be used to monitor mountain lion trails, while the Specialist is also trapping and monitoring the Kofa Predation Management Area.

At times, when the mountain lions occupying the Predation Management Area have been captured and are being remotely monitored, the project specialist will be capable of checking the trail-cameras and will quickly be able to ascertain the who, where, and how many for mountain lions in the greater Adaptive Management Area. During these times, when mountain lions are collared inside the Predation Area and we have detected uncollared mountain lions in the greater Adaptive Management Area, we will capture those individuals according to the existing Kofa capture protocol.

**PROJECT LOCATION:**

The Kofa Adaptive Management Area consists of the area with the Colorado River on the West, I-10 on the North, AZ-85 on the East, and I-8 on the South.

**LAND OWNERSHIP AT THE PROJECT SITE(S):**

(if the project area is private property, please state specifically and provide the landowner's name)

- Bureau of Land Management (BLM)
- AZ State Lands Department
- Department of Defense (Yuma Proving Grounds)

*IF PRIVATE PROPERTY, IS THERE A COOPERATIVE BIG GAME STEWARDSHIP or LANDOWNER AGREEMENT BETWEEN THE LANDOWNER AND THE DEPARTMENT?*  
YES[] NO[] N/A[]

**HABITAT DESCRIPTION:**

Sonoran Desert

**ITEMIZED USE OF FUNDS:**

Special Big Game License Tag Funds

100 trail-cameras @ \$180 ea. = \$18,000

100 memory cards @ \$20 ea. = \$2,000

2000 AA batteries @ \$250 per 1000 = \$500 (8 AA per camera, extras for year-long operation)

30 Camera Security Boxes @ \$40 ea. = \$1,200

30 Cable Locks @ \$20 ea. = \$600

3 Northstar Satellite GPS collars (single D-cell model) @ \$1700 ea. = \$5,100

Airtime for satellite transmissions @ \$20 per month of operation, per collar = \$750

Cost Share or Matching Funds (for volunteer labor rates please refer to the worksheet below)

**LIST COOPERATORS AND DESCRIBE POTENTIAL PARTICIPATION:**

**WOULD IMPLEMENTATION OF THIS PROJECT ASSIST IN PROVIDING, MAINTAINING, OR FACILITATING RECREATIONAL ACCESS?**

YES[] NO[] N/A[x]

**PROJECT MONITORING PLAN:**

Periodic visitation to cameras to download cards, change batteries, and replace mal-functioned cameras.  
Visual assessment of photographs to detect mountain lions, assess sex and age.  
Date, sex, and age data will be entered into a spreadsheet to facilitate the determination of number of individuals, frequency of use, and movement patterns.

**PROJECT MAINTENANCE:**

Project to be maintained by Kofa Bighorn Sheep Recovery Specialist

**PROJECT COMPLETION REPORT TO BE FILED BY:**

Kofa Bighorn Sheep Recovery Specialist, Brian Jansen.

**WATER DEVELOPMENT PROJECTS** (*please use the worksheet below*):

**TREE CLEARING/REMOVAL PROJECTS** (*please use the worksheet below*):