

## Request for Proposals

### Arkansas Game & Fish Commission

2 Natural Resources Drive

Little Rock, Arkansas 72205

**PROPOSAL NAME: Home range, dispersal, and survival of the Ozark pocket gopher.**

#### **PROBLEM STATEMENT:**

Recently, a new subspecies of plains pocket gophers occurring in the Ozark mountains of North-central Arkansas (*Geomys bursarius ozarkensis*) was discovered. This new subspecies represents the newest addition to the known mammalian fauna of Arkansas. Little information regarding the basic natural history, distribution, and status of populations are known. To date, it has been confirmed to exist in Izard County with an estimated population of about 3,500 individuals. As the nearest population of this species is found near St. Louis, this population is extremely isolated and as it is considered a nuisance species by many landowners and is greatly at risk. In order to evaluate the potential for expansion of this population, either through natural dispersal or translocation programs, additional information on the biology of this species is necessary.

Projects with similar techniques or desired information:

Hani, A.E., D.L. Nolte, J.R. Maxon, S. Bulkin. 2002. Response of nontarget species to underground strychnine baiting for pocket gopher in southwest Oregon. *Western Journal of Applied Forestry* 17(1): 9-13.

Kershen, A.A. 2004. Density, distribution and habitat requirements for the Ozark pocket gopher (*Geomys bursarius ozarkensis*). University of North Texas, Masters Thesis.

Sullivan, T.P. D.S. Sullivan, E.J. Hogue. 2001. Reinvasion dynamics of northern pocket gopher (*Thomomys talpoides*) populations in removal areas. *Crop Protection* 20(3): 189-198

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#### **OBJECTIVES:**

1. Determine home range size of Ozark pocket gopher.
  2. Determine movement rates and dispersal patterns of the Ozark pocket gopher.
  3. Determine survival rates for Ozark pocket gophers.
  4. Additional research objectives that can be met using this approach and within the anticipated budget such as collection of genetic material, parasites, human factor research, etc. are welcomed and may add to the competitiveness of proposals. Collaboration with other researchers on these aspects of the project is encouraged.
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### SCOPE OF WORK (POSSIBLE LOCATION, SCOPE OF PROBLEMS)

Ozark pocket gophers will be captured in Izard County using live traps and fitted with radiotransmitters and monitored on a regular basis. Home ranges will be mapped and described using GIS and survival rates will be calculated based on known mortality.

The AGFC does not have any housing available for researchers in this area.

Field research is expected to last approximately two years and may begin as early as the summer of 2006 subject to the ability of the contractor to obtain needed equipment and personnel.

Proposals should discuss the anticipated number of transmitters/animals necessary for this project and detail plans for the anticipated amount of tracking days each season (summer, fall, winter, spring). Should the contractor desire to assign a graduate student to this project, the proposal should evaluate the ability of the student to carry out this project during months when classes are in session.

### EXPECTED RESULTS/USE OF RESULTS TO BETTER MANAGEMENT, CULTURE, ETC.:

This study will provide basic life history information on the Ozark pocket gopher that could prove extremely useful should it be determined that a reintroduction strategy is necessary to ensure the survival of this subspecies.

All locations will be recorded using NAD83 datum UTM coordinates. A copy of gopher capture and radiotelemetry location datasets will be provided at project conclusion in Microsoft Excel format. Final maps will be provided in a format compatible with ArcMap GIS software.

A final report will be produced in a timely manner and a copy of a PowerPoint presentation about the study will be provided to the Commission.

# Instructions to Principal Investigators

## General Instructions

1. Proposals will be evaluated and scored on integrity of scientific methodology, potential to aid management, qualifications of the researcher, and cost relative to benefits.
2. **Research proposals must be submitted no later than February 20, 2006.**

## Proposal Format

1. Project proposal manuscripts should be typed double-spaced and **must be provided in Microsoft Word (Office 97 or later version) on disc or e-mail**. Proposals on disc are to be submitted to the following address:

Blake Sasse  
Nongame Mammal Program Coordinator  
Arkansas Game and Fish Commission  
No. 2 Natural Resource Dr.  
Little Rock, AR 72205

Or e-mail [dsasse@agfc.state.ar.us](mailto:dsasse@agfc.state.ar.us)

2. Sequence of contents should be as follows:
  - a. Title
  - b. Principle Investigator, Correspondence Address, e-mail address, telephone. Additional investigators and address.
  - c. Problem Statement
  - d. Study Objectives
  - e. Study Methods and Approach
  - f. Deliverables and Expected Benefits
  - g. Timetable
  - h. Personnel –(brief Vita of the Principle Investigator)
  - i. Literature Cited
  - j. Line Item Budget (Total cost is expected to be less than \$60,000).

Provide total cost for:

Apr 1, 2006-June 30, 2006 (if necessary)

July 1, 2006-June 30, 2007

July 1, 2007-June 30, 2008

July 1, 2008-June 30, 2009

July 1, 2009-June 30, 2010 (if necessary)

-Please include information on any direct costs of this project above and beyond the \$60,000 provided by the Commission that will be paid for by the applicant (This will help the Commission meet state matching fund requirements for other federal projects).

-Please include cost of transmitters.

-Please include cost of technicians (if any).

- Please include lodging plans and anticipated costs.
3. Proposals not complying with the above will be returned.

### **Evaluation and Scoring Criteria**

Proposals will be scored and ranked using the following weighted criteria:

1. Potential to benefit resource management 25%  
Proposals will be evaluated on their potential for tangible benefits to resource management.
2. Technical merit – integrity of scientific methodology 25%
4. Qualifications of the Principle Investigator 25 %  
Proposals will be scored on the PI's history of productivity, relevant experience with similar projects, and likelihood of bringing the study to a successful conclusion.
5. Cost relative to benefits 25%

The AGFC may elect to reject a proposal, accept contingent on revisions, or accept a proposal without revision.

### **Status and Final Reports**

1. Annual status reports are required on all projects and in addition to written reports, may need to be presented verbally at an annual research symposium scheduled each spring (if held)(May - June). Principle Investigators will be notified of the exact date, place and time.
2. Draft Final Reports are to be within 60 days upon completion of the project unless otherwise specified in the research agreement.
3. University thesis and dissertations are not suitable for final reports unless the following conditions are met:
  - a. The thesis or dissertation is provided to the Commission within an agreed completion date, not to be more than 12 months following completion of the fieldwork.
  - b. The agency reserves the right to reject the thesis or dissertation as the vehicle by which contract obligations will be satisfied.
  - c. Unless prohibited by University policy, a representative of the Commission should be allowed to participate as a full member of the student's research committee.