



NOTICE OF INTENT TO AWARD

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the U.S. Geological Survey's intention to fund the following project activities without full and open competition.

ABSTRACT	
Funding Announcement	USGS-20-FA-0072
Project Title	Managing and promoting the resiliency of winter-adapted species to climate change
Recipient	University of Massachusetts
Anticipated Federal Amount	Total: \$259,347
Cost Share	\$0
Total Anticipated Award Amount	\$259,347
New Award or Continuation?	NEW
Anticipated Period of Performance	24 months from date of signature
Award Instrument	Cooperative Agreement
CFDA # and Title	15.820 - National Climate Adaptation Science Center/Climate Adaptation Science Centers (CASC)
USGS Point of Contact	Deputy Director, Climate Adaptation Science Center, Olivia LeDee, oledee@usgs.gov Rachel Miller, Grant Specialist, Email: rachelmiller@usgs.gov

OVERVIEW

Shorter winters pose a significant threat for winter-adapted animals that have adapted to living in, under, or on top of a protective blanket of snow. Many of the species that confront winter are adapted and, in fact, depend on seasonal snow cover for survival. The adaptations of these animals allow them to survive winter, but also make them vulnerable to a rapidly changing environment. Wildlife managers are tasked with conserving these species, but studies understanding how specific management actions enhance species' ability to adapt to climate change are exceedingly rare.

This project focuses on evaluating strategies of climate-change adaptation for two iconic wildlife species— snowshoe hare and ruffed grouse. Past research suggests that both of these species are vulnerable to the loss of snow cover and may be increasingly "mismatched" with a snowless landscape, exposing them to increased predation. Snowshoe hares and ruffed grouse have experienced widespread declines with important cultural, recreational, and ecological

implications, eliciting wildlife managers to implement a range of actions such as translocating individuals or forest management. This goal of this project is to work with tribal, state, and Federal stakeholders to explore the mechanisms and efficacy of adaptation strategies in supporting viable wildlife populations in the face of climate change. By studying the results of an experimental translocation of snowshoe hare to a wildlife area, the project team will determine the potential of hare and grouse to adapt to declining snow cover, how climate change has caused long-term changes in the characteristics of these winter-adapted species, and whether translocations and forest managers can buffer the impacts of warming winters on vulnerable wildlife.

RECIPIENT INVOLVEMENT

This project will identify mechanisms and efficacy of adaptation strategies in supporting viable wildlife populations in the face of climate change. The recipient will:

- Identify climate-resilient phenotypes by documenting the timing of seasonal coat color change for snowshoe hares and color phases for ruffed grouse across a latitudinal gradient; compare long-term changes in phenotypic variation for both hares and grouse with historical records from across the Upper Midwest;
- Identify the phenotypic characteristics of snowshoe hares that survived an experimental translocation;
- Quantify the impacts of forest management in reducing the costs of phenotypic mismatch;
- Work with tribal, Federal, and state partners to identify tactics for managing winter-adapted species.

The outcomes of this work will identify mechanisms and efficacy of adaptation strategies in supporting viable wildlife populations in the face of climate change.

USGS INVOLVEMENT

Substantial involvement on the part USGS is anticipated for the successful completion of the objectives to be funded by this award. USGS, in particular the Northeast CASC, will be responsible for the following:

- Assuring that climate research projects are conducted in proper locations in the Northeast Region;
- Identifying collaborators to contribute to project efforts;
- Providing guidance on outreach and engagement activities;
- Reviewing and approving proposed modifications and review award balances;
- Directing and/or redirecting the work because of interrelationships with other related northeastern region climate research projects.

SINGLE-SOURCE JUSTIFICATION

DEPARTMENT OF THE INTERIOR SINGLE SOURCE POLICY REQUIREMENTS

Department of the Interior Policy (505 DM 2) requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.

In order for an assistance award to be made without competition, the award must satisfy one or more of the following criteria:

- (1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives;
- (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of an activity presently being funded, and for which competition would have a significant adverse effect on the continuity or completion of the activity;
- (3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress' intent to restrict the award to a particular recipient of purpose;
- (4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or other such unique qualifications;
- (5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.
- (6) Cooperative Agreements - USGS Unique Authority cited at 43 U.S.C. 36d (Federal, State, and academic partners) or DOI Authority cited at 43 U.S.C. 1457b (not-for-profit organizations).

USGS did not solicit full and open competition for this award based on the following criteria:

(4) UNIQUE QUALIFICATIONS

(6) COOPERATIVE AGREEMENTS - USGS Unique Authority cited at 43 U.S.C. 36d

Single Source Justification Description:

(4) UNIQUE QUALIFICATIONS – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or other such unique qualifications.

The recipient possesses a unique study location and data set to provide an evidence base for adaptation for wildlife of interest to ecologists and natural resource managers in the Northeast CASC domain, and is in a position to work with stakeholders to understand how specific management actions enhance species' ability to adapt to climate change. The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such pre-existing relationships with key stakeholders in the ecological research and natural resource management communities, support capacity, and technical expertise.

STATUTORY AUTHORITY

Consolidated Appropriations Act of 2008, Div. F, Title I, P.L. 110-161 and
USGS Unique Authority cited at 43 U.S.C. 36d (Federal, State, and academic partners)

§36d. Cooperative agreements: Notwithstanding the provisions of the Federal Grant and Cooperative Agreement Act of 1977 (31 U.S.C. 6301–6308), the United States Geological Survey is authorized to continue existing, and on and after November 10, 2003, to enter into new cooperative agreements directed towards a particular cooperator, in support of joint research and data collection activities with Federal, State, and academic partners funded by appropriations herein, including those that provide for space in cooperator facilities.