U.S. Fish and Wildlife Service

News Release

Southwest Region (Arizona ● New Mexico ● Oklahoma ●Texas) http://www.fws.gov/southwest/
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Simple Changes – Significant Impacts

Fish and Wildlife Service Southwest Region Funds 10 Climate Change Projects

"What are we going to do now?" That question was posed as a challenge by Benjamin Tuggle, the U.S. Fish and Wildlife Service's (Service) Southwest Regional Director, to Service and United States Geological Survey (USGS) employees at the conclusion of a climate change workshop three months ago.

Today, the Service's Southwest Region announced that it will provide $48,500 as "seed money" to fund 10 employee-initiated climate change project proposals. The projects will be completed within existing agency funds.

Climate change is among the greatest challenges ever faced by the Service and other natural resource conservation community. The Service's Southwest and California/Nevada Regions, in collaboration with the USGS's Western Region, sponsored a workshop last August to address the effects of a changing climate on habitat and wildlife in arid and semiarid ecosystems. Over 250 participants attended the workshop and included scientists and land managers representing agency professionals (federal, state and tribal) academic institutions, and environmental interest groups.

At the conclusion of the workshop, Tuggle offered Service and USGS employees an opportunity to submit site-specific climate change project proposals, and agreed to fund several pilot projects. The Southwest Region received 66 employee-generated proposals for local projects by the October 31 submission deadline. Project proposals addressed a variety of climate change initiatives including efforts to reduce the Service's carbon footprint, and activities aimed at reducing immediate threats to species and habitat based on sound scientific research.

"We must be leaders in the climate change arena," said Dr. Tuggle. "By taking incremental steps such as these, we will begin to make progress towards our goal of adjusting to climactic changes."

Tuggle also challenged participants to:

- **Act immediately** by initiating conversations at their duty station to identify what could be done in the coming months to address managing wildlife and habitat in light of climate change.

- **Collaborate** by launching discussions and establishing relationships with other federal, state, tribal and local agencies – as well as with Universities and other scientific research entities – to identify data gaps and promote research that translates into on-the-ground management tools.

- **Commit** to making a difference by submitting a description of how climate change impacts can be addressed at each participant's work site.

- **Reach out** to those outside the scientific and resource management communities to promote a greater understanding about the effects of a changing climate. Participants were urged to talk family members, friends and neighbors about climate change in an effort to foster a conservation consciousness that supports innovative responses to climate change impacts.

"We see the effects of global climate change on species and habitat every day," said Tuggle. "We know how important it is to make resources available for innovative and useful projects that can reduce the impacts of climate change on the natural resources we so deeply treasure."

Funded projects were selected by the Region's interdisciplinary management team. All the projects were worthy, according to Tuggle, noting that only ten were funded due to budgetary limitations. The Service's Southwest Region plans to consider and fund employee-initiated climate change projects annually.

The following projects will be funded during federal fiscal year 2009:

Conversion to Solar Powered Electrical System – $5,000 – *Submitted by the Aransas National Wildlife Refuge Complex*
The Aransas National Wildlife Refuge Complex hopes to ultimately convert its entire electric system to solar power. As a first step in achieving this goal, the Complex will install a passive solar water heater system. This system is expected to meet at least half of the Complex's hot water needs, and will significantly reduce its carbon footprint.

Native Pollinator Inventories in High-Elevation Plant Communities in Northern Arizona – $5,000 – *Submitted by the Arizona Ecological Service Field Office*
Populations of many important native pollinator species are declining. The Service's Arizona Ecological Field Office will establish pollinator inventory plots in high-elevation plant communities, which are especially sensitive to climate change. The data collected will contribute to nation-wide monitoring efforts addressing the effects of climate change on native pollinators.

Bitter Lake Dragonfly Study – $7,500 – *Submitted by Bitter Lake National Wildlife Refuge*
Bitter Lake National Wildlife Refuge is nationally recognized for the diversity and density of dragonflies (odonates) and damselflies that occur on the Refute. Several new neotropical odonates have recently been added to the Bitter Lake's species list. Dragonflies and damselflies have been identified as a species group that may be particularly susceptible to climate change. The Refuge will initiate a monitoring program to detect new neotropical species as they move northward from their historical habitat to better understand and address migration patterns linked to a warming climate.

Multi-Point Videoconferencing as a Means of Reducing the Service's Carbon Footprint – $6,000 – *Submitted by Region 2 Ecological Services*
Interactive communications technology will be installed in several field offices to allow Service professionals at two or more locations to meet via videoconference. The goal is to cut down on the number of face-to-face meetings/briefings and associated travel by various units of the Service, thus reducing our carbon footprint.

Carbon Sequestration by Woody Plants in South Texas – $5,000 – *Submitted by the Lower Rio Grande Valley National Wildlife Refuge*
Global warming has caused increasing levels of carbon in the atmosphere. Trees can help alleviate global warming by binding carbon in above- and below-ground plant biomass. The Lower Rio Grande National Wildlife Refuge will conduct a study to investigate the carbon sequestration capacities of several native woody plant species from south Texas and northern Mexico. The results will be used to promote carbon sequestration markets, and support primary brushlands restoration projects benefiting migratory birds, endangered species, and other native wildlife.

Climate Change and Rio Grande Cutthroat Trout – $5,000 – *Submitted by the New Mexico Ecological Services Field Office*
Climate change could cause temperature changes in natural water sources. This project will investigate historic and current water temperatures in streams occupied by the Rio Grande cutthroat trout. In conjunction with other studies that look at aquatic heat tolerance, this research will determine the level of risk that increased water temperatures pose to the Rio Grande cutthroat trout.

Temperature Tolerance of Federally-Listed Aquatic Species in Southeastern Oklahoma – $4,000 – *Submitted by the Oklahoma Ecological Services Field Office*
Certain aquatic species in southeast Oklahoma may be susceptible to the effects of increased stream temperatures and reduced stream flows related to a warming climate. This study aims to determine the effect of increasing water temperature (including the maximum temperature tolerated) on federally-listed or suitable surrogate species, such as the threatened leopard darter and several listed mussels. The study will determine the potential risks to these species based on climate change projections.

Solar Energy for Remote Camera Equipment – $1,000 – *Submitted by the San Andres National Wildlife Refuge*
San Andres National Wildlife Refuge maintains a system of remote cameras to monitor use of refuge habitats by various wildlife species. Converting the power source for these cameras from the current disposable dry cell batteries to solar power will reduce the number of driving trips necessary to maintain them, and the number of discarded dry cell batteries in local waste disposal areas.

Effects of Increased Temperature on Growth and Reproduction in Devils River Minnows – $5,000 – *Submitted by the San Marcos National Fish Hatchery*
The Service has already determined the critical maximum temperature related to the survival of the threatened Devils River minnow. The next step is to evaluate the effects of increased water temperature (such as might occur due to climate change) on growth and reproduction in this species. Any detrimental effects on growth and reproduction will help the Service design management strategies to maintain healthy spring flows, especially during the summer months.

Identify Potential Energy and Water Savings on Uvalde National Fish Hatchery – $5,000 – *Submitted by the Uvalde National Fish Hatchery*
Aquaculture (fish breeding) depends upon both water and energy – two pricey resources. Uvalde National Fish Hatchery will conduct a short-term study on their water supply wells, as well as two individual ponds, to measure energy use and water efficiency. The results will be used to develop strategies for decreasing energy use and improving water efficiency in fish hatcheries.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. We are both a leader and trusted partner in fish and wildlife conservation, known for our scientific excellence, stewardship of lands and natural resources, dedicated professionals and commitment to public service. For more information on our work and the people who make it happen, visit **www.fws.gov**.

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For more information about fish and wildlife conservation in the Southwest in the face of Global Climate Change, visit http://www.fws.gov/southwest/Climatechange/index.html