

The following is a complete list of 2015 State Wildlife Grant projects:

Hawai'i Department of Land and Natural Resources

Title: Kohala Mountain Biodiversity Protection and Management

State(s): Hawai'i

Goals and Objectives: The Hawai'i Department of Land and Natural Resources proposes to implement critical conservation actions for the Kohala Watershed Partnership as identified in the State's Wildlife Action Plan. Proposed management actions will protect and restore habitats for 21 species of greatest conservation need. Fencing of the management unit on State lands to exclude ungulates has been identified by numerous partners as the first step for protection of this area. The 1,060-acre management unit is part of a larger protected forested landscape jointly managed by the public-private watershed conservation organization. Other essential actions following habitat protection will then be implemented, such as restoring native forest habitat and rare species.

Federal Funds requested: \$250,000; **Non-Federal Match:** \$250,000

Hawai'i Department of Land and Natural Resources

Title: Establishing and Enhancing Rare Native Invertebrate Populations

State(s): Hawai'i

Project Goals: Utilizing its new Insectary Facility, the Department of Land and Natural Resources will establish a captive propagation program for Federally Threatened, Endangered, and other rare native invertebrate species of greatest conservation need. The project will initiate pilot projects targeting the Kamehameha butterfly and the orange-black damselfly, with a goal of producing large numbers of healthy individuals for field releases. The agency will identify habitats suitable for releases of these species based on historical data as well as habitat suitability analyses, and enhance existing habitats through native host plant restoration. Effectiveness will be measured in release areas through pre- and post-release monitoring at field sites.

Federal Funds Requested: \$248,949; **Non-Fed Match:** \$172,998

Hawai'i Department of Land and Natural Resources

Title: Restoring a Degraded High-Elevation Dry Forest on Mauna Kea

State(s): Hawai'i

Goals and Objectives: The Hawai'i Department of Land and Natural Resources proposes to work collaboratively with a variety of partner organizations and volunteers to restore native high-elevation dry forest on Mauna Kea on the Island of Hawai'i. The focus of the restoration work is to expand useable forest habitat within Service-designated Critical Habitat for the Palila, a native Hawaiian honeycreeper that is federally listed as Endangered. The agency and its partners propose to plant 30,000 seedlings of the native mamane tree, which provides a key food

source for the rare bird. The partners will also control invasive fountain grass and cape ivy, and continue to conduct annual monitoring to measure population response to restoration activities.

Federal Funds requested: \$249,496; **Non-Federal Match:** \$90,000

Idaho Department of Fish and Game

Title: Integrating Strategic Conservation Approaches for the Monarch Butterfly in the State Wildlife Action Plans

State(s): Idaho, Washington

Goals and Objectives: The partnering States along with the Xerces Society, a non-government organization dedicated to conservation of pollinators, will collaborate to compile and synthesize historical and contemporary monarch butterfly and milkweed occurrence data to help map the distribution and relative abundance of these species. In doing so, the partners will identify key habitats essential to monarch conservation and identify threats that may adversely affect them. Information, data, and tools developed by the partners will be shared with decision-makers, land managers, researchers and other stakeholders to facilitate on-the-ground action to support the conservation of monarch butterflies and other pollinator species.

Federal Funds requested: \$170,833; **Non-Federal Match:** \$60,571

Iowa Department of Natural Resources

Title: Habitat Improvement Projects for Stream and Oxbow Fish

State(s): Iowa, Minnesota

Goals and Objectives: Iowa and Minnesota Departments of Natural Resources propose habitat restoration for a number of stream fish of greatest conservation need, including Topeka shiners and plains topminnows, along with ten other species of concern. Partnering States will first inventory and analyze known locations of the target species to prioritize conservation actions spatially. Habitat connectivity will be restored through dam removal and modification to allow upstream movement. A minimum of seven off-channel habitats will be restored, as well as at least 25 acres of degraded upland areas causing water quality degradation through erosion. At least 50 acres of habitat will be acquired and permanently protected. Effectiveness of restoration activities will be monitored through survey on at least 20 sites, using genetic analysis, so that future conservation actions to benefit the species build upon this adaptive management approach.

Federal Funds requested: \$469,614; **Non-Federal Match:** \$240,902

Michigan Department of Natural Resources

Title: Assessing Native Bee Diversity, Distribution, and Status

State(s): Michigan

Goals and Objectives: Pollinators are an ecologically important group of organisms that were not adequately addressed in Michigan's original Wildlife Action Plan, which was approved in 2006. Recent efforts to develop a preliminary focal area network for Michigan's species of greatest conservation need identified bumble bees in particular as a group of species needing more data for accurate conservation status assessment. Michigan DNR proposes to examine changes in the historical and current distributions of bumble bees in the state, utilizing a combination of museum research and field surveys. Using this data, the agency will identify natural community associations for targeted native bumble bees which will inform and enhance the next revision of Michigan's Wildlife Action Plan.

Federal Funds Requested: \$100,000; **Non-Fed Match:** \$53,500

Michigan Department of Natural Resources

Title: Oak Savanna Restoration and Monitoring for Karner Blue Butterfly Population Recovery
State(s): Michigan, Ohio

Goals and Objectives: State fish and wildlife agencies will partner with the Ohio Chapter of The Nature Conservancy and the Michigan Natural Features Inventory to restore and enhance at least 800 acres of oak savanna to benefit the Federally-Endangered Karner Blue Butterfly. Partners will control invasive species, implement prescribed fire, and perform mechanical treatments on public lands. The partners will also assist private landowners in the development of habitat management plans for the butterfly and a suite of associated species of greatest conservation need. An occupancy-based Karner Blue Butterfly survey will be implemented within an adaptive management framework to evaluate impacts of conservation actions on butterfly populations within the project areas.

Federal Funds Requested: \$500,000; **Non-Fed Match:** \$175,676

Minnesota Department of Natural Resources

Title: A Collaborative Conservation Strategy for the Driftless Area
State(s): Minnesota, Wisconsin

Goals and Objectives: The partnering State fish and wildlife agencies will focus a variety of conservation actions on critical geographical areas identified in their Wildlife Action Plans, with special emphasis on butterflies, moths, and other invertebrates. Partnering regional and national conservation organizations such as the Upper Mississippi River and Great Lakes Region Joint Venture have also identified the mixed open woodlands, grasslands, and waterways of the Driftless Area as key lands for conservation. The goals of this multi-faceted project include more than 1500 acres of habitat restoration on public and private lands, development of 50 management plans for private landowners, and monitoring of the impacts of management actions on select species. This long-standing conservation initiative exemplifies the use of an adaptive management framework for protection of this unique landscape and the sensitive species that inhabit it.

Federal Funds Requested: \$500,000; **Non-Fed Match:** \$350,034

Wisconsin Department of Natural Resources

Title: Barrens Restoration for the Karner Blue Butterfly

State(s): Wisconsin, Minnesota

Goals and Objectives: In 1992 the Karner blue butterfly was listed as an endangered species by the U.S. Fish and Wildlife Service. Populations of this pollinator are believed to have declined by as much as 80 percent in the upper Midwest and are considered extirpated in Minnesota. As described in the Minnesota and Wisconsin Wildlife Action Plans, the partnering States propose to enhance and expand existing Karner recovery sites, restore previously occupied barrens habitat, and use modeling techniques to map sites for future management which may help improve resilience of this species to climate change. The partners will also conduct post-management monitoring for three to five years after restoration to assess the butterfly's response to restoration activities.

Federal Funds requested: \$500,000; **Non-Federal Match:** \$166,653

Wisconsin Department of Natural Resources

Title: Mapping Freshwater Mussel Distribution and Habitat Needs

State(s): Wisconsin

Goals and Objectives: Little or no distribution data exists for most invertebrate species of greatest conservation need; therefore, many Wildlife Action Plans lack relevance for many of these species, which often have specific microhabitat requirements. The proposed project seeks to enhance the Wisconsin Wildlife Action Plan by addressing this data deficiency. The agency will identify at least one priority mussel location with high biodiversity for each ecological landscape within the State. Quantitative data will be collected and analyzed in order to develop mussel distribution maps so that these water quality indicator species and their habitats can be adequately represented in the Plan.

Federal Funds requested: \$100,000; **Non-Federal Match:** \$33,333

Florida Fish and Wildlife Conservation Commission

Title: Using an Ecosystem Engineer to Restore Functionality of Natural Pinelands in the Southeastern United States

State(s): Florida, Alabama, Georgia

Goals and Objectives: Pocket gophers are known ecosystem engineers that promote diversity and resilience of the natural pinelands ecosystems where they are known to occur. Their tunneling activity aerates soils and provides bare ground for colonization by herbaceous plants, increasing plant diversity and productivity while providing shelter for numerous insects and vertebrates. This project will examine the historic range of pocket gophers to determine what

conditions and management practices will create favorable conditions for restoring them to southeastern natural pinelands ecosystems. The partners will identify areas for translocations, develop a standardized method for restoration, and monitor population abundance in restored areas.

Federal Funds requested: \$491,667; **Non-Federal Match:** \$217,015

Georgia Department of Natural Resources

Title: Multi-State Sandhill/Upland Longleaf Pine Ecological Restoration

State(s): Georgia, Alabama, Florida, Louisiana, Mississippi, South Carolina

Goals and Objectives: Conservation of the longleaf pine ecosystem is a high priority identified in the Wildlife Action Plans of the partnering State fish and wildlife agencies. Within this endangered ecosystem, the gopher tortoise is considered a “keystone” species in that its burrows provide refuge for over 300 species of invertebrates and a number of rare vertebrates. The persistence of gopher tortoise is critical to the maintenance of wildlife diversity, and the species is federally listed as threatened in the western portion of its range and has been petitioned for listing in the eastern part of its range. The U.S. Fish and Wildlife Service has determined that listing as threatened in its eastern range is “warranted but precluded.” Partnering agencies will demonstrate strategic habitat conservation by focusing restoration actions on priority sites identified in the Wildlife Action Plans, and using standardized monitoring to assess effectiveness.

Federal Funds requested: \$500,000; **Non-Federal Match:** \$246,748

New Jersey Division of Fish and Wildlife

Title: Bee Pollinator Conservation Research

State(s): New Jersey

Goals and Objectives: The New Jersey Division of Fish and Wildlife proposes to evaluate species of rare bee pollinators for potential inclusion in the State’s Wildlife Action Plan as species of greatest conservation need. The agency will utilize a large existing database of bee specimens managed by a university partner, along with additional field data collection, to identify rare bee species and their habitat needs. By evaluating overlap in habitat use between bumble bees and 26 other bee genera, the partners will develop a roadmap for efficient and effective bee management for many rare and poorly-known pollinator species.

Federal Funds requested: \$100,000; **Non-Federal Match:** \$58,781

Pennsylvania Fish and Boat Commission

Title: Multi-State Recovery Actions for the Bog Turtle and Associated Headwater Wetland Species of Greatest Conservation Need

State(s): PA, MD, NJ, CT, MA

Goals and Objectives: Partnering States propose to protect and maintain the northern population of the bog turtle through a strategic habitat conservation initiative with a goal of species recovery. By prioritizing geographic areas following the U.S. Fish and Wildlife Service's Recovery Plan Criteria, the partners will protect and enhance key wetland habitats for the bog turtle and other wetland species of greatest conservation need. With help from university specialists, the team will develop a conservation plan focused at the Recovery Unit level for the suite of targeted species. Partnering States will also monitor bog turtle populations and their habitat using standardized regional protocols, and establish a common database to assist with a range-wide population status assessment of this imperiled turtle.

Federal Funds requested: \$499,970; **Non-Federal Match:** \$224,655

Nebraska Game and Parks Commission

Title: Prairie Conservation for Migratory Birds, Reptiles, and Invertebrates

State(s): Nebraska, Kansas

Goals and Objectives: Kansas Department of Wildlife, Parks and Tourism and the Nebraska Game and Parks Commission seek support to expand an existing private lands program to improve habitat quality and connectivity for species of greatest conservation need. Requested funds are dedicated to direct enhancement of more than 10,000 acres within the Mixed Grass Prairie Ecosystem, through replication of historic disturbance regimes to include prescribed fire, invasive plant control and other conservation practices. Additional lands will be enhanced through conservation technical assistance provided to landowners. Actions are designed to protect and augment populations such as greater prairie chicken, Henslow's sparrow, and other bird species inhabiting remaining prairie lands in these two States, including a special focus on reptiles and invertebrates.

Federal Funds requested: \$500,000; **Non-Federal Match:** \$226,624

Western Association of Fish and Wildlife Agencies

Title: Sylvatic Plague Management in Prairie Dogs and Black-Footed Ferrets

State(s): Utah, Arizona

Goals and Objectives: Four prairie dog species—the white-tailed, Gunnison's, Utah, and black-tailed prairie dog—are considered "keystone" species because they support the conservation needs of more than 12 other western grassland species. Management for these essential species exemplifies a cooperative and adaptive management approach through which the partners seek to preclude future endangerment of targeted species. This multi-State landscape-level conservation project is coordinated by the Western Association of Fish and Wildlife Agencies, which refers to this on-going program as the Grassland Initiative. In this project, partners will conduct coordinated strategic planning, along with genetic analysis to help characterize the potential effects of prairie-dog plague and climate change on populations. The partners will also field test

an oral vaccine for the immunization of select species against sylvatic plague. As with other broad-scale conservation initiatives supported by competitive State Wildlife Grants, this project requires resources for coordination, joint planning, and data management.

Federal Funds: \$406,251 (*partial funding*); **Non-Federal Match:** \$201,913

Western Association of Fish and Wildlife Agencies

Title: Wolverine Metapopulation Monitoring and Connectivity in the U.S. Rocky Mountains and North Cascades

State(s): Montana, Wyoming, Idaho, Washington

Goals and Objectives: Wolverines in North America occur in small, semi-isolated subpopulations in the Rocky Mountains, the north Cascade Range of Washington, and the Willowa Mountains of Oregon. Maintaining wolverine distribution in suitable habitat and connectivity at a multi-State scale is critical for ensuring wolverine persistence over the long term. Montana, Wyoming, Idaho, and Washington fish and wildlife agencies and partners propose a collaborative multi-State monitoring effort that is intended to advance wolverine conservation across the species' range. The project includes modeling landscape connectivity among occupied wolverine habitats, assessing the feasibility of wolverine translocation, and developing and implementing a collaborative multi-State monitoring plan to provide baseline information on factors influencing the presence of wolverines. The cooperating States propose to engage key partners at multiple levels to prioritize management activities. This proposal addresses needs identified as priority actions in State Wildlife Action Plans of all four States.

Federal Funds: \$199,520 (*partial funding*); **Non-Federal Match:** \$156,765