

# STATE OF ARIZONA

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Ty Gray, Deputy Director



## **Arizona Game and Fish Department Heritage Fund 2015 Report to the Arizona Legislature**

Project Year July 1, 2014 to June 30, 2015

December 28, 2015

## **Acknowledgments**

The assistance of personnel throughout the Arizona Game and Fish Department (Department), and our external cooperators, in preparing this report and conducting the activities reported herein is gratefully acknowledged.

## **Civil Rights Notification**

The Department prohibits discrimination on the basis of race, color, sex, national origin, age, disability in its programs and activities. If anyone believes they have been discriminated against in any of the Department's programs or activities, including its employment practices, the individual may file a complaint alleging discrimination directly with the Arizona Game and Fish Department, Director's Office, 5000 W. Carefree Highway, Phoenix, Arizona 85086; (623) 236-7290, or U.S. Fish and Wildlife Service (USFWS), 4040 N. Fairfax Drive, Ste. 130, Arlington, Virginia 22203. If you require this document in an alternative format please contact the Arizona Game and Fish Department, Director's Office as listed above or by calling TTY at 1-800-367-8939.

## **Project Funding**

Title 17, Chapter 2, Article 6. Arizona Game and Fish Commission Heritage Fund

### §17-296. Definitions

In this article:

1. "Public access" means providing entry to publicly held lands for recreational use where such entry is consistent with the provisions establishing those lands.
2. "Sensitive habitat" means the specific areas within the geographical area historically or currently occupied by a species or community of species in which are found those physical or biological features essential to the establishment or continued existence of the species and which may require special management, conservation or protection considerations.
3. "Endangered species" is a designation under the federal Endangered Species Act (ESA) and means a species or subspecies or population of native Arizona wildlife whose population throughout its range has been reduced due to any cause whatsoever to such levels that it is in imminent danger of extinction, elimination from its range in Arizona, or has been eliminated from its range in Arizona.
4. "Threatened species" is a designation under the ESA and means a species, or subspecies or population of native Arizona wildlife that throughout its range although not presently in imminent danger of extinction, being eliminated from its range in Arizona, is likely to or might become an endangered species in the foreseeable future.
5. "Candidate species" is a designation under the ESA and means a species or subspecies, or population of native Arizona wildlife that warrants designation as threatened or endangered under the ESA, but that designation by the USFWS has been precluded by higher priorities, for which habitat or population threats are known

or suspected but for which substantial population declines from historic levels have not been documented.

6. "Urban wildlife" means the wildlife that occurs within the limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use.
7. "Environmental education" means educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources.
8. "Habitat evaluation" means the assessment of the status, condition and ecological value of habitat and subsequent recommendations of management, conservation or other protection measures, or mitigation measures, including but not limited to, recommendation of reasonable alternatives for the proposed projects that might otherwise affect the habitat under assessment.
9. "Habitat protection" means the process of protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering populations of Arizona wildlife.

§17-297. Arizona Game and Fish Commission Heritage Fund

- A. The Arizona Game and Fish Commission (Commission) Heritage fund is established consisting of monies deposited from the state lottery fund pursuant to section 5-572 and interest earned on those monies.
- B. The fund shall be administered by the Commission and is not subject to appropriation and expenditures from the fund are not subject to outside approval notwithstanding any provision of section 17-241 or 17-261 or any other statutory provision to the contrary. Monies received pursuant to section 5-572 shall be deposited directly with the commission heritage fund. On notice from the Commission, the state treasurer shall invest and divest monies in the fund as provided by section 35-313, and monies earned from investment shall be credited to the fund.
- C. All monies in the commission heritage fund shall be spent by the Commission only for the purposes and in the percentages set forth in this article. In no event shall any monies in the fund revert to the state general fund and monies in the fund are exempt from the provisions of section 35-190 relating to lapsing of appropriations.
- D. The Commission shall not use its rights of eminent domain to acquire property to be paid for with money from the commission heritage fund.

§17-298. Expenditures from Fund; Purpose and Amounts; Annual Report

- A. Monies received pursuant to section 5-572 shall be spent as follows:
  1. Five per cent on public access, including maintenance and operation expenses.
  2. Sixty per cent on the identification, inventory, acquisition, protection and management, including maintenance and operations, of sensitive habitat. At least forty per cent of the monies available under this paragraph shall be spent on the acquisition of sensitive habitat utilized by endangered, threatened and candidate species. The commission may dispose of any lands acquired for use as habitat by an

- endangered, threatened or candidate species under this paragraph when the species no longer qualifies as an endangered, threatened or candidate species. The Arizona game and fish commission shall dispose of the land in a manner consistent with the preservation of the species of concern. The disposal may include conservation easements and fee simple transfers with associated instruments of protection. The commission shall follow the guidelines established pursuant to section 37-803 relating to the disposition of real property by a state agency. In addition, disposal shall include a written agreement between the commission and the purchaser requiring the purchaser to incorporate management actions to ensure proper maintenance of the species of concern. Management actions may include maintenance of habitat, selective control of nonnative species, maintenance of genetic viability, monitoring of populations and habitat, coordinating conservation activities, funding conservation actions and assessing conservation progress.
3. Fifteen per cent on habitat evaluation or habitat protection.
  4. Fifteen per cent on urban wildlife and urban wildlife habitat programs.
  5. Five per cent on environmental education.
- B. All monies earned as interest on monies received pursuant to section 5-572 shall be spent only in the percentages and for the purposes described in subsection A of this section or for costs of administering the commission heritage fund in such amounts as determined by the Arizona Game and Fish Commission.
- C. On or before December 31 each year the Commission shall submit its annual report to the president of the senate, the speaker of the house of representatives and the chairmen of the senate and house of representatives committees on natural resources and agriculture, or their successor committees. The annual report shall include information on:
1. The amount of monies spent or encumbered in the fund during the preceding fiscal year and a summary of the projects, activities and expenditures relating to:
    - (a) Property acquisition.
    - (b) Identification, inventory, protection and management of sensitive habitat.
    - (c) Habitat evaluation and protection.
    - (d) Urban wildlife.
    - (e) Environmental education.
    - (f) Public access.
  2. The number and location of parcels of property acquired during the preceding fiscal year.
  3. For personal and real properties acquired with fund monies during the preceding fiscal year, the amount of property tax revenue paid to each taxing jurisdiction during the last full tax year prior to acquisition.
  4. The amount of money spent from the fund during the preceding fiscal year for employee personal services.
  5. The number of full-time employees employed in the preceding fiscal year in connection with property acquisition, including survey, appraisal and other related activities.
  6. The total number of full-time employees employed in the preceding fiscal year for the programs listed in subsection A of this section.

7. A list of the grants awarded during the preceding fiscal year including information on the recipients, purposes and amounts.

### **Reporting Requirement**

This Heritage Program Report to the Arizona Legislature is required under, and submitted in compliance with, Arizona Revised Statutes §17-298.

### **Contents**

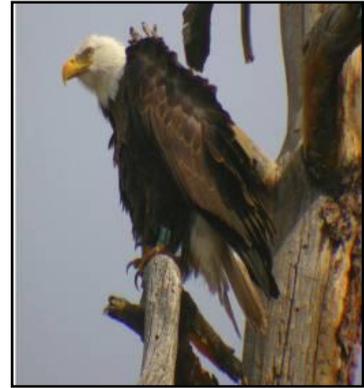
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## **Identification, Inventory, Acquisition, Protection and Management (IIAPM)**

Heritage IIAPM funds are used with other Arizona Game and Fish Department (Department) funding sources, like State Wildlife Grants (SWG), to implement a wide variety of projects identified in Arizona's State Wildlife Action Plan (SWAP). This leveraging of funds magnifies the return on investment by accomplishing critical conservation work throughout Arizona. In most cases, IIAPM funds provide a fiscal foundation that enables or entices other sources to contribute to making a conservation concept into a reality. The projects below are just a few examples of hundreds of projects enabled by IIAPM funds thus far in Arizona. Although none of these projects has been funded solely by Heritage, their success relies on Heritage funding.

### **Bald Eagle Conservation**

Heritage IIAPM funds have contributed significantly to the recovery and delisting of the bald eagle in Arizona. Arizona has used IIAPM funds to collect data on Arizona's bald eagle population which has been used several times by the United States Fish and Wildlife Service (USFWS) to defend the decision to delist the species in Arizona. Without IIAPM funding and the biological data, pro-listing litigants would have likely succeeded in placing Arizona's bald eagle population back on the Endangered Species Act (ESA) List. Arizona's future bald eagle monitoring and management will rely heavily on Heritage funds.

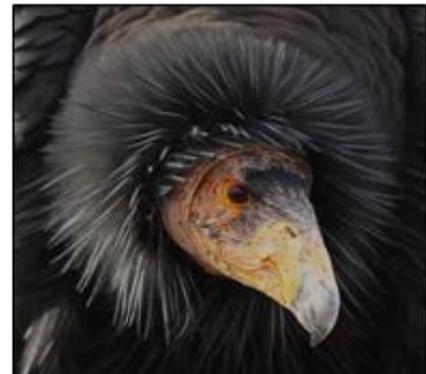


### **Greater Phoenix Area Waterbird Census**

The greater Phoenix metropolitan area has become an ever increasing destination for wintering birds. Each year, more neighborhood lakes and golf course ponds are created, attracting wintering aquatic birds. Recent Coordinated Bird Monitoring surveys verified that this urban area holds a higher density and diversity of wintering aquatic birds than any other place of its size in Arizona. Heritage IIAPM funds help collect the data to lessen land use conflicts and to continue cooperative surveys that result in proactive wildlife management.

### **California Condor**

Heritage IIAPM funds continue to support recovery efforts for the endangered California condor. IIAPM funds enabled the Department to promote its successful voluntary lead reduction program by addressing one of the greatest challenges to condor recovery efforts: lead poisoning. For example, condor educational programs reached over 15,000 Arizona residents at more than 60 events in 2015. In addition to this face to face outreach, the condor program was also invited to appear on a radio talk show with an approximate 90,000 listenership. The benefits of this outreach was demonstrated by the Department's innovative free non-lead ammunition program achieving a 91% hunter participation rate during the 2014-15 hunting season, a new program record.



### **Sonoran Desert Tortoise**

The Sonoran desert tortoise was a Candidate for listing under the ESA, until 2015 when the USFWS published their final determination that the Sonoran desert tortoise did not warrant listing. Their decision was heavily influenced by efforts of Department biologists, along with partners at the Bureau of Land Management (BLM) and the United States Geological Survey (USGS). Significant Department contributions to the decision making process included the following activities: 25+



years of research and monitoring, i.e., the most extensive body of science available for review; exhaustive review and comment on the petition to list and all subsequent USFWS summary documents; active participation in the Species Status Assessment; completion of a Candidate Conservation Agreement (CCA) that summarized on-going tortoise conservation efforts, and was signed by the Department and 14 federal and non-federal agencies; and initial development of a Candidate Conservation Agreement with Assurances (CCAA) that will guarantee continued tortoise conservation while providing non-federal partners with assurances against take. None of these successes would have been possible without significant support from IIAPM funds.

### **Sonoran Pronghorn Conservation**

Funding from IIAPM is helping the Department save the fastest native land mammal in the United States, the endangered Sonoran pronghorn. Severe drought in the Southwest reduced the wild population in Arizona to an estimated 21 animals in 2002. Due to ongoing management efforts such as building waters, enhancing native habitats, and captive breeding pens, the most recent population estimate is 202 pronghorn in the original herd south of Interstate 8. This is the highest population estimate since 1994. As a result of this success, the Department established a second population in historic habitat on Kofa National Wildlife Refuge where there are an additional 52 pronghorn in the wild. In 2016, the Department's captive breeding program will add an additional 50 pronghorn into the wild.



### **Chiricahua Leopard Frog**

Recovery activities for the ESA listed Chiricahua leopard frog continues to be supported by Heritage IIAPM funds. In addition to activities including invasive species removal, habitat



restoration, and captive rearing and release of frogs to the wild; in 2015 IIAPM funds contributed to the first effort in Arizona to track Chiricahua leopard frogs using radio telemetry. Between June and September, 22 frogs were tracked weekly at two sites in the Santa Rita Mountains of southeastern Arizona. The Department discovered that very few frogs moved more than a few yards from their respective ponds, but two of the telemetered frogs moved more than half a mile from where they were first observed. Having an understanding of when, where, and how far these frogs move, even if

only a small percentage of a local population, the Department can better protect habitat corridors they require for dispersal.

## Golden Eagle Baseline Surveys and Monitoring



As a result of newly established permitting authorities under the Bald and Golden Eagle Protection Act (BGEPA), there is an emerging need to accurately assess the population size and trends of golden eagles. Compounding this need is the increased mandate for BGEPA permits on renewable energy resource development. Without baseline nest location, occupancy, and productivity data, the USFWS has a limited ability under the BGEPA to issue permits to ensure compliance. Heritage funds are currently helping the Department collect the data

on the golden eagles to allow for the USFWS to issue permits for developmental compliance.

## Arizona Bat Conservation Partnership

Over 50 percent of U.S. bat species are in some category of concern from emerging threats, such as bat fatalities at wind power facilities, unprecedented human activity and growth, climate change, and large-scale bat die-offs from white-nose syndrome. Arizona has one of the most diverse bat faunas in the United States with 28 species. Heritage IIAPM funding allows the Department to play a key role in creating partnerships to address these threats, with the common goal of conserving Arizona's bat resources.



## Black-footed Ferret Conservation



The Heritage IIAPM funded Black-footed Ferret Reintroduction Program in Arizona's Aubrey Valley is working to achieve population numbers required for down-listing the species to threatened, with the ultimate goal of meeting the state's population objective for delisting. To achieve this goal, the Department will need to expand the reintroduction effort to multiple areas throughout the state. Heritage IIAPM funds are being used to monitor the existing population, and to draft a statewide plan that will ensure federal regulatory obstacles do not hinder the Department from this reaching this goal.

## Black-tailed Prairie Dog Monitoring

In an effort to preclude the need to list the species under the ESA, the Department began to reintroduce black-tailed prairie dogs into grasslands into the species' historical range in southern Arizona. In 2008, the Department reintroduced 74 animals to 10 acres in the Las Cienegas National Conservation Area. As a result of active management funded by Heritage IIAPM, that population has nearly doubled to over 130 animals and 32.5 acres within a short six years.



The Department continues to supplement the population, has aggressively implemented habitat improvement projects that restored over 700 acres of grassland, carefully monitors the population, has adapted management techniques to changing conditions, and has supported genetic research that will inform continued management.



## Arizona Important Bird Areas - Citizen Science

Heritage IIAPM funding supports Arizona’s *Important Bird Areas* (IBA) Program. Launched in 2001, the Arizona program (co-administered by Tucson Audubon Society and Audubon Arizona in coordination with the *Arizona Bird Conservation Initiative*), identifies the most important sites for priority bird species and habitats, coordinates citizen-science bird inventory and monitoring of these sites, and promotes on-the-ground habitat projects. The IBA Program is closely tied to the Department’s State Wildlife Action Plan strategies for conserving priority birds and for helping to keep common species common, by pursuing conservation actions to address stressors to habitats and to *Species of Greatest Conservation Need*. To date 46 IBAs have been identified in Arizona and include riparian and wetland habitats,

southeastern “sky island” mountains, and grasslands. Seventeen of these IBAs are considered of global significance.

## Topminnow and Pupfish Safe Harbor Agreement Progress

Ranchers, private landowners, and local governments are helping recover some of Arizona’s endangered fishes through a Safe Harbor Agreement. SWG and Heritage Funds enable the Department to oversee and monitor landowner-enrolled sites under the Safe Harbor Agreement for Gila and Yaqui topminnow and desert and Rio Sonoyta pupfish. Non-federal landowners have volunteered to host new populations of these rare fish on their property. To date, the Department has enrolled 18 participating landowners and stocked 22 refuge ponds for conservation. Loss and degradation of natural habitat, competition and predation by non-native fish, disease and parasites have impacted these fishes in the wild. These new Safe Harbor-enrolled populations help further recovery goals for these fish and provide a ready source of new fish for future stocking and repatriation efforts. In addition, these fish also provide a native solution to mosquito control in local and rural neighborhoods; where research has demonstrated that topminnow is just as effective as non-native mosquitofish in preying on mosquito larvae.



### **Arizona Six Species of Native Fish Conservation Plan**

Under the Department’s leadership, the Arizona Six Species of Native Fish Conservation Plan was finalized in 2015. This plan outlines conservation actions and priorities for roundtail chub, headwater chub, flannelmouth sucker, Little Colorado River sucker, bluehead sucker, and Zuni bluehead sucker. Since 2006, federal, state, tribal, and non-governmental organization partners worked together to implement 91% of the conservation actions in the original Six Species Conservation Agreement and Strategy. In September 2015, eight of those partners, including the Department, reconfirmed their conservation commitments under the new plan. Arizona is one of the signatory member states to the 2006 Three Species Range-wide Conservation Agreement and Strategy for roundtail chub, flannelmouth sucker, and bluehead sucker. Arizona Heritage Funds have been used to plan and implement many of the state-led actions to improve the status and distribution of roundtail and headwater chub, bluehead sucker, and Little Colorado River sucker. Heritage Funds were used in 2015 to help complete renovations to the Lazy YJ Ranch Pond along the Blue River in eastern Arizona to reestablish a refugia for Eagle Creek-lineage roundtail chub.



### **ARIZONA Bird Conservation Initiative – Coordinated Bird Monitoring**



Continental and local declines in many bird populations have led to renewed international concern for the future of migratory and resident birds. Heritage funds are enabling the Department to create bird conservation partnerships with federal, tribal, state, and private land management entities statewide to establish monitoring projects which will contribute to regional and national efforts assessing bird population trends and reverse these declines.

### **Page Springsnail Conservation**

In 2015, the USFWS announced their determination that the Page springsnail does not warrant protection under the ESA, due in large part to improvements in the species’ status and distribution from ongoing conservation measures implemented under the Page Springsnail CCAA. Over the past 15 years, the Department, USFWS, and the Phoenix Zoo Conservation Center have collaborated on research, monitoring, and management actions to benefit and safeguard the springsnail. Most of the extant populations of this tiny snail reside in springs and outflow channels on Department hatcheries in the Page Springs area of central Arizona. Under the CCAA, Page springsnail habitat was improved at Bubbling Springs Pond allowing that population to greatly expand its range and abundance. Heritage Funds were previously used to improve snail habitat at Bass House Spring—an extirpated site—and over the past five years it was recolonized by hundreds of springsnails. In partnership with the Phoenix Zoo, a refuge population of the snail has been maintained at the zoo’s Conservation Center; it is the longest maintained captive population of *Pyrgulopsis* springsnails in the country.



## **Heritage Data Management System (HDMS)**

HDMS is part of a network of more than 80 Natural Heritage Programs and Conservation Data Centers worldwide. This information is made available to help Arizonans make prudent decisions weighing future development, economic growth, and environmental integrity.

During fiscal year 2015, Department staff entered 646 new records and updated an additional 1,088 records within the Department's HDMS. In addition, Department staff updated 200 species abstracts and created 38 new species abstracts; and provided occurrence and status information to 65 requests related to research, conservation actions, and development projects.

The Online Environmental Review Tool was moved to a new technical platform to enhance the users' experience. The tool is used for viewing Department data, creating maps, and receiving lists of species documented in a geographic area related to conservation, education, or development actions. Department staff continued to explore additional options of Citizen Science data collection.

## **IIAPM – Acquisition**

The Arizona Game and Fish Commission (Commission) purchased a 31.64 acre parcel adjacent to the Page Springs Hatchery in Cornville, Arizona, along with a court approved water right for 106.8 acre feet appurtenant to 9.53 acres of land. The property includes approximately 0.25 mile of riparian stream habitat. The Department plans to manage the new property for the northern Mexican gartersnake.



The northern Mexican gartersnake is listed threatened, (effective August 7, 2014) under the ESA. This location has been included in the USFWS proposed designation of 5,533 acres (2,239 ha) of critical habitat along 38.5 stream mi (62.0 km) of Oak Creek, from its confluence with the Verde River south of Cornville, upstream to Midgely Bridge at the confluence with Wilson Canyon, in Coconino County, Arizona. The populations are known to have decreased, with several localities having experienced extirpation, occupying less than ten percent of its former range. The main cause of decline is destruction or modification of habitat. The northern Mexican gartersnake is a riparian obligate (generally found in riparian areas when not engaged in dispersal, gestation, or hibernation behaviors), and this population, specific to the Bubbling Ponds Hatchery, occurs in small, often isolated wetlands such as cienegas—mid-elevation wetlands with highly organic, reducing (basic or alkaline) soils.

## **Public and Private Lands: Sensitive Habitats (Heritage IIAPM Stewardships)**

The focus of the Identification, Inventory, Acquisition, Protection and Management (IIAPM) program is to work cooperatively with private landowners to accomplish projects that benefit sensitive habitat and at-risk species. Every effort is made to match these state funds against federal programs in order to expand the scope and impact of these projects.

The Sensitive Habitats Project works to improve the status of wildlife with particular emphasis on those species listed as Species of Greatest Conservation Need in the Department's SWAP Plan and restore sensitive habitats for species at-risk.

The Department worked with Landowners to complete 12 new habitat agreements utilizing Heritage IIAPM funding, of which two were focused to directly benefit perennial waters and riparian habitats, which are critical for wildlife in Arizona. In regards to utilizing these funds as match to federal programs, nearly all 15 of the agreements matched Department funds to outside sources bringing in a total of \$330,000 in non-department funding. Staff paid out of this fund also worked on an additional three habitat agreements that improved grassland habitat for a suite of grassland obligate species. Together these nine projects leveraged funding from non-profit groups and several federal agencies to a total of \$250,000.

### **Examples of IIAPM Stewardship Projects:**

#### **The Sands Ranch Project**

The Sands Ranch project will restore 650 acres of grassland habitat and reliable water for wildlife on over 5,000 acres of rangeland. The total cost of this project was \$150,000 of which the Department provided \$34,000 in Heritage funding. The remaining \$114,000 in funding was secured by Department Staff for the ranch to complete this project.

#### **Mexican Wolf/Livestock Conflict Reduction Project**

In fiscal year 2015, the Department entered into four agreements with four separate ranches in Eastern Arizona in order to reduce wolf/livestock conflicts. Two projects provided funding to a ranch to bring livestock into a home pasture during calving to reduce the threat of wolf interaction with the calves. Two projects provided funding to move livestock out of wolf habitat and into a new pasture during the calving season.

## **HABITAT EVALUATION AND PROTECTION**

As defined in Title 17, Heritage Habitat Evaluation and Protection funds shall be spent on programs that provide assessment of the status, condition and ecological value of habitat and subsequent recommendations of management, conservation, mitigation or other protection measures, including but not limited to; recommendation of reasonable alternatives for the proposed projects that might otherwise affect the habitat under assessment; in addition to protecting the quality, diversity, abundance, and serviceability of habitats for the purposes of maintaining or recovering populations of Arizona wildlife.

Heritage IIAPM and Habitat Evaluation and Protection funding supports a realty program that includes acquisition, disposals, and exchanges; existing property and water rights tracking; land and water use fees associated with Commission owned property; drafting and execution of land use agreements on Commission owned properties; drafting and execution of land use agreements with federal, state, local government, and private property; project review on Commission owned property; and maintenance of property and water right information.

- In fiscal year 2015, the Department paid \$18,127.06 from Heritage non-acquisition funds for voluntary payments in lieu of taxes.

- The Department exchanged .92 acres at the Becker Lake Wildlife Area for 1.11 acres and a water right.
- Eleven agreements with other entities were renewed this fiscal year.
- There were six new agreements executed including development of a cottonwood-willow gallery on a portion of Horseshoe Ranch and agreements with the United States Forest Service (USFS) for catchments to provide wildlife waters.

## **HERITAGE URBAN WILDLIFE**

As defined in Title 17, Heritage Urban funds shall be spent on urban wildlife/wildlife habitat programs. Urban wildlife is defined as wildlife that occurs within limits of an incorporated area or in close proximity to an urban area that receives significant impact from human use.

The Department spends Heritage Urban funds on a wide variety of projects and activities. These activities include urban law enforcement, human-wildlife interactions, information and education public outreach, and watchable wildlife.

### **Urban Law Enforcement**

The Department continues to administer wildlife rehabilitation licenses by providing continuing education, conducting on-site inspections, implementing a raptor reporting program, stipulating appropriate practices on licenses, and re-writing the qualifying exams to obtain a wildlife rehabilitation license.

### **Human-Wildlife Conflicts**

Department personnel continue to handle a large volume of human-wildlife conflicts calls throughout the state. Most callers were given information on identifying what is attracting wildlife to their home or neighborhood and then given proven self-help tips and methods to reduce or eliminate these conflicts. In neighborhoods experiencing chronic conflicts with wildlife, Department personnel educated residents by presenting the “Living with Urban Wildlife” PowerPoint at community meetings. In some instances Department personnel had to respond to trapped or confined wildlife.

Department personnel responded to a black bear that was observed near the old General Motors Proving Grounds in east Mesa near Pecos and Ellsworth Roads on December 22, 2014. The juvenile male black bear went into some heavy brush and disappeared. Three days later, the young black bear was reported near Sossaman and Baseline Roads where Department personnel were able to sedate the bear using dart rifles. After evaluating the healthy “Christmas bear,” it was ear-tagged and released onto the Tonto National Forest.



The “Christmas bear” received a significant amount of local and national media attention.

## Urban Wildlife Information and Education Outreach

Over the past year, Department personnel conducted public outreach on “Living with Urban Wildlife” to many communities or groups throughout the state. These presentations resulted in outreach and education to over 1,500 people statewide.

### Urban Wildlife

Department personnel observed a pair of peregrine falcons that nested in downtown Phoenix on a ledge of the Maricopa County Administration Building. These falcons used the nest box that was placed on this building in 2009. Department personnel were able to observe the laying of 4 peregrine eggs and the subsequent hatching of three nestlings. Just prior to the young peregrines being able to fly, Department personnel responded several times to downtown Phoenix to capture young birds on the ground and put them back into the nest. After several trials and tribulations, one young male survived to fledge in downtown. A second young female that injured a wing was taken to Adobe Mountain Wildlife Center to learn to fly and hunt and was released in 2015 in a suitable habitat.



### Tres Rios Nature and Earth Festival

Department personnel continued to have a lead role in this annual event, and have done so for the past 11 years. This festival celebrates the rich cultural and wildlife diversity of the “Three Rivers” area in the Southwest Valley. This two-day family friendly event provides many activities to



include bird watching, beginning archery, fishing clinics, canoeing, nature hikes and a chance to view live wildlife and talk with the experts on outdoor-related topics, such as wildlife, recycling, and “green” friendly concepts. Once again, the festival was held at the Department’s Base and Meridian Wildlife Area and attendance was estimated at over 6,000 people.

# HERITAGE ENVIRONMENTAL EDUCATION

As defined in Title 17, Heritage Environmental Education funds shall be spent on educational programs dealing with basic ecological principles and the effects of natural and man related processes on natural and urban systems and programs to enhance public awareness of the importance of safeguarding natural resources.

## **Professional Educator Development**

Department staff developed and delivered professional educator instruction on mission-consistent topics to over 360 individuals during the reporting period. Hundreds more accessed the professional development materials (e.g., lesson plans) available on the Department's "Focus: WILD Arizona" webpages. These resources and presentations provide professional educators with an opportunity to learn about wildlife management and conservation, habitat, technology, science inquiry, Heritage grants, biological careers, and a variety of other topics.

Heritage-funded staff also served on a variety of agency and nongovernmental boards and committees that provide support and resources to the communities throughout the state, such as: Be Outdoors Arizona, Arizona STEM Network, Arizona SciTech Festival, and the Arizona Science Education Leaders Association. Staff also disseminated information of interest through small and large group presentations at local, regional, and national meetings of educators.

Three of the most noteworthy events Department staff participated in during the reporting period (in regards to extraordinary public attendance) were the Department's Wildlife Center Open House, the AGFD Outdoor Expo, and the Get Outdoors Expo. Public attendance at these three events alone exceeded 100,000 visitors. To help inspire an appreciation of Arizona's wildlife and habitat to visitors at the public outreach events, the Department displays live, un-releasable wildlife from its Wildlife Center to nearly all outreach presentations. The Department's live "animal ambassadors" include a variety of hawks, eagles, owls, reptiles, and rodents. For most visitors this is the first time they have ever experienced wildlife so close, which further enhances their interaction with the Department.

## **Wildlife Rehabilitation**

The Department's Wildlife Center is almost exclusively supported with Heritage Urban funds. The Center provides specialized care for sick, injured, orphaned, and confiscated wildlife, and cares for the Department's collection of live animals used for public outreach programs. With the support of cooperating volunteer veterinarians, the Center provides care for a variety of wildlife including birds, mammals, and reptiles. Most of these animals are brought to the Department by concerned citizens. After the wildlife is fully rehabilitated they are returned to the wild. Those that are un-releasable due to permanent injuries are sent to wildlife sanctuaries or zoos to serve as "animal ambassadors" in public outreach programs.

During the report period, the Department initiated a Tortoise Adoption Program and care center. For several decades Arizona citizens in the desert communities have kept desert tortoises as pets. To ensure unwanted desert tortoise pets are not released to the wild, potentially spreading disease to a resident population and endangering the life of the pet tortoise, the Department accepts and adopts out unwanted animals. Over 400 desert tortoises were received and adopted out in 2015.

## **School Programs**

Heritage Environmental Education funds are utilized primarily to deliver education programs to K-12 schools. Approximately 7,000 K-12 students participated in “hands-on” wildlife education activities throughout the state through summer camps, classroom programs, career fairs, homeschooled activities, and field based research events. Many of these students and their chaperones participated in the Department’s annual Youth Day event at the Outdoor Expo.

One of the Department’s largest school outreach efforts is directed toward 4th grade students. Nearly 11,000 4th grade students throughout the state participated in a wildlife education program correlated to Arizona’s Academic Content standards. This program focuses on animal adaptations and uses live animals to better illustrate the concepts presented to the students.

Department staff also conducted or participated in numerous outdoor wildlife workshop events, summer camps, and special needs camps orientated toward children. The workshop-type events are hands-on activities, often directed toward large groups or families. One of the more popular events is the Department’s annual Career Exploration Day. Grade school, high school, and college aged students listened to a panel of biologists discuss the diversity of jobs available in wildlife management. The event is live streamed through the Departments website to ensure students throughout the state can participate. To further encourage and support students interested in biological careers, the Department collaborated with the three major universities to establish liaisons. These Department employees regularly meet with and mentor students to advise them on wildlife career opportunities and other topics.

At the Hirsch Conservation Education Area, located on the Ben Avery Shooting Facility, the Department provided a series of monthly programs. These programs introduced children and their families to a variety of nature and outdoor related activities and topics such as: raptors of Arizona, digital photography, wildlife viewing, geocaching, wildlife tracking, kayaking, fishing, and off-highway vehicle safety. More than 300 people participated in these events. Staff is currently developing a prototype of a summer camp program at the facility, tentatively scheduled to be tested in 2017. In addition, the Department hosted a number of homeschool family programs throughout the Phoenix area. These included nonnative turtle trapping, crayfish capture, and watching bats emerge from their daytime roosts. More than 500 people participated in these events in 2015.

## **Environmental/Wildlife Outreach**

Department staff and volunteers interacted with approximately 250,000 individuals at over 150 public gatherings, workshops, festivals, and fairs throughout the state. Examples of some of the larger public events the Department participated at include:

- AGFD Outdoor Expo
- AGFD Wildlife Center Open House
- Get Outdoors Expo
- Prescott Great Outdoors
- Verde Valley Birding and Nature Festival
- Payson Wildlife Fair

- El Día de los Niño's Children's Festival
- Yavapai County Cattle Growers Annual Sale
- High Country Hummers-Springerville
- Gila River Indian Community Earth Day
- Show Low Days Outdoor Recreation Show
- Coconino County Fair
- Bullhead Wings and Wildlife Festival
- Navajo Nation Earthday
- Legislative Day at the State Capitol
- Diamondbacks Sportsmen's Day
- Woodland Lake Wildlife Festival
- Becoming an Outdoor Woman
- San Pedro River Ecofest
- Grand Canyon National Park Wildlife Day
- Yuma Catfish Rodeo
- Southwest Birding and Nature Festival
- Tres Rios Nature and Earth Festival
- Mormon Lake Outdoor Festival
- Kartchner Caverns Cave Fest
- Tucson Birding and Wildlife Festival

## **HERITAGE PUBLIC ACCESS**

The Landowner Relations Program oversees the Department's recreational access efforts by which the Department collaboratively enhances opportunities for the public to enjoy wildlife. This is accomplished by identifying lands and waters that are closed to the public or that do not have sufficient access and work with all interested parties to meet recreation and other access needs.

Fiscal year 2015 was a very successful year with a number of significant accomplishments. To begin with the Department received a grant from Yamaha to purchase an access easement which was a first for industry providing funding to acquire an easement for recreational access. This project is highlighted below and has several partners involved. Without the Heritage Access funding, the Department would not have received this funding and through this grant the citizens of Arizona have received 10 times the benefit they would have received with only the Heritage funding available for securing Public access.

The Department completed 24 recreational stewardship agreements with private landowners. This fiscal year the Department also allocated \$1,400,000 of federal funds towards securing access, and the projects funded with these federal dollars are included in this report as accomplishments due to the fact that the staff developing these projects were funded through the Heritage budget. These efforts secured access to 900,000 acres for the public to enjoy for wildlife related recreation.

In total, the Department had 59 access agreements where 4.1 million acres had access secured through Department efforts. In addition, the Respect program worked with approximately 320 landowners statewide and the Department assisted with 37 Adopt-A-Ranch events which included 690 volunteers totaling over 5,000 volunteer hours. Using a value of \$21.69 per hour, this represents \$108,450 in volunteer in-kind funding that contributes to the Heritage Access resources for projects that secure access for Arizona's citizens.

**The Babbitt Ranches Agreement**

Babbitt Ranches is located in Northern Arizona comprises nearly 700,000 acres of land, with 250,000 acres privately owned, and 450,000 acres of State Trust Land and US Forest service leases. This agreement secures access for 10 years and provided over 1,400 big game hunter an opportunity to hunt elk, deer, antelope, and other wildlife species. This agreement is the first of its kind in Arizona, as all the funding will be used to promote ethical recreational use and for studies that will provide a plan for future recreation that bring technology into the wild. By having kiosks where recreationist can interact with each other and provide information on what wildlife they encounter while on the ranch, the Department and Babbitt Ranches believes a younger generation can better appreciate the experience of the outdoors and wild places, while also having a connection to the technology that all young people have today.

**Yuma Dove Plot Program**

Building on an experimental idea initiated last fiscal year, the Department entered into agreements with six farms to delay harvest of seed crops until after the dove season. Through this program the Department is ensuring access for dove hunters to prime hunting opportunities over a significant food source, but this program also holds doves in the Yuma area for a longer period of time providing additional days for hunters to be in the field. Dove hunting in the Yuma areas is a huge event, and access for dove hunters has become a very important type of access for the Department to secure. This program was successful as initial data indicates a 6% increase in the number of dove hunters in the Yuma area, and that the average number of days in the field for all hunters in this area increased by 1 day.

**OTHER REPORT REQUIREMENTS**

The Department received \$10 million from lottery revenues for Heritage Funded programs and expenditures totaled approximately \$10.23 million in fiscal year 2015. The following information represents Department Heritage Fund expenditures in fiscal year 2015:

1. Heritage Funds Spent for:
 

(a) Property acquisition (and due diligence associated costs)	\$2,052,550
(b) Identification, inventory, protection & management of sensitive species	\$3,667,500
(c) Habitat evaluation and protection (\$850,000 used to match federal grants)	\$1,631,801
(d) Urban Wildlife	\$1,664,903
(e) Environmental education	\$492,316
(f) Public access	\$527,751
  
2. One property was acquired by the Commission with Heritage Funds in FY 2015.

3. During the preceding fiscal year, \$7,940.54 in property tax was spent on the Page property prior to acquisition.
4. The Department spent \$2,767,023 for employee personnel services and \$1,238,105 for employee related expenses.
5. Four Department employees charged time to Heritage funds, when involved with Heritage funded property acquisition. These employees also charge non-Heritage fund sources.
6. In fiscal year 2015, the Department employed 60 full-time employees to administer Heritage-funded programs.
7. The list of Heritage Grants awarded follows:

In fiscal year 2015, the Department awarded 25 Heritage Fund Grants out of 48 grant applications received awarding **\$408,092** in Heritage Funded Grants. The Department conducted Heritage Grant Workshops in five communities throughout Arizona during July and August 2014. Following is information on each of the 25 Heritage Grant award recipients:

**Environmental Education (EE)** received four applications and three applicants were awarded Heritage EE Grants totaling **\$23,591** of the \$24,000 available.

1. Arizona State University – Poly and Tempe Campuses, for the project titled “*The Ecology and History of the Sonoran Desert.*” The award amount \$4,800.
2. U.S. Fish and Wildlife Services sponsoring Sonoran Joint Venture, for the project titled “*All About Birds Eco-Program.*” The award amount \$8,791.
3. Arizona State Parks (ASP) sponsoring Toursphere, for the project titled “*Ecology through Technology Wildlife Tours (ETT).*” The award amount \$10,000

**Outdoor Education (OE)** received six applications and five applicants were awarded Heritage OE Grants totaling **\$7,920** of the \$8,000 available.

1. Mesa Public School District, Kerr Elementary, for the project titled “*Reptiles, Amphibians and Mammals, Of My!*” The award amount \$2,230.
2. Washington Elementary School District, Orangewood Elementary, for the project titled “*Orangewood at Camp Colley Environmental Workshop.*” The award amount \$1,240.
3. Phoenix Elementary School District, Augustus Shaw Elementary, for the project titled “*Hirsch Conservation Education Area at BASF.*” The award amount \$500.
4. Gowan Science Academy, for the project titled “*Colorado River Tour.*” The award amount \$2,500.
5. Coolidge Unified School District, for the project titled “*Hohokam Outdoor Adventures.*” The award amount \$1,450.

**Schoolyard Habitat (SCHOOLYARD)** received 11 applications and five applicants were awarded Heritage SCHOOLYARD Grants totaling **\$37,500** of the \$37,500 available.

1. Tempe Union High School District, for the project titled *“The Pride Preserve.”* The award amount \$6,500.
2. Arizona State University, for the project titled *“Outdoor STEM Center Education – Habitat Program.”* The award amount \$9,210.
3. Roosevelt School District, Martin Luther King Jr. Elementary, for the project titled *“Martin Luther King Jr. Early Childhood Center Exploration Forest.”* The award amount \$10,000.
4. Isaac Elementary School District, for the project titled *“Isaac Discovery Habitat.”* The award amount \$5,084.
5. Lake Havasu High School, for the project titled *“Lake Havasu High, Outdoor Classroom & Wildlife Habitat.”* The award amount \$6,706.

**Urban Wildlife (URBAN)** received 10 applications and five applicants were awarded Heritage URBAN Grants totaling **\$112,500** of the \$112,500 available.

1. Arizona State University, for the project titled *“The Urban Owl campaign: Reducing secondary poisoning of raptors through community education.”* The award amount \$15,950.
2. Town of Prescott Valley, for the project titled *“Fain Lake Sediment Mitigation Project.”* The award amount \$13,000.
3. The University of Arizona, for the project titled *“Pusch Ridge Wilderness, Coronado National Forest and Catalina State Park.”* The award amount \$59,684.
4. The City of Flagstaff, for the project titled *“Development of Prairie Dog Management Handbook Using non-lethal Control.”* The award amount \$20,514.
5. Scottsdale Community College, for the project titled *“Center for Native & Urban Wildlife Education & Biodiversity Research.”* The award amount \$3,352.

**Public Access (ACCESS)** received three applications and all three applicants were awarded Heritage ACCESS Grants totaling **\$50,000** of the \$50,000 available.

1. Town of Payson Water Department, for the project titled *“Green Valley Lake Shoreline Stabilization Phase-II.”* The award amount \$7,760.

2. The Town of Payson, for the project titled "*American Gulch Loop Trail & Viewing Area.*" The award amount \$28,200.
3. Yavapai County Dewey Annex, for the project titled "*Wildlife Viewing Program with Observation Deck.*" The award amount \$14,040

**Identification, Inventory, Acquisition, Protection and Management (IIAPM)** received 14 applications and four applicants were awarded Heritage IIAPM Grants totaling **\$176,581** of the \$200,000 available.

1. The University of Nevada, Las Vegas, for the project titled "*Implementation and Development of Conservation Strategy for Relict Leopard Frog.*" The award amount \$44,974
2. United States Geological Survey, Southwest Biological Science Center, for the project titled "*Evaluate Post-Stocking Survival of Roundtail chub in the Verde River.*" The award amount \$33,420.
3. Arizona State University, for the project titled "*Microhabitat Evaluation for Northern Mexican Gartersnakes.*" The award amount \$49,108.
4. Northern Arizona University School of Forestry, for the project titled "*New Mexico Jumping Mouse Surveys & Habitat Modeling in Arizona.*" The award amount \$49,079.