



WINGS ACROSS THE AMERICAS
2014 Conservation Awards



wings
ACROSS THE
americas

CELEBRATING *11* YEARS OF CONSERVATION



Wings Across the Americas
is a program to conserve
birds, bats, butterflies and dragonflies.



wildlife in 2011 and spent nearly \$55 billion on their activities. Birds are indicators of national and international environmental health and trends. Unfortunately, many bird populations are significantly declining due to habitat loss,

climate change, development, fragmentation, invasive species, and other causes both here and abroad.

The 193 million acres of National Forests and Grasslands managed by the US Forest Service are critical to maintaining bird populations. However, more than 350 bird species migrate to Latin America and the Caribbean each year. Habitat conservation on our nation's forests and grasslands is not sufficient. Conservation is needed range-wide, in breeding, migration and wintering

areas to ensure habitat and populations; otherwise, investments we make here at home for bird conservation will not be enough for us to see common migrants in the future.

Wings Across the Americas invests in international conservation and uses Forest Service experience and expertise to improve bird conservation at home and abroad. Scarce federal dollars are leveraged through partnerships with other agencies, non-governmental conservation organizations, local communities and private/corporate sources, both in the United States and abroad, to ensure long-term sustainable projects that benefit birds throughout their range.

Conserving Bats Worldwide

Bats are vital to the health of ecosystems and human economies world wide. As primary predators of night-flying insects, bats consume enormous quantities of agricultural pests and reduce the need for chemical pesticides. Some

bats are critical pollinators and seed dispersers for plants, many with great economic value such as the durian (high-priced Asian fruit), or the agave (source of tequila), closer to home in North America.

Protected bat colonies all over the world have become popular and valuable tourist attractions. A colony in downtown Austin, TX, adds some \$10 million tourist dollars a year to the local economy. The city boasts that it is the "Bat Capital of America".

Bats are threatened worldwide. Populations are in alarming decline because their colonies and habitats are destroyed both intentionally and inadvertently. Development, agriculture, climate change, and lack of scientific understanding of bat ecology lead to the inadvertent destruction of their habitats. With more than 1,200 species, bats account for nearly a quarter of all mammals, but they are among the least studied. In fact, popula-

tion status and conservation needs of most bats have never been documented. Tragically, their populations also suffer from intentional destruction due to myths and misinformation.

Wings Across the Americas is working to assist in bat research, conservation management and capacity building to maintain healthy ecosystems in our National Forests and Grasslands, as well as provide Forest Service expertise and experience for bat conservation internationally. Our investment at home and abroad increases our scientific knowledge of bats and creates a cadre of trained scientists and managers to conserve an important group of mammals that is often ignored by conservation planners.



Conserving Monarch Butterflies

The monarch butterfly, while not endangered, is in serious decline. The loss of habitat on the wintering grounds and in the breeding areas is a continuing concern. In fact, this loss could severely affect the migration of the monarchs, as well as threaten their population. Cur-

rent land use practices in the United States and in northern Mexico are degrading the pathways. There are fewer milkweed plants (for larvae) and nectar resources (for adults) available, and hence, fewer suitable breeding sites. Furthermore, in Canada and the United States, land use and farming practices (i.e. pesticides and herbicide resistant crops) are unfriendly to milkweed. In the over wintering areas, habitat is threatened by deforestation and pressure exerted by human settlements, like in areas around the Monarch Butterfly Biosphere Reserve. There, local communities greatly depend on both the monarch and the forests for their livelihood and identity.

As part of the Wings Across the Americas program, the Forest Service is working with partners to address habitat issues in Canada, the US and Mexico for the monarch, through the Monarch Joint Venture and educational and outreach efforts for inner city youth and wildlife biologists.

***Wings Across the Americas* Program:**

Supports habitat conservation activities on National Forests and Grasslands, and from Canada's Boreal Forest to the Grasslands and Wetlands of South America;

Organizes an annual awards program to recognize conservation partnerships involving Forest Service employees and their cooperators;

Provides training opportunities for biologists, land managers and administrators;

Participates in national and international conservation initiatives;

Enables partners and Forest Service employees to become more knowledgeable about global conservation needs.



Protecting Dragonflies and Wetland Habitats

Although dragonflies are an endless source of fascination, they have received little attention from biologists. Consequently, little is known about them. Flying over ponds, streams and rivers, these charismatic species are derived from an ancient order of insects that emerged 300 million years ago. Fossil records show that little has changed in their design over time. Dragonflies are efficient predators. They use their extendable lower lip and teeth to snag mosquito larvae, tadpoles and even small fish. They are used as indicator species for assessing habitat and water quality in wetlands, riparian forests and lakeshore habitat around the world. In North America, citizen monitoring networks—involving teachers, school groups, birders, nature societies and other partners—are forming to gather information and to collect data on dragonflies.

In North America, there are 9 migrating dragonfly species. There is not, however, much information on the natural history or ecology of their migration. The best known of these nine species is the Common Green Darner, which travels south in the fall and whose offspring return in the spring. Various reports have specified sightings of the Common Green Darners in Chicago, IL; Cape May, NJ; Crescent Beach, FL; and Veracruz, Mexico.

Through the *Wings Across the Americas* program, the US Forest Service is exploring the development of a flyway level collaborative project that will increase the awareness of the importance of dragonflies and their habitats as well as link projects and partners in Canada, the United States and Mexico for research, monitoring, capacity building, outreach and education. Recently, scientists and conservationists with an interest and expertise in migrating dragonfly research convened to discuss issues related to its migration in Canada, Mexico and the United States. A Migratory Dragonfly Action Plan that includes research, citizen science and education priorities related to migration, range shifts due to climate change and conservation of key habitats in North America is being developed.



**HABITAT MANAGEMENT &
PARTNERSHIP AWARD**
Port-O-Potty Owl Project:
The Poo-Poo Project

PORT-O-POTTY OWL PROJECT: THE POO-POO PROJECT



Raptors face a number of human hazards in their quest for survival—vehicles, windows, power lines—and believe it or not port-o-potties. In particular, the vault toilets found in our national parks and forests are dangerous. There is growing documentation that small owls are being trapped after they enter through open-topped vent pipes leading to the waste-holding reservoirs below. Once they enter the waste pit they are trapped and unable to fly back up the pipe or out

through the toilet.

Why would an owl want to go into a large, dark pipe? It's the natural behavior of many small, native owls to seek out such places as a protected nesting or roosting site. Thus, the open-tops of the air vents are a dangerous, and potentially deadly, lure. In fact, each year thousands of cavity-nesters, animals

that prefer dark, narrow spaces for nesting and roosting, become entrapped in vertical open pipes such as ventilation pipes, claim stakes, and chimneys, including those connected with vault toilets.

Several species of owls are potentially affected. Two are Species of Special Concern in Wyoming, and one is a Sensitive Species in Idaho. In the Tetons and the Wind Rivers, at least four species of small, cavity-nesting

owls are regularly found and may be attracted to these open vents, including the Western Screech-Owl, Bo-real Owl, Northern Pygmy-Owl, and Northern Saw-whet Owl.

Fortunately for the owls and other cavity nesters, there is a relatively inexpensive and simple fix to this problem. Screened vent covers attached to the open-top pipe prevent small owls or any small mammals from entering the vent. The Port-o-Potty Owl Project, affectionately nicknamed the Poo-Poo Project, aims to prevent wildlife entrapment with this simple and effective fix.

It all started in 2010 when the Teton Raptor Center initiated a community-driven project to install 100 screens on the ventilation pipes of toilets throughout Grand Teton National Park, as well as the Bridger-Teton and Caribou-Targhee National Forests. In addition to keeping out the cavity-nesters, the screens prevent non-degradable waste from entering the toilets without compromising ventilation.

Through the Poo-Poo Project, the Teton Raptor Center partnered with resource and facility managers throughout Grand Teton National Park and Bridger-Teton and Caribou-Targhee National Forests to retrofit hundreds of vault toilet units with vent screens. In 2013, Shoshone National Forest installed 130 screens. Installation should begin in 2014 on approximately 350 more toilets throughout the Greater Yellowstone Ecosystem on federal lands. Additionally, the Poo-Poo Project has served as a community educational tool to share the natural history, biology and ecological significance of birds of prey. Project staffers work directly with the local Boy Scout troops and Audubon groups, who have provided volunteer labor for the installation of the screen fixtures.

Open pipes are a surprisingly large problem in the wild, and the Poo-Poo project shows how a wide-reaching partnership can begin to reduce mortality in highly valued wildlife species

Award Winners

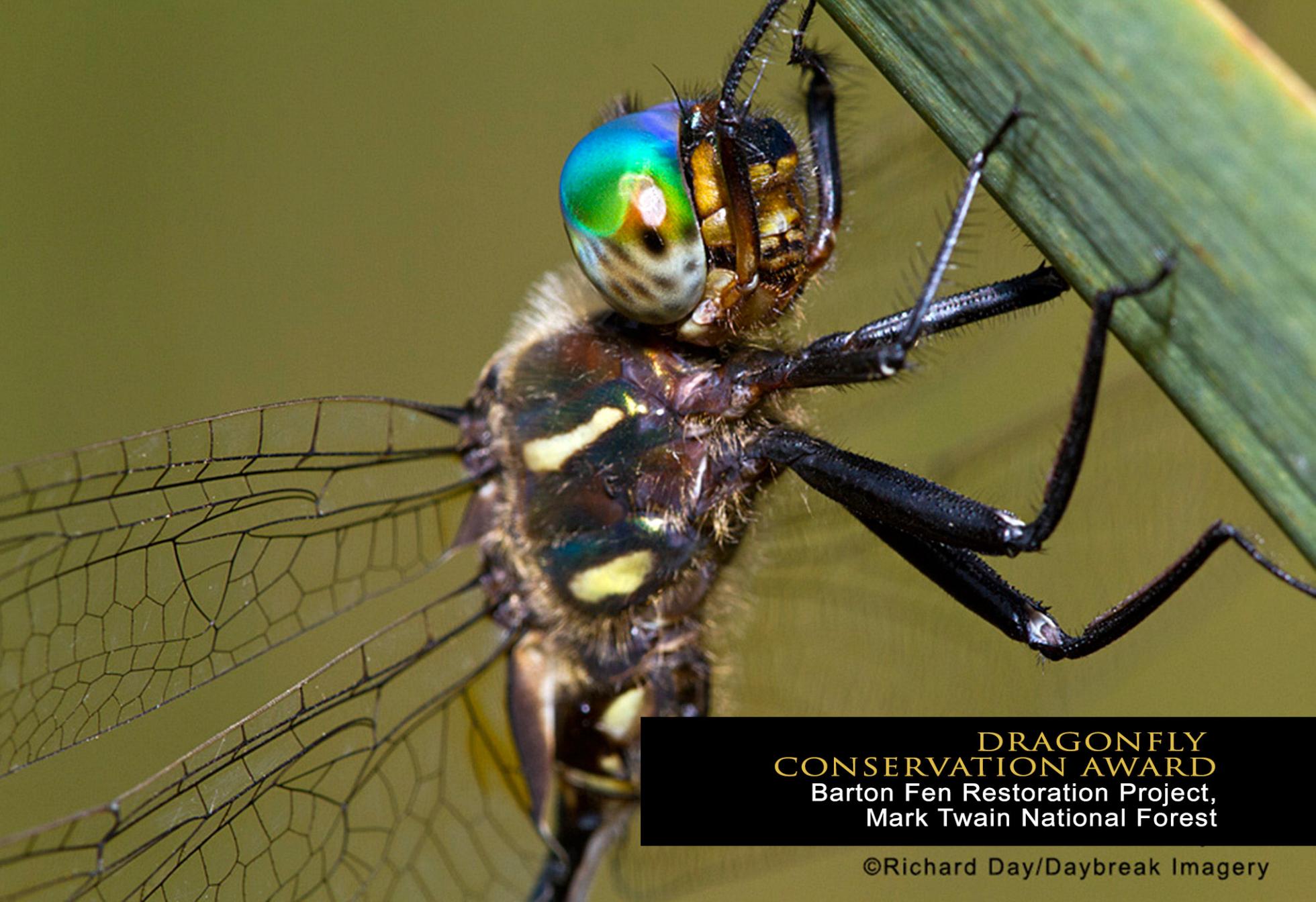
- Joe Harper,
Shoshone National Forest,
U.S. Forest Service
- Tammy Fletcher,
Caribou-Targhee National Forest,
U.S. Forest Service
- Bernadette Barthelenghi,
Bridger-Teton National Forest,
U.S. Forest Service
- Teton Raptor Center
- Steve Cain,
Grand Teton National Park
- Leo Castagno,
Premier Powder Coating





Certificate Recipients

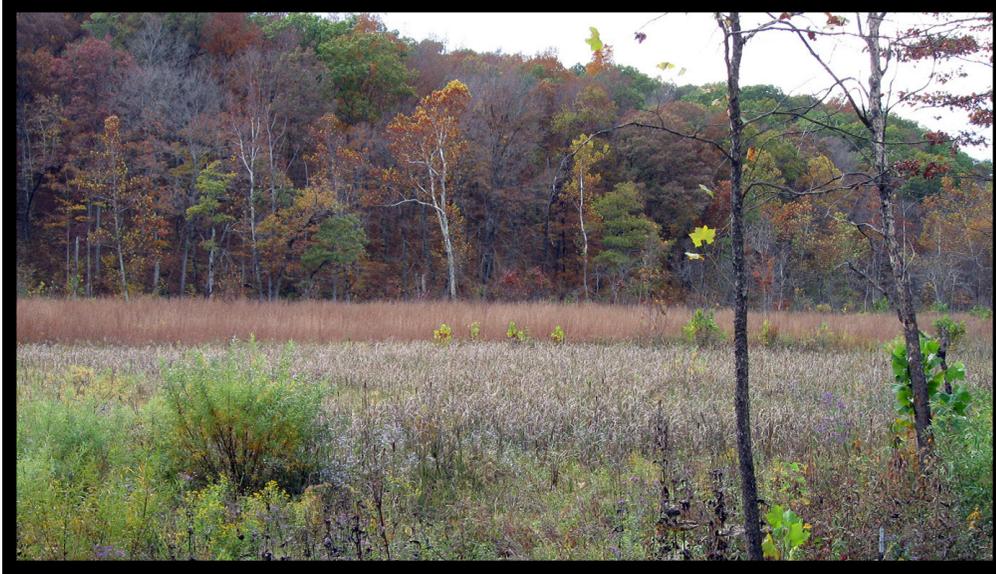
- Gary Hanvey,
Bridger-Teton National
Forest, U.S. Forest Service
- Linda Merigiliano,
Bridger-Teton National
Forest, U.S. Forest Service
- Leianna Raadt,
Shoshone National
Forest, U.S. Forest Service
- Ann Belleman,
U.S. Fish and Wildlife
Service
- Meadowlark Audubon
Society
- Grand Teton Association
- Macy's Septic Services



**DRAGONFLY
CONSERVATION AWARD**
Barton Fen Restoration Project,
Mark Twain National Forest

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BARTON FEN RESTORATION PROJECT: MARK TWAIN NATIONAL FOREST



Barton Fen as Hine's emerald dragonfly critical habitat in 2010. It is one of only thirteen critical habitat units in Missouri.

The delicate green-and-yellow insect leads a precarious life: the adult males have very small breeding territories where they pursue and mate with females who enter the territory. The female lays eggs by repeatedly plunging the tip of her abdomen into shallow water. Later in the season or the following spring, immature dragonflies, called nymphs, hatch from the eggs. The nymph lives in the water for 2 to 4 years, eating smaller aquatic insects and shedding its skin many times before emerging as a flying adult. The adults may live only 4 to 5 weeks.

In 2004, the Forest Service began an aggressive campaign to address threats to the natural diversity and structure of Barton Fen. Habitat for

The Hine's Emerald Dragonfly, a federally endangered dragonfly, occurs in Illinois, Michigan, Missouri, and Wisconsin. It lives in verdant, spring-fed marshes and sedge meadows overlaying dolomite bedrock. Experts have determined that

the 50-acre Barton Fen, located on the Mark Twain National Forest in Iron County, Missouri, represents one of the largest and most genetically diverse populations of this dragonfly in the state. For this reason, the U.S. Fish and Wildlife Service designated



the Hine's emerald dragonfly was being threatened by structures installed more than a century ago to promote grazing. Other threats included erosion and trenching caused by illegal off-road vehicles, gravel runoff from the nearby road, and disturbance by feral hogs. The fen soils had dried, and as a result, non-native invasive species, woody shrubs and trees established and spread throughout the fen. The Project included numerous activities to minimize gravel runoff from the road, to reduce non-native invasive species, to protect the fen from feral hog damage,

and to restore a fire regime as a means to increase species diversity.

Over the life of the project, collaboration has been the key to success in this work. Looking towards the future, it will surely be the foundation for work with partners and other counties to advance aquatic habitat protection and other restoration priorities on the Mark Twain National Forest.

Award Winners

- Mark Twain National Forest
- Lynda Mills, Potosi-Fredericktown Ranger District, U.S. Forest Service
- Iron County, Missouri
- Rick Turner, Iron County Road Department
- Paul McKenzie, Columbia, Missouri, Ecological Services Field Office, U.S. Fish and Wildlife Service
- AmeriCorps

Certificate Recipients

- from the Mark Twain National Forest, U.S. Forest Service*
- Shawn Bleiler
 - Kelly Whitsett
 - Amy Wilson
 - Julie Mattson
 - Theresa Davidson
 - Daniel Jordan
 - Scott Pierce
 - Chris Woods
 - Chad Nickelson
 - David Bechtold
 - Bill Bodimer
 - Bob Gillespie, Missouri Department of Conservation
 - Calvin Pryor, Iron County Road Department
 - Tim Mouser, Iron County Road Department
 - The Iron County Road Department





**RESEARCH MANAGEMENT &
PARTNERSHIP AWARD**
Monitoring and Conservation of
Black-backed Woodpecker in Burned Forests

MONITORING AND CONSERVATION OF BLACK-BACKED WOODPECKER IN BURNED FORESTS



Little was known about the basic ecology, population status, and habitat needs of Black-backed Woodpecker in California before a partnership was launched in 2008. Partners include the Pacific Southwest Regional Office of the Forest

Service and the Institute for Bird Populations, a research-focused NGO. The partnership eventually grew to include ten national forests, as well as a researcher at Princeton University. The ultimate goal of this work is to better integrate the habitat

needs of Black-backed Woodpeckers—and other bird species that flourish in post-fire forests—into forest management.

Black-backed Woodpecker, a designated Management Indicator Spe-

cies for burned forests in California, was recently petitioned—unsuccessfully—for listing as a California endangered species. The western population is currently under consideration for federal listing. The spe-

cies is strongly associated with early post-fire forest, a habitat that is relatively rare and subject to conflict over sometimes competing uses and management approaches. Black-backed Woodpeckers typically colonize such areas within a year after fire, but then abandon them in less than a decade, as insect prey populations favored by the species decline.

The partnership has yielded a plethora of information and publications relevant to Forest Service planning approaches and management actions. Recent studies reveal important details about where the woodpeckers find their food (including visits to unburned forests), when the birds raise their



young, and how much burned forest the birds need. Ongoing monitoring has added important data, leading to peer-reviewed papers, numerous technical reports, and increasingly refined information about the habitat associations of more than 100 bird species—including numerous Neotropical migrants—that also occupy recently burned forests.

Multimedia outreach efforts have also been impressive. The partnership organized and convened a public



workshop and a comprehensive website with technical reports and peer-reviewed publications stemming from the work. Also, as part of the Pacific Southwest Region's RESTORE video series, the Partnership produced a 5-minute web video that has been viewed more than 1,000 times.

To the degree that Black-backed Woodpecker habitat is thoughtfully managed, numerous other bird species will benefit, including the Violet-green Swallow, House Wren,



Western and Mountain Bluebird, Olive-sided Flycatcher, and many other species that nest at high density in recently burned forests. For the future, the hope is to continue this important work to understand the best way to manage habitat for all of these birds.

Award Winners

- Diana Craig, Pacific Southwest Region, U.S. Forest Service
- Chrissy Howell, Pacific Southwest Region, U.S. Forest Service
- Rodney Siegel, Institute for Bird Populations
- Robert Wilkerson, Institute for Bird Populations
- Morgan Tingley, Princeton University and Institute for Bird Populations
- Institute for Bird Populations

Certificate Recipients

- Patricia Flebbe, Pacific Southwest Region, U.S. Forest Service
- Steve Dunsky, Pacific Southwest Region, U.S. Forest Service
- Ann Dunsky, Pacific Southwest Region, U.S. Forest Service

- Deb Whitman, Pacific Southwest Region, U.S. Forest Service
- Dawn Lipton, Eldorado National Forest, U.S. Forest Service
- Richard Perloff, Inyo National Forest, U.S. Forest Service
- Shay Zanetti, Lake Tahoe Basin Management Unit, U.S. Forest Service
- Victor Lyon, Lake Tahoe Basin Management Unit, U.S. Forest Service
- Gale Bustillos, Lassen National Forest, U.S. Forest Service
- Ryan Foote, Lassen National Forest, U.S. Forest Service
- Karen Harville, Lassen National Forest, U.S. Forest Service
- Marty Yamagiwa, Modoc National Forest, U.S. Forest Service
- Mary Flores, Modoc National Forest, U.S. Forest Service
- Patrick Lieske, Lassen National Forest, U.S. Forest Services

- Colin Dillingham, Plumas National Forest, U.S. Forest Service
- Matthew Johnson, Plumas National Forest, U.S. Forest Service
- Emilie Lang, Sequoia National Forest, U.S. Forest Service
- Greg Schroer, Sierra National Forest, U.S. Forest Service
- Crispin Holland, Stanislaus National Forest, U.S. Forest Service
- Adam Rich, Stanislaus National Forest, U.S. Forest Service
- Tina Mark, Tahoe National Forest, U.S. Forest Service
- Danny Cluck, Forest Health Protection, U.S. Forest Service
- James Saracco, Institute for Bird Populations
- Ron Taylor, Institute for Bird Populations
- Joanna Wu, Institute for Bird Populations



BAT CONSERVATION AWARD
Bat Cave Gating Project

BAT CAVE GATING PROJECT



The gray bat once flourished in caves all over the south-eastern United States, but due to human disturbance, populations have declined severely since the middle of the 20th century. The Bat Cave Gating Project was designed and implemented by the Mark Twain National Forest and partners to support the recovery of federally endangered gray bats. Bat Cave has the largest gray bat maternity colony on the Mark Twain National Forest. A thermal infrared video camera recorded almost 50,000 adult bats exiting the cave in 2012. The project is important as the devastating white-nose syndrome has been confirmed in gray bats and in Missouri. The hope is that the gates will help prevent the spread of this disease and limit disturbance

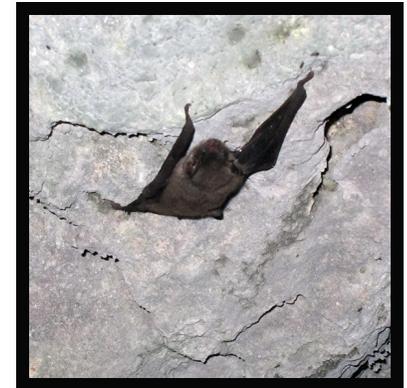
to the maternity colony and bats hibernating in this cave. Very few caves are suitable for gray bat maternity colonies, so protecting this one cave can have an enormous impact on populations.

The project involved installing a chute gate and a flyover gate at the two entrances of a Priority 2 gray bat maternity cave and closing user-created trails near the cave. The gates also protect other sensitive species, endemic species, and unique cave features from disturbance, disease, and degradation by visitors. The Forest Service has excellent partners in this effort, ranging from private landowners, many volun-

teers, and even a Wounded Warrior. There were logistical challenges: the team had to move people, supplies, and equipment up a nearly vertical cliff to the cave entrances, often in cold, wet conditions. A winch-operated highline system was used to transport heavy steel bars into the cave to avoid injuries and resource damage. A nearby riparian management zone and archaeological sites along the stream and at the cave entrances also had to be protected.

The impacts of the work are expected to be far reaching. Improving more than 2,000 acres of habitat for bats means that other vulnerable wildlife species are pro-

tected including: northern long-eared bat (proposed federally endangered), tricolored bat (Regional Forester Sensitive Species), and three Missouri Species of Conservation Concern (grotto salamander, guano pseudoscorpion, and Salem Cave isopod). Maintaining large, healthy populations of bats benefits people as well because most bats eat their body weight in disease-carrying and forest and crop-damaging insects each night. This partnership will endure with the aim of conserving additional habitat for bats and other unique cave species for years to come.



Award Winners

- Kevin Cox, Mark Twain National Forest, U.S. Forest Service
 - Anthony Lee, Mark Twain National Forest, U.S. Forest Service
 - Angelina M. Trombley, Mark Twain National Forest, U.S. Forest Service
 - Jason Griffith, Wounded Warrior Project
 - Benjamin Laborde, International Volunteer, U.S. Forest Service
 - Jim Kennedy, Bat Conservation International
 - James R. Cooley, Cave Research Foundation/Kansas City Area Grotto
 - Mark Jones, Cave Research Foundation/National Speleological Society
 - Alicia Wallace, Meramec Valley Grotto/Missouri Cave and Karst Conservancy
 - Ken Grush, Cave Research Foundation/Kansas City Area Grotto
 - William Burks, St. Louis Emergency Response Team, AmeriCorps
- ## Certificate Recipients
- Kelly Whitsett, Mark Twain National Forest, U.S. Forest Service
 - Theresa Davidson, Mark Twain National Forest, U.S. Forest Service
 - Bruce Gibson, Mark Twain National Forest, U.S. Forest Service
 - Danny Olivas-Zuniga, Mark Twain National Forest, U.S. Forest Service
 - Jason Stork, Mark Twain National Forest, U.S. Forest Service
 - Erin Yeoman, Mark Twain National Forest, U.S. Forest Service
 - Timothy A. Perren, Mark Twain National Forest, U.S. Forest Service
 - Dana Sturgeon, Mark Twain National Forest, U.S. Forest Service
 - Kyle Young, Mark Twain National Forest, U.S. Forest Service
 - James Kaminski, Mark Twain National Forest, U.S. Forest Service
 - Eugene and Thelma Barton, private landowners
 - Shelly Colatskie, Missouri Department of Conservation
 - Grace Bertsch, St. Louis Emergency Response Team, AmeriCorps
 - Scott Cressler, St. Louis Emergency Response Team, AmeriCorps
 - Clare-Noel Holdinghaus, St. Louis Emergency Response Team, AmeriCorps
 - Jena Hood, St. Louis Emergency Response Team, AmeriCorps
 - Stephanie Lee, St. Louis Emergency Response Team, AmeriCorps
 - Ali Morgan, St. Louis Emergency Response Team, AmeriCorps
 - Laura Perry, St. Louis Emergency Response Team, AmeriCorps
 - Andrew Sexton, St. Louis Emergency Response Team, AmeriCorps
 - Bree McMurray, Missouri Bat Census
 - Mark Lankford, Branson Area Tri-Lakes Grotto
 - Bill Gee, Kansas City Area Grotto
 - Mike Modlin, Kansas City Area Grotto
 - Scott House, Cave Research Foundation
 - Michael Sutton, Cave Research Foundation



**INTERNATIONAL
COOPERATION AWARD**
The Migratory Shorebird Project:
Connecting Communities of the Americas
through Research for Conservation

THE MIGRATORY SHOREBIRD PROJECT: CONNECTING COMMUNITIES OF THE AMERICAS THROUGH RESEARCH FOR CONSERVATION



Shorebirds are the ultimate long-distance travelers, from their breeding grounds on the Alaskan tundra to wintering areas at the southern tip of South America. Wetland habitats all along the Pacific Coast of the Americas are vital to their survival. Shorebirds travel in large flocks and depend on many coastal habitats that are at risk from human development and sea-level rise.

One of the key sites for shorebirds in their northward migration is the Copper River Delta in Chugach National Forest in Alaska. Because of that and important shorebird habitat in the Tongass National Forest, the Forest Service and Ducks Unlimited began the Copper River International Migratory Bird Initiative (CRIMBI)



in 2002. Copper River Delta is especially important for the global population of Western Sandpiper and the Pacific population of Dunlin. Therefore, the Forest Service has joined with Point Blue Conservation Science and a multitude of partners across the Western Hemisphere to study and protect the two species throughout their ranges. The Western Sandpiper winters as far south as Peru, so the coalition to study this species includes partners from every Pacific Coast country and state from Alaska to Peru.

The objectives of the Migratory Shorebird Project are to: (1) study the distribution and abundance of Western Sandpipers and Dunlin both

at the individual site level (e.g., Panama Bay) and across their wintering range; (2) measure the response of Western Sandpipers and Dunlin to local management actions at the site level; (3) study the factors influencing population changes; and (4) educate individuals, communities, and governments about the importance of their wetland resources and their connectivity with people, via shorebirds, throughout the Americas.

Point Blue Conservation Science chairs the project's steering committee and coordinates all data management and applications for this project. In the first three years, Point Blue developed bilingual workshop materials, survey protocols, and a data management system. Partners from multiple countries held a series of workshops to identify priority research questions, develop regional sampling designs, and develop targeted outreach materials. An in-depth website was also developed to feature all of the findings and related information (www.migratoryshorebirdproject.org).

Surveys and focused studies of threats to shorebirds have occurred at more than 40 coastal sites over the past three years. Many of these sites are important for all Pacific coast shorebirds and other waterbirds; thus, information gained through this project will help in the

conservation of all coastal wetland birds. In addition, the health of these wetlands is vital to the well-being of the people living near them; it is a goal of this project to make those connections evident to the nearby residents.

Over the course of ten years, the Migratory Shorebird Project will assess the relative influence of threats facing shorebirds and find innovative conservation solutions to reduce those threats so that people and birds can share a healthy Pacific Coast for years to come.

Award Winners

- Matt Reiter, Point Blue Conservation Science
- Catherine Hickey, Point Blue Conservation Science
- Richard Johnston, Asociación Calidris
- Diana Eusse, Asociación Calidris
- Rob Clay, Birdlife International
- Pete Davidson, Bird Studies Canada
- Rob Butler, Bird Studies Canada
- Eduardo Palacios, Centro de Investigación Científica y de Educación Superior de Ensenada (CICESE)

Certificate Recipients

Canada

- David Hope, Simon Fraser University
- David Lank, Simon Fraser University
- Ron Ydenberg, Simon Fraser University
- Mark Drever, Canadian Wildlife Service
- Karen Barry, Bird Studies Canada
- Bird Studies Canada

United States

- Robert Alvarado, U.S. Forest Service
- Chrissy Howell, U.S. Forest Service
- Erin Cooper, U.S. Forest Service
- Cheryl Carrothers, U.S. Forest Service
- Wayne Owen, U.S. Forest Service
- Carol Lively, U.S. Forest Service
- Point Blue Conservation Science
- Khara Strum, Point Blue Conservation Science
- Dave Shuford, Point Blue Conservation Science
- Lynne Stenzel, Point Blue Conservation Science
- Gary Page, Point Blue Conservation Science
- Environment for the Americas
- Brad Andres, U.S. Fish and Wildlife Service
- Rick Lanctot, U.S. Fish and Wildlife Service
- Vanessa Loverti, U.S. Fish and Wildlife Service
- Marian Bailey, U.S. Fish and Wildlife Service
- Jean Takekawa, U.S. Fish and Wildlife Service
- Cindy Sundstrom, U.S. Fish and Wildlife Service
- Paul Meyers, U.S. Fish and Wildlife Service
- Sue Thomas, U.S. Fish and Wildlife Service
- Brian Collins, U.S. Fish and Wildlife Service
- Orien Richmond, U.S. Fish and Wildlife Service
- Carol Beardmore, U.S. Fish and Wildlife Service / Sonoran Joint Venture



- Beatrix Treiterer, U.S. Fish and Wildlife Service
- Matt Freis, U.S. Fish and Wildlife Service
- Cheryl Strong, U.S. Fish and Wildlife Service
- Tom Anderson, U.S. Fish and Wildlife Service
- Mike Wolder, U.S. Fish and Wildlife Service
- Jen Isola, U.S. Fish and Wildlife Service
- Rob Doster, U.S. Fish and Wildlife Service
- Kirk Gilligan, U.S. Fish and Wildlife Service
- John Takekawa, U.S. Geological Survey
- Gary Slater, Ecostudies Institute
- Pilchuck Audubon
- Whidbey Audubon
- North Cascades Audubon
- Skagit Audubon
- Manomet Center for Conservation Sciences
- National Audubon Society
- Martin Ruane, U.S. Navy
- Tiffany Shepherd, U.S. Navy
- Susie Fork, Elkhorn Slough Foundation
- Mark Colwell, Humboldt State University
- Sea and Sage Audubon
- Audubon California

- Monica Iglecia, Audubon California
- Andrea Jones, Audubon California
- Bolsa Chica Conservancy
- Jackie Sones, Bodega Marina Lab
- Lara Sparks, California Department of Fish and Wildlife
- Dave Feliz, California Department of Fish and Wildlife
- Dave Van Baren, California Department of Fish and Wildlife
- Laura Cockrell, California Department of Fish and Wildlife
- Grassland Water District
- Cypress Grove Preserve, Audubon Canyon Ranch
- San Francisco Bay Bird Observatory
- Stefanie Bergh, Washington Department of Fish and Wildlife
- Ruth Milner, Washington Department of Fish and Wildlife
- Kathy Molina, Los Angeles Museum of Natural History

Mexico

- Guillermo Fernández, Universidad Nacional Autónoma de México
- Xico Vega, Terra Peninsular
- Grupo Aves del Noroeste (GANO)

- Daniel Galindo Espinosa, Centro Interdisciplinario de Ciencias Marinas, Instituto Politécnico Nacional
- Lucía Guadalupe Alfaro Rodríguez, Terra Peninsular, A.C.
- Edgar Santiago Amador Silva, Centro de Investigaciones Biológicas del Noroeste, S.C.
- Terra Peninsular, A.C.

Nicaragua

- Salvadora Morales, Fauna y Flora Internacional
- Fauna y Flora Internacional

Costa Rica

- Unión de Ornitólogos de Costa Rica
- Julio Sánchez, the first president of the Unión de Ornitólogos de Costa Rica

El Salvador

- SalvaNATURA

Panama

- Panama Audubon Society
- Rosabel Miro, Panama Audubon Society
- Karl Kauffman, Panama Audubon Society
- Michelle Caballero, Panama Audubon Society

Colombia

- Asociación Calidris
- Fernando Castillo, Asociación Calidris
- Carlos Ruiz, Asociación Calidris
- Concejo Comunitario Esfuerzo Pescador
- Parque Nacional Natural Sanquianga

Ecuador

- Ana Agreda, Aves y Conservación
- Aves y Conservación

Perú

- Patricia Saravia, Servicio Nacional de Áreas Protegidas por el Estado (SERNANP)
- Steve Martans, Servicio Nacional de Áreas Protegidas por el Estado (SERNANP)
- Reserva Nacional de Paracas
- Centro Neotropical de Entrenamiento en Humedales Peru (CNEH)
- Naturaleza y Cultura Internacional



**COMMUNITIES IN
CONSERVATION AWARD**
University of Minnesota's Monarch Lab

UNIVERSITY OF MINNESOTA'S MONARCH LAB



The annual migration of the monarch butterfly is a marvel of nature. However, the migration is being threatened by habitat loss throughout the butterfly's range. For over 20 years, the University of Minnesota's Monarch Lab has served to link academic research with community outreach programs associated with monarch conservation. This approach has mobilized thousands of people throughout North America.

Dr. Karen Oberhauser and the graduate

students and staff members at the Monarch Lab are actively studying the dynamics of monarch population. Acknowledging that scientists cannot do it all, the team at the Lab has engaged people through citizen science to foster conservation. The benefit goes both ways: participants learn about conservation first hand and get to participate in scientific research. Dr. Oberhauser, her students and staff developed the Monarch Larva Monitoring Project (MLMP) in 1996 to better understand how and why monarch populations

vary in time and space. The project has engaged almost 1,000 volunteers from across the United States, Canada, and Mexico in monarch research.

In addition to advancing conservation with citizens, Dr. Oberhauser and her team have worked to integrate research and instruction. The idea is to bring scientists and classroom teachers together to merge scientific investiga-

tions with expert classroom instruction. The Monarchs in the Classroom (MITC) program originated when Dr. Oberhauser brought monarch caterpillars to her daughter Amy's kindergarten class 22 years ago. Today, the MITC program has grown to reach audiences of all ages through various curriculum guides, educational materials, professional development courses for teachers, and opportunities for teachers and students to participate in research. These partnerships with teachers, schools, nature centers, and monarch enthusiasts throughout the US have inspired many students to choose natural resource careers.

The Monarch Lab has conducted dozens of MITC workshops for K-12 teachers and other educators, with the support of the U.S. Forest Service, the Minnesota Office of Higher Education, the National Science Foundation, and the Medtronic Foundation. Most importantly, experienced classroom teachers are part of the instructional teams. While the focus of workshops varies from citizen science, to schoolyard ecology, to monarchs and other insects, in all cases, participants leave with knowledge of the scientific principles of conservation biology and how to integrate these principles into their work. In many cases, teachers also learn how to plant schoolyard habitats with host plants and nectar sources for monarchs. These outdoor habitats

have proved to be more effective than traditional classrooms.

The team's dedication has impacted thousands of school teachers, countless students, and numerous citizen scientists in urban and rural communities across the United States, Canada, and Mexico. By using a charismatic species such as the monarch, the Monarch Lab team has attracted students of all ages to participate in scientific research and has encouraged children to contribute to monarch conservation—even with the smallest spaces to plant milkweed. This award recognizes Dr. Karen Oberhauser and her entire team for their extraordinary accomplishments.

Award Winners

- University of Minnesota Monarch Lab
- Karen Oberhauser,
University of Minnesota Monarch Lab
- Liz Goehring,
National Ecological Observatory Network &
Monarchs in the Classroom
- De Cansler, Monarchs in the Classroom

- Ann Hobbie, Monarchs in the Classroom
- Laura Molenaar,
Monarchs in the Classroom
- Michelle Solensky, Jamestown College &
Monarchs in the Classroom
- Cindy Petersen,
Monarchs in the Classroom
- Lis Young-Isebrand,
Monarchs in the Classroom
- Michele Koomen, Gustavus Adolphus
College & Monarchs in the Classroom
- Michelle Prysby, University of Virginia &
Monarch Larva Monitoring Project
- Ilse Gebhard, Monarch Larva Monitoring
Project
- Ridlon “Kip” Kiphart, Monarch Larva
Monitoring Project

Pete & Sanny Oberhauser,
Monarch Larva Monitoring Project



Certificate Recipients

- Sonia Altizer, University of Georgia & Monarchs in the Classroom
- Terry Vick, Monarchs in the Classroom
- Bruce Leventhal, Monarchs in the Classroom
- Grant Bowers, University of Minnesota Monarch Lab
- Jolene Lushine, University of Minnesota Monarch Lab
- Katie-Lyn Bunney, University of Minnesota Monarch Lab
- Sarah Weaver, University of Minnesota Monarch Lab
- Mary Hedenstrom, Monarchs in the Classroom
- Harmony Lewis, Monarchs in the Classroom
- Amy Witty, University of Minnesota Monarch Lab
- Sarada Sangameswaran University of Minnesota Monarch Lab
- Eneida Montesinos, Monarchs in the Classroom
- Reba Batalden, Monarch Larva Monitoring Project
- Wendy Caldwell, University of Minnesota Monarch Lab
- Carl Stenoien, Monarch Larva Monitoring Project
- Kelly Nail, Monarch Larva Monitoring Project
- Eva Lewandowski, Monarch Larva Monitoring Project
- Alma De Anda, Monarch Larva Monitoring Project
- Amy Alstad, University of Wisconsin & Monarch Larva Monitoring Project
- Don Alstad, University of Minnesota & Monarchs in the Classroom
- Leah Alstad, Monarch Larva Monitoring Project
- Dina Kountoupes, Monarch Larva Monitoring Project
- Rob Blair, Driven to Discover Program, University of Minnesota
- Nathan Meyer, Driven to Discover Program, University of Minnesota
- Andrea Lorek Strauss, Driven to Discover Program, University of Minnesota
- Pam Larson Nippolt, Driven to Discover Program, University of Minnesota
- Amy Rager, Driven to Discover Program, University of Minnesota
- Sami Nichols, Driven to Discover Program, University of Minnesota
- Tania Homayoun, Driven to Discover Program, University of Minnesota





wings
ACROSS
americas





a us forest service program
to conserve birds, bats,
butterflies and dragonflies

un programa para
conservar aves, murciélagos,
mariposas y libélulas

un programme pour
la conservation des
oiseaux, des chauves-souris,
des papillons et des libellule

