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Satellite Telemetry

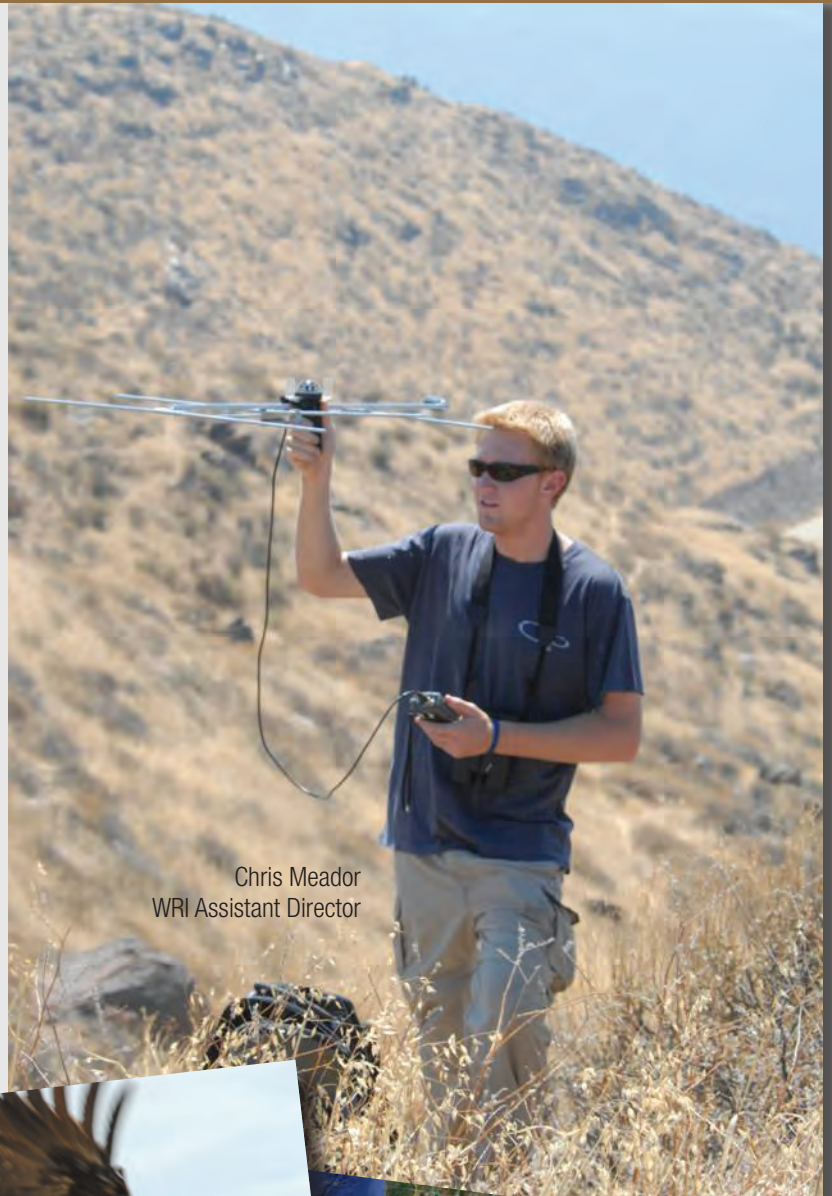
Takes Bird Banding to New Heights

By Leigh Bittner

In 2005, **WRI** and the **United States Forest Service (USFS)**, launched satellite telemetry to track the movements of Golden Eagles in Southern California. Since that time we have secured additional funding and sponsors to broaden this research to also include Golden Eagles from our banding stations in Montana. All of the data is truly amazing and could not have come at a better time. As you read this, maps are being drawn with plans for wind and solar farms in California, Baja, and all points north. It is critical that these potential sites use the known migration, hunting, and nesting patterns of the remaining Golden Eagles. Only satellite data can scientifically prove what areas the birds rely on to exist.

In order to understand the significance of these dramatic technological advancements in research, it is important to understand the history of bird banding.

While bird banding delivers much information to science and research, bird banding can be a very slow process. Most of the time you received the data only after the bird has been found or sighted. But you need to rely on a series of coincidences and on the person finding the bird to know how and where to report the finding. **Dave Bittner** has waited over 25 years to learn about one Great Blue Heron and **Jack Holt** has recovered two different Bald Eagles, each after 31 years.



Chris Meador
WRI Assistant Director



(see page 2)

(from page 1)

Satellite Telemetry Takes Bird Banding to New Heights

So with bird banding alone you know:

- 1) Where and when you banded the bird and,
- 2) Where and when it was found, and it is often dead

So you can get information but it takes many, many years, patience, and chance encounters to put significant puzzle pieces together to form a scientific database.

Modern satellite telemetry gives us information immediately. Formerly, this same information took years to discover with traditional bird banding. The data we glean from satellite tracking is actually impossible to get with bird banding. Our tiny transmitters are tracked across the globe by satellites, and allow study of the migration of a single bird around the world, north, south, east and west and all points in between in almost real time. Information collected from the Eagles is “impressed” on a signal sent from the transmitter up to a **NOAA** (National Oceanic & Atmospheric Administration) weather satellite orbiting far above the Earth. This is our “uplink” and it relays latitude/longitude activity 16 times a day. Then data is down-linked by the ARGOS section of the NOAA satellite.

WRI contracts with **CLS America** to make these data available to us via the Internet. Our biologists at WRI then parse these data, apply them to maps and we can tell you exactly where the Eagles are, when they were there, how fast they were flying, how high they flew and access these data and apply the knowledge to our research and conservation work almost instantly.

Within a few months, instead of decades, we are able to produce maps that provide accurate, unequivocal data showing Eagle dispersals, natal areas, territory usage, and flyways. Furthermore, we can determine if an Eagle isn't moving--a red flag for an injured bird that can be rescued and/or a dead Eagle for which we can determine the cause of death.

The maps on Pages 4 and 5 show where some of our research Eagles have traveled. Each color represents an individual Eagle and their flight paths.

History of Bird Banding

Those of you who have attended **HawkWatch** or volunteered at our **Montana Golden Eagle Migration Study**, have probably seen Hawks or Eagles being banded with metal leg bands or wing tags for tracking purposes. The history of this current scientific method goes back many centuries with the earliest record of a metal band used on a bird's leg around 1595. This is when one of **Henry the IV's** banded Peregrine Falcons was lost while pursuing game in France. This record states that the hunting Falcon showed up 24 hours later in Malta, which is about 1350 miles away, and averages about 56 miles per hour!

Fast forward to North America and **John James Audubon**, the famous naturalist and painter, when in 1803 he tied silver cords to the legs of brood Phoebes (flycatchers), near Philadelphia. By this method, Mr. Audubon was able to determine that two nestlings returned to the very same neighborhood the following year.

Early Banders

In 1902 the first scientific system of banding began. **Paul Bartsch**, a well-known conchologist (a person who studies shells and mollusks), who studied birds as a hobby, banded 100 Black-crowned Night Herons in the District of Columbia with bands inscribed “Return to the Smithsonian Institution”. In addition, between 1909 and 1939, **Jack Miner**, a Canadian, banded 20,000 Canada Geese and hunters would bring him the bands for his research.

By 1909, the **American Bird Banding Association**, under the auspices of the **University of Wisconsin**, was formed to organize and assist this growing work of research. In 1920 the Bureau of Biological Survey (now the **U.S. Geological Survey**) and the **Canadian Wildlife Service** jointly accepted the work of the Association. Following the 1916 Migratory Birds Convention, the Bird Banding Office was established in 1923. **Frederick Lincoln** was the most influential individual in building this program into what is today. He devised the numbering schemes and record-keeping procedures. He recruited banders, established standards, and fostered international cooperation. He promoted banding as an important tool of science and laid the groundwork for today's North American bird banding program.

North American Bird Banding Program

Today this program extends from the Canadian Arctic to the tropics of Latin America, from Newfoundland to places like Siberia, Greenland, and Antarctica. Wherever North American birds go, bird banding is there. Almost all species have been studied by banding. According to the U.S. Geological Survey, there are currently 1.2 million birds banded, and 85,000 recovered each year or 7%. This program is an important tool used to protect, conserve and enhance the avian diversity of our world.

Bird banding is a universal and indispensable technique to study the movement, survival and behavior of birds and is jointly administered by the United States Department of the Interior and the Canadian Wildlife Service. Since our two countries work together, they have shared similar policies and the same bands, reporting forms and data sheets since 1923.

Updrafts and Updates:

2009-2010 have been very successful for the Wildlife Research Institute's Golden Eagle Research team. During 2009 alone, WRI Biologists and volunteers banded 56 Golden Eagles. We now have 38 Golden Eagles with VHF transmitters and eight Golden Eagles with satellite transmitters that we are tracking.

These eagles with transmitters are ranging from southern Baja to Alaska and east to Wyoming, Colorado, and Texas. Over the next few years, we plan to continue to track these and additional Eagles to document critical habitat, mortality factors, and migration. The specific knowledge we gain from tracking the Eagles helps us identify critical habitat the species needs for feeding, wintering, and nesting. We can then use this information to protect the species by protecting these critical habitats.

These data are critical input for wind and solar energy development projects. WRI is currently involved in 12 different energy projects as well as studies for the

Bureau of Land Management (BLM) and the **U.S. Fish and Wildlife Service (USFS)**.

The BLM has contracted WRI to study Golden Eagles, Common Ravens, and Prairie Falcons in the Western Mojave Desert. In the Western Mojave, we are studying approximately 20 pairs of Golden Eagles, 15 pairs of Prairie Falcons and over 75 pairs of Ravens. In San Diego County we continue to study 46 active pairs of Golden Eagles that we have been documenting now for over 22 years. In addition, we annually document another 15 pairs in Riverside and Orange Counties.

In Montana, we are trapping, banding and tracking with satellite transmitters the migratory population of Golden Eagles that migrate from Alaska and Canada into the United States and Mexico to winter.

The eagle migration along the Rocky Mountain Front in Montana occurs from mid-September, peaks in October and continues through November each year. Members, volunteers and biologists all work together to trap and band these magnificent Eagles. Last year several members and volunteers experienced a great day when seven Golden Eagles were tagged and released in one day. Several other Eagles were near misses, so the action was nonstop all day.

We have been returning to the **Blacktail Ranch** and the Continental Divide since 2000 and we want to thank all our members and expeditioners that have helped support this important work. If you are interested in joining this elite group for a once in a lifetime experience, just fill out the enclosed registration form to hold your reservation. Space is strictly limited to 12 people per week.

Please see the enclosed sign up form if you wish to help on this project. For additional information about the Blacktail Ranch visit: www.blacktailranch.com

How to Report a Federal Bird Band in North America

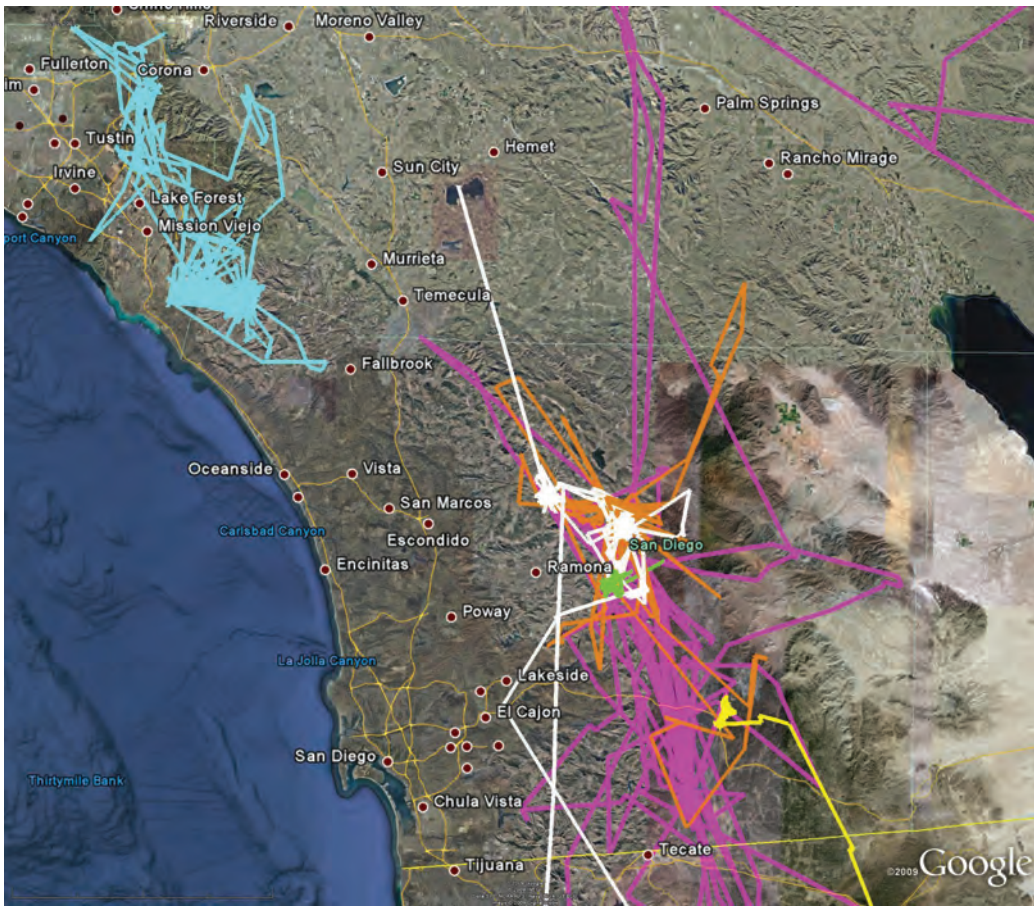


If you ever come across a bird and you notice leg bands or wing tags, please do the following:

- Note size, shape, color, age, sex and any characteristics you can observe.
- EXACT location of where you see or found the bird
- How, when and where you found/saw bird
- Band number etched on the metal
- Patagial (wing) tags number, and very important: color of wing tags (look for patagial tags on vultures, eagles, swans, ravens, crows, herons)

Phone: 1800.327.BAND **Email** info to: bbl.usgs.gov

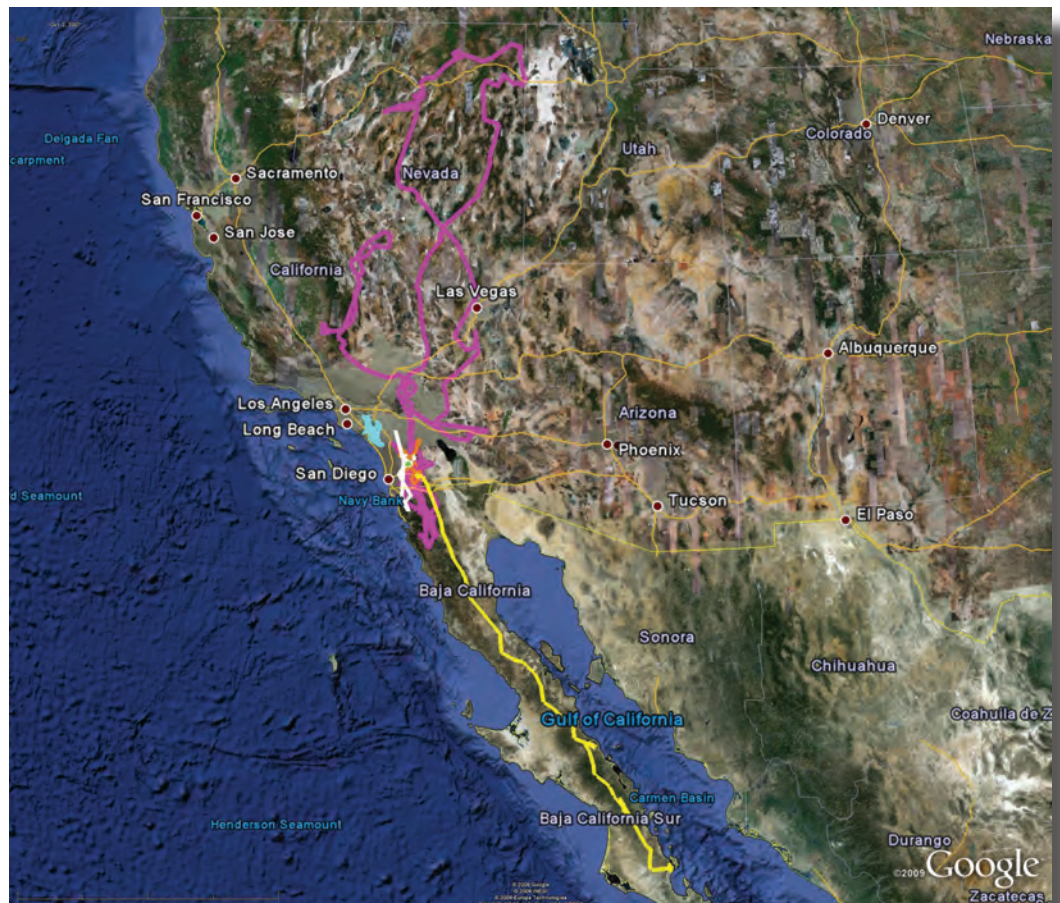
Fax above info or wing tag drawings to: 301.497.5717



This detail view of Southern California shows extensive flight activity, from just east of our research facility in Ramona to well past Palm Springs and far south into Mexico. Each color shows a specific Eagle being tracked.

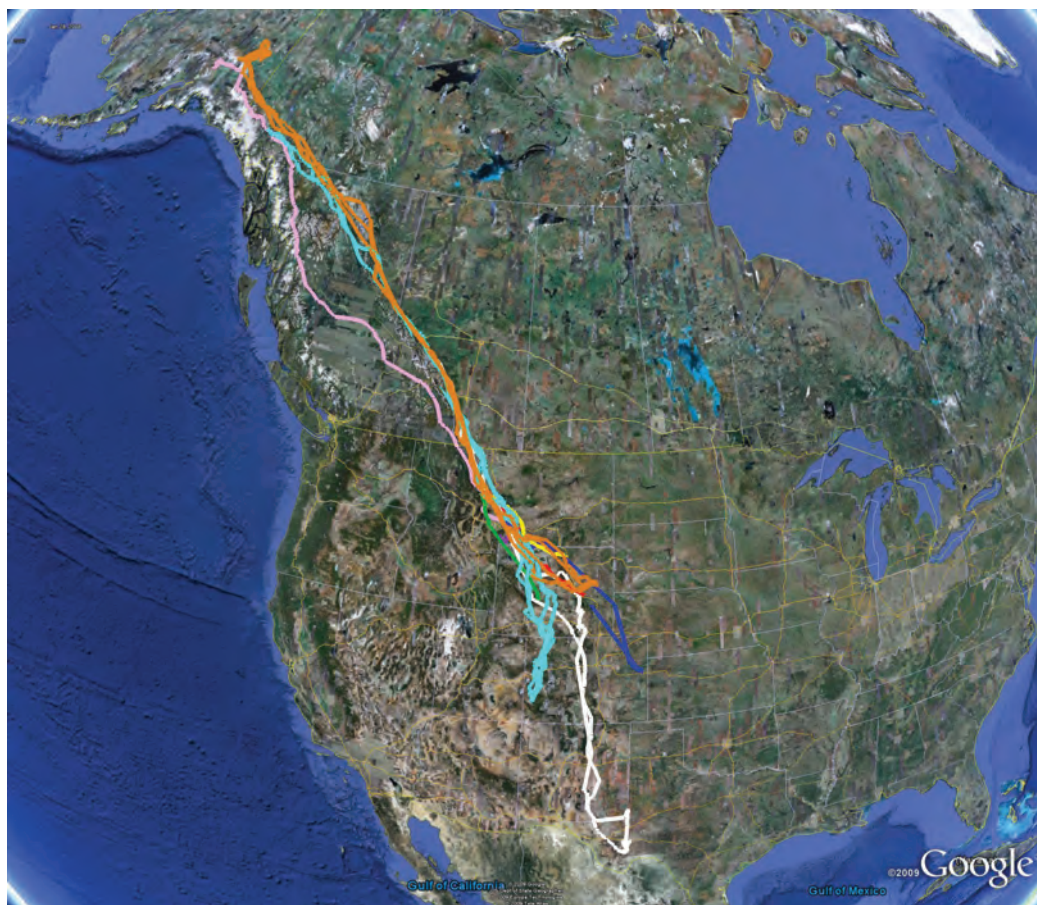
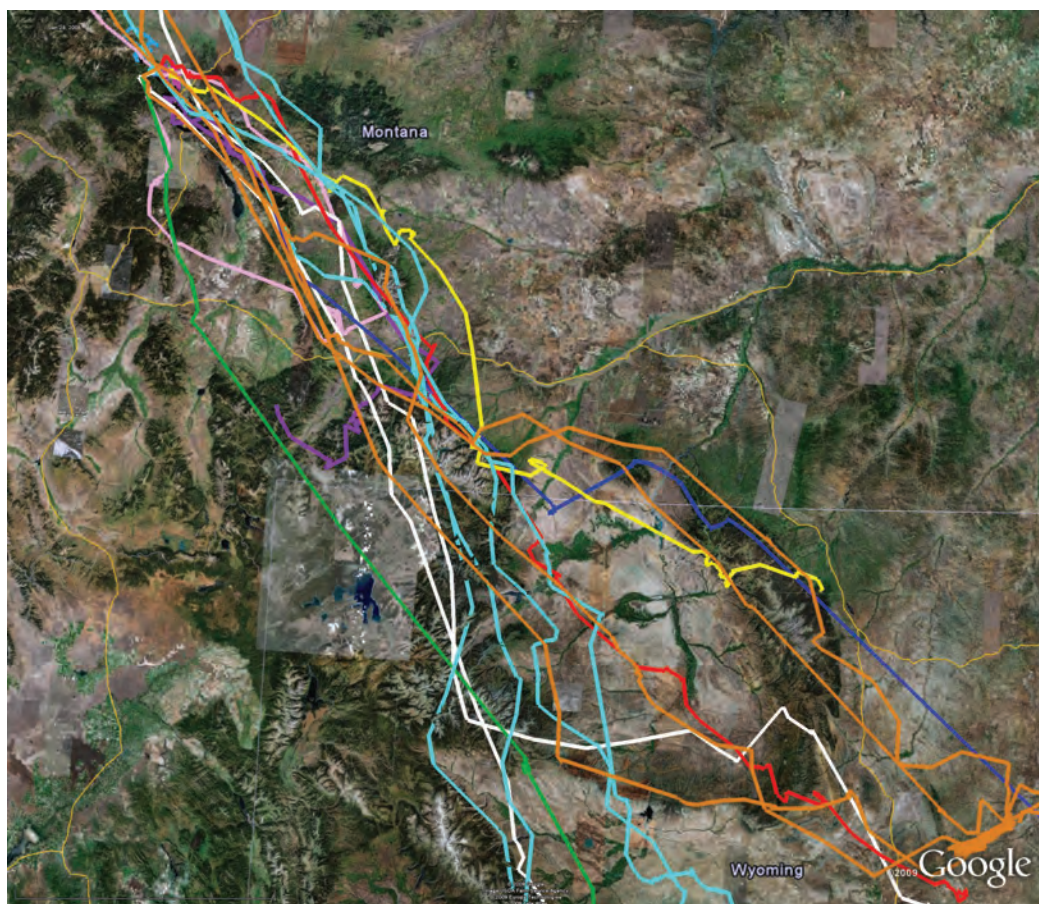
Research Eagles...

Over 100 Golden Eagles from San Diego have been fitted with satellite and/or VHF transmitters and tracked by our biologists, beginning in 2005. Each of these Golden Eagles is giving a clearer picture of what habitat they use and how far they range. The map to the right shows one young Golden Eagle ranging 750 miles north of San Diego for several months, then returning to San Diego and traveling into Baja on four different trips. We are learning how the Golden Eagles live, breed and die and what causes these deaths. All this is important to protecting the species and knowing what habitats are critical to preserve for their future well being. New threats such as wind energy farms and expansion of oil and gas wells are causing mortality that's compounded by the prolonged drought that has gripped Western North America since 1998.



A detailed view of the Montana region shows Eagle flights covering much of Wyoming, with forays far north into Canada.

...On The Move



WRI has been tagging Golden Eagles with satellite transmitters in west central Montana since 2006. This location, along the Rocky Mountain Front is where the largest migration of Golden Eagles in North America occurs. Over 4,000 Golden Eagles were counted annually migrating by in the 1990s. These Eagles breed in Canada and Alaska and migrate to the 17 Western States to spend the winter. WRI is attempting to establish natal and wintering areas. We are also examining what types of mortality and how often mortality might occur on the wintering grounds. WRI has banded and tagged over 430 Golden Eagles in our current studies to increase our knowledge and help save habitat for this declining species.

Helping The Desert Tortoise Avoid Friendly Fire



At WRI we are well known for our Golden Eagle research, but our biologists work with many different species. One such example is the Desert Tortoise (*Gopherus agassizii*). Our Research Director, **Dr. Jeff Lincer** and WRI biologist, **Brittany Schlotfeldt** have been support the Tortoise research of **Peter Woodman**, of Kiva Biological, and **Dr. William Boarman**, of Conservation Science Research and Consulting. One project involved fencing to keep the Tortoises from becoming road kill during mating and dispersal and another project is on **Fort Irwin Army Base**.

With the expansion of Fort Irwin and the U.S. Military's need for increased desert warfare training, Fort Irwin is being used for more intensive explosives exercises and other potentially hazardous activities. Our U.S. military installations are keenly aware of their natural resources and strive to mitigate negative impacts whenever possible.

The Tortoises in these photos are being outfitted with transmitters in preparation for their relocation off of the expanding Fort Irwin Army Base, as stipulated by the U.S. Army's "No Jeopardy" Biological Program. Each desert tortoise discovered by the team of scientists has



WRI partnered with Dr. Bill Boarman, a Raven and Desert Tortoise specialist, to ascertain the current population and how the population uses the habitat. (Pictured with WRI Biologist, Brittany Schlotfeldt. Note Desert Tortoise in foreground.)



Left: Typical Desert Tortoise burrow (note shape of entrance.)

a transmitter attached to its carapace using an epoxy blend.

This allows the Tortoises to be more easily located, which aids observation

and maintenance of the animals once they have been moved, and makes the individuals more accessible for study.

Other Desert Tortoise studies are being conducted to determine the best translocation/relocation techniques for the best outcome.

The Desert Tortoise is listed as Threatened on the U.S. Endangered Species Act and is protected throughout its range. The **U.S. Fish and Wildlife Service** has a recovery plan that has specific recommendations and protocols for managing suitable habitat for Tortoise conservation.

Pressures on the Desert Tortoise include predation from ravens, a respiratory disease, degraded habitat due to human development, mining, and grazing of livestock. Sadly, they are still being collected for the illegal pet trade and they and their burrows are crushed by desert recreational vehicles.



Below: Tortoise with transmitter attached using epoxy.

Photo: Dr. Bill Boarman

INTERESTING DESERT TORTOISE FACTS:

Fact #1: The Desert Tortoise is able to live where ground temperatures may exceed 140 degrees F by retreating to their burrows.

Fact #2: Much of the tortoise's water intake comes from moisture in the grasses and wildflowers it consumes in the spring. Adult Tortoises may survive a year or more without access to water.

Fact #3: 95% of a Desert Tortoise's life is spent in underground burrows.

Fact #4: Desert Tortoise populations have declined by 90 percent since the 1980s.

Fact #5: Due to the increase in various human activities in the deserts, raven populations have also increased. The food, trash, and water of people enable Ravens to survive and therefore increase their range by following these water and food opportunities. This Raven population increase also caused more than 50 percent of juvenile Desert Tortoise deaths in some areas of the Mojave Desert.

Fact #6: It is unlawful to touch, harm, harass, or collect a wild Desert Tortoise. If you pick up a Desert Tortoise, they usually urinate from stress and it depletes the animal of essential fluids that they cannot replace.

Spotlight on WRI Advisors & Research Associates

A continuing series spotlighting individuals whose contributions are central to WRI's research and educational mission. In this issue, meet:



Dr. Reuven Yosef, WRI Senior Research Associate, is the Director of the International Birding & Research Centre in Eilat, Israel and Assistant Professor of Ornithology at Ben Gurion University of the Negev, Israel.

He received his undergraduate in education and biology from University of Haifa (BE, BSc), Masters Degree from the Ben Gurion University of the Negev in Beer Sheva (MSc), Doctorate from The Ohio State University (PhD), and post-doctoral study at Archbold Biological Station (ABS) in Florida with Prof. Tom Eisner of Cornell University. Most of the research work was connected with shrike ecology and conservation.

He has authored the species account for the Loggerhead Shrike in the Birds of North America series, and is at present writing the family account for the *Handbook of the Birds of the World*. He has published more than 200 peer-reviewed manuscripts and co-authored five books.

Dr. Yosef has served on several committees in the American Ornithologists' Union and the Cooper Ornithological Society, and was International Director of the Raptor Research Foundation 1998-2000. He co-established, with Professor Tom Cade, the International Shrike Working Group in 1993 and has since organized eight International symposia— four published as proceedings.

Dr. Yosef moved back to Israel from the USA in 1993 with his family to become the director of the International Birding & Research Centre in Eilat. His major project was to reclaim the local garbage dump and create on it a "Bird Sanctuary" for the use of hundreds of millions of migratory birds. For this incredibly successful effort he has won several international awards including Associate Laureate of Rolex Awards, the Conde Naste Award for eco-tourism, and others. In Eilat, he established a long-term bird banding station and published extensively on the subject of avian migration strategies and conservation measures.

Dr. Yosef is involved in many research and conservation projects in many countries across the globe, including: Forest Owllet in India, Fiscal Shrike in South Africa, Barn Swallow roosts in Nigeria, Griffon Vultures in Spain, Red-footed Falcons in Hungary, and orientation and navigation in Poland are some of the projects.

Our Board of Directors

We are pleased to have our organization guided by so many qualified, experienced and talented individuals, including:

Carol Angus	Jim Hannan, Ph.D	Fred Sproul
Dave Bittner	Jeffrey L. Lincer, Ph.D	Tom Trowbridge
Leigh Bittner	Shot Linton	Tina West

Further assisting the Wildlife Research Institute is our Advisory Board, which includes:

Keith L. Bildstein, Ph.D	<i>Hawk Mountain Sanctuary</i>
David Bird, Ph.D	<i>McGill University</i>
Richard Clark, Ph.D	<i>York College</i>
Marco Gonzalez	<i>Attorney</i>
Mark Jorgenson	<i>Anza Borrego State Park, Ret.</i>
Paul Jorgenson	<i>CA State Parks Avian Biologist, Ret.</i>
Michael Kochert, Ph.D	<i>Snake River Field Station USGS</i>
Dave Lawhead	<i>CA Fish and Game</i>
Dr. John Means, DMV	<i>Veterinarian, Wildlife Biologist</i>
Brian Milsap	<i>US Fish & Wildlife Service</i>
John Oakley	<i>Mira Costa College</i>
Joseph Platt, Ph.D	<i>PCR</i>
Ricardo Rodriquez-Estrella	<i>Centro de Invest. Biological Div.</i>
Noel Snyder, Ph.D	<i>US Fish & Wildlife Service, Ret.</i>
Tom Scott, Ph.D	<i>UC Riverside Dept. of Earth Science</i>
Dr. Jeff Stenzel	
Mike Wallace, Ph.D	<i>San Diego Zoo</i>



Dave Bittner, WRI Executive Director, perched in a San Diego Golden Eagle nest with a young eaglet.

LAND STEWARDSHIP: A FAMILY AFFAIR

Our local ranchers are stewards of many of the last remaining wild places and wildlife corridors in San Diego County. These large grazing parcels are home to many significant wildlife species, including our local breeding populations of Golden Eagle. Many of the known nest sites and/or foraging areas are located on private ranch lands and WRI is honored to be associated with these ranching families that provide protection for these Eagles. Without the Ranchers' cooperation, we would not have all the puzzle pieces to understand and protect our Southern California and Baja California Golden Eagles. Golden Eagles can live and thrive on these private ranches because they are undisturbed by people, not shot at, power lines are few, no one is climbing around during incubation, and there are ample foraging grounds with sufficient prey.

Wildlife species all benefit when ranchers are able to keep their large land parcels intact. Ranching is hard work and it takes a huge commitment from current and future ranching generations to keep the ranches "wild."

This describes one such cattle rancher, **Adam Cauzza**, and his father. They have allowed WRI to track the Eagles on their private property since 1988. This has enabled us to include their Eagles in our population counts and research. This year the pair on his ranch is raising two young eaglets in a gorgeous tree nest, probably both males, judging by the size of the feet. Thank you Adam and your family, for your continued support in protecting this nest site!



Bryce Fender and Alison Cauzza holding eaglets.

Eagles Soar Over Star B Ranch

Most San Diegans have heard of **Star B Bison Ranch** that is managed by **Ken and Denice Childs**. The Star B has been family-owned and operated since 1979. Star B Ranch represents another ranching family that provides protection to a breeding pair of Golden Eagles. This family appreciates all wildlife and takes great pride in their land stewardship. Three times in the past 14 years, the historic nest sites on their property have burned in a wild-fire; however, each time the Eagle pair has rebuilt a new nest and bred. They also raised two eaglets in 2010.

Earlier this year, Ranch Managers Ken and Denise and other family members accompanied WRI Eagle Biologists to the cliff nest on the Star B Ranch on a strenuous hike.

Five year old grandson **Brody March** was a tough hiker and made the entire hike without complaining. Brody named the eaglets: "Violet and Lee Lee". Thanks Ken and Denise and the Star B Family for your partnership in protecting San Diego's Golden Eagles!



Bryce Fender, Sheila Vedova, Jim Vedova, Adam Cauzza, and Luke Brehm support WRI tracking efforts on their ranch.



A healthy eaglet with magnificent talons on the Star B Ranch.



Ken Childs, with his 5-year old grandson Brody March, and son-in-law Eric March holding eaglets at the Star B Ranch.



Dave Bittner and Jeff Laws after a rappel on an eagle nest showing tell-tale "whitewash" sign.



Eaglets "Violet" and "Lee Lee" in their natal nest.

Grass-fed and farm-raised American Bison from Star B Ranch can be found at the following locations:

- **Ramona Family Naturals** Main Street- Ramona, CA
- **Buffalo Bill's Restaurant** Julian, CA
- **Don's Market** in Santa Ysabel, CA
- **Apple Country Restaurant** in Santa Ysabel, CA
- **Jeremy's on the Hill** in Wynola, CA
- **Star B Ranch** (by appointment only) 760-789-8155

Record 38 Chicks Banded By WRI Biologists In 2010!

Question: What do wildflowers, poison oak, towering trees, sheer rock cliffs, ropes and rattlesnakes all have in common?

Answer: Golden Eagle banding season at **WRI**.

Add to that list all-day hikes with heavy backpacks, and



you come up with dedicated, hard-working teams that successfully banded 38 eaglets in 2010 (32 in San Diego County) from April to June. Due to

the 2003 & 2007 fires, much of the Golden Eagles' hunting range has opened up and the 2010 wet winter stimulated abundant food.

WRI was featured this Spring on TV's local **Fox 5 News with Loren Nancarrow**. Loren and his photographer accompanied WRI biologists to a San Diego nest site reached by helicopter and filmed the process. The feature can still be viewed at www.fox5sandiego.com. Under the "Features" tab, go to "Loren Nancarrow Green," and scroll to "Eagles Threatened by Green Revolution." The feature shows our bio-climbers at work and also discusses the threats wind farms pose to the Eagles.

WRI began its annual census of the Golden Eagle nests in San Diego County in 1988. From this laborious field research we have been able to protect nest sites from disturbance during critical nest-building, incubation, and raising of their young. In San Diego County Golden Eagles use cliffs 80% of the time and Coast Live Oak trees 20% of the time for their massive nests, which can range from four to 10 feet across and stand up to eight feet tall.

Female are generally 30% larger than the males and by measuring the Eagle's foot pads we can determine the sex of the eaglets. At seven weeks of age, Eagles with 5 1/2-inch foot pad or larger are female. The largest recorded in SD County is a 6-3/4-inch foot pad measured and documented by

Dr. Jim Hannan, WRI Research Associate and Board Member, in 2010.



Banding teams need to be on constant alert to not disturb rattlesnakes during their treks through San Diego's backcountry.



Local newscaster Loren Nancarrow assists with Golden Eagle banding and produced a report on our research for television.



Lowering Golden Eagle chicks to the ground crew at Angel Mountain near Lake Henshaw.



A WRI banding team back from a long, hot mission. L-R James Newland, Andrew Fisher, Brittany Schlotfeldt, Polina Osipova, and Chris Meador.



WRI biologist, Renée Rivard, assists Chris Meador with the banding process.

Many Thanks to Our Hard-Working Banding Team!

Susie Amundson	Andrew Fisher	James Newland
Monica Arancibia	Howard Fisher	Jan Newland
Howard Bailey	Mick Foster	John Oakley
Karen Bassett	Holly Foster	Polina Osipova
Dave Bittner	Jim Hannan	Renee Rivard
Leigh Bittner	Terri Johnson	Brittany Schlotfeldt
Carl Burgess	Jeff Kermode	Sam Sun
Andy Byres	Steven Lagos	Jason Stayer
Patty Ten Boom Byres	Jeff Laws	Dave Toler
Adam Cauzza	Eric Leatherman	Jim Tostado
Denice Childs	Shot Linton	Tom Trowbridge
Ken Childs	Kaye London	Chris Van Zant
Jim Christian	Monica Lucs	Jeff Wells
Steve Cook	Brody March	Brent Webster
Dave Cowan	Eric March	Leighanne Webster
Don Endicott	Chris Meador	
Tannika Engelhard	Loren Nancarrow	



The San Pasquel Indians have long been valuable partners in WRI's Golden Eagle banding program.



A San Diego Golden Eagle pair nesting with their young.



Jeff Wells steps out of a helicopter at Moreno Butte.

RAMONA GRASSLAND PRESERVE

WRI Biologists teach about the wild raptors and their natural history and the significance of the **Ramona Grassland Preserve** ecosystem to the raptors' survival. A mere 2-4% of the native California Grasslands remain; not only in San Diego County but in the State. The diversity of the grassland ecosystems is threatened in San Diego County and responsible stewardship and planning that protects these lands is critical. WRI worked with **The Nature Conservancy (TNC)**, the **California Department of Fish and Game** and the **U.S. Fish and Wildlife Service** to help purchase the Ramona Grassland Preserve. The stewardship was then turned over to **San Diego County Parks and Recreation**, since there is no other formal preserve agency in the county. TNC deeded the land to the county for protection and management while holding the Conservation Easements. The land



was purchased for the County's **Multiple Species Conservation Plan (MSCP)** with \$35 million from the California Department of Fish and Game, the U.S. Fish and Wildlife Service

and additional money from The Nature Conservancy, to protect the watershed, the wildlife species, the wildlife corridors and linkages. Now it is up to County Parks and Recreation to act as responsible land managers and wildlife stewards so they protect the grassland species and have the knowledge and most of all, the intent, to be guardians of this rare ecosystem.

If the Ramona Grasslands become fragmented and filled with a crisscrossing, multiple use trail system, Golden Eagles (and other predators) will no longer be able to hunt here and raise their young, and we, the citizens, will lose even more important Eagle habitat. San Diego's Golden Eagles are an umbrella species, and if the land they need to hunt, forage and raise their young is protected, then many other species are also protected under their "umbrella."

Golden Eagles cannot hunt and feed their young with humans walking, biking and causing other disturbances on their foraging grounds; we, the citizens, have to decide if we want to have them in our county or not. If so, we need to be willing to set aside some areas and not recreate on *all* the open space we preserve. This will



The Burrowing Owl (Athene cunicularia), a native resident of the Ramona Grassland Preserve.

allow Eagles some of the last pieces of land for them to hunt and raise young for future generations of young San Diegans to see and enjoy.

WRI Board of Directors has approved the following tenets for our position on the Ramona Grassland Preserve:

PRESERVE THE PRESERVE

1. That the Ramona Grassland Preserve should be a Regional Wildlife County Preserve, primarily to manage for healthy environment to support the unique wildlife (e.g., raptors and their prey) and the habitat it contains.
2. That the placement of trails throughout the interior of the Preserve will cause the loss of unique wildlife, which was the basis for acquiring the property in the first place.
3. That the development of a perimeter interpretive nature trail could facilitate the appreciation of this unique biological resource for walkers, joggers, equestrian riders, nature lovers, recognized educational programs, and the general public.
4. That the interior of the Grassland Preserve be free of trails and infrastructure; available for authorized ecological and habitat management research to prevent fauna and flora collapse and grassland ecosystem decay.
5. That the management of the Grasslands Preserve be assigned to a county department that is trained to manage, and appreciate, the wildlife and its habitat needs rather than placing a priority on maximizing the recreational use of the interior of the Preserve to the public which will, ultimately, degrade its ecological value and cause local extinctions and extirpation of its unique wildlife.