

# News from the



Winter 2012

## WEST Corporate Office Moving to New Home

WEST is pleased to announce the relocation of its corporate office to its new home in the historic Dinneen Building in downtown Cheyenne, Wyoming.

This move allows us the opportunity to combine our previous three Cheyenne offices into a single, state-of-the art facility that will also allow for future expansion. We have been preparing for this move for more than a year and we are pleased to have finally made the transition.

Please update your contact information to reflect our new address :

**WEST , Inc.**  
**415 W. 17th St., Suite 200**  
**Cheyenne, Wyoming 82001**

All corporate phone numbers and e-mails will remain the same.

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## Bats at WEST: The People and the Program

Over the past several years, interest in the study and protection of bat populations has increased significantly. To accommodate this increase in demand, WEST has expanded its bat program and increased its available expertise to include five bat biologists and two wildlife biologists with over 45 years of combined bat research experience across North America. Here is the all-star lineup:

[Jeff Gruver](#) is Senior Bat Biologist for WEST. Since 1996, he has studied bat ecology in the Pacific Northwest, the Rocky Mountains, and the Badlands of southern Alberta. He earned a B.S. in Economics in 1993 from Penn State University and an M.S. in Zoology and Physiology from the University of Wyoming in 2002. Jeff's Master of Science research examined the assemblage of bats near a wind power facility in southern Wyoming in relation to documented bat fatalities at the facility. While at WEST, Jeff has primarily focused on acoustic monitoring and risk assessment of bats, project management, and setting and implementing bat program direction.

[Kevin Murray](#) is lead bat biologist in WEST's Bloomington, Indiana office and has been involved with bat research since 1998. Kevin started out at Missouri State University working on identifying the echolocation calls of bats in the Midwest. He then moved to the University of Miami to study the molecular ecology of island bats. Kevin earned an M.S. in Biology from Missouri State University and a Ph.D. in Biology from the University of Miami. He has chased bats all over the world including such exotic locales as Indiana, Missouri, Oregon, Costa Rica, Belize, and the Caribbean. Kevin focuses most of his efforts on summer Indiana bat surveys and on the species identification of echolocation calls.

[Donald Solick](#) is based in our Cheyenne, Wyoming office and has worked with bats since 1996, primarily in the American Southwest and Pacific Northwest. Donald earned a B.S. in Wildlife Biology and a B.A. in Environmental Studies from The Evergreen State College in 1998 and a M.S. in Ecology from the University of Calgary in 2004. His Master's thesis explored geographic variation in the thermoregulatory behavior of western long-eared bats, and allowed him to work in the magnificent Rocky Mountains and Badlands of southern Alberta. At WEST, he is mainly involved with the acoustic monitoring program, but has also led marine radar surveys and trapping/telemetry efforts for bats. He also seems to always be running some bat experiment in his backyard.

[Matt Clement](#) is WEST's resident expert on the big-eared bat. He recently completed his Ph.D. in wildlife ecology and management at the University of Georgia, where he studied the roosting ecology of Rafinesque's big-eared bat. Prior to joining WEST, Matt participated in bat and bird related research projects in Alberta, Virginia, Georgia, Pennsylvania, and New Zealand. At WEST, Matt primarily analyzes acoustic data and whips reports into tip-top shape.

[Tim Sichmeller](#) is WEST's primary field biologist for the Indiana bat. He earned a B.S. in Zoology in 2005 from Colorado State University. He completed his M.S. from Ball State University in 2010. Tim's Master's work was on 3 sympatric species of Myotis bats

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## WEST Office Locations

### Corporate Headquarters

415 West 17th Street  
Suite 200  
Cheyenne, Wyoming  
82001  
307.634.1756  
*Nadine Wilson*

### Laramie Branch Office

200 South 2nd Street  
Suite B  
Laramie, Wyoming  
82070  
*Trent McDonald*

### NE/Mid-Atlantic Region

Waterbury Branch Office  
P.O. Box 60  
Waterbury, Vermont  
05676  
*David Tidhar*

### Midwest-East Region

Bloomington Branch Office  
408 West Sixth Street  
Bloomington, Indiana  
47404  
*Rhett Good*

### Pacific Northwest Region

Walla Walla Branch Office  
38 East Main Street  
Suite 210  
Walla Walla, Washington  
99362  
*Tamara Enz*

### Midwest-West Region

Bismarck Branch Office  
4007 State Street  
Suite 109  
Bismarck, North Dakota  
58503  
*Clayton Derby*

## Bats at WEST: The People and the Program (Continued)

(Indiana, northern long-eared and little brown). Tim spends most of his summer as Field Operations Coordinator for WEST's Indiana bat surveys. Tim uses his skills and experience attempting to catch Indiana bats throughout their range and then track them using radio telemetry.

[Andy Krause](#) is a biologist with WEST stationed in southern California, and holds a bat capture and handling permit from the California Department of Fish and Game (CDFG). With MacGyver-like efficiency and ingenuity, he makes sure that field operations run as smoothly as possible. Andy also holds a CDFG small mammal trapping permit and traps non-flying small mammals when the opportunity presents itself.

[Sarah Oldenburg](#) is a Technician Biologist in our Cheyenne Office. Sarah's can-do attitude and aptitude for organization helps us move seamlessly from study design to implementation to analysis and reporting. Sarah began her bat experience at WEST in 2008 by managing the Anabat inventory and preparing them for the field season for projects around the country. She has since moved into organizing project information and bat data files from the field technicians, as well as bat call quantification. She has recently expanded her knowledge further by working with WEST's statisticians to create output for bat reports.

## Bat Program Expertise

### Acoustic Bat Surveys

A major part of the Bat Team's work involves acoustic bat surveys. WEST has completed pre- and post-construction monitoring for bats at approximately 300 wind energy projects in 42 states. All of WEST's bat biologists have extensive experience with acoustic surveys, including design, implementation, analysis, and reporting. In addition, the Bat Team has become well-versed in the operation and analysis of full-spectrum data. Jeff and Kevin have developed methods to improve bat species identification, and Donald is testing commercially available acoustic detectors and analysis software to see how they compare in terms of detection rates, call quality, and classification rates. These ground-breaking efforts are currently being written up for submission in scientific journals.

### Endangered Species

WEST currently holds a U.S. Fish and Wildlife Service Recovery Permit for Indiana bats, gray bats, and big-eared bats which allows WEST biologists to capture and conduct radio-telemetry on these species throughout their range. During the summer of 2011, Kevin, Tim, and their crews surveyed 260,000 acres for Indiana bats and tracked seven Indiana bats to day roosts and during nightly foraging bouts. Over the last two years, WEST has conducted mist-net surveys for Indiana bats on approximately 465,700 acres in the mid-western and eastern U.S. In addition, Tim, Kevin, Jeff and Donald have surveyed over 17,000 acres of forest habitat for Indiana bats or eastern small-footed bats.

WEST's Bat Team has also designed and implemented novel, defensible approaches to acoustic identification of endangered bat species. With the assistance of WEST's statisticians, Jeff has developed probabilistic models for bat echolocation identification, as well as methods of understanding the uncertainty in the predictions, especially for Indiana bat echolocation calls. In addition, Kevin plays a key role in WEST's approach to assessing probable presence/absence of, and relative risk to, Indiana bats at existing and proposed projects.

### Habitat Conservation Plans

WEST's Bat Biologists are being called upon as never before to provide the scientific background and basis for developing Habitat Conservation Plans (HCPs) for wind energy projects within the range of the Indiana bat. For example, capture surveys led by Kevin and Tim provide evidence of



*Biologist Matt Clement with western mastiff bat  
Photo Courtesy of Donald Solick*

## WEST Biologist Volunteers Time in Costa Rica

In January, WEST Biologist, **Donald Solick**, recently spent a week at the Bijagual Ecological Reserve in Costa Rica. While there, he helped Dr. Heather York of Doane University and her undergraduate students capture bats for research on ecological niche differentiation in gleaning bats. They captured approximately 200 bats of 27 species, including frog-eating bat, greater spear-nose bat, and common vampire bat. It was a fantastic experience!



## Bats at WEST: The People and the Program (Continued)

the presence or probable absence of Indiana bats, as well as whether males or females use the project area. Acoustic analysis led by Jeff and Kevin may provide supporting evidence of the probable presence or absence of Indiana bat at a site, or the timing of seasonal presence. These data are relied upon to estimate levels of take as well as the impacts of that take. Because of the toll that white-nose syndrome (WNS) has taken on little brown, northern and eastern small-footed bats in the east, upcoming HCP's are likely to include these species in addition to Indiana bats. As a result of its experience and expertise, WEST is well-positioned to incorporate these species during HCP development.

### Risk Assessment/Gap Analysis

The wind industry is dynamic, and the addition of new science, revised guidelines or precedent-setting cases can alter how risk is understood at a project site. Given WEST's unsurpassed expertise in the wind industry and talented team of bat biologists, WEST is able to review and evaluate potential risks at proposed projects and to provide prospective operators with an understanding of potential risk based on the most recent science and policy. WEST is receiving more of these requests from potential operators, and both Jeff and Kevin are experienced with these analyses.

### General Bat Capture Surveys and Aerial Telemetry

In addition to extensive mist-netting in the midwestern and eastern United States, WEST conducted mist-net surveys at 6 projects throughout the western US and Canada in Summer 2011 to document species occurrence and to determine probable presence/absence of rare species and species of concern. Donald, Matt, Tim and Andy participated in the surveys, and some of them added new bat species to their life-lists, including the impressive Western mastiff bat (*Eumops perotis*). They also captured the relatively rare spotted bat (*Euderma maculatum*) and conducted aerial telemetry on 2 individuals, tracking them during foraging bouts up to 10 miles from capture or roosting sites.

Given the Bat Team's qualifications, WEST has the experience and skills to design and implement repeatable, defensible approaches to acoustic identification of endangered bat species, risk assessments, habitat assessments, capture surveys and radio-tracking.

For more information, or to discuss these or other bat-related issues at your project, please contact **Jeff at 307.286.5028** or **Kevin at 812.399.7156 ext. 5**.



*Biologist Tim Sichmeller on an aerial telemetry flight  
Photo courtesy of Tim Sichmeller*

## Recent Publications

**Strickland, M.D.**, E.B. Arnett, **W.P. Erickson**, D.H. Johnson, **G.D. Johnson**, M.L., Morrison, J.A. Shaffer, and W. Warren-Hicks. 2011. Comprehensive Guide to Studying Wind Energy/Wildlife Interactions. Prepared for the National Wind Coordinating Collaborative, Washington, D.C., USA.

Rollins, K.E., D.K. Meyerholz, **G.D. Johnson**, A.P. Capparella, and S.S. Loew. 2012. A forensic investigation into the etiology of bat mortality at a wind farm: barotrauma or traumatic injury? *Veterinary Pathology* 49:362-371.

Richardson, W. J., **T. L. McDonald**, C. R. Greene, Jr., S. B. Blackwell, and B. Streever (2012) "Distribution of Bowhead Whale Calls Near an Oil Production Island With Fluctuating Underwater Sound" in A.N. Popper and A. Hawkins (eds.), *The Effects of Noise on Aquatic Life*, p. 303-306.



## Indiana Office Highlighted in Magazine

WEST's Bloomington, Indiana office was recently featured in BLOOM Magazine. This magazine celebrates life in Bloomington, it's businesses and citizens.

WEST's Bloomington office is located in the historic Applegate Building in downtown Bloomington. WEST has seven regular staff members in this location including **Rhett Good, Kevin Murray, Jason Ritzert, Matt Clement, Jason Hignite, Michelle Ritzert, and Sandie Simon.**

The article highlights both the work of the Bloomington office and of WEST as a whole.

You can view the full article by clicking on the picture below.



## WEST's New Corporate Office Location (Continued)

The Dinneen Building was originally built in 1927 as an automobile dealership. The renovations and addition have been done with full regard to the building's history and attention to its original structural details. The restoration and reutilization of this beautiful, historic building is also the spearhead project of the beautification and revitalization of downtown Cheyenne. WEST is extremely proud of the role it has played in making this project a reality.

Our offices are located on the second floor, overlooking downtown Cheyenne. Much of the original masonry and many of the interior structural features remain, making for quite the unique space. If you find yourself in the area, please feel free to drop by and say hello. We'll be happy to show you around our new home!



*Historic Dinneen Building- circa 1928*



*Dinneen Building upon completion of renovation and addition of southern wing.*

## WEST Staff Presentations/Workshops

**Cara Meinke** was an invited instructor at the 19th Annual Endangered Species Act conference hosted by the Seminar Group on January 26 & 27, 2012 in Seattle, Washington. Her presentation was titled, "Evolving Scientific Information Regarding the Impacts of Wind Energy Projects on Sensitive Species." **Wally Erickson** was co-author of the presentation.

**Dale Strickland, Wally Erickson, Dave Young** and **Michelle Sonnenberg** attended the American Wind Energy Association (AWEA) Wind Power Siting Seminar in Las Vegas, Nevada February 28 & 29, 2012. **Wally Erickson** presented an Overview of Post-Construction Monitoring focusing on Study Questions and Approaches. **Michelle Sonnenberg** presented Cost Effective Post-Construction Monitoring Approaches. **Dave Young** presented at a Cooperative Meeting regarding Bats and Wind Energy, which was in association with the seminar.

## Upcoming Workshops/Seminars

**Ryan Nielson** will be co-presenting at the Blue Mountain Elk Habitat Modeling workshop to be held on April 25, 2012 in Pendleton, Oregon. The workshop will offer a series of presentations by the inter-agency modeling team describing the rationale for developing the new habitat and nutrition models for the Blue Mountains and results of the modeling work to date.

For additional information on this or any of our other workshops/seminars, please visit our website: [west-inc.com/events](http://west-inc.com/events).

For additional information on any story contained within this edition of News from the WEST, please send an e-mail to [marketing@west-inc.com](mailto:marketing@west-inc.com). In our continuing effort to be an environmentally conscious firm, we **only** distribute an electronic version of our newsletter.