Wind Wildlife Research Meeting IX

Presented By

November 27-30, 2012 • Omni Interlocken Resort • Denver, CO

Draft Agenda At-a-Glance

Subject to Change

(see next page for presentation titles)

Tuesday, November 27	
10:00am – 5:30pm	Training Session on the U.S. Fish & Wildlife Service Land-Based Wind Energy Guidelines (requires separate registration fee)
Wednesday, November 28	
8:30am – 8:45am	Welcome
8:45am – 9:15am	**Policy and Regulatory Updates**
9:15am – 10:20am	**Assessing Risk to Birds and Bats**
10:20am – 10:40am	*Break*
10:40am – 12:00pm	**Birds and Wind Energy: Assessing Habitat-based Impacts**
12:00pm – 1:00pm	*Lunch*
1:00pm – 2:20pm	**Raptors and Wind Energy**
2:20pm – 3:20pm	*Break and Poster Session*
3:20pm – 5:30pm	**Eagles and Wind Energy**
5:30pm – 7:30pm	*Poster Reception*
Thursday, November 29	
8:30am – 8:45am	Day One Recap
8:45am – 10:15am	**Estimating Fatalities of Birds and Bats**
10:15am – 10:40am	*Break*
10:40am – 12:05pm	**Planning for Cumulative Impacts**
12:05pm – 1:00pm	*Lunch*
1:00pm – 2:45pm	**Bats and Wind Energy: Assessing Risks and Impacts**
2:45pm – 3:45pm	*Break and Poster Session*
3:45pm – 5:30pm	**Offshore Wind Energy: Siting and Assessment**
5:30pm – 7:30pm	*Poster Session*
Friday, November 30	
8:30am – 11:30am	**Lessons Learned: Syntheses Across Projects**
11:30am – 12:00pm	Closing Remarks & Adjourn

Note: All sessions will be presented in plenary format.

Presentations

Note: This is a draft list based on submitted abstracts. Presentation titles and presenters may change.
Presenters are listed in bold text; if no presenter is listed, it is yet to be determined.
All sessions will include time for questions and answers.

Wednesday, November 28: Morning

Assessing Risk to Birds and Bats

"Using spatial models to predict relative collision risks of Horned Larks and Hoary Bats at wind farms in the central United States"

Greg M. Forcey, Christian Newman, Crissy Sutter (Normandeau Associates)

"Competing resource selection modeling predicts risk for preventing and mitigating impacts to flying birds from industrial wind energy developments"

Tricia Miller (Division of Forestry and Natural Resources, West Virginia University & Riparia, The Pennsylvania State University); Robert P. Brooks (Riparia, The Pennsylvania State University); Michael Lanzone (Cellular Tracking Technologies); Charles Maisonneuve, Junior Tremblay (Ministère des Ressources naturelles et de la Faune, Canada); Jeff Cooper (Virginia Department of Game and Inland Fisheries); Kieran O'Malley (West Virginia Division of Natural Resources); Adam Duerr, Todd E. Katzner (Division of Forestry and Natural Resources, West Virginia University)

"Using Avian Radar to Quantify Bird and Bat Migration along the Shoreline of Lake Michigan and Implications for Analysis and Pre-construction Surveys"

Jeffrey Gosse, Rebecca Horton, Erik Olson, Daniel Nolfi, Timothy Bowden, David Larson, Nathan Rathbun (U.S. Fish and Wildlife Service)

Birds and Wind Energy: Assessing Habitat-based Impacts

"Effects of Wind Power Development on Greater Prairie-Chickens in Kansas"

Brett K. Sandercock, Lyla M. Hunt, (Division of Biology, Kansas State University); Andrew J. Gregory (School of Forestry, Northern Arizona University); Lance B. McNew (USGS Alaska Science Center); Samantha M. Wisely (Department of Wildlife Ecology and Conservation, University of Florida)

"Avoidance of wind turbines by grassland birds"

Douglas H Johnson, Jill A. Shaffer (USGS)

"Understanding Greater Sage-grouse Response to Wind Energy Development at a Landscape Scale"

NWCC Sage-Grouse Research Collaborative

Joshua J. Millspaugh, **Christopher P. Hansen** (Department of Fisheries and Wildlife Sciences, University of Missouri); Mark A. Rumble (U.S. Forest Service, Rocky Mountain Research Station, Forest and Grassland Research Laboratory); R. Scott Gamo (Wyoming Game and Fish Department); Jon Kehmeier, Nathan Wojcik (SWCA Environmental Consultants)

Chad W. LeBeau (Department of Ecosystem Science and Management, University of Wyoming & WEST, Inc.); Jeffrey L. Beck (Department of Ecosystem Science and Management, University of Wyoming); Gregory D. Johnson (WEST, Inc.); Matt J. Holloran (Wyoming Wildlife Consultants, LLC)

Wednesday, November 28: Afternoon

Raptors and Wind Energy

"A Review and Standardizing of Raptor Fatality Estimates at Wind Energy Facilities in the Columbia Plateau Ecoregion"

Wallace Erickson, Michelle Sonnenberg, **Kimberly Bay**, Elizabeth Baumgartner (WEST, Inc.)

"Weak relationship between risk assessment studies and recorded mortality in wind farms" & **"Raptor mortality in wind farms of southern Spain: mitigation measures on a major migration bottleneck area, and the role of turbines exact location"**

Miguel Ferrer, Manuela de Lucas, Cecilia P. Calabuig (Department of Ethology and Biodiversity Conservation, Estación Biológica de Doñana (CSIC)); Guyonne F. E. Janss (Asistencias Técnicas Clave SL); Eva Casado, Antonio R. Muñoz (Fundación Migres); Marc J. Bechard (Raptor Research Center, Department of Biological Sciences, Boise State University)

Antonio-Román Muñoz, **Eva Casado** (Fundación Migres); Manuela De Lucas, Miguel Ferrer (Department of Ethology and Biodiversity Conservation, Estación Biológica de Doñana (CSIC))

"Condor Detection and Alert System"

Crissy Sutter, Chuck Grandgent (Normandeau Associates); Kevin Martin (Terra-Gen Power LLC)

Eagles and Wind Energy

"Meteorological and topographic drivers of migratory flight of golden eagles: implications for wind energy development"

Todd Katzner (Division of Forestry and Natural Resources, West Virginia University & USA and USDA Forest Service, Timber and Watershed Laboratory); **Adam E. Duerr** (Division of Forestry and Natural Resources, West Virginia University); Dave Brandes (Department of Civil and Environmental Engineering, Acopian Engineering Center, Lafayette College); Tricia A. Miller (Division of Forestry and Natural Resources, West Virginia University & Riparia, The Pennsylvania State University); Michael Lanzone (Cellular Tracking Technologies LLC); Charles Maisonneuve, Junior Tremblay (Ministère des Ressources naturelles et de la Faune); Robert Mulvihill (Department of Education, National Aviary); George T. Merovich, Jr. (Division of Forestry and Natural Resources, West Virginia University); Kieran O'Malley (West Virginia Division of Natural Resources); Jeff Cooper (Virginia Department of Game and Inland Fisheries)

"Potential compensatory mitigation options for golden eagles"

Laura Nagy, Chris Farmer, Julie Garvin (Tetra Tech)

"Power Pole Retrofitting as a Compensatory Mitigation Option for Eagle Take: Opportunities, Constraints, and Logistical Considerations"

Sherry Liguori (PacifiCorp & Avian Power Line Interaction Committee); Mike Best (Pacific Gas & Electric Co.)

"Navigating the USFWS Eagle Guidance with respect to Bald Eagles"

Mike Morgante (Ecology and Environment, Inc.)

"The Bayesian eagle risk model: input implications, study design, and fatality estimates"

Chris Farmer, Laura Nagy (Tetra Tech EC)

"Understanding the USFWS Golden Eagle Collision Risk Model"

Andy Merrill, Wallace Erickson, **Kenton Taylor**, Elizabeth Baumgartner (WEST, Inc.)

Thursday, November 29: Morning

Estimating Fatalities of Birds and Bats

"Improving Methods for Estimating Fatality of Birds and Bats at Wind Energy Facilities: Modeling time dependence due to searcher proficiency and carcass persistence and implications for monitoring design; Evaluation of accuracy of existing equations, including assumptions and statistical bias"

William Warren-Hicks, Brian Karas, Loan Tran (EcoStat, Inc.); James Newman (Normandeau Associates); Robert Wolpert (Duke University)

"An Empirical Approach to Fatality Estimation at Wind Energy Facilities"

Shay Howlin, Andrew Merrill, Wallace Erickson, Saif Namoni, Michelle Sonnenberg (WEST, Inc.)

"Statistical Examination of the Efficacy of Road and Pad Searches for Post-construction Monitoring" & **"Evaluating the validity of a protocol for long-term, post-construction fatality monitoring to assess wildlife impacts that integrates with operation's activities and personnel"**

Michelle Sonnenberg, Andy Merrill, Jon Cicarelli, Wally Erickson (WEST, Inc.)

Jerry Roppe, Tina Bartunek (Iberdrola Renewables); Michelle Sonnenberg, Wally Erickson (WEST, Inc.)

Planning for Cumulative Impacts

"Part 1: Collaborative Landscape, Conservation Approach, and Benefits of the of the Great Plains Wind Energy HCP (GPWE HCP)" & "Part 2: Collaborative Landscape Conservation Approach: Modeling potential impacts to migratory whooping cranes from wind power development"

Karen Tyrell, Kely Mertz (BHE Environmental); Abby Arnold, Elana Kimbrell (Kearns & West)

Christopher S. Nations, Shay Howlin, David P. Young (WEST, Inc.)

"Lessons Learned from the Frontline: Challenges and Solutions to Habitat Conservation Planning for Indiana bats"

Cara Wolff Meinke, Dave Young (WEST, Inc.)

Thursday, November 29: Afternoon

Bats and Wind Energy: Assessing Risks and Impacts

"Computational Fluid Dynamic Simulations to Evaluate the Pressure Drop Experienced by Bats Flying Near Operating Wind Turbine Blades: Quantification of Time-Pressure Histories for Likely Flight Paths"

Daniel R. Houck, M. J. Lawson, Robert W. Thresher (National Renewable Energy Lab, National Wind Technology Center)

"Regional analysis of wind turbine-caused bat fatality"

David Drake, Jian-Nan Liu (Department of Forest and Wildlife Ecology, University of Wisconsin-Madison); Christopher S. Jennelle (Iowa Department of Natural Resources); Steven M. Grodsky (Department of Forestry and Environmental Resources, North Carolina State University); Susan Schumacher (We Energies); Mike Sponsler (BHE Environmental, Inc.)

"Modeling the Environmental Conditions that Predict Bat Activity at Wind Energy Facilities Can Improve Mitigation Efficiency"

Theodore J. Weller, James A. Baldwin (USDA Forest Service, Pacific Southwest Research Station)

"The influence of specific atmospheric variables on fall bat activity varies among geographic regions and species"

Lauren Hooton, Crissy Sutter, Allison Costello (Normandeau Associates)

"Wind Development in a post-white nose syndrome world"

Bradley J. Steffen (BHE Environmental, Inc.)

Offshore Wind Energy: Siting and Assessment

Specific session format to be added soon.

Friday, November 30: Morning

Lessons Learned: Syntheses Across Projects

"Relating Pre-Construction Bat Activity and Post-Construction Fatality To Predict Risk at Wind Energy Facilities"

Cris Hein (Bat Conservation International); Wally Erickson, Jeff Gruver, Kimberly Bay (WEST, Inc.); Ed Arnett (Theodore Roosevelt Conservation Partnership)

"Assessing the Impact of Wind-Energy Facilities on North American Songbirds"

Wallace Erickson, Andy Merrill, Kimberly Bay, Elizabeth Baumgartrner (WEST, Inc.); Joelle Gehring (Michigan State University), Douglas Johnson (USGS)

"Operational Mitigation of Wind Turbine Generators To Avoid Bat Fatalities: A Synthesis of Existing Studies"

Wally Erickson, Jeff Gruver, **David Young** (WEST, Inc.); Ed Arnett (Theodore Roosevelt Conservation Partnership); Cris Hein (Bat Conservation International)

"Estimating direct fatality impacts at wind farms: How far we've come, where we have yet to go"

Manuela Huso (USGS Forest and Rangeland Ecosystem Science Center)

Closing Remarks

TBD

Posters

Poster presentations to be added soon.