

TOWARD WILDLIFE-FRIENDLY WIND POWER: A FOCUS ON THE GREAT LAKES BASIN

Organized by:

U.S. Fish and Wildlife Service
Great Lakes Basin Ecosystem Team

U.S. Environmental Protection Agency
Great Lakes National Program Office

Illinois Natural History Survey

U.S. Geological Survey

Hilton Toledo and Dana Conference Center, Toledo, Ohio
Lucas Auditorium
June 27-29, 2006

CONFERENCE AGENDA

Tuesday June 27 – Day 1 – 8:30 AM - Lucas Auditorium

7:30 AM Conference Check-in and Final Registration

Introductions and Welcoming Remarks (Session Chair – Richard Greenwood)

8:30 Marci Caplis, Deputy Assistant Regional Director, U.S. Fish and Wildlife Service, Region 5
Mark Conti, Director, U.S. Environmental Protection Agency, Cleveland Office
The Honorable Marcy Kaptur, U.S. Congresswoman, Ohio 9th District (by video)
Robyn Thorson, Regional Director, U.S. Fish and Wildlife Service, Region 3

Overviews of Wind Energy and Wildlife

9:00 Introduction & Overview of Session (Session Chair - Albert Manville)

9:05 Wind Energy 101 – Tutorial of Wind Energy Over Land and Water
Speaker: Robert W. Thresher – Director, National Wind Technology Center,
National Renewable Energy Laboratory

9:35 Questions and Answers - Wind 101- (Facilitator – Marci Caplis)

9:45 Overview of Potential Wildlife Impacts Due to Wind Power Facilities
Speaker: Alexander R. Hoar, U.S. Fish and Wildlife Service

10:05 **Break**

Wildlife Issues (Speakers are free to use some of their time for questions.)

- 10:25 Introduction & Overview of Session (Session Chair - Leakhena Au)
- 10:30 Migration in the Great Lakes Basin – A Landscape Perspective
Speaker: Ronald P. Larkin, Illinois Natural History Survey
- 11:00 Avian Vision, Navigation, and Orientation
Speaker: Robert C. Beason, U.S. Dept. of Agriculture, National Wildlife Research Center, OH
- 11:30 Bird Fatalities at Wind Energy Facilities – An Overview
Speaker: Carl G. Thelander, BioResource Consultants, CA
- 12:00–1:00 **Lunch**
- 1:00 Call to Order (Session Chair)
- 1:05 Bats at Risk: Why Should We Care?
Speaker: Thomas H. Kunz, Boston University
- 1:35 Bats and Wind Energy: Problems, Perspectives, and Approaches to Solutions
Speaker: Merlin D. Tuttle, President and Founder, Bat Conservation International
- 2:05 Pre- and Post-construction Monitoring of Bat Activity and Fatality: What We've Learned and Where to go Next
Speaker: Edward Arnett, Bat Conservation International
- 2:35 **Break**
- 2:55 Call to Order (Session Chair)
- 3:00 Offshore: Potential Impacts to Benthos, Mussel Beds, Fisheries
Speaker: John Gannon, Senior Scientist, International Joint Commission's Great Lakes Regional Office, Ontario
- 3:30 Habitat Fragmentation Syndrome and Behavioral Avoidance
Speaker: Jay Pruett, Director of Conservation, The Nature Conservancy, OK
- 4:00 Waterfowl – Spatial/Temporal Use – Focus on Lower Lakes
Speaker: Scott Petrie, Waterfowl and Wetland Research Fund, Ontario
- 4:30 Migratory Bird Stop-over Sites – Emphasis on Lake Erie
Speaker: Mark Shieldcastle, Ohio Dept. of Natural Resources, Crane Creek Wildlife Research Station
- 5:00 End of Day 1

6:30-8:30 **Dinner** (hosted on site in Maple Room, pre-registration required)

Keynote speaker: Dr. Chandler S Robbins, retired, Patuxent Wildlife Research Center, USGS, in Maryland. Dr. Robbins is perhaps best known as the lead author of a field guide for birds, which has sold over 8 million copies, and which has been a favorite for many birders in North America: [Birds of North America: A Guide to Field Identification, Revised and Updated](#) by Chandler S Robbins, Bertel Bruun, Herbert Spencer Zim. 360 pp. St. Martin's Press. ISBN: 1-58238-090-2. If you have a copy of one of the many editions, you may bring it to be signed by the author.

Dr. Robbins is also known for many other accomplishments and contributions during his professional life. To view a website dedicated to Chandler Robbins and his 60 years of public service go to: <http://www.pwrc.usgs.gov/whatsnew/events/robbins/>

Wednesday June 28 – Day 2 - 8:00 AM - Lucas Auditorium

Assessment Tools & Methods - Pre-, During, & Post-construction

- 8:00 AM Introduction & Overview of Session (Session Chair - Megan Seymour)
- 8:05 Use of Statistics for Impact Assessment of Wind Power Facilities
Speaker: Wallace P. Erickson, WEST, Inc.
- 8:25 Results Applicable to Wind Power from the Michigan State Police Communication Tower Study
Speaker: Joelle Gehring, Michigan Natural Features Inventory
- 8:45 Observations of Animals Near Turbine Sites - Radar Biology 101
Speaker: Ronald P. Larkin, Illinois Natural History Survey
- 9:15 Observations of Animals Near Turbine Sites - Radar Biology 102
Speaker: Sidney A. Gauthreaux, Jr., Clemson University
- 9:45 **Break**
- 10:05 Call to Order (Session Chair)
- 10:10 Mist Nets, Thermal Imaging, and Stable Isotopes: Strengths and Limitations for Assessing Impacts of Wind Turbines on Bats
Speaker: Thomas H. Kunz, Boston University
- 10:40 Bat Detectors – Capabilities, Limitations, and Utility in the Context of Assessing Use and Impacts of Wind Turbines
Speaker: Robert M.R. Barclay, University of Calgary

Assessment Tools & Methods – continued

- 11:05 Acoustical Monitoring of Bird Migration – Capabilities, Limitations, and Utility in the Context of Assessing Use and Impacts of Wind Turbines
Speaker: William Evans, Executive Director, Old Bird, Inc.
- 11:30 Lessons Learned in the United Kingdom
Speaker: Richard Walls, Bird Strike Unit, Dept. for Environment, Food and Rural Affairs, UK
- 12:00–1:00 **Lunch**
- 1:00 Call to Order (Session Chair)
- 1:05 How Radar Data Were Collected/Used at the Neda Mine - Utility, Limitations
Speakers: Adam Kelly and Andreas Smith, DeTect, Inc.
- 1:30 Evaluation of Bird Migration Using Radar at Neda Mine
Speaker: Andreas Smith, DeTect, Inc.
- 1:55 Advantages of Layering Radar and Ultrasound Data to Evaluate Bat Activity at a Proposed Wind Facility
Speakers: David Redell, Wisconsin Dept. of Natural Resources and Leakhena Au, U.S. Fish and Wildlife Service
- 2:20 All Speaker Panel - Question, Answers, Discussion
- 2:50 **Break**

Frameworks for Moving Forward and Institutional Preparedness

- 3:10 Introduction & Overview of Session (Session Chair - Alex Hoar)
- 3:15 Wind Project Prospecting, Site Selection, and Development Process
Speaker: Kevin Rackstraw, Clipper Windpower Development Company, Inc.
- 3:40 United Kingdom - Existing Protocols for Siting and Assessing Risk
Speaker: John Allan, Head, Bird Strike Unit, Dept. for Environment, Food and Rural Affairs, UK
- 4:10 Canada – Overview of Federal Protocols for Review
Speaker: Charles Francis, Migratory Bird Population Division, Canadian Wildlife Service
- 4:35 Canada – Overview of Ontario Protocols for Review
Speaker: Eric Boysen, Renewable Energy Section, Ontario Minister of Natural Resources
- 5:00 End of Day 2
- 6:00-7:30 Poster Session and Displays (in the Atrium, light refreshments provided, cash bar)

Thursday June 29 – Day 3 - 8:00 AM – Lucas Auditorium

Frameworks for Moving Forward and Institutional Preparedness – continued

- 8:00 Call to Order (Session Chair)
- 8:05 U.S. Army Corps of Engineers – Authorities, Process, Environmental Issues
Speaker: Steve Metivier, Regulatory Branch, U.S. Army Corps of Engineers, Buffalo District
- 8:30 Selected Federal Wildlife and Environmental Laws Applicable to Wind Energy Development
Speaker: David Rothstein, Office of the Solicitor, U.S. Dept. of the Interior
- 8:55 U.S. Fish & Wildlife Service - Concerns and Involvement
Speaker: Al Manville, Division of Migratory Birds, U.S. Fish and Wildlife Service
- 9:20 Commercial Wind Development on Pennsylvania State Games Lands Review Guidelines
Speaker: William A. Capouillez, Chief, Division of Environmental Planning & Habitat Protection, Pennsylvania Game Commission
- 9:35 **Break**
- 9:55 Call to Order (Session Chair)
- 10:00 Case Studies – Lessons Learned from Projects on Review
Speaker: Catherine Gjessing, Vermont Agency of Natural Resources (East Haven Wind Energy Facility)
Speaker: Jack Nasca, New York State Department of Environmental Conservation (Chautauqua Wind Energy Facility)
- 10:30 Panel 1: Frameworks for Permitting Wind Energy Projects
Panelist: Fond du Lac Tribe, Bruno Zagar
Panelist: Illinois - Invited
Panelist: Indiana - Dept. of Natural Resources, Jon Eggen
Panelist: Michigan - Invited
Panelist: Minnesota - Dept. of Commerce, Larry Hartman (by phone)
Panelist: New York- Public Service Commission, Jim de Waal Malefyt
Panelist: Ohio - Public Utilities Commission, Stuart Siegfried
Panelist: Pennsylvania - Game Commission, William Capouillez
Panelist: Wisconsin - Public Service Commission, Dan Sage

- 11:30 **Panel 2: Agency Preparedness**
 Panelist: Fond du Lac Tribe, Bruno Zagar
 Panelist: Illinois - Natural History Survey, Ron Larkin
 Panelist: Indiana - Department of Natural Resources, Jon Eggen
 Panelist: Michigan - Dept. of Environmental Quality, Tom Graf
 Panelist: Minnesota - Dept. of Natural Resources, John Schladweiler
 Panelist: New York - Dept. of Environmental Conservation, Jack Nasca
 Panelist: Ohio - Dept. of Natural Resources, Randy Sanders
 Panelist: Pennsylvania - Game Commission, William Capouillez
 Panelist: Wisconsin - Dept. of Natural Resources, Steve Ugoretz
- 12:00 – 1:00 **Lunch**
- 1:00 Call to Order (Session Chair)
- 1:05 Panel 2: Agency Preparedness – continued
- 1:45 **Panel 3: Non-Governmental Perspectives**
 Panelist: American Bird Conservancy, Michael Fry
 Panelist: Bat Conservation International, Merlin Tuttle
 Panelist: Clipper Windpower, Kevin Rackstraw
 Panelist: Meyer, Glitzenstein & Crystal, Kimberly Ockene
 Panelist: National Wildlife Federation, Tim Warman
 Panelist: The Nature Conservancy, Great Lakes Program, Dave Ewert
 Panelist: Whole Foods Market, Inc., Matthew Toavs
- 2:45 Suggestions for Moving Forward and Next Steps (Facilitator - Marci Caplis)
- 3:35 Priority Research and Information Needs Identified During the Conference:
 Confirmation and Additions (Facilitator – Marci Caplis)
- 4:00 End of Conference