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## **Reducing Avian Collisions with Communications Towers:** FROM RESEARCH TO IMPLEMENTATION

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Scientists estimate that each year 6.8 million birds, primarily Nearctic-Neotropical migrants, collide with U.S. and Canadian communications towers during migration. Weather, tower location, height, lighting, and tower support system influence the numbers of avian collisions. From 2003-2012 we studied the relationships between tower variables and bird collisions. We found that tall, guyed towers with non-flashing lights are involved in significantly more bird fatalities than short, unguyed, unlit towers. Based on our research, the Federal Aviation Administration changed their tower lighting recommendations to systems that eliminate non-flashing lights, reduce tower lighting and maintenance costs to the industry, and reduce migratory bird collisions by as much as 70%. These lighting changes can be accomplished at almost no cost to the tower owner and they reduce maintenance and energy costs long term. Extinguishing non-flashing lights on existing towers and excluding them from future constructed towers

is one of the most effective and economically feasible means of achieving a significant reduction in avian fatalities at communications towers. This project emphasizes the importance of including stakeholders and scientists in policy implementation.



**BIO >>** Dr. Joelle Gehring is the Biologist for the Federal Communications Commission where she works with tower operators to minimize bird collisions with communications towers and potential impacts to threatened and endangered species. She is a member of the Federal Council for the Conservation of Migratory Birds and on the Steering Committee for Partners in Flight. Previously, Dr. Gehring was Senior Conservation Scientist with Michigan Natural Features Inventory of Michigan State University where she designed and supervised a multi-year, landscape scale study of the variables associated with bird collisions at communications towers. She also studied wildlife conflicts with wind energy and the methods to reduce those conflicts. Her work has focused on developing and providing information on cost-effective methods to reduce bird collisions with communications towers and other tall structures. Dr. Gehring completed her Ph.D. in Wildlife Ecology at Purdue University, M.S. in Wildlife and Fisheries Resources at West Virginia University, and her B.S., in both Biology and Wildlife Management at the University of Wisconsin - Stevens Point. Dr. Gehring has a wonderful 17-year old son who is eager to pursue a career in biologist.