

Albert M. Manville II PhD., CBW, Wildlife Biology

USA

EMF Journal Publications

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2009. Communication towers, lights and birds: successful methods of reducing the frequency of avian collisions. *Ecological Applications* 19(2): 505-514.

Gehring, J., P. Kerlinger, and A.M. Manville, II. 2011. The role of tower height and guy wires on avian collisions with communication towers. *Journal of Wildlife Management* 75(4): 848-855.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2012. An estimate of avian mortality at communication towers in the United States and Canada. *PLoS ONE* 7(4) 17 pp, Open Access.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? *Biological Conservation* 158: 410-419.

Longcore, T., C. Rich, P. Mineau, B. MacDonald, D.G. Bert, L.M. Sullivan, E. Mutrie, S.A. Gauthreaux, Jr., M.L. Avery, R.C. Crawford, A.M. Manville, II, E.R. Travis, and D. Drake. 2013. Avian mortality at communication towers in the United States and Canada: which species, how many, and where? *Biological Conservation* 158: 410-419.

Levitt BB, Lai HC, Manville AM. Effects of non-ionizing electromagnetic fields on flora and fauna, Part 1. Rising ambient EMF levels in the environment. *Rev Environ Health*. 2021 May 27;37(1):81-122. doi: 10.1515/reveh-2021-0026. PMID: 34047144.

Levitt BB, Lai HC, Manville AM. Effects of non-ionizing electromagnetic fields on flora and fauna, Part 2 impacts: how species interact with natural and man-made EMF. *Rev Environ Health*. 2021 Jul 8;37(3):327-406. doi: 10.1515/reveh-2021-0050. PMID: 34243228.

Levitt BB, Lai HC, Manville AM. Effects of non-ionizing electromagnetic fields on flora and fauna, Part 3. Exposure standards, public policy, laws, and future directions. *Rev Environ Health*. 2021 Sep 27. doi: 10.1515/reveh-2021-0083. Epub ahead of print. PMID: 34563106.

Book Chapters

Manville, A.M. II. 2001. Avian mortality at communication towers: steps to alleviate a growing problem. Pp. 75-86, 227-228. In: B.B. Levitt (ed.). Proceedings of the "Cell Towers Forum" State of the Science/State of the Law, December 2, 2000, Litchfield, CT. New Century Publishing. ISBN 1-884820-62-X.

Manville, A.M., II. 2005. Bird strikes and electrocutions at power lines, communication towers, and wind turbines: state of the art and state of the science - next steps toward mitigation. Pages 1051-1064 In C.J. Ralph and T.D. Rich (eds), Bird Conservation Implementation in the Americas: Proceedings 3rd International Partners in Flight Conference, U.S.D.A. Forest Service Gen. Technical Report PSW-GTR-191, Albany, CA

Panagopoulos, D.J., and L.H. Margaritis. 2008. Mobile telephony radiation effects on living organisms. Chapter 3, pp. 107-149, In A.C. Harper and R.V. Buress (eds.), Mobile Telephones, Nova Science Publishers, Inc. ISBN: 978-1-60456-436-5.

Manville, A.M., II. 2016. Impacts to birds and bats due to collisions and electrocutions from some tall structures in the United States: wires, towers, turbines and solar arrays — state of the art in addressing the problems. Chap. 20, pp 415-442, In F.M. Angelici (editor), Problematic Wildlife: A Cross-Disciplinary Approach, Springer International Publishing, Switzerland. DOI 10.1007/978-3-319-22246-2_20

Reports, letters

Manville AM II, Willis R, 2000, (Manville AM II, editor) 2000 U.S. Fish and Wildlife Service. Service guidance on the siting, construction, operation and decommissioning of communication towers. Ecological Services and Migratory Bird Divisions, Arlington, VA.

Manville AM II. 2002. The ABC's of avoiding bird collisions at communication towers: the next steps. Proc. Workshop. Avian Interactions Utility and Communication Structures, Elec Power Res Inst, pp. 1–16

Manville, A.M., II. 2002. Protocol for monitoring the impacts of cellular telecommunication towers on migratory birds within the Coconino, Prescott, and Kaibab National Forests, Arizona. Peer-reviewed research monitoring protocol requested by and prepared for the U.S. Forest Service. Division of Migratory Bird Management, USFWS, 9 pp. March 2002.

Manville AM II. 2004. Prairie grouse leks and wind turbines: U.S. Fish and Wildlife Service justification for a 5-mile buffer from leks; additional grassland songbird recommendations. DMBM, USFWS, pp. 1–17.

Manville, A.M., II. 2007. Comments of the U.S. Fish and Wildlife Service submitted electronically to the FCC on 47 CFR Parts 1 and 17, WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds." February 2, 2007. pp. 1-32.

Manville AM II. 2009. Towers, turbines, power lines and buildings—steps being taken by the U.S. Fish and Wildlife Service to avoid or minimize take of migratory birds at these structures. In: Rich TD, Arizmendi C, Demarest DW, Thompson C (eds.). *Tundra to Tropics: Connecting Birds, Habitats and People*. Proc. 4th Internatl Partners Flight Conf, pp. 262–272

Manville AM II. 2011. Estimates of annual human-caused mortality to North American birds (with literature citations). Div Mig Bird Mgt, USFWS, Anchorage, pp. 1–12

Manville AM II. 2012. Wind Turbine Fatality Number—Media Statement and Background Information. Internal Interior Dept Briefing Memo, Div Mig Bird Mgt, USFWS, March 15, pp. 1–12.

Manville AM II. 2013a. Anthropogenic-related bird mortality focusing on steps to address human caused problems. Invited, peer-reviewed white paper for Anthropogenic Panel 5th Internatl Partners in Flight Conf. August 27, Snowbird, UT. Div Mig Bird Mgt, USFWS, pp 1–16.

Manville, A.M., II. (edited 2002 version) 2013b. U.S. Fish and Wildlife Service (USFWS) revised guidelines for communication tower design, siting, construction, operation, retrofitting, and decommissioning — Suggestions based on previous USFWS recommendations to FCC regarding WT Docket No. 03-187, FCC 06-164, Notice of Proposed Rulemaking, "Effects of Communication Towers on Migratory Birds," Docket No. 08-61, FCC's Antenna Structure Registration Program, and Service 2012 Wind Energy Guidelines. Division of Migratory Bird Management, Arlington, VA. 5 pp.

Manville, A.M. 2013, rev. 2022. Recommended Lighting Standards and Lighting Protocols for Structures Requiring Pilot Warning Lighting, and for Security Lighting Purposes. Prepared by Albert M. Manville, II, Ph.D., Senior Wildlife Biologist Division of Migratory Bird Management, U.S. Fish & Wildlife Service. Last Updated: April 12, 2013; Reviewed: March 17, 2022.

MEMORANDUM to Dr. Jacqueline McGlade, Science Advisor to the United Nations Environment Program (UNEP). March 5, 2015. from Dr. Albert Manville, Adjunct Professor, Johns Hopkins University; Senior Wildlife Biologist, U.S. Fish & Wildlife Service (FWS), Emeritus/Retired; and Wildlife Consultant, WHCS LLC: Recommendations for Additional

Research and Funding to Assess Impacts of Non-ionizing Radiation to Birds and Other Wildlife. Key Research Needs Affecting Wildlife Suggesting UNEP's Immediate Attention.

United States Department of Interior. 2014. ER 14/0001-14/0004. Manville co-authored, with Diana Whittington and edited the letter to Mr. Eli Veenendaal, Natl. Telecommunications and Information Administration, US Dept. Commerce regarding its NEPA review of First Net . Signed by W.R. Taylor, Director Office of Environmental Policy and Compliance, Office of Secretary, DOI. February 7, 8 pp., in the public arena.

Manville, A.M II, Ph.D. Ph.D., C.W.B. Reviewer. Principal, Wildlife and Habitat Conservation Solutions, LLC, representing the nonprofit corporation Dungeness Heights Homeowners (DHH), Sequim, WA 98382, March 15, 2016. Antenna Structure Registration (ASR) Application A0985196, Sequim, WA 98382 and Application File Number BMPH 20150922ACS. Subject: Inadequacies of preliminary environmental review (Adapt Project No. WA15- 20045-NEP) for a proposed, new 154-foot-tall (46.9 m) faux pine tree “stealth” communication tower and the alternative 100-foot-tall (30.5 m) fiberglass faux “snag” tower to be located primarily in wooded habitat at 686 Brigadoon Blvd., Sequim, WA (hereafter known as the Radio Pacific Sequim Project).

Albert M. Manville, II, Ph.D., C.W.B., former U.S. Fish & Wildlife Service agency lead on impacts from radiation to migratory birds. April 5, 2016. What We Know, Can Infer, and Don't Yet Know about Impacts from Thermal and Non-thermal Non-ionizing Radiation on Birds and Other Wildlife: a Briefing Memo.

A BRIEFING MEMORANDUM: July 14, 2016. What We Know, Can Infer, and Don't Yet Know about Impacts from Thermal and Non-thermal Non-ionizing Radiation to Birds and Other Wildlife — for Public Release. Albert M. Manville, II, Ph.D., C.W.B.; Principal, Wildlife and Habitat Conservation Solutions, LLC; Adjunct Professor, Johns Hopkins University's Krieger School of Arts and Sciences, DC Campus; and former U.S. Fish and Wildlife Service agency lead on avian-structural impacts — including from radiation

Declaration of Albert M. Manville, II, Ph.D., C.W.B., regarding the case against the Department of Interior Solicitor's ill-advised Legal Opinion M-37050, issued December 2017 - DRAFT Expertise and experience regarding the Migratory Bird Treaty Act (MBTA) and the conservation of migratory birds outside the Federal government. Natural Resources Defense Council, Inc., et al, Plaintiffs v. U.S. Department of the Interior, Defendants . Filed in the U.S. District Court for the Southern District of New York. 18-CV-4596 (VEC), 2019

Presentations

Manville, A.M., II. 2007. U.S. Fish and Wildlife concerns over potential radiation impacts from cellular communication towers on migratory birds and other wildlife - research opportunities. Invited Presentation to "Congressional Staff Briefing on the Environmental and Human Health Effects of Radiofrequency (RF) Radiation," House Capitol 5, Washington, DC. 16-page PowerPoint presentation. May 10, 2007.

Manville, A.M., II. 2013a. Anthropogenic-related bird mortality focusing on steps to address human-caused problems. Invited White Paper for the Anthropogenic Panel, 5th International Partners in Flight Conference, August 27, 2013, Snowbird, Utah. Division of Migratory Bird
Man Manville, A.M., II.

Manville AM II (2014a) Status of U.S. Fish and Wildlife Service developments with communication towers with a focus on migratory birds: updates to Service staff involved with tower issues—a peer reviewed online seminar. Talking Points and Literature Citations. March 7, pp. 1–13

Manville AM II (2014b) The impacts on birds, bats and their habitats from commercial wind and solar energy development: unintended consequences. Faculty Speaker Series, Johns Hopkins Univ., Krieger Schl Arts & Sci, Oct 10, pp. 1–37

Radiation Impacts to Migratory Birds: Big Picture Issues. August 4, 2021. Presentation to Alistair Fothergill - producer of films about wildlife for Netflix and BBC with Sir David Attenborough — on radiation impacts and concerns to avifauna, by Albert M. Manville, II, Ph.D., CWB.

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