

SEEWIESEN

LECTURE SERIES

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Max Planck Institute
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THURSDAY | December 10, 2020 | 13.00 | ONLINE

CLINTON FRANCIS

California Polytechnic State University and MPIO | Host: Brumm Research Group

Ecological and socio-ecological dimensions of sensory pollution

Human activities are globally pervasive. Although applied ecology and conservation biology has typically focused on how changes in vegetation or land cover influence wild populations and communities, growing evidence suggests that changes in other ecological dimensions, such as the acoustic and lit environment, can have comparable or larger ecological consequences than land cover changes. In this talk, I will discuss my lab's use of natural and manipulative field experiments, plus large-scale databases, to understand how changes to the acoustic environment and light regimes can influence behavior, reproduction, distributions and ecological interactions. I will focus primarily on birds, but highlight key examples of how changes in sensory environments are highly relevant to human health and wellbeing.

WHO IS CLINTON FRANCIS?

2010	PhD, Ecology and Evolutionary Biology; University of Colorado, Boulder
2011 – 2013	Postdoctoral Fellow, National Evolutionary Synthesis Center (NESCent) Duke University, Durham, NC
2013 – 2019	Assistant Professor, Dept. of Biological Sciences California Polytechnic State University, San Luis Obispo, CA
2019 – present	Associate Professor, Dept. of Biological Sciences California Polytechnic State University, San Luis Obispo, CA

SELECTED PUBLICATIONS

- Senzaki, M., J.R. Barber, J.N. Phillips, N.H. Carter, C.B. Cooper, M.A. Ditmer, K.M. Fristrup, C.J.W. McClure, D.J. Mennitt, L.P. Tyrrell, J. Vukomanovic, A.A. Wilson & C.D. Francis. (In press) Sensory pollutants alter bird phenology and fitness across a continent. *Nature*.
- Ferraro, D.M., Z.D. Miller, L.A. Ferguson, B.D. Taff, J.R. Barber, P. Newman & C.D. Francis. (In press) The phantom chorus: birdsong boosts human well-being in protected areas. *Proc R Soc B*.
- Kleist, N.J., R.P. Guralnick, A. Cruz, C.A. Lowry & C.D. Francis. (2018) Chronic anthropogenic noise disrupts glucocorticoid signaling and has multiple effects on fitness in an avian community. *PNAS* 115, E648–E657.
- Francis, C.D., N.J. Kleist, C.P. Ortega, A. Cruz. (2012) Noise pollution alters ecological services: enhanced pollination and disrupted seed dispersal. *Proc R Soc B* 279, 2727–2735.
- Francis, C.D., C.P. Ortega, & A. Cruz. (2009) Noise pollution changes avian communities and species interactions. *Current Biology* 19, 1415–1419.

LINK TO LECTURE

<https://gwdg.zoom.us/j/82925548480?pwd=eThTWFZxRjdaM0lObnpTNkFrQ1ppUT09>
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