CURRICULUM VITAE

BENJAMIN GOLLER

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Pronouns: he/him/his

WORK EXPERIENCE

2022-present PURDUE UNIVERSITY, West Lafayette, Indiana.
College of Agriculture Data Services
Lead Research Analyst

EDUCATION AND TRAINING

2017-2022 PURDUE UNIVERSITY, West Lafayette, Indiana.
Postdoctoral research associate, Biological Sciences.
Advisor: Esteban Fernández-Juricic
Research topic: Visual and auditory sensory ecology in birds, applications to decrease avian collisions with human vehicles and structures

2011-2016 UNIVERSITY OF BRITISH COLUMBIA, Vancouver, British Columbia, Canada.
Ph.D., Zoology. Advisor: Douglas L. Altshuler
Research topic: Sensory control of hovering in hummingbirds

2009-2011 UNIVERSITY OF CALIFORNIA, Riverside, California.
M.Sc., Evolution, Ecology and Organismal Biology. Advisor: Douglas L. Altshuler
Thesis title: Visual control of station-holding in hummingbirds

2005-2008 UNIVERSITY OF UTAH, Salt Lake City, Utah.
B.Sc., Biology (Minor: Chemistry), *summa cum laude*

PEER-REVIEWED PUBLICATIONS

2024 Skandalis, D. A., V. B. Baliga, **B. Goller**, D. L. Altshuler. The spatiotemporal richness of hummingbird wing deformations. Journal of Experimental Biology (in press)

Rui, Y., **B. Goller**, E. J. Kladivko. Long-term crop yield benefits of subsurface drainage on poorly drained soils. Agronomy Journal. (in press)

2022 **Goller, B.**, P. Baumhardt, E. Dominguez-Villegas, T. Katzner, E. Fernández-Juricic, J. R. Lucas. Selecting auditory alerting stimuli for eagles on the basis of auditory evoked potentials. Conservation Physiology 10(1):

2019 **Goller, B.**, T. K. Fellows, R. Dakin, L. Tyrrell, E. Fernández-Juricic, and D. L. Altshuler. Spatial and temporal resolution of the visual system of the Anna's hummingbird (*Calypte anna*) relative to other birds. Physiological and Biochemical Zoology 92(5): 481-495

2018 Tyrrell, L. P., **B. Goller**, B. A. Moore, D. L. Altshuler, and E. Fernández-Juricic. The orientation of visual space from the perspective of hummingbirds. Frontiers in Neuroscience 11:622. doi: 10.3389/fnins.2018.00016

Goller, B., B. F. Blackwell, T. L. DeVault, P. Baumhardt, E. Fernández-Juricic. Assessing bird avoidance of high-contrast lights using a choice test approach: implications for reducing human-induced avian mortality. PeerJ. 6:e5404. doi: 10.7717/peerj.5404

2017 Gaede, A. H., **B. Goller**, J. P. M. Lam, D. R. Wylie, and D. L. Altshuler. Neurons responsive to global visual motion have unique tuning properties in hummingbirds. Current Biology 27(2):279-285

Goller, B., P. S. Segre, K. M. Middleton, M. H. Dickinson, and D. L. Altshuler. Visual sensory signals dominate tactile cues during docked feeding in hummingbirds. Frontiers in Neuroscience 11:622. doi: 10.3389/fnins.2017.00622

2015 Altshuler, D. L., J. W. Bahlman, R. Dakin, A. H. Gaede, **B. Goller**, D. Lentink, P. S. Segre, and D. A. Skandalis. The biophysics of bird flight: functional relationships integrate aerodynamics, morphology, kinematics, muscles, and sensors. Canadian Journal of Zoology 93:961-975

2014 **Goller, B.** and D. L. Altshuler. Hummingbirds control hovering flight by stabilizing visual motion. Proceedings of the National Academy of Sciences USA 111(51): 18375-18380

OTHER PUBLICATIONS

2020 Understanding the golden eagle and bald eagle sensory worlds to enhance detection and response to wind turbines. Esteban Fernández-Juricic, Jeffrey Lucas, Todd E. Katzner, **B. Goller**, P. Baumhardt, and N. Lovko. US Department of Energy Report. doi:10.2172/1671330.

TEACHING EXPERIENCE

Instructor:

2020 BIOL 483 **Environmental and Conservation Biology**, Purdue University

Guest lectures:

2019 Lectures (1) **Insect sensory systems**. (2) **Insect muscles and flight**. ENTM 253 Insect Physiology and Biochemistry, Purdue University

2018 Lecture **Using avian sensory ecology to decrease collisions with human vehicles and structures.** BIOL 483 Environmental & Conservation Biology, Purdue University

Lectures (1) **Visual fields in birds.** (2) **Retinal specializations.** BIOL 595 Sensory Ecology, Purdue University