

SEEWIESEN

# LECTURE SERIES

FALL/WINTER/SPRING 2020/21



MAX PLANCK  
GESELLSCHAFT



THURSDAY | January 28, 2021 | 15.00 | ONLINE

## SCOTT TAYLOR

University of Colorado | Host: Dept. Bart Kempenaers

### Insights from avian hybridization into the origin and maintenance of biodiversity

What generates and maintains biological diversity? This major question in evolutionary biology has fascinated scientists for centuries and continues to drive new and exciting research. Explore recent findings that examine avian hybridization in chickadees and wagtails, species boundaries in redpoll finches, and the genetic basis of spatial cognition, to gain a better understanding of divergence and speciation in birds. From the genetic basis of feather color to metabolic pathways that differ between closely related species, this work is helping us better understand what makes species different, and how those differences contribute to the maintenance of avian biodiversity

#### WHO IS SCOTT TAYLOR?

2012 – 2016 Postdoctoral Fellow, Cornell Lab of Ornithology  
Cornell University, Ithaca, NY  
2016 – present Assistant Professor, Dept. of Ecology and Evolutionary Biology  
University of Colorado Boulder, Boulder, CO

#### SELECTED PUBLICATIONS

- Wagner DN, Curry RL, Chen N, Lovette IJ, Taylor SA. Genomic regions underlying metabolic and neuronal signaling pathways are temporally consistent outliers in a moving avian hybrid zone. *Evolution*. 74: 1498-1513.
- Funk ER, Spellman GM, Winker K, Withrow JJ, Ruegg KC, Zavaleta E, Taylor SA. Accepted. Phylogenomic Data Reveal Widespread Introgression Across the Range of an Alpine and Arctic Specialist. *Systematic Biology*
- Taylor SA, Larson EL. 2019. Insights from genomes into the evolutionary importance and prevalence of hybridization in nature. *Nature Ecology and Evolution* 3, 170-177. <https://doi.org/10.1038/s41559-018-0777-y>
- Funk ER, Taylor SA. High-throughput sequencing is revealing genetic associations with avian plumage color. *The Auk: Ornithological Advances*. <https://doi.org/10.1093/auk/ukz048>
- Grabenstein KC, Taylor SA. 2018. Breaking Barriers: Causes, Consequences, and Experimental Utility of Human-Mediated Hybridization. *Trends in Ecology and Evolution*, 33(3), 198–212. [doi.org/10.1016/J.TREE.2017.12.008](https://doi.org/10.1016/J.TREE.2017.12.008)
- Toews DPL, +Taylor SA, Vallender R, Brelsford A, Butcher BG, Messer PW, Lovette IJ. 2016. Plumage genes and little else distinguish the genomes of hybridizing warblers. *Current Biology* 26: 2313-2318. +Authors contributed equally.
- Mason NA, Taylor SA. 2015. Differentially expressed genes match morphology and plumage despite largely homogeneous genomes in a Holarctic songbird. *Molecular Ecology* 24: 3009 - 3025

#### LINK TO TALK

<https://gwdg.zoom.us/j/85027379628?pwd=b2s3Y3crNjRLZ1lrL3ExR0dqRElzZz09>  
Meeting-ID: 850 2737 9628  
For code please contact:

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