

SEEWIESEN

LECTURE SERIES

FALL/WINTER 2018/19

Max Planck Institute
for Ornithology



MAX-PLANCK-GESELLSCHAFT

THURSDAY | October 25th, 2018 | 13 P.M. | HOUSE 4 LECTURE ROOM

EMILY H. DUVAL

Florida State University | Host: Baldwin Research Group

The trouble with traits: behavioural mechanisms and adaptive significance of mate choice in a lek mating system

Lek mating systems are arenas of intense sexual selection, in which mate choice is unfettered by male-female pair bonds or the requirements of offspring care. Current selective pressures from female choice are widely assumed to dictate the elaborate phenotypes and social systems of lekking males. To investigate the process of female choice and the patterns of male fitness it produces, I've collected 20 years of behavioral, morphological, and fitness data from a population of lance-tailed manakins, a cooperatively lekking tropical bird. In this species, breeding alpha males have distinctive morphological and behavioral phenotypes, males team up to perform complicated two-male dances for visiting females, and females search extensively to choose their mates. Tracking individual females' movements during mate assessment reveals a hierarchical process of mate choice, and females receive indirect genetic benefits from choosing particular sires. I'll discuss my progress in understanding this fascinating system, what we do and don't know about the mechanisms of sexual selection in manakins, and what it suggests more broadly for the study of sexual selection.

WHO IS EMILY H. DUVAL?

2005 Ph.D., University of California, Berkeley, Museum of Vertebrate Zoology
2005-2007 Postdoctoral researcher, Max Planck Institute for Ornithology, Seewiesen
2008-2015 Assistant Professor, Florida State University, Dept. of Biological Science, Tallahassee, FL, USA
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SELECTED PUBLICATIONS

- DuVal, E.H., C.C. Vanderbilt, L. M'Gonigle. (2018) The spatial dynamics of female choice in an exploded lek generate benefits of aggregation for experienced males. *Animal Behaviour*. <https://doi.org/10.1016/j.anbehav.2018.01.009>
- DuVal, E. H. and J. A. Kapoor. (2015) Causes and consequences of variation in female mate search investment in a lekking bird. *Behavioral Ecology*. 26(6): 1537-1547 doi: 10.1093/beheco/arv110.
- Sardell, R.J. and E.H. DuVal. (2014) Small and variable sperm sizes suggest low sperm competition despite multiple paternity in a lekking suboscine bird. *The Auk: Ornithological Advances*. 131: 660-671. DOI: 10.1642/AUK-14-38.1
- Sardell R.J., B. Kempenaers, and E.H. DuVal. (2014) Female mating preferences and offspring survival: testing hypotheses on the genetic basis of mate choice in a wild lekking bird. *Molecular Ecology*. 23: 933-946. DOI: 10.1111/mec.12652.
- DuVal, E.H. (2013) Does cooperation increase helpers' later success as breeders? A test of the skills hypothesis in the cooperatively-displaying lance-tailed manakin. *Journal of Animal Ecology*. 82 (4): 884-893. doi: 10.1111/1365-2656.12057

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