

SEEWIESEN

Max Planck Institute
for Ornithology

LECTURE SERIES

FALL/WINTER 2017/18



MAX-PLANCK-GESELLSCHAFT

THURSDAY | February 01, 2018 | 13 P.M. | HOUSE 4 LECTURE ROOM

JEFF GRAVES

University of St. Andrews | Host: Brumm Research Group

Mating displays and reproductive success in a Neotropical songbird the blue-black grassquit (*Volatinia jacarina*)

Bird courtship displays are frequently multi-modal displays that may provide different information about the signaler's qualities for female choice. We became interested in this species since grassquits are unusual in that males display from specific locations at very high rates from perches that are close to other displaying males, which allowed us to quantify display traits under natural conditions while following multiple birds in the same breeding area. The males of this tropical granivorous species display repeatedly and usually nest in dense groupings with small territories and the species was originally labelled as a lekking species; the only oscine breeder in the New World that lekked. We now know the females nest on the male's territory and the male builds the nest and helps feed the chicks. Features that are not usually found in lekking species.

The courtship displays are multimodal integrating motor and acoustic elements in addition to the differences in the very conspicuous male breeding plumage. Some males call while frequently leaping from a perch and making the call. Others court without leaping. We looked at the various components of the courtship display to see whether some of the signals were more important than others in female choice and if so which ones. We also looked to see whether all females were responding to the same signals since we also found that extra-pair paternity was exceptionally common and ranged from 8-34% of all nestlings and 11-47% of all broods. We examined the displays and the reproductive success to see what signals the social mate responded to, and whether the extra-pair females responded to the same signals as the pair females.

WHO IS JEFF GRAVES

- 1980** PhD University of St Andrews UK
- 1984** Lecturer, Department of Psychology, University of St Andrews
- 1989** Postdoctoral research associate, School Biology University of St Andrews
- 1998** Lecturer, Biology, University of St Andrews.
- 2013 -** Senior Lecturer, Biology, University of St Andrews

SELECTED PUBLICATIONS

- Gilbert L, Williamson KA & Graves JA (2012) Male attractiveness regulates offspring fecundity non-genetically via maternal investment. (Proc Roy Soc B) 279, 523-528
- Pariser EC, Gilbert L, Hazon N, Arnold KE & Graves JA (2012) Mind the Gap: the ratio of yolk androgens and antioxidants varies between sons and daughters dependent on paternal attractiveness. (Behav Ecol Sociobiol. 66, 519-527.
- Lopez-Rull I, Lifshitz N, Macias-Garcia C, Graves JA, Torres R (2016) Females of a polymorphic seabird dislike foreign-looking males. Anim Behav. 113, 31-38.
- Manica LT, Macedo RH, Graves JA, Podos J (2017) Vigor and skill in the acrobatic mating displays of a Neotropical songbird. Behav Ecol. 28, 164-173.

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