

SEEWIESEN

LECTURE SERIES

FALL/WINTER 2018/19

Max Planck Institute
for Ornithology



MAX-PLANCK-GESELLSCHAFT

THURSDAY | January 24th, 2019 | 13:00 | HOUSE 4 LECTURE ROOM

WILL CRESSWELL

University of St. Andrews | Host: Hau Research Group

Connectivity in migrant birds and its implications for their population dynamics and conservation in a changing world

Any underlying theory to explain why migrants are more prone to population declines than non-migratory species must arise from the differences between these two groups in their ability to deal with accelerated rates of habitat and climate change in the Anthropocene. Recent theoretical advances have therefore concentrated on understanding how migrant and resident birds differ in their evolutionary response to climate and habitat change, in particular how migrants are likely to be under selection to be bet-hedging generalists which makes them well adapted to climate change and habitat shifts but relatively poorly adapted to habitat loss and any site-based conservation solutions to address this. The main differences between migrants and residents are:

1. Migrants generally have a bet-hedging strategy with high migratory spread (low connectivity) over a large non-breeding area, and greater natal and breeding dispersal than residents.
2. Migrants depend more on a chain of suitable sites that must be correctly arranged in space and time for a successful annual cycle to be completed.

I will discuss how these characteristics lead to population dynamics and so potential conservation solutions for migratory birds, as many populations continue to decline.

WHO IS WILL CRESSWELL?

1988	BA Zoology, Cambridge University, UK
1993	PhD, Edinburgh University, UK
1994	NERC Post-doctoral Fellowship, Glasgow University, UK
1998	Lecturer in Ornithology, Edward Grey Institute, Oxford University UK
2000	Royal Society University Research Fellowship, Oxford and St Andrews University UK
2014	Professor of Biology, University of St Andrews, UK

SELECTED PUBLICATIONS

- Patchett, R., Finch, T. & Cresswell, W. (2018) Population consequences of migratory variability differ between flyways. *Current Biology* 28:R340-R341. DOI: 10.1016/j.cub.2018.03.018
- Finch, T., Butler, S., Franco, A. & Cresswell, W. (2017) Low migratory connectivity is common in long-distance migrant birds. *Journal of Animal Ecology* 86: 662-673. DOI: 10.1111/1365-2656.12635
- Cresswell, W. (2014). Migratory connectivity of Palearctic-African migratory birds and their responses to environmental change: the serial residency hypothesis. *Ibis*. 156: 493-510. DOI: 10.1111/ibi.12168

CO-ORDINATOR Nicole Fritz | nicole.fritz@orn.mpg.de | 08157 - 932 240