

SEEWIESEN

LECTURE SERIES

FALL/WINTER/SPRING 2020/2021

Max Planck Institute
for Ornithology

MAX PLANCK
GESELLSCHAFT



THURSDAY | November 26th, 2020 | 14.00 | ONLINE

VINCENT CAREAU

University of Ottawa | Host: Hau Research Group

Energetics, behaviour and performance: trait (co)variance across genotypes, phenotypes and species

During this presentation, I will outline the research program I have put in place over the past five years at the University of Ottawa, on the coadaptations between metabolic, performance, and personality traits. I will present the first results obtained from studies on wild mice, laboratory insects, as well as humans. A common theme in all of our research is the use of quantitative genetic techniques to partition the (co)variance between several traits at different levels of variation. Doing so commonly reveals trait associations that are otherwise undetectable at the aggregated level.

WHO IS VINCENT CAREAU?

2020-	Associate Professor	University of Ottawa, Canada
2015-2019	Assistant Professor	University of Ottawa, Canada
2016-2020	Tier II Canada Research Chair	University of Ottawa, Canada
2013-2015	Alfred Deakin Postdoctoral Research fellow	Deakin University, Australia
2011-2012	NSERC Postdoctoral Research fellow	University of California, Riverside, USA
2007-2010	PhD in biology	Université de Sherbrooke, Canada
2004-2006	MSc in biology	Université du Québec à Montréal, Canada
2000-2003	BSc in biology	Université de Sherbrooke, Canada

SELECTED PUBLICATIONS

- Berberi I & V Careau. 2019. Performance trade-offs in wild mice. *Oecologia* 191:11-23.
- Videliier M, Rundle, HD & V Careau. 2019. Sex-specific among-individual covariation in locomotor activity and standard metabolic rate in *Drosophila melanogaster*. *American Naturalist* 194: E164-E176. <https://doi.org/10.1086/705678>.
- Halsey LG, Green JA, Twiss SD, Arnold W, Butler PJ, Cooke SJ, Grémillet D, Ruf T, Hicks O, Minta KJ, Prystay TS, Wascher CAF & V Careau. 2019. Flexibility, variability and constraint in energy management patterns across vertebrate taxa revealed by long-term heart rate measurements. *Functional Ecology* 33:260-272.
- Careau V & R Wilson. 2017. Performance trade-offs and ageing in the "world's greatest athletes". *Proceedings of the Royal Society of London B*. 284: 20171048.
- Careau V, Wolak ME, Carter PA & T Garland Jr. 2015. Evolution of the additive genetic variance-covariance matrix under continuous directional selection on a complex behavioral phenotype. *Proceedings of the Royal Society of London B* 282: 20151119
- Careau V, Montiglio PO, Garant D, Pelletier F, Speakman JR, Humphries MM & Réale D. 2015. Energy expenditure and personality in wild chipmunks. *Behavioral Ecology and Sociobiology* 69: 653-661.
- Careau V & T Garland Jr. 2012. Performance, personality and energetics: correlation, causation and mechanism? *Physiological and Biochemical Zoology* 85: 543-571.
- Careau V, Thomas D, Humphries, MM & D Réale. 2008. Energy metabolism and animal personality. *Oikos* 117: 641-653.

LINK TO TALK

<https://gwdg.zoom.us/j/85414318077?pwd=YVJlaXpRcU85eGV5c1RtZjEwT2Vadz09>
Meeting-ID: 854 1431 8077 - for code please contact:

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