



Seewiesen Colloquia

Speaker invited by Dept. Kempenaers

Thursday, February 5, 2015, 13:00 h, in House 4, Lecture Room

The dimensions of fear: from brains to populations to ecosystems

Dr. Liana Zanette

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Predator-prey interactions have shaped all life on earth. Predator-induced stress is a hallmark of predator-prey interactions that must be unlike any other stressor that animals face because the consequence of failing to avoid a predator leads to death and so is definitive, unforgiving, and irreversible. In our work, Mike Clinchy, students and I conduct large-scale manipulations in the field in conjunction with complimentary studies in the lab designed to measure the extent to which predation risk (i.e. the fear of being killed by a predator) leaves a lasting imprint on birds and mammals in all respects from neurobiology to behaviour and physiology, to dramatic effects on population dynamics and ecosystem functioning, and we examine how fear in free-living wildlife can lend insight into human mental health.

Who is Liana Zanette?

- 2000 PhD University of New England, AUSTRALIA
- 1999 Izaak Walton Killam Memorial Postdoctoral Fellowship, University of British Columbia, CANADA
- 2001 Assistant Professor, University of Western Ontario, CANADA
- 2007 Associate Professor, University of Western Ontario, CANADA
- 2015 Professor, University of Western Ontario, CANADA

Selected publications:

- Zanette, L., Smith, J.N.M., van Oort, H., Clinchy, M. 2003 Synergistic effects of food and predators on annual reproductive success in song sparrows. **Proceedings of the Royal Society B** 270: 799-803.
- Travers, M., Clinchy, M., Zanette, L., Boonstra, R., Williams, T.D. 2010 Indirect predator effects on clutch size and the cost of egg production. **Ecology Letters** 13: 980-988.
- Zanette, L.Y., White, A.F., Allen, M.C., Clinchy, M. 2011 Perceived predation risk reduces the number of offspring songbirds produce per year. **Science** 334: 1398-1401.
- Clinchy, M., Sheriff, M.J., Zanette, L.Y. 2013 Predator-induced stress and the ecology of fear. **Functional Ecology** 27: 56-65.
- Zanette, L.Y., Hobson, K.A., Clinchy, M., Travers, M., Williams, T.D. 2013 Food use by songbirds is affected by the experience of nest predation: implications for indirect predator effects on clutch size. **Oecologia** 172: 1031-1039.