

Biology Seminar



Western
UNIVERSITY · CANADA

12:30 - 1:30 pm
Friday, September 14, 2018
BGS 0153



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From sleeping beauties to macho males: how understanding mechanisms of stress hardiness can impact our understanding of adaptation, speciation, and sexual selection

From avoiding the stresses of winter in the temperate zone to synchronizing growth and reproduction in the tropics with wet:dry cycles, seasonal change is the most ubiquitous predictable stressor for organisms. Animals, plants, and microbes have all evolved dormancy strategies to mitigate the bad times and synchronize themselves with the good times. Here I will tell a multitrophic story about our work on how seasonal plant phenology facilitates diversification of specialist herbivores and sequentially the herbivore's parasites by allochronic isolation: time after time. We argue that combining mechanistic knowledge about the genetic and physiological architectures of dormancy and overwintering responses can help us predict potential for responses to selection off life-history timing as seasonality continues to shift in the face of changing climates and land-use patterns, as well as how sexual selection and reinforcement can facilitate diversification.

