



# ***Mathematical Biology Seminar***

**Monday, February 9, 2026**

**1:00 pm MT – Room UComm 2-108 (in person)**

**Join Zoom Meeting**

<https://ualberta-ca.zoom.us/j/97624718507>

Meeting ID: 976 2471 8507



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## **The different ways ecological change can happen and how systems respond**

In theoretical population biology, the study of steady-states, persistence and other long-term dynamics are often made the focal point. Undoubtably this focus has led to many key biological insights, but certain questions pertaining to dynamics that occur on much shorter, and ecologically relevant timescales are often overlooked. In particular, the way systems respond to perturbations is understudied. In this talk, I will give my interpretation of the various tipping point phenomena and discuss ecological models that respond to non-trivial parameter changes in interesting and unpredictable ways. In particular, I will present a simple model for habitat degradation and a more complicated human-environmental model and discuss their responses to environmental change.