Austin J Phillips* (ajphi190@uw.edu), Quantitative Ecology and Resource Management, Box 352182, University of Washington, Seattle, WA 98195. **Will transient spatial dynamics help or hinder species responding to climate change?**

Transient dynamics encompass the behavior of a dynamical system before it settles down to an equilibrium, limit cycle, or other asymptotic behavior. In ecology, important types of transients include attenuation (when a population declines initially but grows in the long run) and amplification (when a population increases initially but goes extinct in the long run). Climate change is moving many species' suitable habitats, creating non-equilibrium conditions that can lead to transient spatial dynamics as species track their habitats. I will use an integrodifference model of a population tracking its moving habitat to determine the conditions under which attenuation or amplification can occur. The model quickly leads to an integral equation; by comparing the eigenvalues and operator norms of the associated integral operator, I will determine which population properties influence the potential for transient dynamics. In the process, I will explore analytical and numerical approaches to calculating the required operator norms. (Received September 21, 2015)