Alternate Community Ecology

Community ecology is the study of organism and how they interact. It has a rich theoretical basis, a tradition of experimentation and observation and applied implications for the biolgical world around us. In this class we will integrate theory and evidence to see what it takes build and maintain communities from the group up.

In classes 2-6 imagine world with only one species in it.

In class 7, we add another species at the same trophic level.

From class 10-17 we build complexity by looking at multi-specific interaction across trophic levels.

From class 18 onwards we discuss the complex phenomina that allow species to coexist and gives rise to the incredible biodiversty we see on Earth today.

Week	Lecture	Reading
Week 1	1] Definitions and Descriptions of Communities and biodiversity 2] Simple population growth models	Velland 1990
Week 2	3] Life history theory 4] Metapopulation	
Week 3	5] Population movement 6] Population genetics	Dingle 2007
Week 4	7] Model of competion 8] Niche Theory	
Week 5	9] Competion: observations and experiemnts 10] Preditor-prey and host-parasitoid models	
Week 6	11] Indirrect and Non-consumptive effects 12] Disease Ecology	
Week 7	13] Density Dependence 14] Mutualism and Facilitation	 Janzen 1966
Week 8	15] Eco-Evo. Feedbacks 16] Ecological networks I	
Week 9	17] Ecological Networks II 18] Succession	 Gleason 1939
Week 10	19] Competion: observations and experiemnts 20] Disturbance	 Connell 1978, Wilkinson 1999
Week 11	21] Fluctuating environments 22] Metacommunities	Warner and Chesson 1985 Leibold 2004
Week 12	23] Priority effects and Alternate stable states 24] Biodiversity and function	Fukami 2015 Tillman 1999