

Seminar in Ecology

(BSC 420.03 – Fall 2010)

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CONTENT

I have not chosen a topic for this version of Seminar in Ecology. I am going to leave choices of topics open to students with the limitations that the topic should be about ecology, broadly defined, including applied ecology. My main criterion for approving your choice of papers is whether your choice seems to have sufficient conceptual content so that the papers and topic will be broadly interesting. I have in mind a number of topic areas and papers (see suggestions) that seem to me to have interest for a broad ecological audience.

SEMINAR STRUCTURE. Seminar will consist of readings from the primary literature, each led by one student. Each discussion leader will be responsible for giving a short (10-15 minute) introduction to the discussion, and providing a short (1 p., single spaced) critique of the paper that will provide direction of discussion. **Leaders should lead the discussion not lecture.** Other participants should come prepared to discuss the papers we have read.

Leaders will provide the group with an electronic copy of the paper(s) for discussion **one week in advance of our meeting.** **You must have my approval for the paper you have chosen,** so see me early on if you have a paper in mind. I can make some suggestions of good recent papers. If you cannot come up with an electronic copy see me. If all else fails, get me a hard copy and I will have it photocopied and distributed. Leaders will e-mail one *electronic copy* of the 1 p. critique to me and to all participants (I will provide all of you with email addresses) **on the Monday before our meeting.**

Your grade will be determined by both your success in leading the discussion (80%), including preparation, clarity, evidence of understanding, quality of questions posed, and quality of your written critique, and by your participation in discussion when you do not lead (20%). Note that this arrangement means you **cannot** manage an A in this seminar if you do not participate in discussions. I will provide feedback to discussion leaders following their presentations.

The schedule:

Meeting date	DISCUSSION LEADER
26 August	<i>Scheduling</i>
2 September	Keith Bowers
9 September	Ebony Murrell
16 September	Jillian Wormington
23 September	Brian Grebliunas
30 September	Colleen Stephens
7 October	Katie Rollins
14 October	Laura Zimmerman
21 October	Bethany Evans
28 October	<i>No meeting – SAJ out of town</i>
4 November	Katie Westby
11 November	
18 November	
25 November	<i>Thanksgiving break</i>
2 November	
9 December	
16 December	<i>Exam week</i>

Some recent papers that might be interesting [these are only suggestions]

- Baskett, ML. & AK Salomon. 2010. Recruitment facilitation can drive alternative states on temperate reefs. *Ecology* 91:1763–1773
- Butterfield, BJ, JL Betancourt, RM Turner, JM Briggs. 2010. Facilitation drives 65 years of vegetation change in the Sonoran Desert. *Ecology* 91:1132–1139
- Cresswell, W., J. Lind, & JL. Quinn. 2010. Predator-hunting success and prey vulnerability: quantifying the spatial scale over which lethal and non-lethal effects of predation occur. *Journal of Animal Ecology* 79:556–562
- De Block, M., MA. McPeck, R. Stoks. 2008. Life history plasticity to combined time and biotic constraints in *Lestes* damselflies from vernal and temporary ponds. *Oikos* 117: 908-916,
- Fox, J.W., DA. Vasseur. 2008. Character Convergence under Competition for Nutritionally Essential Resources. *The American Naturalist* 172:667–680.
- Hartemink, N. A., S. E. Randolph, S. A. Davis, J. A. P. Heesterbeek. 2008. The Basic Reproduction Number for Complex Disease Systems: Defining R_0 for Tick-Borne Infections. *The American Naturalist*. 171:743–754.
- Hoegh-Guldberg, O. & JF. Bruno. 2010. The Impact of Climate Change on the World's Marine Ecosystems. *Science* 328:1523-1528
- Hossie, TJ, DL Murray. 2010. You can't run but you can hide: refuge use in frog tadpoles elicits density-dependent predation by dragonfly larvae. *Oecologia* 163:395–404
- Hunt, J.J.F.G., MB. Bonsal. 2009. The effects of colonization, extinction and competition on co-existence in metacommunities. *Journal of Animal Ecology* 78:866–879
- Johnson, J.B. & SM. Peat, BJ. Adams. 2009. Where's the ecology in molecular ecology? *Oikos* 118:1601-1609
- Kuang, J.J., P. Chesson. 2008. Predation-Competition Interactions for Seasonally Recruiting Species *American Naturalist*. 171:E119–E133.
- McRae, B.H. 2006. Isolation by resistance. *Evolution*, 60:1551–1561
- Murrell, DJ. 2010. When does local spatial structure hinder competitive coexistence and reverse competitive hierarchies? *Ecology*, 91:1605–1616
- Paetzold, A., M. Lee, DM. Post. 2008. Marine resource flows to terrestrial arthropod predators on a temperate island: the role of subsidies between systems of similar productivity. *Oecologia* 157:653–659
- Pedersen, A.B. & TJ. Greives. 2008. The interaction of parasites and resources cause crashes in a wild mouse population. *Journal of Animal Ecology* 77:370–377
- Poulin, B., G. Lefebvre & L. Paz. 2010. Red flag for green spray: adverse trophic effects of Bti on breeding birds. *Journal of Applied Ecology* 47:884–889
- Salo, P., M. Nordström, RL. Thomson, E. Korpimäki. 2008. Risk induced by a native top predator reduces alien mink movements. *Journal of Animal Ecology* 77:1092–1098
- Shears, NT, RC Babcock, AK Salomon. 2008. Context-dependent effects of fishing: variation in trophic cascades across environmental gradients. *Ecological Applications* 18:1860–1873
- Sih, A., DI. Bolnick, B. Luttbeg, J.L. Orrock, SD. Peacor, LM. Pintor, E. Preisser, JS. Rehage & JR. Vonesh. 2010. Predator–prey naïveté, antipredator behavior, and the ecology of predator invasions. *Oikos* 119: 610–621
- Wallach, AD., CN. Johnson, EG. Ritchie, AJ. O'Neill. 2010. Predator control promotes invasive dominated ecological states. *Ecology Letters* 13: 1008–1018.