

## COURSE SYLLABUS

SIO 278 Seminar: Food Webs at the Landscape Scale

Winter 2015

Thursdays 1:15 – 3:05 pm, Vaughan Hall 328

Instructor: James Leichter

Grading: 2 units, Letter or S/U

Food web science has developed rapidly in recent decades through advances in experimental and analytical techniques and application of observational and experimental field ecological methods at large spatial scales. The ability to quantify and model food webs is important in understanding the fluxes of energy and materials through ecosystems, and in designing effective conservation strategies. This SIO 278 Seminar will focus on readings from the edited volume *Food Webs at the Landscape Level* (eds. Polis, Power, Huxel, 2004), as well as a series of foundational and more recent papers that serve as examples of recent advances in food web science applied to large scale ecological questions. The seminar is open to graduate students with interests in environmental, biological, physical sciences, and conservation, as well as to advanced undergraduates.

### Reading Topics

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| Week 1  | <i>Polis et al.</i> Ch 1, Intro and Overview                              |
| Week 2  | <i>Polis et al.</i> Ch 2, 3, 4, Fluxes Across Habitats I                  |
| Week 3  | <i>Polis et al.</i> Ch 6, 7 Fluxes Across Habitats II                     |
| Week 4  | <i>Polis et al.</i> Ch 9, 11, 13 Food Web Dynamics I                      |
| Week 5  | <i>Polis et al.</i> Ch 14, 15, 16 Food Web Dynamics II                    |
| Week 6  | <i>Polis et al.</i> Ch 18, 19, 20 Subsidies at Regional and Global Scales |
| Week 7  | <i>Polis et al.</i> Ch 22, 23 Synthesis I                                 |
| Week 8  | <i>Polis et al.</i> Ch 24, 25, 26 Synthesis II                            |
| Week 9  | Marine Food Web Dynamics I – Contemporary Papers                          |
| Week 10 | Marine Food Web Dynamics II – Contemporary Papers                         |