**EEBX 602 Population Ecology**

**Day:** M. W.  
**Time:** TBD (75 min.)  
**Location:** TBD  
**Number of Credits:** 01 Credit

**Instructors:**  
*(odd years)*  
Masami Fujiwara  
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Office hours: by appointment

*(even years)*  
TBD

**E-mail will be the primary means of communication for the course.** Check your email often and keep your mailbox below quota! Go to eCampus.tamu.edu for course materials.

**Course prerequisites:** Graduate classification.

**Course description:** This second component of the Core Sequence in Ecology & Evolutionary Biology examines the fundamental concepts in population dynamics. The main focus of the course will be birth, death, immigration, and emigration processes, how these processes are affected by internal and external factors, and the ways they affect population abundance.

**Course requirements:**
- Attend all lectures. Absences for previously scheduled activities will only be excused if they are communicated well in advance. If you have not discussed an absence with instructor ahead of time, it will be considered unexcused unless proper documentation is provided. See http://student-rules.tamu.edu/rule07.
- Read all required material.
- Participate actively in discussions.
- Complete the final take-home exam. Late exams will be downgraded a letter grade for each day late.

**Course goals:** The goal of this course is to provide the understanding of the fundamental concepts in population biology. By the end of this course, students are expected to be able to identify general causes of changes in birth, death, immigration, and emigration processes and to gain clear understanding of how these changes can affect the population abundance over time and space. Students are also expected to become familiar with the foundation papers in population ecology.

**Grading:** Letter grades will be assigned based as follows: active participation: 50%; short, take-home essay exam: 50%.

Grade scale: 90-100 A; 80-89 B; 70-79 C; 60-69 D; < 60 F

**Americans with Disabilities Act (ADA):** The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities.
Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact Disability Services, in Cain Hall, Room B118, or call 845-1637. For additional information visit http://disability.tamu.edu.

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"An Aggie does not lie, cheat, or steal, or tolerate those who do."

REQUIRED TEXTBOOK
No textbook is required. Papers are assigned for reading. Students are expected to read the assigned papers prior to lectures.

LECTURES
1. Population Growth

2. Life History Variation

3. Density Dependence

4. Environmental Fluctuation and Demographic Stochasticity

5. Niche and Species Interactions
   • Volterra V (1926) Fluctuations in the abundance of a species considered mathematically. *Nature* 118:558-560 doi: 10.1038/118558a0

6. Spatial Ecology

**Take-home essay exam** due by email at 4 pm the day after lecture 6. *One letter grade will be deducted for each day past the deadline!*