Global Biodiversity and the Sixth Mass Extinction

main class instructor: Daniel Young

9 credits

**MAIN CLASS**
Entomology 375
Global Biodiversity and the Sixth Mass Extinction

**LINKED CLASS**
Environmental Studies 201
Insects and Human Culture

Chemistry 103
General Chemistry I

You will first explore global biodiversity: what it is and why it is both important and in peril. We will then focus on the role of taxonomy in biodiversity. Finally, we will turn our attention to insects—by far the most diverse group of multi-cellular organisms on Earth, accounting for more than 58% of all known global biological diversity and some 70% of all animal diversity. Yet most insects go unnoticed by the average human and the few that receive our attention usually do so by negative attributes of their biology or association with us. This is a shame, since many fundamental advances in medical and biological sciences from molecular biology to genetics, from biodiversity to behavior, and from phylogenetic systematics to global climate change have been based on entomological research. Insects are central to agricultural production both as competitors and essential pollinators, and they play a significant role in human health as well as insights into forensic sciences.

With background information developed in the linked classes, the main seminar in this FIG, **Entomology 375: “Global Biodiversity and the Sixth Mass Extinction,”** will begin to frame a more realistic picture of insect diversity. You will explore what the immense richness of species means not only to the human species but to the very health of the planet. We will enjoy field trips, a “virtual museum” experience, and other hands-on and experiential learning opportunities to bring the FIG concepts and your class together for an eye-opening journey.

**Environmental Studies 201: “Insects and Human Culture”** — Importance of insects in the human environment, emphasizing beneficial insects, disease carriers, and agricultural pests that interfere with our food supply. Environmental problems due to insect control agents will also be discussed.

**Chemistry 103: “General Chemistry I”** — Introduction to stoichiometry and the mole concept; the behavior of gases, liquids, and solids; thermochemistry; electronic structure of atoms and chemical bonding; descriptive chemistry of selected elements and compounds; and intermolecular forces.

more on the other side
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Enrolled in a FIG and you change your mind?

FIG classes are designed to be taken together. When you enroll in a FIG, you are signed up for these classes as a whole group, not as separate classes.

Dropping one FIG class means ending your enrollment in all of the classes in the FIG.

So, here's what you should know if you want to drop the FIG:

- You can drop all the classes on your own at enroll.wisc.edu. Any non-FIG class will not be affected.
- After classes begin, if you need to drop a single class within the FIG, please contact Kari Fernholz (see below) to review your situation. If necessary, she will provide the required authorization to drop the class.
- **Wednesday, September 11, 2019** is the last day to drop a class without it appearing on your college transcript.
- **Friday, September 13, 2019** is the last day to add a class without first getting department permission.