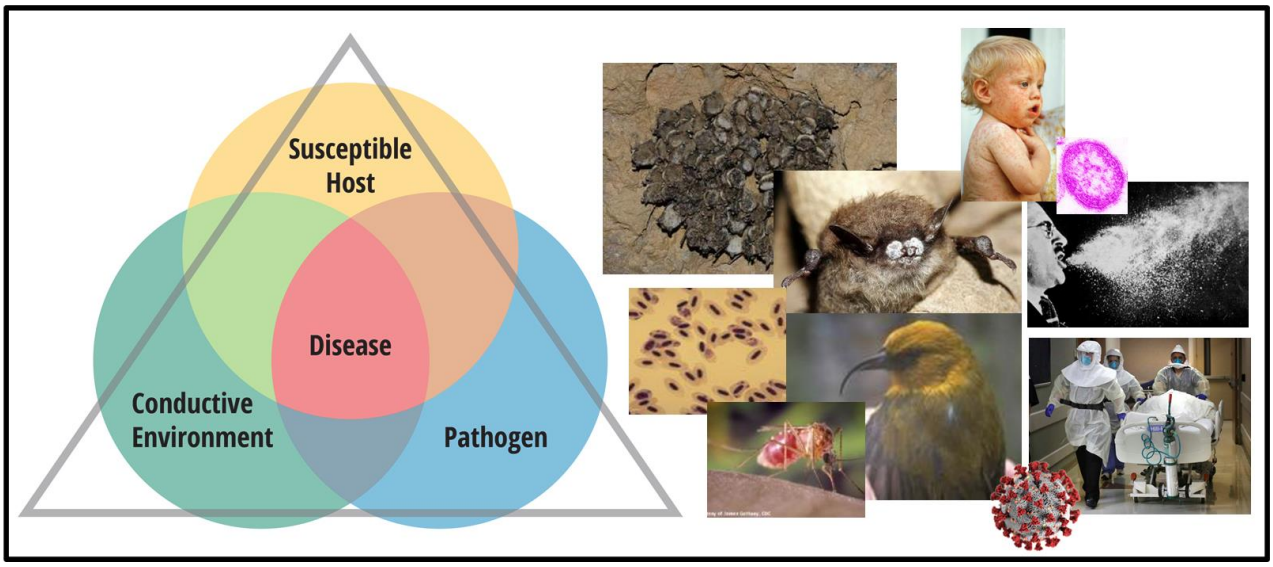
ECOLOGY & EVOLUTION OF INFECTIOUS DISEASES JOURNAL CLUB

ENTOM / BIOEE 6900 *FALL 2021*



WHERE AND WHEN: Weekly, Thursday from 10:10 am – 11:00 am in 2123 Comstock Hall

OVERVIEW: This journal club will explore concepts in the field of ecology and evolution of infectious diseases. This exciting field is an area of study that has developed rapidly over the past three decades and addresses some of the most significant challenges to human health and conservation. Throughout the semester, participants will read and discuss current papers that highlight a diversity of parasitic organisms (arguably the most abundant life forms on the planet); how these organisms invade, spread, and regulate host populations; and the evolutionary forces shaping infectious disease dynamics.

FORMAT: Each week someone will lead a discussion on a published, hypothesis-driven study. Provided the study sets out to test one or more hypotheses, experimental or observational research, theory, and meta-analyses are all fair game. We will focus on reading recent studies (2019-present) that are geared towards a broad audience. Discussions of older "classic" studies with continuing relevance are also welcome. Specific topics that could be explored throughout the semester include:

1. Comparative biology of parasites and their ecological or evolutionary properties
2. Epidemiology and impacts of parasites on host populations
3. Types of transmission
4. Evolution of resistance, tolerance, and virulence
5. Drivers of the emergence and evolution of new diseases
6. Strategies for controlling outbreaks
7. Parasites in the context of ecological communities and the role of parasites in biodiversity and conservation

Whether we end up on zoom or in-person, the goal is to have an engaging dialogue about papers (e.g. what questions are addressed by the study and what remains to be answered).

WHO: Graduate students may enroll in this journal club as a seminar course, but postdocs and faculty are also welcome to attend and to lead discussion.