Forensic Applications of the Necrobiome
(Formerly: “Bugs and Bodies”)

Led by Drs. Jennifer Pechal and Eric Benbow

Spring 2016 – ENT 812 (1 Credit Hour) – Location & Time: TBD

This seminar course is intended for graduate students in entomology, forensic sciences, fisheries and wildlife, microbiology, integrative biology, and criminal justice interested in the use of biological indicators, such as insects and microbes, in forensic applications. The course will focus on the interactions within the community of necrophagous organisms, defined as the necrobiome, during decomposition of animal carrion and human corpses. Students will learn the fundamentals of the necrobiome and how ecological principles can be used in forensic applications, such as death scene investigations and source tracking.

Specifically, topics will include:
• necrophagous insect identification, life history traits, and community dynamics;
• microbial community structure (who is present) and function (what are they doing) throughout decomposition;
• trophic interactions, such as vertebrate scavenging, during decomposition;
• a practical guide for how to collect biological evidence including insects and microbial communities analyzed using next generation sequencing technology; and
• a mock crime scene where the student is the forensic sleuth.

Those with questions contact Dr. Pechal: pechalje@msu.edu