

**Long-Term Ecological Research Network**

**Malaise Trap Project**

You are joining a team of scientists from across North America to assess how insect populations are changing over space and time!

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| **Team Project** | Students will work in teams of 4-5 to sort, identify and count insects from malaise trap samples. |
| **Project Overview** | * Sort, identify, and count insects from samples * Weigh insect samples * Peer-review of all collected data * Record all data in spreadsheets * Utilize data to make graphs * Present results to class |
| **Timeline** | Weeks 3-7 (Sept 5 – Oct 3) |

**Project Details**

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| **Background** |

Insect populations are at risk globally, with documented declines in abundances and diversity across virtually all taxa of insects. The data used to assess these patterns comes from many different studies that utilize a variety of methods. We aim to quantitatively assess patterns of insect populations using standardized methods at locations across the Long-Term Ecological Research (LTER) Network. We will specifically compare data from areas that are human dominated (highly disturbed) and natural habitat at each site, collecting data throughout the growing season.

Insect samples are being collected from many sites across North America to assess trends in insect populations over space and time. Our class will focus on samples from Greensboro, NC and Manhattan, KS.

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| **Student Learning Objectives** |

Students will learn about current trends in insect abundances globally, be trained to identify insects to order, and will apply this knowledge to analyze trends in insect diversity and abundances across space and through time utilizing provided samples. Students will work as part of a collaborative team to contribute to ongoing scientific research.

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| **Project Deliverables and Grading** |

Count of all individuals by insect order within assigned sample(s) = 50 pts

Wet and dry weights of assigned sample(s) = 50 pts

All data entered into class spreadsheet = 50 pts

Graph of insect counts by order (e.g., bar graph, pie chart, etc) = 50 pts

Self and Group Assessment = used to determine score for entire project

**Total = 200 points (20% of your final grade in the course)**