

Climate change effects on nectar resources

Data and Materials Produced

See sampling protocol for a description of the data to be collected, including amount. Data collected during the growing seasons of 2015 and 2016. Data will be collected on paper data sheets then input into Excel file. Final Excel raw data files will be checked against original data sheets for quality control.

Raw data for mm tube filled, BRIX reading, tube size and tube volume will be converted into variables for analysis: sugar mass, sugar concentration (BRIX), and nectar volume. Conversion methods are described in the sampling protocol.

Data will be analyzed using R to determine if there is a significant difference in nectar characteristics between heated plots and control plots.

Standards, Formats and Metadata

Metadata will be collected into a data dictionary file. Original raw data will be on paper then an Excel file.

Data tidying will occur in R and produce csv files to be used in analysis scripts. All data exploration, analysis and graphic presentation will occur in R.

Roles and Responsibilities

Graduate student Audrey McCombs will train and supervise field technician, and will be responsible for curating all data for long-term storage in the Debinski lab in accordance with the data management plan.

Diane Debinski (PI) will be responsible for maintaining data archive.

Dissemination Methods

Dissemination methods as yet unclear.

Policies for Data Sharing and Public Access

Data sharing and public access policies are still being worked out.

Archiving, Storage and Preservation

Paper data files will be stored in the Debinski Lab at ISU. Electronic copies of the scans of the raw data sheets are stored on the Debinski Lab CyBox repository maintained by ISU. Raw data, data for analysis, and all analysis scripts are currently stored on GitHub, but will be ported over to CyBox for permanent archive once the analysis is finished and the paper has been accepted for publication.