Metadata for Kuhlman et al. 2021. Relative bee abundance varies by collection method and flower richness: implications for understanding patterns in bee community data. Ecological Evidence and Solutions.

Contact Phil Hahn (hahnp@ufl.edu) for questions about the code.

All data were collected by the authors and staff at MPG Ranch near Missoula, MT. All bees are curated at the U.S. National Pollinating Insects Collection in Logan, Utah, and the full database is maintained in the U.S. National Pollinating Insects Database. See the manuscript for additional details about the study location and data collection. This repository contains the data used in the publication. See metadata file for description of individual data files and variables.

Data file: ‘MK\_ESE\_BeeFlower\_Phenology\_20142017.csv’

**Description:** This file contains information on the number of plant species flowering, bee abundance, and bee richness. All bees were captured in pan traps. Surveys took place between April and September from 2014-2017. Plants were surveyed weekly and bees were surveyed about every two weeks. Data are pooled across all plots and represent totals of the whole site for each sampling week. See publication for full details. Missing data = NA.

**Variables with descriptions:**

Year: year, 2014 through 2017

WOY: week of year, beginning mid-April 2014

Flower\_richness: Number of plant species in flower across the entire site

bee\_richness: Number of bee species captured in pan traps across the entire site

bee\_abundance: Number of individual bees captured in pan traps across the entire site

Season: Early (April through the second week of July) or Late (mid-July through September)

Data file: ‘MK\_ESE\_BeePanNet\_Abundances.csv’

**Description:** This file contains information on the number of bee species captured in pan traps, number of bee species captured in nets, number of bee individuals captured in pan traps and number of bee individuals captured in nets. Surveys took place between 2015-2017. Data are pooled across all plots and represent totals of the whole location for each sampling week. See publication for full details.

**Variables with descriptions:**

Year: year, 2015 through 2017

WOY: week of year, beginning mid-April 2014

bee\_richness\_pt: number of bee species captured in pan traps.

bee\_richness\_n: number of bee species captured in nets.

bee\_abund\_pt: number of individual bees captured in pan traps

bee\_abund\_n: number of individual bees captured in nets

Data file: ‘MK\_ESE\_BeeAbundFloral\_Early20152017.csv’

**Description:** This file contains information of the number of plant species flowering and the number of bees from the nine most common genera captured in pan traps and nets at each sampling plot during each survey week during the “Early” seasons of 2015-2017. Data are not aggregated, and each row represents one genus sampled during each event. See publication for full details.

**Variables with descriptions:**

Year: year, 2015 through 2017

WOY: week of year, beginning mid-April 2015

Location\_Name: Plot location name.

Flower\_Richness: number of plant species flowering at each plot during each survey.

CollMeth: Collection method: n = nets, pt = pan traps.

Season: ‘Early’ only early season data are included in this analysis.

GenusName: Genus of bees captured.

bee\_abund: Number of bees captured for each genus.

pres: Presence = 1; Absence = 0.

obs: unique code for each observation to include as an observation-level random effect.