Krsp_suppl Database Appendix:

Explanation of Database Codes

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1. midden_cones table

id: record number within the table (primary key)

year: Year in which the data was collected

grid: Grid on which the data was collected

        KL – Kloo
        SU – Sulphur
        AG – Agnes
        JO – Jo
        LL – Lloyd
        CH – Chitty
        RR – Rolo Road
        BT – Blue Trailer
        SUX/SX – Sulphur Extension
        EN – Enema
        FL – Flint

midden: Midden reflo for which the data was collected

locx: The x grid location of the midden within the grid, taken from the fall census.

locy: The y grid location of the midden, taken from the fall census.

sex: The sex of the squirrel that owns that midden, determined either from the squirrel table or the census.

taglft: The left eartag number of the squirrel that owns that midden, determined from the fall census.

tagrt: The right eartag number of the squirrel that owns that midden, determined from the fall census.

squirrel_id: The Squirrel ID of the squirrel that owns that midden, determined either from the squirrel table or the census.

Date: The date on which the midden cone count was done. In some years this was approximate (e.g., all counts given the same date as it was not filled in by the field crew) or was not recorded.

obs: The observer who collected the data. Typically, this is the person in whose notebook you should look to find the data, but this is not necessarily the case in all years.

width: Midden width (m)

length: Midden length (m)

no_quad: Number of quadrats were used to assess the midden. This varies between years due to differences in data collection methods. It also varies within years due to missed quadrats during sampling or because fewer quadrats were sampled on some middens in an attempt to survey the middens faster.

total_new: Sum of new cones counted in all quadrats.

total_old: Sum of old cones counted in all quadrats.

total_cones: Sum of all cones (old and new) counted in quadrats.

area_quad: Area of each quadrat (m^2), which varies depending on the sampling design used in that year. **[NOTE: for some years this is entered as 0.1, but should be 0.09 for 30cm x 30cm quadrats – need to check]**

total_newopen: In 2019, some new cones on the midden had already opened. We weren't sure whether these opened cones would be useful to the squirrels or not, so we counted new open cones separately from new closed cones.

total_newclosed: In 2019, some new cones on the midden had already opened. We weren't sure whether these opened cones would be useful to the squirrels or not, so we counted new open cones separately from new closed cones.

experiment: Indicates whether the midden was manipulated prior to cone counting. Cone counts presented here were done after the manipulation.

    1 = removal: cones removed from midden a few weeks before counts (AEW 2017)

    2 = addition: cones added to midden a few weeks before counts (AEW 2017)

2. audio_recordings

id: record number within the table (primary key)

year: year in which the data was collected

project: initials or description of project lead

treatment: concurrent experimental treatment performed on individual recorded

collection_method: the audio recording device used to record bioacoustic data from focal individual

> *Zoom* – Zoom H2N Digital Recorder at 44.1 kHz
>
> *ShotgunMic* – Sennheiser ME66 Shotgun Microphone and Marantz PMD661 MKII digital recorder at 44.1 kHz
>
> *SM3* – Wildlife Acoustics SM3 song meter at 44.8 kHz

grid: grid on which the data was collected

> *KL* – Kloo
>
> *SU* – Sulphur
>
> *AG* – Agnes
>
> *JO* – Jo
>
> *BT* – Blue Trailer
>
> *LL* – Lloyd
>
> *RR* – Rolo Road
>
> *SUX* – Sulphur Extension

squirrel_id: the Squirrel ID of the squirrel that owns that midden, determined either from the squirrel table or the census.

midden: midden reflo for which the data was collected

locx: the x grid location where recordings took place within the grid, if at a different location than midden reflo.

locy: the y grid location where recordings took place within the grid, if at a different location than midden reflo.

date_out: the date on which the audio recording device was deployed (YYYY-MM-DD).

time_out: the time which the audio recording device was activated for continuous recording (24 hour, HH:MM).

date_in: the date on which the audio recording device was retrieved (YYYY-MM-DD).

time_in: the time which the audio recording device was retrieved (24 hour, HH:MM).

drive: the physical hard drive in which the folder containing audio is stored.

file_path: the file directory describing the location of the folder containing audio on its respective hard drive.

comments: description of any unusual circumstances around recordings, issues with audio files, or explaining why data is missing

3. trees

Between September 9 and 14, 2019, Fiera Biological Consulting flew drones over KL and SU and stitched together the video footage and used a custom algorithm to identify the spatial position, radius and height of all trees and shrubs on the two study areas.

grid: Grid on which the data was collected

> KL – Kloo
> SU – Sulphur

tree: was the object classified as a tree or a shrub

tree - Height range: 200cm up to 2500cm Radius range: 50cm to 280cm

shrub - Height range: 25cm to 199cm Radius range: 20cm to 200cm

x: UTM co-ordinate in the longitude direction

y: UTM co-ordinate in the latitude direction

x: UTM co-ordinate in the Z direction

radius: radius of the tree or shrub in metres (m)

height: height of the tree or shrub in metres (m)

4. genotypes

To be written.

5. new table