

Inspect pasture results

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```
# Create the vectors that hold the land-uses that we want to keep with
# different use intensities
land_uses_separate <- c("Primary", "Cropland", "ISV", "Plantation forest")

# Create a vector with the land-uses where we want to merge the light
# and intense use intensities
land_uses_light_intense <- c("Primary", "Cropland", "ISV", "Plantation forest")

# Merge LUI for abundance
diversity_all_abundance <- Merge_landUses_and_intensities(dataset = diversity_all_abundance,
                                                          index = 1,
                                                          land_uses_separate_intensities = land_uses_separate,
                                                          land_uses_merge_light_intense = land_uses_light_intense,
                                                          "Primary Minimal use")

## Warning: package 'Hmisc' was built under R version 3.6.3

## Loading required package: lattice

## Warning: package 'lattice' was built under R version 3.6.1

## Loading required package: survival

## Warning: package 'survival' was built under R version 3.6.3

## Loading required package: Formula

##
## Attaching package: 'Hmisc'

## The following objects are masked from 'package:dplyr':
##       src, summarize

## The following objects are masked from 'package:base':
##       format.pval, units

## Warning: package 'stringr' was built under R version 3.6.1
```

```

# Drop NA values
diversity_abundance <- drop_na(diversity_all_abundance,
                                Total_abundance, LandUse.1) %>%
  droplevels()

# Get the SSBS of sites belonging to pasture and primary minimal use for Plants
abundance <- diversity_abundance %>%

# Filter LUI
dplyr::filter(LandUse.1 %in% c("Primary Minimal use", "Pasture All")) %>%

# Filter plants
dplyr::filter(Kingdom %in% c("Plantae")) %>%

# drop levels
droplevels()

# Get some statistics of abundance for both land uses
abundance %>%

# Group by LUI
group_by(LandUse.1) %>%

# Calculate statistics
summarise(mean = mean(RescaledAbundance),
          sd = sd(RescaledAbundance),
          qt_1 = quantile(RescaledAbundance, prob=c(0.25)),
          qt_2 = quantile(RescaledAbundance, prob=c(0.5)),
          qt_3 = quantile(RescaledAbundance, prob=c(0.75)),
          qt_4 = quantile(RescaledAbundance, prob=c(1)))

## # A tibble: 2 x 7
##   LandUse.1           mean     sd    qt_1    qt_2    qt_3    qt_4
##   <fct>            <dbl>  <dbl>  <dbl>  <dbl>  <dbl>  <dbl>
## 1 Primary Minimal use 0.234 0.265 0.0328 0.154  0.332    1
## 2 Pasture All         0.250 0.301 0.0244 0.0674 0.427    1

# I am going to check the sites that have a rescaled abundance greater than the median
# for pasture

pasture_abundance <- abundance %>%

# Filter pasture
filter(LandUse.1 == "Pasture All") %>%

# Filter sites with species richness greater than the median
filter(RescaledAbundance > 0.07) %>%

# droplevels
droplevels() %>%

pull(SSBS) %>% as.character()

```

```

pasture_abundance_inspect <- sp_abundance %>%
  # subset the sites we want to inspect
  base::subset(SSBS %in% pasture_abundance) %>%
  # Subset only plants dispersed by endozoochory
  base::subset(Kingdom == "Plantae") %>%
  # drop levels
  droplevels() %>%
  # select columns we are interested in
  dplyr::select(Country, Source_ID, SS, Diversity_metric_type, Diversity_metric_unit,
                Habitat_as_described, Predominant_land_use, Use_intensity, SSBS,
                Best_guess_binomial, Taxon_name_entered, Measurement, Kingdom) %>%
  # Select species present(1) or with abundance greater than 0
  dplyr::filter(Measurement != 0)

# Resulting number of species
length(unique(pasture_abundance_inspect$Best_guess_binomial))

```

```
## [1] 30
```

```

# Resulting number of studies
length(unique(pasture_abundance_inspect$SS))

```

```
## [1] 5
```

```

abundance <- read.csv("./Abundance_inspect.csv", header = TRUE, sep = ";")
kable(abundance, format="latex", booktabs=TRUE) %>%
  kable_styling(latex_options="scale_down")

```

| SS | sites | Species | LUI | Dispersal | Agents | Grow.habit |
|----------|------------|------------------------|-----------------|-------------------------------|------------------------------------|----------------------------------|
| CM1_2012 | Katovai 1 | 2 Passiflora foetida | Pasture Int | endo | Vertebrates | Climbing herbaceous |
| SC1_2006 | Mayfield 1 | 13 Rubus rosifolius | Pasture Min | Assumed endo | NA | Evergreen shrub |
| SC1_2006 | Mayfield 1 | 13 Colocasia esculenta | Pasture Min | Assumed endo | NA | Tuberous-rooted to 1.5m |
| SC1_2006 | Mayfield 1 | 13 Lantana trifolia | Pasture Lig | Zoochory - assumed endo | NA | Evergreen shrub |
| YY1_2015 | Mandle 1 | 4 Cissampelos pareira | Pasture Min | endo | Vertebrates | Climbing plant or scandent shrub |
| YY1_2015 | Mandle 1 | 4 Phoenix loureiroi | Pasture Min | | | |
| YY1_2015 | Mandle 3 | 2 Randia dumetorum | Pasture Min | endo | Mammals(elephant) | Palm |
| YY1_2015 | Mandle 3 | 2 Syzygium cumini | Pasture Min | Zoochory - assumed endo | - | Evergreen tropical tree |
| YY1_2016 | Mohandass | 6 Juncus effusus | Pasture Min/Lig | Endo and epi - wind and water | Machinery, domestic, deer, rabbits | Perennial herbaceous |