SERDP Field Collection Data Dictionary 2017-2019

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# Common among all dataframes

field\_name

data\_type

description

plot\_id

character

installation name and an assigned letter for the plot

date

date

date that set of data was collected. format: YYYY-MM-DD

visit\_year

numeric

year the plot was visited

# Plot visit and invasion status

field\_name

data\_type

description

imcy\_inv

character

invasion status of *Imperata cylindrica*

avg\_tiller\_density\_m2

numeric

average number of *Imperata cylindrica* tillers per square meter

xcoord\_lon

numeric

longitudinal x-coordinate of plot\_id

ycoord\_lat

numeric

latitudinal y-coordinate of plot\_id

years\_since\_fire

numeric

number of years since the sample area was last burned

# Vegetation - quadrat plant species

field\_name

data\_type

description

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

functional\_group

character

functional group of the species. ex: graminoid, forb, shrub, tree

avg\_pct\_cover

numeric

estimate of the species’ percent cover in the plot based on an average of four square meter quadrats

num\_stems\_m2

numeric

estimate of the species’ stem count in the plot based on an average of four square meter quadrats

# Vegetation - quadrat, biomass, and canopy cover

field\_name

data\_type

description

avg\_woody\_veg\_ht

numeric

estimate of woody plant species height in the plot based on an average of three measurements per four square meter quadrats (cm). maximum height cut off at 2m

avg\_herb\_veg\_ht

numeric

estimate of herbaceous plant species height in the plot based on an average of three measurements per four square meter quadrats (cm). maximum height cut off at 2m

avg\_litter\_ht

numeric

estimate of litter depth in the plot based on an average of three measurements per four square meter quadrats (cm)

avg\_pct\_green

numeric

estimate of percent green of plant material in the plot based on the average of estimates at four square meter quadrats

avg\_pct\_litter

numeric

estimate of percent litter cover that occupies ground space in the plot based on the average of estimates at four square meter quadrats

avg\_pct\_wood\_litter

numeric

estimate of percent woody litter cover that occupies ground space in the plot based on the average of estimates at four square meter quadrats. includes: fallen branches/logs, twigs, pine cones

avg\_pct\_bare

numeric

estimate of pure bare ground cover that occupies ground space in the plot based on the average of estimates at four square meter quadrats

avg\_standing\_fuel\_mass\_wet\_m2

numeric

estimate of *fresh* standing vegetation mass in the plot based on the average of four harvests at four square meter quadrats (g)

avg\_litter\_mass\_wet\_m2

numeric

estimate of *fresh* litter mass in the plot based on the average of four harvests at four square meter quadrats (g)

avg\_standing\_fuel\_mass\_dry\_m2

numeric

estimate of *dried* standing vegetation mass in the plot based on the average of four harvests at four square meter quadrats (g)

avg\_litter\_mass\_dry\_m2

numeric

estimate of *dried* litter mass in the plot based on the average of four harvests at four square meter quadrats (g)

avg\_pct\_canopy\_cover

numeric

estimate of canopy cover in the plot based on the average of four manual densiometer measurements at four square meter quadrats

# Trees - raw

field\_name

data\_type

description

tag

numeric

assigned tag number given to each measured tree. if NA, no tag was assigned

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

dbh

numeric

diameter at breast height of the tree (cm)

canopy

character

tree relative canopy position. ex: e = emergent, d = dominant, c = codominant, i = intermediate, u = understory

health

character

health class assigned (alive or dead) of each tree

distance

numeric

distance from the center of the plot to the midpoint of the tree (m)

azimuth

numeric

azimuth of the tree relative to plot center using a sighting compass (°)

height

numeric

height of the tree (m). if NA, tree height was not measured

char

numeric

height of visible char on the tree due to fire (m). if NA, char height was not measured

# Trees - summary

field\_name

data\_type

description

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

canopy

character

record of all individuals of the same species in the plot that share common canopy position

health

character

record of all individuals of the same species in the plot that share common health class

total\_dbh

numeric

total dbh of all individuals of the same species in the plot that share common canopy position and health class (cm)

avg\_height

numeric

estimate of a species tree height in the plot based on average of recorded tree height measurements (m)

avg\_char

numeric

estimate of a species char height in the plot based on average of recorded char height measurements (m)

# Woody subplot

field\_name

data\_type

description

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

stems\_100m2

numeric

number of woody stems with height greater than 1m within a 5.64m radius from plot center

# Ticks

field\_name

data\_type

description

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

life\_stage

character

life stage of tick. ex: adult, nymph, larvae

tick\_count

numeric

number of ticks found in the plot based on four dry ice traps per plot and cloth dragging

Note:

Some plot\_id may contain NAs for all values in the sampled plot. These are placeholder zeros to show that the plot was sampled and no ticks were collected.

# Dung

field\_name

data\_type

description

species

character

Common name of species that deposited the dung. if NA, unable to identify

dung1m

numeric

number of dung deposit *events* found from 1m on either side of a 50m transect. note: each individual rabbit pellet was counted as a single event

dung2m

numeric

number of dung deposit *events* found from 2m on either side of a 50m transect. note: each individual rabbit pellet was counted as a single event

Note:

Some plot\_id may contain NAs for all values in the sampled plot. These are placeholder zeros to show that the plot was sampled and no dung was found.

# Unique 2019 Field Season Datasheets

All datasheets updated with 2019 data (1m veg, 25cm veg, 1m species, canopy cover, trees, woody subplot. 2019 ticks are on their own sheet *(2019-only-tick-data)*)

# Common among all 2019 Datasheets

field\_name

data\_type

description

installation

character

Name of the installation/site where data was collected

plot\_id

character

Assigned plot\_id for each plot. In 2019 data, invaded plots were assigned prefix ‘i’ and native plots assigned ‘n’. Numbers after the identifying invasion status letter refer to the specific plot number at the installation

notes

character

General notes/comments on the data entry

# 2019 Plot visit report

field\_name

data\_type

description

imcy\_inv

character

invasion status of *Imperata cylindrica*

visit\_date

date

date the plot was visited

last\_fire\_year

numeric

last reported date the plot was burned, either prescribed or wildlife, if available

visit\_number

numeric

the number of times that the plot was visited, designated multiple tick trapping events at the same site

Note:

note: multiple ‘plot\_id’ will have multple ‘visit\_date’ as this sheet refers to plot visit when tick trapping events occured. file path: SERDP\_Project/data/raw\_data/2019\_serdp\_data/2019-plot-visit-entry.csv

# 2019 only ticks

field\_name

data\_type

description

species\_name

character

species of the individals to at least Genus level. if NA, unable to identify

life\_stage

character

life stage of tick. ex: adult, nymph, larvae

tick\_count

numeric

number of ticks found in the plot based on four dry ice traps per plot and cloth dragging

Note:

Similar to 2017/2018 tick datasheets. file path: SERDP\_Project/data/raw\_data/2019\_serdp\_data/2019-only-tick-data.csv

# Camera traps information

field\_name

data\_type

description

status

character

Invasion status of the plot\_id, dependent on presence of *Imperata cylindrica*

camera\_number

numeric

Number of the trail camera placed in the plot

sd\_card

numeric

Number of the SD card attached to the camera. If the SD card was filled or camera was moved to a new plot, SD card was changed to -2 or -3 for example to not get mixed up. note: if opening up the .csv file, ‘sd\_card’ may have turned into a date format, but unless saved it will read fine with read\_csv. if ‘sd\_card’ reads 2-Sept, the correct ‘sd\_card’ should be 9-2

camera\_out

date

Date the camera was set out to begin recording.

camera\_in

date

Date the camera was collected, end photo taking

position\_from\_center

character

Cardinal direction reference from plot center where the camera was placed. Each camera faced plot center

Note:

Most plots received two cameras to cover the most area. When short on cameras, plots only had one camera. Camera were set on a 3 second delay, and on a 3 shot burst. file path: SERDP\_Project/data/raw\_data/2019\_serdp\_data/camera-traps-info.csv

# Raw camera trap photos

field\_name

data\_type

description

armadillo

numeric

number of armadillo captured per photo

bobcat

numeric

number of bobcat captured per photo

cow

numeric

number of cow captured per photo

ctime

date

date/time the image was downloaded

deer

numeric

number of deer captured per photo

empty

character

TRUE/FALSE statement if the photo was empty (did not contain any wildlife)

file\_name

character

name of the imported file that was inspected. note: most (if not all) of the file names should have an identifier of four characters that give the date in ‘mmdd’ format

fox

numeric

number of fox captured per photo

mtime

date

actual time the image was taken by the trail camera. note: some photos may have an incorrect ‘mtime’, actual time to calculate camera active days was taken from file name.

other

character

if wildlife species not listed, the species is specifically written out here

path

character

path of where the file was downloaded to/is being accessed

pig

numeric

number of pig captured per photo

raccoon

numeric

number of raccoon captured per photo

relpath

character

relative path on device where the image is being accessed, likely same as ‘path’

size

character

size of the media

squirrel

numeric

number of squirrel captured per photo

turkey

numeric

number of turkey captured per photo

type

character

type of media that the file contains (image or video)

unknown

numeric

if wildlife could not be determined, it is labeled unknown and given a value on captured number per photo

Note:

file path: SERDP\_Project/data/raw\_data/2019\_serdp\_data/all\_camera\_photos.csv

# Processed camera trap photos

field\_name

data\_type

description

note

character

this data frame is the joining of raw camera trap photos with camera traps information. main data to be manipulated for analysis

Note:

Avon Park cameras and Hancock n1 plot (cow pasture) are removed from this selection. file path: SERDP\_Project/data/processed\_data/2019 serdp processed data/camera-trap-photos-all.csv

# Camera trap days

field\_name

data\_type

description

status

character

Invasion status of the plot\_id, dependent on presence of *Imperata cylindrica*

sd\_card

numeric

Number of the SD card attached to the camera. If the SD card was filled or camera was moved to a new plot, SD card was changed to -2 or -3 for example to not get mixed up. note: if opening up the .csv file, ‘sd\_card’ may have turned into a date format, but unless saved it will read fine with read\_csv. if ‘sd\_card’ reads 2-Sept, the correct ‘sd\_card’ should be 9-2

start\_date

date

Date the camera was set out to begin recording. Calculated by first photo taken on that camera

end\_date

date

Date the camera was collected, end photo taking. Calculated by last photo taken on that camera

camera\_days

numeric

Number of days the camera was out recording, subtraction of end\_date - start\_date. Zeroes changed to one if camera only recorded and filled up on the first date

Note:

file path: SERDP\_Project/data/processed\_data/2019 serdp processed data/camera-trap-days-all.csv

# Camera species by sd card

field\_name

data\_type

description

species

character

species of the potential host. for this summary, the four most popular hosts were used (cow, deer, turkey, pig)

count

numeric

sum count number of a certain species captured summarized on **A SINGLE SD CARD**

camera\_days

numeric

Number of days the camera was out recording, subtraction of end\_date - start\_date. Zeroes changed to one if camera only recorded and filled up on the first date

Note:

This data frame can be manipulated to summarize as is (sd\_card) or to plot level. file path: SERDP\_Project/data/processed\_data/2019 serdp processed data/camera-species-with-days-by-sd-card.csv

# Camera species per camera per day

field\_name

data\_type

description

count\_per\_day\_camera

numeric

the quotient of the ‘count’ divided by the ‘camera\_days’ active. note: this dataframe summarizes on a per **CAMERA** basis, there may be more than one camera per plot

Note:

file path: SERDP\_Project/data/processed\_data/2019 serdp processed data/species-per-camera-per-day.csv

# Camera species per plot per day

field\_name

data\_type

description

count\_per\_day\_plot

numeric

the quotient of the ‘count’ divided by the ‘camera\_days’ active. note: this dataframe summarizes on a per **PLOT** basis, there may be more than one camera per plot

Note:

file path: SERDP\_Project/data/processed\_data/2019 serdp processed data/species-per-plot-per-day.csv