

Simple Translation

In []:

```
# To follow along, run this cell first.
```

```
options(warn = -1)
suppressMessages(library(neotoma2))
suppressMessages(library(sf))
suppressMessages(library(geojsonsf))
suppressMessages(library(dplyr))
suppressMessages(library(ggplot2))
suppressMessages(library(leaflet))
options(dplyr.summarise.inform = FALSE)

cz_dl <- readRDS('data/czDownload.RDS')
allSamp <- samples(cz_dl)
```

In []:

```
allSamp <- allSamp %>%  
  mutate(variablename = replace(variablename,  
                                stringr::str_detect(variablename, "Plantago.*"),  
                                "Plantago"))  
DT::datatable(data = head(allSamp, n = 5), rownames = FALSE)
```

In []:

```
taxaSites <- allSamp %>%  
  group_by(variablename, siteid) %>%  
  group_by(variablename) %>%  
  summarise(sites = length(unique(siteid)))  
DT::datatable(data = head(taxaSites, n = 15), rownames = FALSE)
```

In []:

```
taxaSamples <- allSamp %>%  
  group_by(variablename) %>%  
  summarise(samples = n())  
DT::datatable(data = head(taxaSamples, n = 8), rownames = FALSE)
```

In []:

```
taxaplots <- taxaSites %>% inner_join(taxaSamples, by = "variablename")  
DT::datatable(data = head(taxaplots, n = 20), rownames = FALSE)
```

In []:

```
ggplot(data = taxaplots, aes(x = sites, y = samples)) +  
  geom_point() +  
  stat_smooth(method = 'glm',  
              method.args = list(family = 'poisson')) +  
  xlab("Number of Sites") +  
  ylab("Number of Samples") +  
  theme_bw()
```

In []:

```
translation <- readr::read_csv("data/taxontable.csv", show_col_types = FALSE)
DT::datatable(data = head(translation, n = 8), rownames = FALSE)
```


In []:

```
allSamp <- samples(cz_dl)

allSamp <- allSamp %>%
  inner_join(translation, by = c("variablename" = "variablename")) %>%
  select(!c("variablename", "sites", "samples")) %>%
  group_by(siteid, sitename, replacement,
            sampleid, units, age,
            agetype, depth, datasetid,
            long, lat) %>%
  summarise(value = sum(value))
```

In []:

```
DT::datatable(head(allSamp, n = 5), rownames = FALSE)
```