Soil_analysis

Marko Smiljanic

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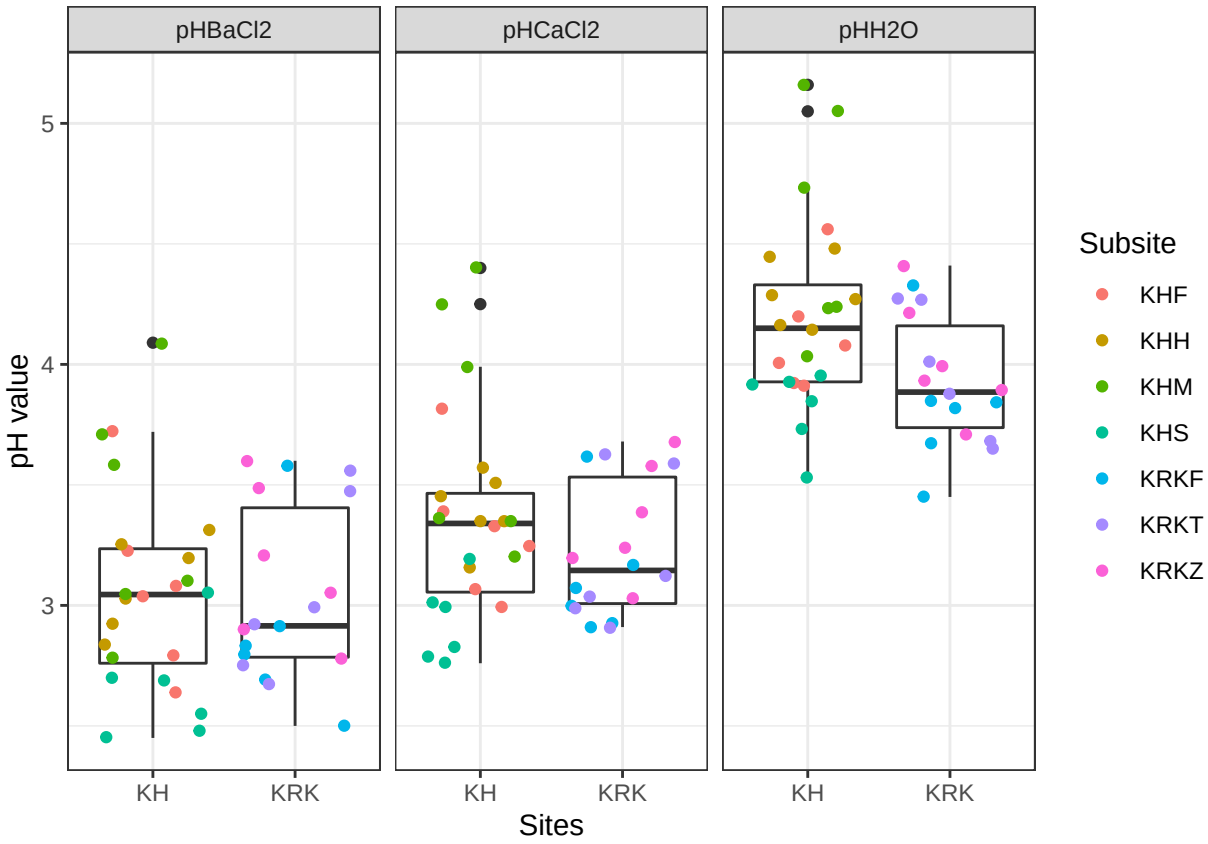
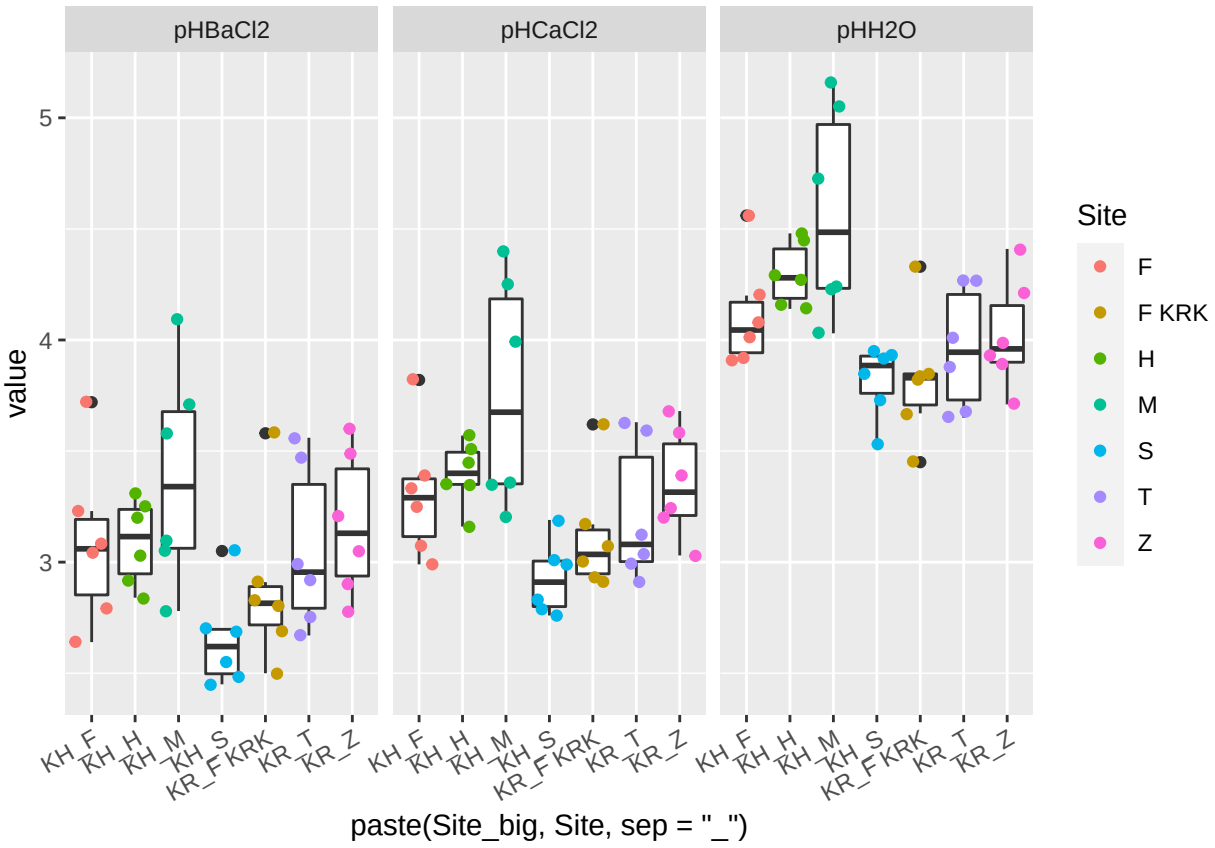
Boxplot

```
dat <- readxl::read_excel("Data lesy final 13102021.xlsx")
dat <- dat %>%
  mutate(Site_big = substring(dat$Sample, 1, 2)) %>%
  filter(!is.na(Site)) %>%
  select(!contains("Exchangeable")) %>%
  select(!contains("Pseudototal")) %>%
  mutate_at(vars(-Site, -Locality, -Sample, -Horizon, -Site_big), as.numeric) %>%
   mutate(Site_new = substr(Site, 1,2), Subsite = paste0(Locality, Site_new))

dat %>%
select(Site_big, Subsite, contains("pH"), Locality) %>%
pivot_longer(c(-Site_big, -Subsite, -Locality), values_to = 'pH value') %>%
ggplot(aes(x=Locality, y=`pH value`)) +
  geom_boxplot() +
  geom_jitter(aes(colour=Subsite)) +
  facet_wrap(~name) +
  theme_bw() +
  xlab("Sites")
```



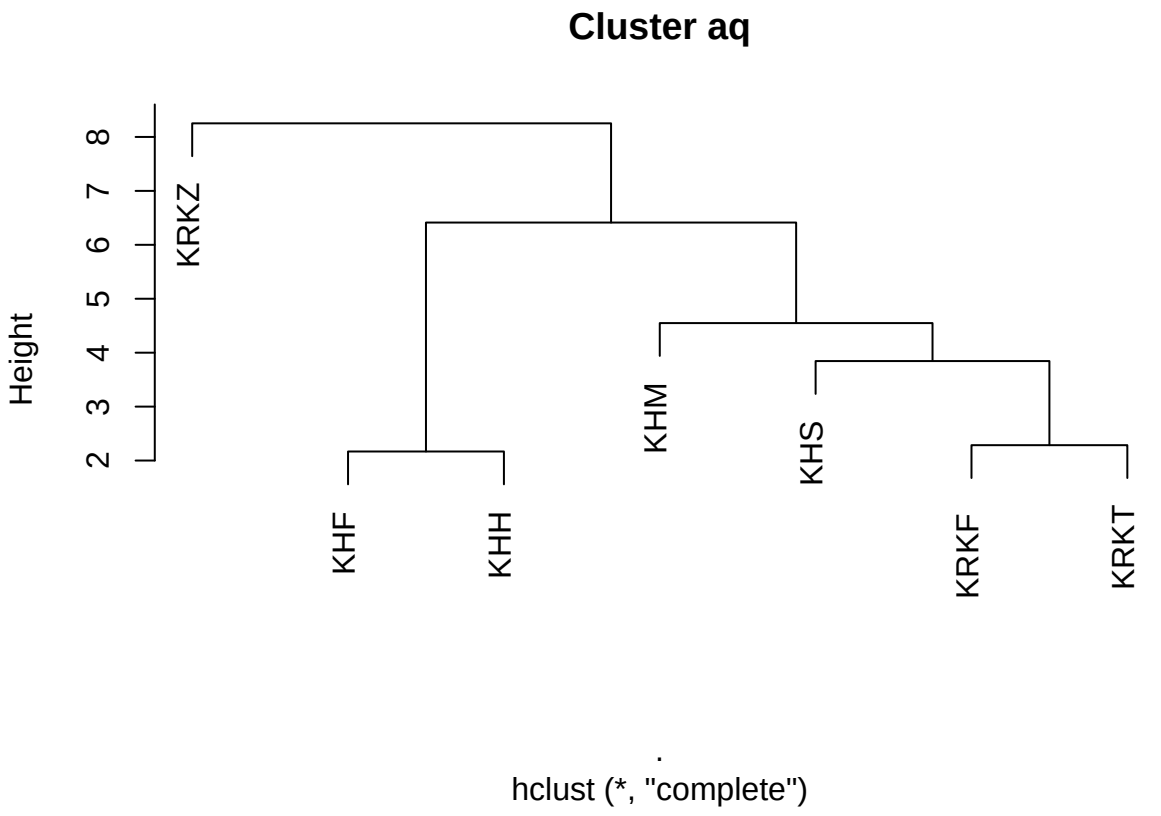

```
dat %>%
select(Site_big, Site, contains("pH")) %>%
pivot_longer(c(-Site_big, -Site)) %>%
ggplot(aes(x=paste(Site_big,Site,sep='_'), y=value)) +
geom_boxplot() +
geom_jitter(aes(colour=Site)) +
facet_wrap(~name) +
theme(axis.text.x = element_text(angle=30, hjust=1))
```



Aq cluster

```
dat_aq <- dat %>%
select(Subsite, contains("Aq")) %>%
select_at(-caret::nearZeroVar(.)) %>%
mutate_at(vars(-Subsite), scale) %>%
group_by(Subsite) %>%
summarize_all(mean, na.rm=T)
dat_aq %>%
dist() %>%
hclust() %>%
plot(labels = dat_aq$Subsite, main='Cluster aq')
```

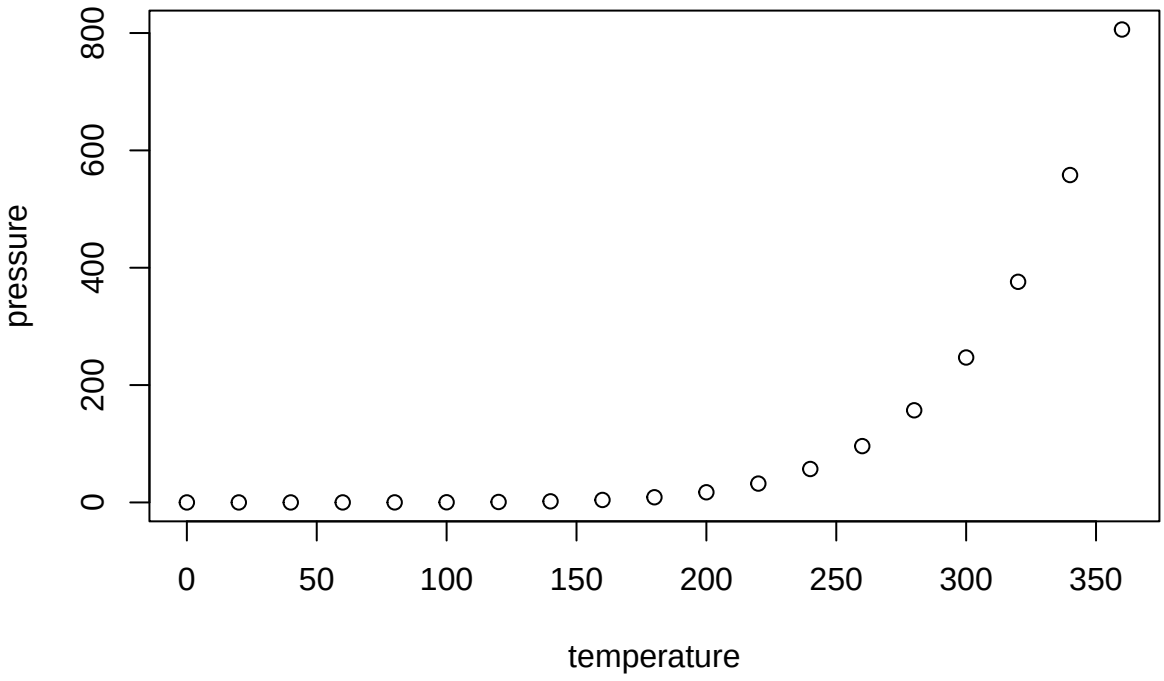
```
## Warning in dist(.): NAs introduced by coercion
```



##

Including Plots

You can also embed plots, for example:



Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.