

warmXtrophic Project: CN Plots

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Load in data

```
# Clear all existing data
rm(list=ls())

#Load packages
library(tidyverse)
library(plotrix)

# Set working directory to Google Drive
setwd("/Volumes/GoogleDrive/Shared drives/SpaCE_Lab_warmXtrophic/data/")

# Read in data
cn <- read.csv("L1/CN/CN_L1.csv")

# Summary of data
with(cn, table(cn$site, cn$species))
```

```
##
##           Acmi Cest Popr Soca
##   kbs      99    0    0  232
##   umbs      0  138   58    0
##
with(cn, table(cn$year, cn$species))
```

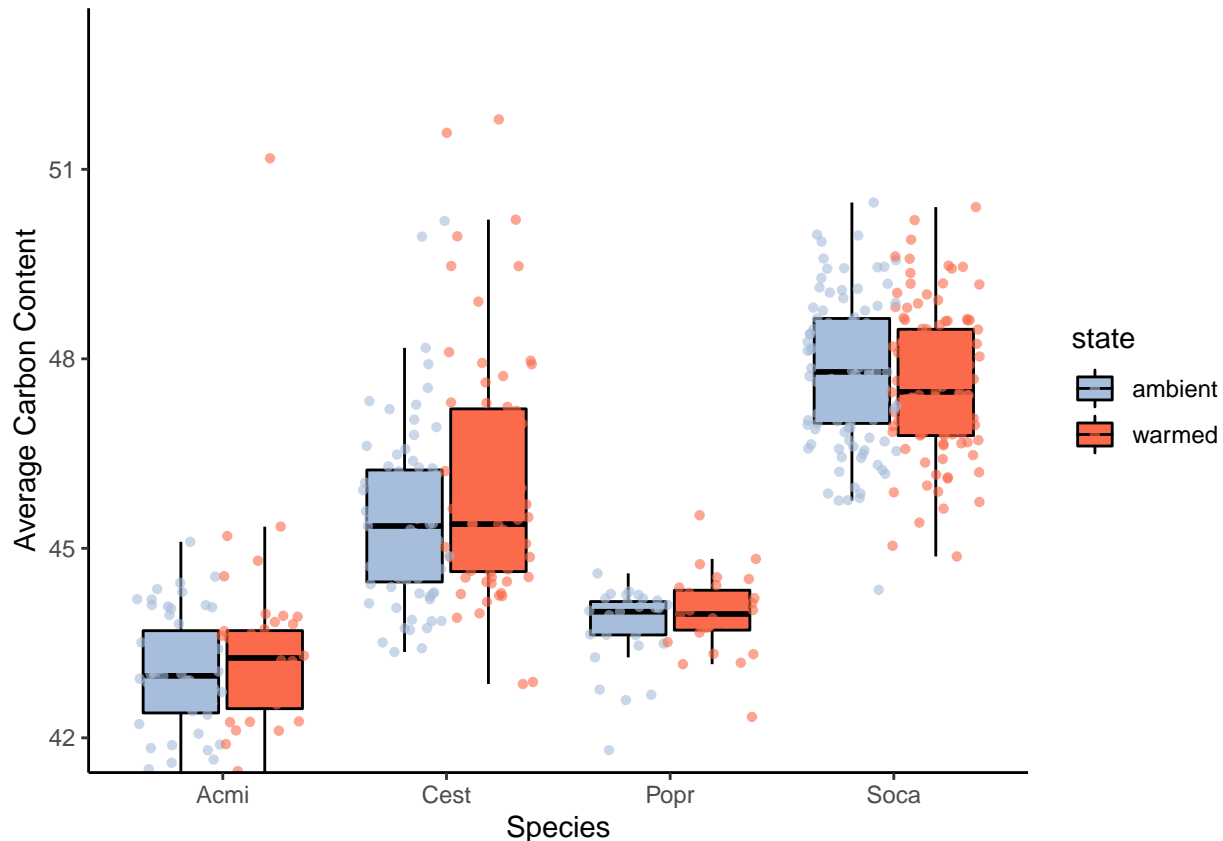
```
##
##           Acmi Cest Popr Soca
##   2017      99   69    0  161
##   2019       0   69   58   71
##
with(cn, table(cn$year, cn$site))
```

```
##
##           kbs umbs
##   2017  260   69
##   2019   71  127
```

Carbon data: all yrs, sites

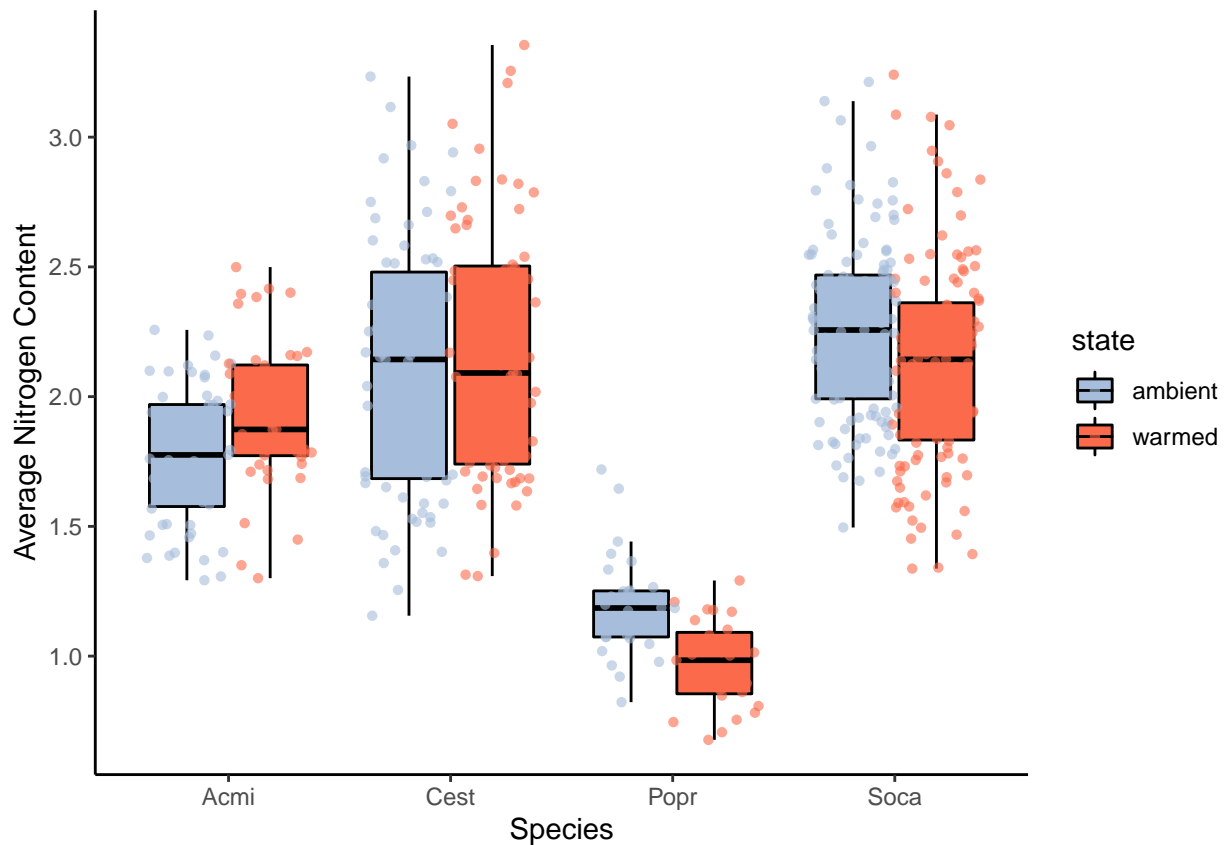
Cest and Popr = UMBS, Soca = KBS (working on faceting this)

```
ggplot(cn, aes(x = species, y = carbon, fill = state)) +
  #facet_grid(.~site) +
  geom_boxplot(color = "black", outlier.shape = NA) +
  labs(x = "Species", y = "Average Carbon Content") +
  scale_fill_manual(values = c("#a6bddb", "#fb6a4a")) +
  scale_x_discrete(labels=c("ambient" = "A", "warmed" = "W")) +
  geom_jitter(shape=16, position=position_jitterdodge(), alpha = 0.6, aes(colour = state)) +
  scale_color_manual(values = c("ambient" = "#a6bddb", "warmed" = "#fb6a4a")) +
  coord_cartesian(ylim = c(42, 53)) +
  theme_classic()
```



Nitrogen data: all yrs, sites

```
ggplot(cn, aes(x = species, y = nitrogen, fill = state)) +
  #facet_grid(.~site) +
  geom_boxplot(color = "black", outlier.shape = NA) +
  labs(x = "Species", y = "Average Nitrogen Content") +
  scale_fill_manual(values = c("#a6bddb", "#fb6a4a")) +
  scale_x_discrete(labels=c("ambient" = "A", "warmed" = "W")) +
  geom_jitter(shape=16, position=position_jitterdodge(), alpha = 0.6, aes(colour = state)) +
  scale_color_manual(values = c("ambient" = "#a6bddb", "warmed" = "#fb6a4a")) +
  theme_classic()
```



Nitrogen data: all yrs, by species - ignore the single boxplots where there should be 1 per yr (not sure why this is happening)

```
ggplot(cn, aes(x = year, y = nitrogen, fill = state)) +
  geom_boxplot(color = "black", outlier.shape = NA) +
  geom_jitter(shape=16, position=position_jitterdodge(), alpha = 0.6, aes(colour = state)) +
  facet_grid(.~species) +
  labs(x = "Year", y = "Average Nitrogen Content") +
  scale_fill_manual(values = c("#a6bddb", "#fb6a4a")) +
  #scale_x_discrete(labels=c("ambient" = "A", "warmed" = "W")) +
  scale_color_manual(values = c("ambient" = "#a6bddb", "warmed" = "#fb6a4a")) +
  facet_grid(.~species) +
  theme_classic()
```

