HG Microplankton Taxa Total Counts per Ml, All Sampling Events

















library(tidyverse)

library(viridis) # R package for colors

# base R

load("data/taxa\_pic.Rdata")

# Save taxa\_pic as "x"

taxa\_pic <- x %>% filter(totalCPM != 0) # colors for graph

x$cols = as.numeric(as.factor(x$group))

x <- x[order(x$cols,decreasing = TRUE),]

x$cols\_vir = rep(viridis(39), each= 6)

# filter out 0s

x = x %>% filter(totalCPM != 0)

#Split data into different groups

# subset into groups

SJR2 = subset(x, sampEvent == "SJR2")

YBP1 = subset(x, sampEvent == "YBP1")

LSZ2 = subset(x, sampEvent == "LSZ2")

SJR1 = subset(x, sampEvent == "SJR1")

YBP2 = subset(x, sampEvent == "YBP2")

WLD2 = subset(x, sampEvent == "WLD2")

# order all of the datasets

SJR1 <- SJR1[order(SJR1$totalCPM,decreasing = TRUE),]

SJR2 <- SJR2[order(SJR2$totalCPM,decreasing = TRUE),]

YBP2 <- YBP2[order(YBP2$totalCPM,decreasing = TRUE),]

YBP1 <- YBP1[order(YBP1$totalCPM,decreasing = TRUE),]

LSZ2 <- LSZ2[order(LSZ2$totalCPM,decreasing = TRUE),]

WLD2 <- WLD2[order(WLD2$totalCPM,decreasing = TRUE),]

# now plot all of them

par(mfrow = c(2,4))

# SJR1

barplot(SJR1$totalCPM,names.arg = SJR1$seq, col = SJR1$cols\_vir, las =2, cex.lab=2, cex.axis =1, cex.names = 1.2, col.axis="black", ylim = c(0,301), main="SJR1")

# LSZ2

barplot(LSZ2$totalCPM,names.arg = LSZ2$seq, col = LSZ2$cols\_vir, las =2, cex.lab=1, cex.axis =1, cex.names = 1.2, col.axis="black", ylim = c(0,350), main="LSZ2")

# YBP2

barplot(YBP2$totalCPM,names.arg = YBP2$seq, col = YBP2$cols\_vir, las =2, cex.lab=1, cex.axis =1, cex.names = 1, col.axis="black", ylim = c(0,250), main="YBP2")

# legend only 1 time

plot(0, 0, type = 'l', bty = 'n', xaxt = 'n', yaxt = 'n', xlab="", ylab="")

legend("center", legend = unique(x$group), pch=16, col= unique(x$cols\_vir), ncol=2)

# SJR2

barplot(SJR2$totalCPM,names.arg = SJR2$seq, col = SJR2$cols\_vir, las =2, cex.lab=1, cex.axis =1, cex.names = 1.2, col.axis="black", ylim = c(0, 120), main= "SJR2")

# WLD2

barplot(WLD2$totalCPM,names.arg = WLD2$seq, col = WLD2$cols\_vir, las =2, cex.lab=1, cex.axis =1, cex.names = 1.2, col.axis="black", ylim = c(0,140), main="WLD2")

# YBP1

barplot(YBP1$totalCPM,names.arg = YBP1$seq, col = YBP1$cols\_vir, las =2, cex.lab=1, cex.axis =1, cex.names = 1.2, col.axis="black", ylim= c(0, 400), main="YBP1")

#par(mfrow = c(1,1))

dev.off()