setwd("XXX")

library(biwavelet)

library(synchrony)

Pall2\_im <- read.csv("FakePrev.csv", row.names = 1, header =TRUE, as.is = TRUE)

colnames(Pall2\_im) <- c("Cairns Central", "Tannum Sands", "Boonah", "Alstonville", "Lismore", "Bellingen",

"Nambucca Heads", "Port Macquarie", "Wingham", "Singleton", "Sydney")

LABS2012<-c(

"Jan12","Feb12","Mar12","Apr12","May12","Jun12","Jul12","Aug12","Sept12","Oct12","Nov12","Dec12",

"Jan13","Feb13","Mar13","Apr13","May13","Jun13","Jul13","Aug13","Sept13","Oct13","Nov13","Dec13",

"Jan14","Feb14","Mar14","Apr14","May14","Jun14","Jul14","Aug14","Sept14","Oct14","Nov14")

Pall2\_im2012 <- Pall2\_im[7:nrow(Pall2\_im),]

#png("FakeWavelet.png", width=15, height=10, units="in", res=300)# un-commnet to save fake wavelet

nf<-layout(matrix(c(25,26,27,28,29,30, 31, 1,2,9,10,17,18, 31, 3,4,11,12,19,

20, 31, 5,6,13,14,21,22, 31, 7,8,15,16,23,24, 31), 7,5) , height = c(rep(c(1,0.5),3),

0.2),

width = c(0.1, rep(1, 4)))

layout.show(nf)

cexaxis<-1.1

for(i in 1:ncol(Pall2\_im2012)){

D<-Pall2\_im2012[,i]###use PrevTS2 for squared root transformed vals

cwt<-wt(cbind(1:length(D),D))

par(mar=c(0,4,2,0.5))

plot(cwt, ncol = 64, xlab = "", ylab = "", lwd.coi=1, col.coi=grey(9/10),

lty.coi=1, lwd.sig=1.25, col.sig="white", lty.sig=2, xaxt = "n", yaxt = "n",

las=1, cex.axis=cexaxis)

axis.locs<-axTicks(2)

yticklab<-format(2^axis.locs, dig=1)

axis(2, at=axis.locs, labels=yticklab, las=1, cex.axis=cexaxis)

par(mar=c(2,4,0.1,0.5))

##selecting points in red

plot(D,type="l", pch=16, ylab="", xlab="",xaxt="n", yaxt="n",cex.axis=cexaxis,

ylim=c(0,0.5), lwd=1.25)

axis(2, at=c(0.05,.2,.35,.5), las=1, cex.axis=cexaxis)

#axis(2, at=c(.1,.3,.5,.7), las=1, cex.axis=cexaxis)

axis(1,at=seq(1,35,6), labels=LABS2012[c(TRUE,rep(FALSE,5))], cex.axis=cexaxis)

legend("topright", bty="n", legend=colnames(Pall2\_im2012)[i], cex=1.25)

points(D,col="black", pch=20)

}

plot.new()

plot.new()

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.5, "Period", cex = 2, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.6, "Prevalence", cex = 1.5, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.5, "Period", cex = 2, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.6, "Prevalence", cex = 1.5, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.5, "Period", cex = 2, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.7,0.6, "Prevalence", cex = 1.5, srt = 90)

par(mar = c(0, 0, 0, 0))

plot.new()

text(0.5,0.5, "Time", cex = 2)

#dev.off()#ucomment to save fake wavelet