

BFAST change detection

Standard change detection using BFAST and others

Load data and aggregate to monthly time series

```
path = "HackTimeSeries/"

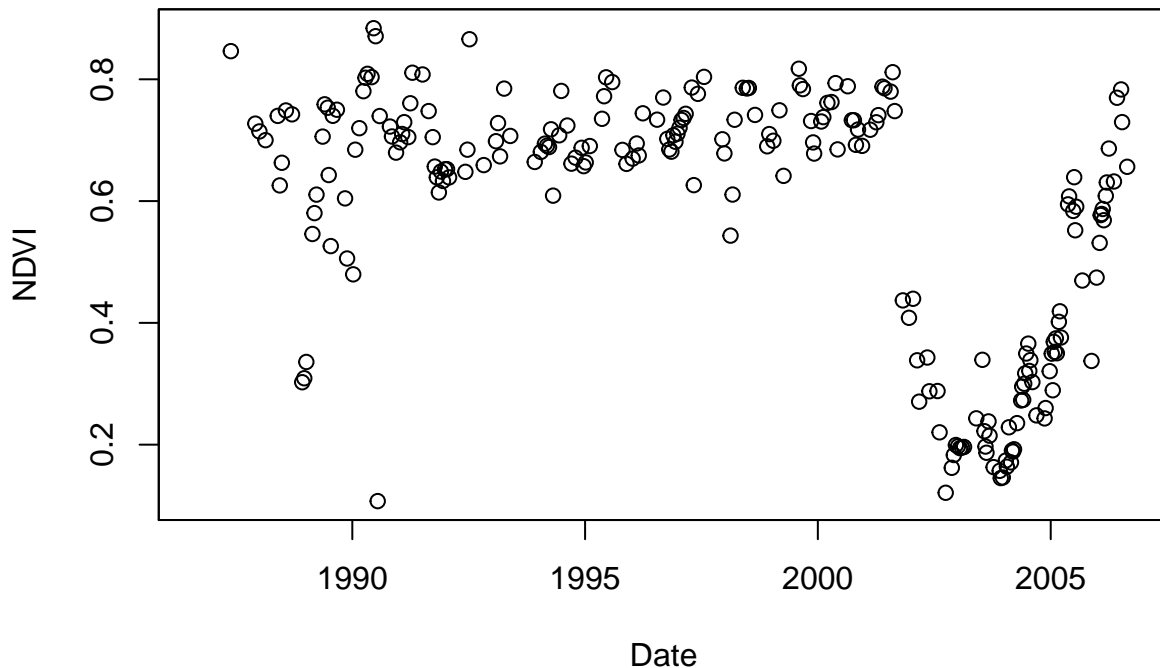
# Load all files
ll = lapply( list.files(path, ".feather", full.names = T), function(x) read_feather(x) )

# Name them
names(ll) <- file_path_sans_ext( list.files(path, ".feather") )
```

Make a test plot and show a standard bfast fit

```
sub <- ll$SE2_2014a_Craig_1__10
# Define time series
zz <- zooreg(data = sub$NDVI, order.by = sub$date)

plot(zz, xlab = "Date", ylab = "NDVI", type = "p")
```



```
# Aggregate to monthly data using a max value composite
xx = suppressWarnings( aggregate(zz, as.yearmon, function(x) max(x, na.rm = T)) )
xx[which(is.infinite(xx))] <- NA

# Run bfast01 model for single breaks
bf.mod <- bfast01(as.ts(xx), formula = response ~ trend + harmon, test = c("OLS-MOSUM", "BIC"), aggregate=an,

plot(bf.mod)
```

