2019

Why most studied populations should decline

Portal data - single species plots

```
## Loading required package: dplyr
##
## Attaching package: 'dplyr'
## The following objects are masked from 'package:stats':
##
##     filter, lag
## The following objects are masked from 'package:base':
##
##     intersect, setdiff, setequal, union
## Warning: Detecting old grouped_df format, replacing `vars` attribute by
## `groups`
##
##  Paired t-test
##
## data:  estimated_trends_first5_is_yes and estimated_trends_first5_is_no
## t = -0.11077, df = 6, p-value = 0.9154
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -1.288447  1.176846
## sample estimates:
## mean of the differences
##              -0.0558007
## Loading required package: viridisLite
## Warning: Detecting old grouped_df format, replacing `vars` attribute by
```

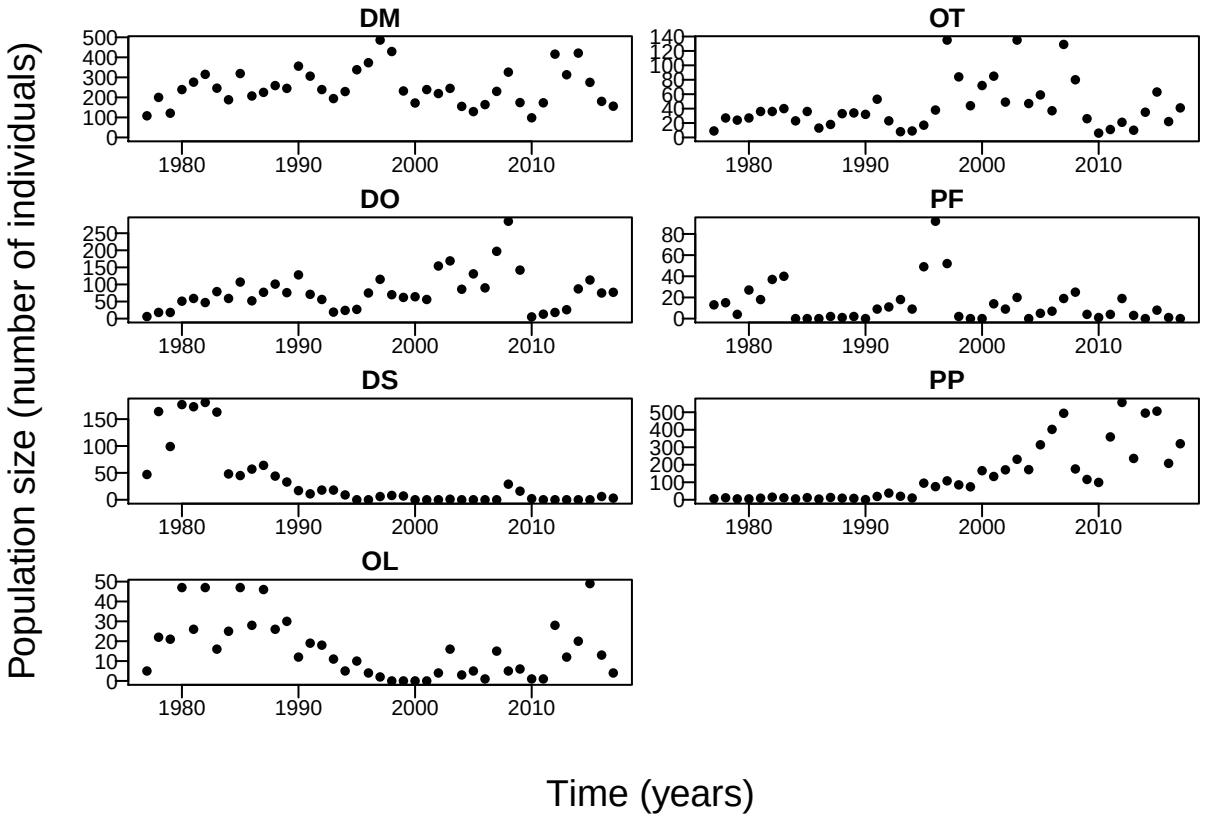

Figure 1: Total number of individuals caught of each species each year.

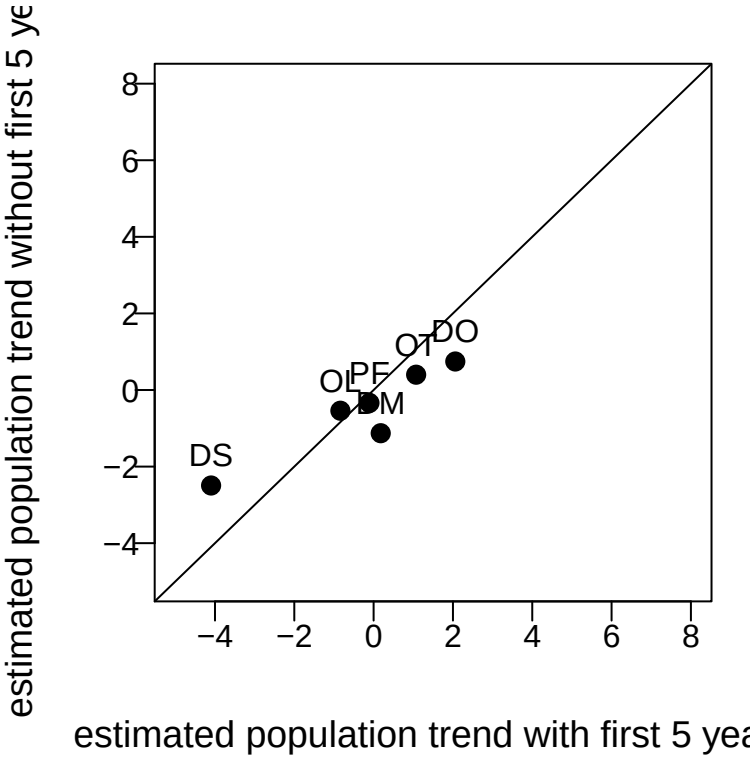

Figure 2: paired t-test basically

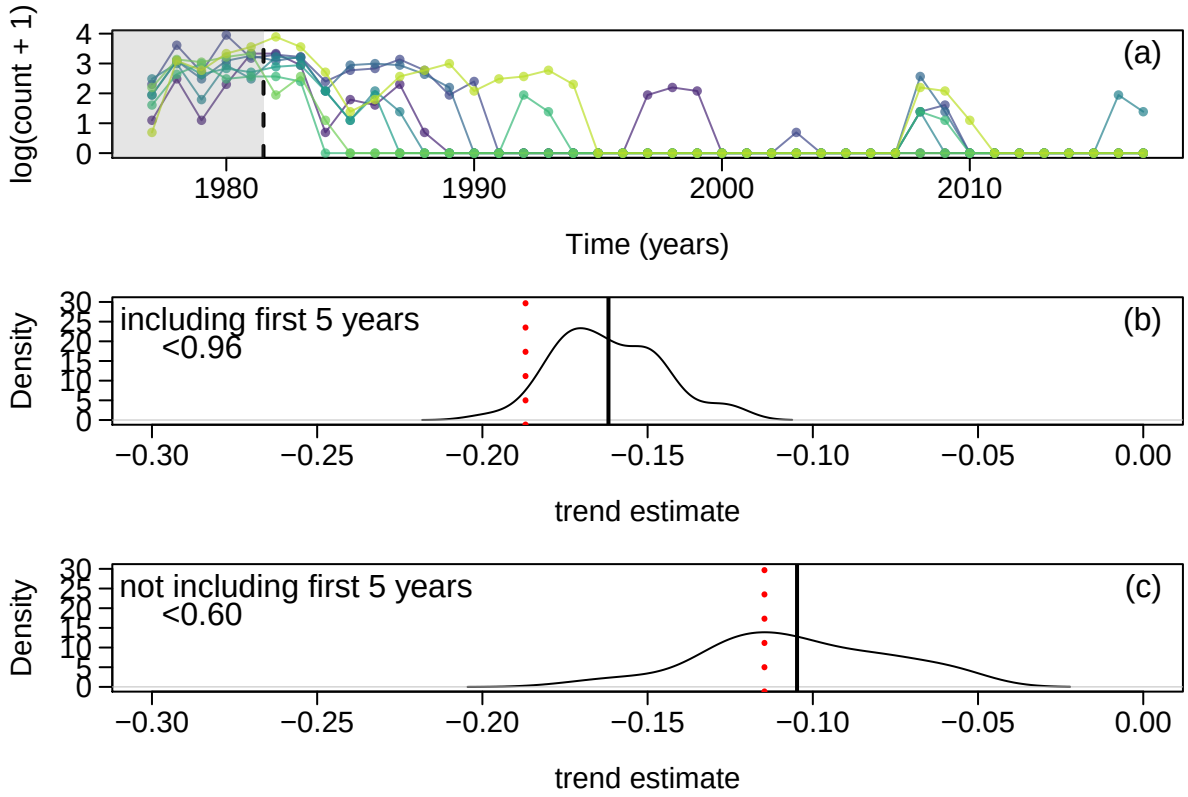

Figure 3: Figure looking at DS only

```
## `groups`

## [1] "DS: 2.23209593055719e-20,0.0570728339902949"

## Warning: Detecting old grouped_df format, replacing `vars` attribute by
## `groups`

## [1] "DM: 0.00243296628018695,-0.0194380489875296"

## Warning: Detecting old grouped_df format, replacing `vars` attribute by
## `groups`

## [1] "PF: 0.000188486672371362,-0.00870405164256537"

## Warning: Detecting old grouped_df format, replacing `vars` attribute by
## `groups`

## [1] "OL: 8.16672278518195e-07,0.0223785877361264"
```

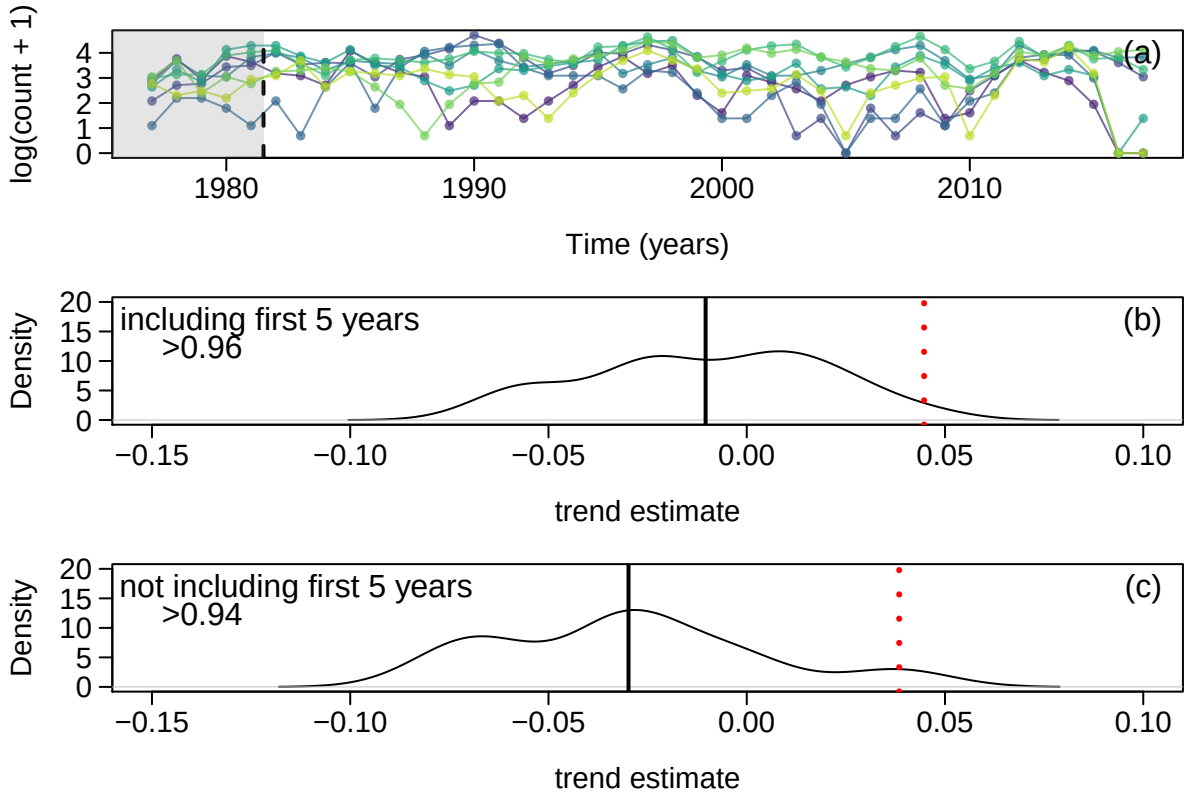

Figure 4: Figure only looking at DM\label{fig:DM_only

Figure S5

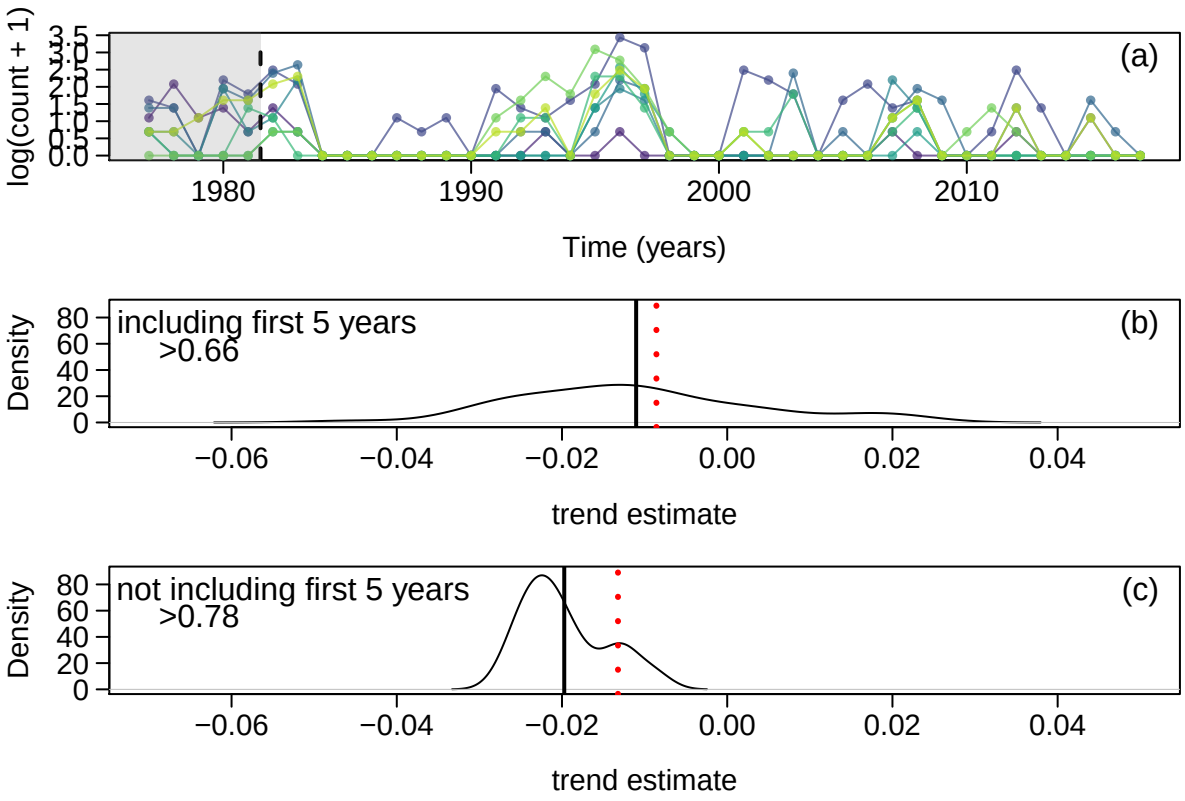

Figure 5: Fig only looking at PF\label{fig:PF_only

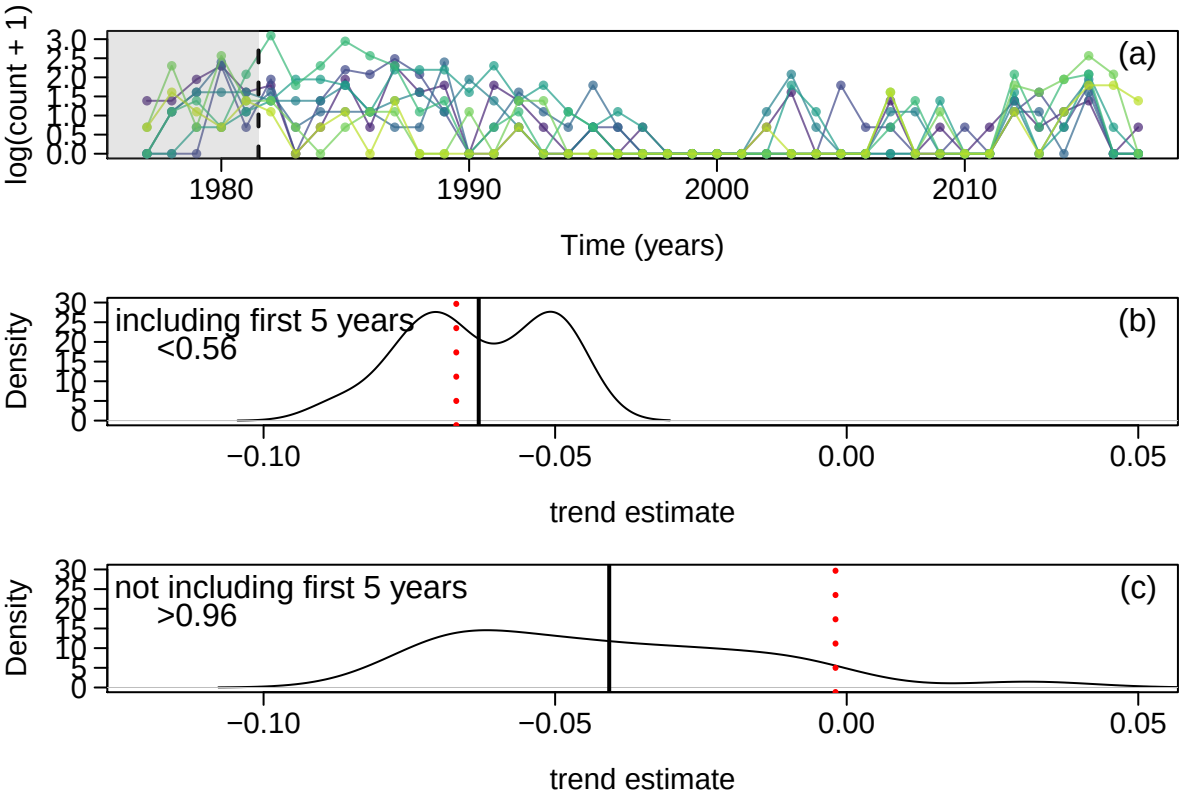

Figure 6: Fig only looking at OL

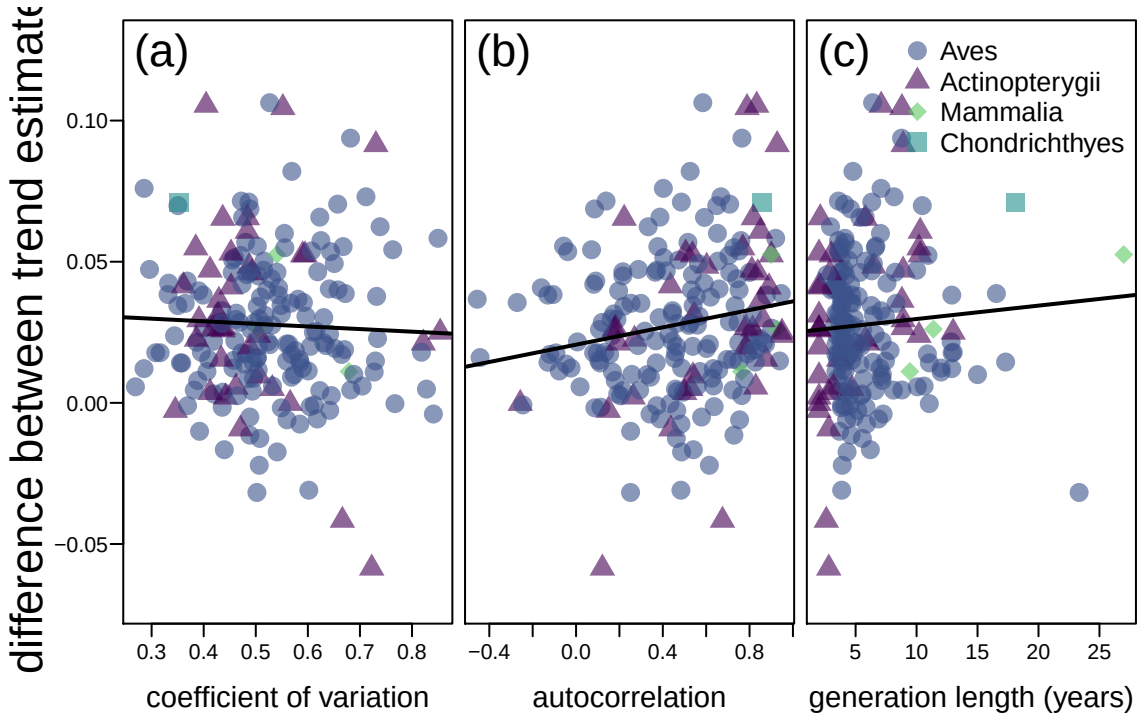

Figure 7: Slope estimate from linear regression for biased sample of starting to sample at the high point in the time series versus not sampling at the high point. Any points below the identity line are situations where the slope estimate starting from the high point was less than that of sampling not starting from the high point.