RStudio

Untitled1* | c.r.2001 | ranks2001 | 3-spatialCENTA code.R | CENTA-R-solutions.R | Workshop1-Data manipulation-R Script.R | Worksh

Source on Save | Run | Source

```
597 # We're going to use the song sparrow data from the primer package. So install load it if you haven't already done so.
598 # This is count data on song sparrows in Darrtown, Ohio, USA
599 #*******************************************************
600 install.packages("primer")
601 library(primer)
602 data(sparrows) # data are provide in the package so we use the data() function to load it.
603 head(sparrows) #Look at it....
604 # Quick plot to look at changes over time
605 plot(Count ~ Year, type = "b", data = sparrows)
606
607 # create a single simulation.
608 # The plan here is to create simulations of populations using the sparrow count data
609 # NOTE: you don't need to understand the code just look at the loops!
610 # We'll use the following equation Rt = Ni+1/Nt to provide annual growth figures
611 obs.R <- sparrows$Count[-1]/sparrows$Count[-length(sparrows$Count)]
612 obs.R
613
614 # Then decide the number of years to run the simulation over = 50
615 years <- 50
616
617 # Draw 50 R at random with replacement i.e. set the simulation object.
618 set.seed(3)
```

This is the code window

607:1 (Top Level) R Script

Console ~/

```
    matplot

Loading required package: lattice
Warning message:
package 'deSolve' was built under R version 3.2.4
> data(sparrows) # data are provide in the package so we use the data() function to load it.
> head(sparrows) #Look at it....
  Year Count ObserverNumber
1 1966    34              1
2 1967    40              1
3 1968    42              1
4 1969    54              1
5 1970    49              1
6 1971    71              1
> # Quick plot to look at changes over time
> plot(Count ~ Year, type = "b", data = sparrows)
>
```

This is console window

Environment | History

Import Dataset | Clear | List

Global Environment

Environment 'or R's brain

| Data | |
|---|---|
| sparrows | 36 obs. of 3 variables |
| **Values** | |
| lo.lin | num [1:50] -2.21 1.79 2 1.98 -1.31 ... |
| mod.lin | List of 30 |
| N | 50 |
| ord.x | Ord.factor w/ 5 levels "1"<"2"<"3"<"4"<..: 1 5 5 5 2 4 5 … |
| p.lin | num [1:50] 0.0992 0.8566 0.8805 0.8786 0.213 ... |
| real.x | num [1:50] 1.59 9.57 9.99 9.96 3.39 ... |
| y.lin | int [1:50] 0 1 1 1 0 1 1 0 1 1 ... |

Files | Plots | Packages | Help | Viewer

Zoom | Export | Clear All

The output window