Life-history tradeoff example runs

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Tue May 22 17:27:58 2012

Summary

In my attempts so far, I have set up and run various tradeoff scenarios. In my attempts so far, I have set up and run various tradeoff scenarios. The first set of scenarios look at tradeoffs between maturation rate `m` and juvenile survival `sJ`.

1. Exploring tradeoffs between maturation rate and juvenile survival

Generating an initial set of tradeoffs

```
a <- 0.9
b <- -0.8
sA <- 0.7
Fec <- 2
parameters <- param_combs(a, b, sA, Fec)
parameters
```

```
## [[1]]
## [[1]]$a
## [1] 0.9
##
## [[1]]$b
## [1] -0.8
##
## [[1]]$sA
## [1] 0.7
##
## [[1]]$Fec
## [1] 2
```

```
##
## [[1]]$sim_id
## [1] "S1"
##
##
```

Using the function `param_combs`, we have created a set of `1` combination(s).

Simple case

First we fit the really simple matrix case.

```
t1_simple <- llply(parameters, do_tradeoff)
```

Results

```
t1_simple
```

```
## [[1]]
## [[1]]$data
##          m     sJ lambda   type
## 1  0.01000 0.8920 0.9535 simple
## 2  0.06158 0.8507 1.0766 simple
## 3  0.11316 0.8095 1.1370 simple
## 4  0.16474 0.7682 1.1748 simple
## 5  0.21632 0.7269 1.1994 simple
## 6  0.26789 0.6857 1.2151 simple
## 7  0.31947 0.6444 1.2241 simple
## 8  0.37105 0.6032 1.2277 simple
## 9  0.42263 0.5619 1.2265 simple
## 10 0.47421 0.5206 1.2212 simple
## 11 0.52579 0.4794 1.2120 simple
## 12 0.57737 0.4381 1.1990 simple
## 13 0.62895 0.3968 1.1823 simple
## 14 0.68053 0.3556 1.1617 simple
## 15 0.73211 0.3143 1.1371 simple
## 16 0.78368 0.2731 1.1080 simple
## 17 0.83526 0.2318 1.0739 simple
## 18 0.88684 0.1905 1.0338 simple
## 19 0.93842 0.1493 0.9866 simple
## 20 0.99000 0.1080 0.9302 simple
##
## [[1]]$params
## [[1]]$params$a
```

```
## [1] 0.9
##
## [[1]]$params$b
## [1] -0.8
##
## [[1]]$params$sA
## [1] 0.7
##
## [[1]]$params$Fec
## [1] 2
##
## [[1]]$params$sim_id
## [1] "S1"
##
##
##
```

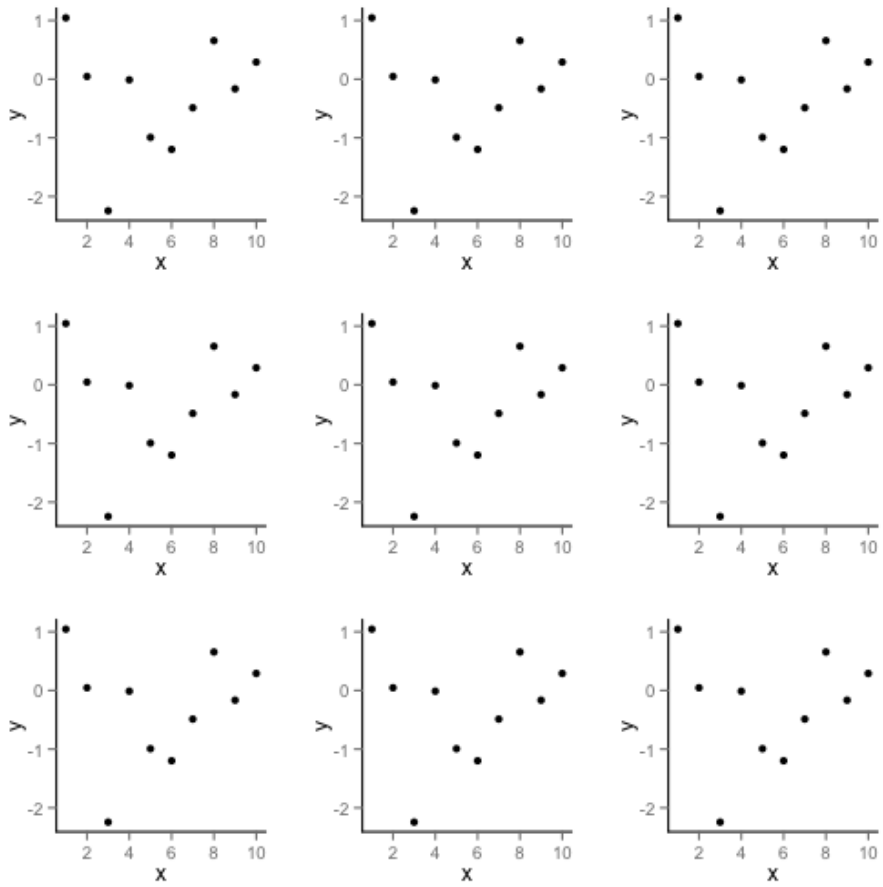

Figure 1: