

Tree simulations

Louis du Plessis

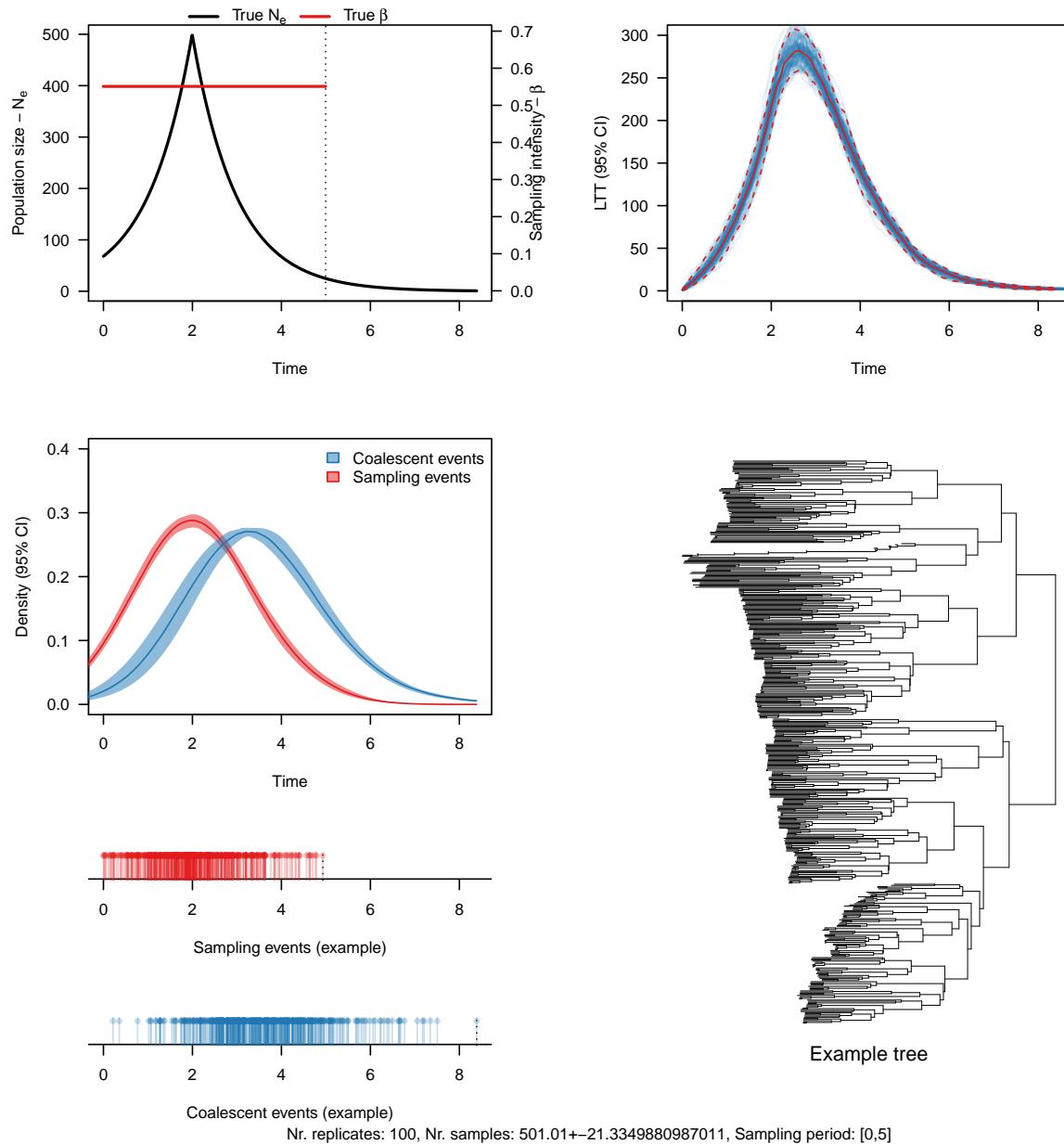
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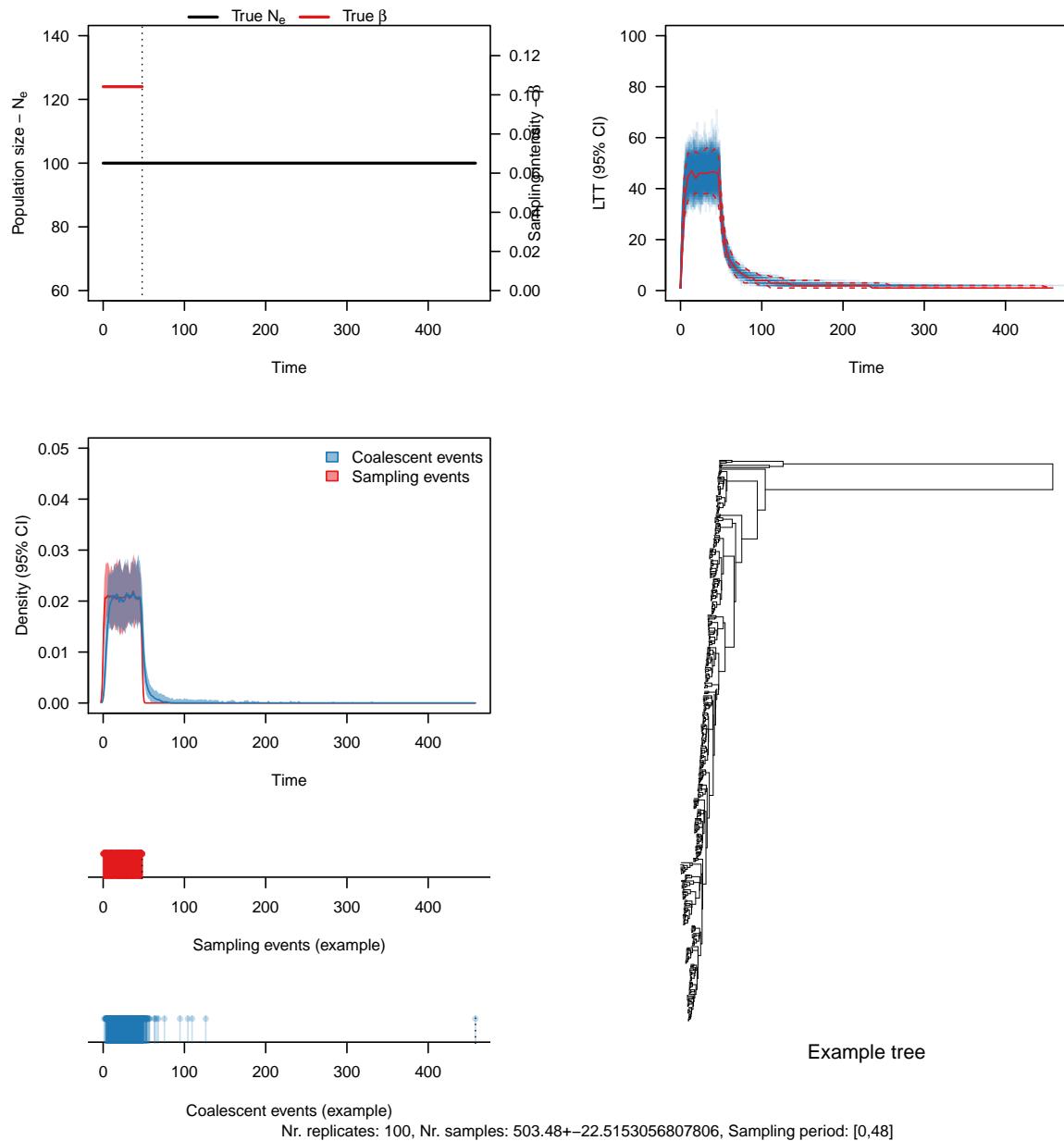
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1 Constant linear preferential sampling

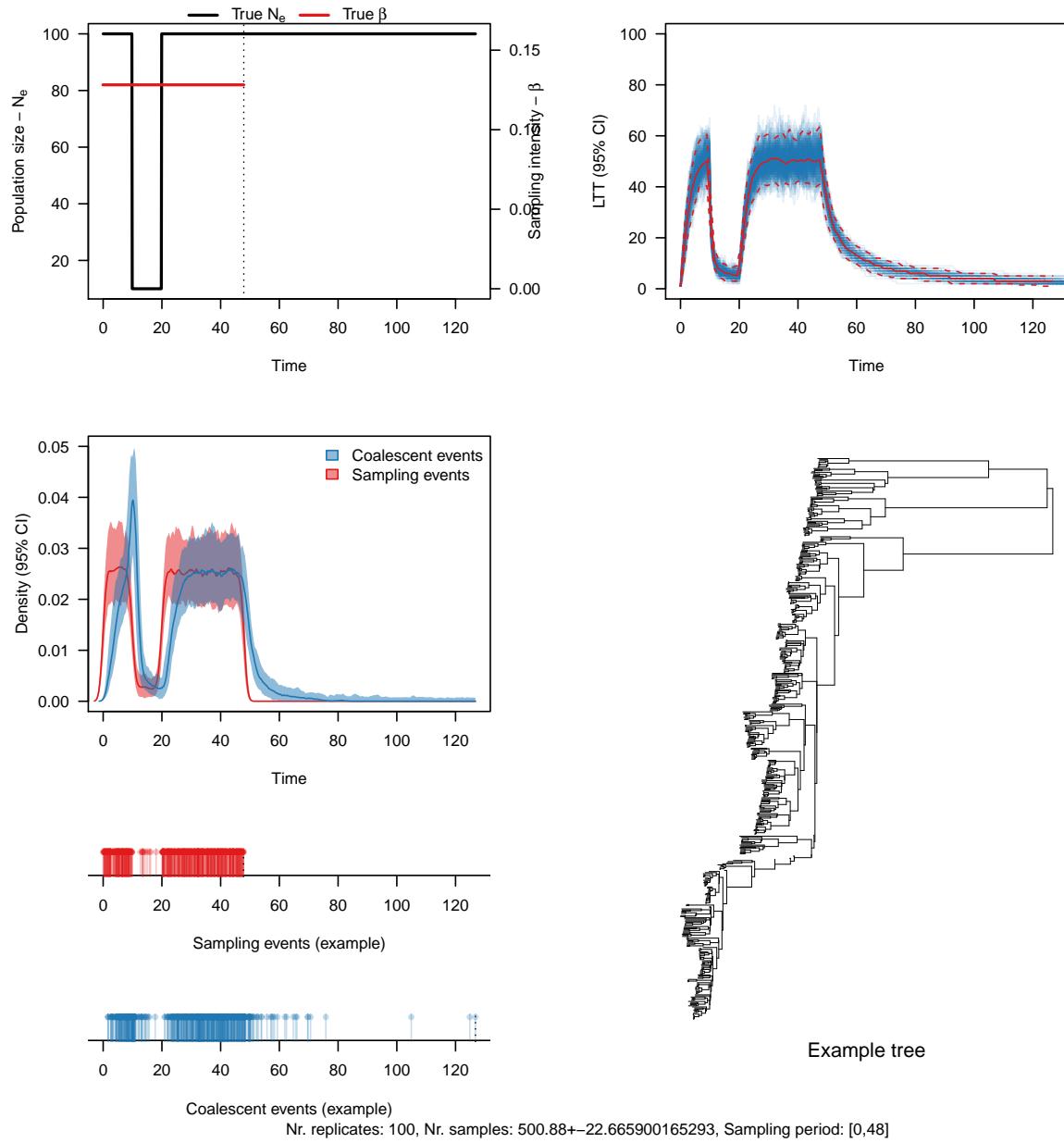
1.1 Boom-bust



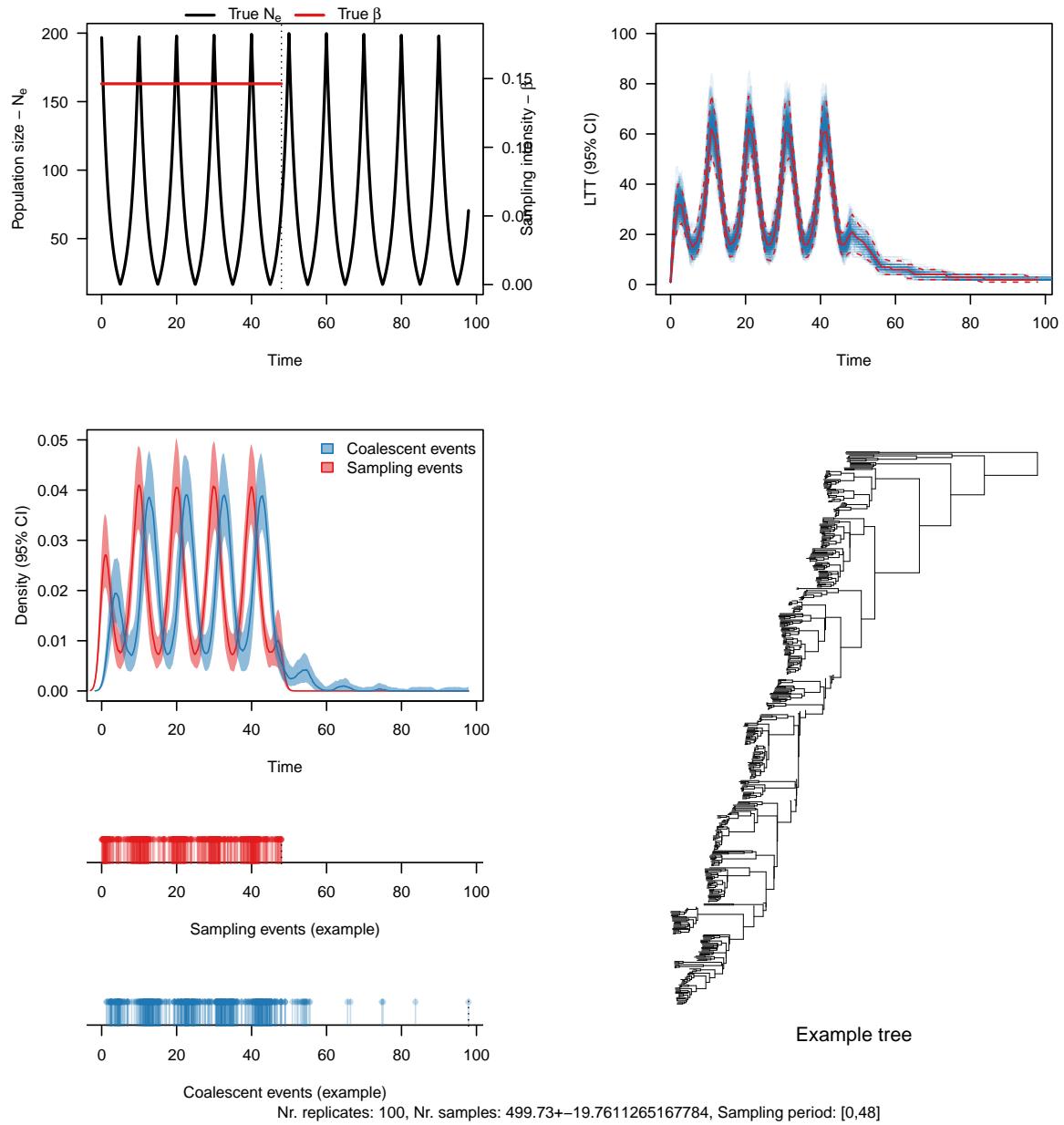
1.2 Uniform



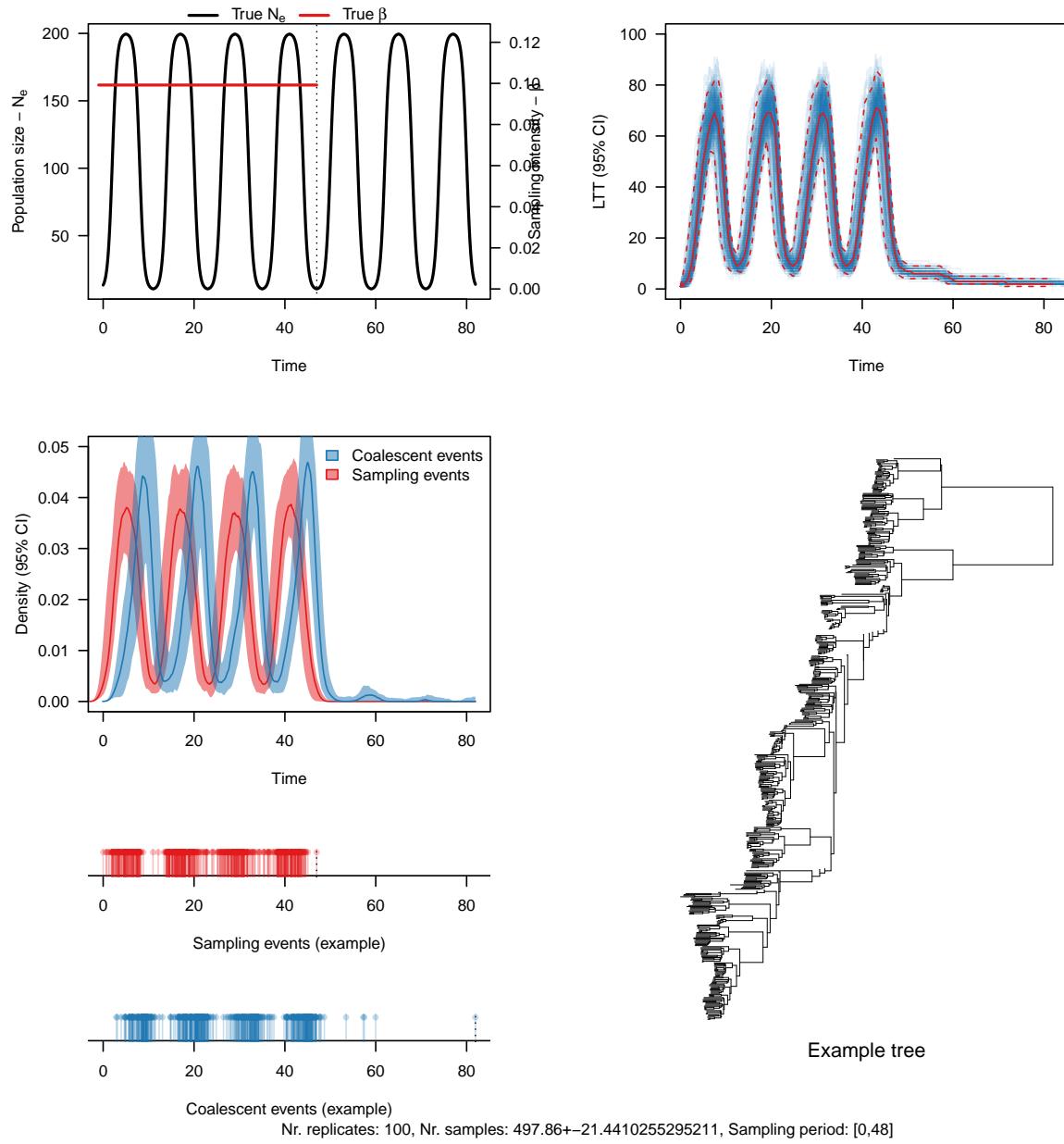
1.3 Bottleneck



1.4 Cyclical exponential growth

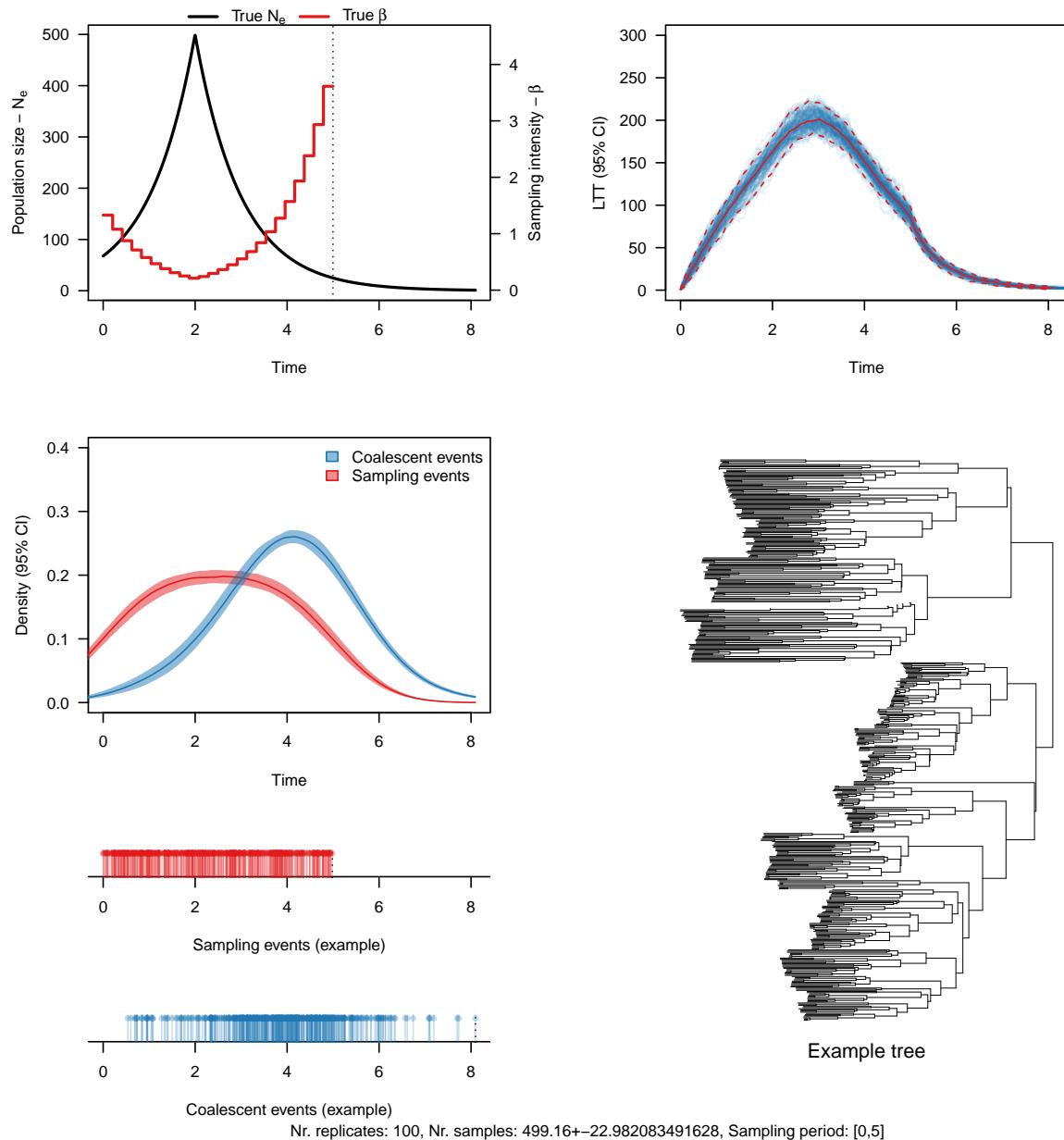


1.5 Cyclical logistic growth

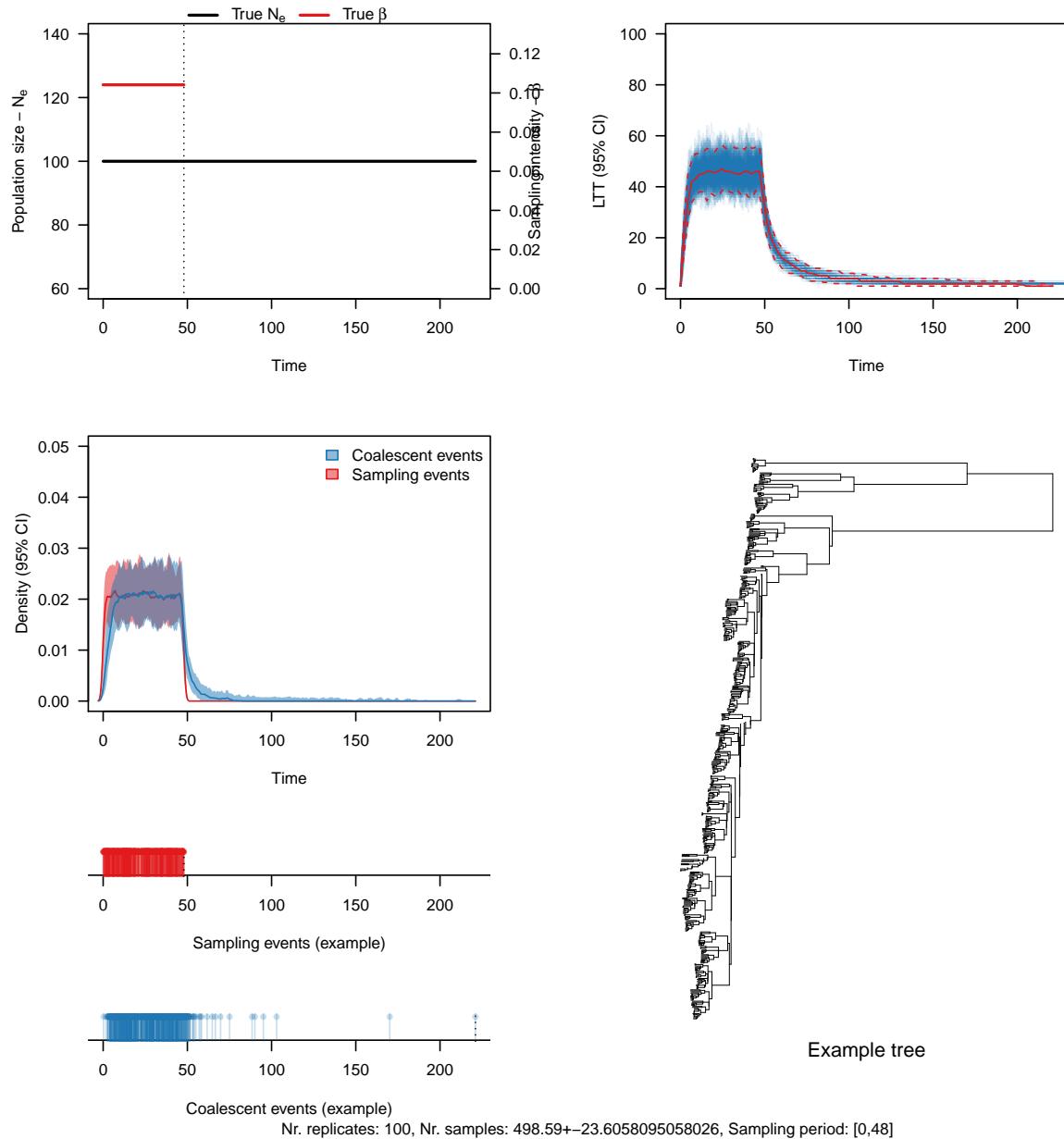


2 Epoch linear preferential sampling (24 epochs - 2 months/epoch)

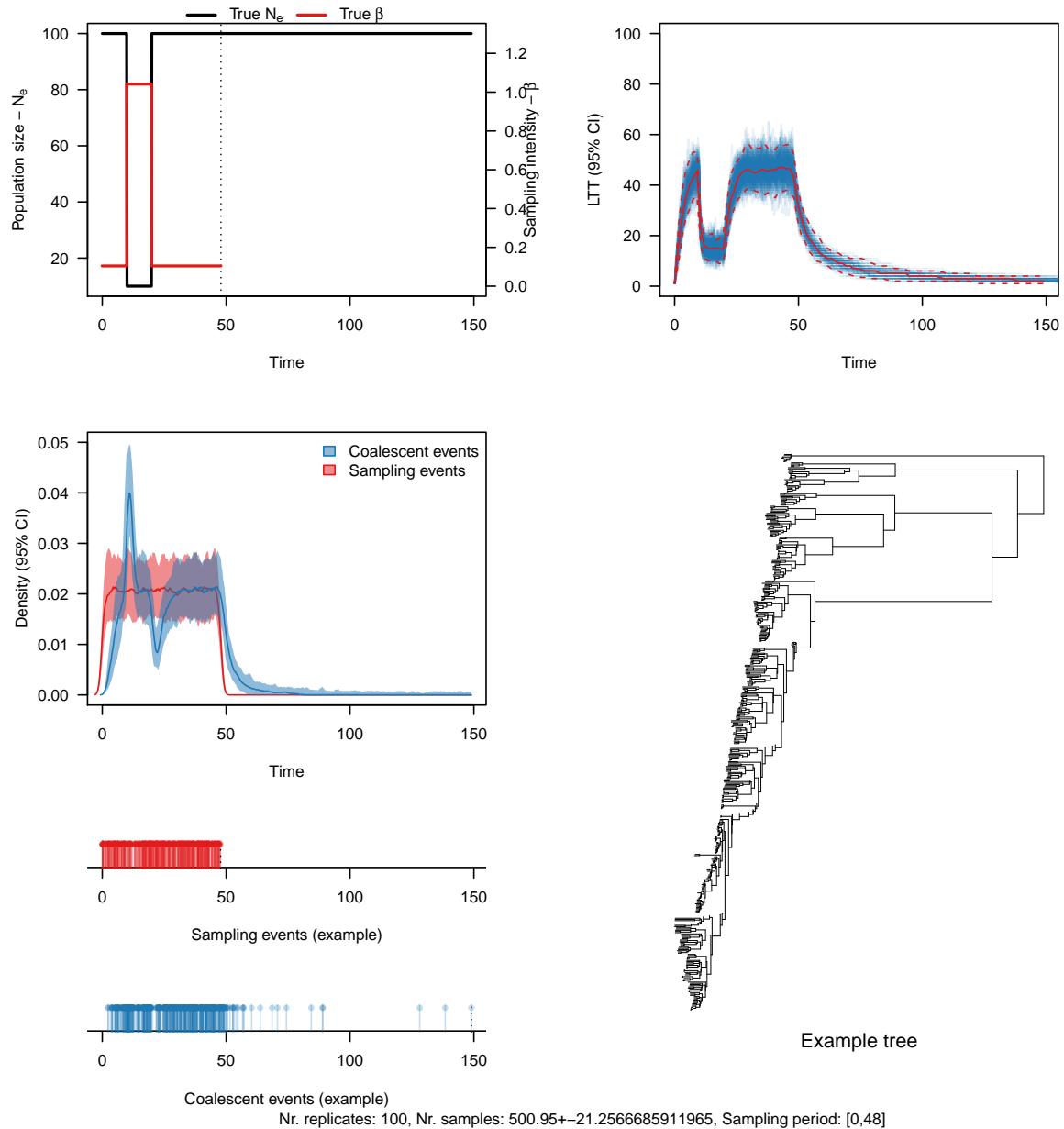
2.1 Boom-bust



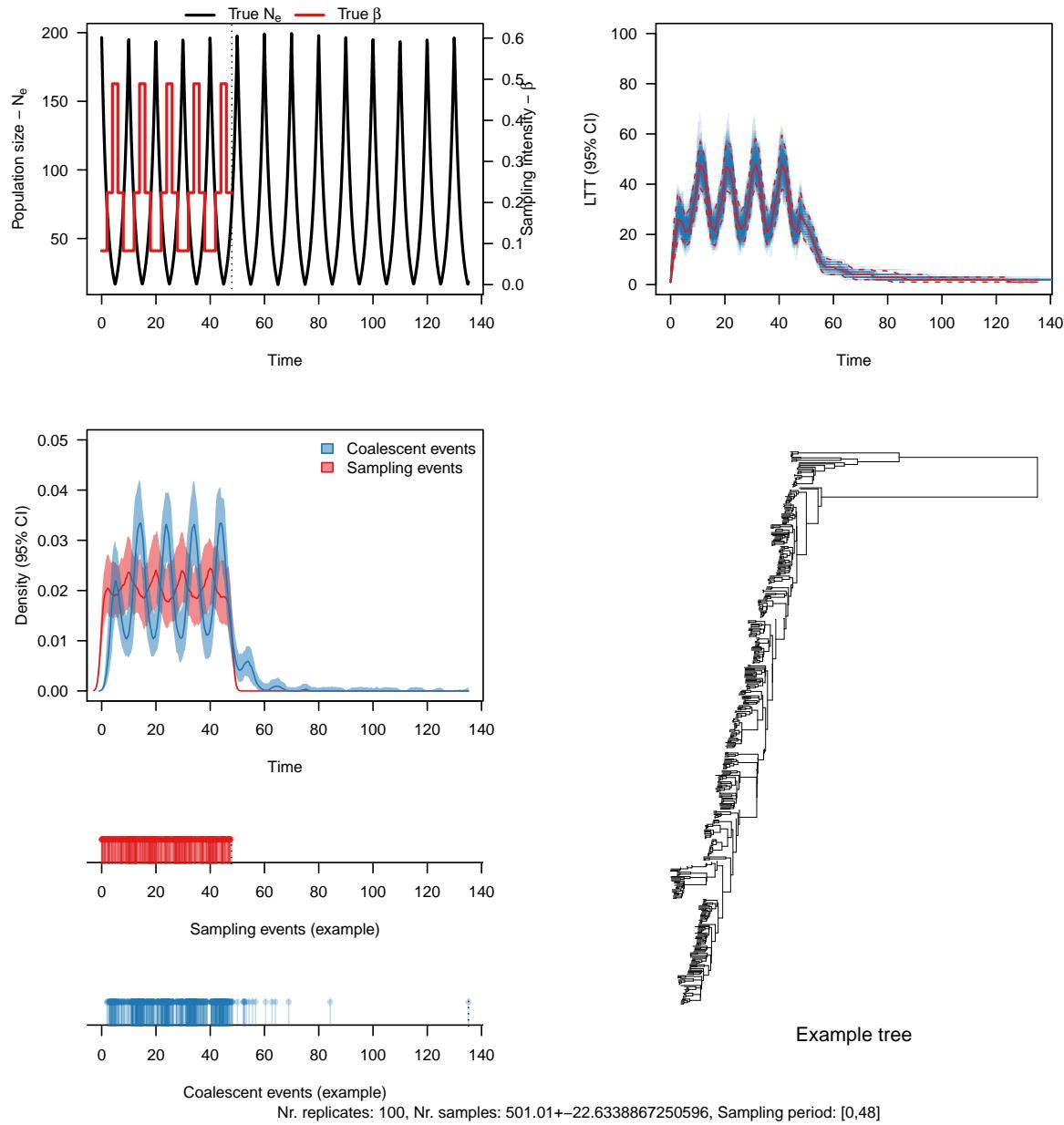
2.2 Uniform



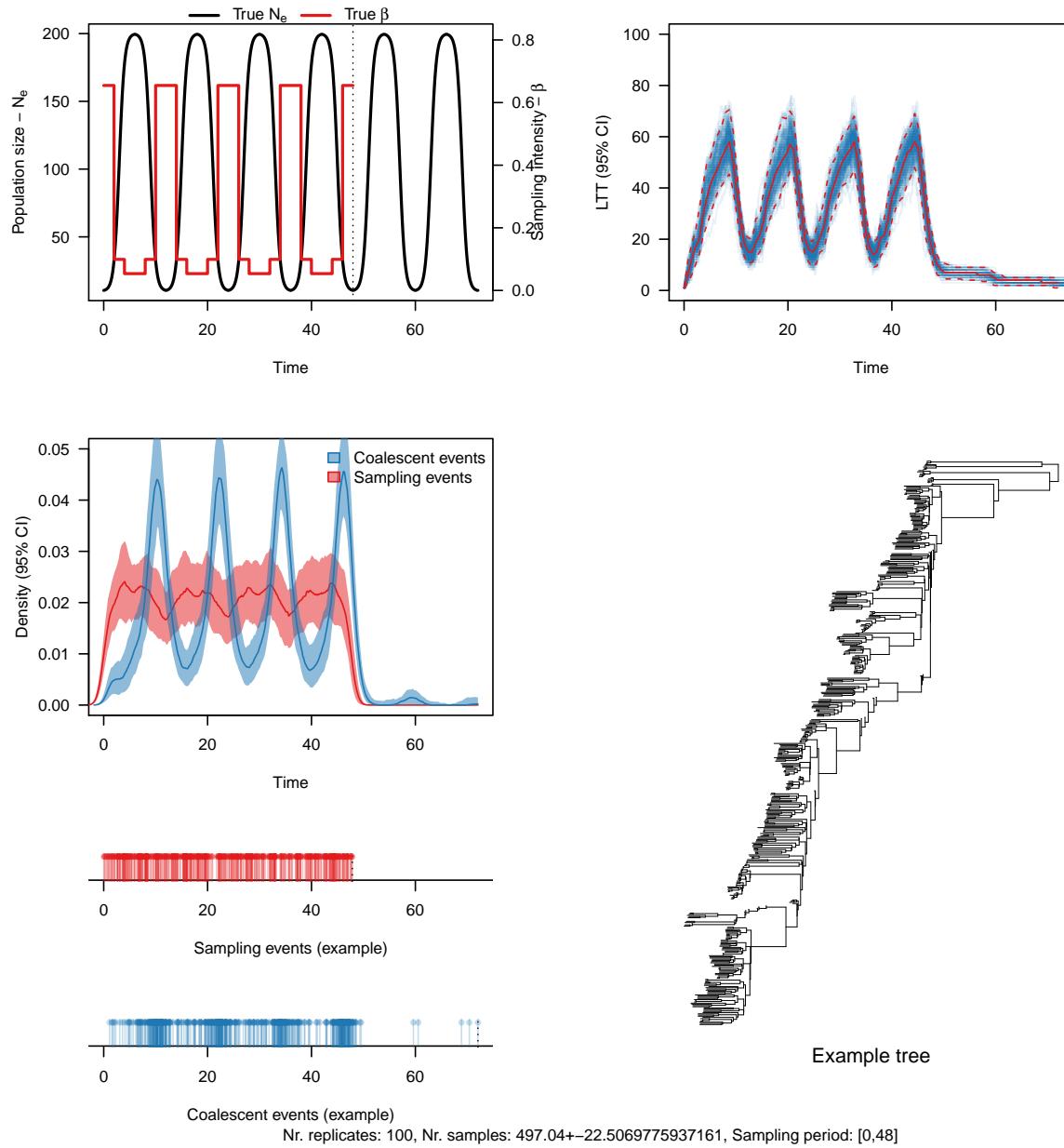
2.3 Bottleneck



2.4 Cyclical exponential growth

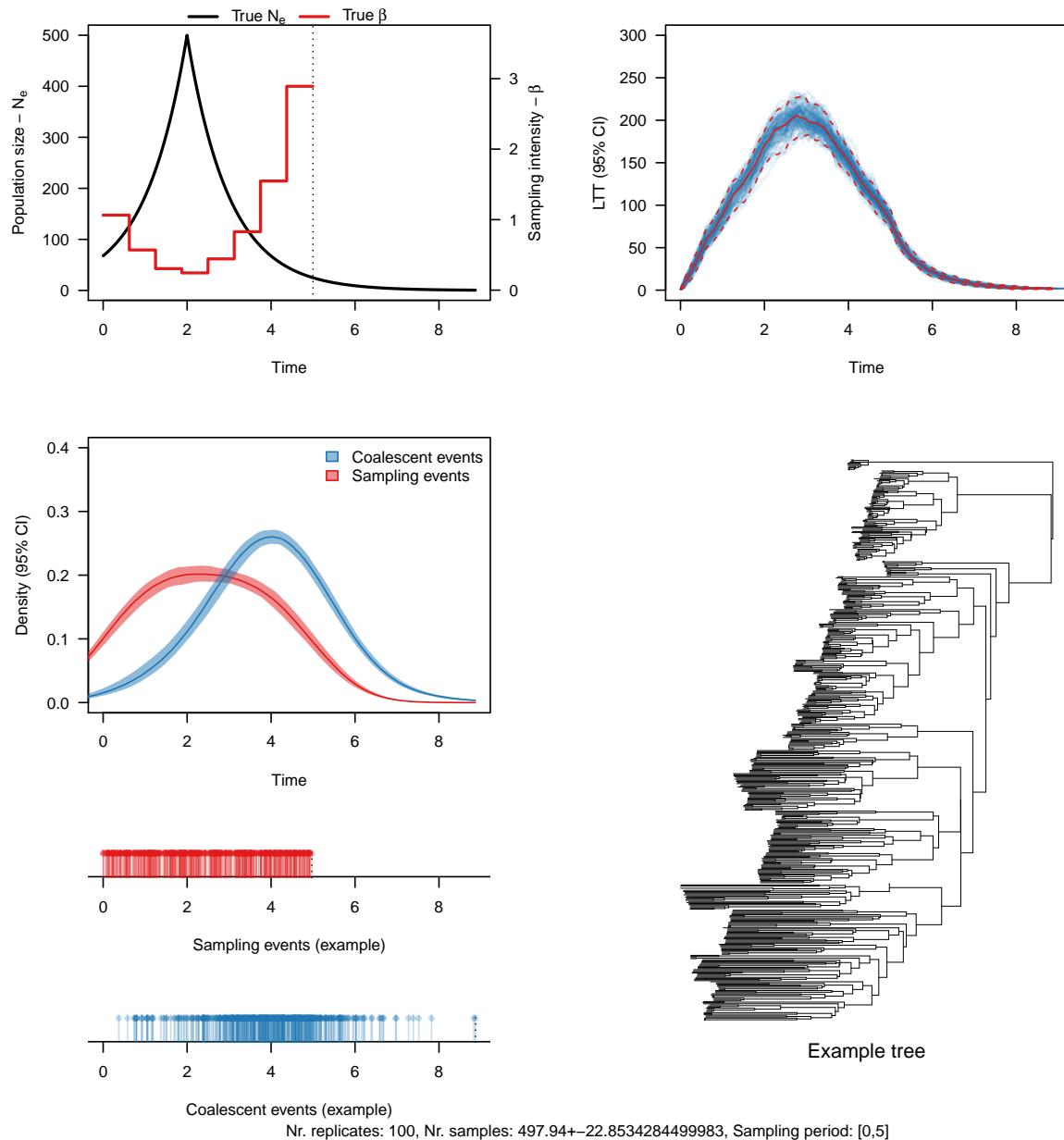


2.5 Cyclical logistic growth

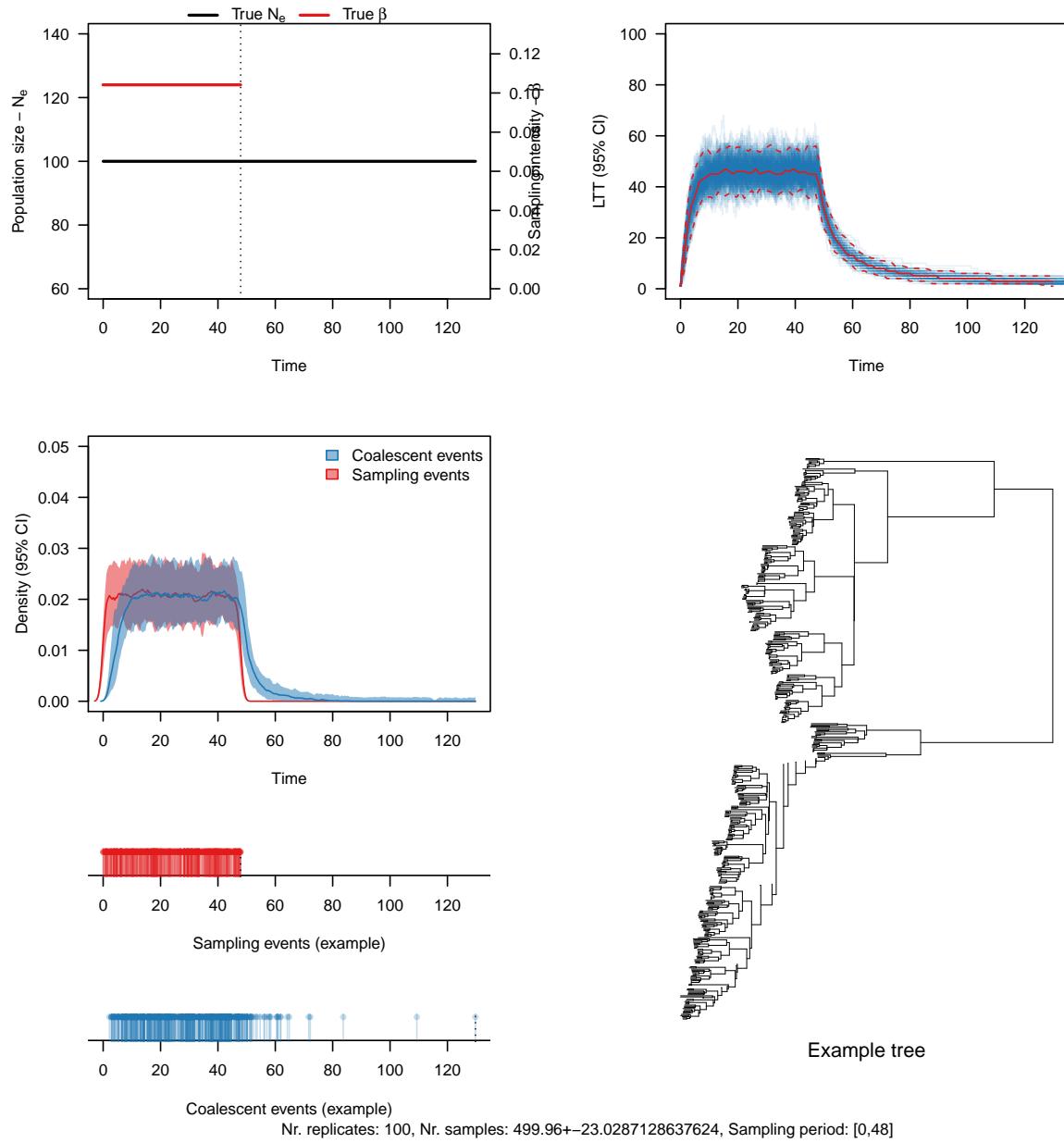


3 Epoch linear preferential sampling (8 epochs - 6 months/epoch)

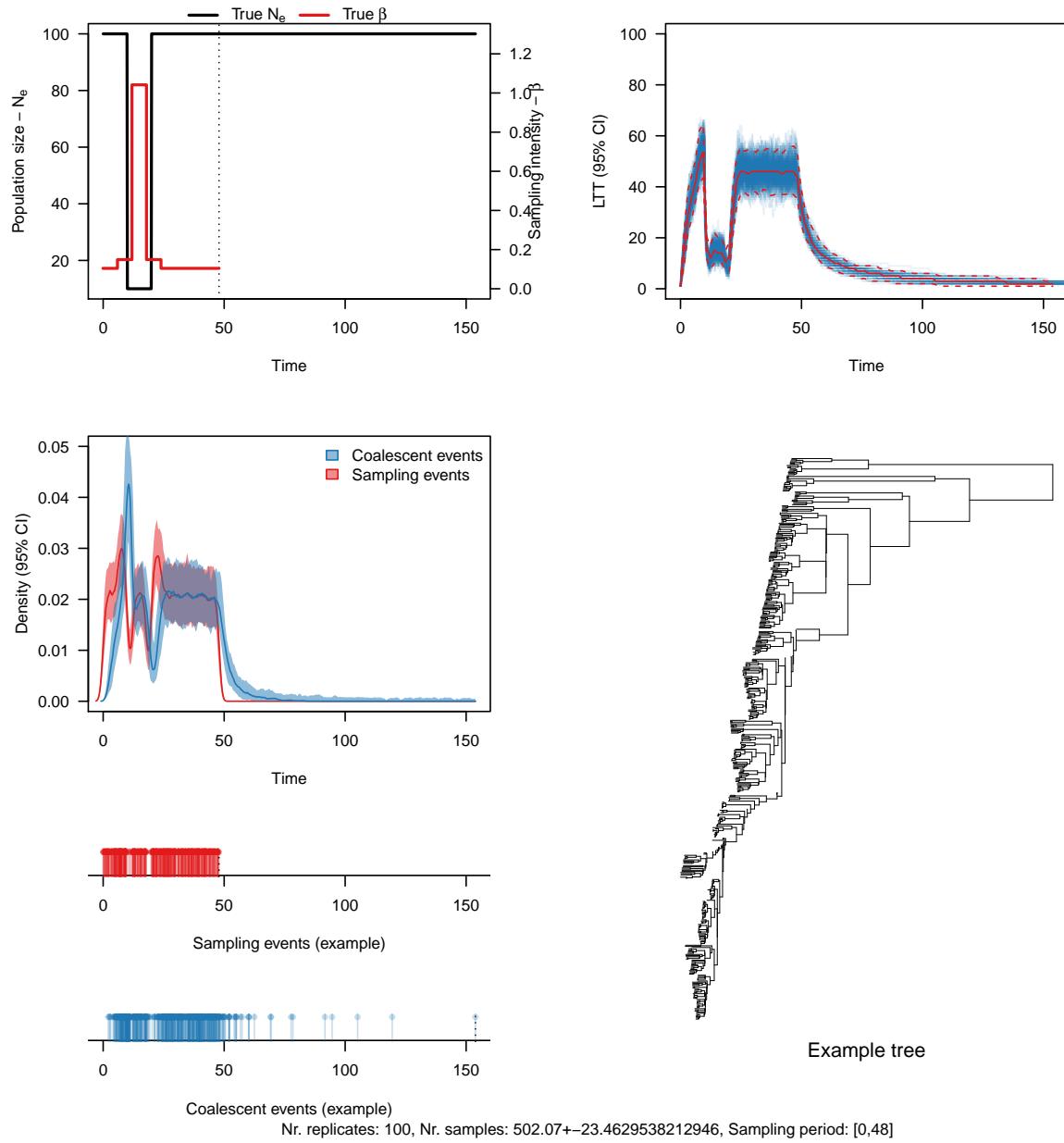
3.1 Boom-bust



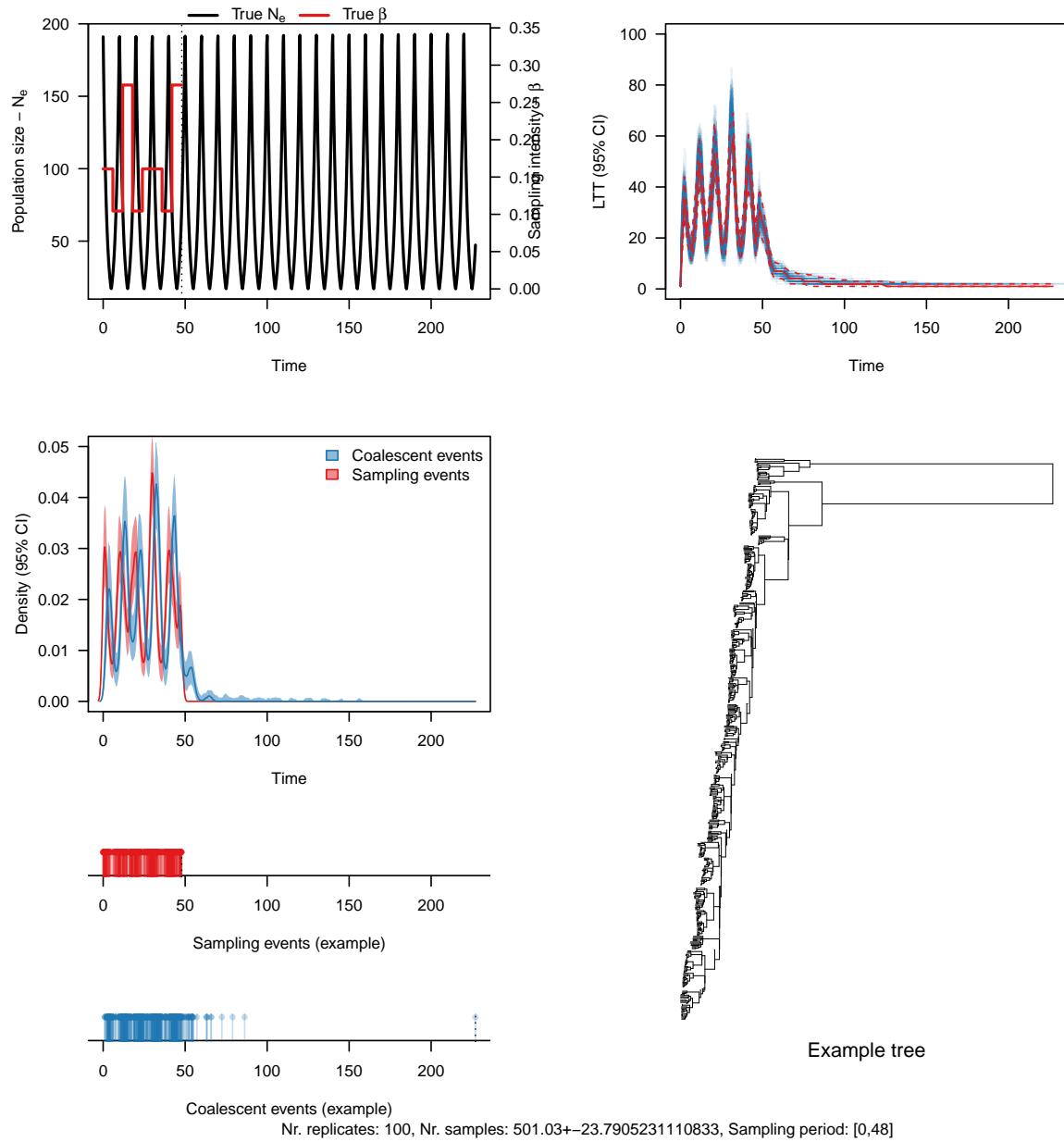
3.2 Uniform



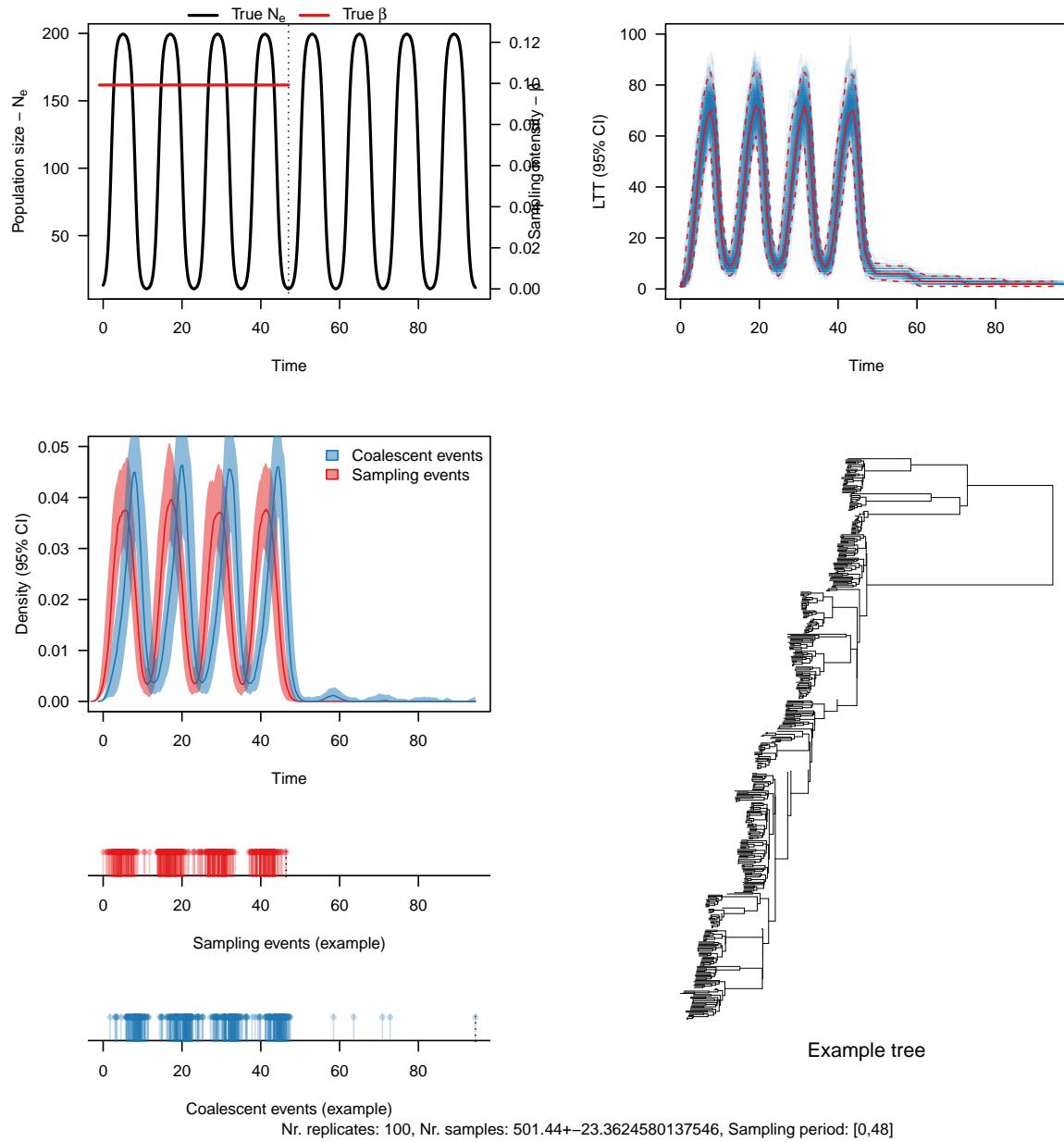
3.3 Bottleneck



3.4 Cyclical exponential growth



3.5 Cyclical logistic growth



4 Session info

```
sessionInfo()

## R version 3.5.1 (2018-07-02)
## Platform: x86_64-apple-darwin15.6.0 (64-bit)
## Running under: macOS Sierra 10.12.6
##
## Matrix products: default
## BLAS: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRblas.0.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/3.5/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_GB.UTF-8/en_GB.UTF-8/en_GB.UTF-8/C/en_GB.UTF-8/en_GB.UTF-8
##
## attached base packages:
## [1] stats      graphics   grDevices utils      datasets   methods    base
##
## other attached packages:
## [1] ape_5.3       phylodyn_0.9.0
##
## loaded via a namespace (and not attached):
## [1] Rcpp_1.0.1      knitr_1.22      geiger_2.0.6.1
## [4] magrittr_1.5     MASS_7.3-51.4    lattice_0.20-38
## [7] subplex_1.5-4   stringr_1.4.0   tools_3.5.1
## [10] parallel_3.5.1  grid_3.5.1     nlme_3.1-139
## [13] xfun_0.6        coda_0.19-3    htmltools_0.3.6
## [16] yaml_2.2.0      digest_0.6.19  RColorBrewer_1.1-2
## [19] deSolve_1.21    evaluate_0.13 rmarkdown_1.12
## [22] stringi_1.4.3   compiler_3.5.1 TreeSim_2.4
## [25] jsonlite_1.6    mvtnorm_1.0-10
```