

Grid empd

Razors

L Kell

15 November, 2018

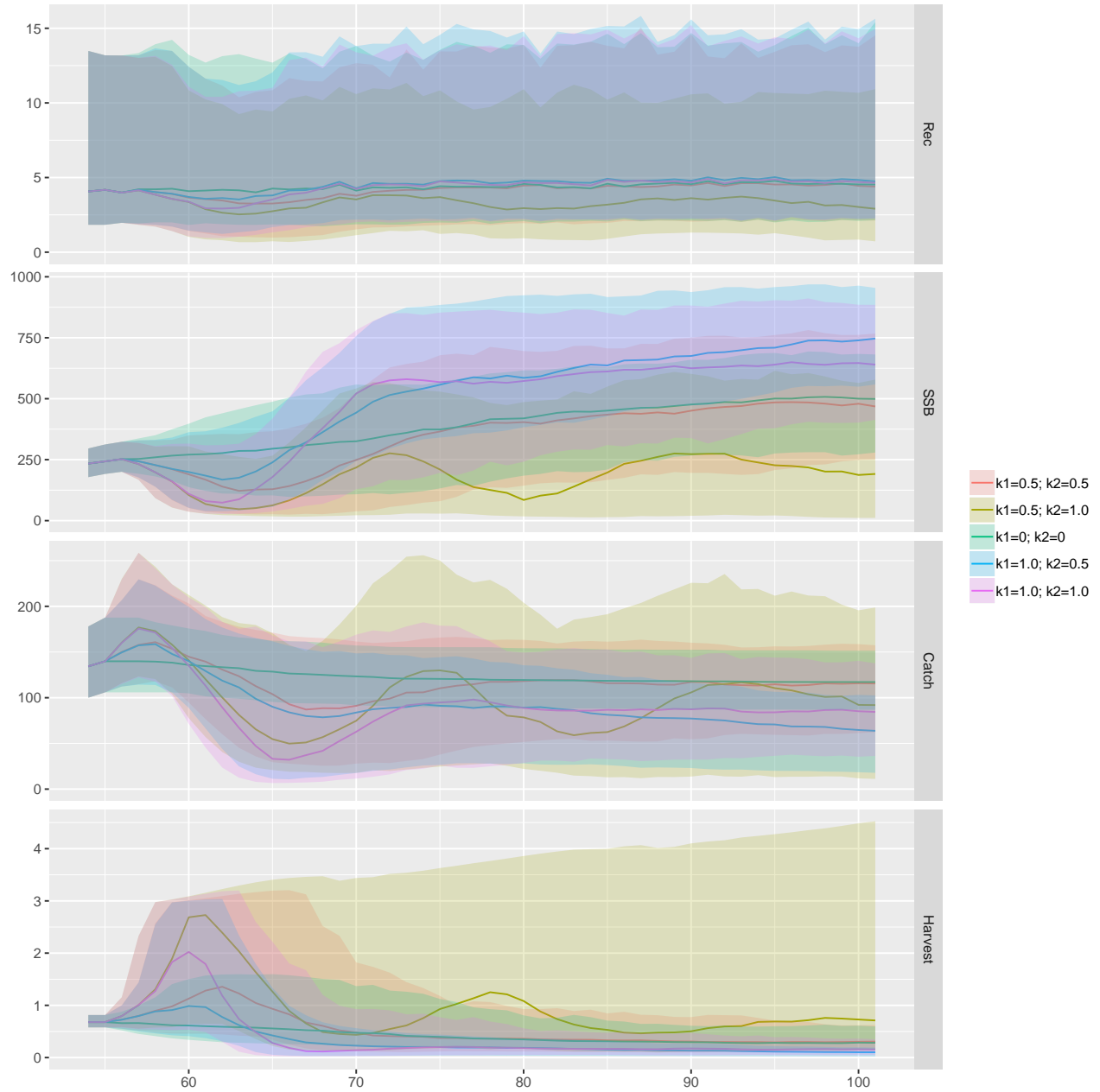


Figure 1 Time series for brill of empirical HCR ran with different values of K1 & K2

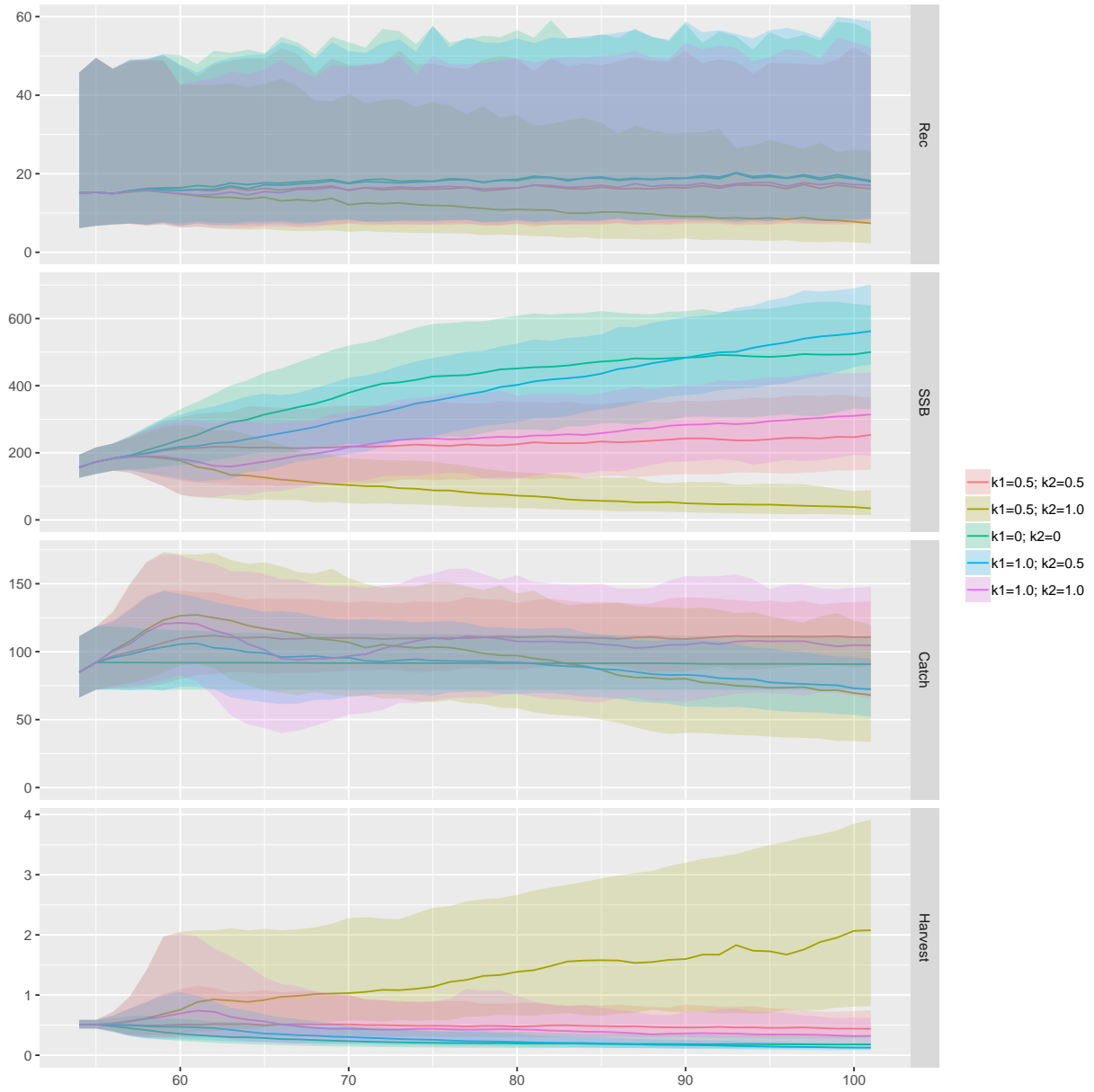


Figure 2 Time series for turbot of empirical HCR ran with different values of K_1 & K_2

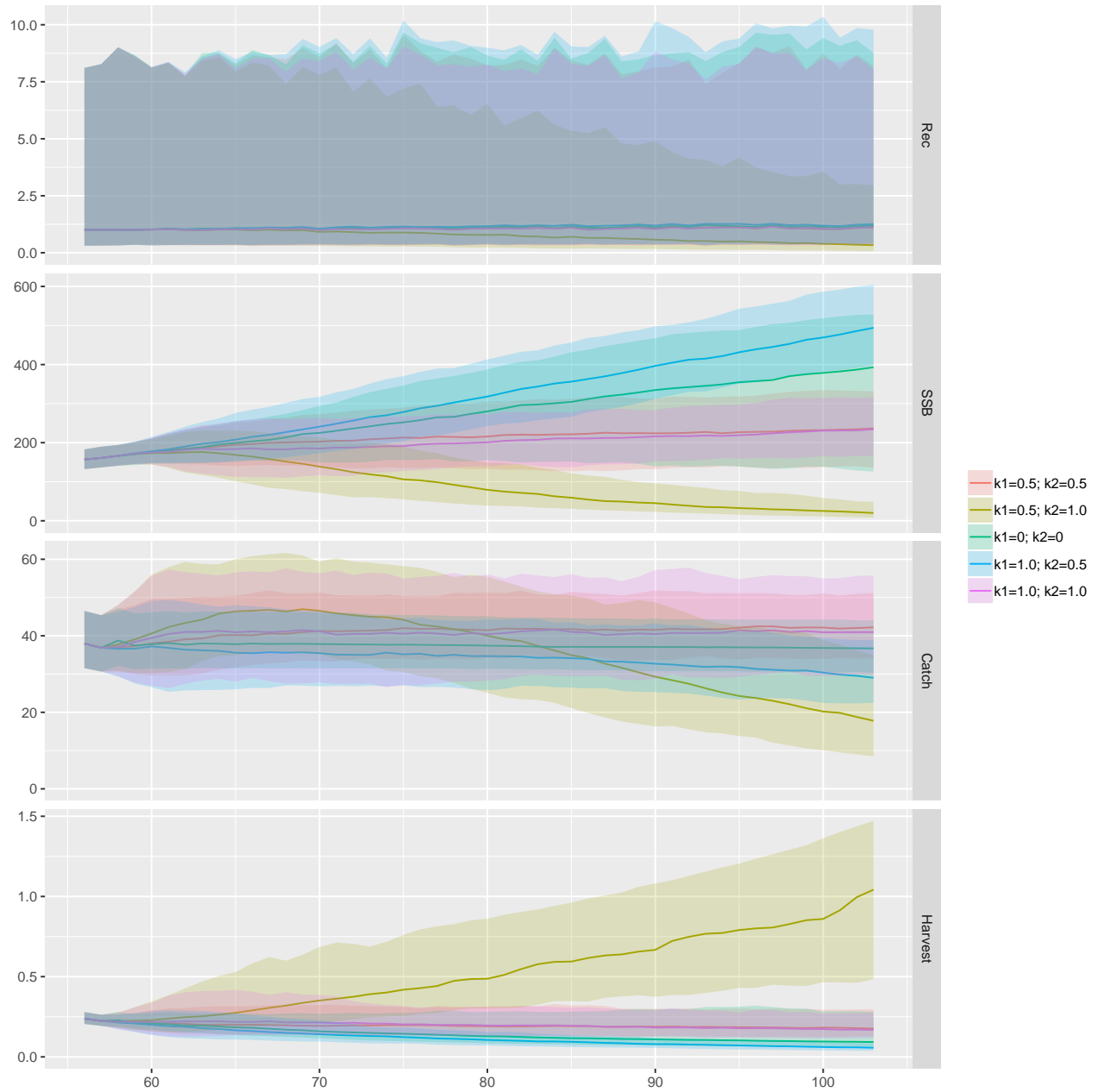


Figure 3 Time series for pollack of empirical HCR ran with different values of K1 & K2

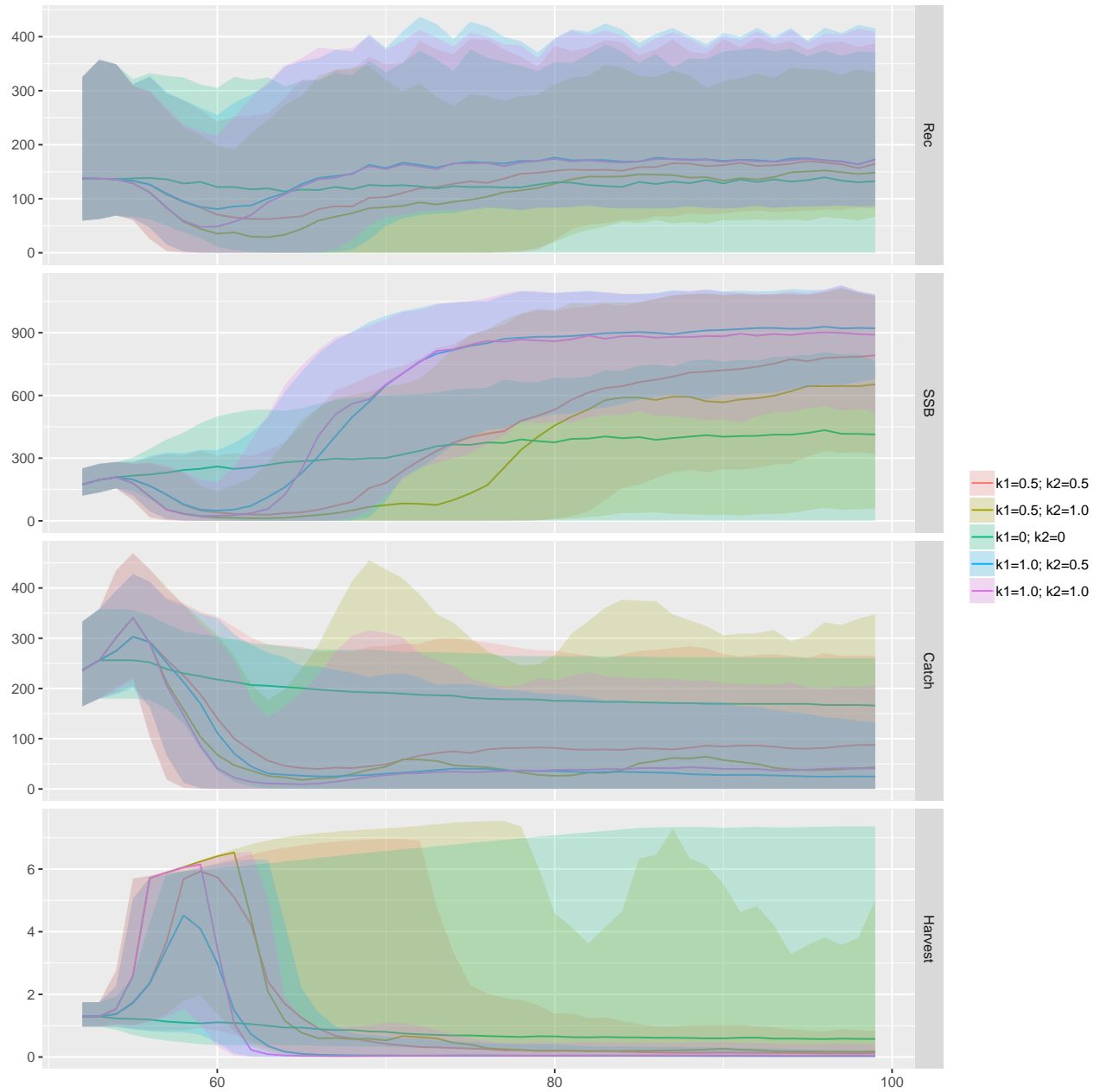


Figure 4 Time series for sprat of empirical HCR ran with different values of $K1$ & $K2$

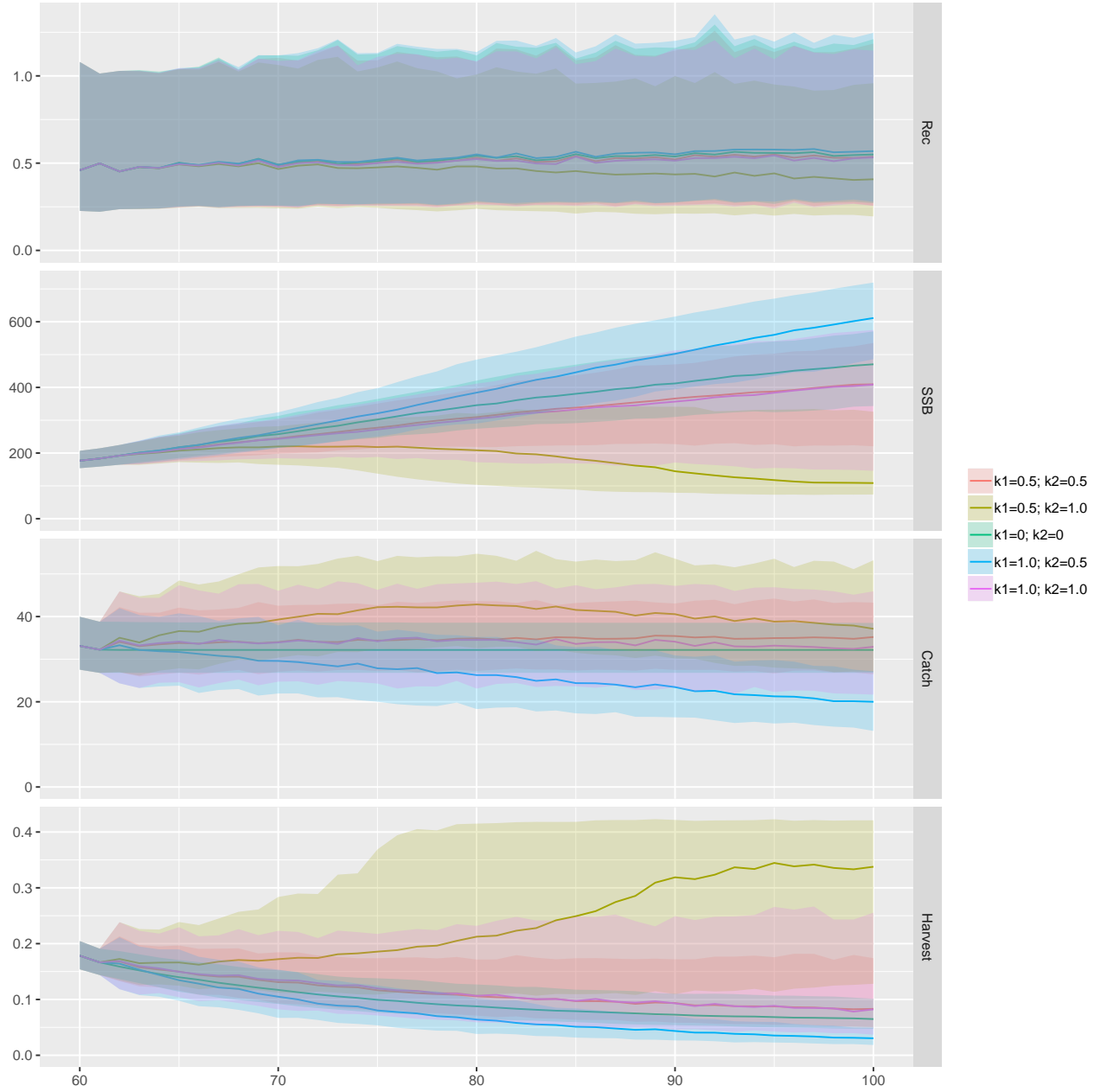


Figure 5 Time series for ray of empirical HCR ran with different values of K_1 & K_2

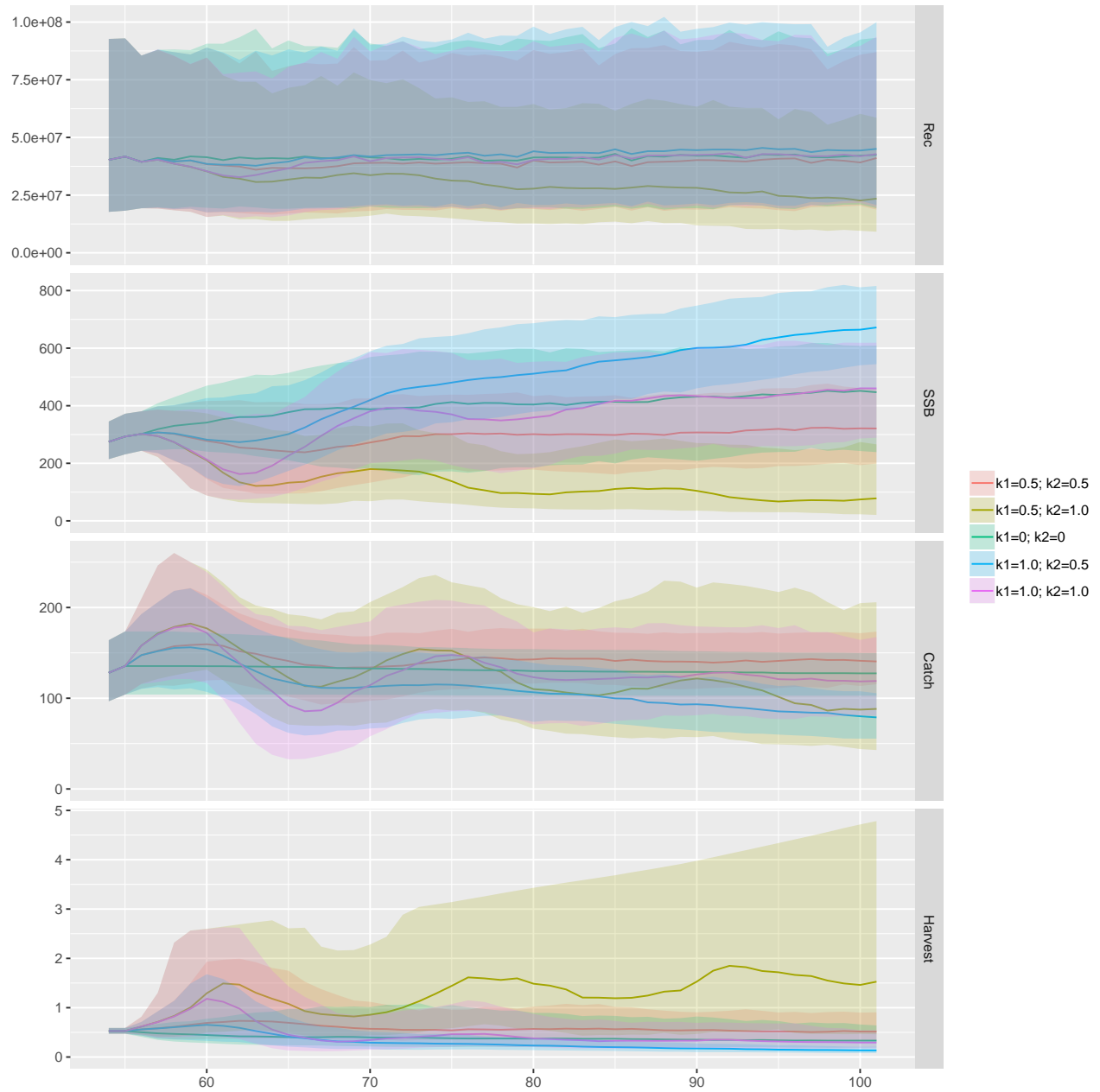
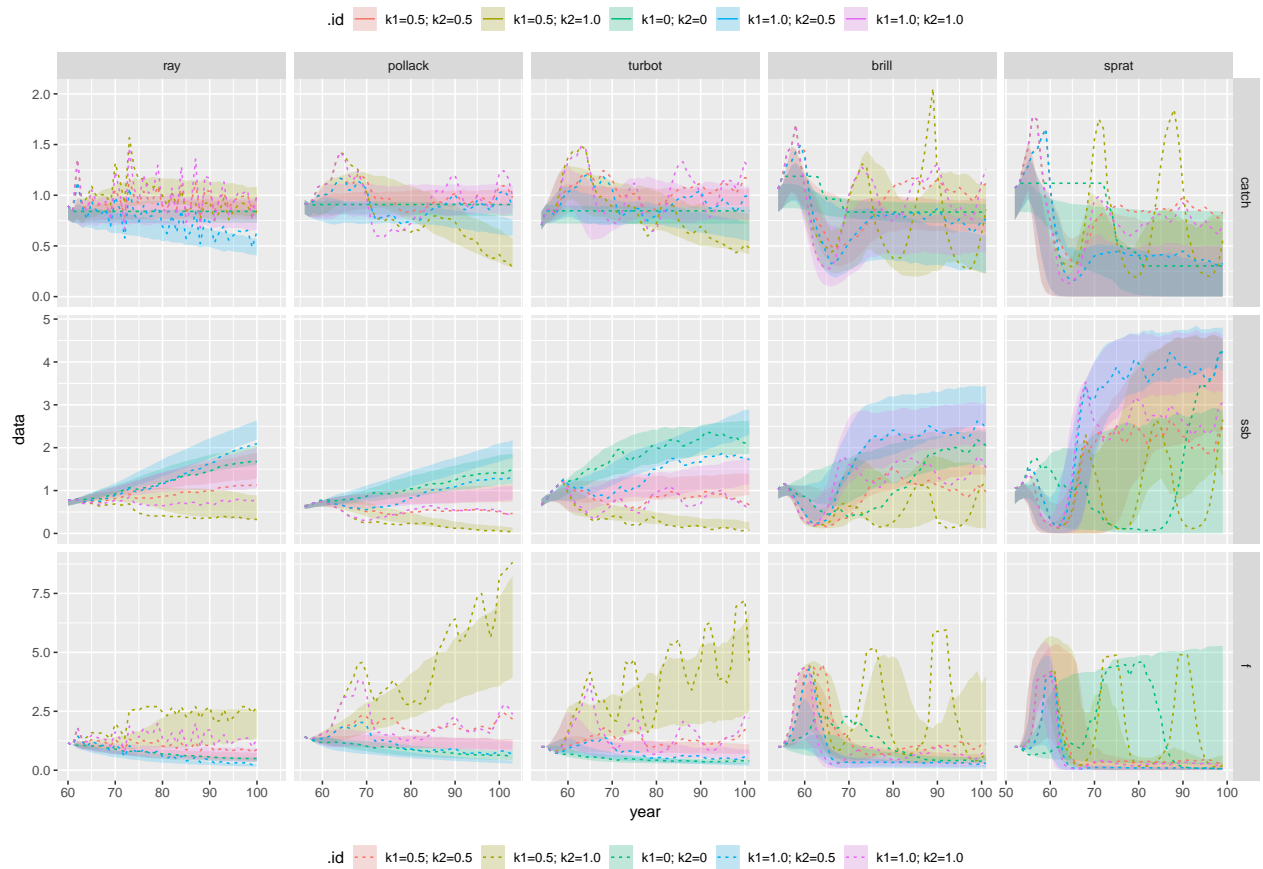
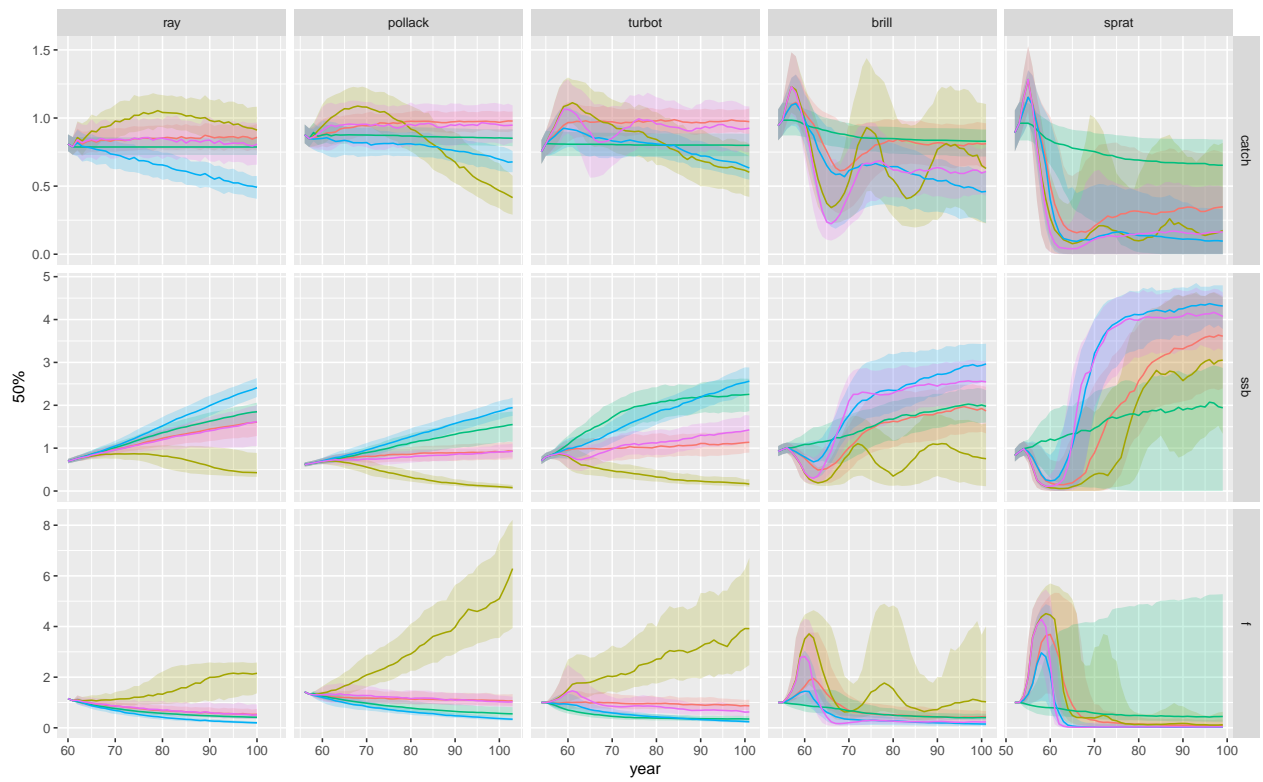


Figure 6 Time series for razor of empirical HCR ran with different values of K_1 & K_2



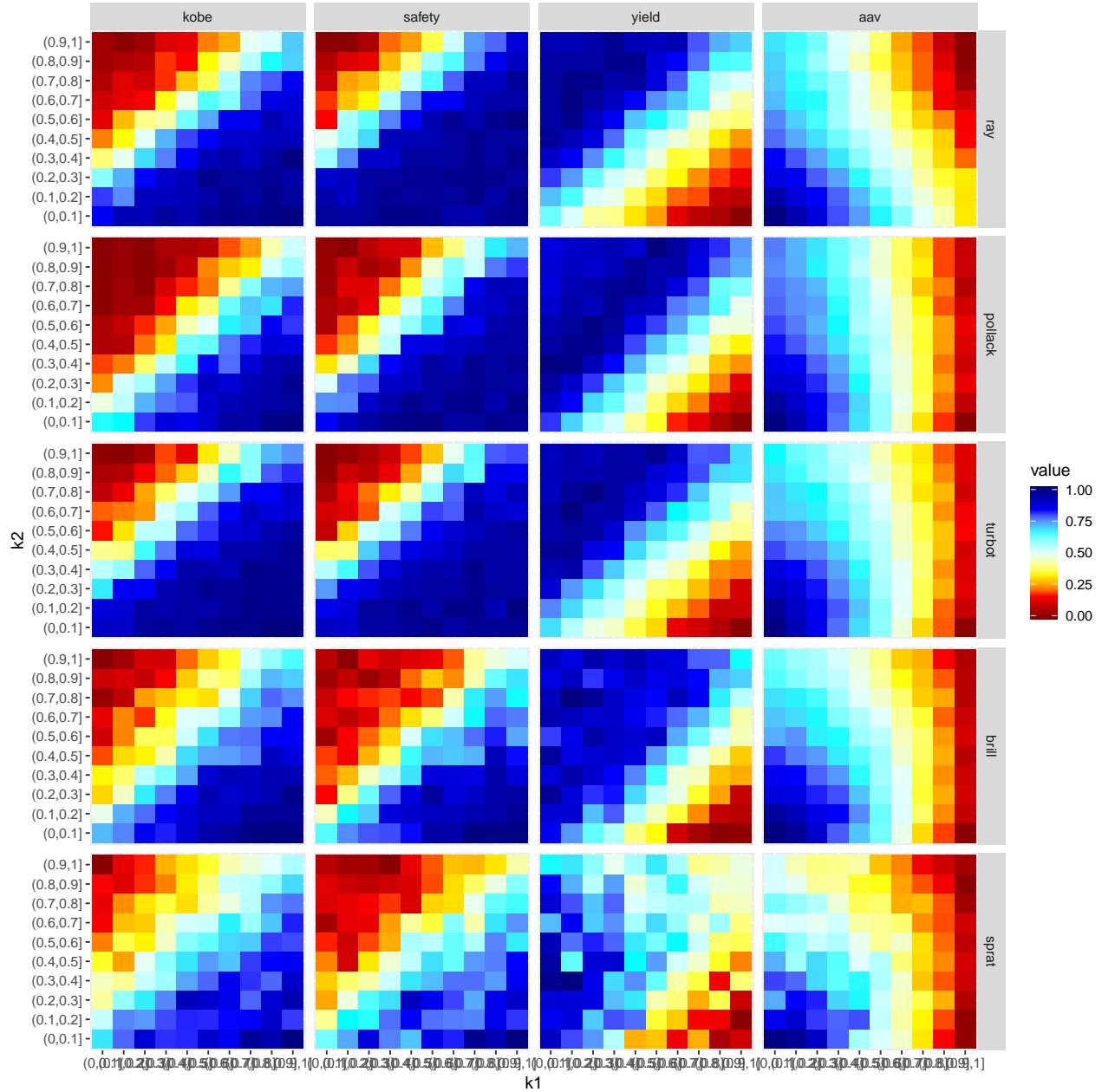
[1] "mydas_mpb_pm" "swon_mpb100" "swon_mpb100_pm" "swonmpb"

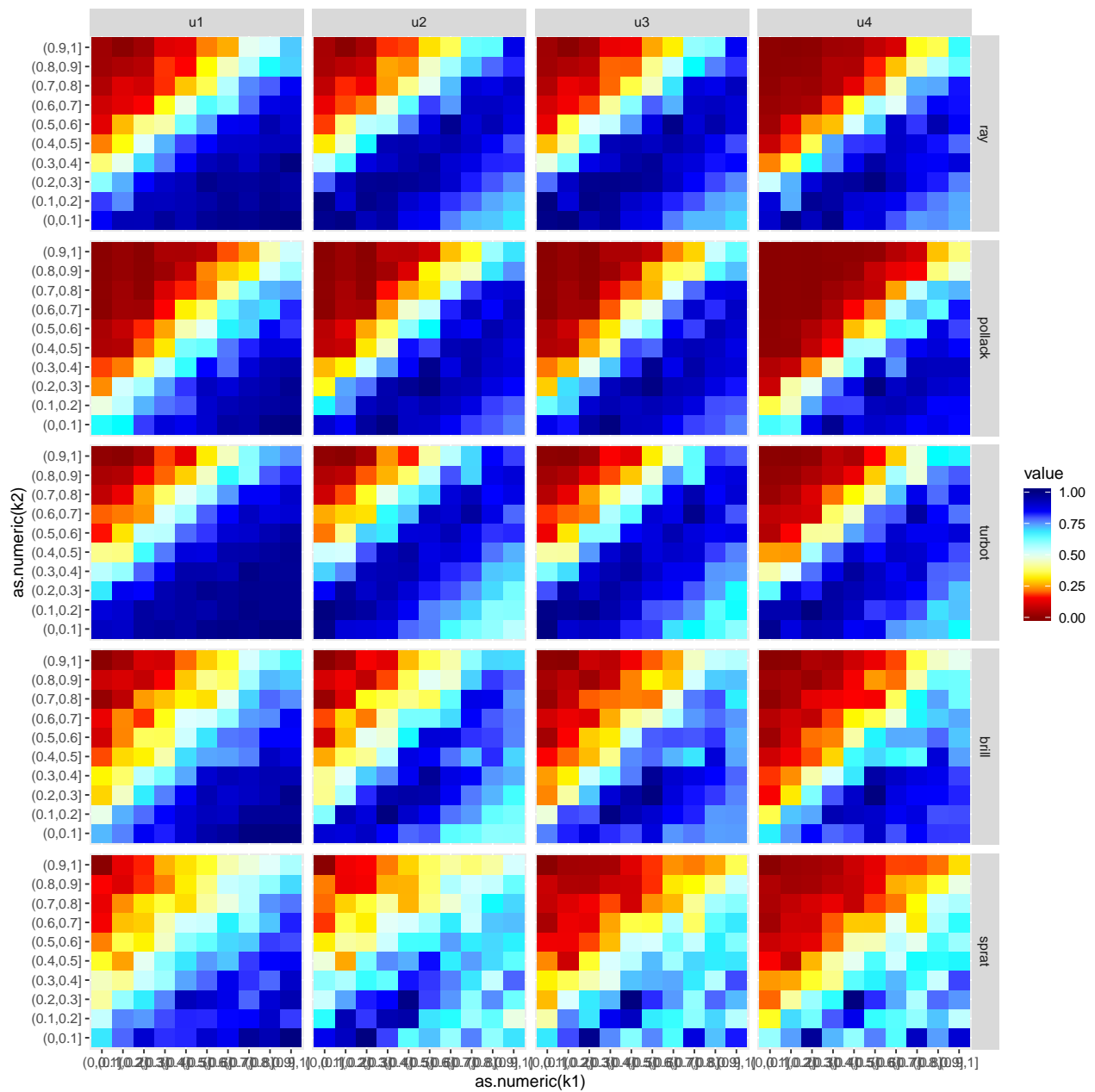
```

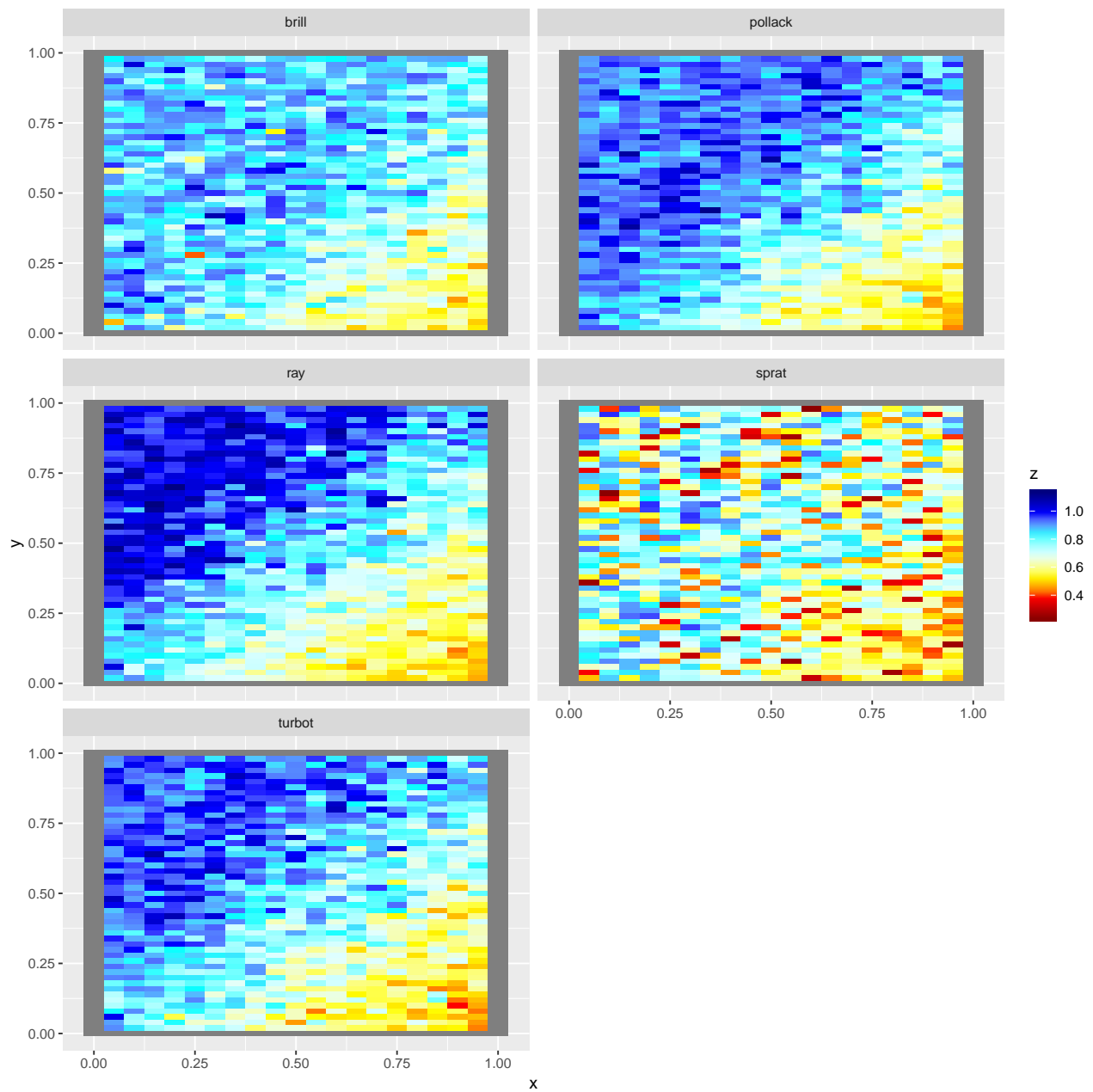
[5] "albnrobust"      "swonempp"      "swonempd"      "swonpmd"
[9] "swonpmp"         "mydas_xsa"     "mydas_xsa_pm"  "mydas_mpb"
[13] "mydas_empd_pm"   "mydas_empp_pm" "mydas_empd"    "swonmsmpb100"
[17] "swonmseppm"     "swonmseppmb"  "swonmseppmd"   "swonmpb2045"
[21] "randgridpm"     "mydas_empp"    "albnpella"     "albnsbt1"
[25] "albnsbt2"       "albnwg"       "swonmsmpb1000" "om"
[29] "swonmse1000"

```

```
[1] TRUE
```







geom_density2d()

Software Versions

- R version 3.4.4 (2018-03-15)
- FLCore: 2.6.9.9009
- FLBRP: 2.5.3.9001
- FLasher: 0.5.0.9001
- FLife: 3.2.1.9001
- ggplotFL: 2.6.4.9002
- **Compiled:** Thu Nov 15 10:20:01 2018

Author information

Laurence Kell. laurie@seaplusplus.es

Acknowledgements

This vignette and many of the methods documented in it were developed under the MyDas project funded by the Irish exchequer and EMFF 2014-2020. The overall aim of MyDas is to develop and test a range of assessment models and methods to establish Maximum Sustainable Yield (MSY) reference points (or proxy MSY reference points) across the spectrum of data-limited stocks.

References

Session Info

R version 3.4.4 (2018-03-15)
Platform: x86_64-pc-linux-gnu (64-bit)
Running under: Ubuntu 16.04.2 LTS

Matrix products: default
BLAS: /usr/lib/libblas/libblas.so.3.6.0
LAPACK: /usr/lib/lapack/liblapack.so.3.6.0

locale:

```
[1] LC_CTYPE=en_US.UTF-8      LC_NUMERIC=C
[3] LC_TIME=en_GB.UTF-8       LC_COLLATE=en_US.UTF-8
[5] LC_MONETARY=en_GB.UTF-8   LC_MESSAGES=en_US.UTF-8
[7] LC_PAPER=en_GB.UTF-8      LC_NAME=C
[9] LC_ADDRESS=C              LC_TELEPHONE=C
[11] LC_MEASUREMENT=en_GB.UTF-8 LC_IDENTIFICATION=C
```

attached base packages:

```
[1] stats      graphics  grDevices  utils      datasets  methods    base
```

other attached packages:

```
[1] RPostgreSQL_0.6-2  DBI_1.0.0          akima_0.6-2
[4] bindrcpp_0.2.2     dplyr_0.7.6        reshape_0.8.7
[7] FLife_3.2.1.9001   ggplotFL_2.6.4.9002 FLCore_2.6.9.9009
[10] lattice_0.20-35    plyr_1.8.4          ggplot2_3.0.0
[13] knitr_1.20
```

loaded via a namespace (and not attached):

```
[1] Rcpp_0.12.19      pillar_1.1.0       compiler_3.4.4     bindr_0.1.1
[5] tools_3.4.4       digest_0.6.15      evaluate_0.10.1    tibble_1.4.2
[9] gtable_0.2.0      pkgconfig_2.0.1    rlang_0.2.2        Matrix_1.2-10
[13] yaml_2.1.18       gridExtra_2.3      withr_2.1.2        stringr_1.3.1
[17] stats4_3.4.4      rprojroot_1.3-2    grid_3.4.4         tidyselect_0.2.4
[21] glue_1.2.0        R6_2.2.2           rmarkdown_1.9      sp_1.2-5
[25] FLBRP_2.5.3.9001  purrr_0.2.5        magrittr_1.5       codetools_0.2-15
[29] backports_1.1.2   scales_1.0.0       htmltools_0.3.6    MASS_7.3-51
[33] assertthat_0.2.0  colorspace_1.3-2   labeling_0.3        stringi_1.2.3
[37] lazyeval_0.2.1    munsell_0.5.0
```