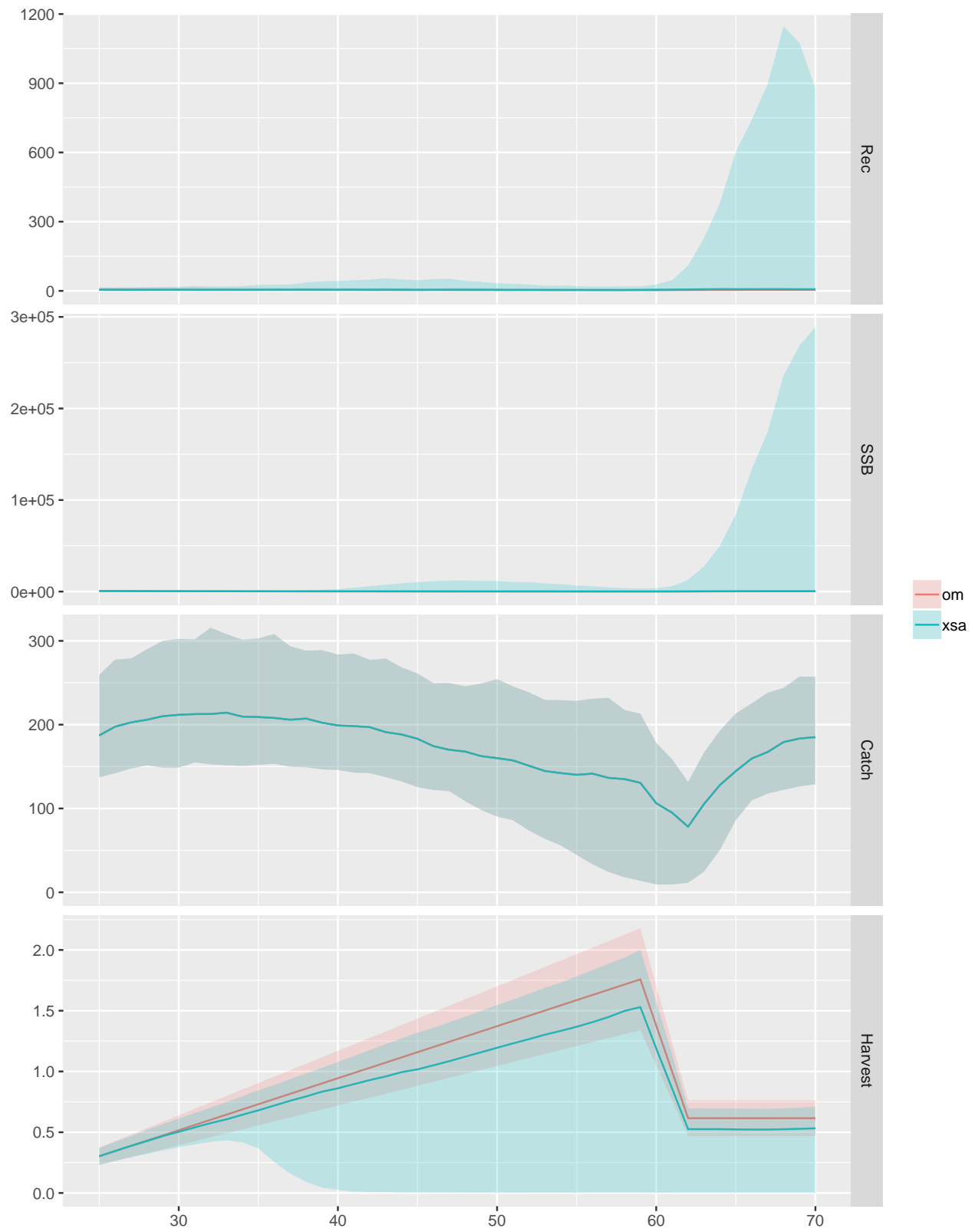# Cross test using Operating Model based on Life History
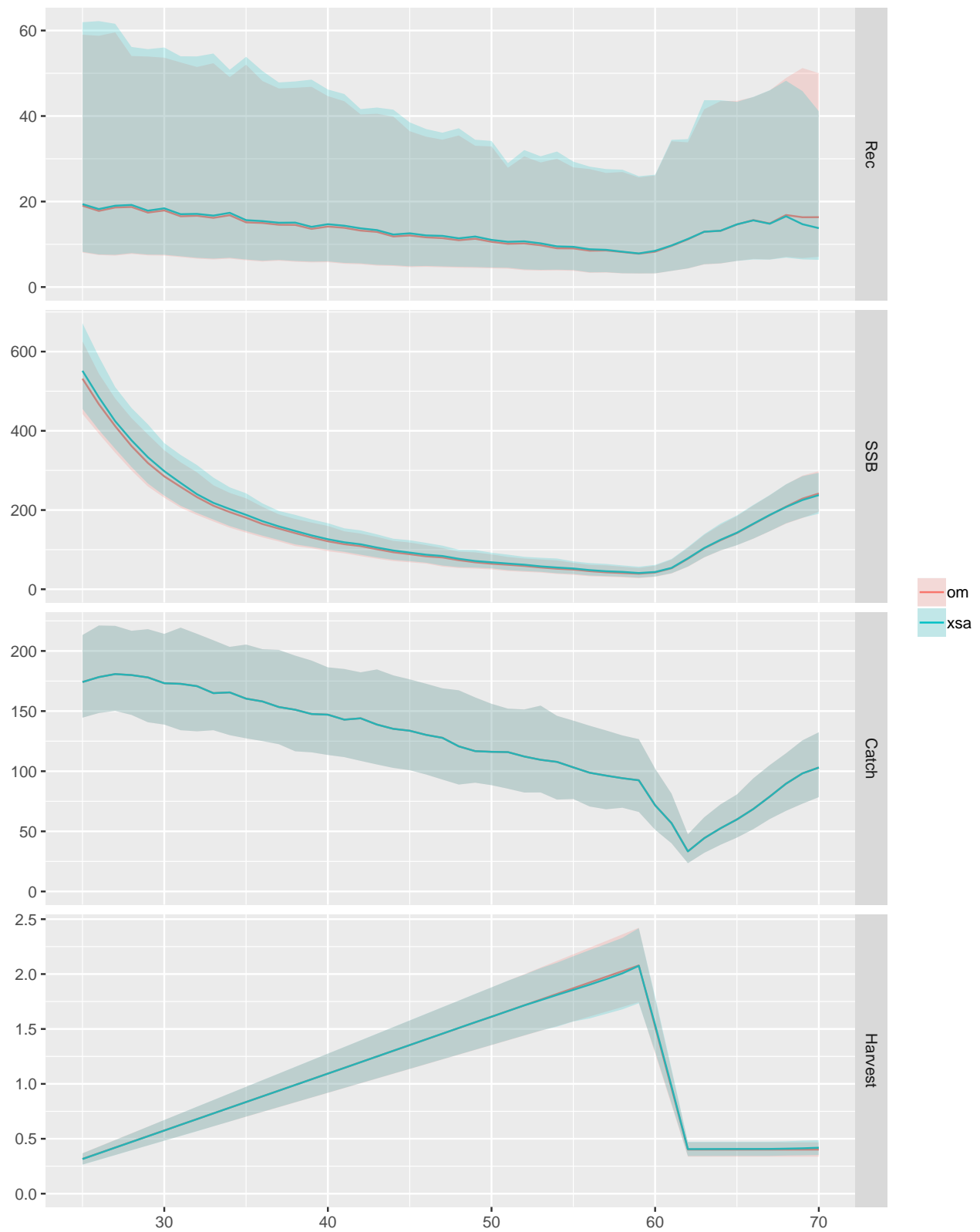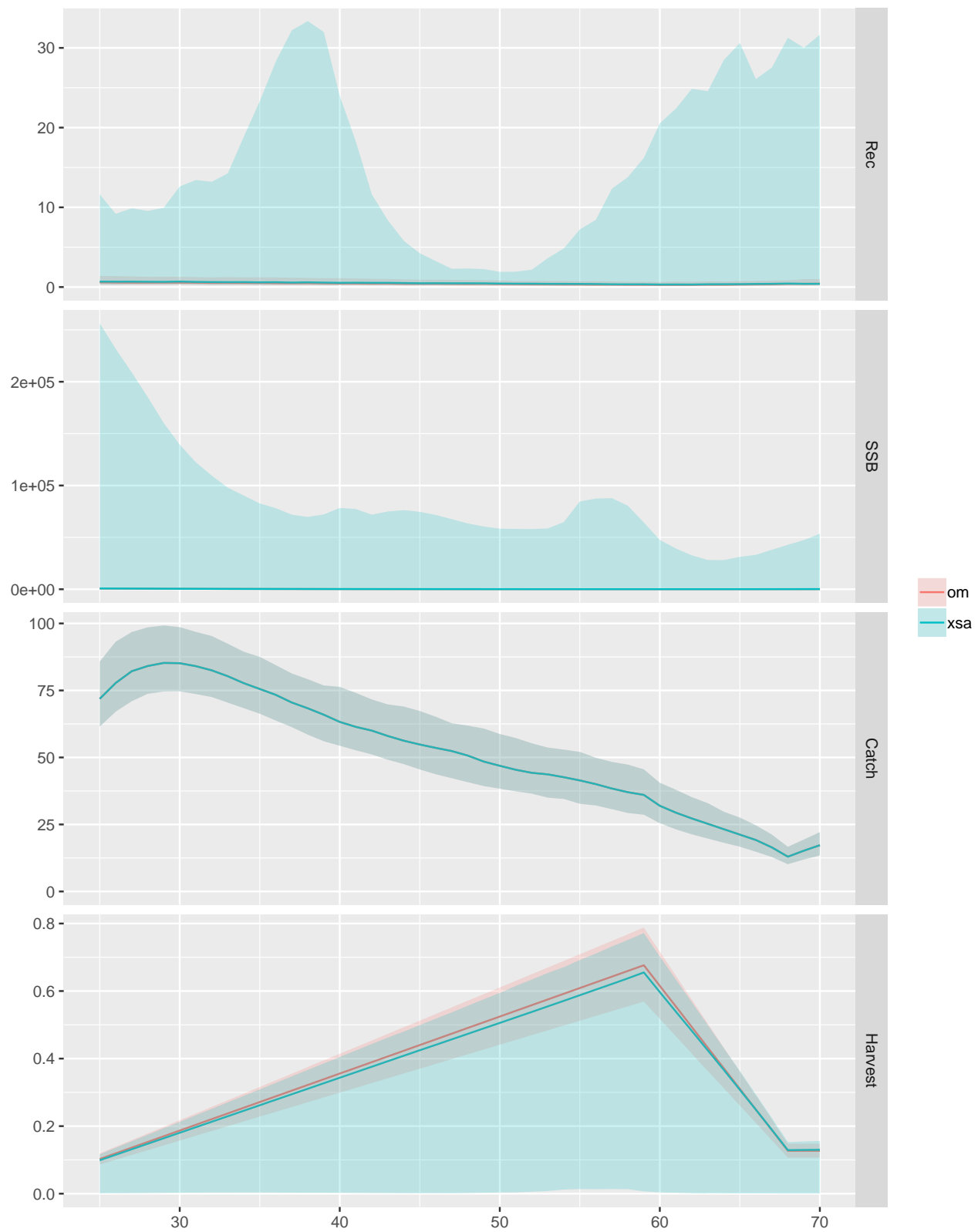
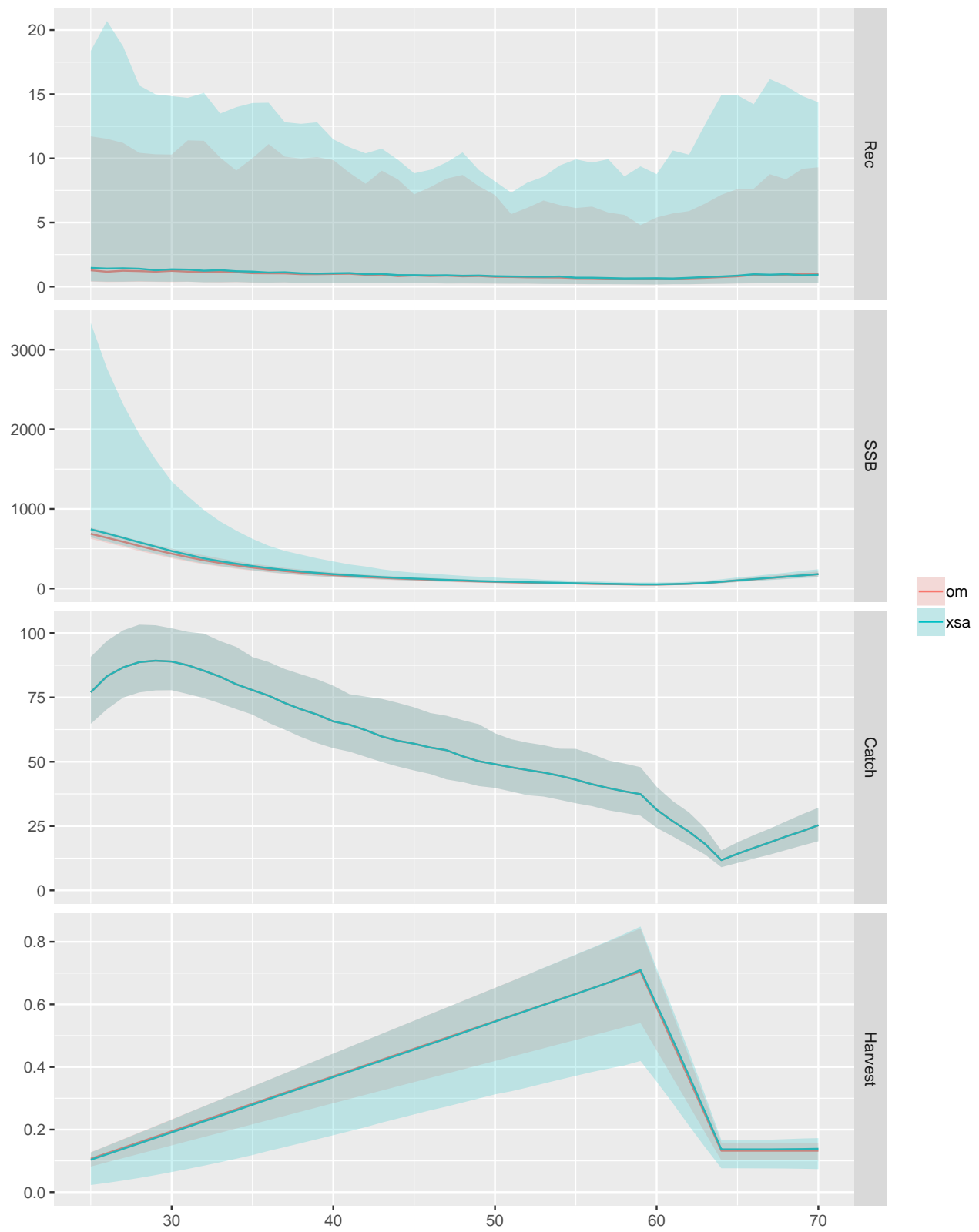## VPA

L Kell

12 July, 2018

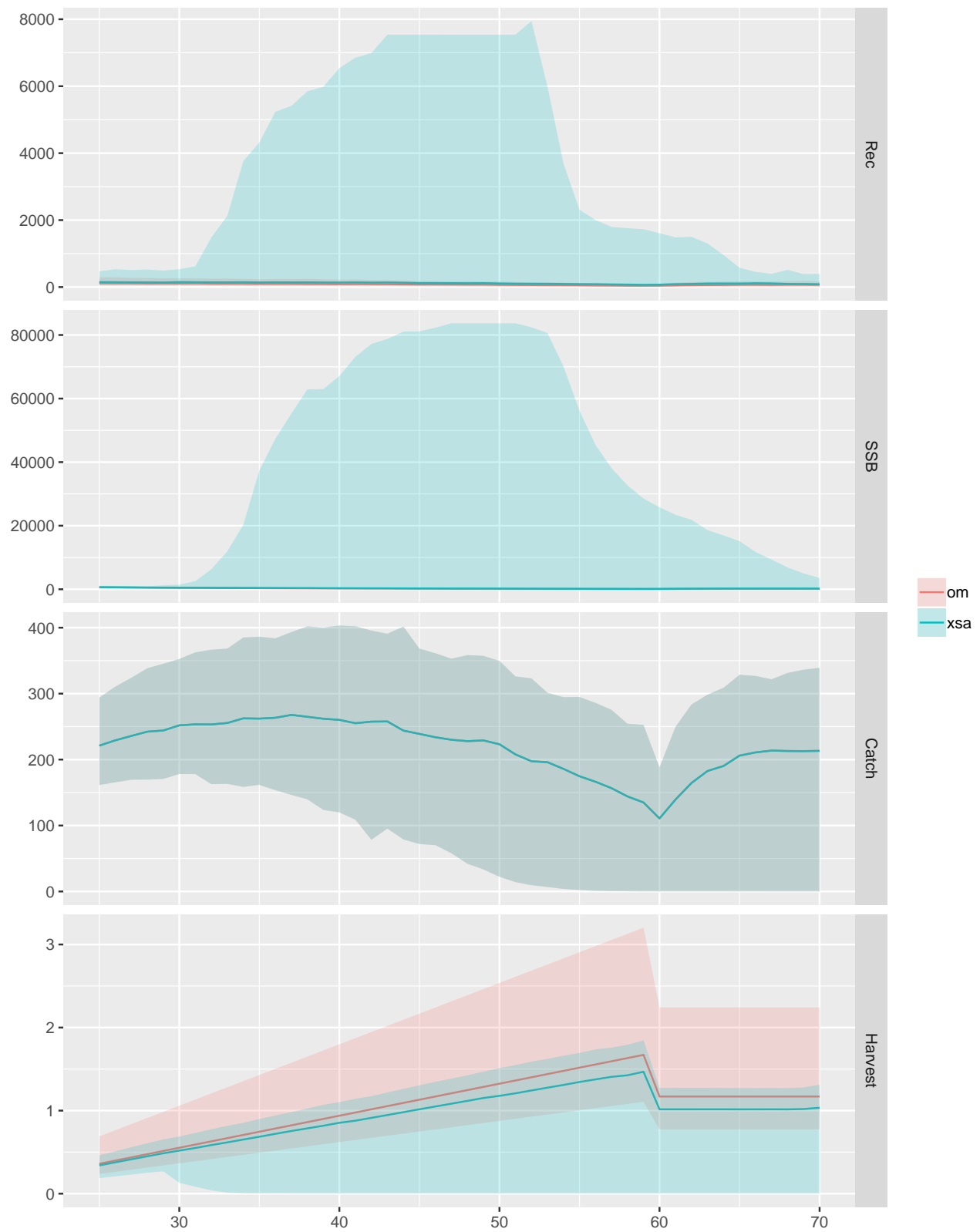**Figure 1.** Cross test for brill.

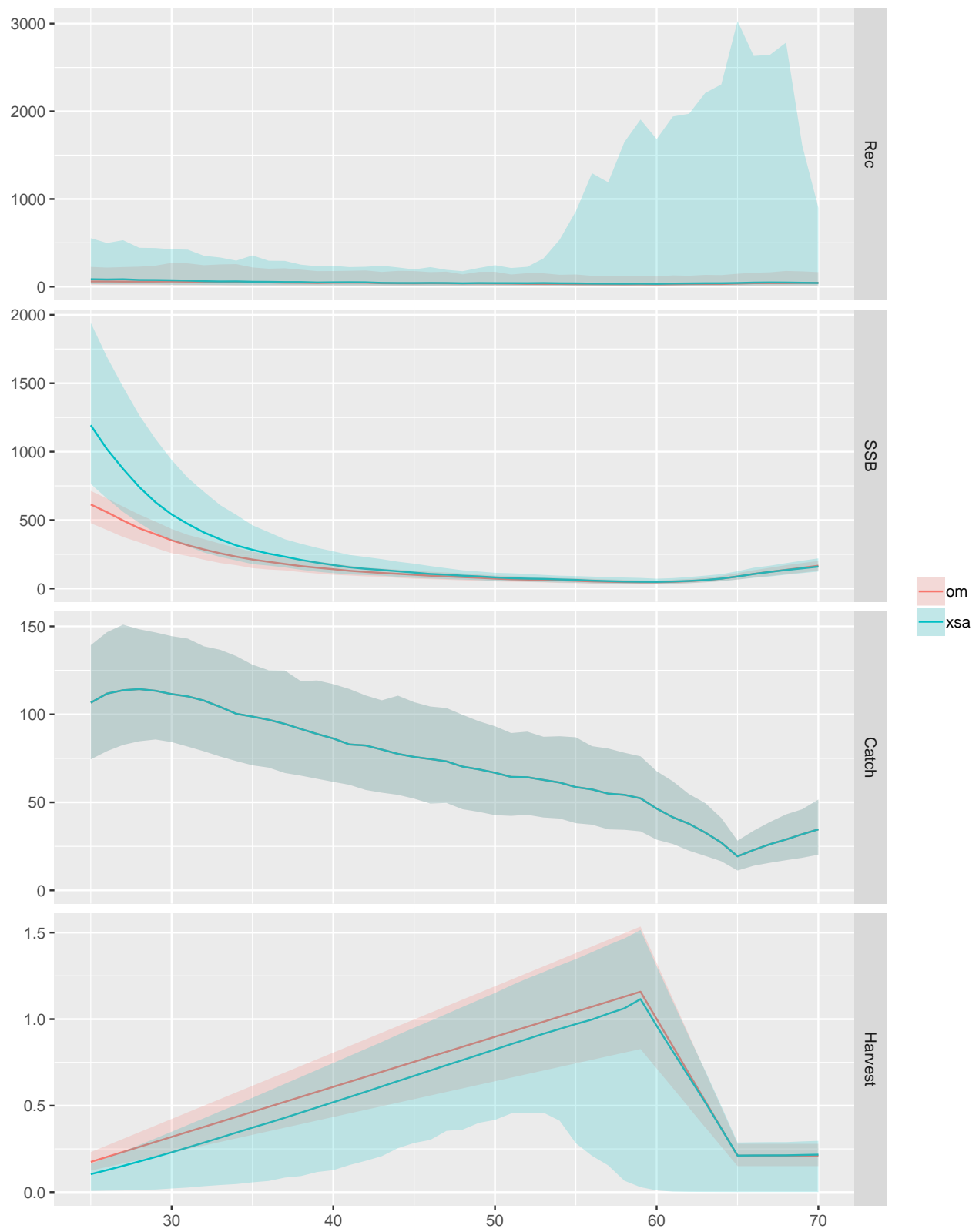**Figure 2.** Cross test for turbot.
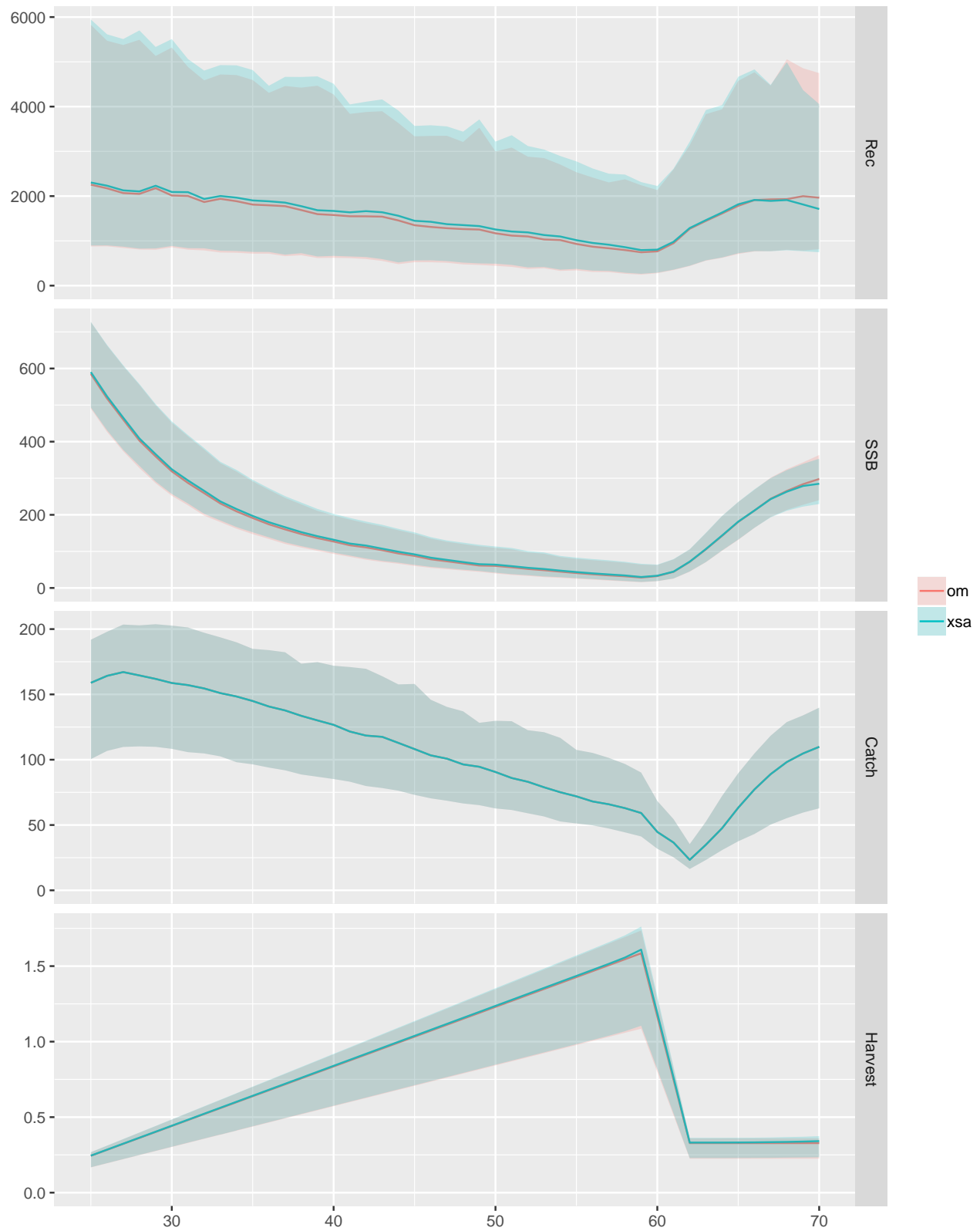
Figure 3. Cross test for ray.

Figure 4. Cross test for pollack.

Figure 5. Cross test for sprat.

Figure 6. Cross test for lobster.

Figure 7. Cross test for razor.

Figure 8. Retrospective cross test

Figure 9. Single retrospective cross test

Session Info

```
R version 3.4.1 (2017-06-30)
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] parallel  stats     graphics  grDevices utils     datasets  methods
[8] base

other attached packages:
 [1] FLRP_1.0.1.9001      FLasher_0.0.5.9005    FLFishery_0.1.3.9002
 [4] doParallel_1.0.10    iterators_1.0.9       foreach_1.4.4
 [7] FLXSA_2.6.1          FLAssess_2.6.1        ggplotFL_2.6.3
[10] FLCore_2.6.8         lattice_0.20-35       dplyr_0.7.5
[13] plyr_1.8.4           reshape_0.8.7         ggplot2_3.0.0
[16] knitr_1.20

loaded via a namespace (and not attached):
 [1] Rcpp_0.12.17     pillar_1.1.0     compiler_3.4.1    bindr_0.1.1
 [5] tools_3.4.1      digest_0.6.15    evaluate_0.10.1   tibble_1.4.2
 [9] gtable_0.2.0     pkgconfig_2.0.1  rlang_0.2.1       Matrix_1.2-10
[13] yaml_2.1.18      bindrcpp_0.2.2   gridExtra_2.3     withr_2.1.2
[17] stringr_1.3.1    stats4_3.4.1     rprojroot_1.3-2   grid_3.4.1
[21] tidyselect_0.2.4 glue_1.2.0       R6_2.2.2          rmarkdown_1.9
[25] purrr_0.2.5      magrittr_1.5     codetools_0.2-15  backports_1.1.2
[29] scales_0.5.0     htmltools_0.3.6  MASS_7.3-47       assertthat_0.2.0
[33] colorspace_1.3-2 stringi_1.2.3    lazyeval_0.2.1    munsell_0.5.0
```

Software Versions

- R version 3.4.1 (2017-06-30)
- FLCore: 2.6.8
- FLife: 3.2.0
- FLRP: 1.0.1.9001
- **Compiled**: Thu Jul 12 12:45:24 2018

Author information

Laurence KELL. laurie@kell.es

References