Cross test using Operating Model based on Life History

Biomass Dynamic

L Kell

22 July, 2018

Cross tests

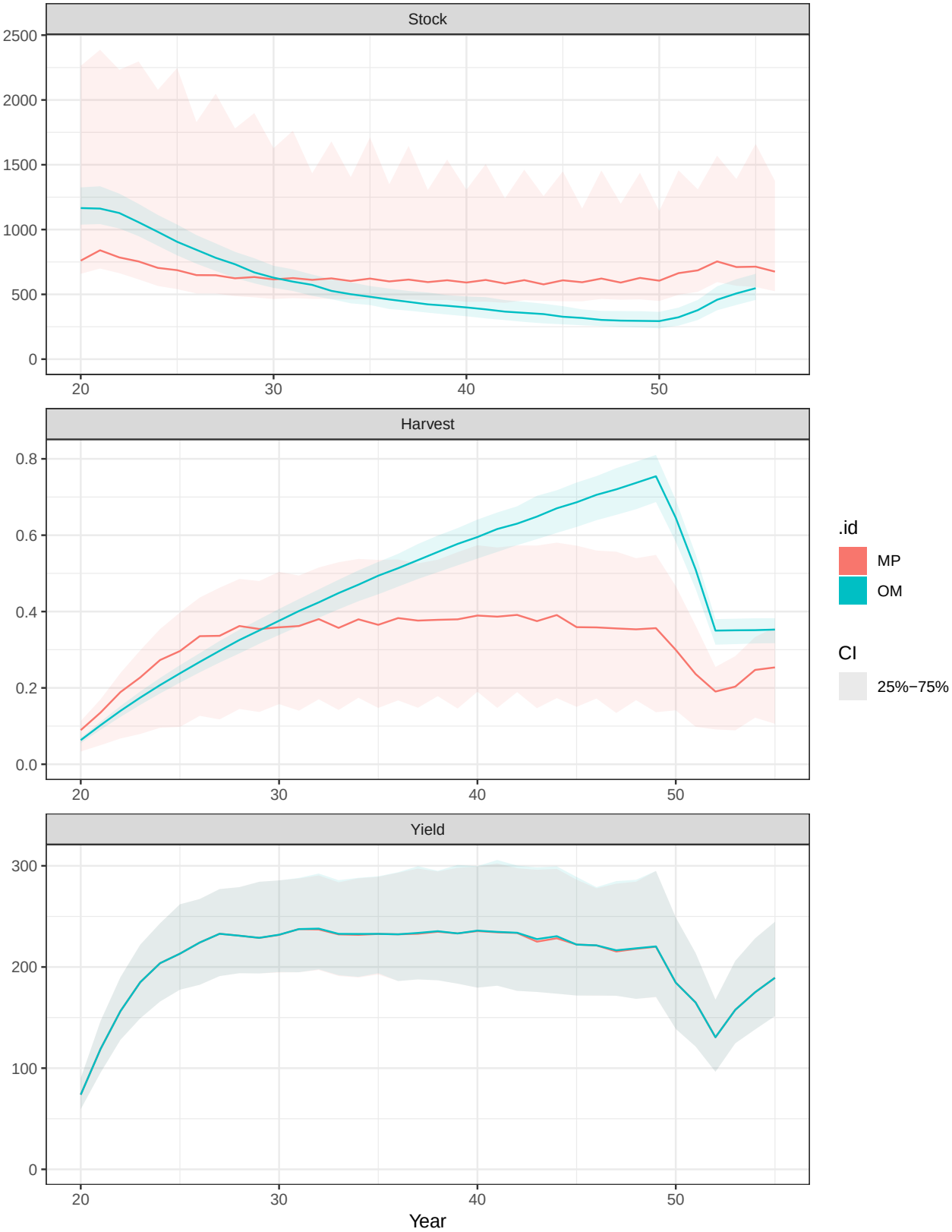

Figure 1, Cross test of biomass dyanmic assessment for brill.

Turbot

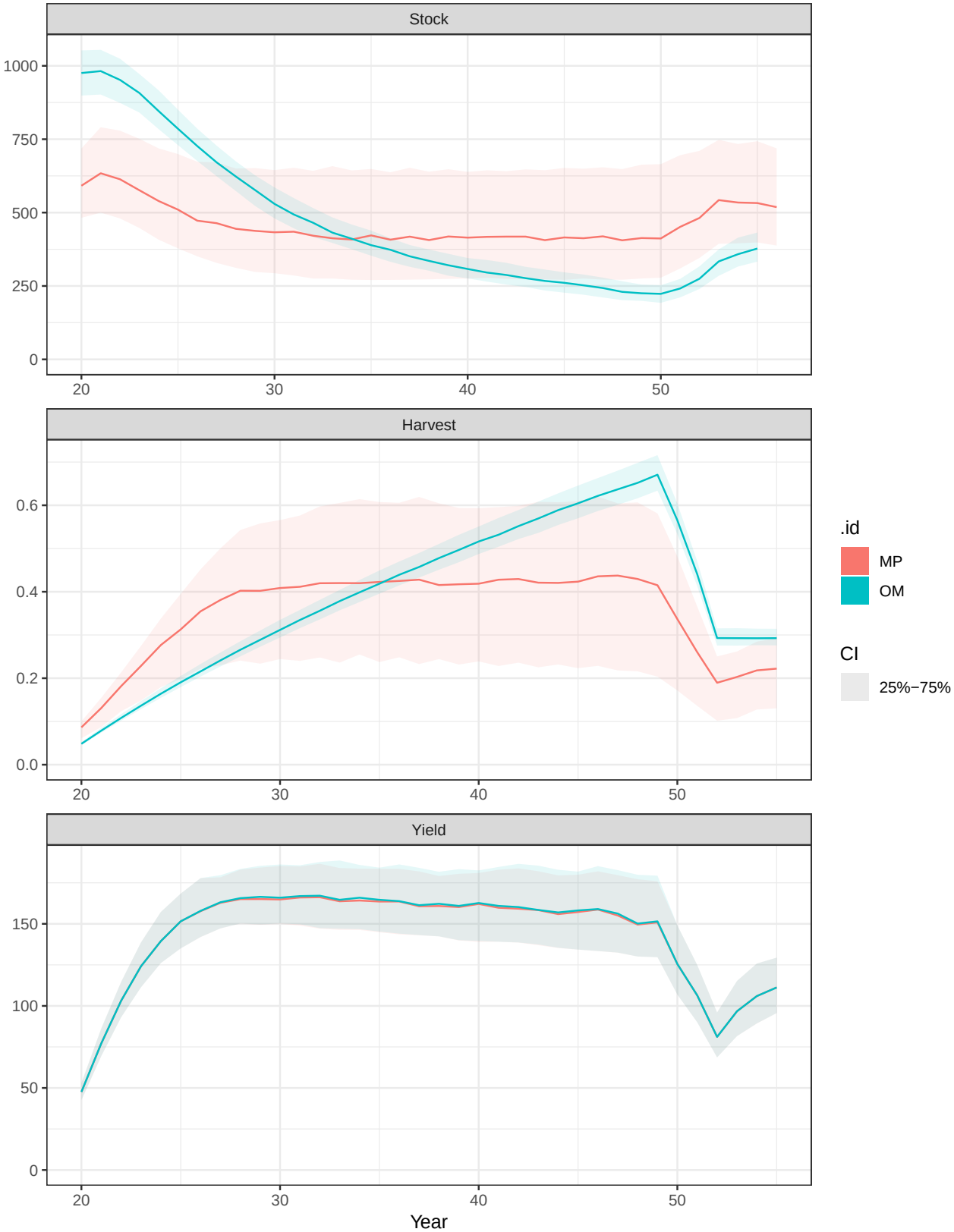
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.6
0.4
0.2
0.0
20
30
40
50
Yield
150
100
50
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

Figure 2, Cross test of biomass dyanmic assessment for turbot.

Ray

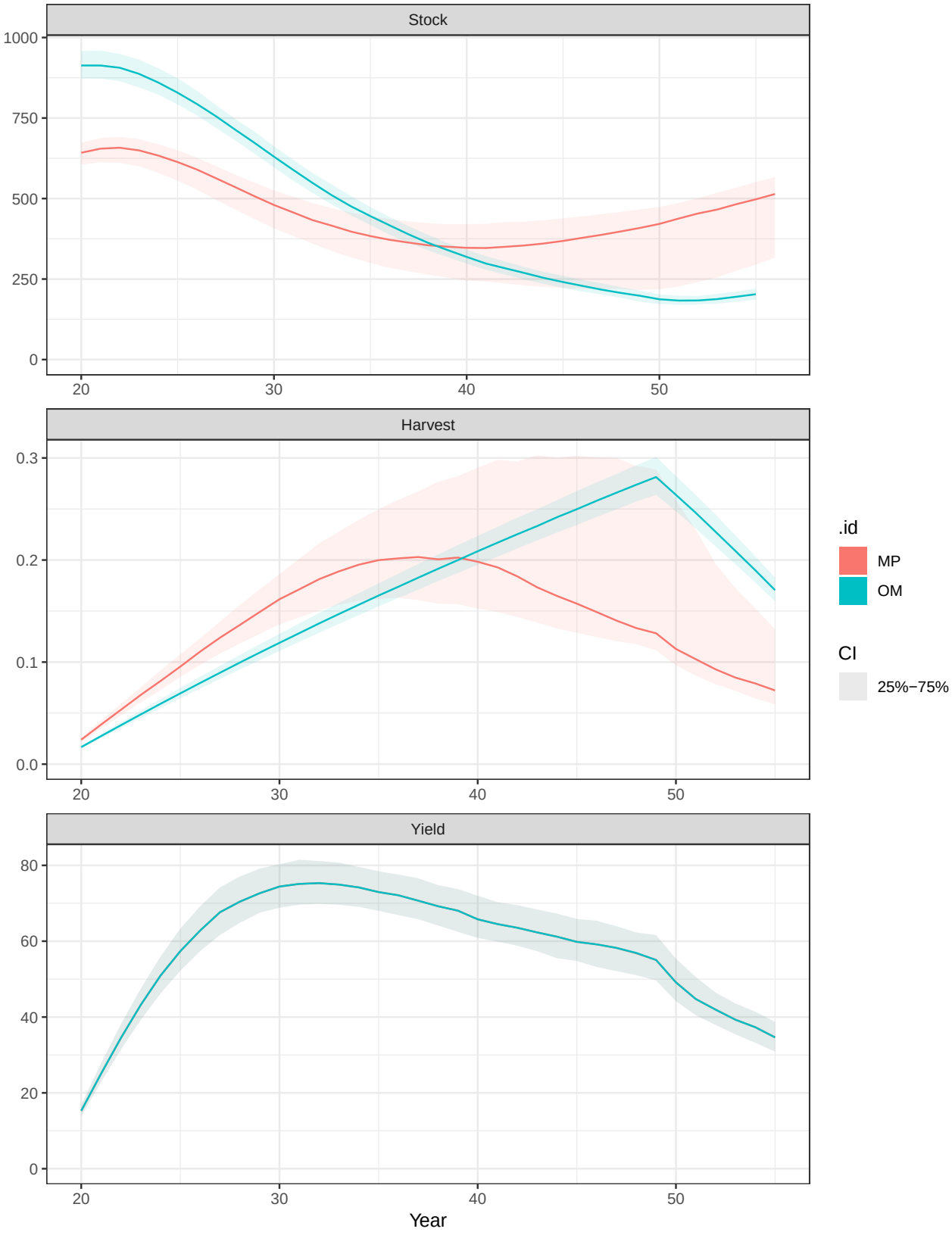
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.3
0.2
0.1
0.0
20
30
40
50
Yield
80
60
40
20
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

Figure 3, Cross test of biomass dyanmic assessment for ray.

Pollack

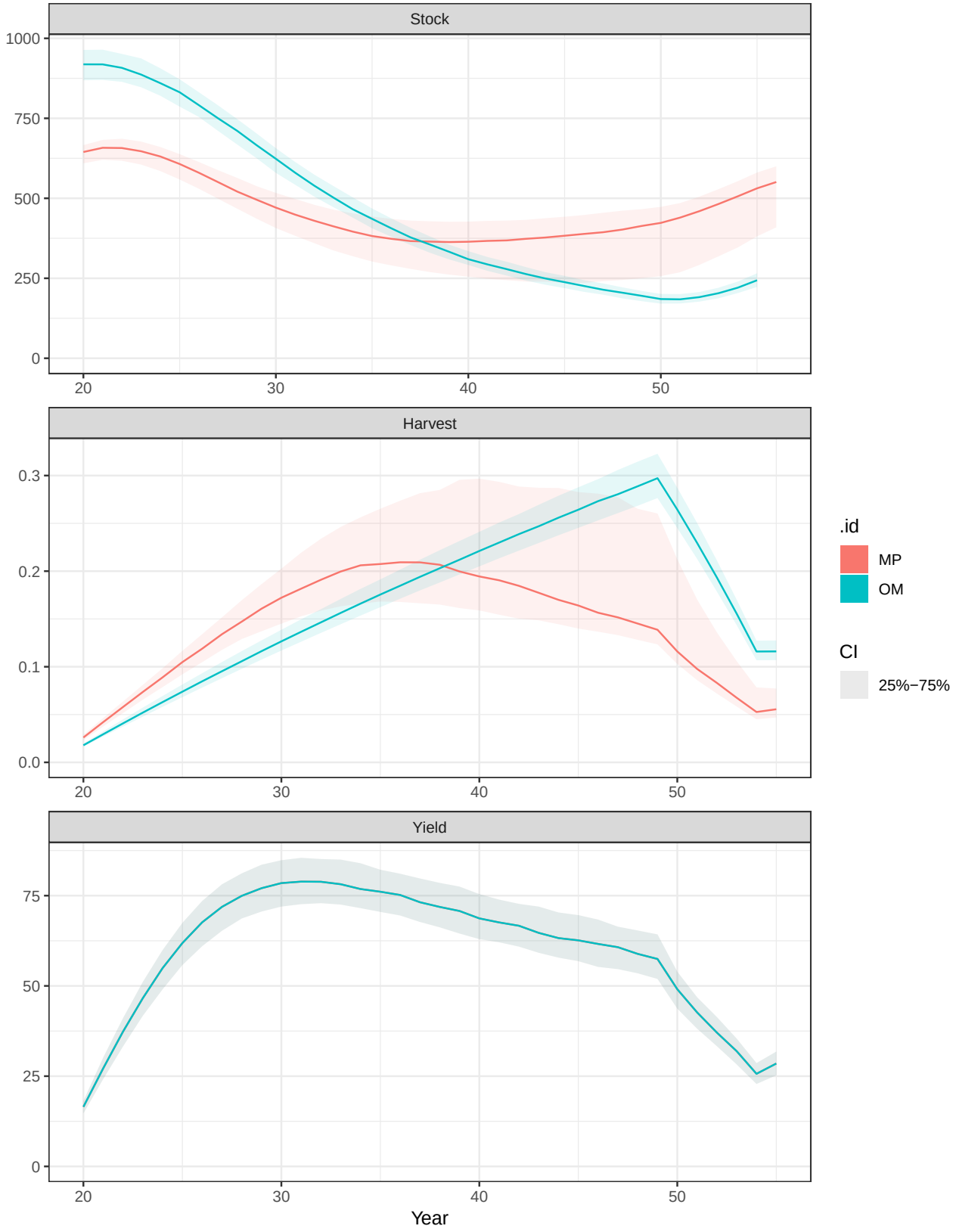
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.3
0.2
0.1
0.0
20
30
40
50
Yield
75
50
25
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

Figure 4, Cross test of biomass dyanmic assessment for pollack.

Sprat

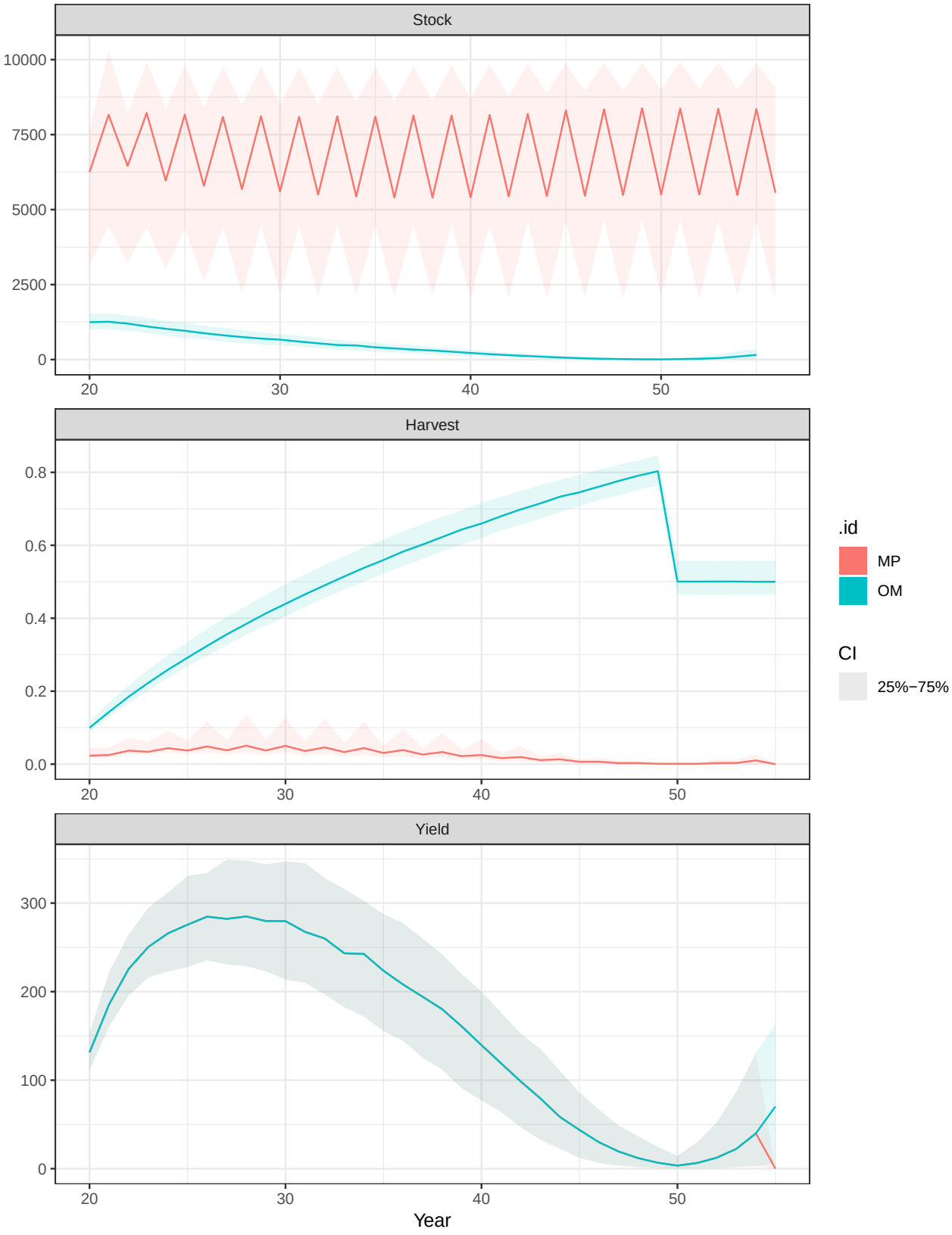
Stock
10000
7500
5000
2500
0
20
30
40
50
Harvest
0.8
0.6
0.4
0.2
0.0
20
30
40
50
Yield
300
200
100
0
20
30
40
50
Year
.id
MP
OM
CI
25%−75%

Figure 5, Cross test of biomass dyanmic assessment for sprat.

Lobster

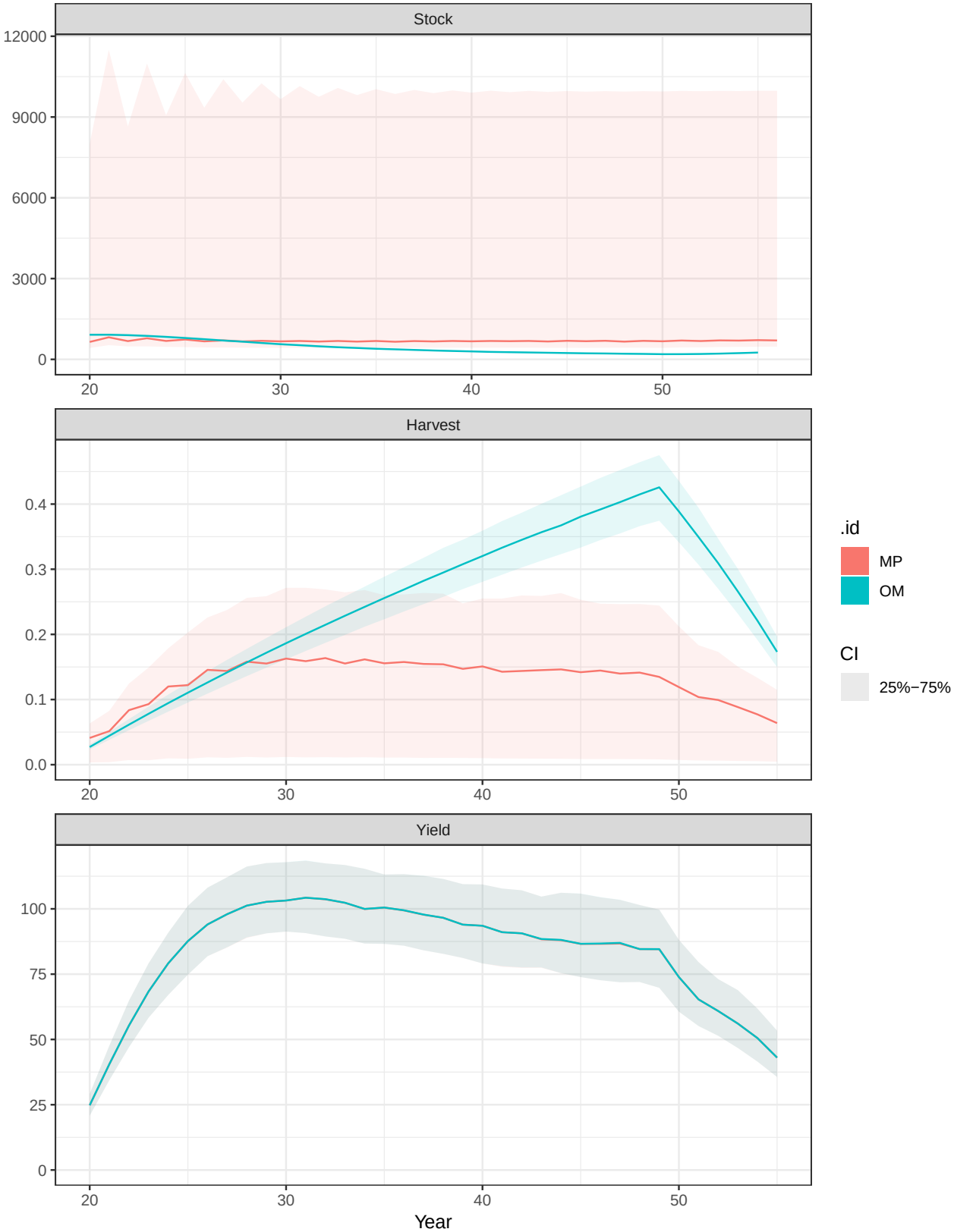
Stock
12000
9000
6000
3000
0
20
30
40
50
Harvest
0.4
0.3
0.2
0.1
0.0
20
30
40
50
Yield
100
75
50
25
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

Figure 6, Cross test of biomass dyanmic assessment for lobster.

Razor

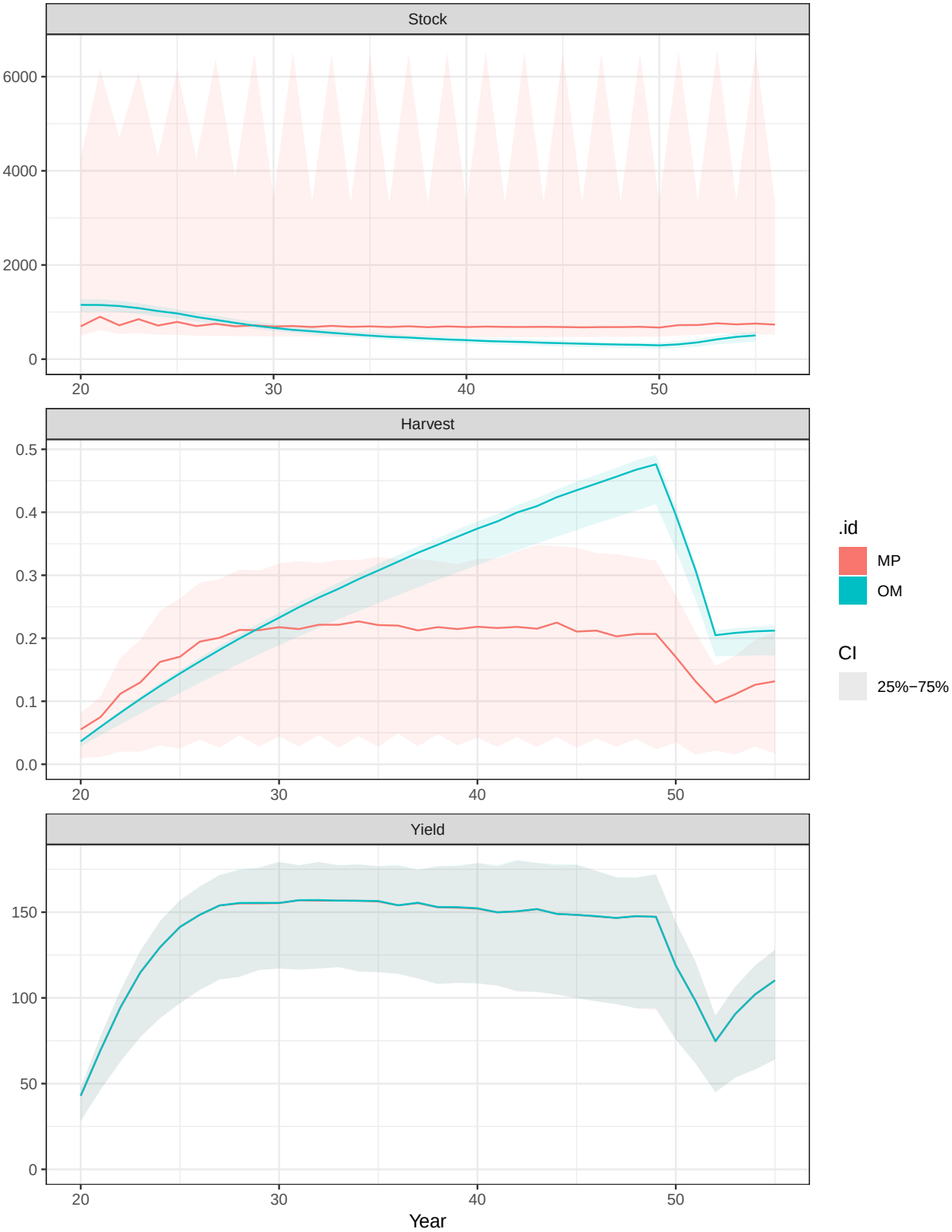

Figure 7, Cross test of biomass dyanmic assessment for razor.

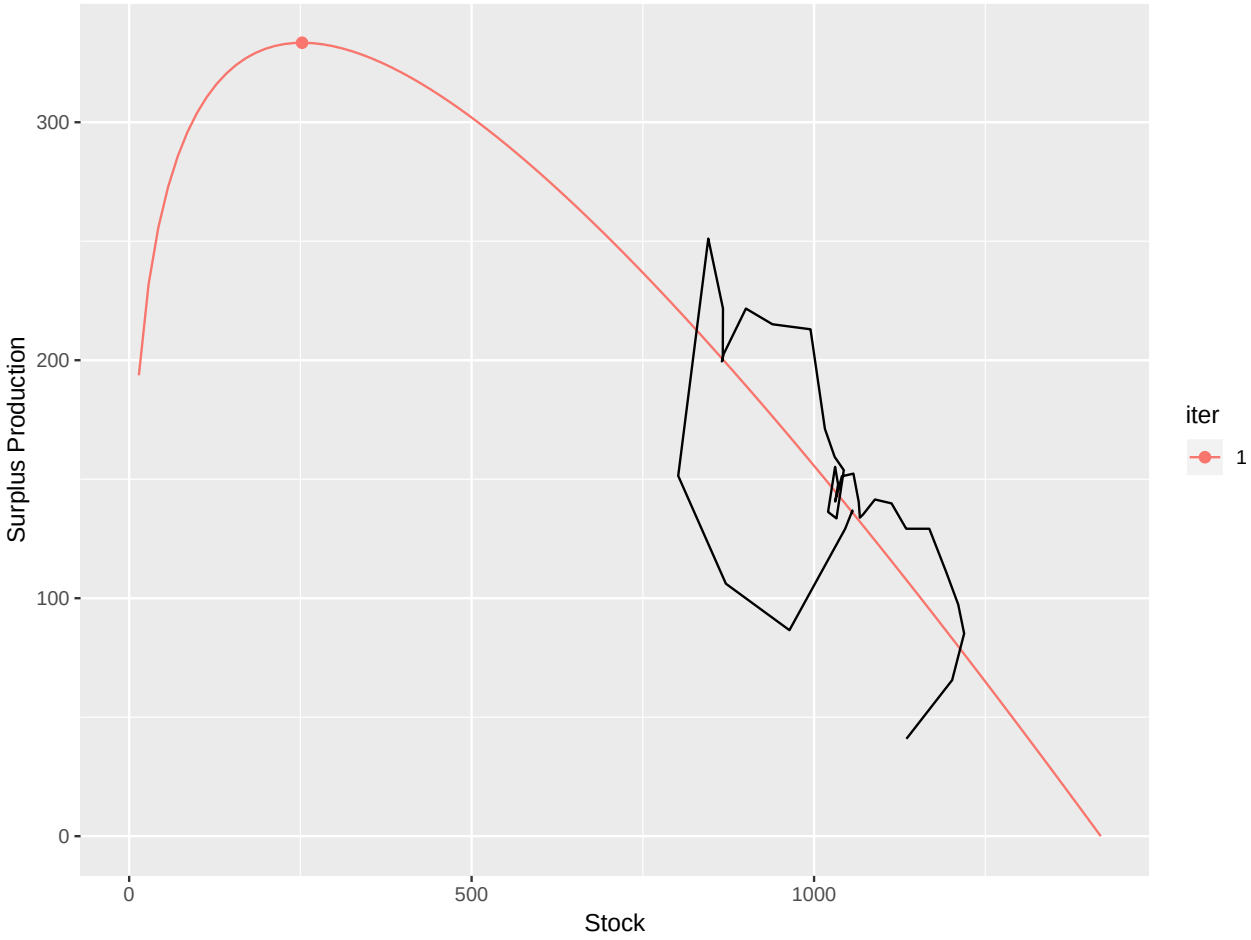

Figure 8, Biomass dynamic production function.

Figure 9, Biomass dynamic

Figure 10, Biomass dynamic

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] stats     graphics  grDevices utils     datasets  methods   base

other attached packages:
[1] mpb_3.0.0       ggplotFL_2.6.4  FLCore_2.6.8    lattice_0.20-35
[5] dplyr_0.7.6     plyr_1.8.4      reshape_0.8.7   ggplot2_3.0.0
[9] 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] FLRP_1.0.1.9002  FLBRP_2.5.3      purrr_0.2.5      magrittr_1.5
[29] codetools_0.2-15 backports_1.1.2  scales_0.5.0     htmltools_0.3.6
[33] MASS_7.3-47      assertthat_0.2.0 colorspace_1.3-2 labeling_0.3
[37] 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
- FLBRP: 2.5.3
- **Compiled**: Sun Jul 22 12:08:21 2018

Author information

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Acknowledgements

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References