Cross test using Operating Model based on Life History

Biomass Dynamic

L Kell

23 July, 2018

Cross tests

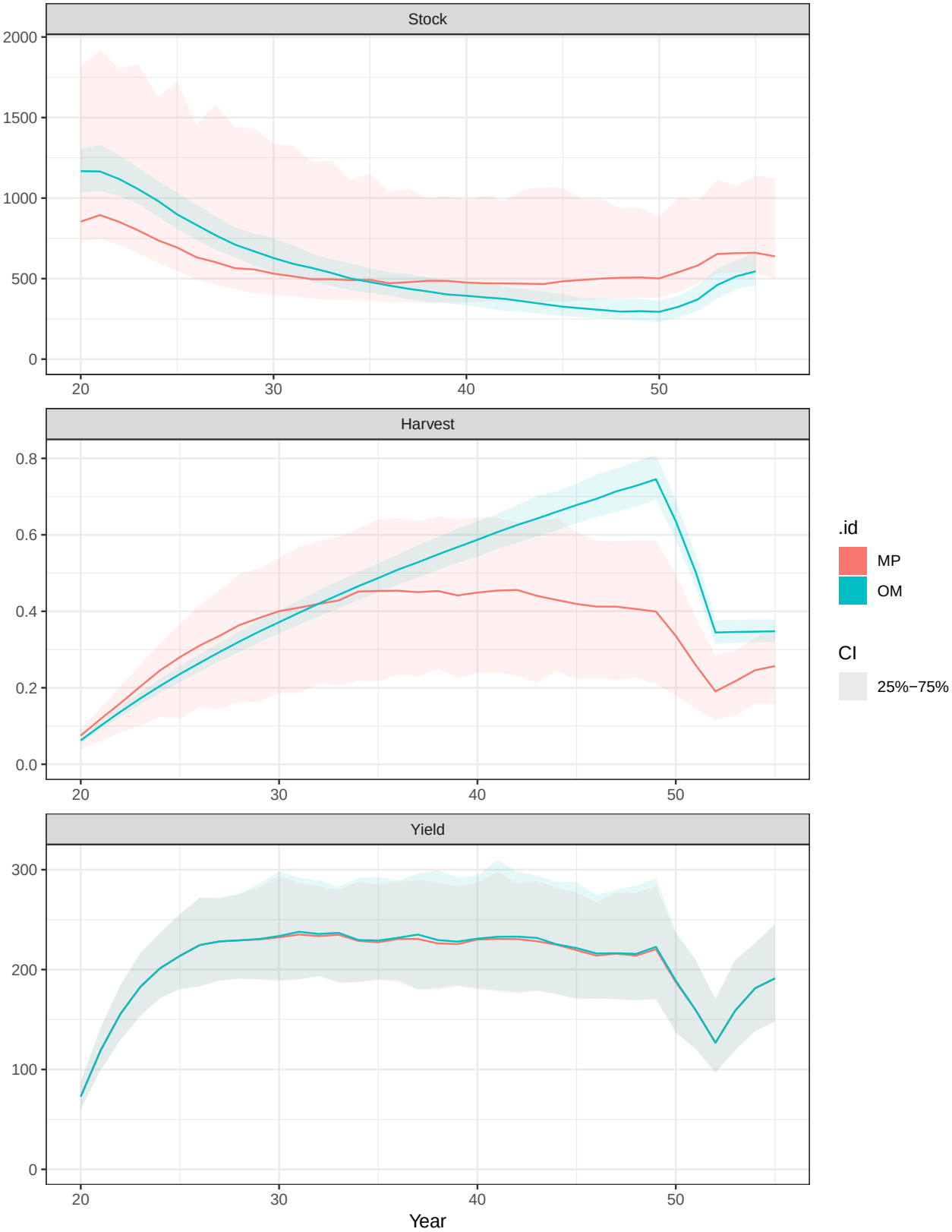

Figure 1, Cross test of biomass dyanmic assessment for brill.

Turbot

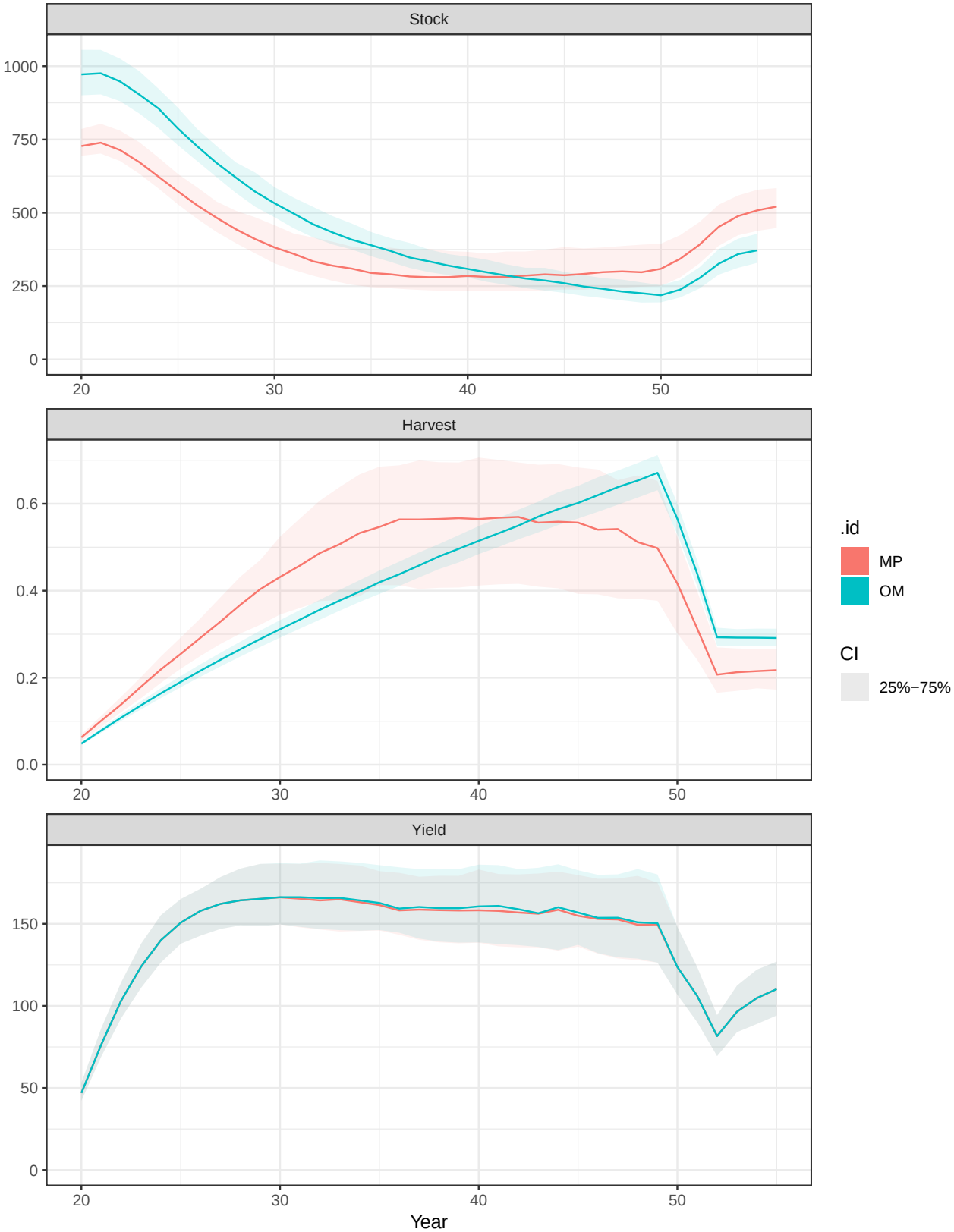
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.6
0.4
0.2
0.0
20
30
40
50
Yield
150
100
50
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

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

Ray

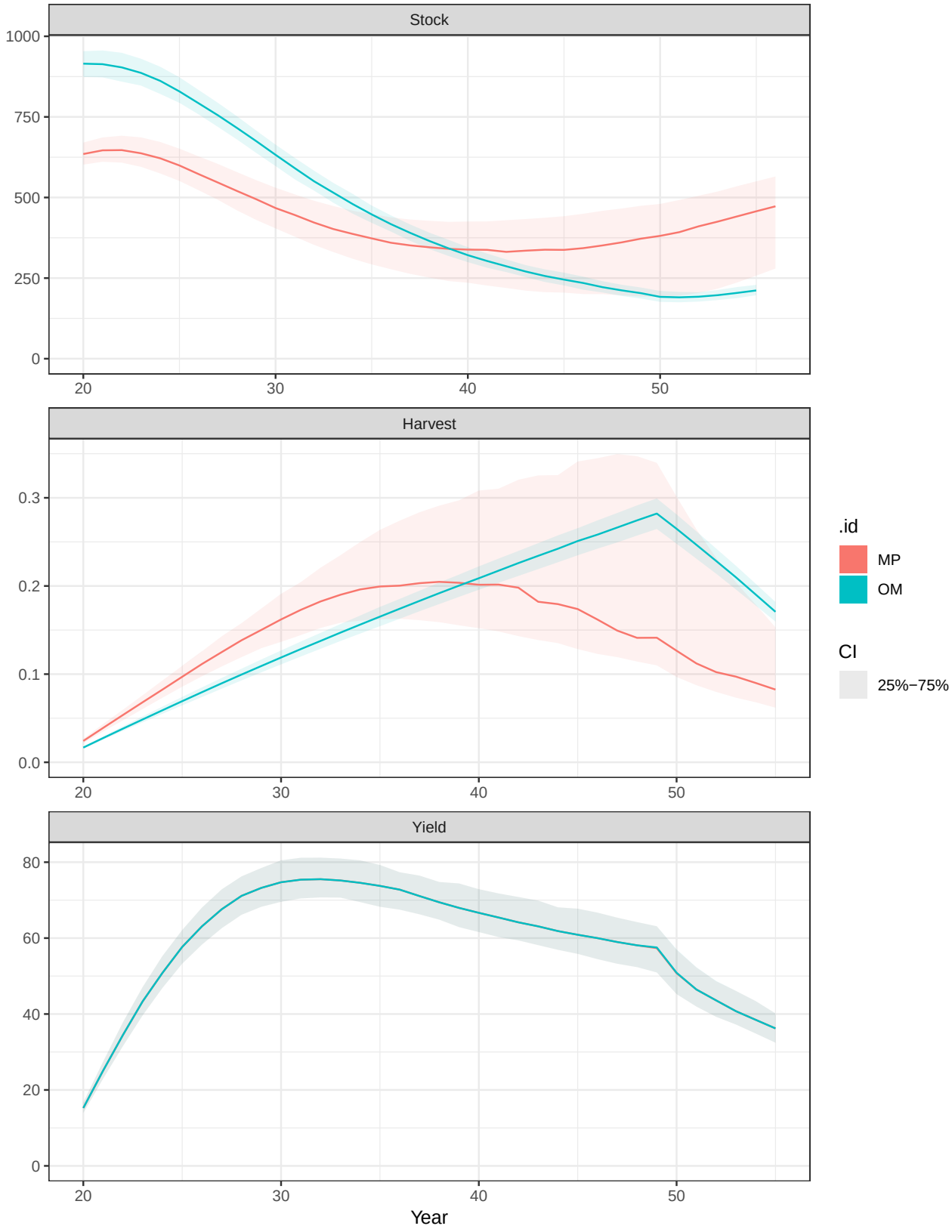
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.3
0.2
0.1
0.0
20
30
40
50
Yield
80
60
40
20
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

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

Pollack

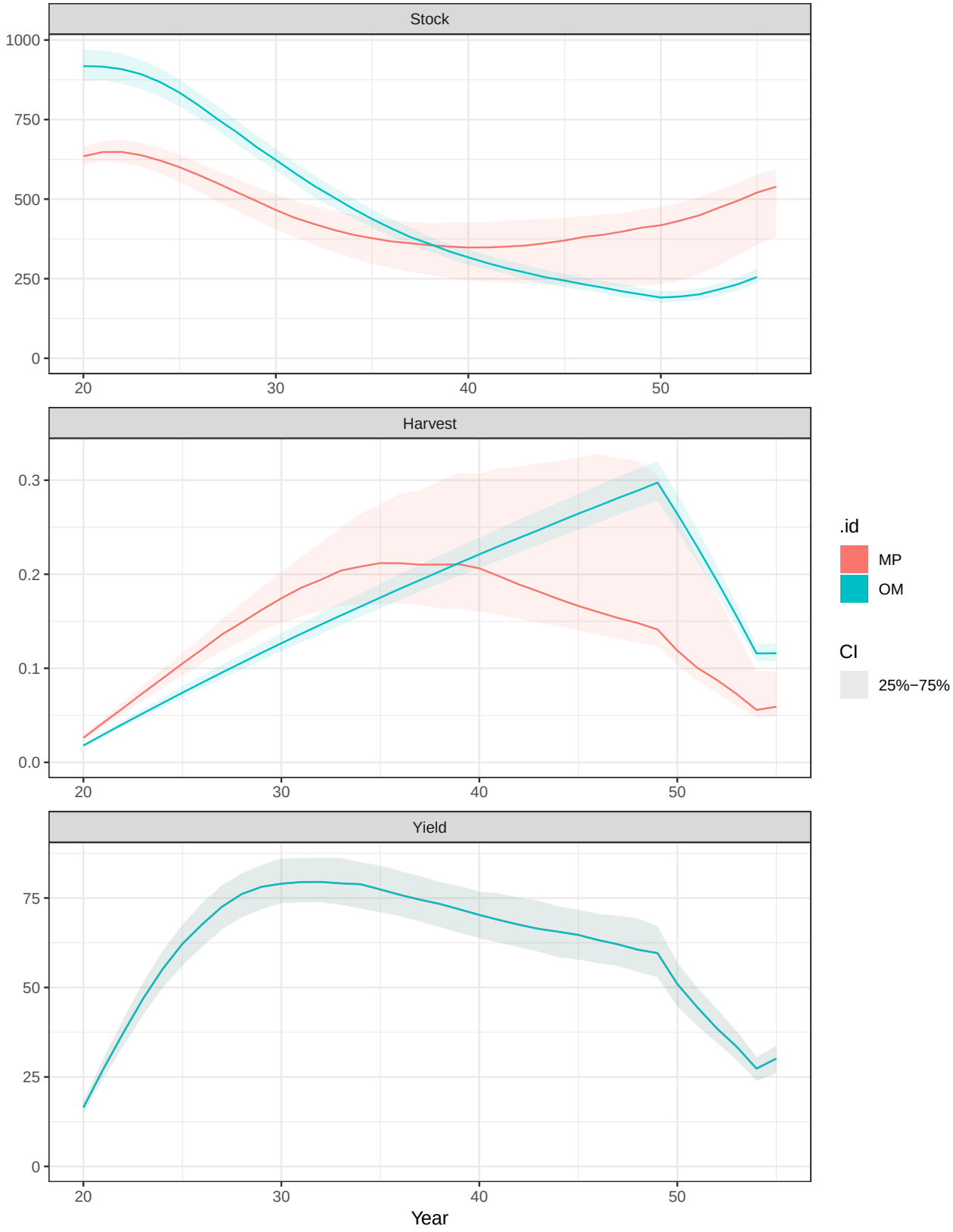
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.3
0.2
0.1
0.0
20
30
40
50
Yield
75
50
25
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

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

Sprat

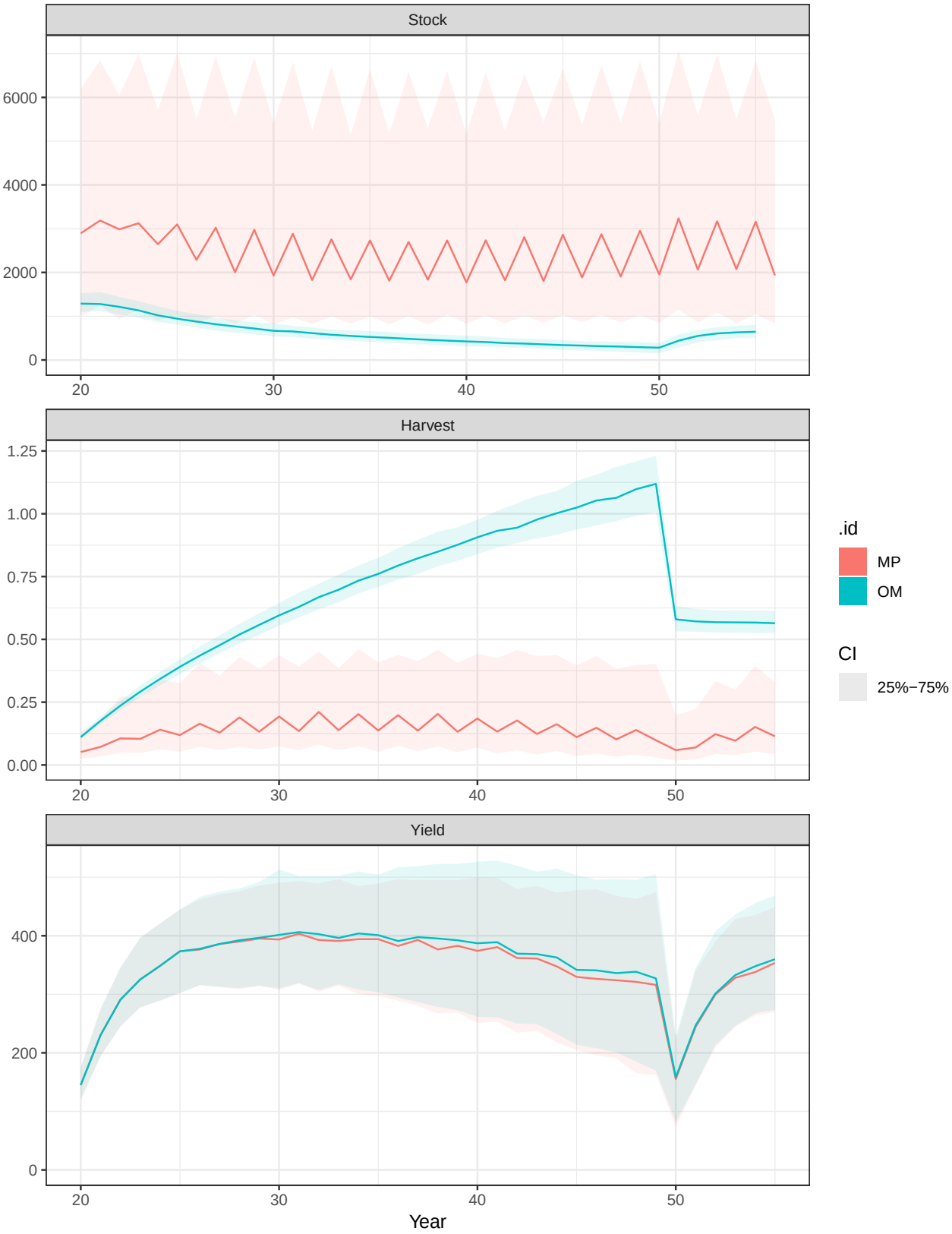
Stock
6000
4000
2000
0
20
30
40
50
Harvest
1.25
1.00
0.75
0.50
0.25
0.00
20
30
40
50
Yield
400
200
0
20
30
40
50
Year
.id
MP
OM
CI
25%−75%

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

Lobster

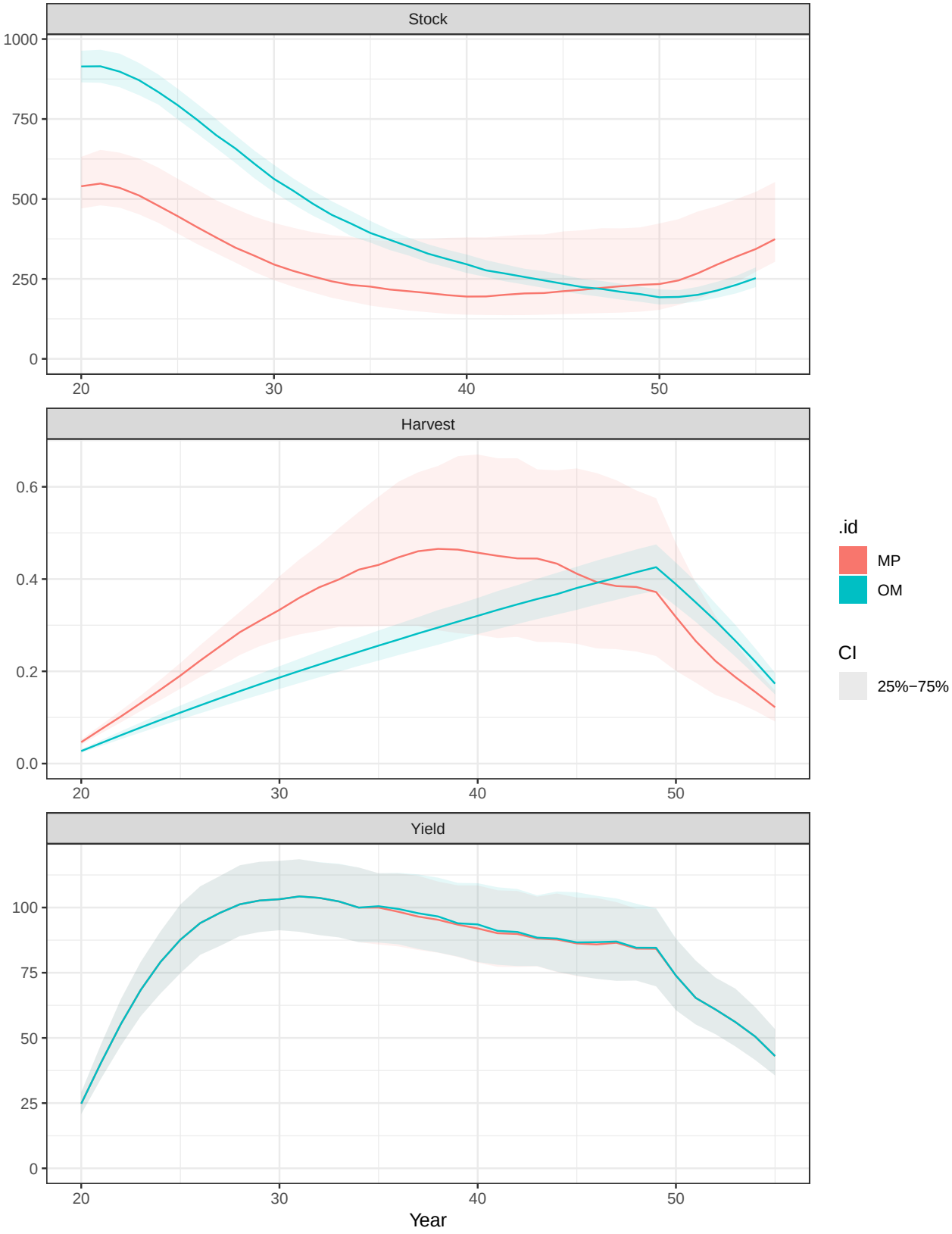
Stock
1000
750
500
250
0
20
30
40
50
Harvest
0.6
0.4
0.2
0.0
20
30
40
50
Yield
100
75
50
25
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

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

Razor

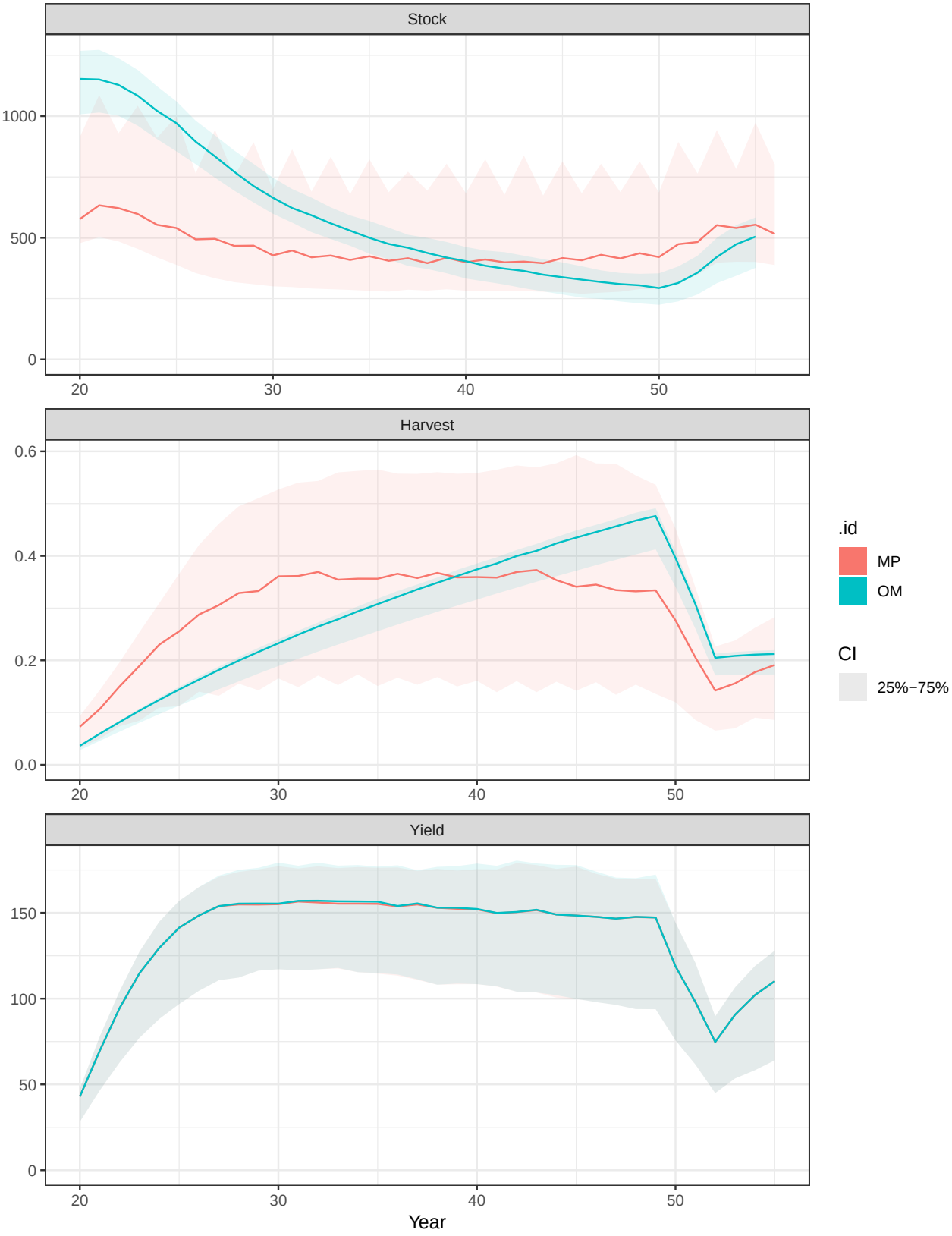
Stock
1000
500
0
Harvest
0.6
0.4
0.2
0.0
Yield
150
100
50
0
20
30
40
50
Year
.id
MP
OM
CI
25%–75%

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

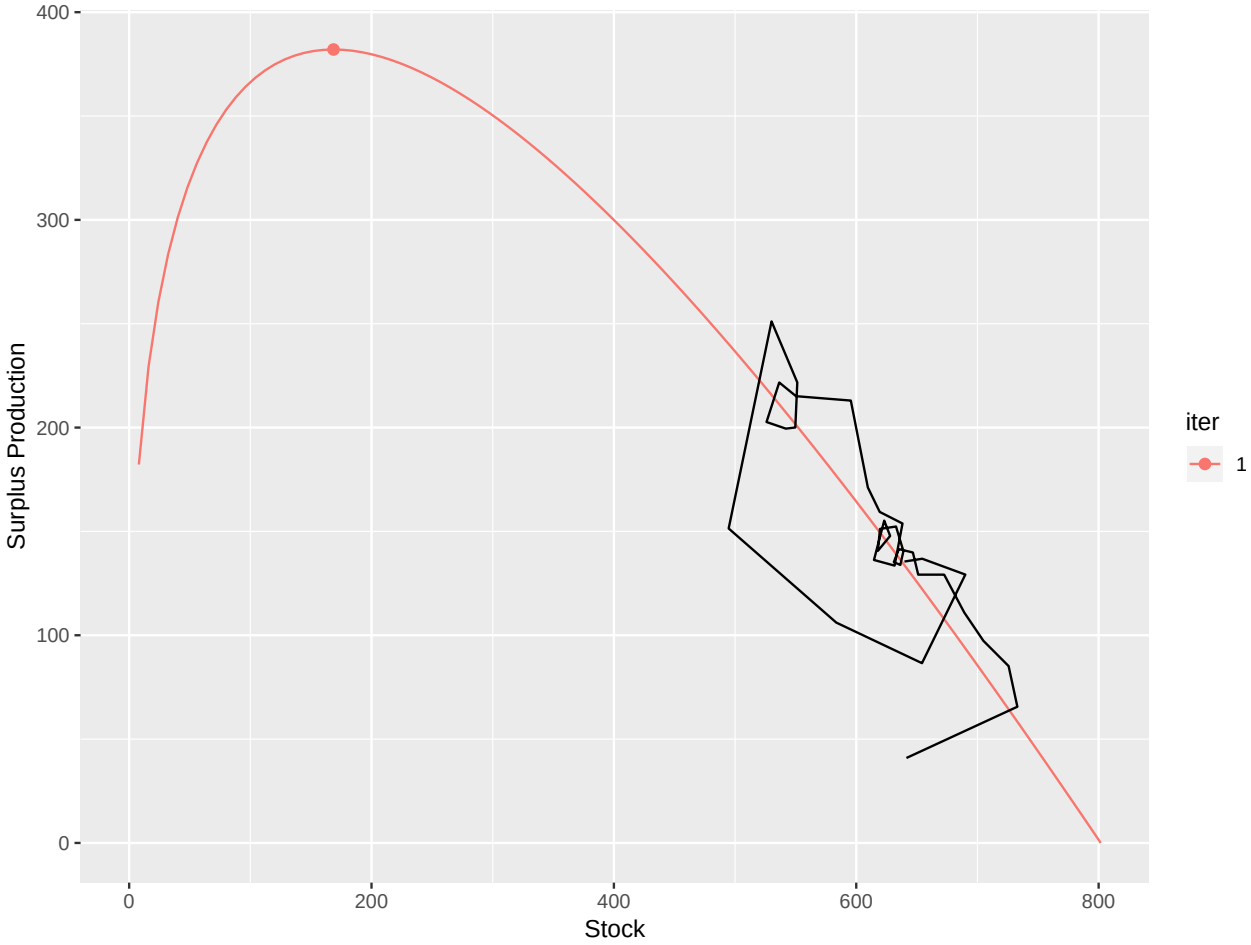

Figure 8, Biomass dynamic production function.

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] FLBRP_2.5.3      FLRP_1.0.1.9002  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 FLife_3.2.0      colorspace_1.3-2
[37] labeling_0.3     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**: Mon Jul 23 10:11:04 2018

Author information

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Acknowledgements

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References