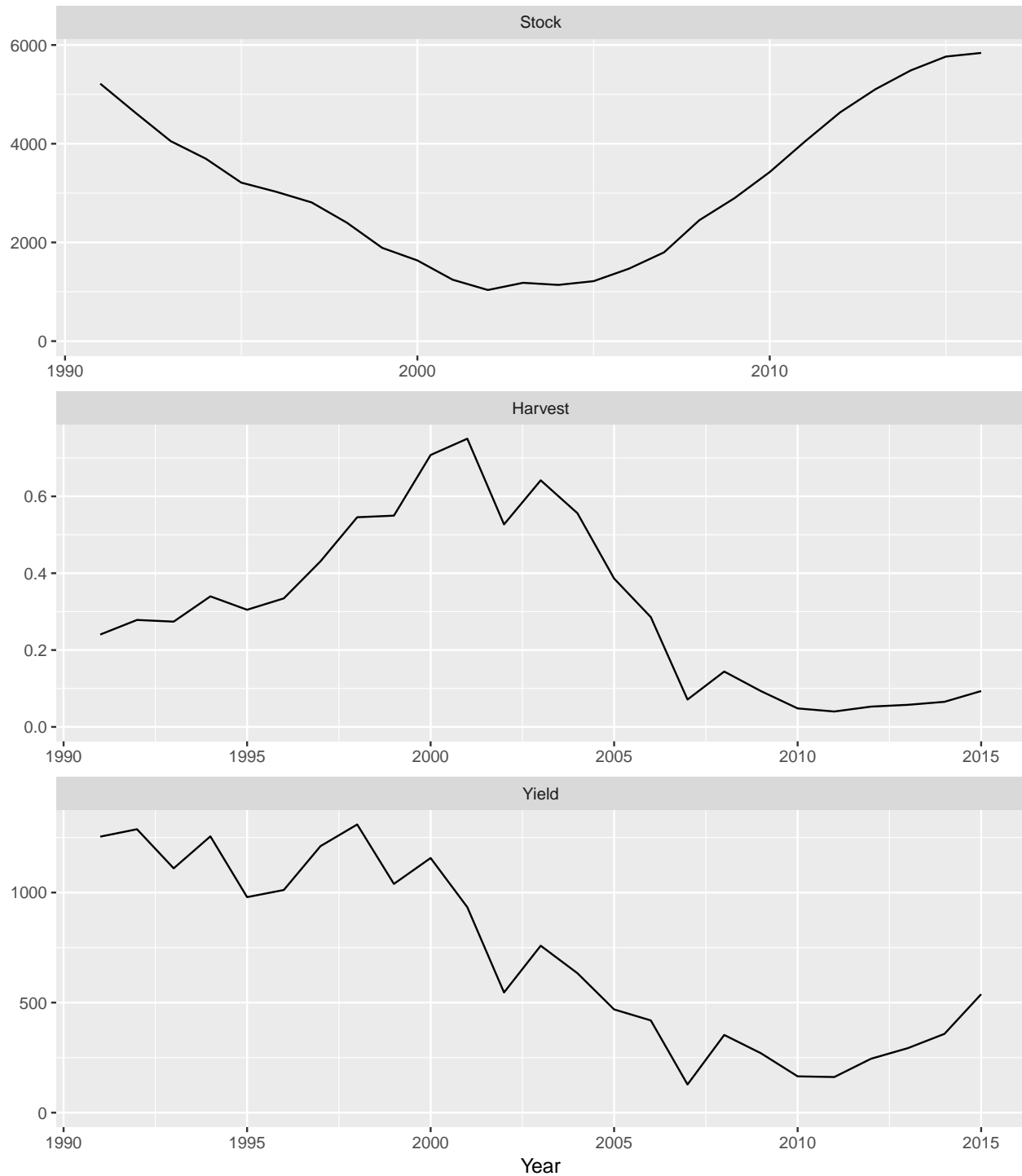


# Biodyn

Biomass Dynamic

*L Kell*

*24 July, 2018*



**Figure 1,** Biomass dyanmic assessment

## Software Versions

- R version 3.4.1 (2017-06-30)
- FLCore: 2.6.9
- FLlife: 3.2.0
- FLBRP: 2.5.3
- **Compiled:** Tue Jul 24 10:27:03 2018

## Author information

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## 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 3.4.1 (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] bindrcpp_0.2.2  mpb_3.0.0      ggplotFL_2.6.4  FLCore_2.6.9
[5] lattice_0.20-35 dplyr_0.7.6    plyr_1.8.4      reshape_0.8.7
[9] ggplot2_3.0.0   knitr_1.20
```

loaded via a namespace (and not attached):

```
[1] Rcpp_0.12.18    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	gridExtra_2.3	withr_2.1.2	stringr_1.3.1
[17]	stats4_3.4.1	rprojroot_1.3-2	grid_3.4.1	tidyselect_0.2.4
[21]	glue_1.2.0	R6_2.2.2	rmarkdown_1.9	FLRP_1.0.1.9002
[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]	FLife_3.2.0	colorspace_1.3-2	labeling_0.3	stringi_1.2.3
[37]	lazyeval_0.2.1	munsell_0.5.0		