

Northwest Atlantic



Fisheries Organization

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SCIENTIFIC COUNCIL MEETING – JUNE 2023

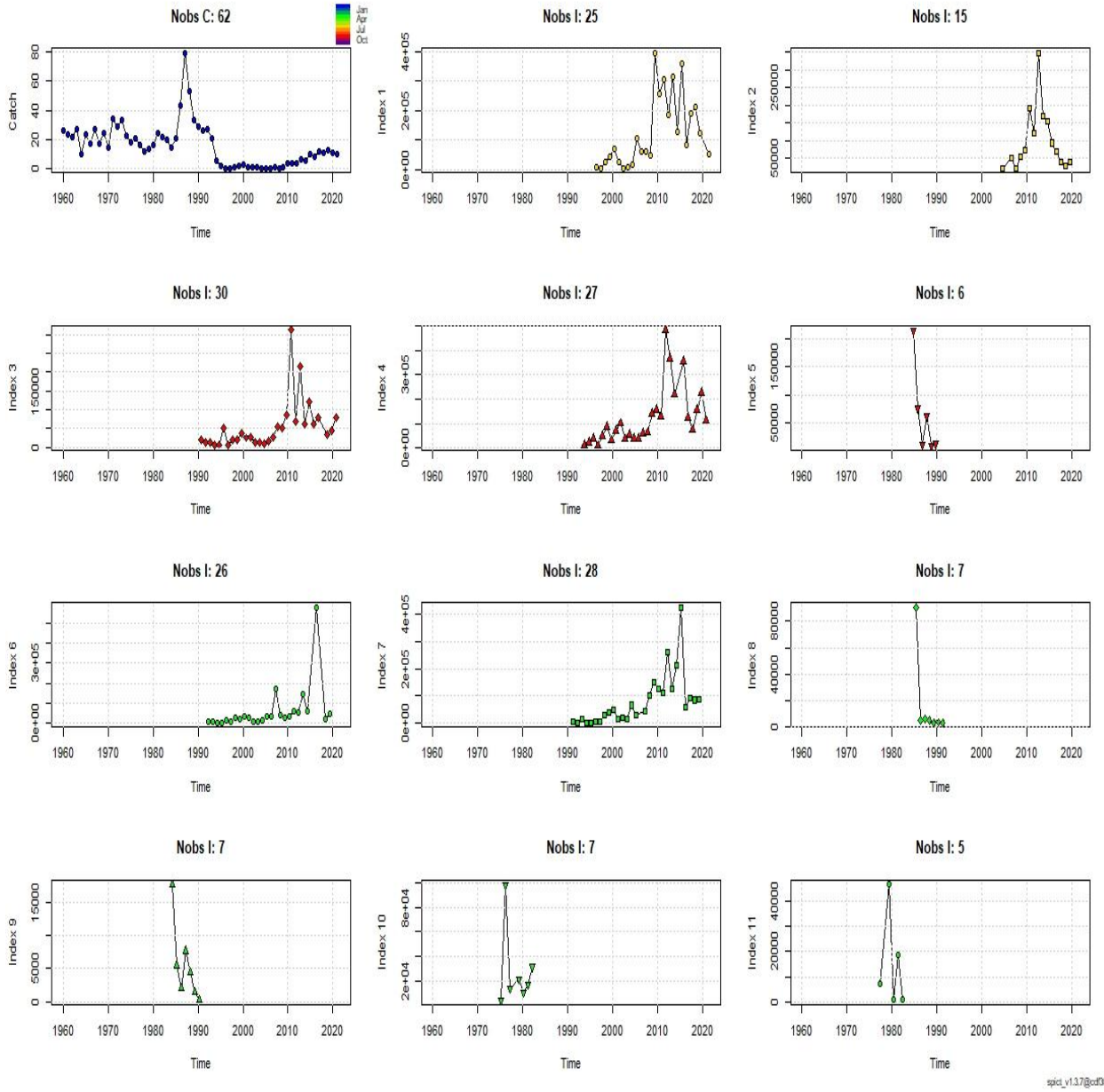
**Supplementary Materials for: Preliminary operating models for the 3LN redfish
management strategy evaluation**

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Fisheries and Oceans Canada, 80 East White Hills Road
St. John's, Newfoundland and Labrador, A1C 5X1, Canada



SPiCT 1960 MODEL OUTPUT



spict_v1.3.7j@cdf05

Figure 1. Model inputs for SPiCT 1960 model run.



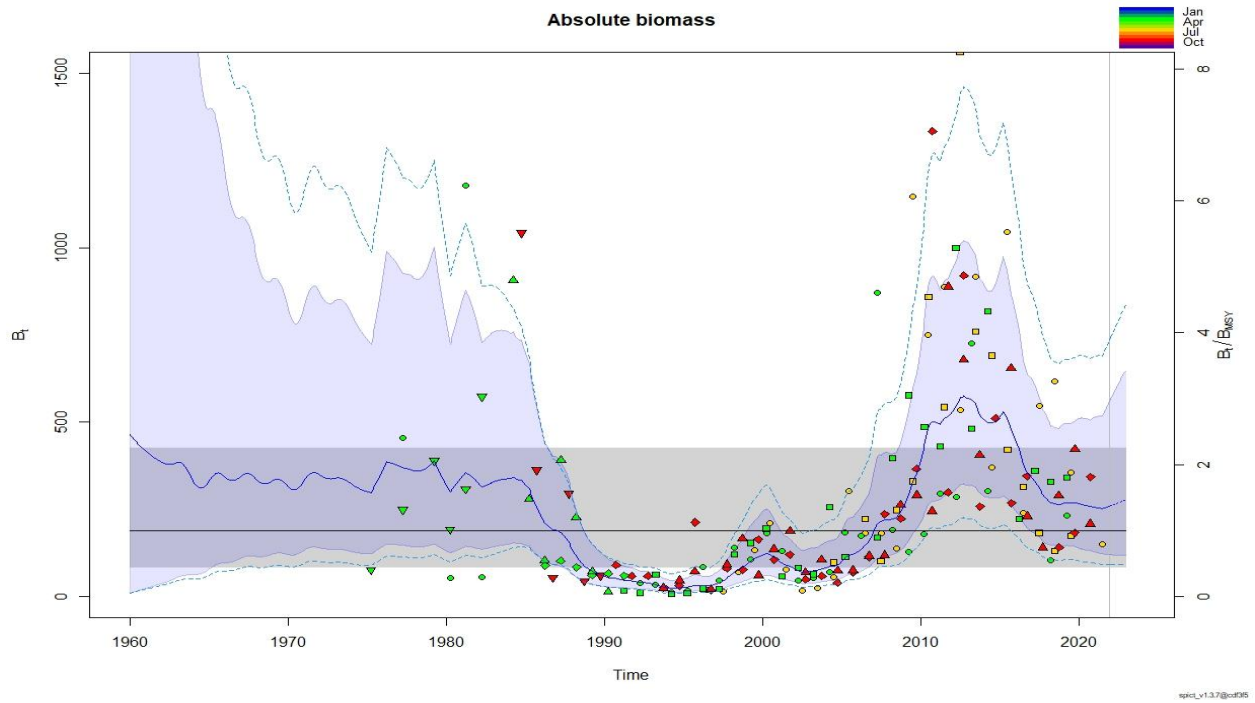


Figure 2. Biomass estimates from SPiCT 1960 model run.

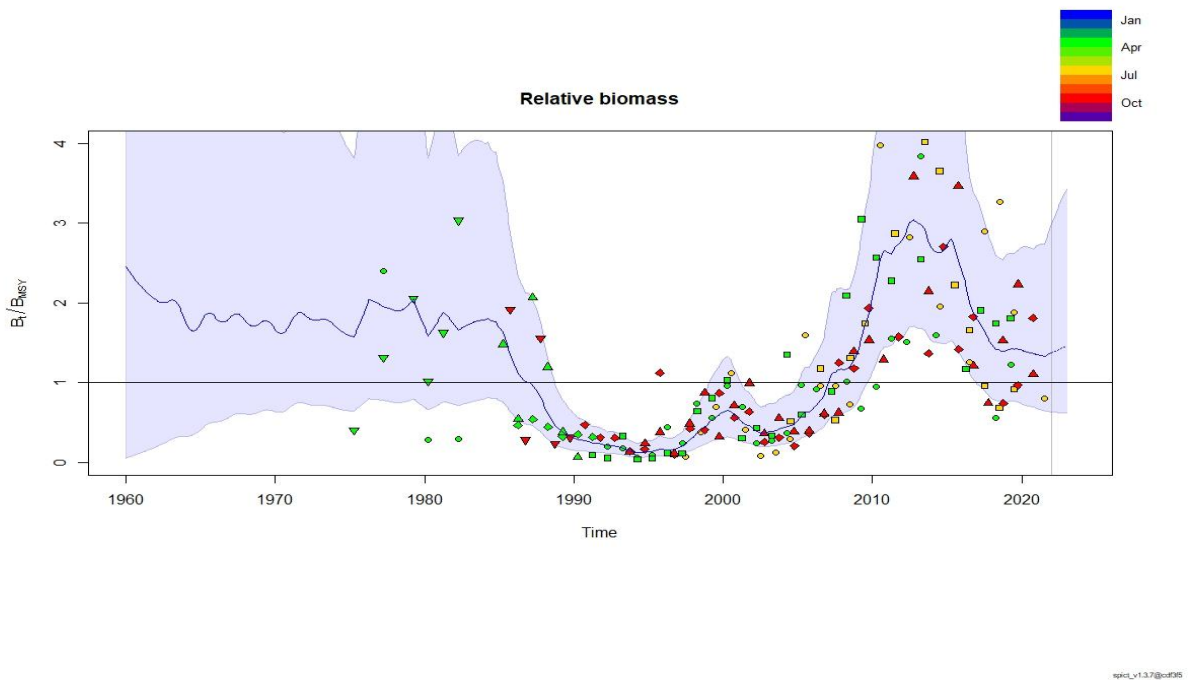


Figure 3. Relative biomass estimates from SPiCT 1960 model run.

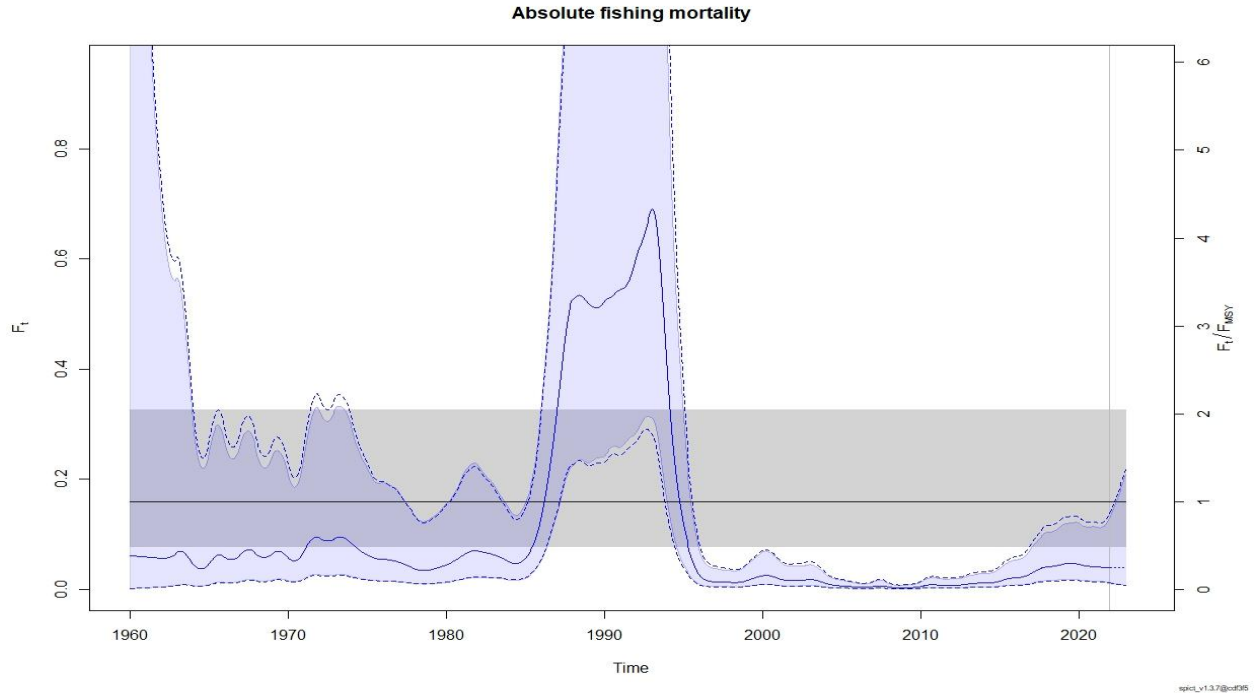


Figure 4. Fishing mortality rate estimates from SPiCT 1960 model run.

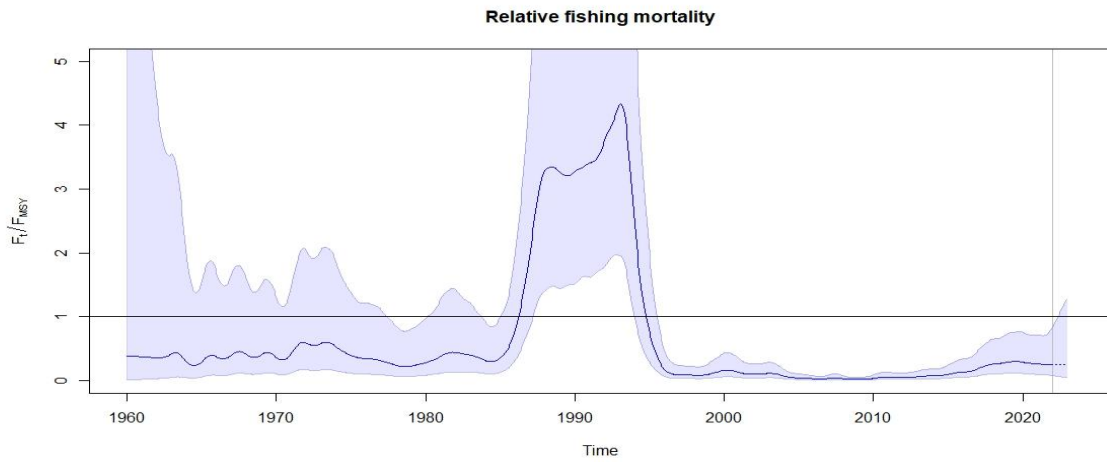
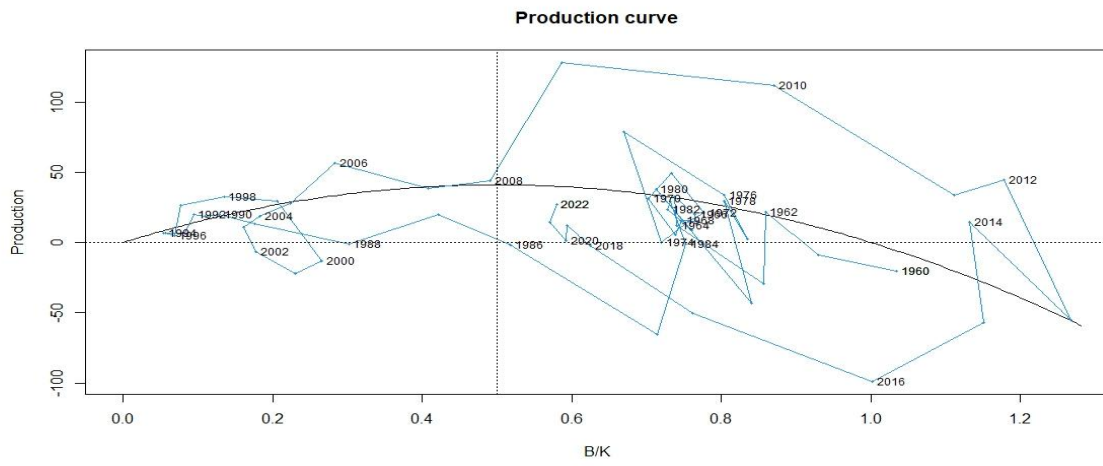


Figure 5. Relative fishing mortality rate estimates from SPiCT 1960 model run.



spict_v1.3.7@c0705

Figure 6. Production curve from SPiCT 1960 model run.

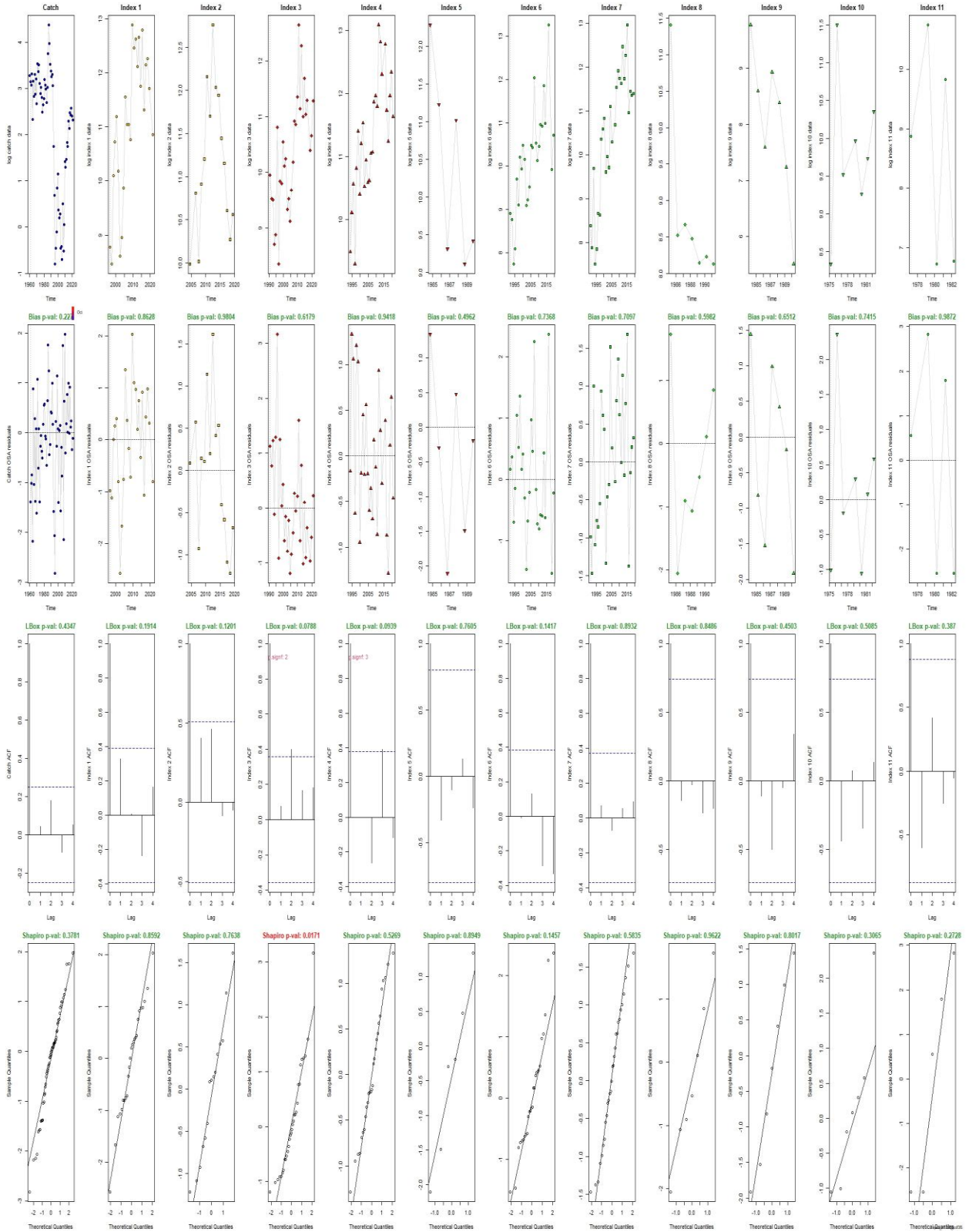


Figure 7. Residuals from SPiCT 1960 model run.



SPiCT 1975 MODEL OUTPUT

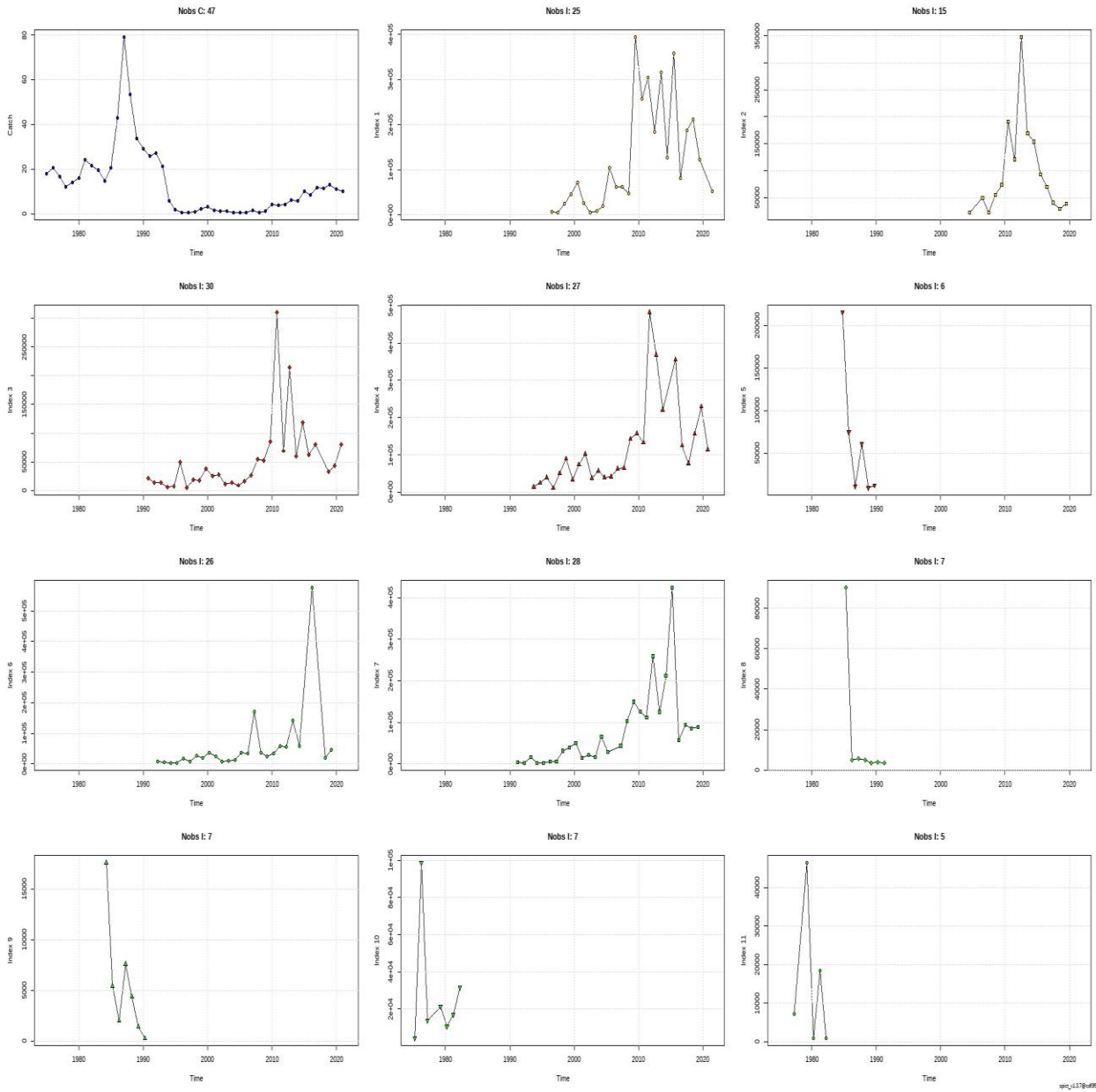


Figure 8. Model inputs for SPiCT 1975 model run.



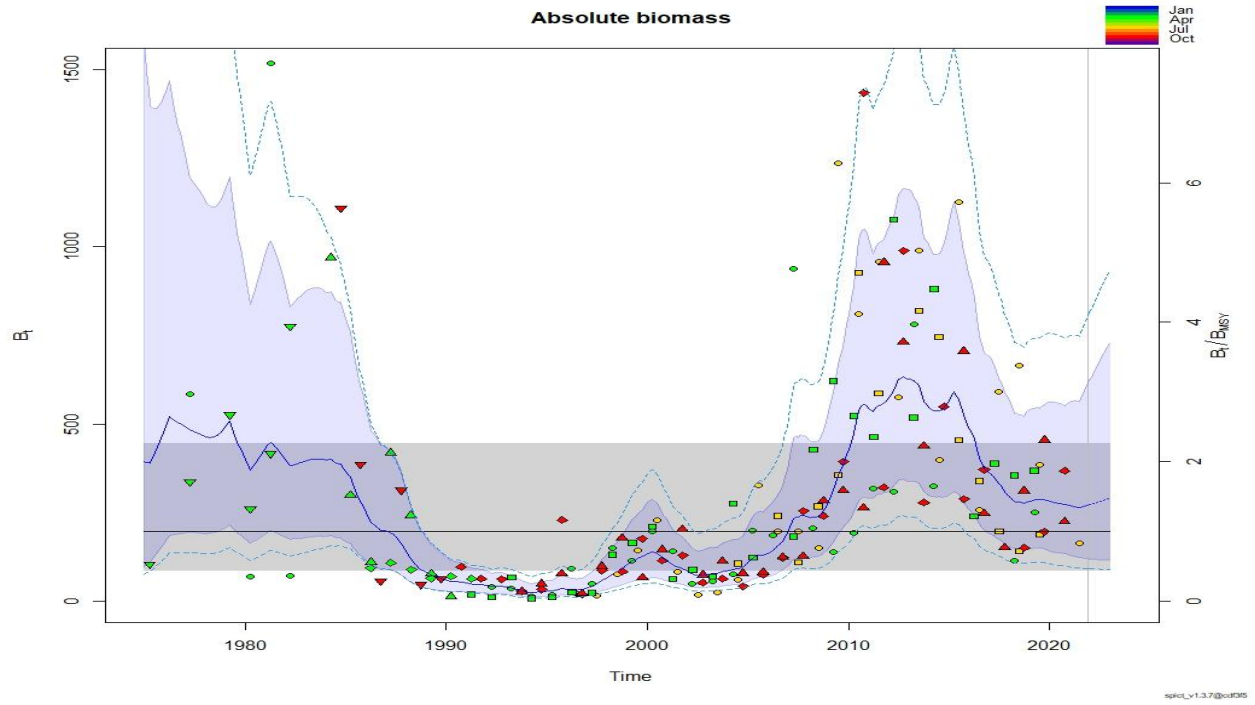


Figure 9. Biomass estimates from SPiCT 1975 model run.

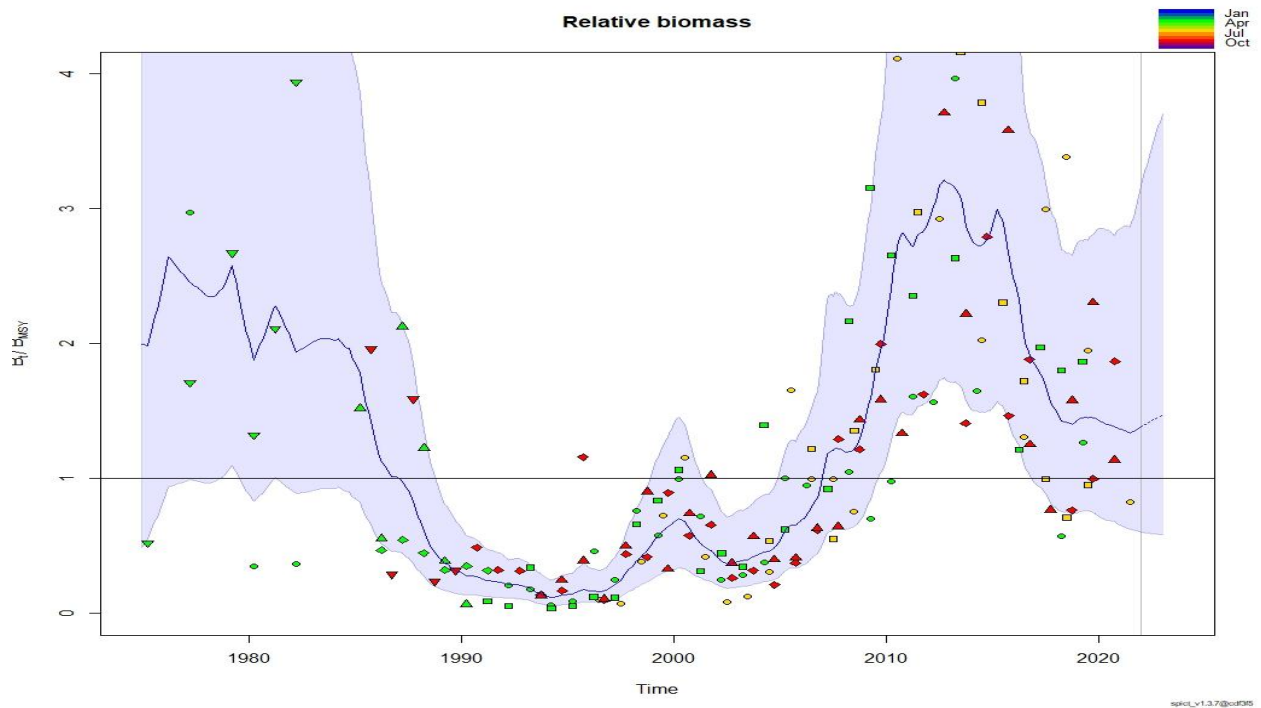


Figure 10. Relative biomass estimates from SPiCT 1975 model run.

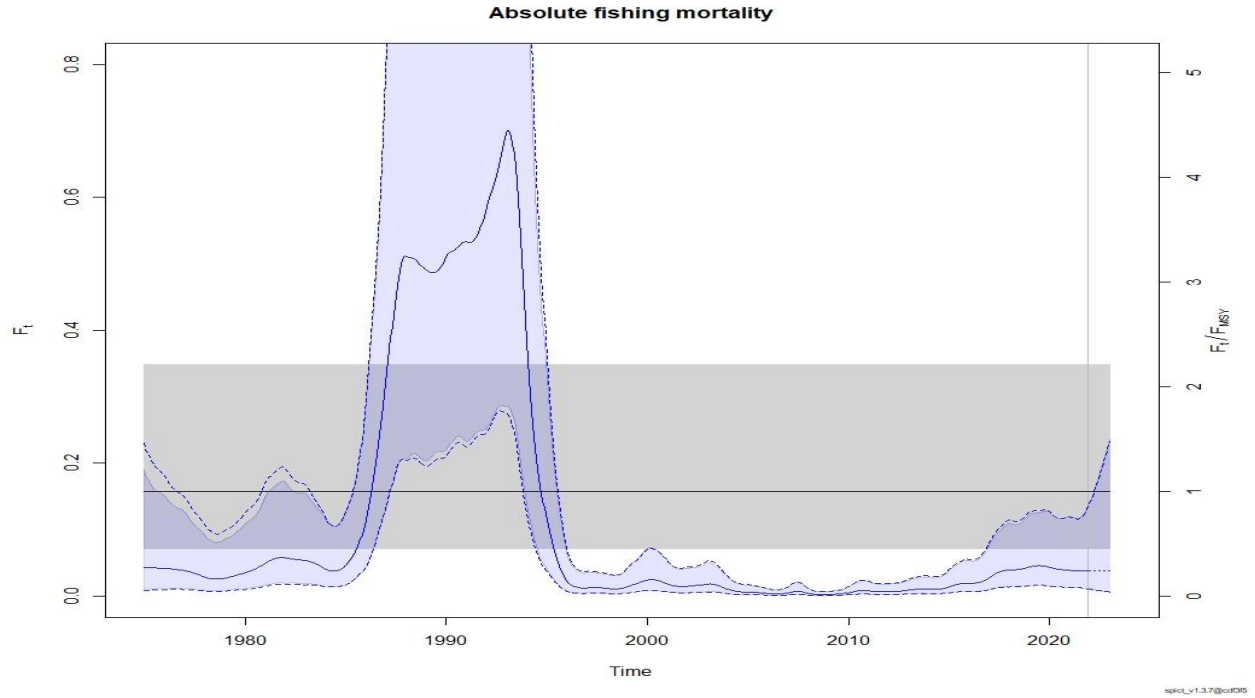


Figure 11. Fishing mortality rate estimates from SPiCT 1975 model run.

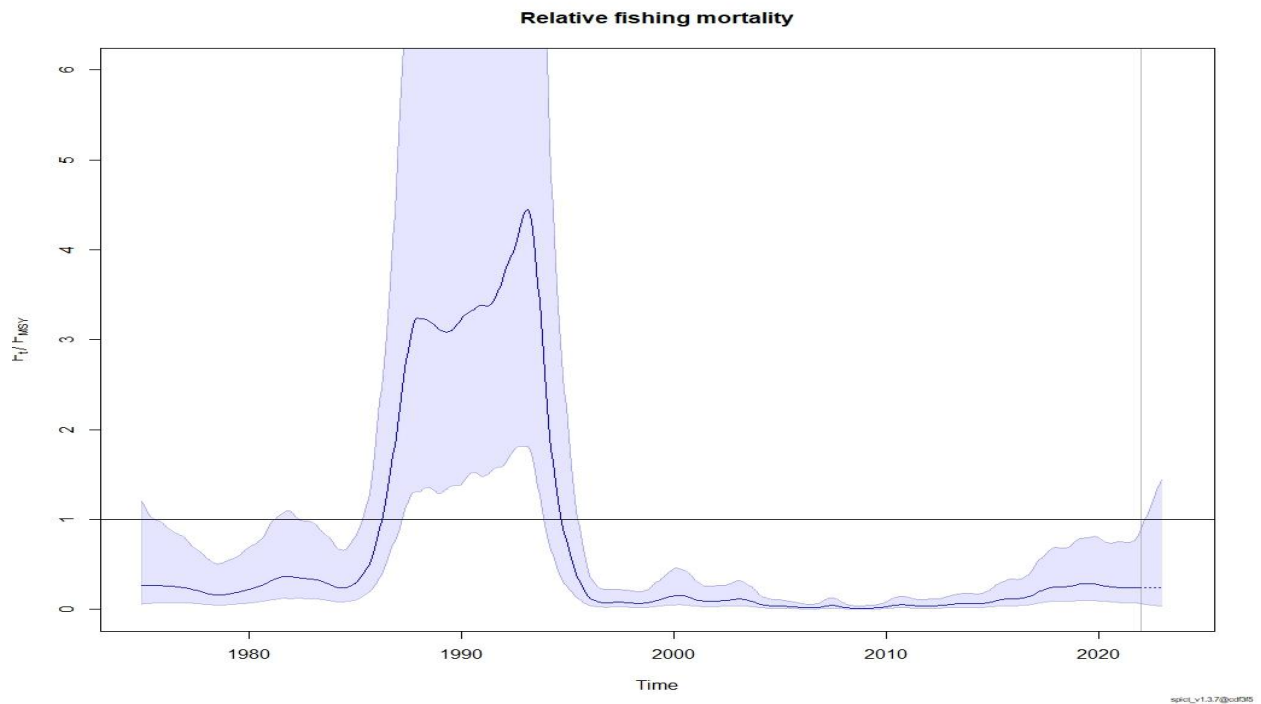


Figure 12. Fishing mortality rate estimates from SPiCT 1975 model run.

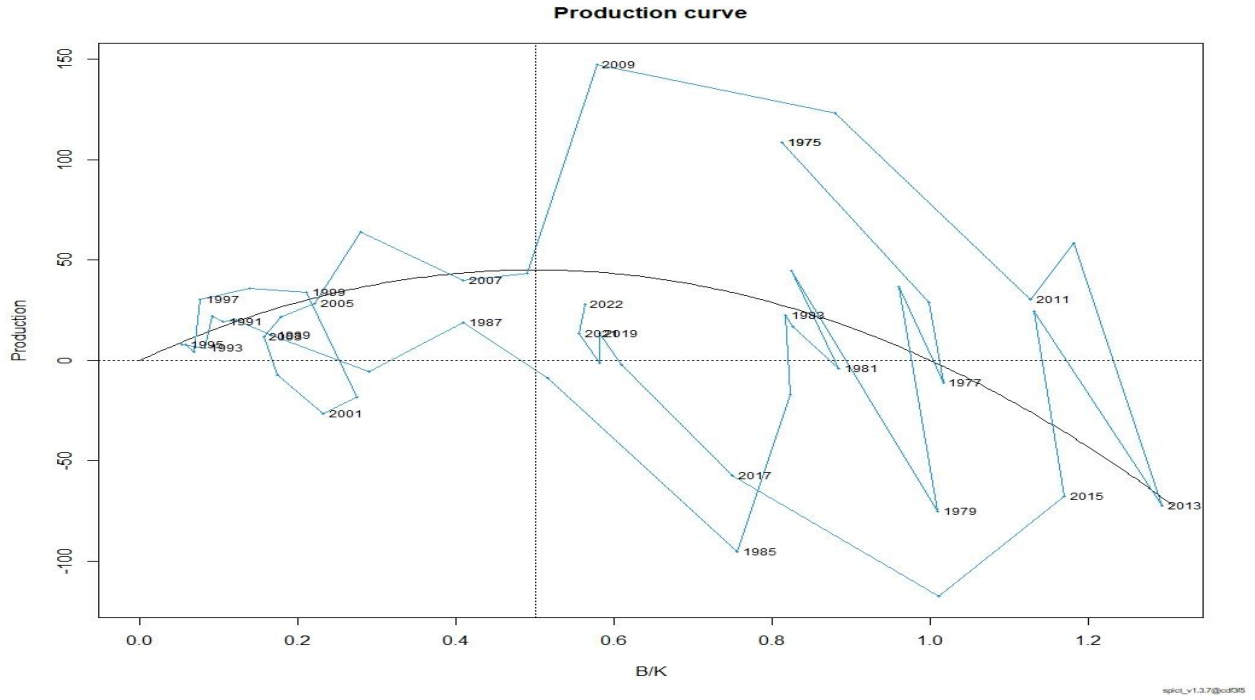


Figure 13. Production curve from SPiCT 1975 model run.

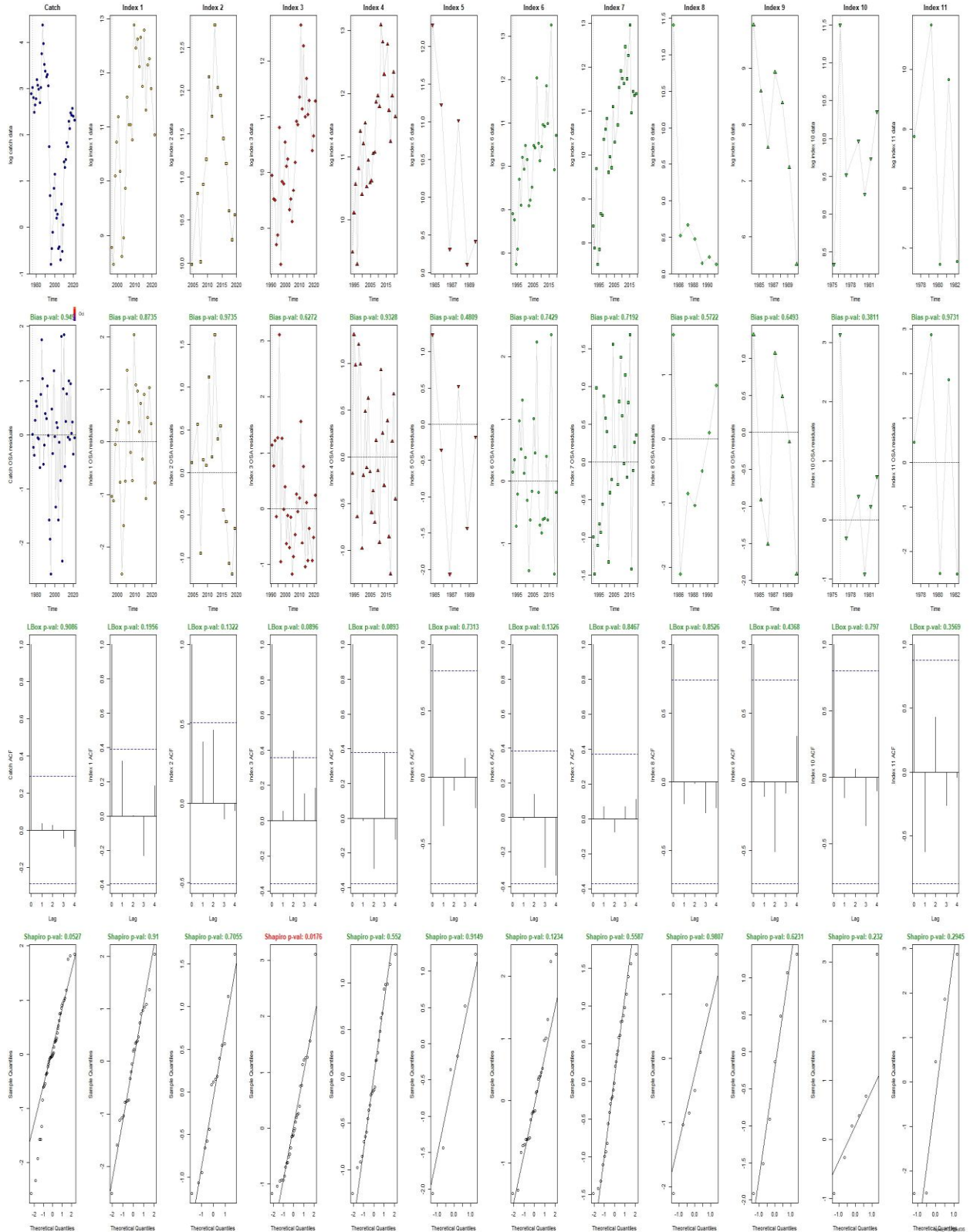


Figure 14. Residuals from SPiCT 1975 model run.



SSSPM 1960 MODEL OUTPUT

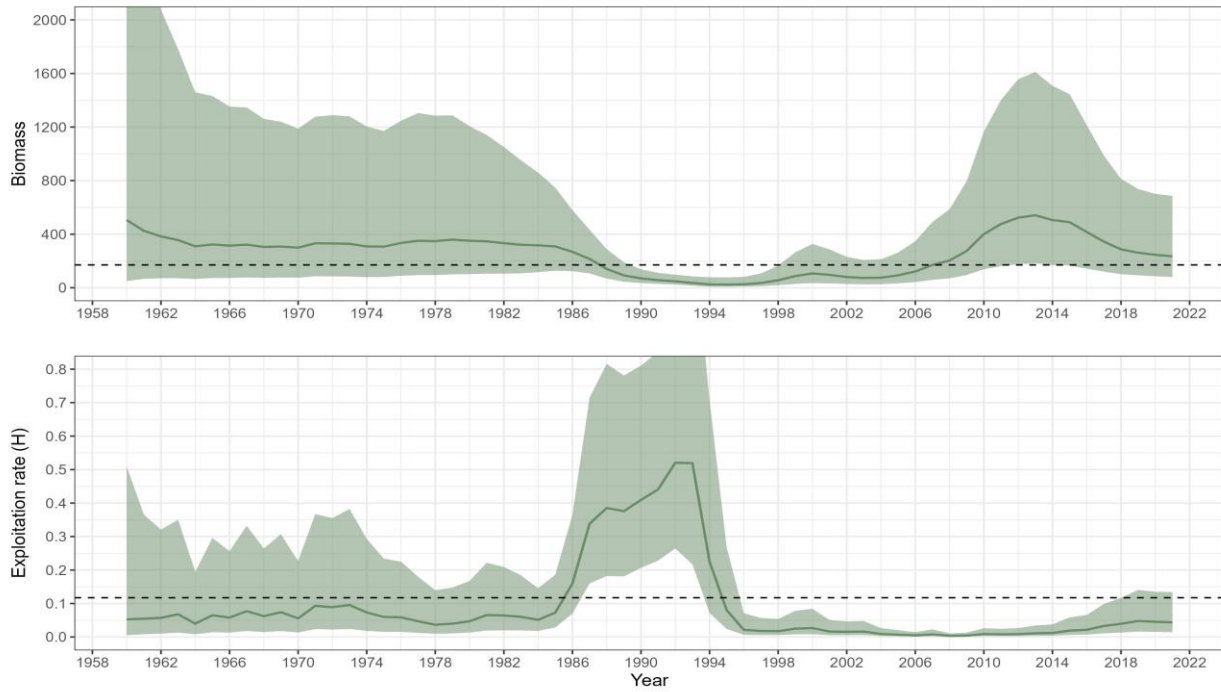


Figure 15. Biomass and harvest rate estimates from SSSPM 1960 model run.

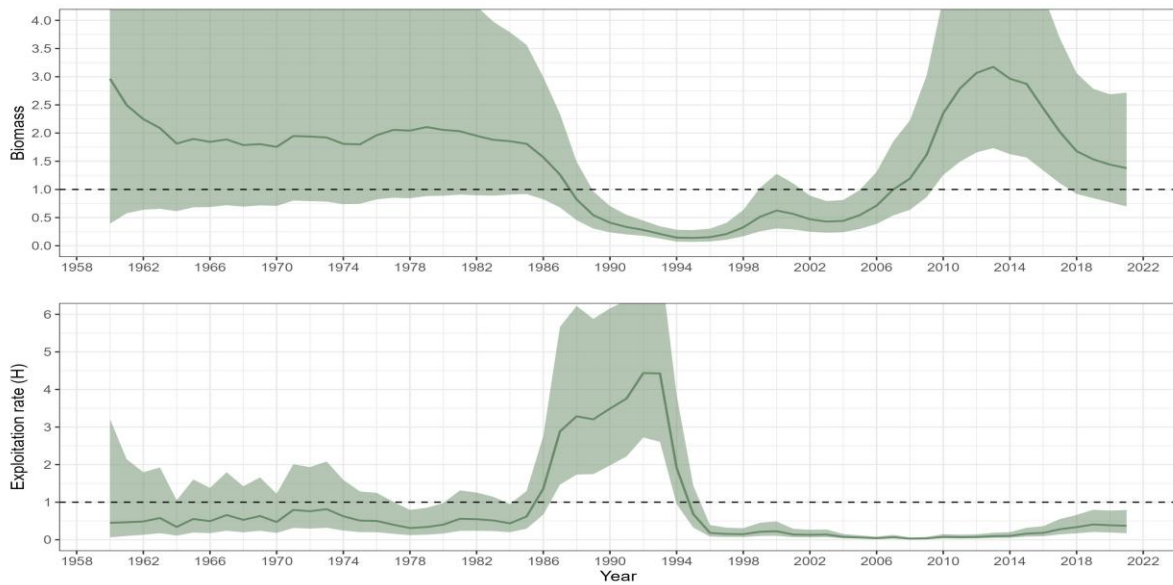


Figure 16. Relative biomass and harvest rate estimates from SSSPM 1960 model run.

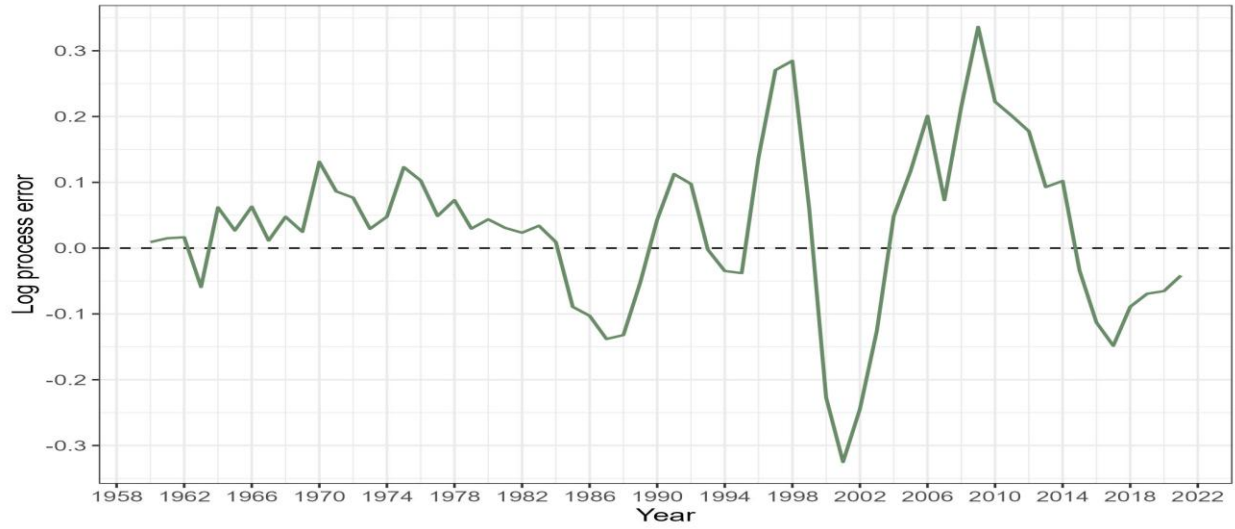


Figure 17. Process error estimates from SSSPM 1960 model run.

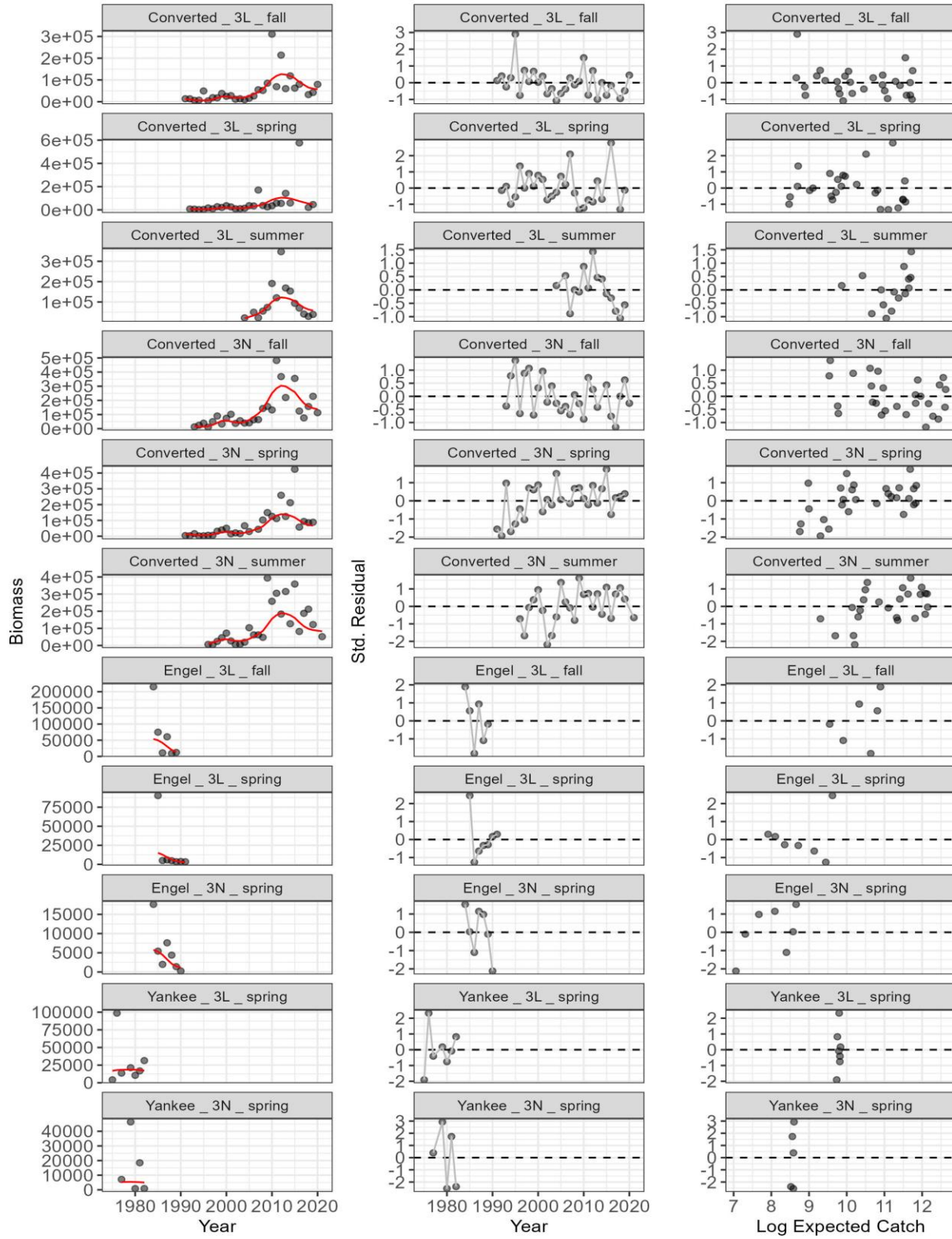


Figure 18. Residuals from SSSPM 1960 model run.

SSSPM 1975 MODEL OUTPUT

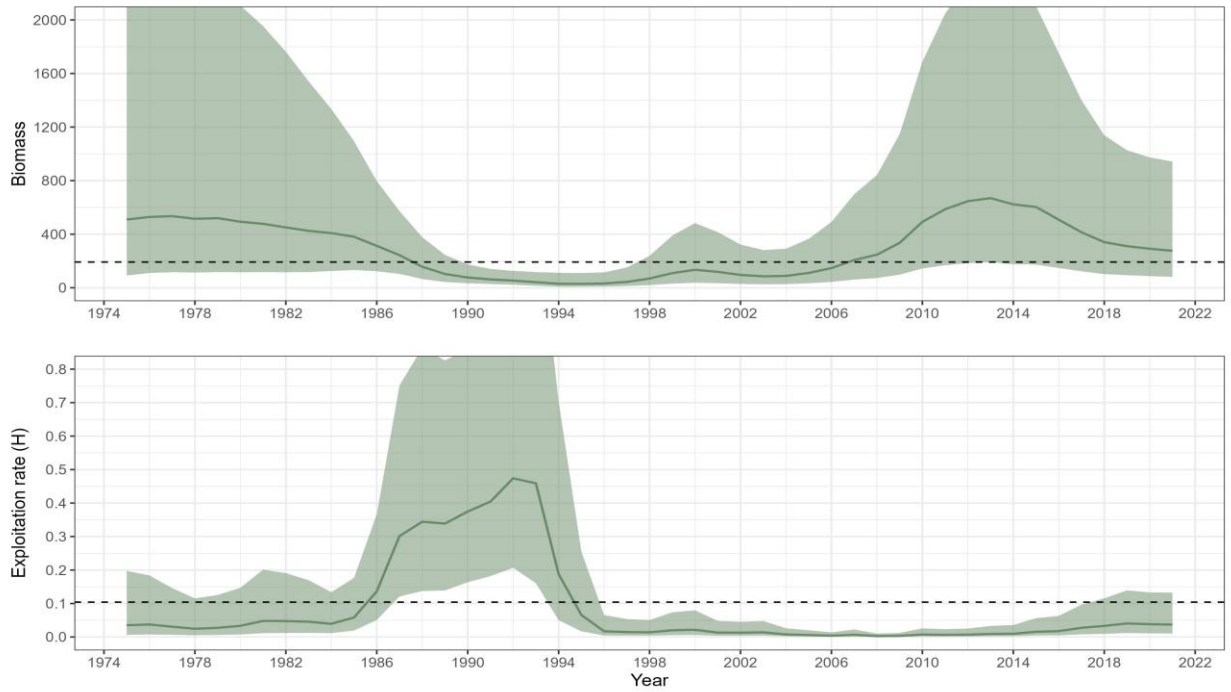


Figure 19. Biomass and harvest rate estimates from SSSPM 1975 model run.

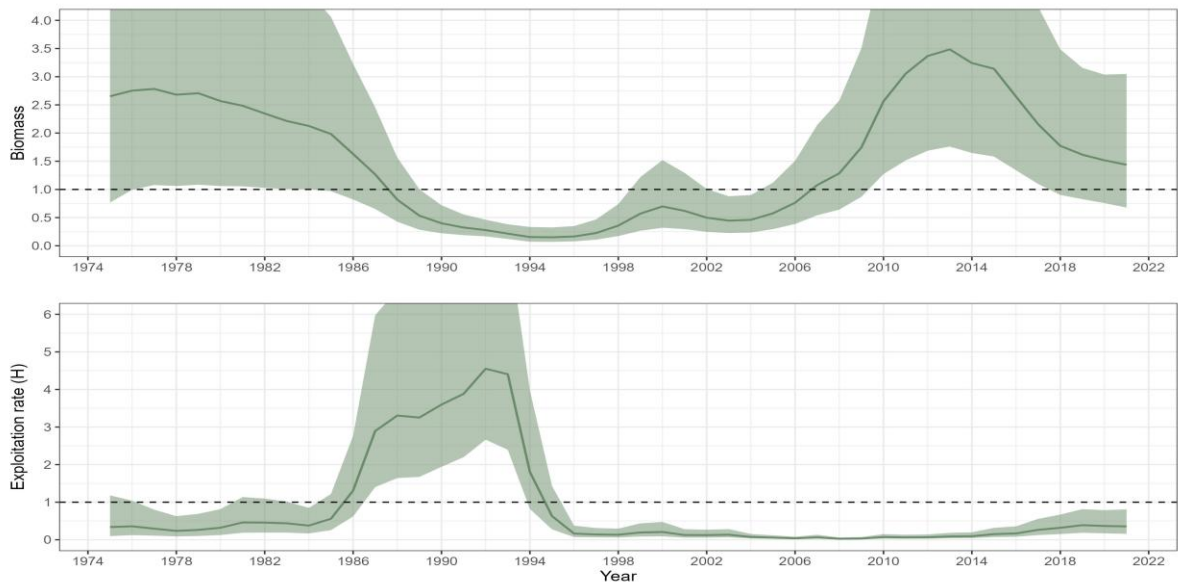


Figure 20. Relative biomass and harvest rate estimates from SSSPM 1975 model run.

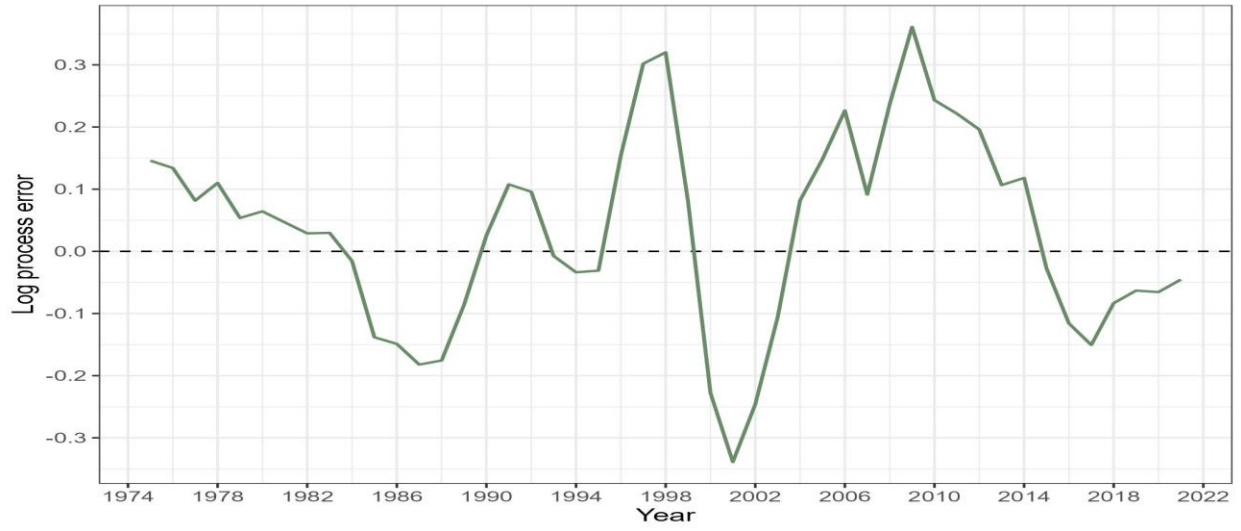


Figure 21. Process error estimates from SSSPM 1975 model run.

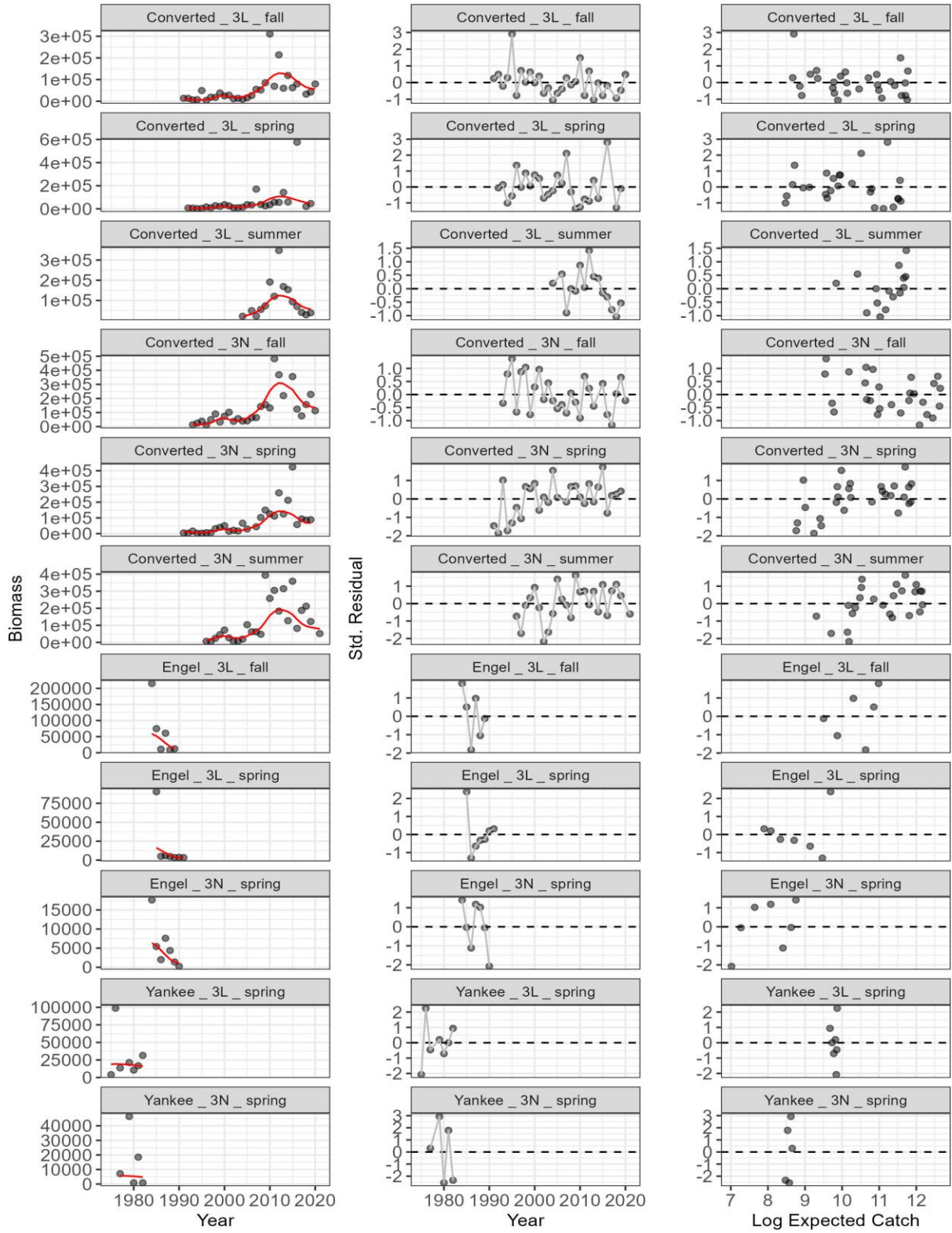


Figure 22. Residuals from SSSPM 1975 model run.

SPiCT 1959-1960 MODEL COMPARISON

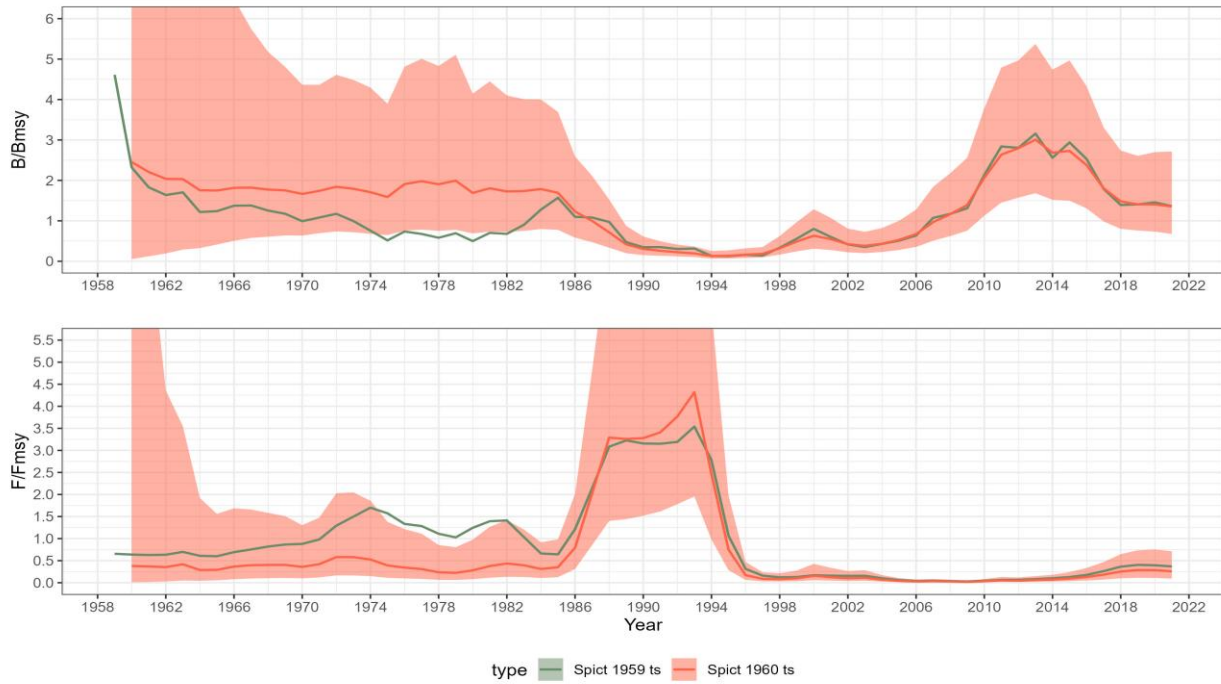


Figure 23. Comparison of SPiCT 1959 and 1960 model runs. Note that the 1959 model did not converge.

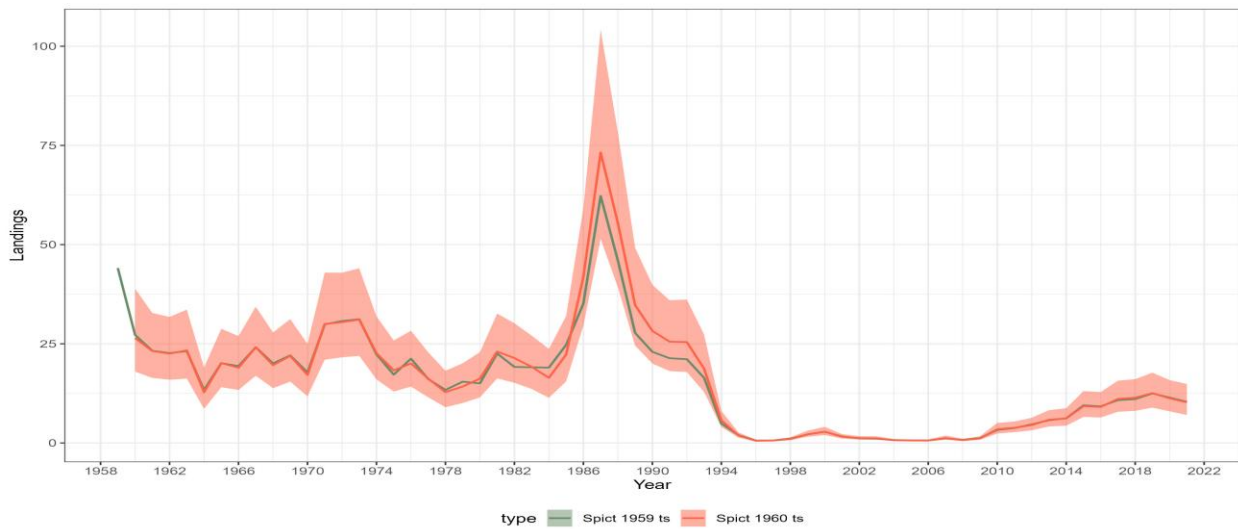


Figure 24. Comparison of SPiCT 1959 and 1960 model runs. Note that the 1959 model did not converge.

ACL MODEL OUTPUT

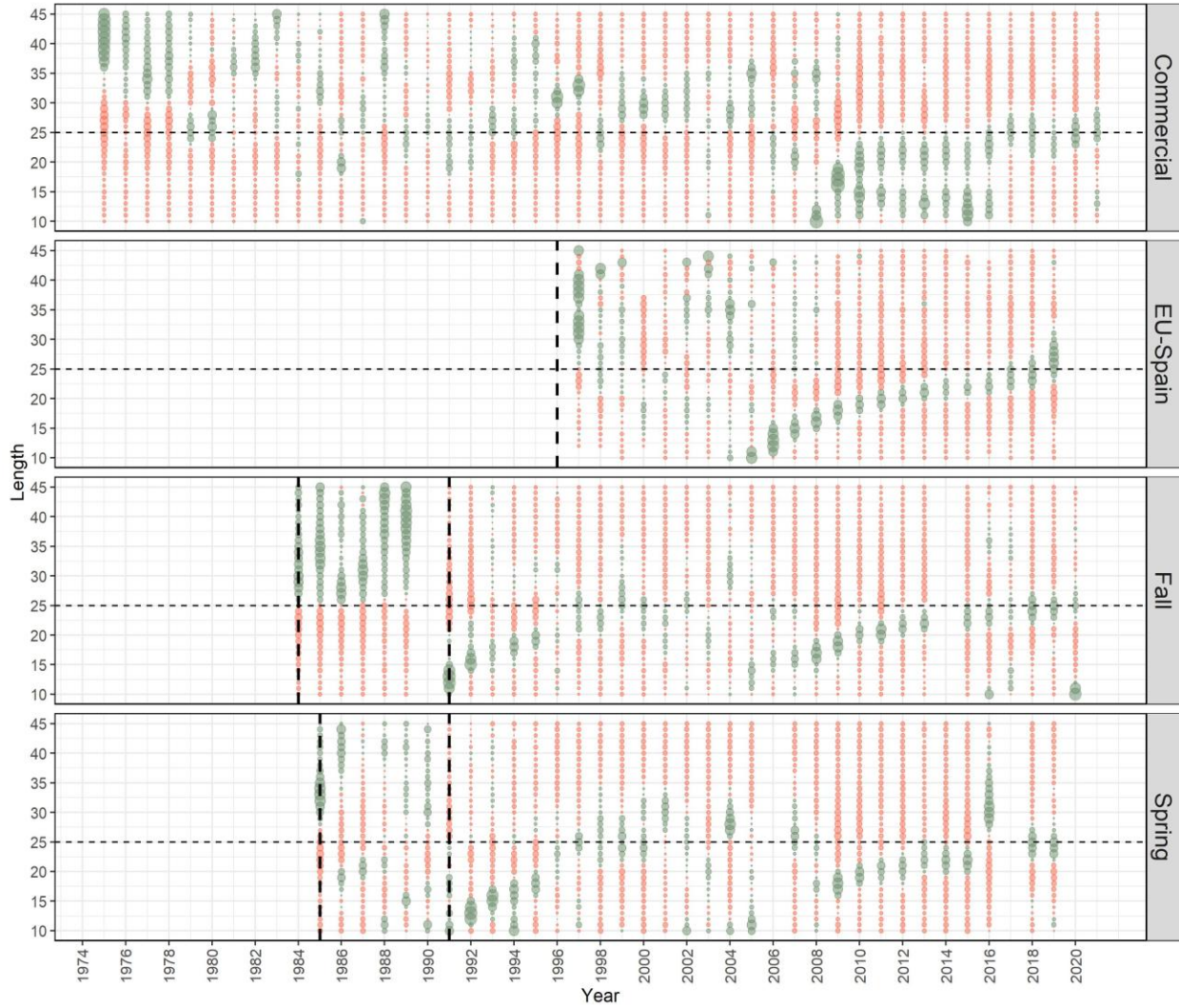


Figure 25. Abundance at length used in ACL model. The dashed lines represent separate survey protocols and aren't comparable across protocols.

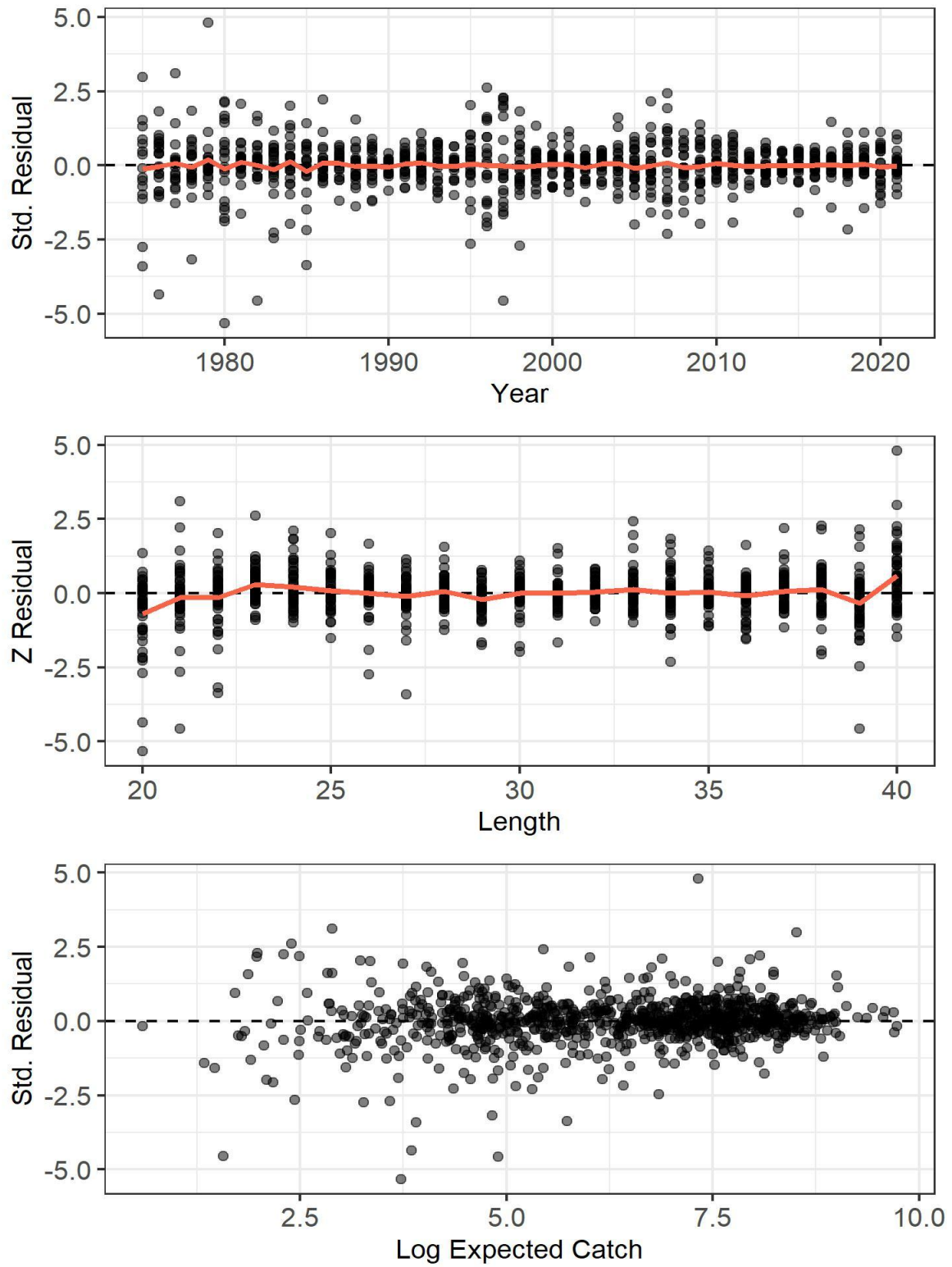


Figure 26. ACL model predicted adjusted residuals for the commercial catch at length data

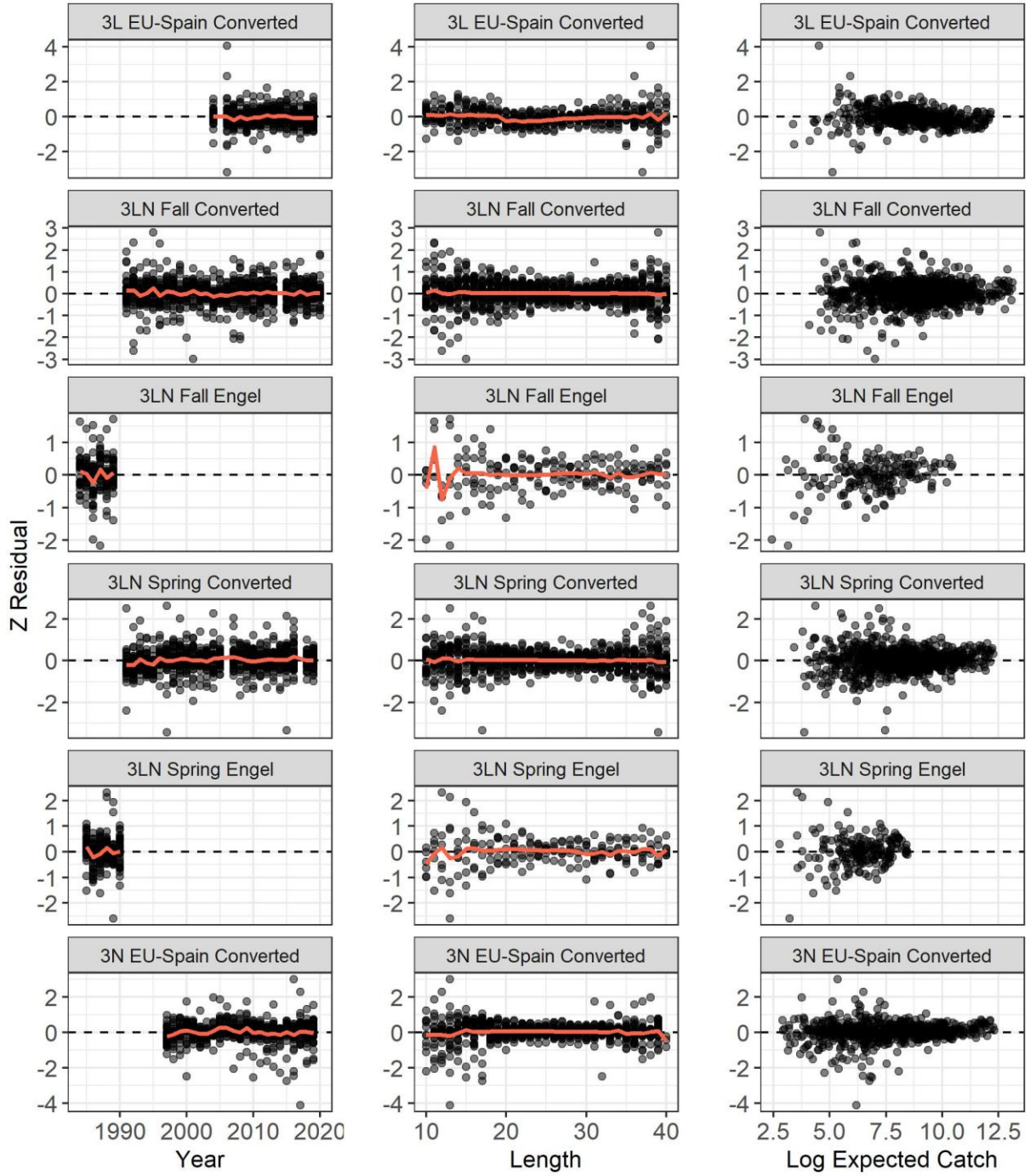


Figure 27. ACL model predicted adjusted residuals for the survey index catch at length data

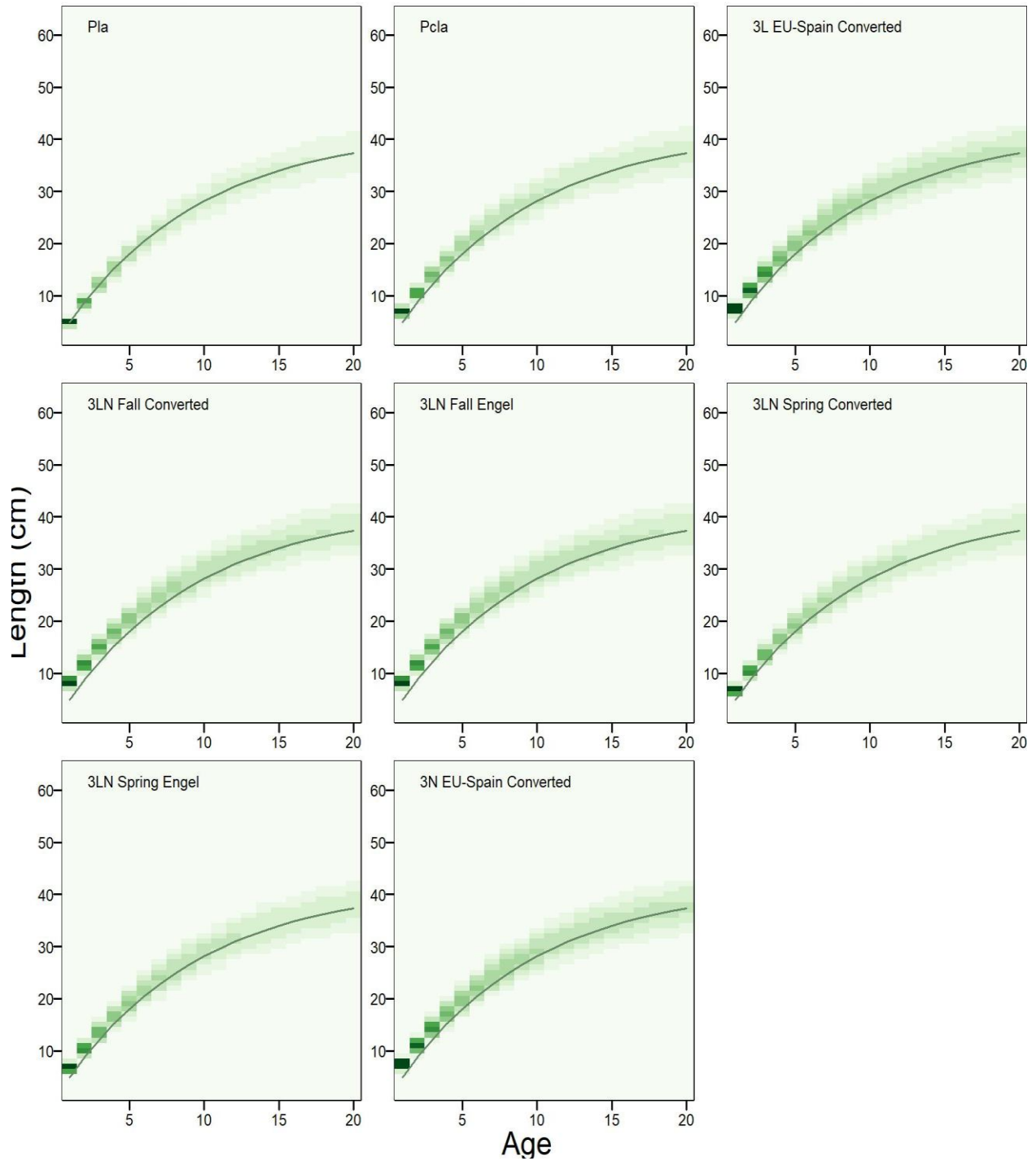


Figure 28. ACL model predicted probability of length at age at time of year for the commercial (plc), population (pla) and surveys (pls).

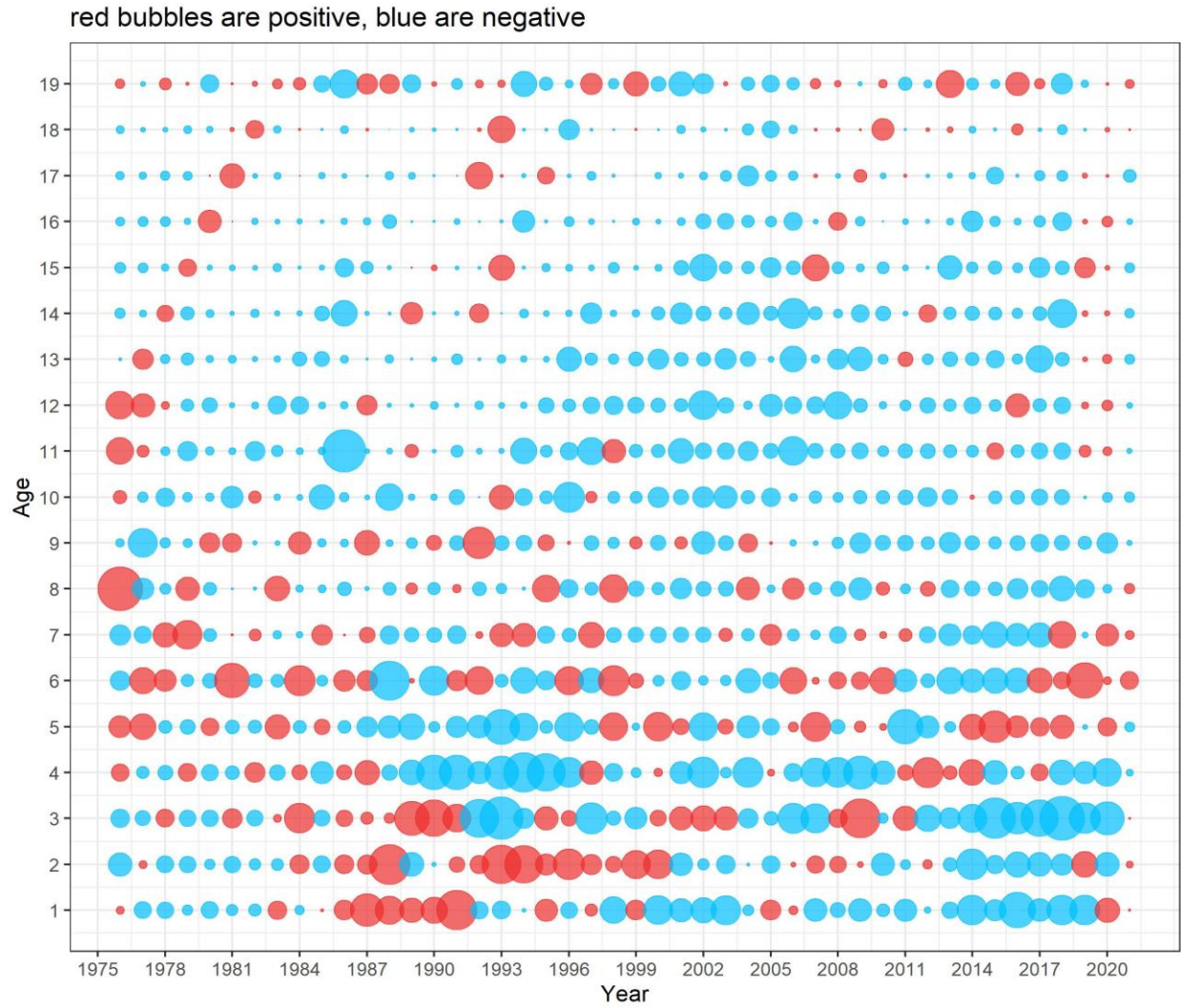


Figure 29. ACL model predicted process errors at age and year.

Colophon

This version of the document was generated on 2023-06-06 10:34:18 using the R markdown template for SCR documents from [NAFOdown](#).

The computational environment that was used to generate this version is as follows:

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via rmarkdown)
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