An skeleton assessment for Snow crab in GMACS - Time varying natural mortality

Cody Szuwalski & Matthieu Veron

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4. Recruitment

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8. Basis for ABC

A. Summary of Major Changes

1. Management: None
2. Input data:
3. Assessment methodology:
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Notes: ***Natural mortality is considered as time varying in this assessment.***

B. Comments, responses, and assessment summary

C. Introduction

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Appendix A: Population dynamics

Table 1: Changes in management quantities for each scenario considered. Reported management quantities are derived from maximum likelihood estimates.

Model	MMB	B35	F35	FOFL	OFL
Version 1.00	25.528	135.317	2.309	0.000	0.099
Version 1.01	25.528	135.317	2.309	0.566	11.226
Version 2.01.L	25.528	135.317	2.309	0.566	11.227

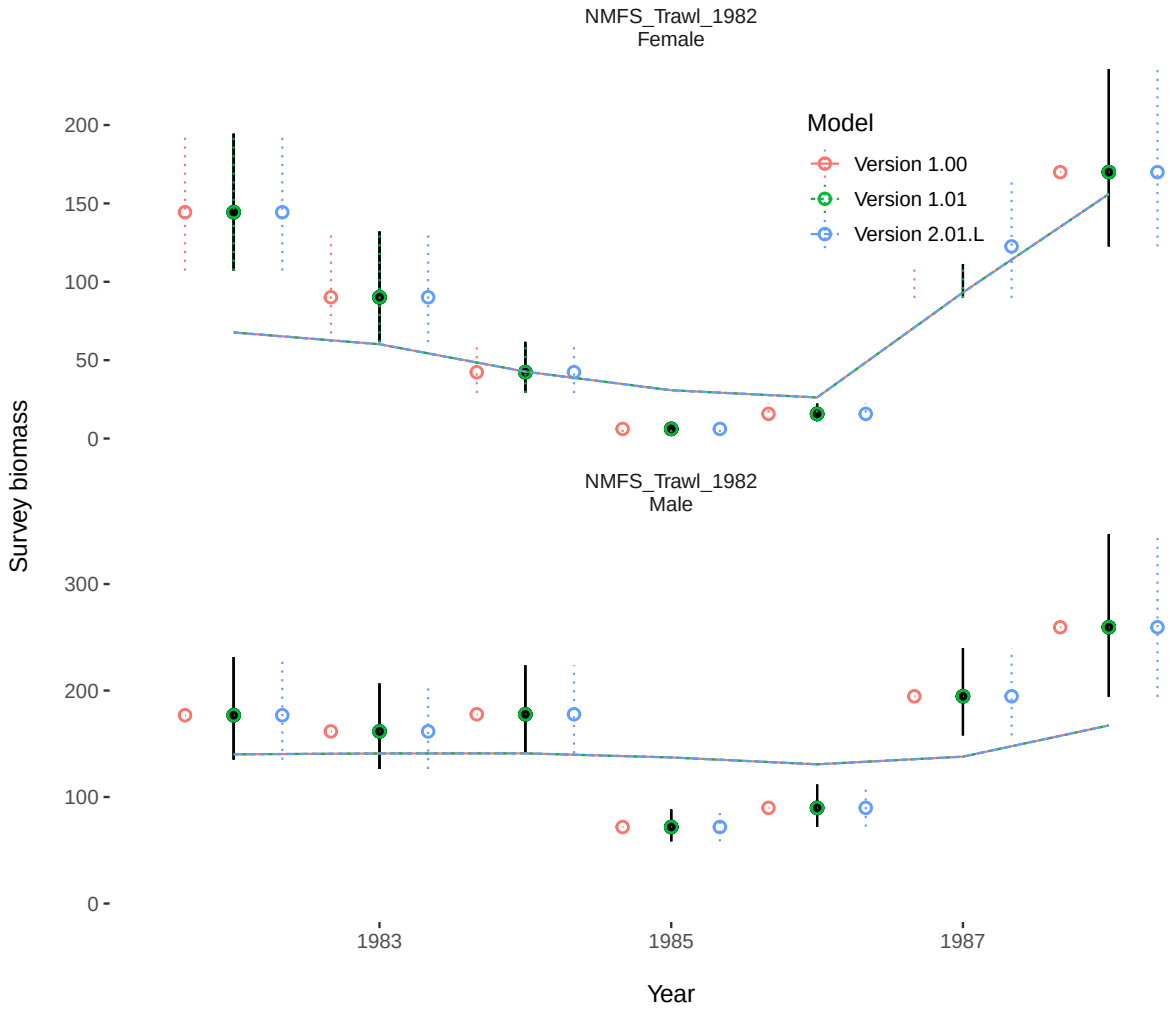

Figure 1: Model fits to the NMFS_Trawl_1982 survey.

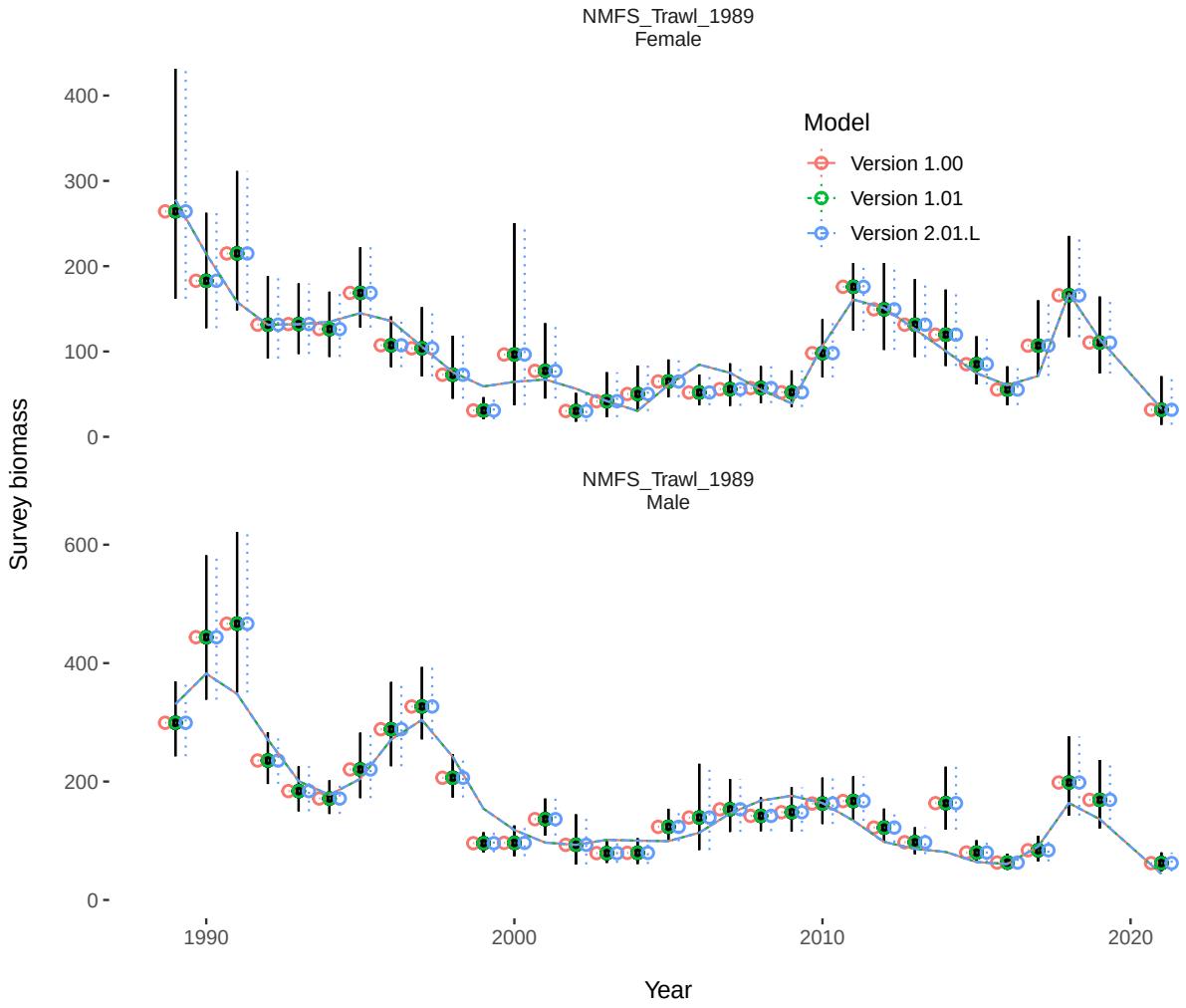

Figure 2: Model fits to the NMFS trawl 1989 survey.

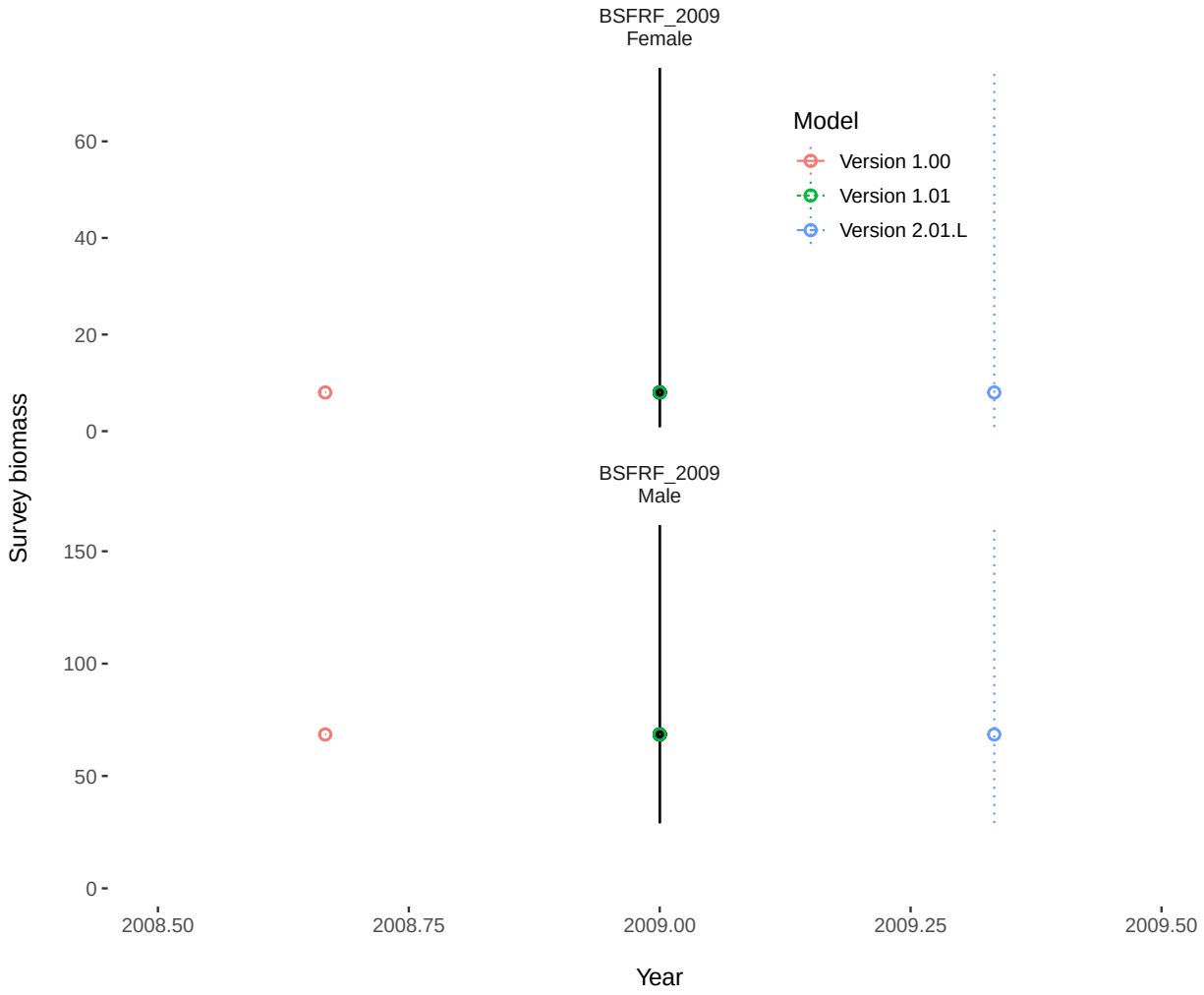

Figure 3: Model fits to the BSFRF 2009 survey.

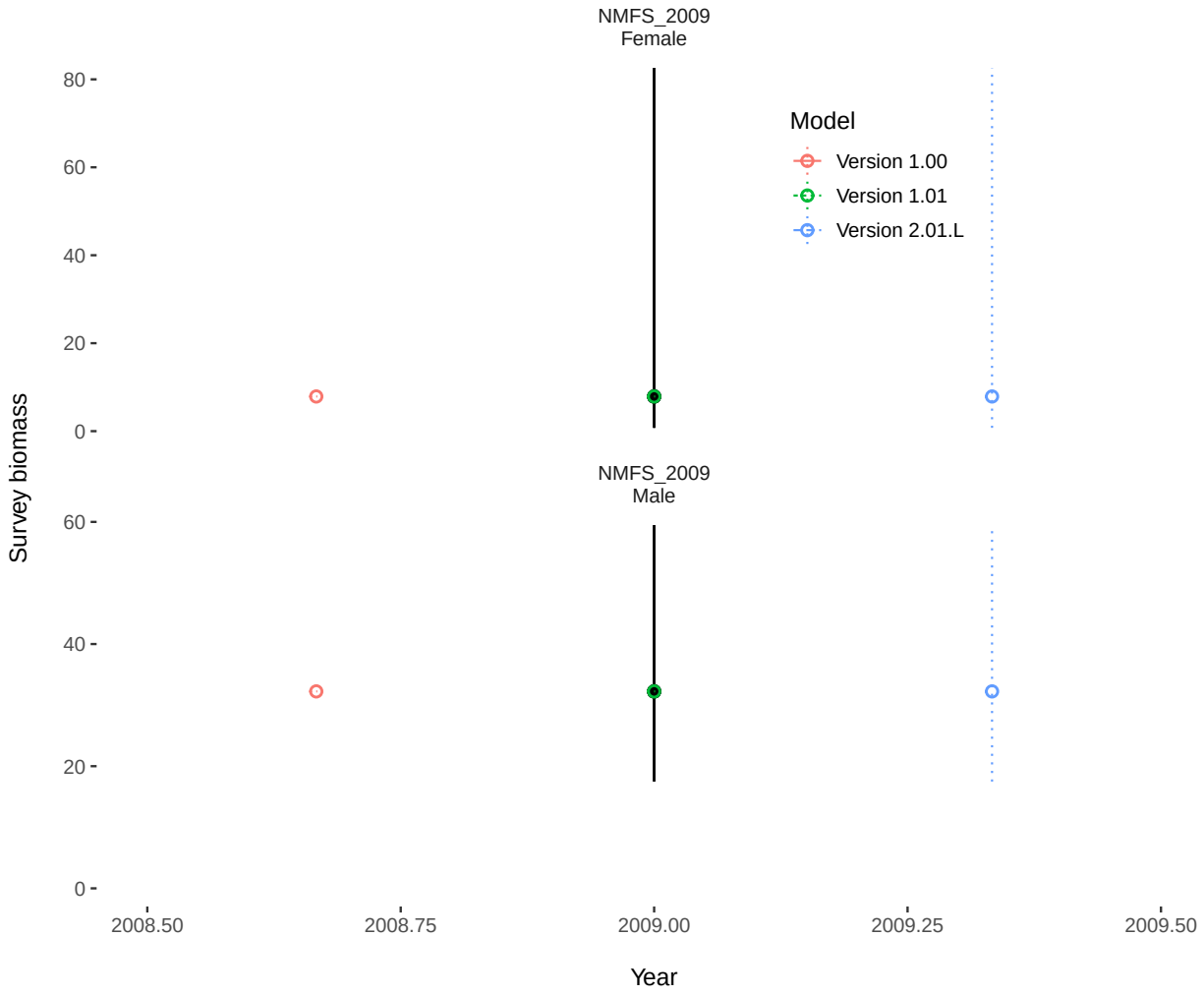

Figure 4: Model fits to the NMFS 2009 survey.

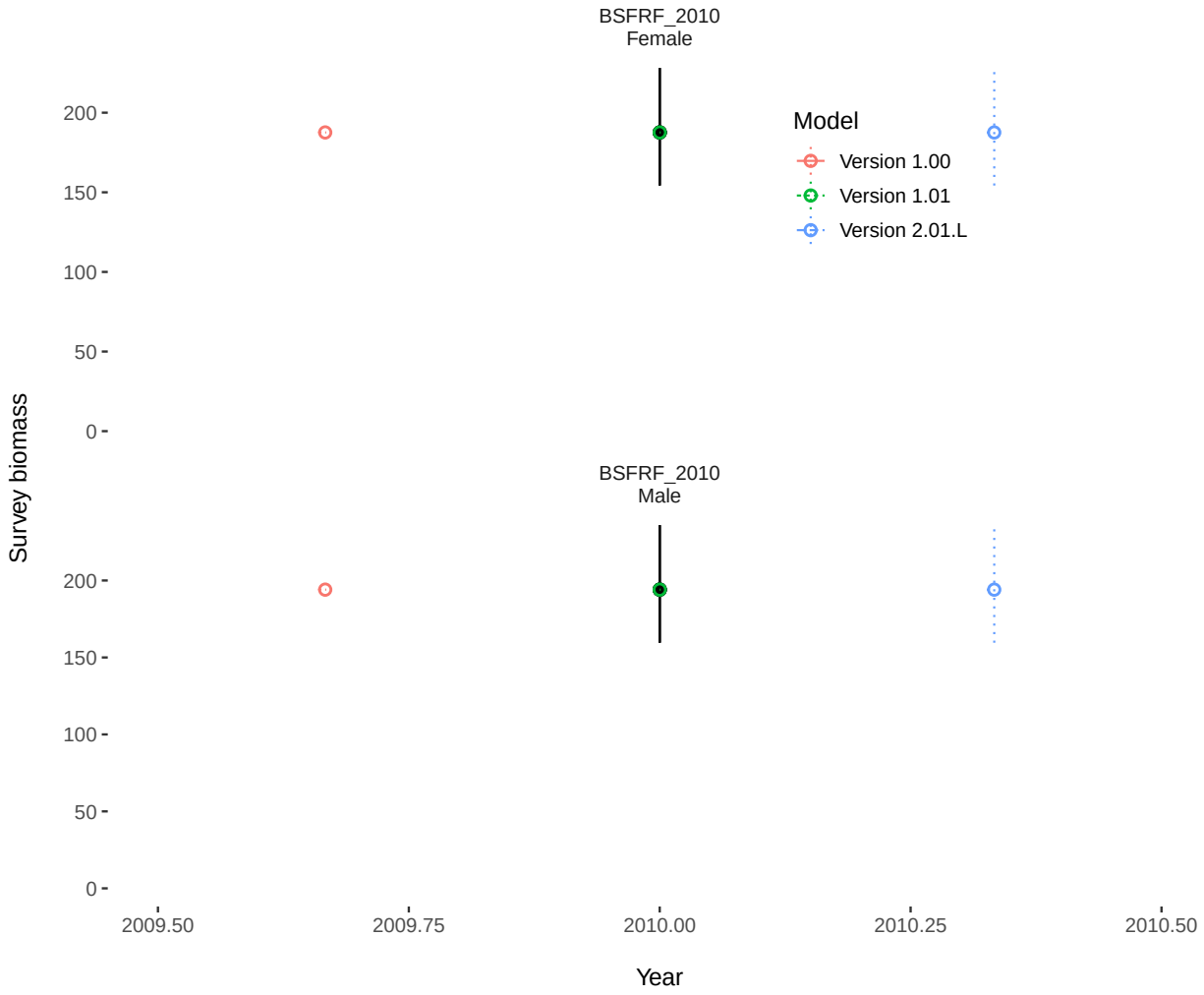

Figure 5: Model fits to the BSFRF 2010 survey.

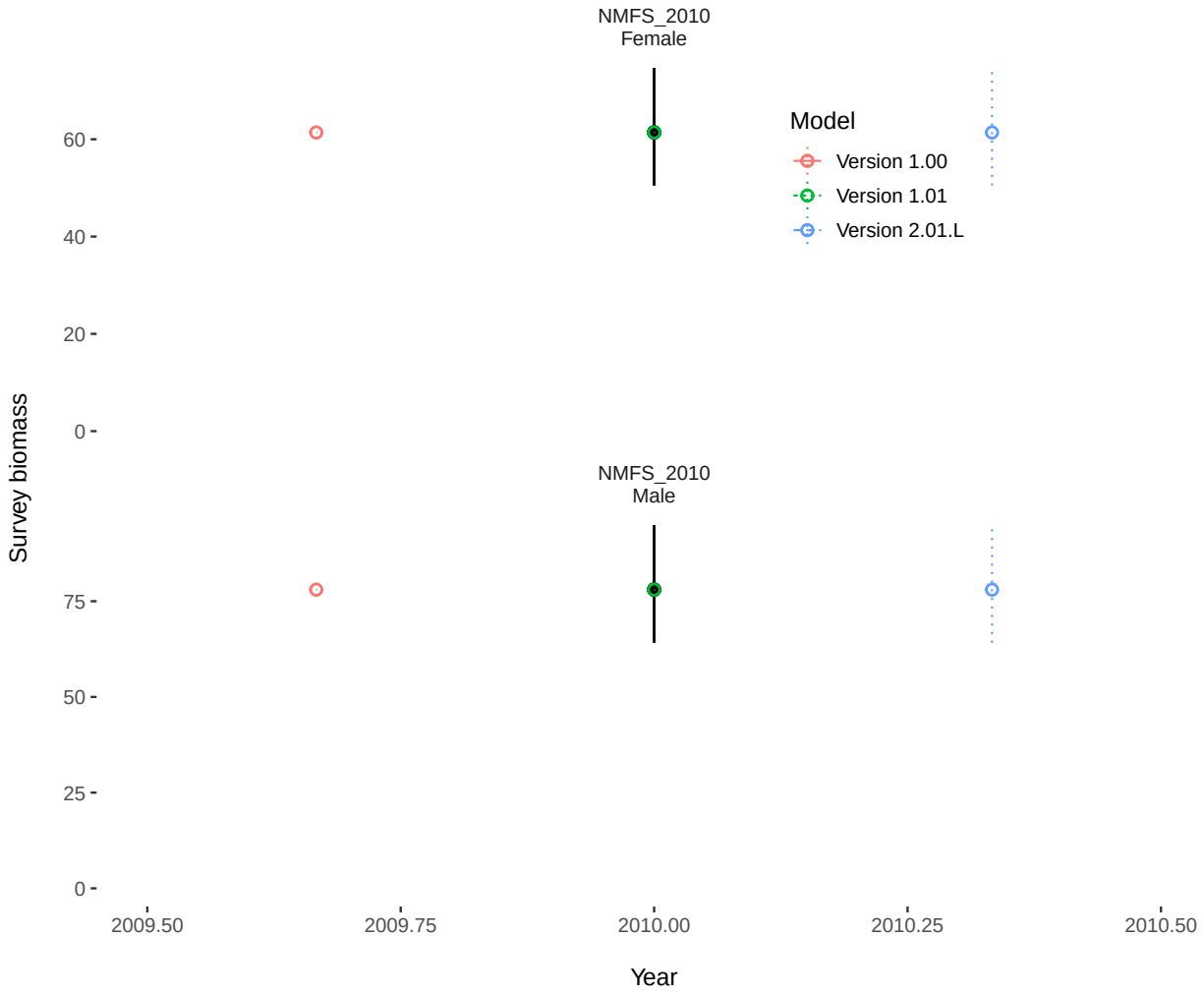

Figure 6: Model fits to the NMFS 2010 survey.

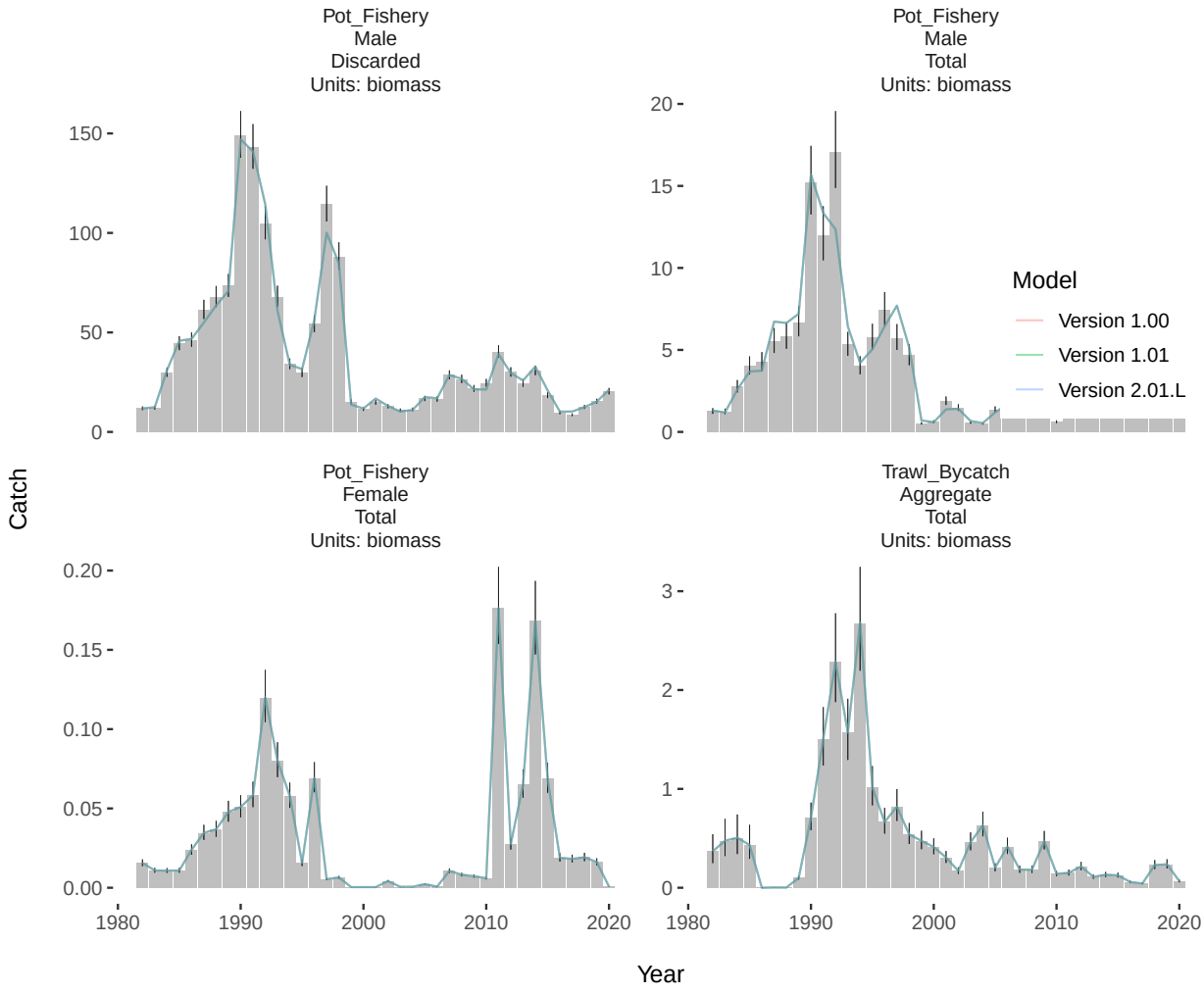

Figure 7: Model fits to the catch data.

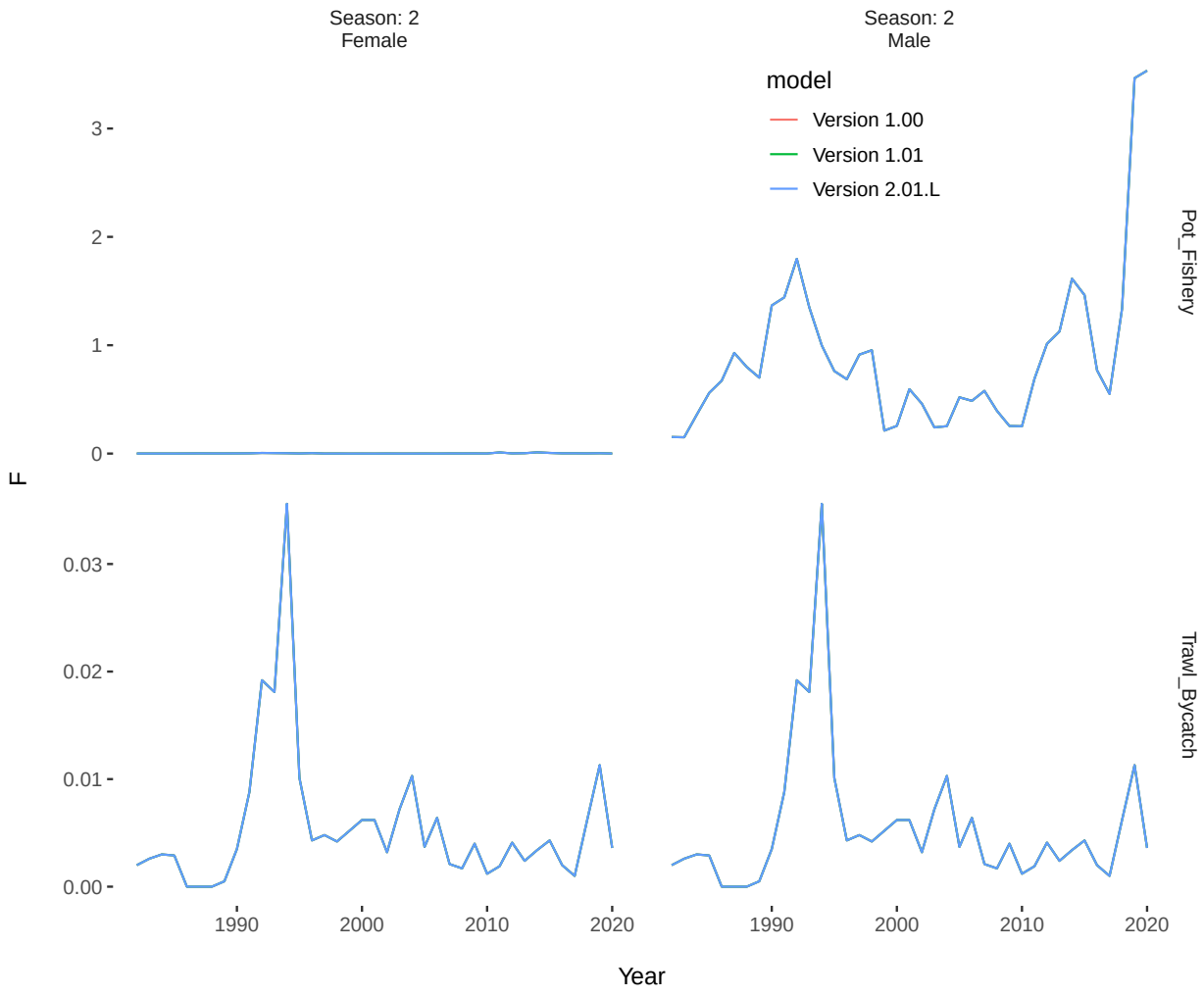

Figure 8: Estimated fishing mortality by fleet.

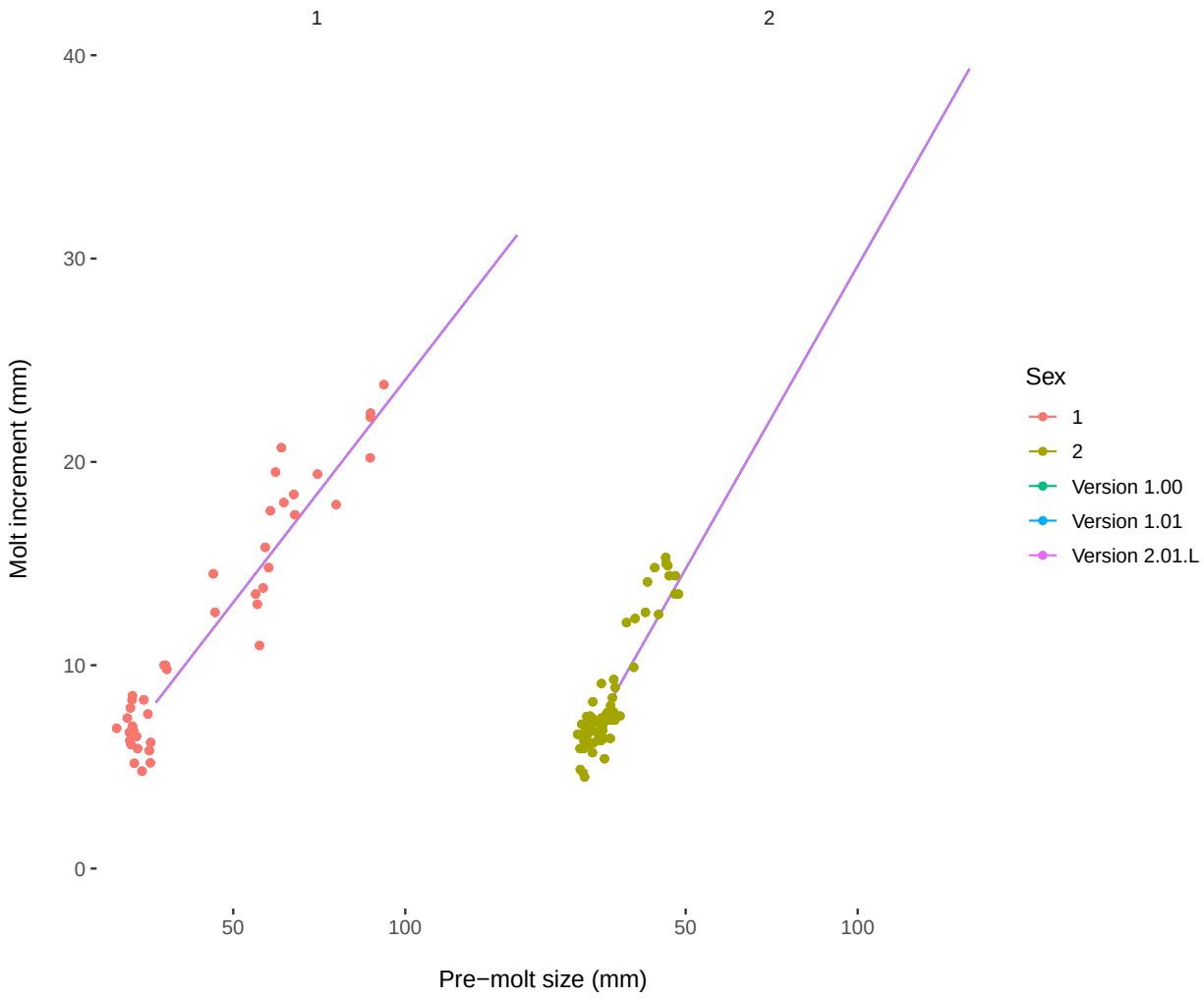

Figure 9: Estimated molt increments.

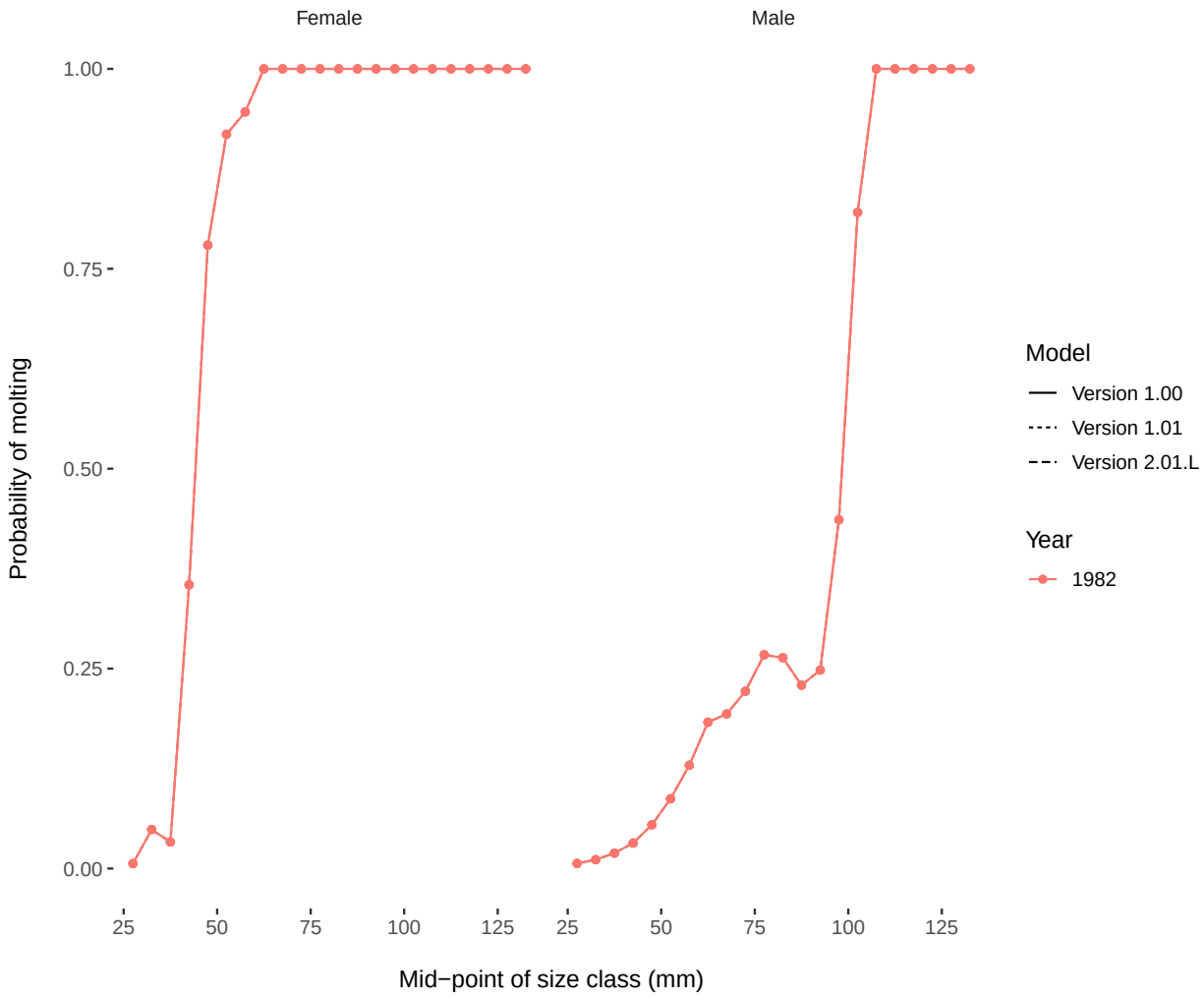

Figure 10: Estimated probability of molting.

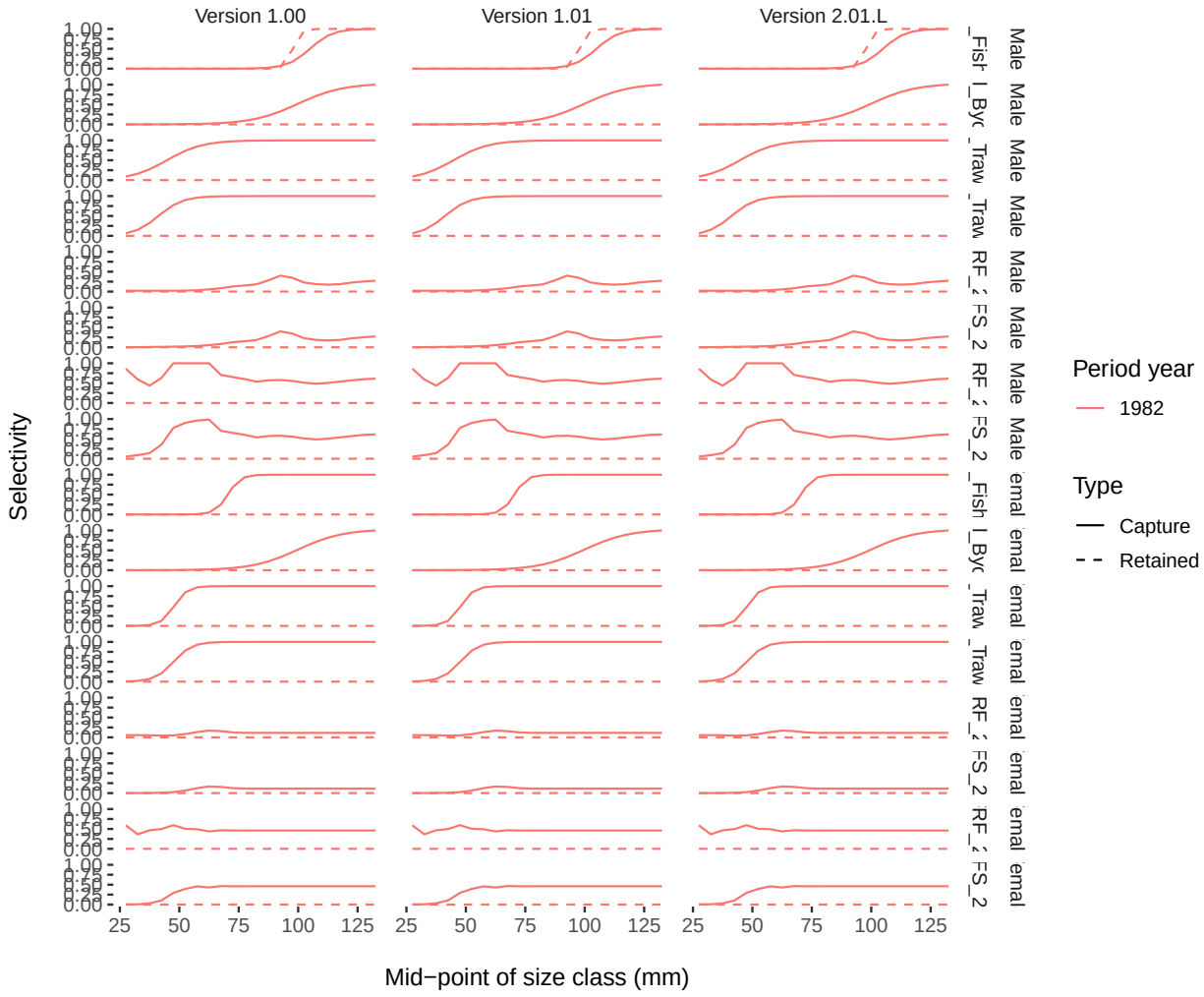

Figure 11: Estimated selectivity.

Figure 12: Estimated recruitment.

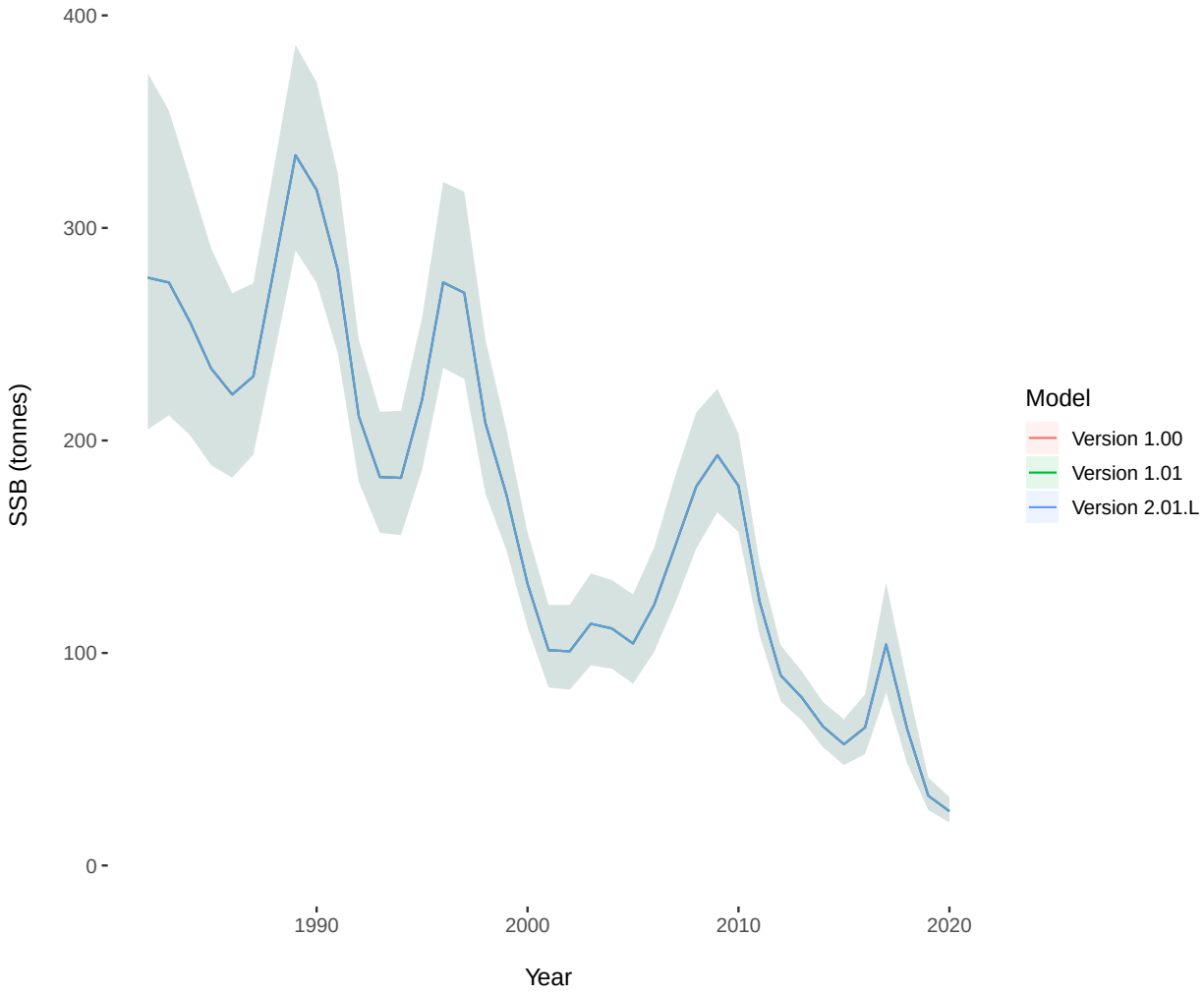

Figure 13: Estimated mature biomass

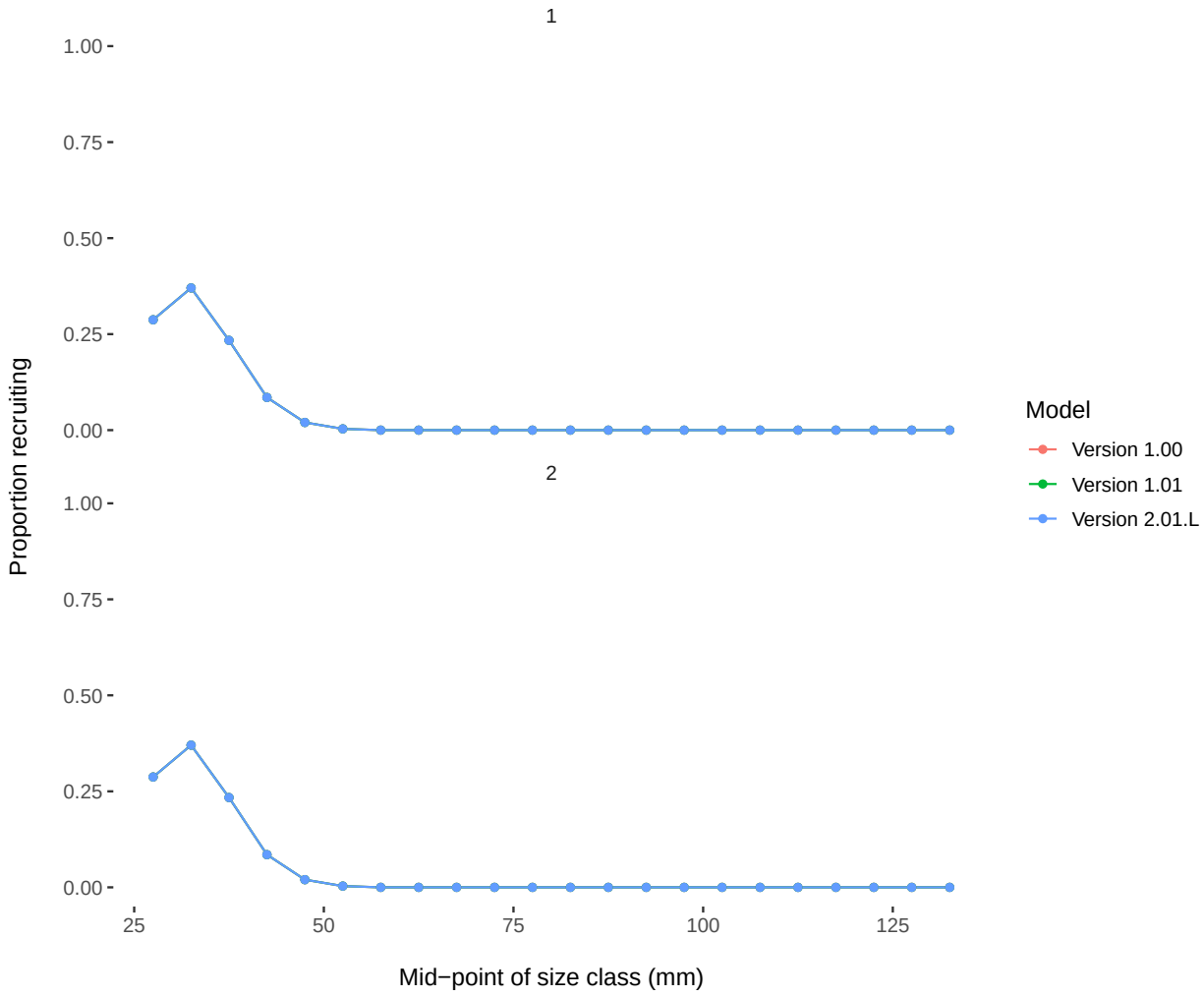

Figure 14: Estimated size at recruitment

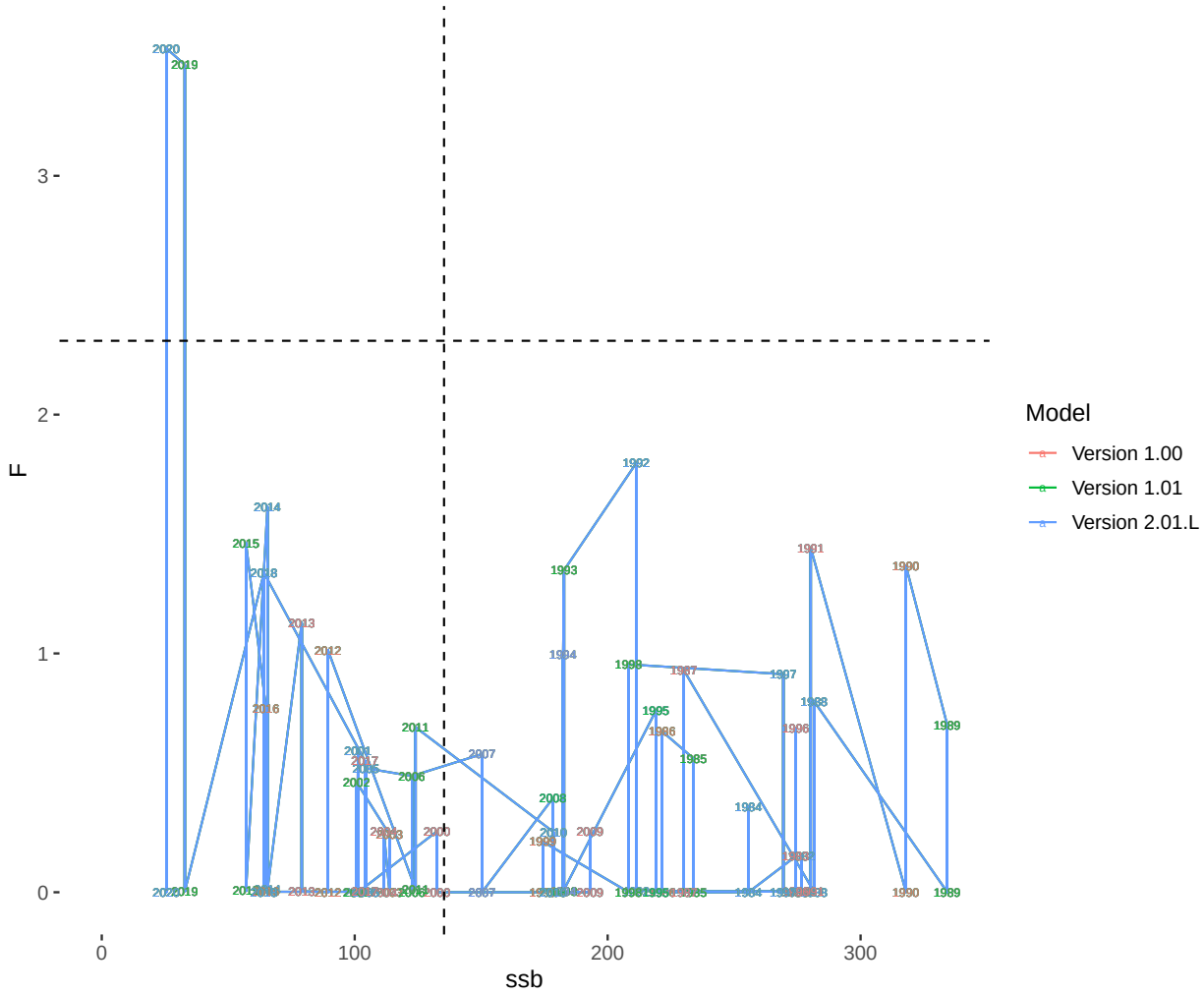

Figure 15: Kobe plot for the Pot Fishery fleet.