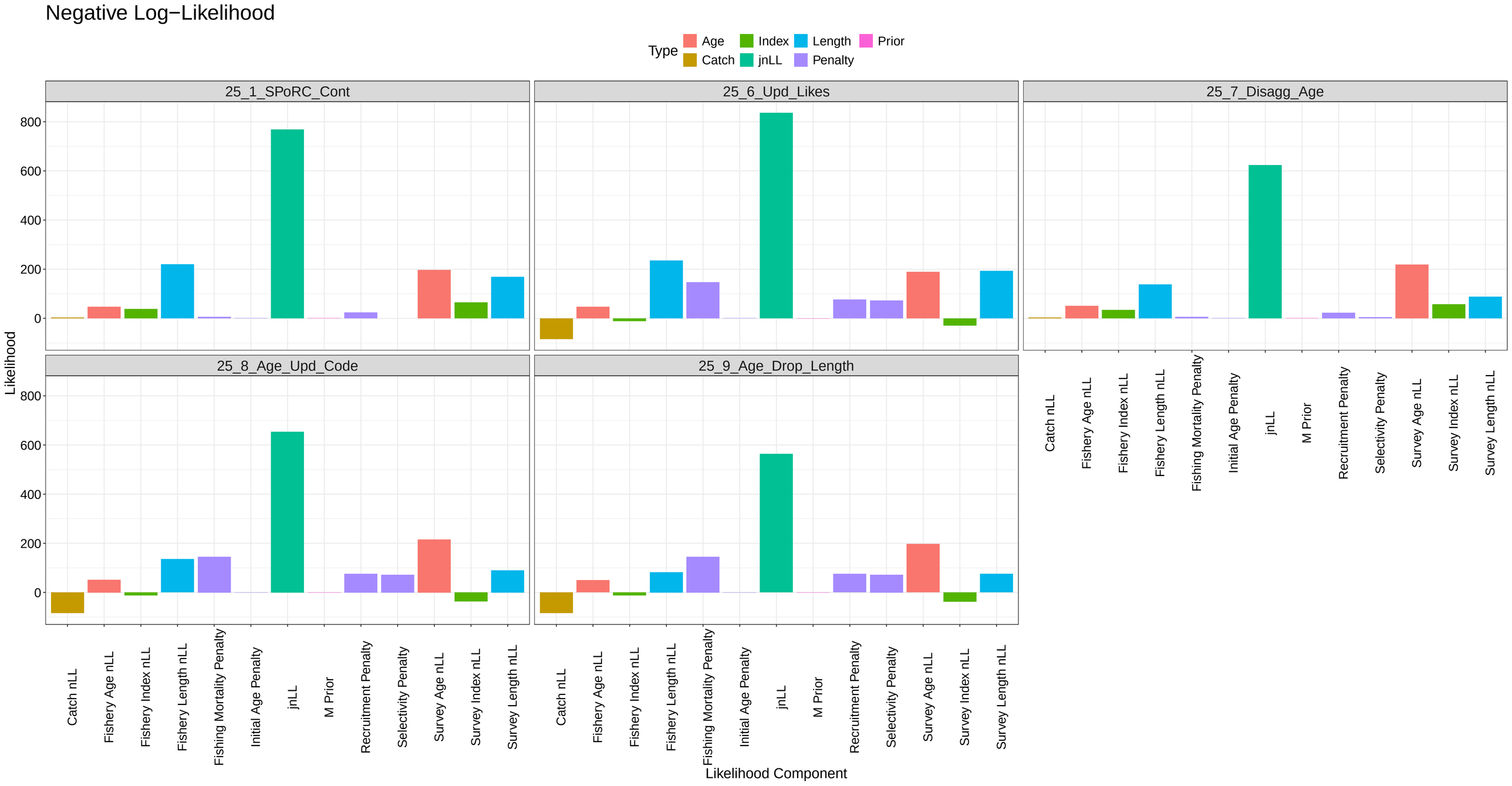
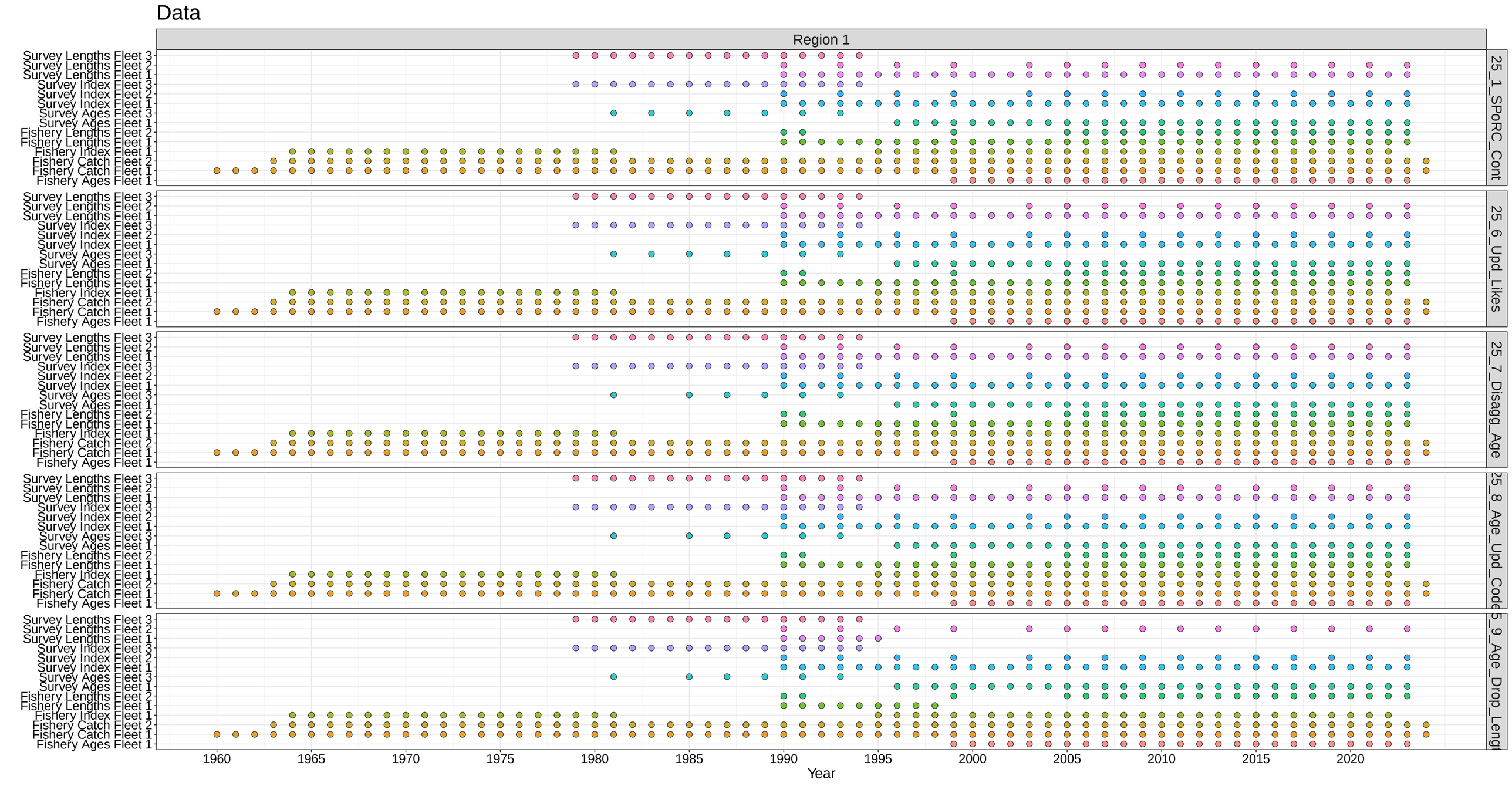
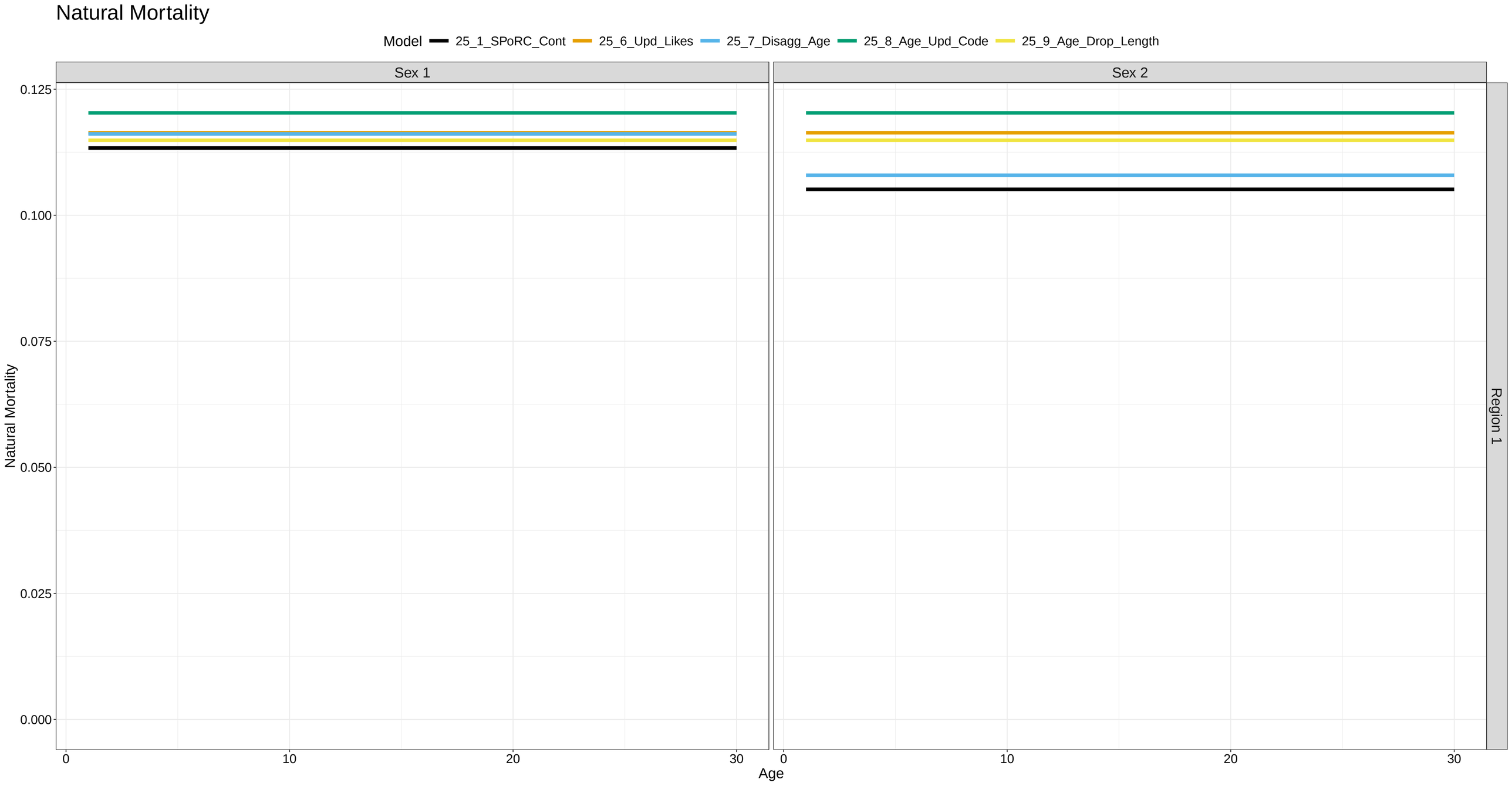
	Model	Region	Terminal_SSB	Terminal_F	Catch_Advice	B_Ref_Pt	F_Ref_Pt	B_over_B_Ref	F_over_F_Ref
1	25_1_SPoRC_Cont	1	189.0804	0.04037044	49.68588	121.0229	0.08593	1.56235	0.46979
2	25_6_Upd_Likes	1	200.9191	0.03842778	52.95886	128.0622	0.08665	1.56892	0.44350
3	25_7_Disagg_Age	1	182.5187	0.04918914	45.61297	113.8113	0.09799	1.60370	0.50200
4	25_8_Age_Upd_Code	1	221.2632	0.03979598	53.31742	126.1573	0.09078	1.75387	0.43839
5	25_9_Age_Drop_Length	1	219.7952	0.04162539	50.00421	125.1969	0.09062	1.75560	0.45932

	Model	jnLL	M Prior	Recruitment Penalty	Catch nLL	Fishing Mortality Penalty	Survey Index nLL	Fishery Index nLL	Initial Age Penalty	Survey Age nLL	Fishery Age nLL	Survey Length nLL	Fishery Length nLL	Selectivity Penalty
1	25_1_SPoRC_Cont	768.8210	0.7838709	23.11463	3.688151	6.088752	64.49362	37.72432	0.1631310	197.0703	46.62799	169.03957	220.02667	NA
2	25_6_Upd_Likes	835.7924	−0.2354034	76.09974	−83.779841	146.315255	−29.36051	−10.47291	0.3208338	189.2229	46.83455	192.90260	235.42033	72.524762
3	25_7_Disagg_Age	623.2369	1.1178911	22.97678	2.643346	6.345658	57.17526	33.34443	0.1361954	218.6027	50.22008	87.54925	138.07892	5.046348
4	25_8_Age_Upd_Code	653.9155	0.3244425	75.84462	−84.337557	145.365332	−36.25234	−12.70699	0.1736375	215.7966	51.61723	90.02423	135.82932	72.236892
5	25_9_Age_Drop_Length	563.6117	−0.4228482	75.25805	−84.405651	145.615963	−37.66538	−11.53491	0.1953826	197.1234	49.75360	75.57116	82.03714	72.085731

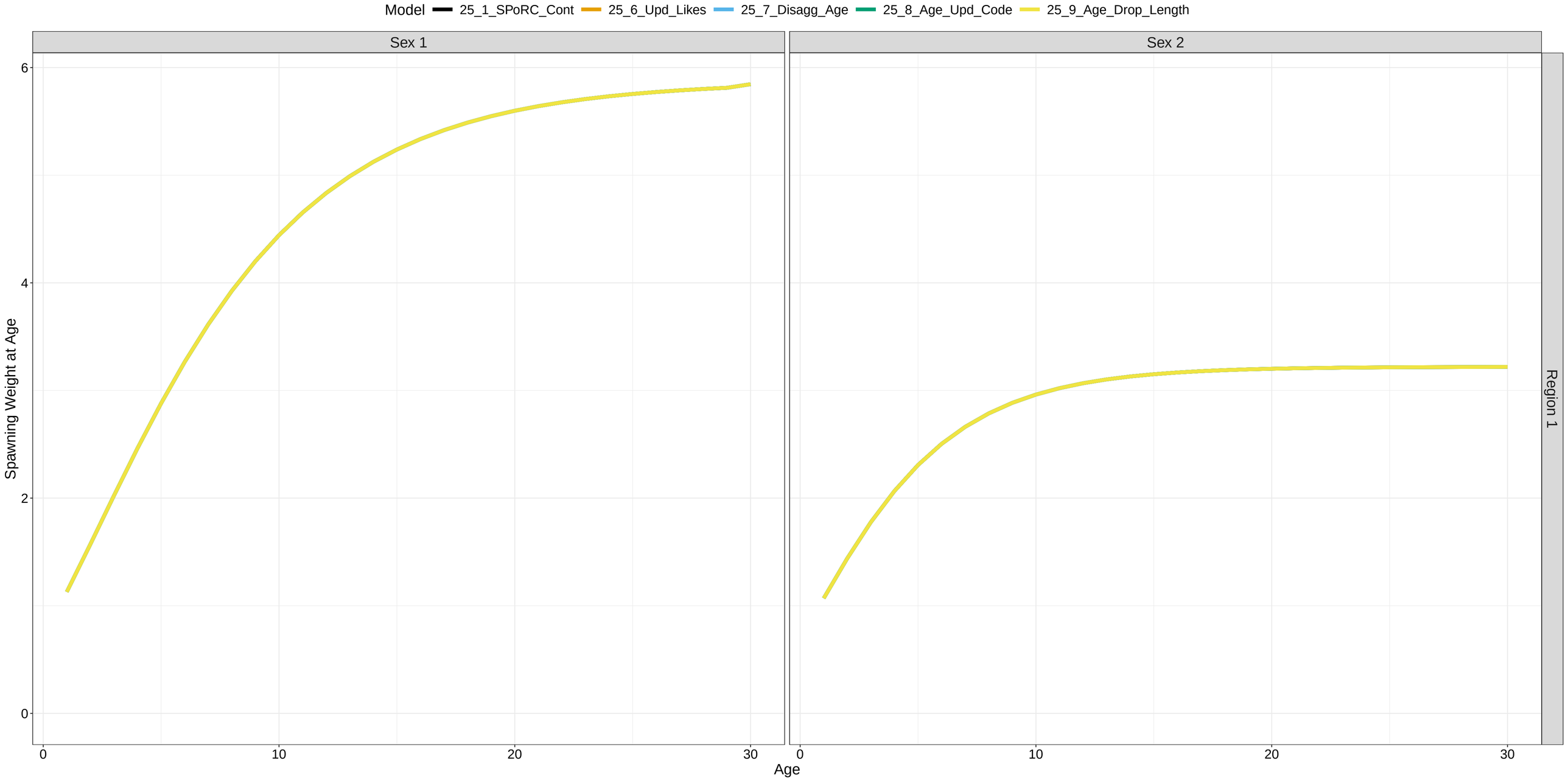

Negative Log−Likelihood
Type
Age
Index
Length
Prior
Catch
jnLL
Penalty
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Likelihood
0
200
400
600
800
Catch nLL
Fishery Age nLL
Fishery Index nLL
Fishery Length nLL
Fishing Mortality Penalty
Initial Age Penalty
jnLL
M Prior
Recruitment Penalty
Selectivity Penalty
Survey Age nLL
Survey Index nLL
Survey Length nLL
Likelihood Component


Data
Region 1
Survey Lengths Fleet 3
Survey Lengths Fleet 2
Survey Lengths Fleet 1
Survey Index Fleet 3
Survey Index Fleet 2
Survey Index Fleet 1
Survey Ages Fleet 3
Survey Ages Fleet 1
Fishery Lengths Fleet 2
Fishery Lengths Fleet 1
Fishery Index Fleet 1
Fishery Catch Fleet 2
Fishery Catch Fleet 1
Fishery Ages Fleet 1
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Lengt
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

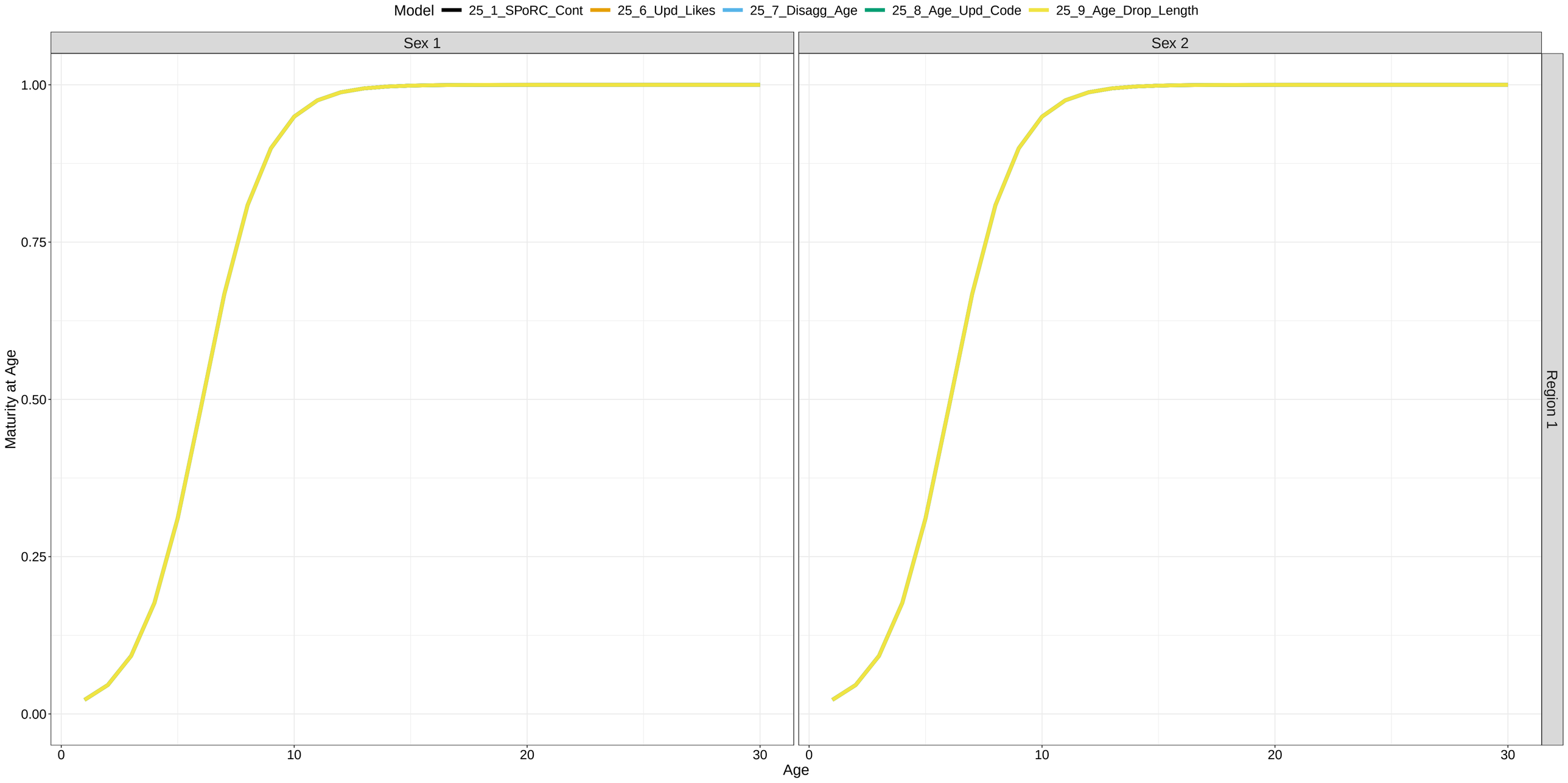
Natural Mortality



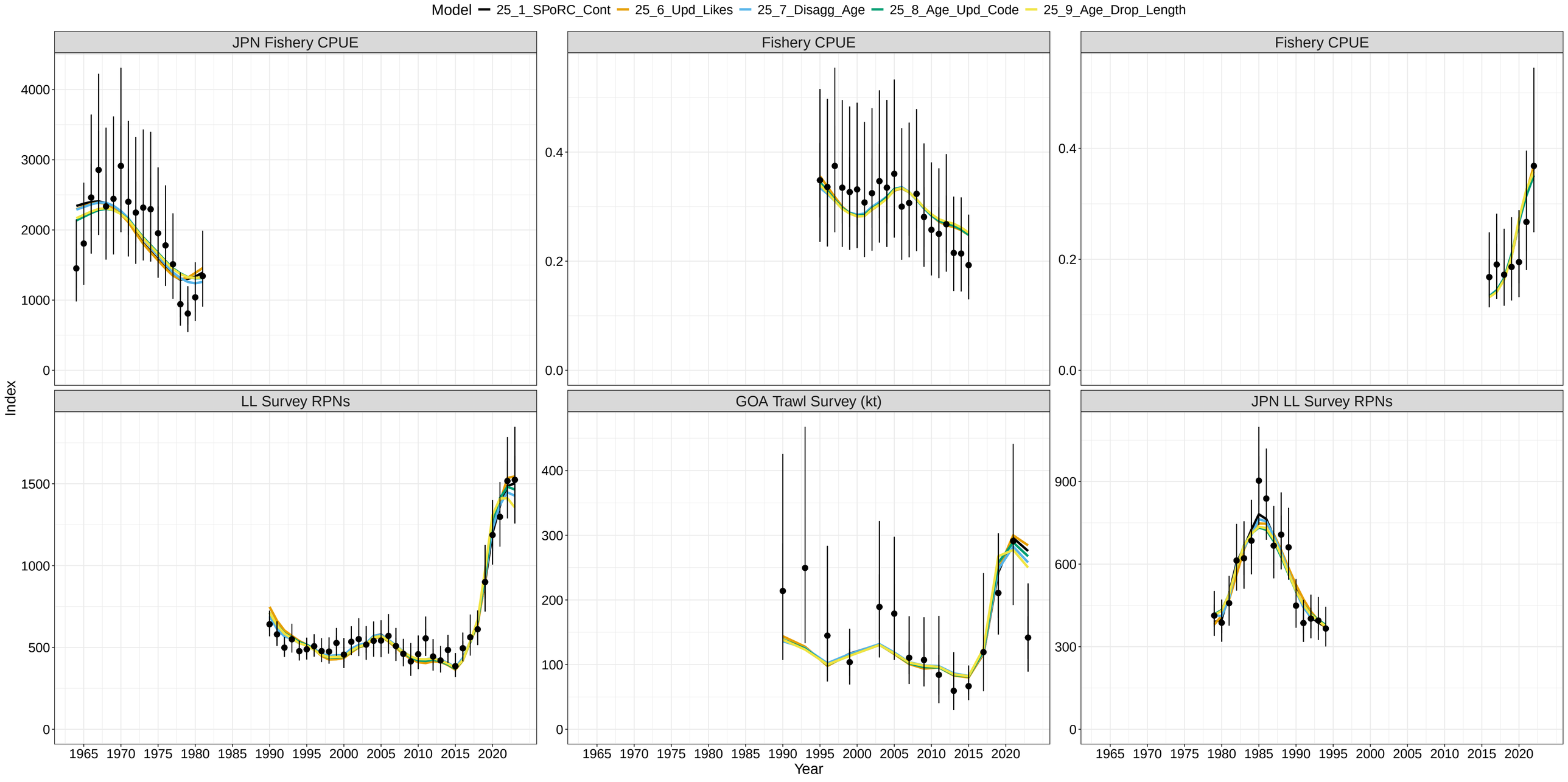
Weight−at−Age



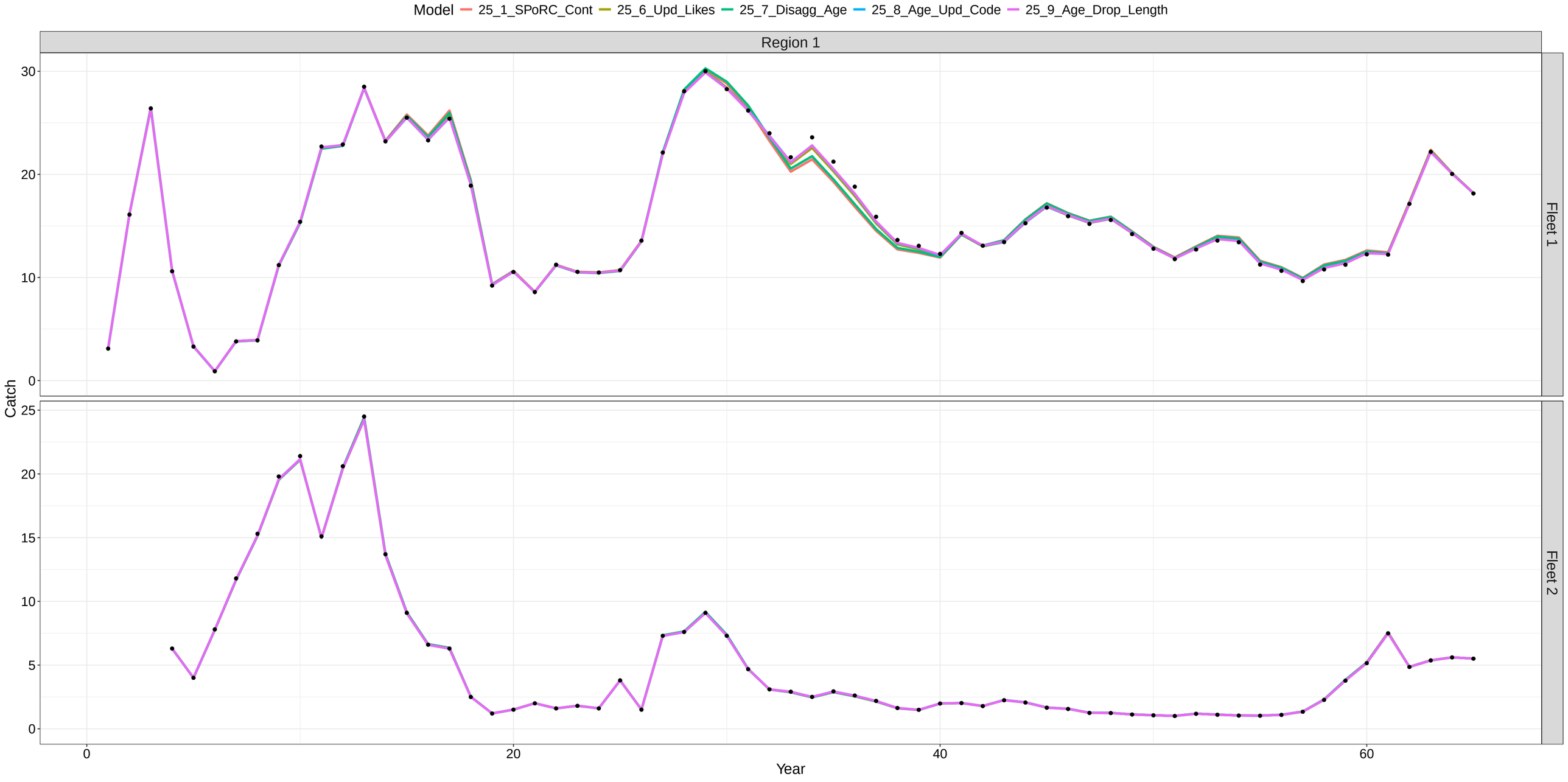
Maturity

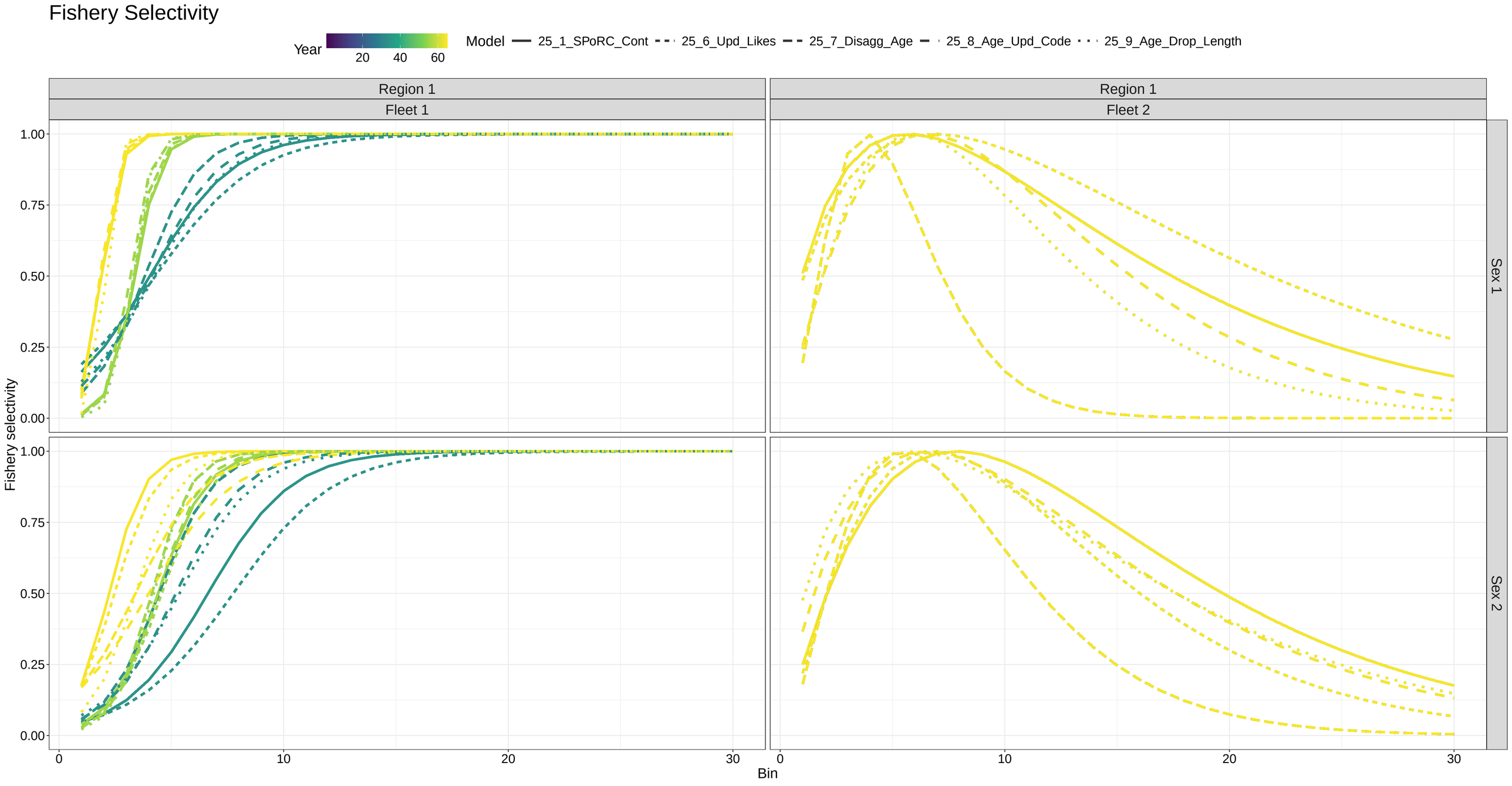

Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Sex 1
Sex 2
Region 1
Maturity at Age
1.00
0.75
0.50
0.25
0.00
0
10
20
30
Age

Index Fits

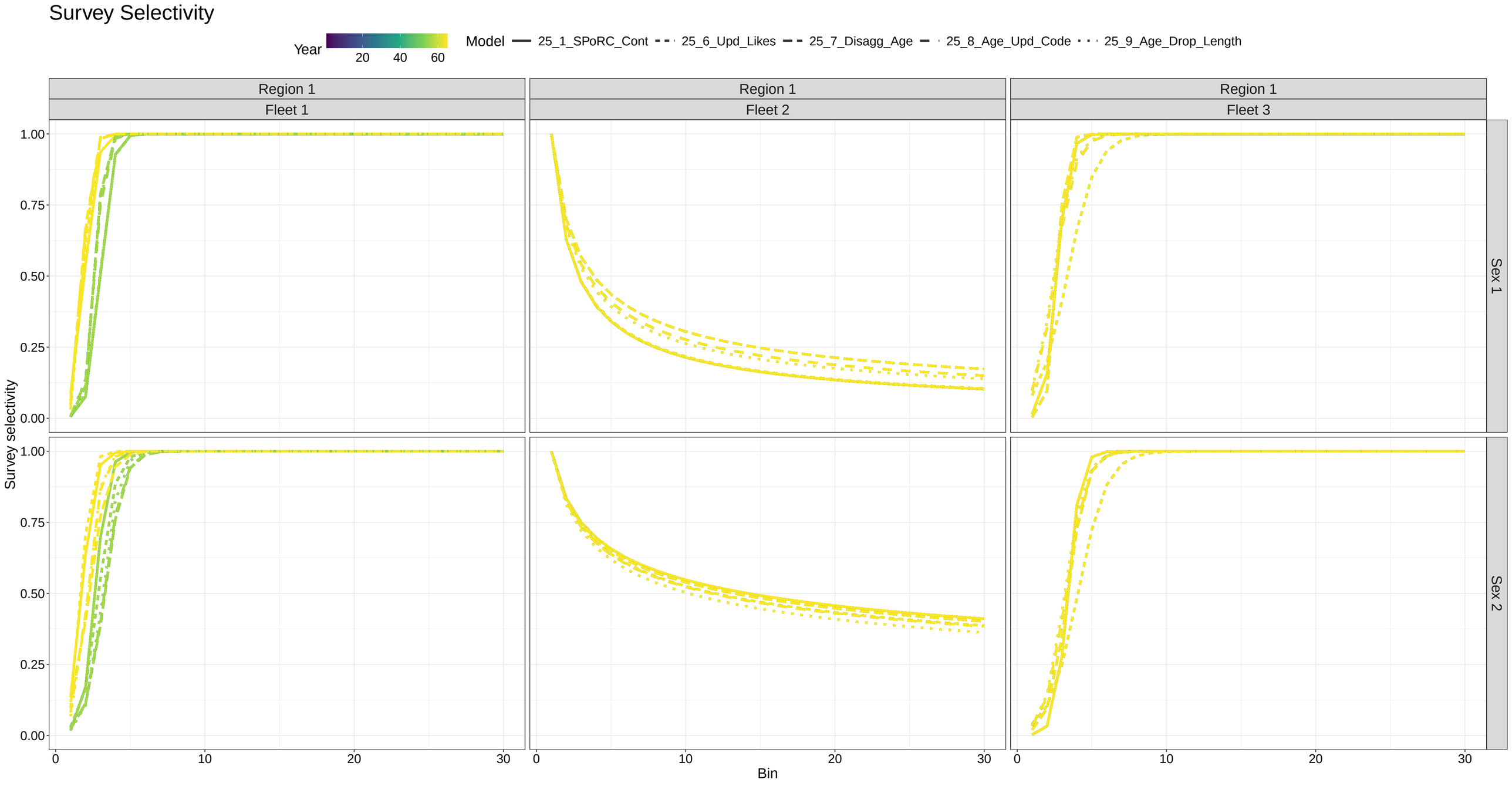

Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
JPN Fishery CPUE
Fishery CPUE
Fishery CPUE
LL Survey RPNs
GOA Trawl Survey (kt)
JPN LL Survey RPNs
Index
Year

Catch

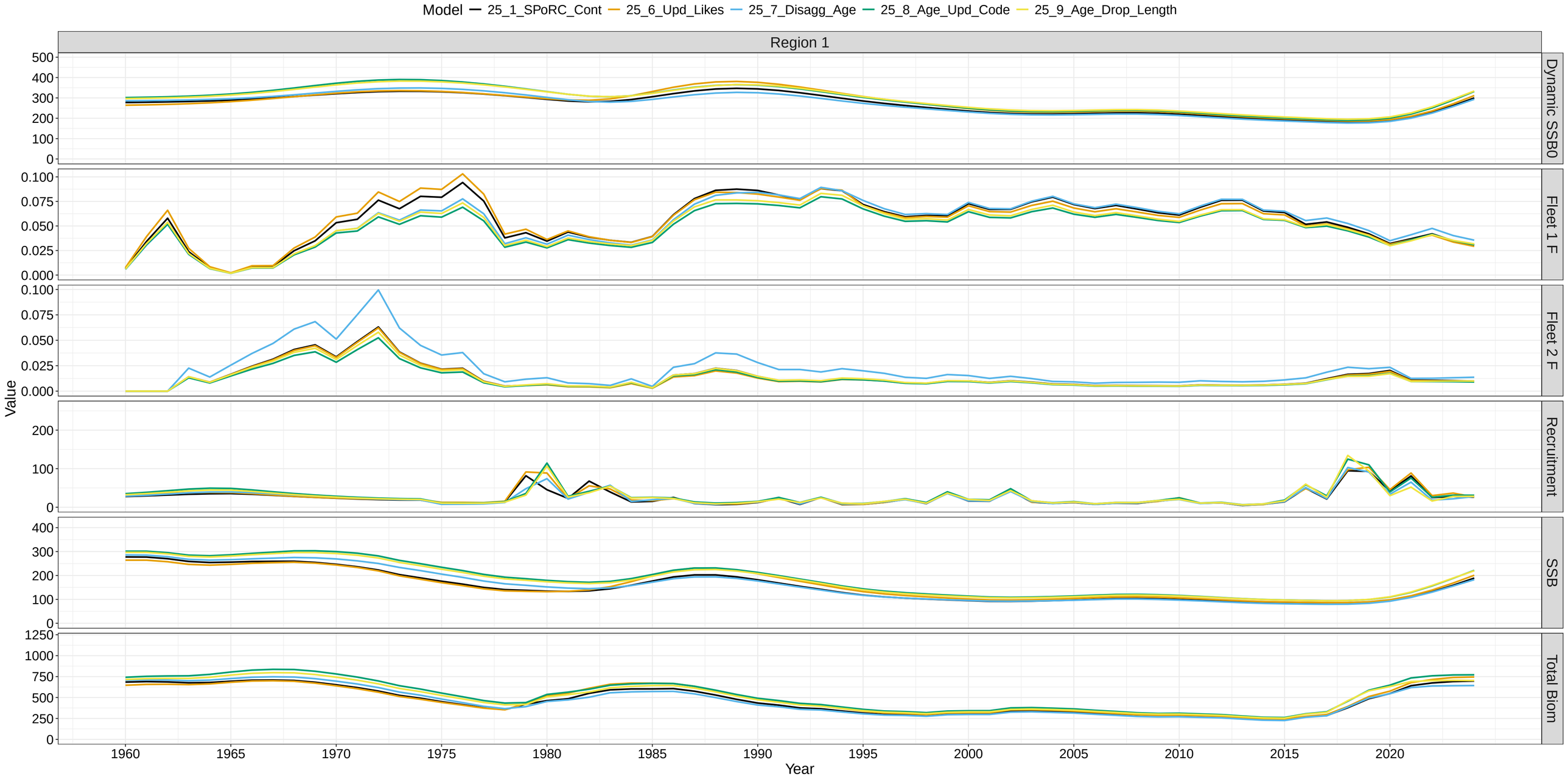

Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Region 1
Fleet 1
Fleet 2
Catch
Year
0
20
40
60
0
10
20
30
0
5
10
15
20
25

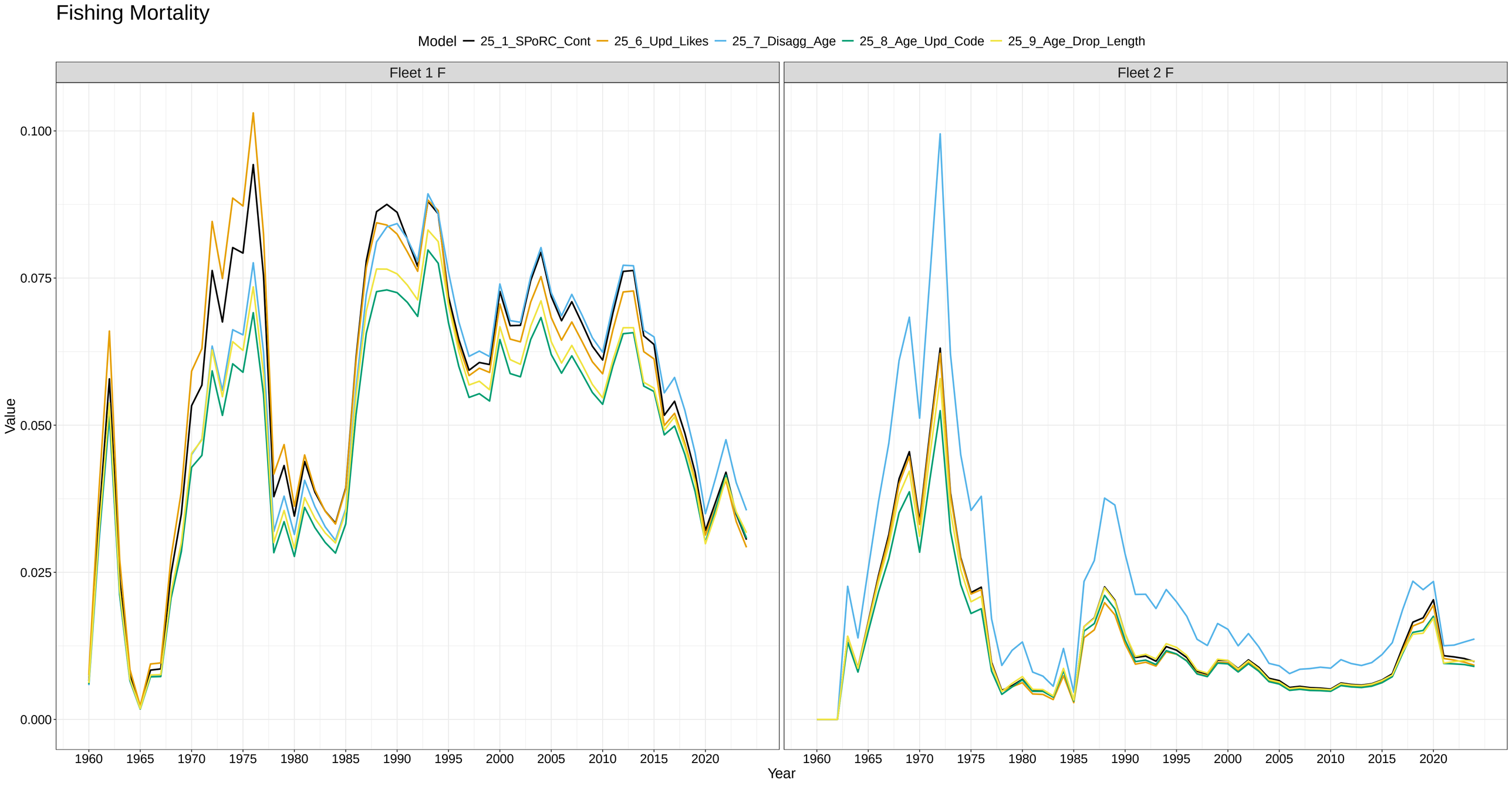

Fishery Selectivity
Year
20
40
60
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Region 1
Fleet 1
Region 1
Fleet 2
Sex 1
Sex 2
Fishery selectivity
1.00
0.75
0.50
0.25
0.00
0
10
20
30
Bin

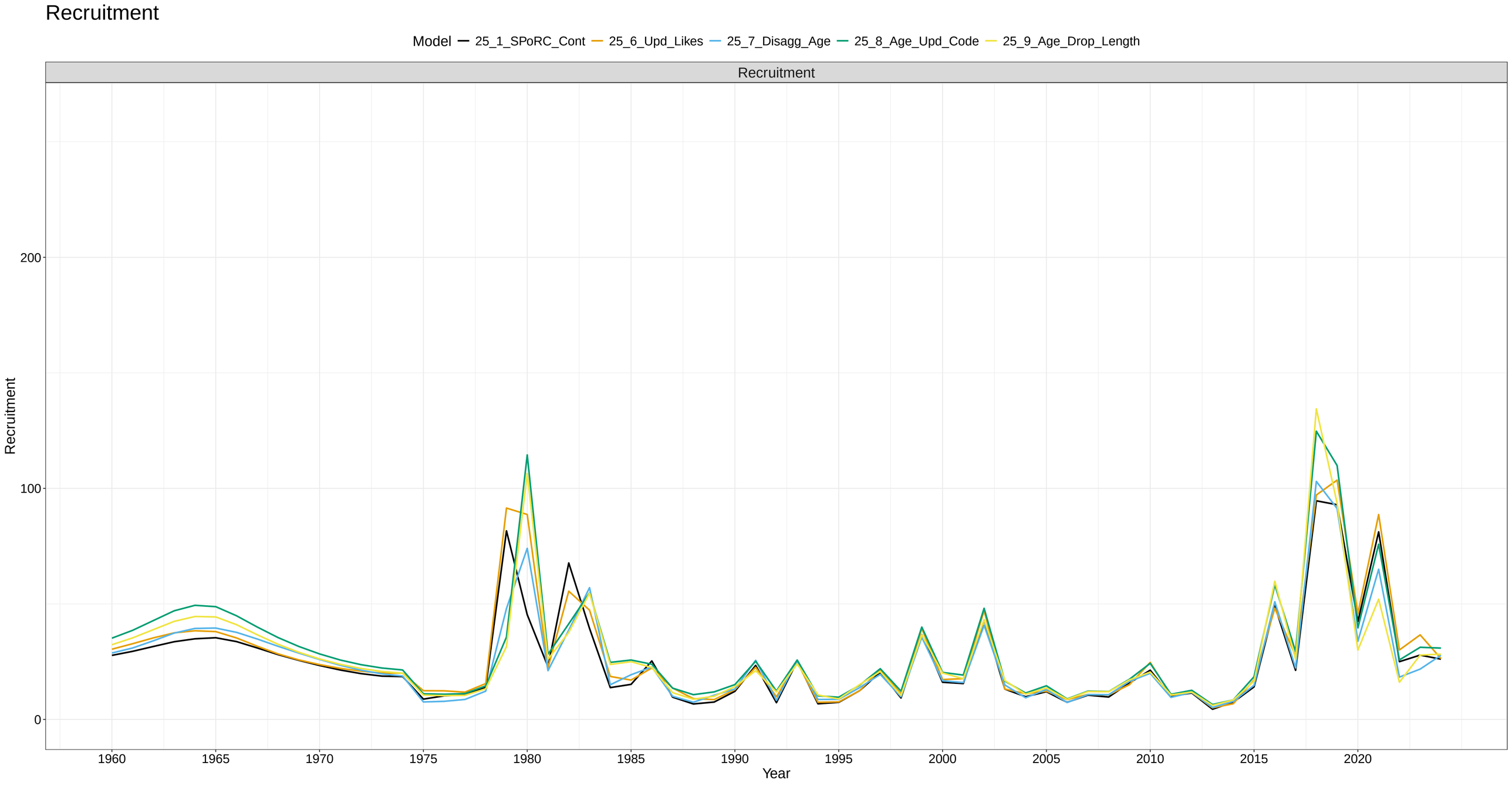
Survey Selectivity

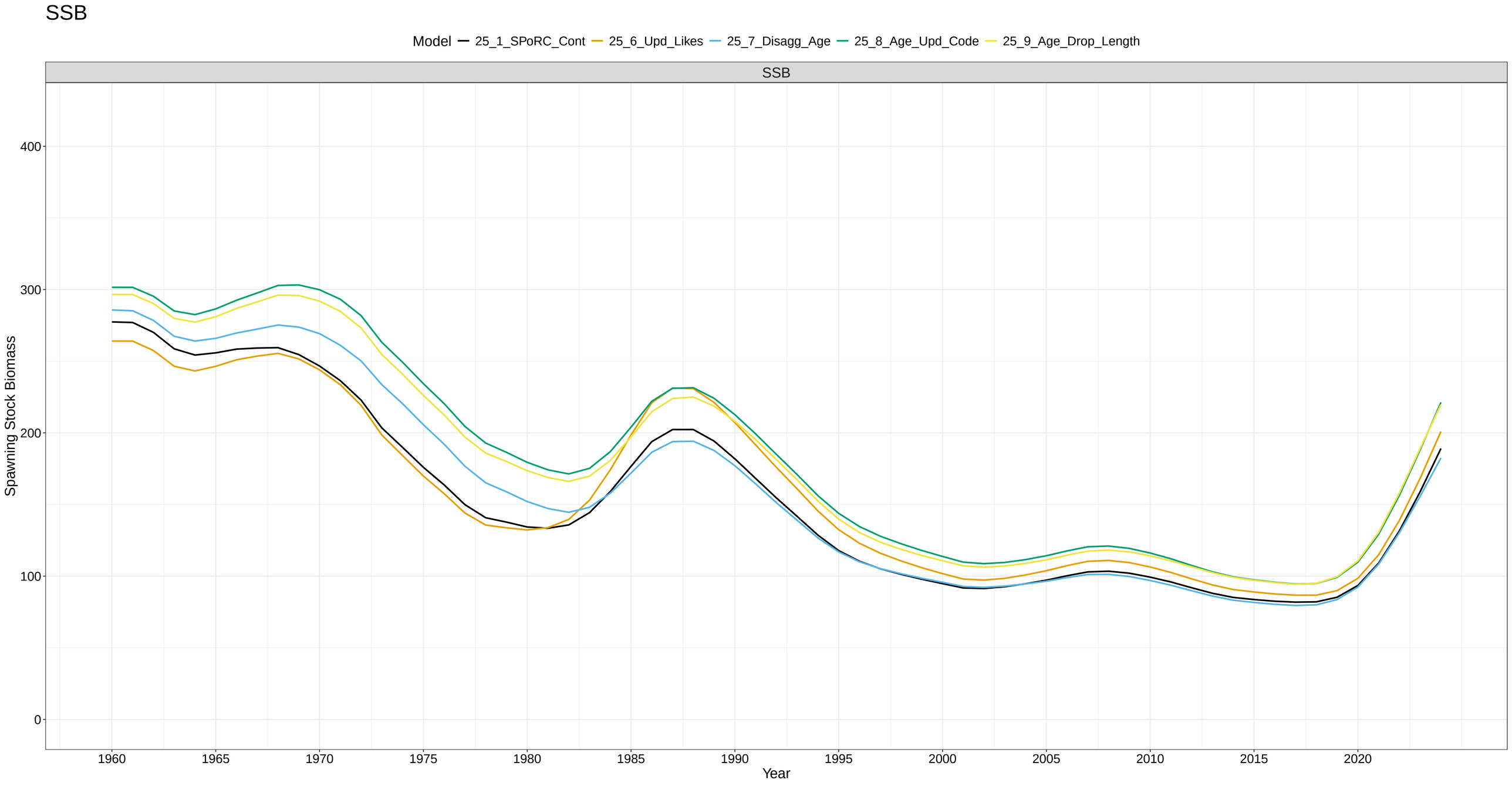


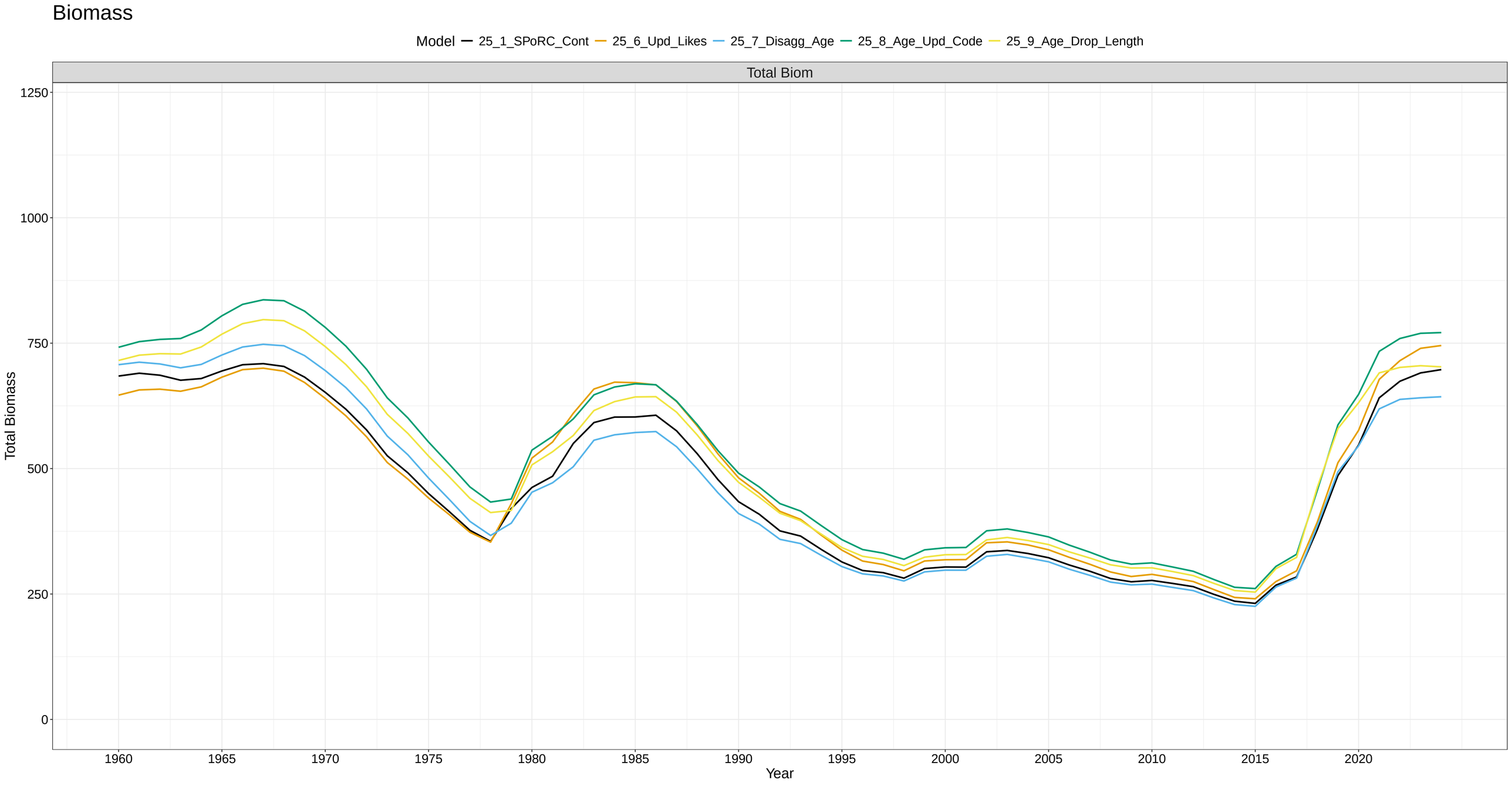
Time Series Plots



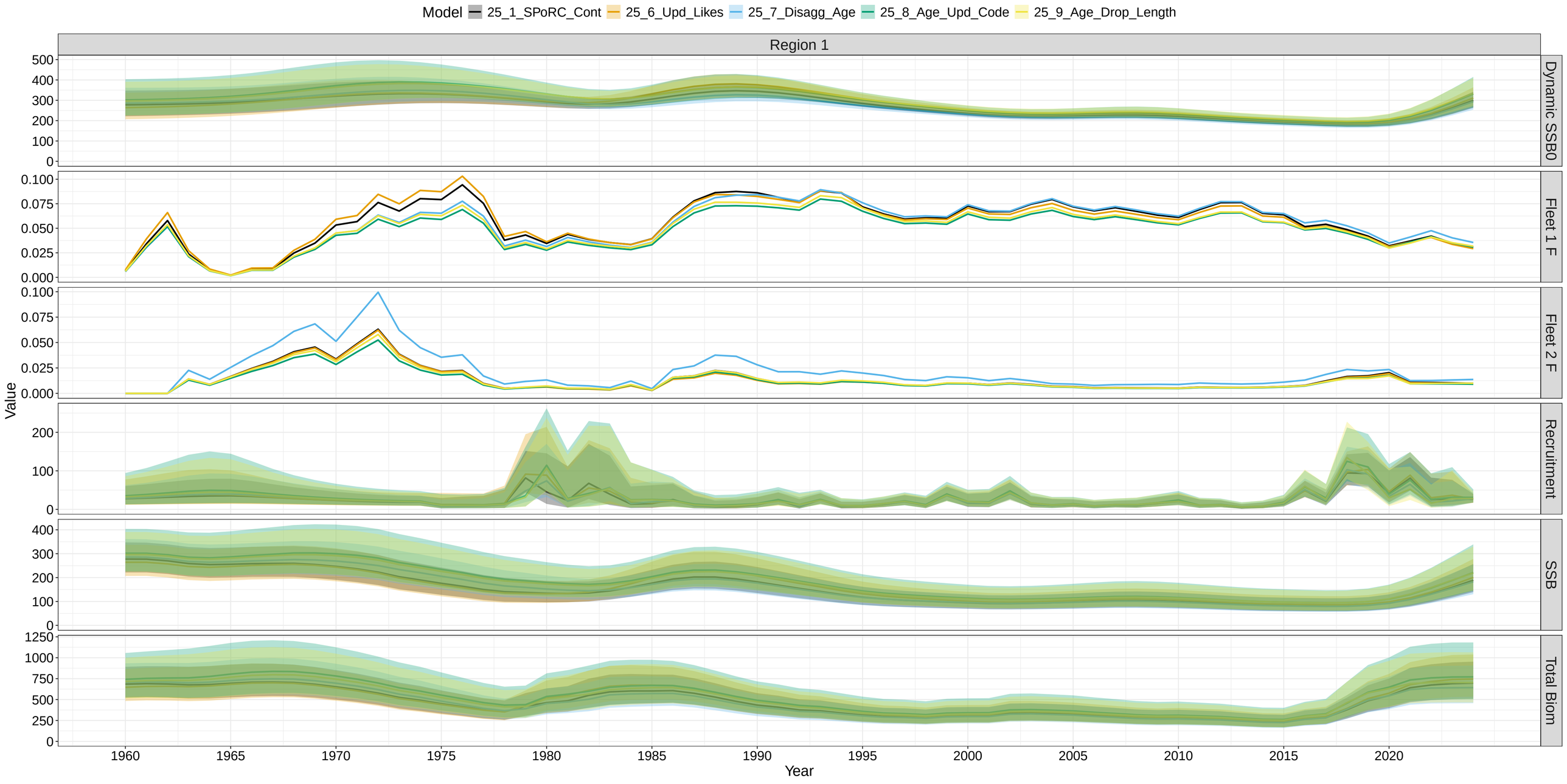

Fishing Mortality
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Fleet 1 F
Fleet 2 F
Value
0.100
0.075
0.050
0.025
0.000
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

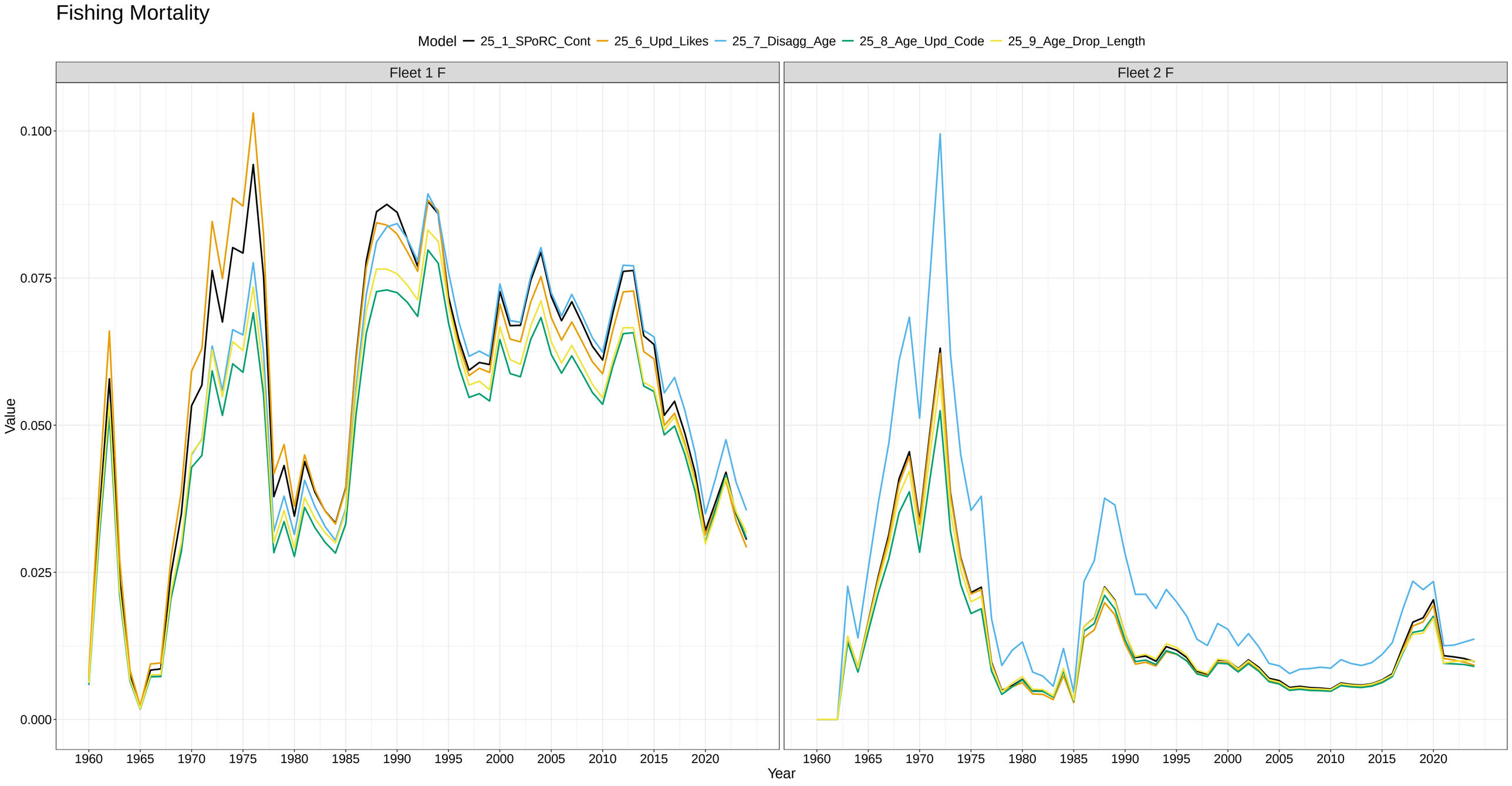

Recruitment
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Recruitment
Recruitment
200
100
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

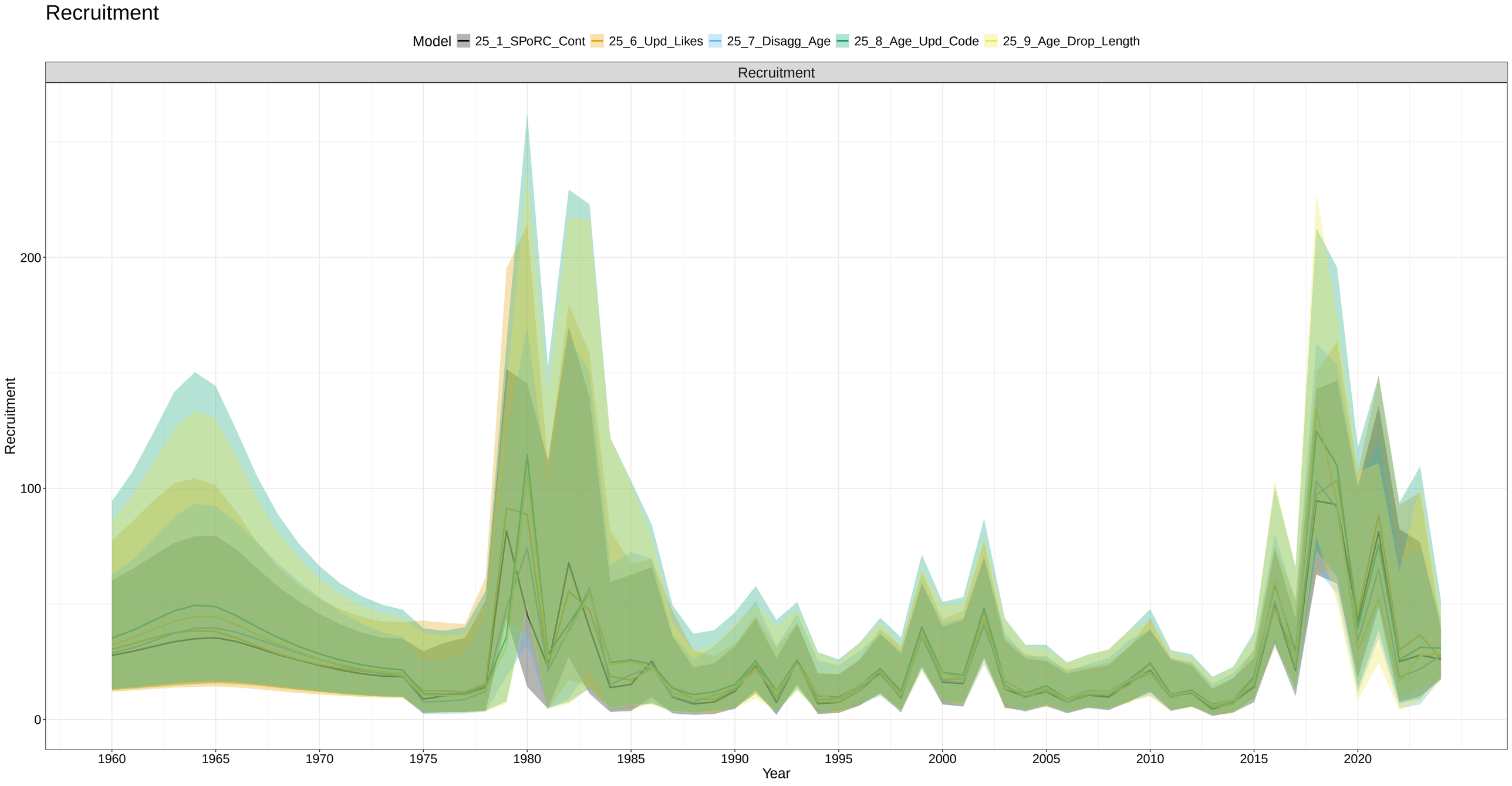

SSB
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
SSB
Spawning Stock Biomass
0
100
200
300
400
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

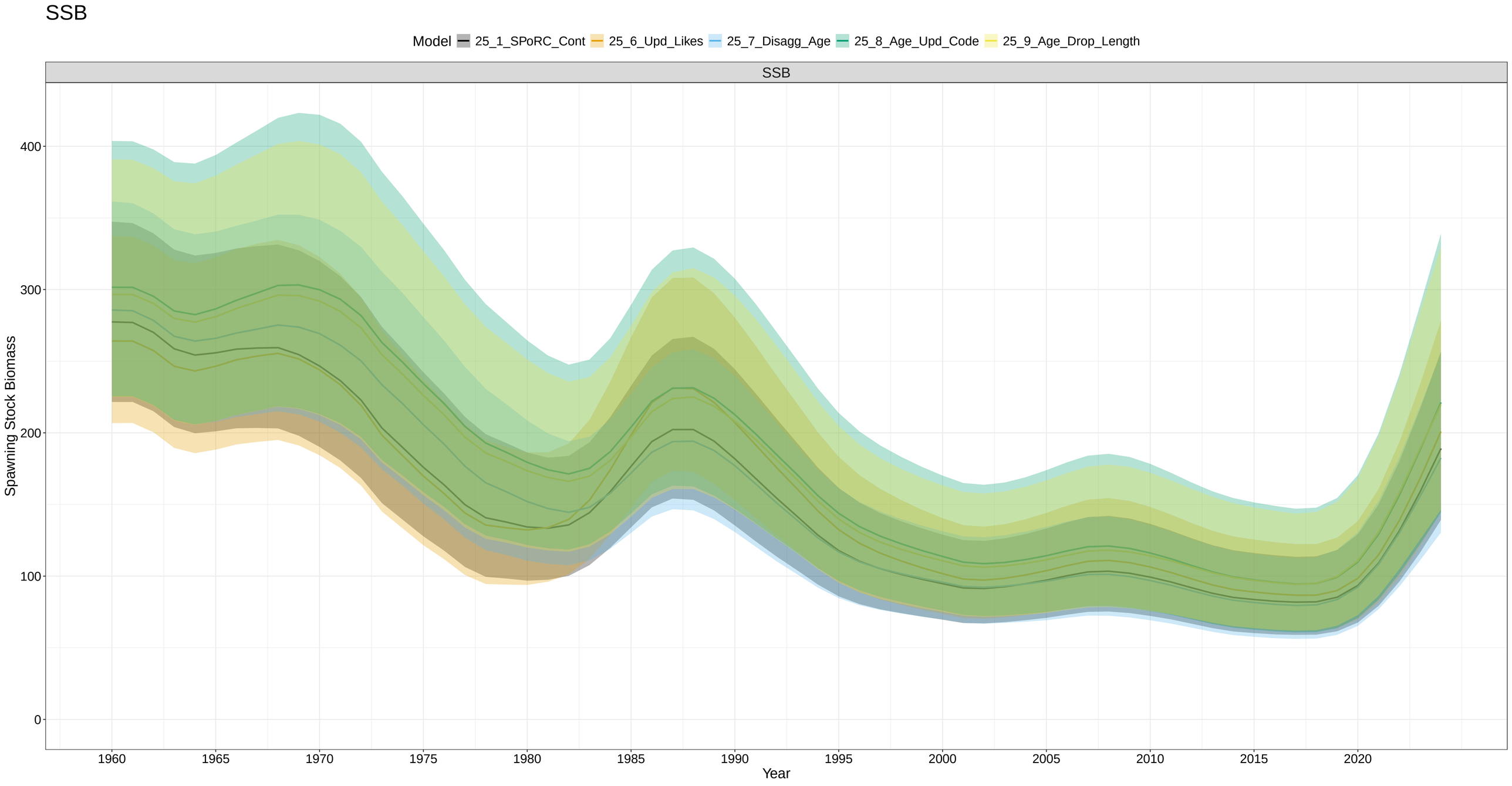

Biomass
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Total Biom
Total Biomass
1250
1000
750
500
250
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

Time Series Plots

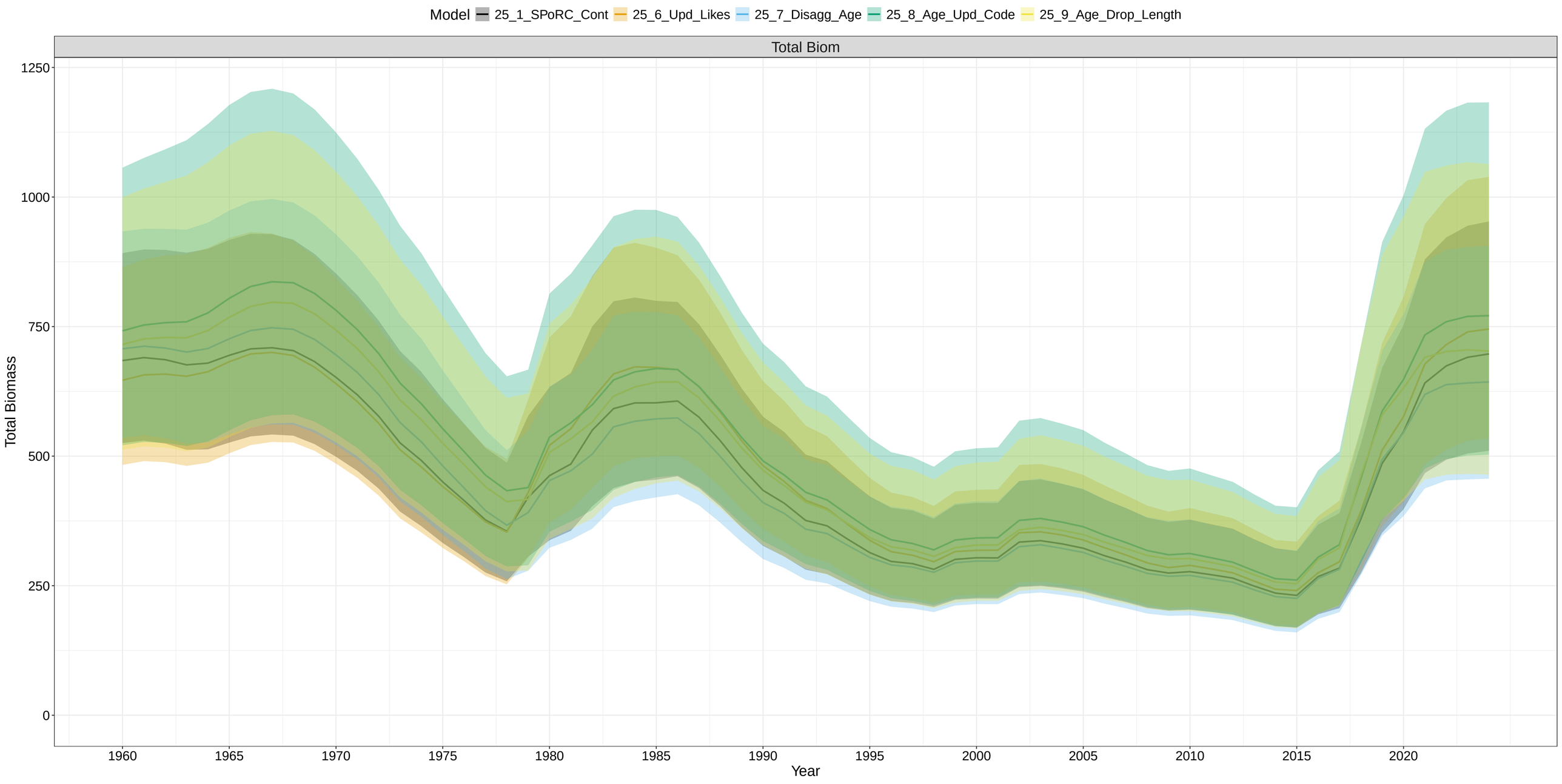



Fishing Mortality
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Fleet 1 F
Fleet 2 F
Value
0.100
0.075
0.050
0.025
0.000
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year


Recruitment
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Recruitment
Recruitment
200
100
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year


SSB
Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
SSB
Spawning Stock Biomass
0
100
200
300
400
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

Biomass


Model
25_1_SPoRC_Cont
25_6_Upd_Likes
25_7_Disagg_Age
25_8_Age_Upd_Code
25_9_Age_Drop_Length
Total Biom
Total Biomass
1250
1000
750
500
250
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year