	Object	Model name	Description	path
	SS 3.24	13.sq	2013 Assessment SS3.24	model/2013_SST
). Transition				
Item 0.0	SS 3.30.21	23.sq.fixQ	2023 Assessment SS3.30-fixed catchability	model/2013_SST_SSV3_30_21
	All Param fixed	23.sq.fix	13.sq assessment (SS V3.30.32) - All param fixed	model/Sensitivity_Anal/0.1_Bridging_models/23.sq.fix
Item 0.1	Floating Q	23.sq.floatQ	13.sq assessment (SS V3.30.21) - Param estimated as before but Q floating	model/Sensitivity_Anal/0.1_Bridging_models/23.sq.floatQ
	All Param estimated	23.sq.est	13.sq assessment (SS V3.30.21) - All param estimated	model/Sensitivity_Anal/0.1_Bridging_models/23.sq.est
	Update landings	23.land.update	23.sq.floatQ + landings updated	model/Sensitivity_Anal/0.2_Update_Data/1_23.land.update
	Updates discard rates	23.disc.update	23.land.update + discards updated	model/Sensitivity_Anal/0.2_Update_Data/2_23.disc.update
	Update survey geostat indices	23.surv_geo.update	23.disc.update + geo Indices	model/Sensitivity_Anal/0.2_Update_Data/3_23.surv_geo.update
	Update survey length comps	23.lcs_survey.update	23.surv_geo.update + Surv Lcs	model/Sensitivity_Anal/0.2_Update_Data/4_23.lcs_survey.update
Itam 0.2	Update fisheries length comps	23.lcs_fisheries.update	23.lcs_survey.update + Fisheries Lcs	model/Sensitivity_Anal/0.2_Update_Data/5_23.lcs_fisheries.update
Item 0.2	Update discard mean weights	23.disc_weight.update	23.lcs_fisheries.update + Discard weight updated	model/Sensitivity_Anal/0.2_Update_Data/6_23.disc_weight.update
	Update growth	23.growth.update	23.disc_weight.update + growth updated	model/Sensitivity_Anal/0.2_Update_Data/7_23.growth.update
	Update maturity	23.maturity.update	23.growth.update + maturity updated	model/Sensitivity_Anal/0.2_Update_Data/8_23.maturity.update
	Update fecundity	23.fecundity.update	23.maturity.update + fecundity updated	model/Sensitivity_Anal/0.2_Update_Data/9_23.fecundity.update
	Update natural mortality	23.mortality.update	23.fecundity.update + mortality updated	model/Sensitivity_Anal/0.2_Update_Data/10_23.mortality.update
1. Landings				
Itom 1 1	Imputed historical landings	23.land.hist_impute	Use imputed historical landings	model/Sensitivity_Anal/1.1_Landings_Sensitivity/1_23.land.hist_impute
Item 1.1 ——	2013 assessment landings	23.land.2013	Use 2013 assesssment landings	model/Sensitivity_Anal/1.1_Landings_Sensitivity/2_23.land.2013
Item 1.2	ASHOP Catches	23.landings.ashop	23.model.francis_2 + ASHOP catches	model/Sensitivity_Anal/1.2_Landings_ashop/1_23.landings.ashop
Item 1.3	23.landings.4fleet	23.landings.4fleet	Base Model + 4 commercial fleets	model/Sensitivity_Anal/1.3_Landings_4fleet/1_23.landings.4fleet

0.2	Update fisheries length comps	23.lcs_fisheries.update	23.lcs_survey.update + Fisheries Lcs	model/Sensitivity_Anal/0.2_Update_Data/5_23
0.2	Update discard mean weights	23.disc_weight.update	23.lcs_fisheries.update + Discard weight updated	model/Sensitivity_Anal/0.2_Update_Data/6_23
	Update growth	23.growth.update	23.disc_weight.update + growth updated	model/Sensitivity_Anal/0.2_Update_Data
	Update maturity	23.maturity.update	23.growth.update + maturity updated	model/Sensitivity_Anal/0.2_Update_Data/8
	Update fecundity	23.fecundity.update	23.maturity.update + fecundity updated	model/Sensitivity_Anal/0.2_Update_Data/9
	Update natural mortality	23.mortality.update	23.fecundity.update + mortality updated	model/Sensitivity_Anal/0.2_Update_Data/10
js .				
1.1 —	Imputed historical landings	23.land.hist_impute	Use imputed historical landings	model/Sensitivity_Anal/1.1_Landings_Sensitivity/1
1.1	2013 assessment landings	23.land.2013	Use 2013 assesssment landings	model/Sensitivity_Anal/1.1_Landings_Sensi
1.2	ASHOP Catches	23.landings.ashop	23.model.francis_2 + ASHOP catches	model/Sensitivity_Anal/1.2_Landings_ashop/
1.3	23.landings.4fleet	23.landings.4fleet	Base Model + 4 commercial fleets	model/Sensitivity_Anal/1.3_Landings_4fleet

23.surveys.gamvln 23.model.francis_2 with lognormal error structure in geostatistical abundance indices

base model w/ design-based indices

base model with an additional SD paramter estimated for WCGBTS

3 fleet 1 survey model structure

3 fleet 4 survey model structure

23.model.francis_2 + low growth

23.model.francis_2 + high growth

new params, remove fish <=16cm

23.model.recdevs_initYear + h=0.72

23.model.recdevs_steep + biaspars updated

23.model.recdevs_termYear + inityear change

23.model.fleetstruct_5 + new Francis weights

23.mortality.update + termyear change

sigmaR 0.76

survey timing = -1

simple settlement event

remove small sample sizes

change Trawl_N selectivity pars

change other fleet selectivity pars

sex-specific survey selectivity

Fix warnings

blk Trawl 89

blk Trawl mid10

blk Trawl 89-mid10

blk Trawl 89-mid10-19

blk Trawl 89-mid10 NonTrawl 05-13

23.blkret.T3 + 3 Time Blocks

23.blkret.T3 + 1 Time Block

23.blkret.T3 + 2 Time Blocks

base blksel 2003

base blksel 2011

base blksel 2003+2011

blkretT3 blksel 2003

blkretT3 blksel 2011

DMN length comps

blkretT3 blksel 2003+2011

blkretT3 blksel 2003+2011+2019

23.model.francis_2 + M fixed at 0.045

23.model.francis_2 + M fixed at 0.05

23.blkret.T3.blksel.T3 + Max ret estimated

base blksel 2003+2011+2019

blk Trawl 89-mid10 NonTrawl 05-13-17

francis weighting part 2

23.model.francis_2 + intermediate maturity curve

Remove the length-fecundity relationship from base model

model/Sensitivity_Anal/3.1_surveys_Sensitivity/1_23.surveys.gamvln

model/Sensitivity_Anal/3.3_surveys3_Sensitivity/3_23.surveys.notriennial

model/Sensitivity_Anal/3.3_surveys3_Sensitivity/1_23.surveys.useslope

model/Sensitivity_Anal/4.1_Growth_Sensitivity/2_23.growth.low

model/Sensitivity_Anal/4.1_Growth_Sensitivity/1_23.growth.high

model/Sensitivity_Anal/4.2_Maturity_Sensitivity/2_23.maturity.mix_curve

model/Sensitivity_Anal/4.2_Maturity_Sensitivity/1_23.maturity.pgcurve

model/Sensitivity_Anal/4.3_Fecundity_Sensitivity/1_23.biology.no_fecundity

model/Sensitivity_Anal/STAR_Panel/4.4_WL_Sensitivity/1_23.WL.sensitivity

model/Sensitivity_Anal/5.1_Explore_RecDevs/3_23.model.recdevs_steep

model/Sensitivity_Anal/5.1_Explore_RecDevs/4_23.model.recdevs_bias

model/Sensitivity_Anal/5.1_Explore_RecDevs/2_23.model.recdevs_initYear

model/Sensitivity_Anal/5.1_Explore_RecDevs/1_23.model.recdevs_termYear

model/Sensitivity_Anal/5.4_SS_Model_Warnings/1_23.model.survey_timing

model/Sensitivity_Anal/5.5_Improve_LC_Fits/1_23.model.sample_sizes

model/Sensitivity_Anal/5.5_Improve_LC_Fits/3_23.model.improve_trawln

model/Sensitivity_Anal/5.5_Improve_LC_Fits/4_23.model.improve_other

model/Sensitivity_Anal/5.8_Francis_Reweighting_2/1_23.model.francis_2

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/1_23.blkret.T1

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/2_23.blkret.T2

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/3_23.blkret.T3

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/4_23.blkret.T4

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/5_23.blkret.T3.NT1

model/Sensitivity_Anal/5.9_Retention_Selectivity_Sensitivity/6_23.blkret.T3.NT2

model/Sensitivity_Anal/5.10_Prior_Selectivity_Sensitivity/3_23.slx.Prior.3Blk

model/Sensitivity_Anal/5.10_Prior_Selectivity_Sensitivity/1_23.slx.Prior.1Blk

model/Sensitivity_Anal/5.10_Prior_Selectivity_Sensitivity/2_23.slx.Prior.2Blk

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/1_23.blksel.T1

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/2_23.blksel.T2

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/3_23.blksel.T3

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/4_23.blksel.T4

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/5_23.blkret.T3.blksel.T1

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/6_23.blkret.T3.blksel.T2

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/7_23.blkret.T3.blksel.T3

model/Sensitivity_Anal/5.11_Selectivity_Sensitivity/8_23.blkret.T3.blksel.T4

model/Sensitivity_Anal/STAR_Panel/5.13_Request_3/1_23.STAR.Panel.M.045

model/Sensitivity_Anal/STAR_Panel/5.13_Request_3/2_23.STAR.Panel.M.05

model/Sensitivity_Anal/STAR_Panel/5.14_Request_4/1_23.est.max.ret

model/Sensitivity_Anal/5.12_Dirichlet_Multinomial/1_23.dmn

model/Sensitivity_Anal/5.7_Fix_Warnings/1_23.fix_warnings

model/Sensitivity_Anal/5.4_SS_Model_Warnings/2_23.model.settlement_events

model/Sensitivity_Anal/5.5_Improve_LC_Fits/2_23.model.sexed_survey_selectivity

update recdevs 1996 model/Sensitivity_Anal/5.6_Update_Recdevs_Inityear/1_23.model.recdevs_inityear_1996

model/Sensitivity_Anal/5.3_Francis_Reweighting/1_23.model.francis

model/Sensitivity_Anal/STAR_Panel/4.5_SigmaR_Sensitivity/1_23.SigmaR.sensitivity

model/Sensitivity_Anal/3.3_surveys3_Sensitivity/2_23.surveys.extaSDwcgbts

model/Sensitivity_Anal/3.2_surveys2_Sensitivity/1_23.surveys.db

Sensitivity analyses models.

3. Surveys

Item 3.1

Item 3.2

Item 3.3

4. Biological Info

Item 4.1

Item 4.2

Item 4.3

Item 4.4

Item 4.5

Item 5.1

Item 5.3

Item 5.4

Item 5.5

Item 5.6

Item 5.7

Item 5.8

Item 5.9

Item 5.10

Item 5.11

Item 5.12

Item 5.13

Item 5.14

5. Model

gamma vs In error

MB vs DB indices

No Triennial Survey

extra SD on WCGBTS

Growth Sensitivity Low

Growth Sensitivity High

Sensitivity to fecundity

Sensitivity to sigmaR

Bias Adjustment Years

Francis Reweighting

Settlement Events

Improve Trawl_N LC Fit

Improve Other LC Fits

Modify recdev init year

Francis Reweighting 2

Fix warnings

blk Trawl 89

blk Trawl mid10

blk Trawl 89-mid10

blk Trawl 89-mid10-19

Prior on Selectivity - 3 Blks

Prior on Selectivity - 1 Blk

Prior on Selectivity - 2 Blks

base blksel 2003

base blksel 2011

base blksel 2003+2011

blkretT3 blksel 2003

blkretT3 blksel 2011

Fix M at 0.045

Fix M at 0.05

blkretT3 blksel 2003+2011

blkretT3 blksel 2003+2011+2019

Dirichlet Multinomial Length Comps

Estimate Maximum Retention

base blksel 2003+2011+2019

blk Trawl 89-mid10 NonTrawl 05-13

blk Trawl 89-mid10 NonTrawl 05-13-17

Sex-Specific Survey Selectivity 23.model.sexed_survey_selectivity

Survey Timing

Update Initial RecDev Year

Update Terminal RecDev Year

Remove small sample size LCs

S-R Steepness

Intermediate maturity curve

Sensitivity to weight-length relationship

2 survey vs 4 survey structure

23.surveys.db

23.surveys.notriennial

23.surveys.useslope

23.growth.low

23.growth.high

23.maturity.mix_curve

23.biology.no_fecundity

23.SigmaR.sensitivity

23.model.recdevs_steep

23.model.recdevs_bias

23.model.recdevs_initYear

23.model.recdevs_termYear

23.model.survey_timing

23.model.sample_sizes

23.model.improve_trawln

23.model.improve_other

23.fix_warnings

23.blkret.T1

23.blkret.T2

23.blkret.T3

23.blkret.T4

23.blkret.T3.NT1

23.blkret.T3.NT2

23.slx.Prior.3Blk

23.slx.Prior.1Blk

23.slx.Prior.2Blk

23.blksel.T1

23.blksel.T2

23.blksel.T3

23.blksel.T4

23.blkret.T3.blksel.T1

23.blkret.T3.blksel.T2

23.blkret.T3.blksel.T3

23.blkret.T3.blksel.T4

23.STAR.Panel.M.045

23.STAR.Panel.M.05

23.est.max.ret

23.dmn

23.model.francis_2

23.model.recdevs_inityear_1996

23.model.settlement_events

23.model.francis

23.maturity.pgcurve

23.WL.sensitivity

23.surveys.extaSDwcgbts