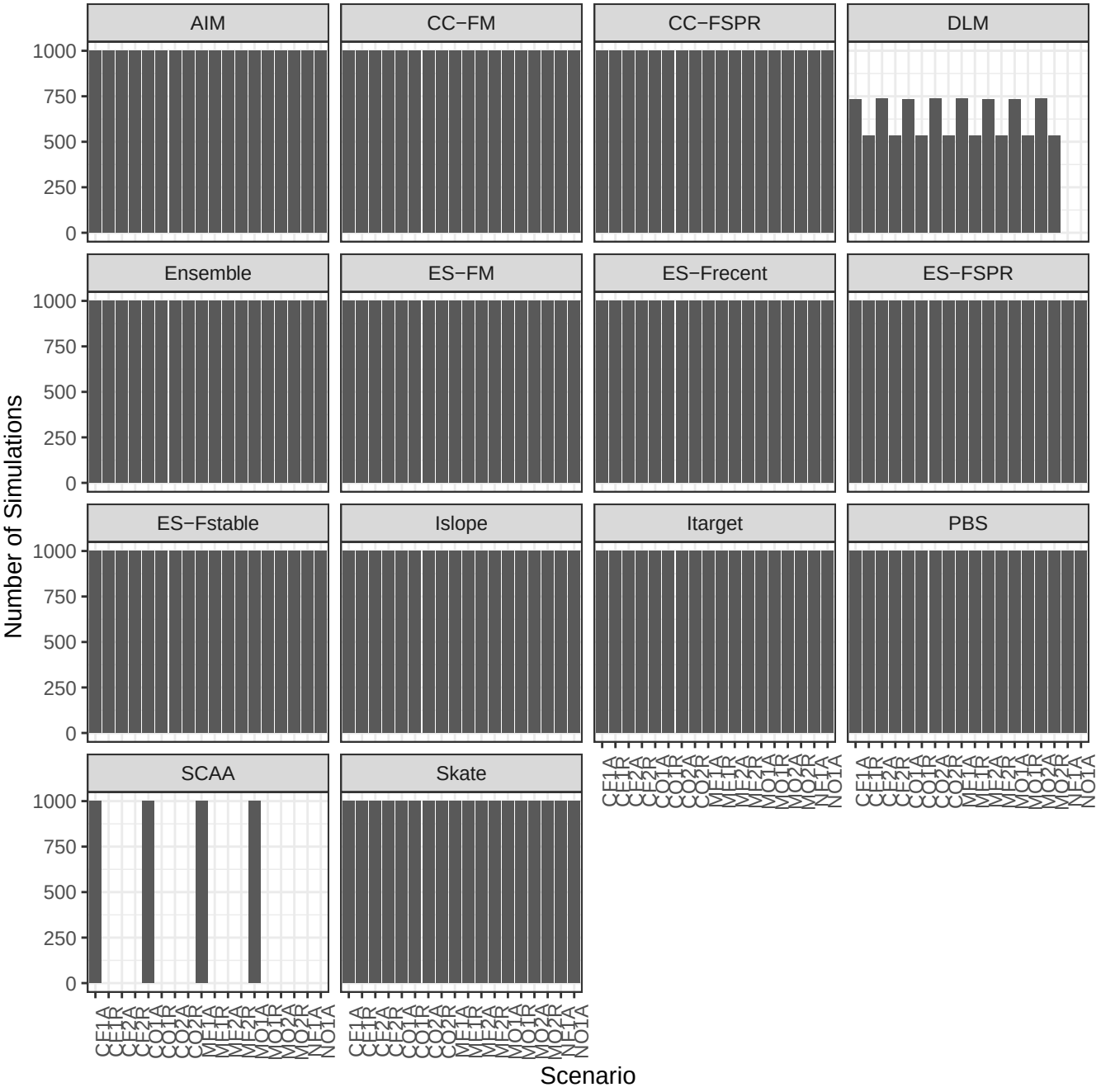

AIM
CC−FM
CC−FSPR
DLM
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
SCAA
Skate
Number of Simulations
0
250
500
750
1000
CE1A
CE2A
CE2R
CO1A
CO2A
CO2R
ME1A
ME2A
MO1A
MO2R
NF1A
NO1A
Scenario

Scenario Label Decoder

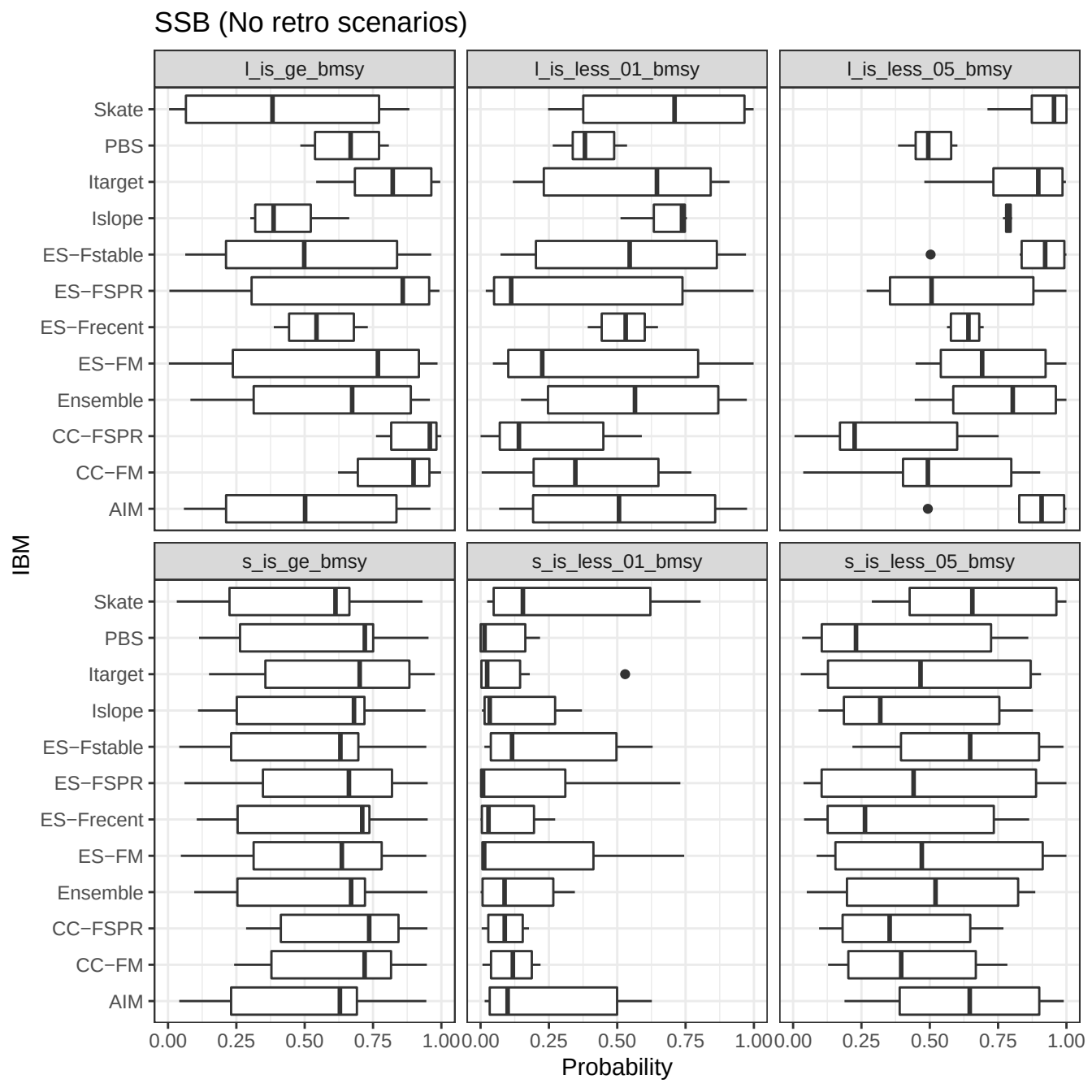
CF1A to MO2R explained

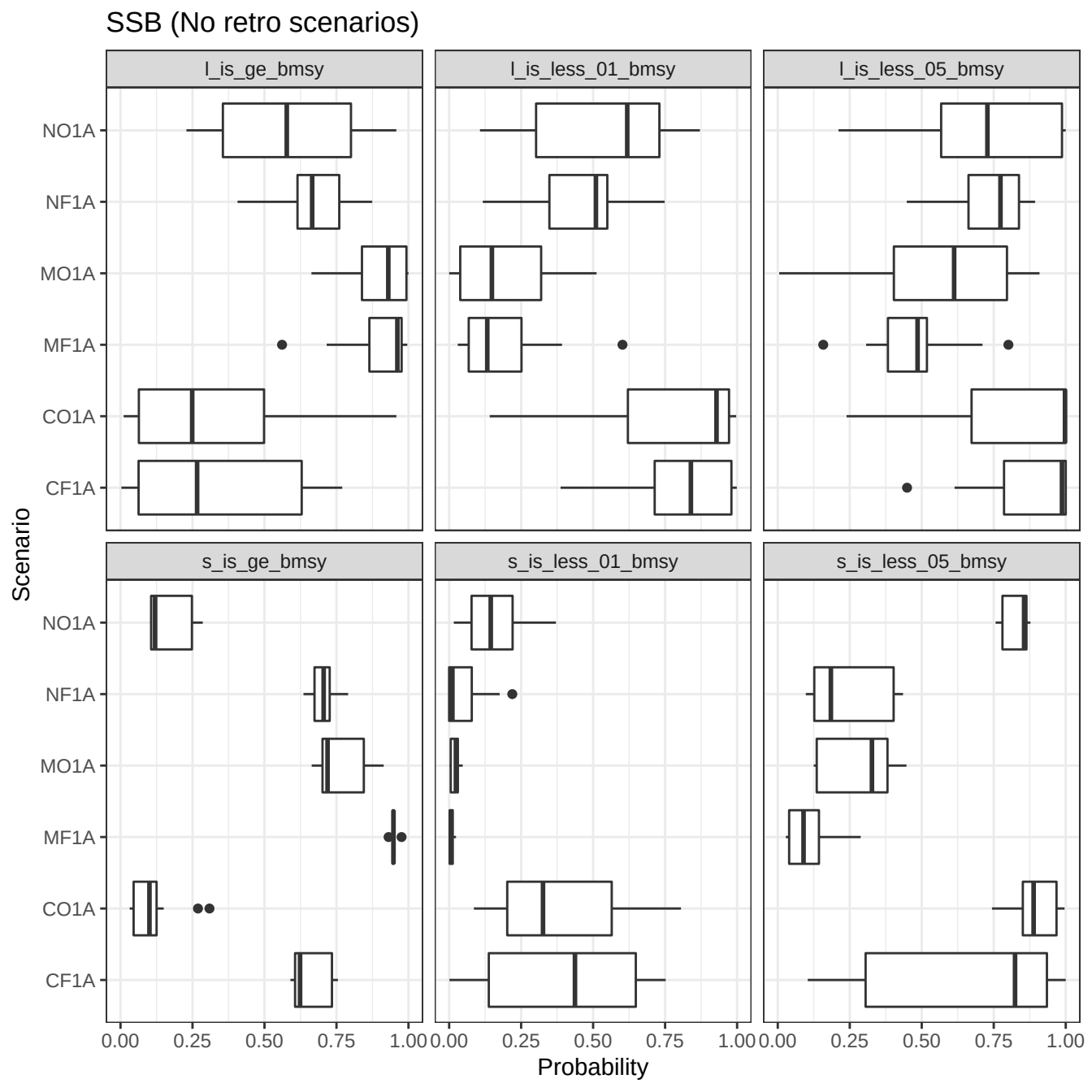
Retrotype: C=catch, M=natural mortality, N=None

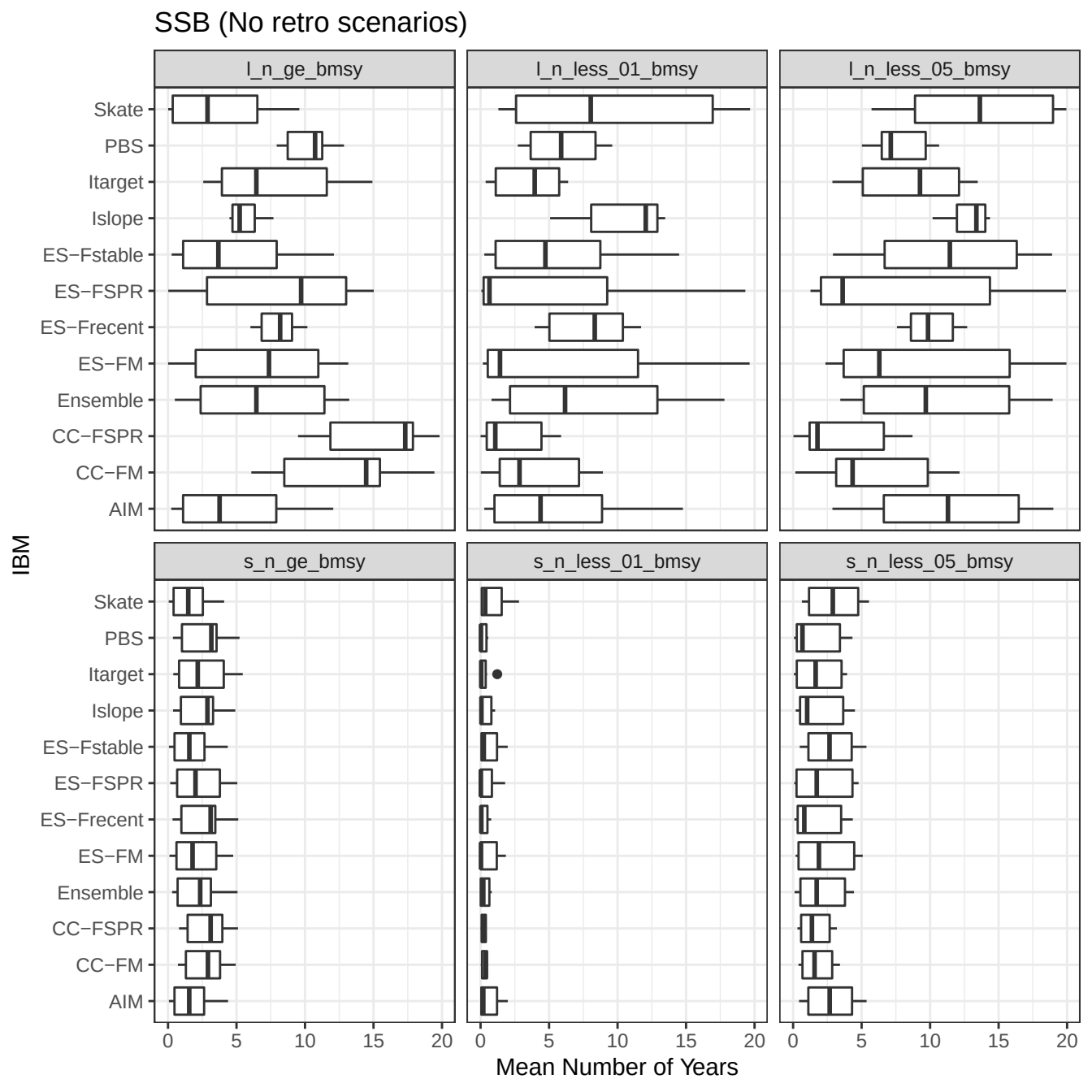
F history: F=overfishing then Fmsy, O=Always Overfishing

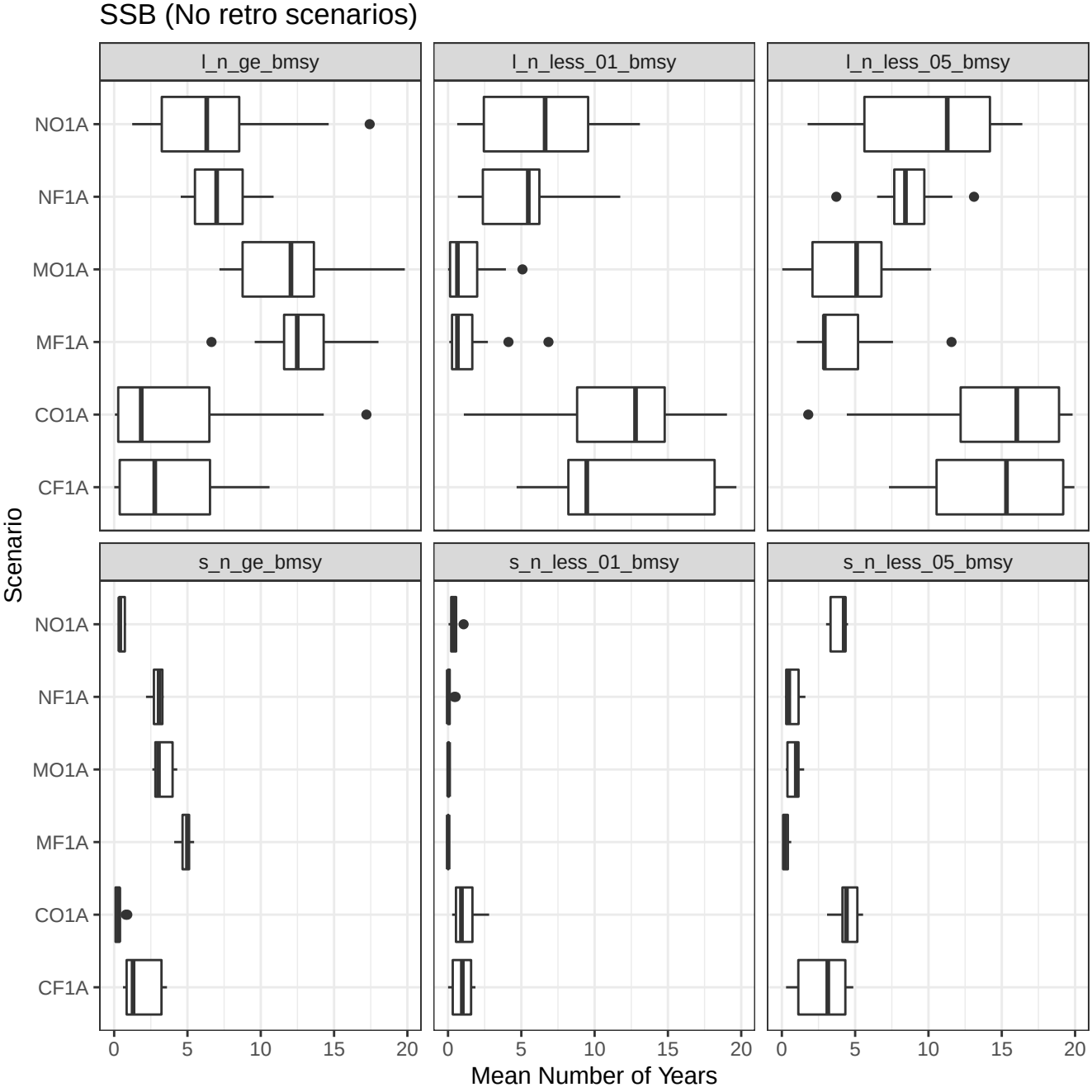
Selblocks: 1 or 2

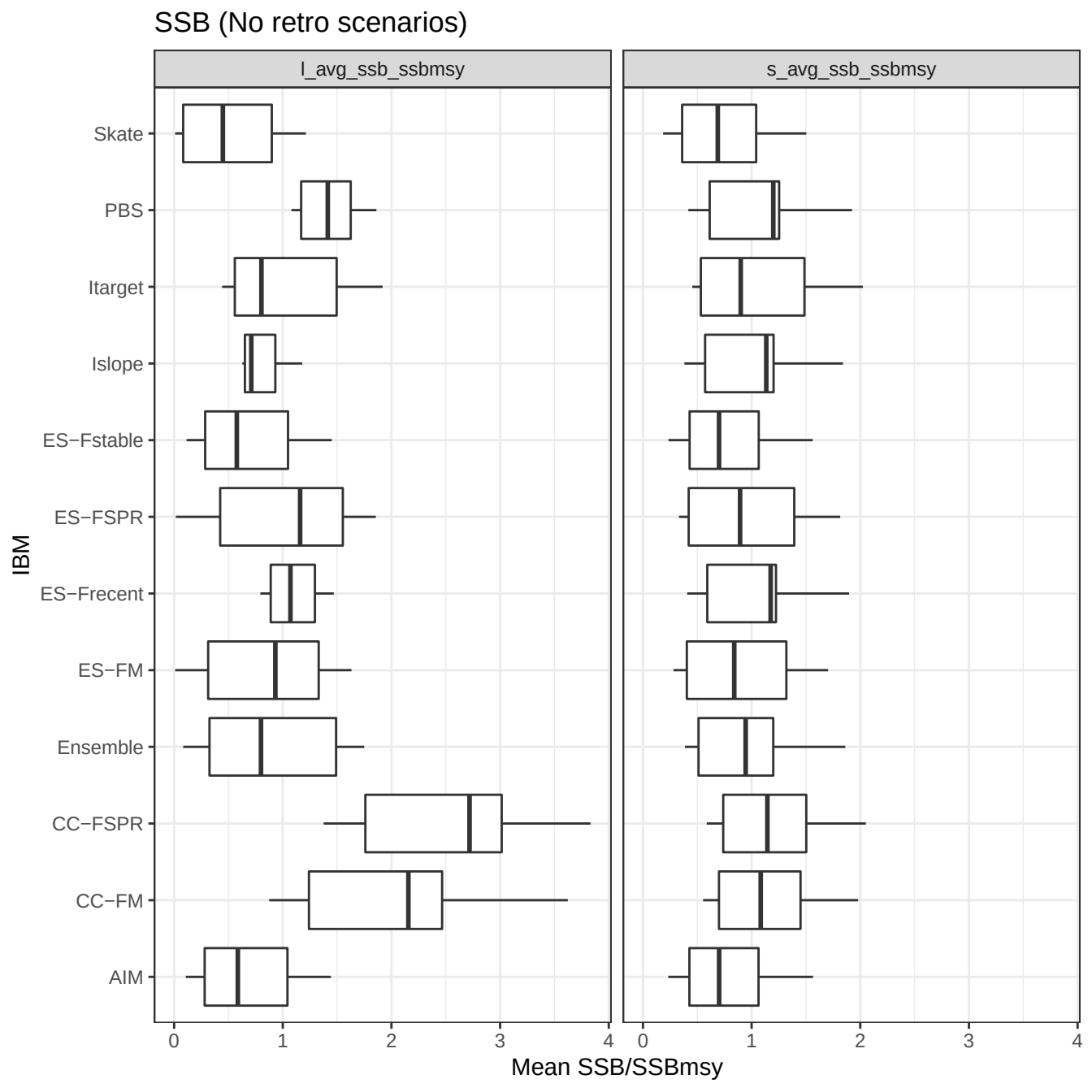
Catch Advice Multiplier: A=1 (applied), R=0.75 (reduced

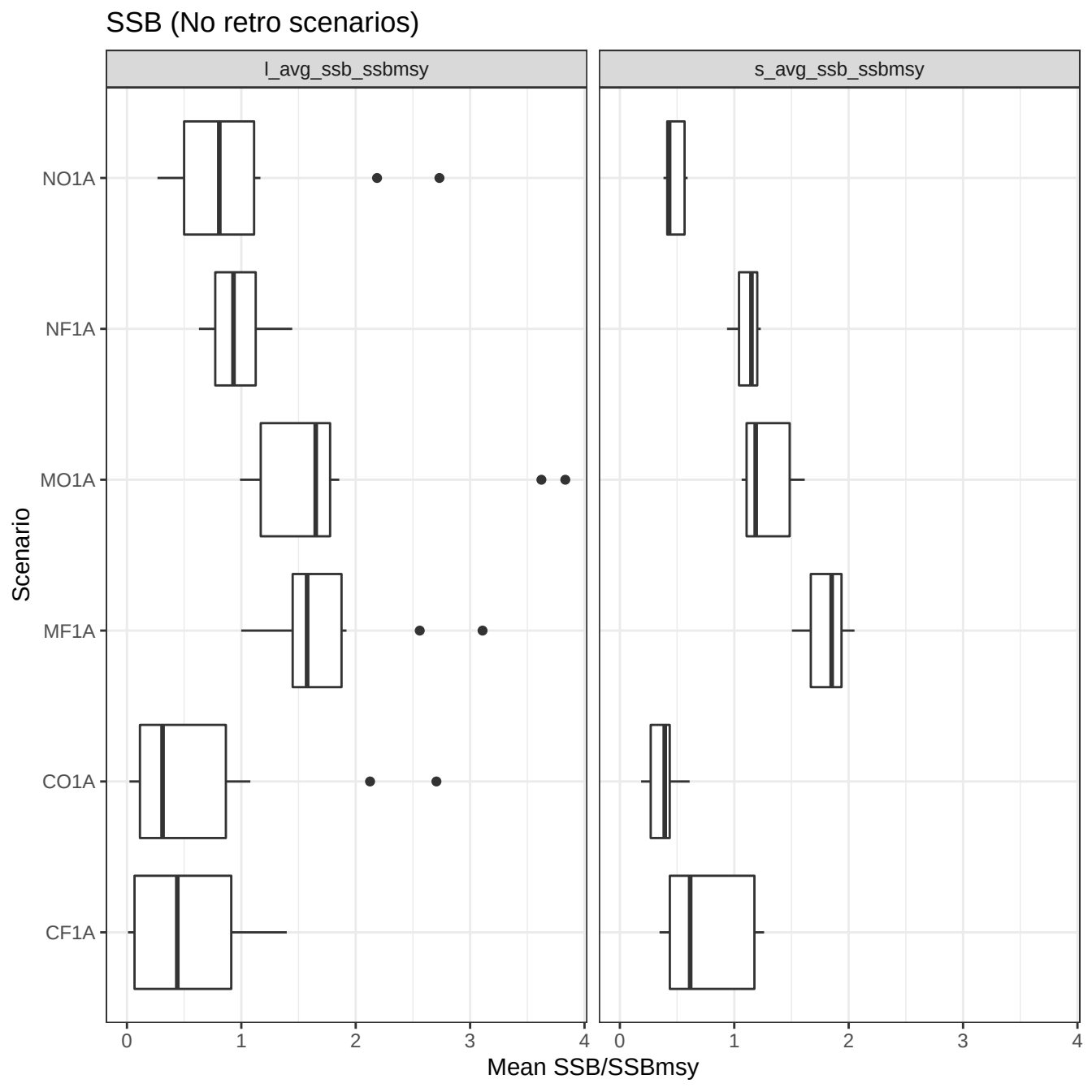

SSB (No retro scenarios)
I_is_ge_bmsy
I_is_less_01_bmsy
I_is_less_05_bmsy
s_is_ge_bmsy
s_is_less_01_bmsy
s_is_less_05_bmsy
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0.00
0.25
0.50
0.75
1.00
Probability

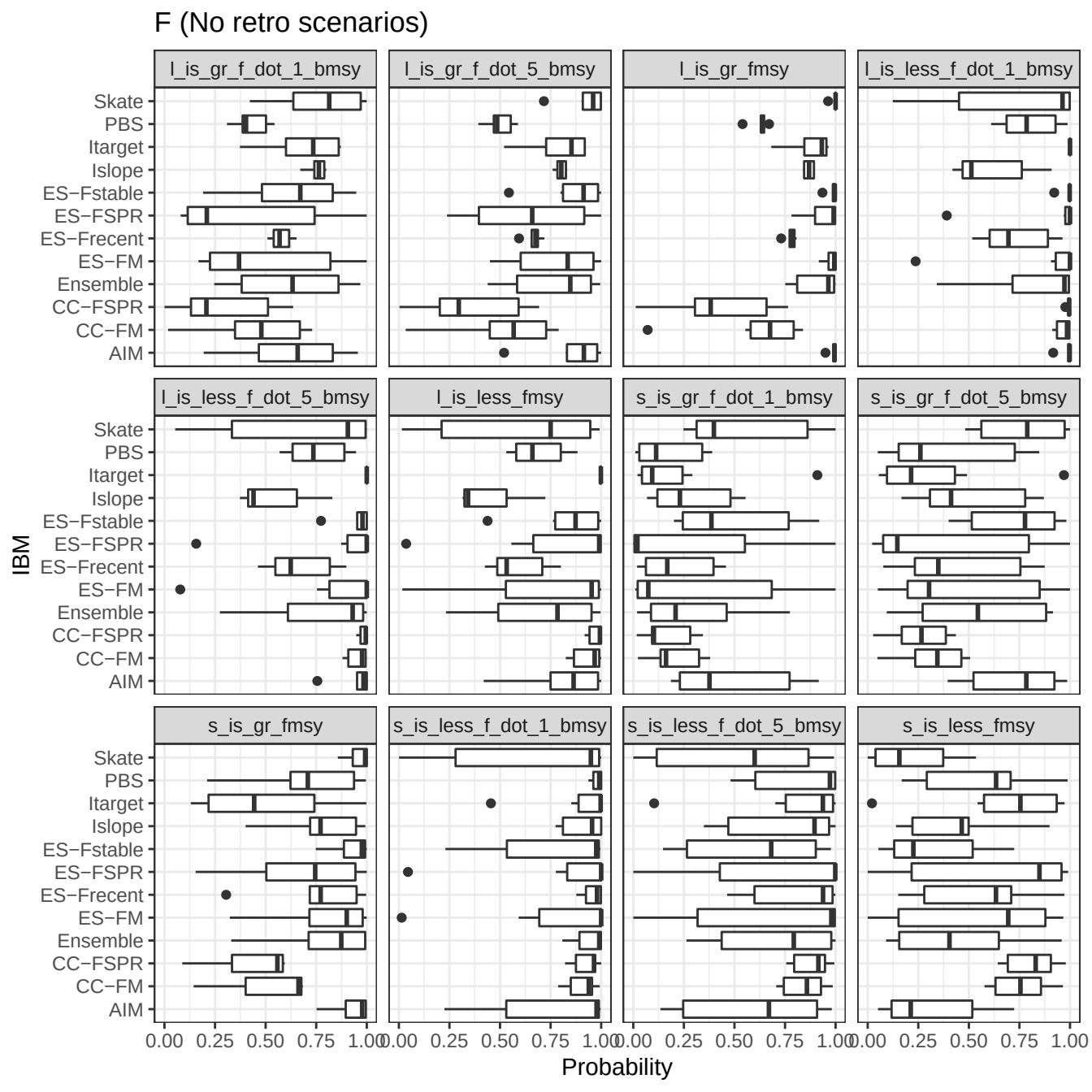

SSB (No retro scenarios)
l_is_ge_bmsy
l_is_less_01_bmsy
l_is_less_05_bmsy
s_is_ge_bmsy
s_is_less_01_bmsy
s_is_less_05_bmsy
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
Scenario
0.00
0.25
0.50
0.75
1.00
Probability


SSB (No retro scenarios)
l_n_ge_bmsy
l_n_less_01_bmsy
l_n_less_05_bmsy
s_n_ge_bmsy
s_n_less_01_bmsy
s_n_less_05_bmsy
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0
5
10
15
20
Mean Number of Years

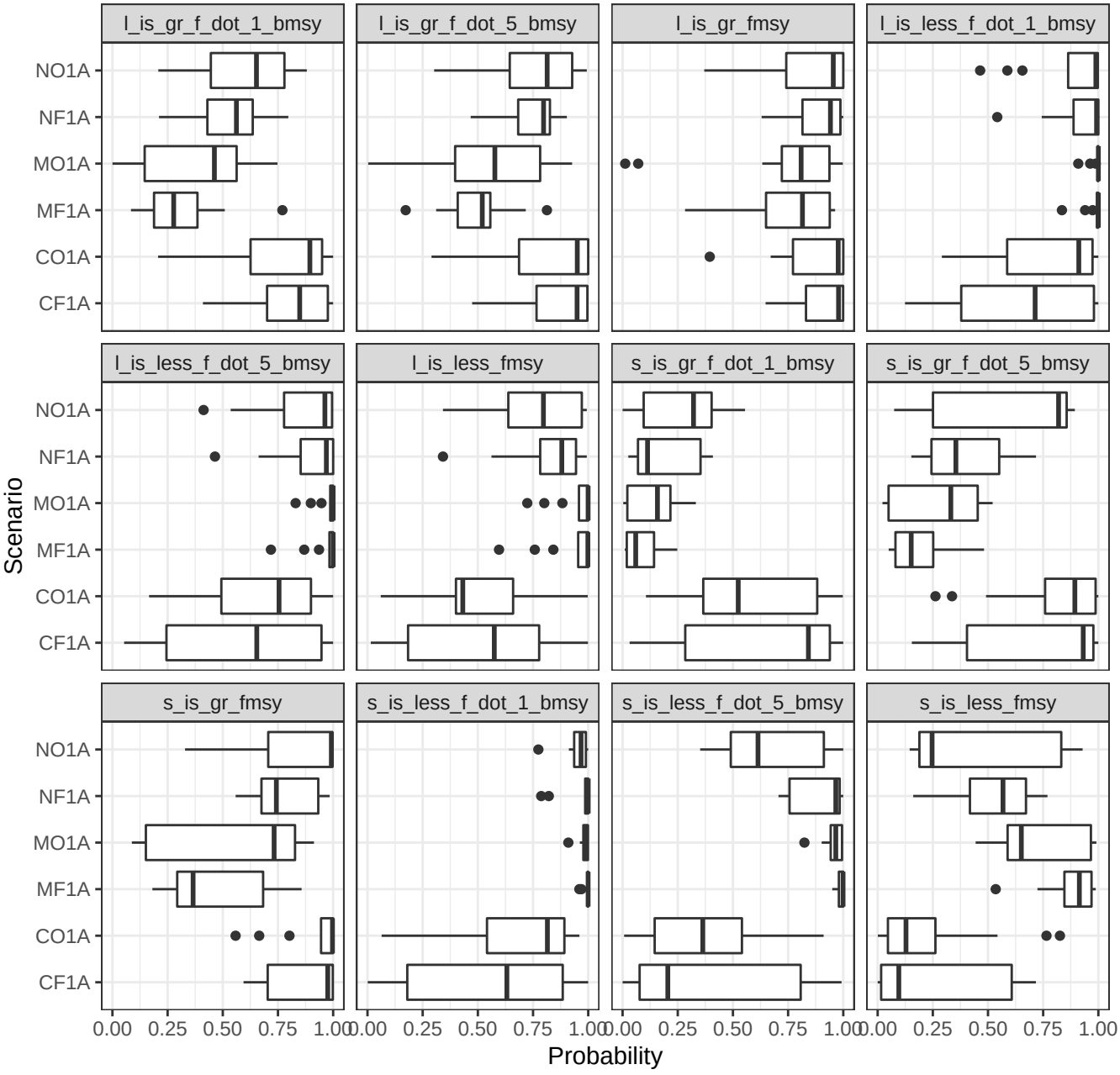

SSB (No retro scenarios)
l_n_ge_bmsy
l_n_less_01_bmsy
l_n_less_05_bmsy
s_n_ge_bmsy
s_n_less_01_bmsy
s_n_less_05_bmsy
Scenario
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
0
5
10
15
20
Mean Number of Years

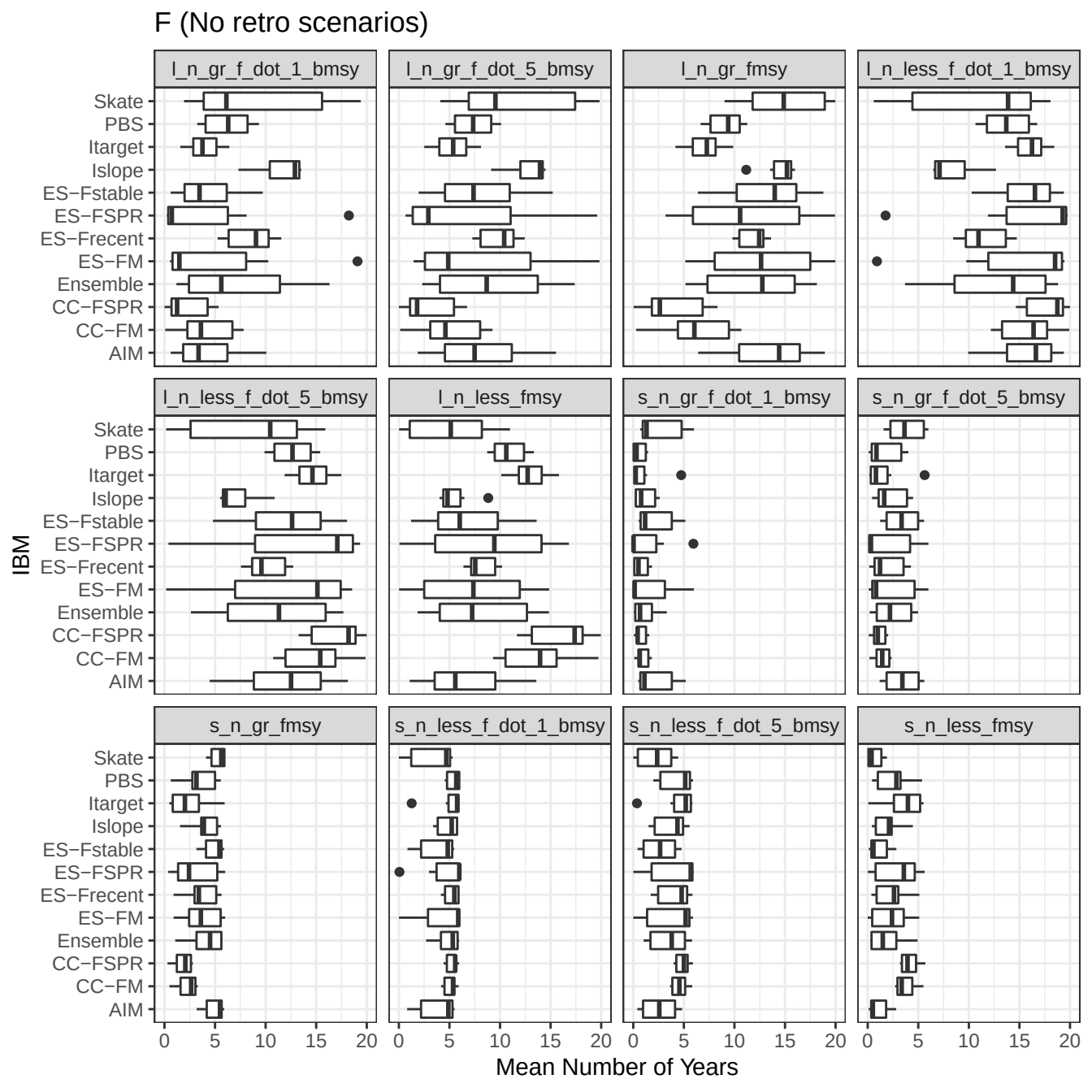

SSB (No retro scenarios)
l_avg_ssb_ssbmsy
s_avg_ssb_ssbmsy
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0
1
2
3
4
Mean SSB/SSBmsy


SSB (No retro scenarios)
l_avg_ssb_ssbmsy
s_avg_ssb_ssbmsy
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
Scenario
0
1
2
3
4
Mean SSB/SSBmsy

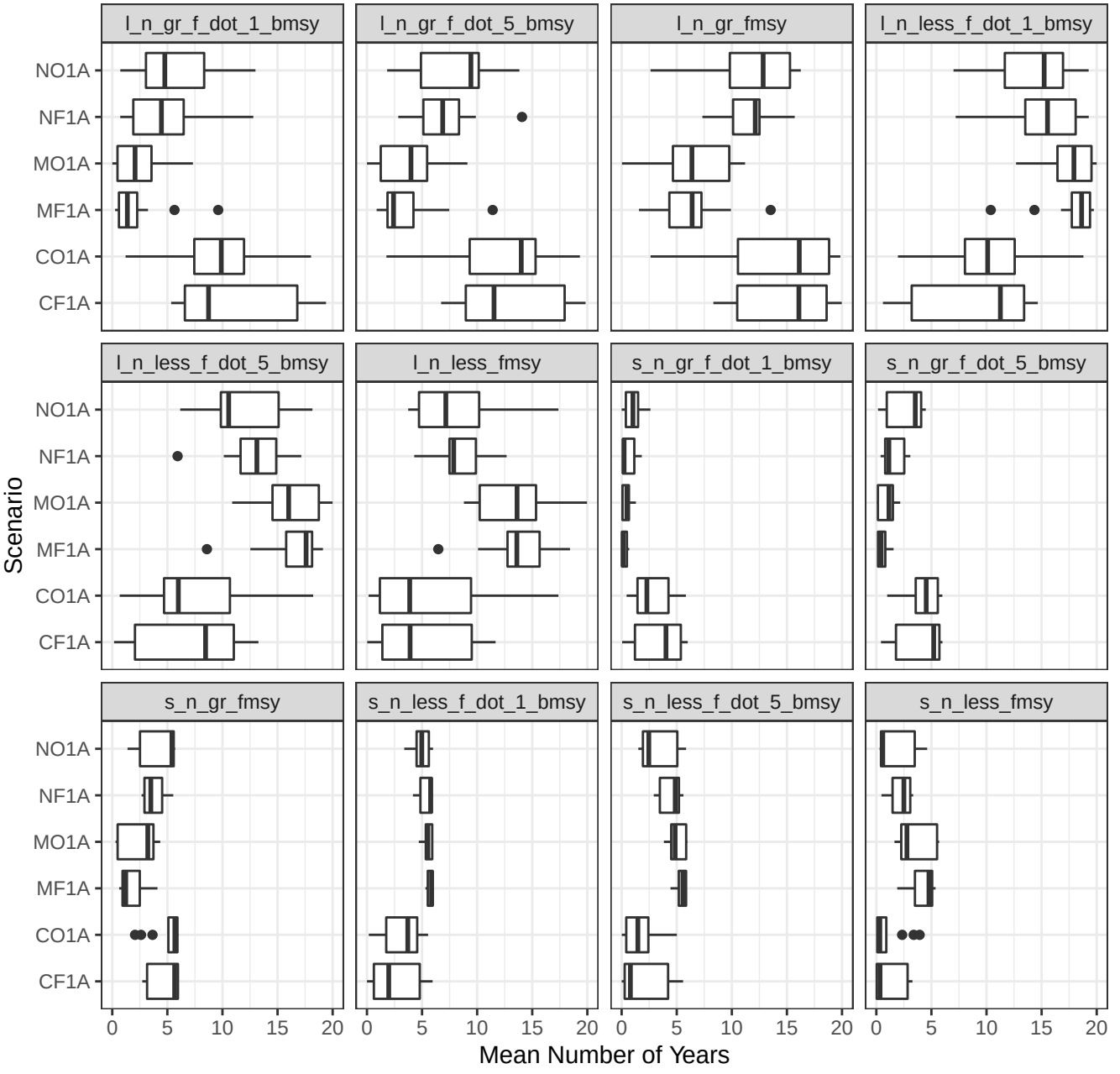

F (No retro scenarios)
l_is_gr_f_dot_1_bmsy
l_is_gr_f_dot_5_bmsy
l_is_gr_fmsy
l_is_less_f_dot_1_bmsy
l_is_less_f_dot_5_bmsy
l_is_less_fmsy
s_is_gr_f_dot_1_bmsy
s_is_gr_f_dot_5_bmsy
s_is_gr_fmsy
s_is_less_f_dot_1_bmsy
s_is_less_f_dot_5_bmsy
s_is_less_fmsy
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
IBM
0.00
0.25
0.50
0.75
1.00
Probability

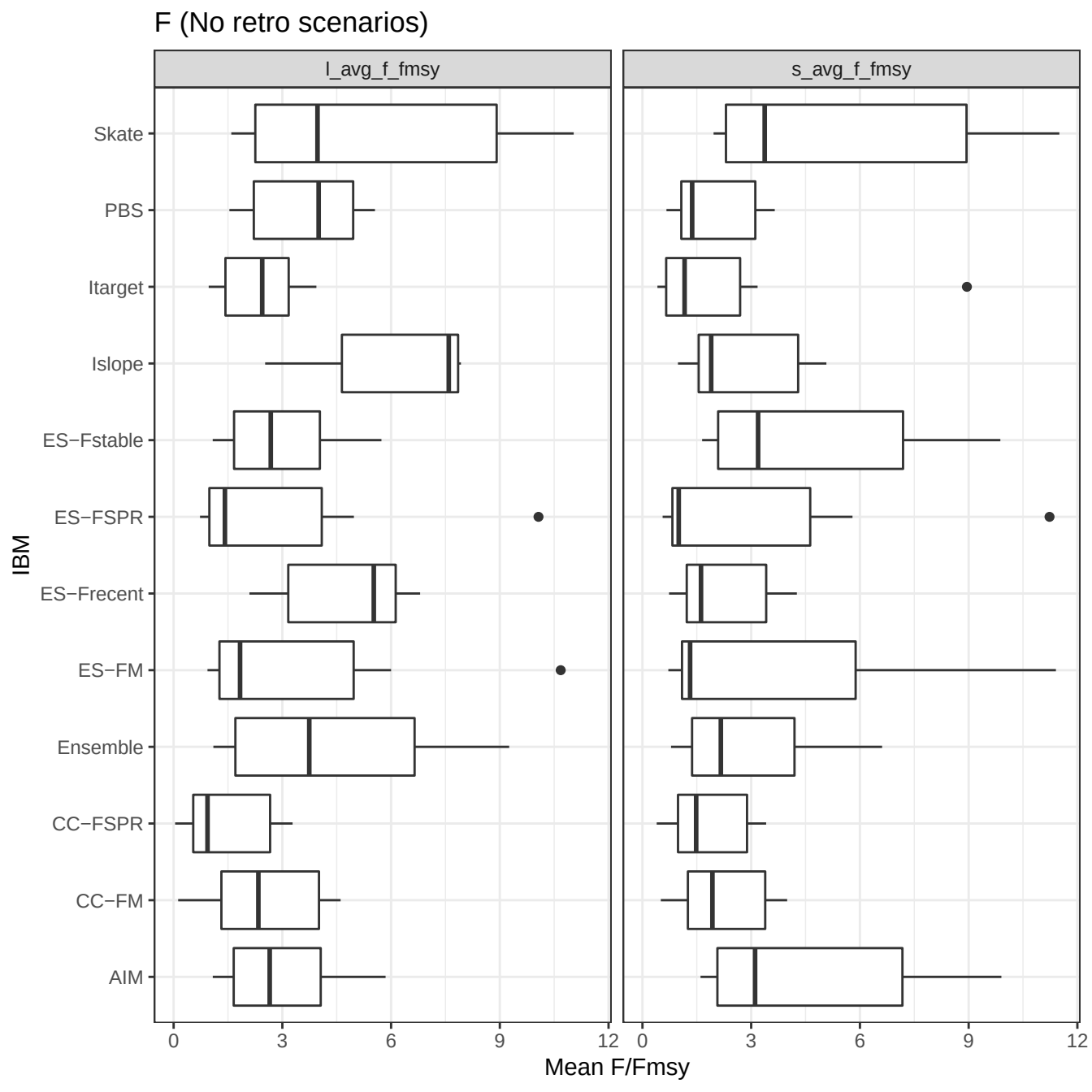
F (No retro scenarios)

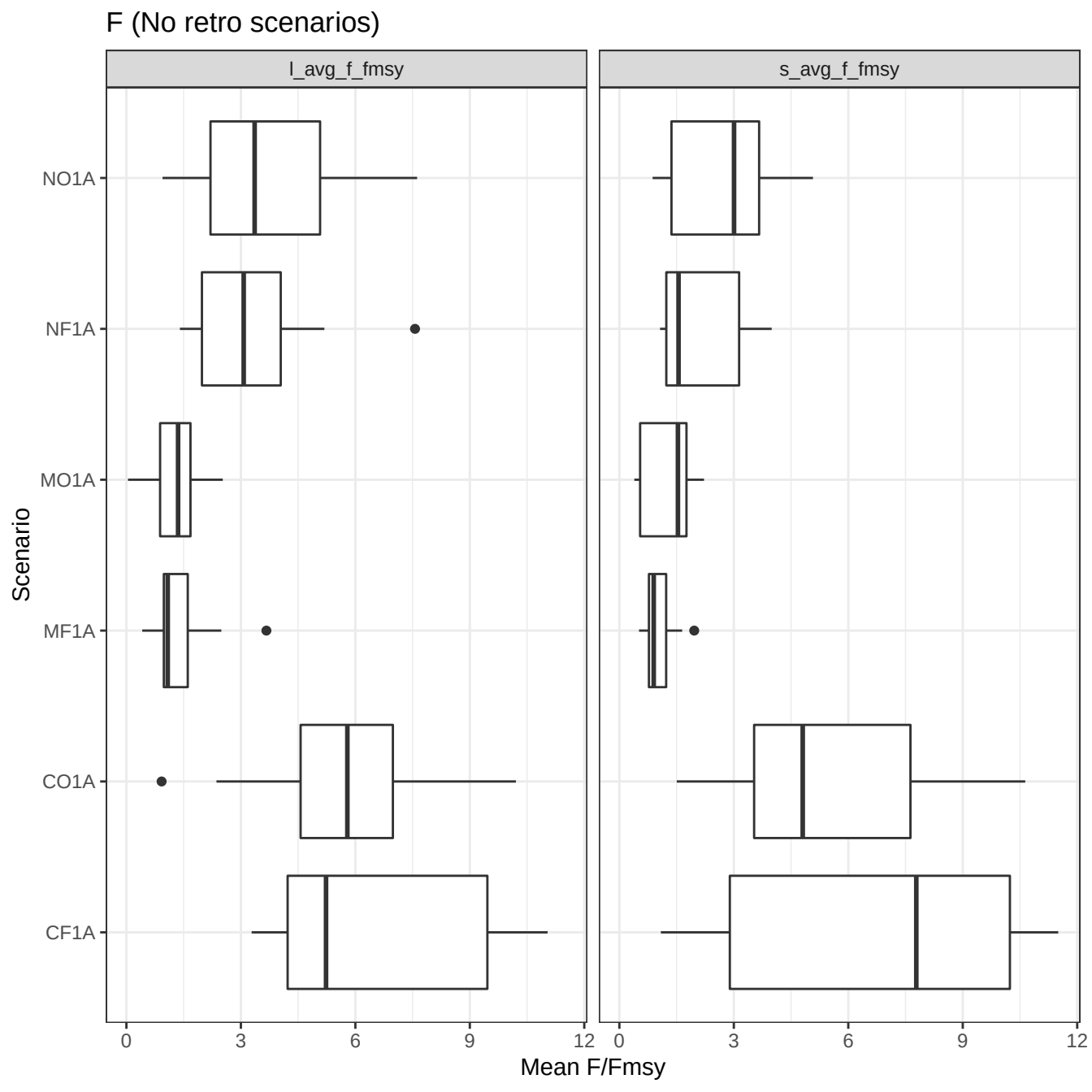


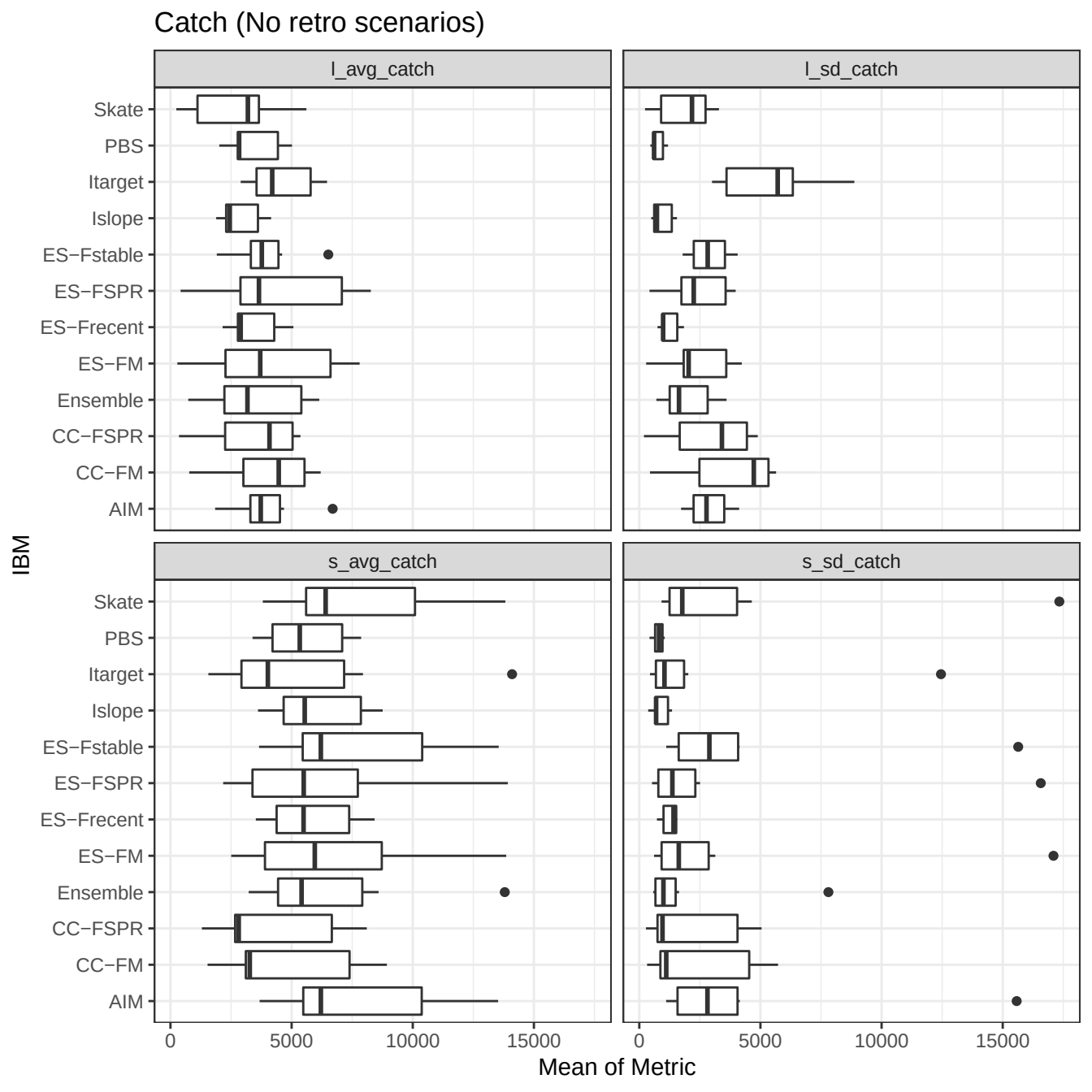

F (No retro scenarios)
l_n_gr_f_dot_1_bmsy
l_n_gr_f_dot_5_bmsy
l_n_gr_fmsy
l_n_less_f_dot_1_bmsy
l_n_less_f_dot_5_bmsy
l_n_less_fmsy
s_n_gr_f_dot_1_bmsy
s_n_gr_f_dot_5_bmsy
s_n_gr_fmsy
s_n_less_f_dot_1_bmsy
s_n_less_f_dot_5_bmsy
s_n_less_fmsy
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0
5
10
15
20
Mean Number of Years

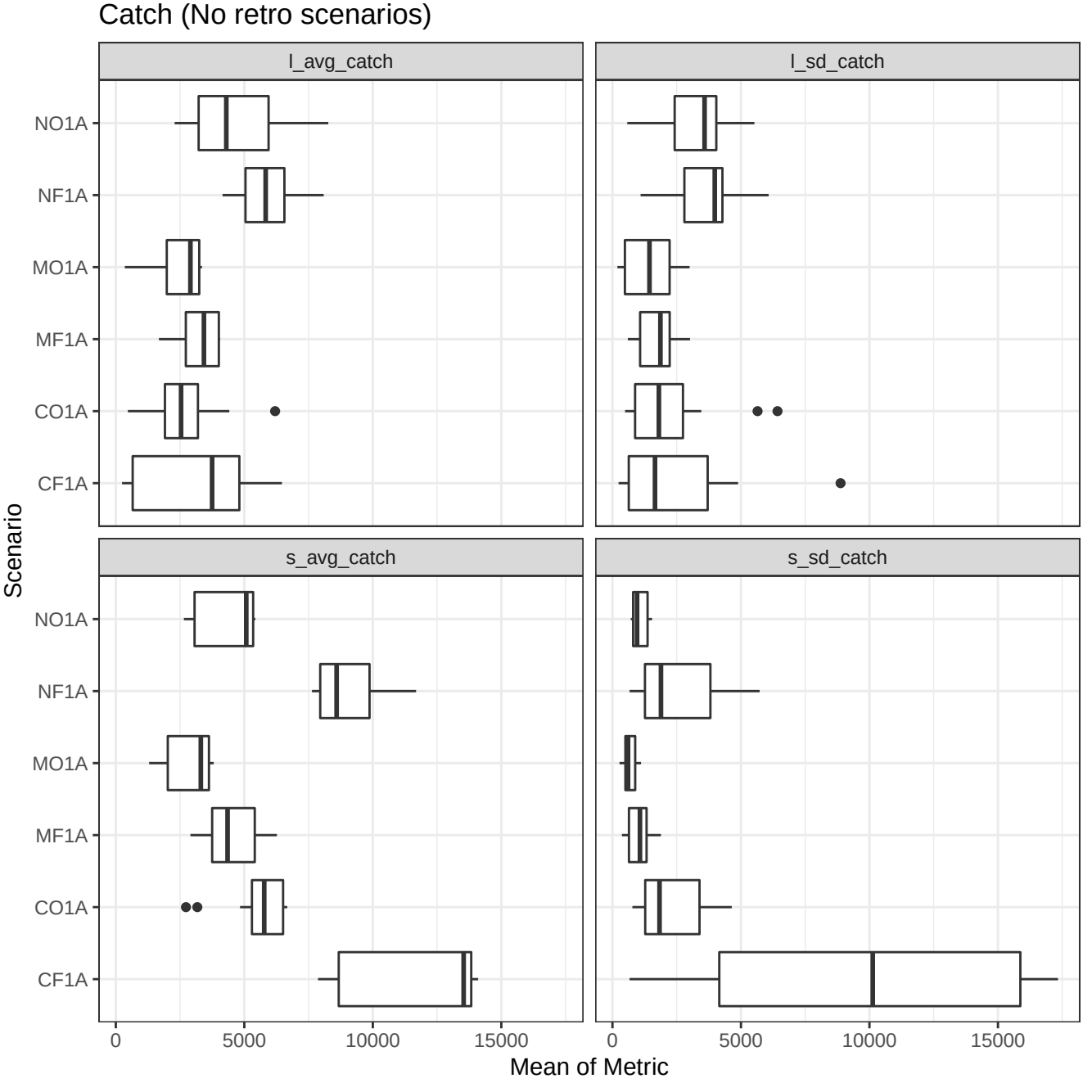
F (No retro scenarios)

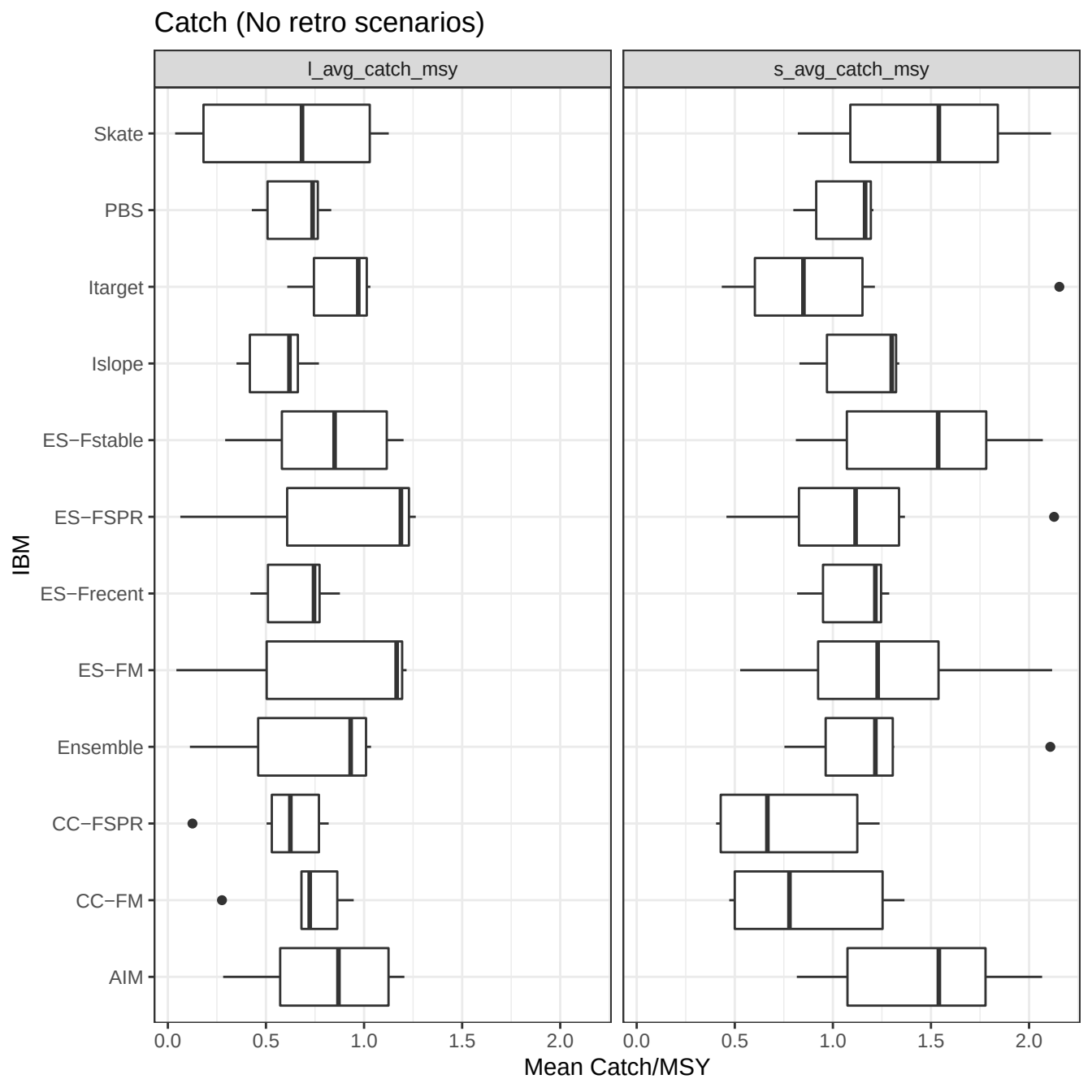


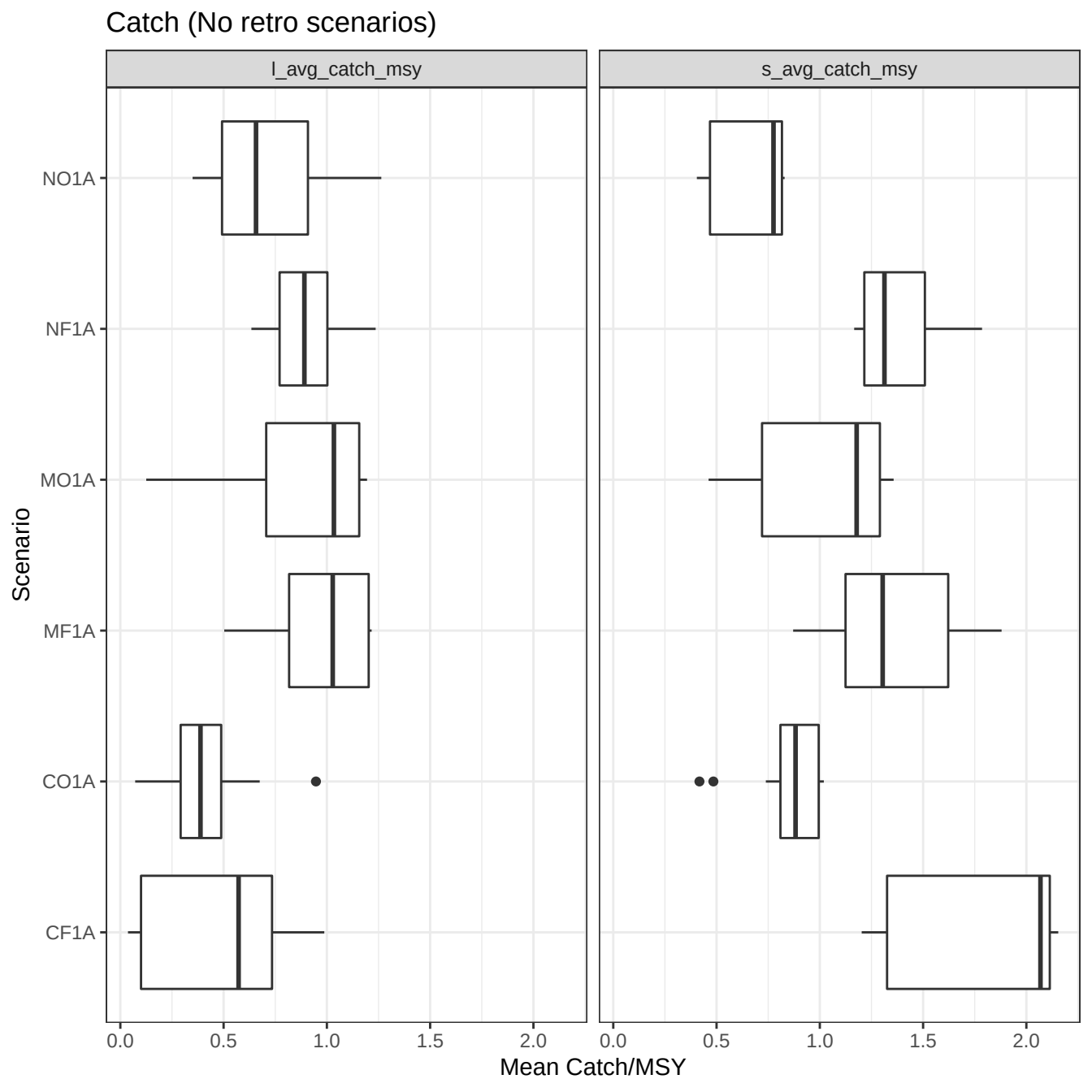

F (No retro scenarios)
l_avg_f_fmsy
s_avg_f_fmsy
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
IBM
0
3
6
9
12
Mean F/Fmsy

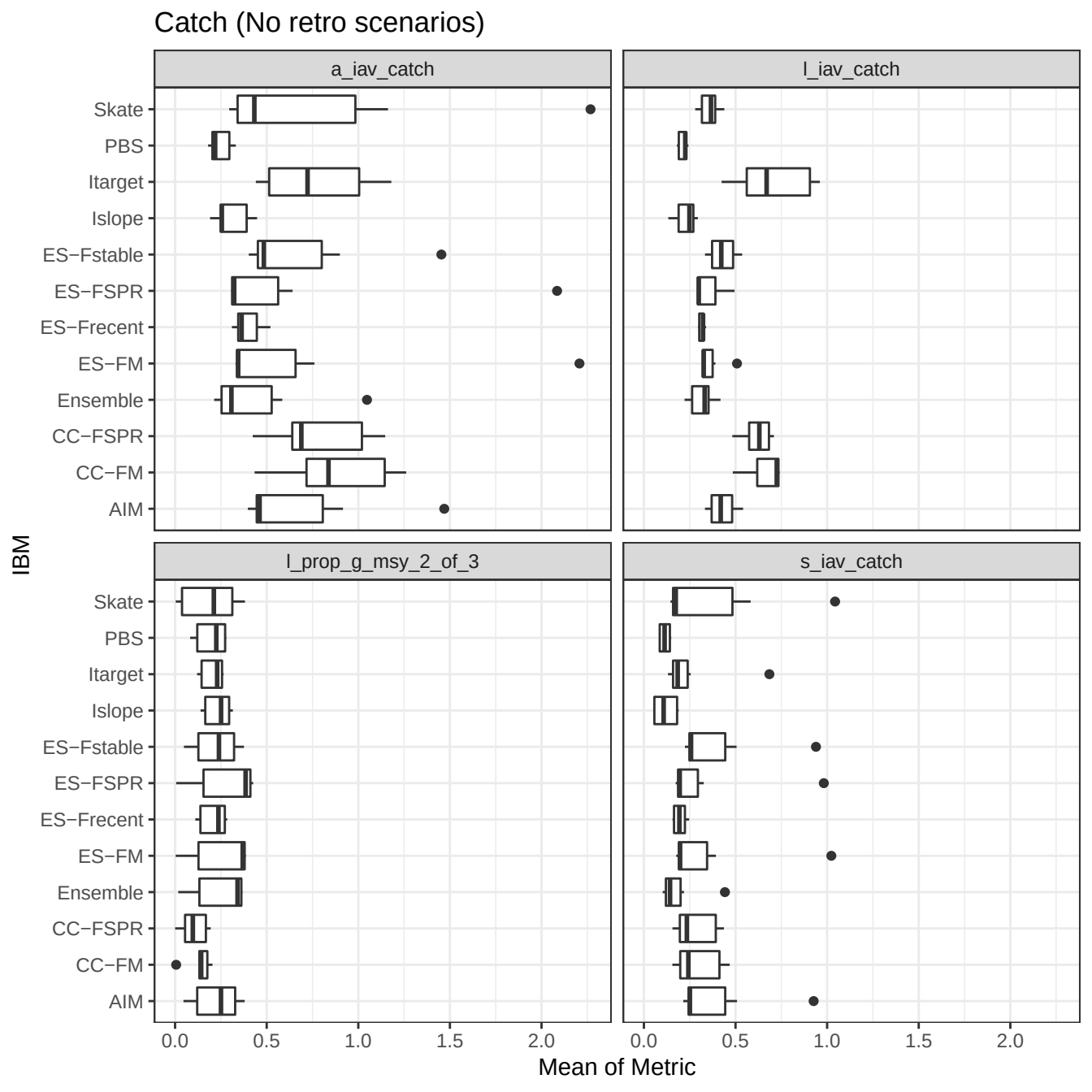

F (No retro scenarios)
l_avg_f_fmsy
s_avg_f_fmsy
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
Scenario
0
3
6
9
12
Mean F/Fmsy

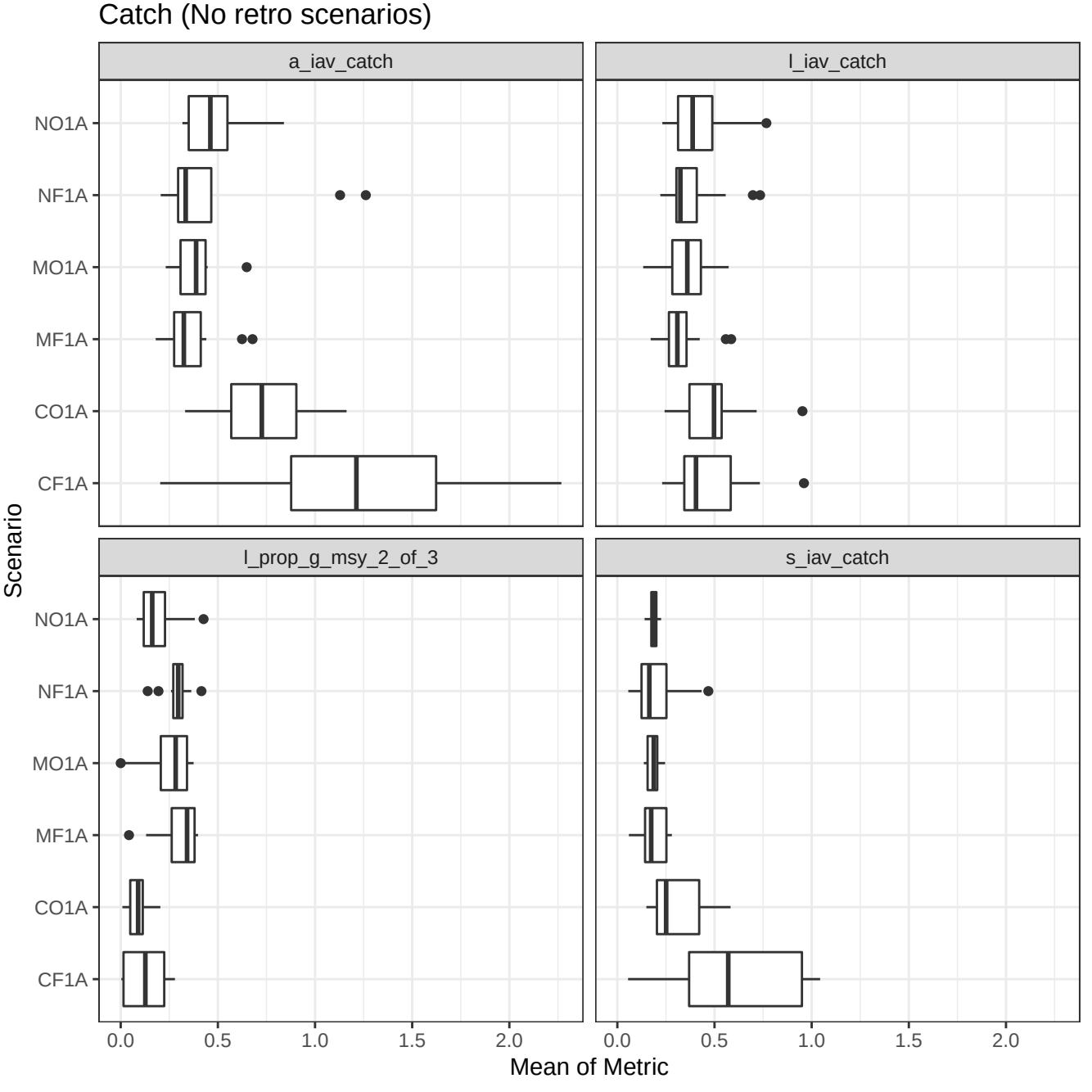

Catch (No retro scenarios)
l_avg_catch
l_sd_catch
s_avg_catch
s_sd_catch
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0
5000
10000
15000
Mean of Metric

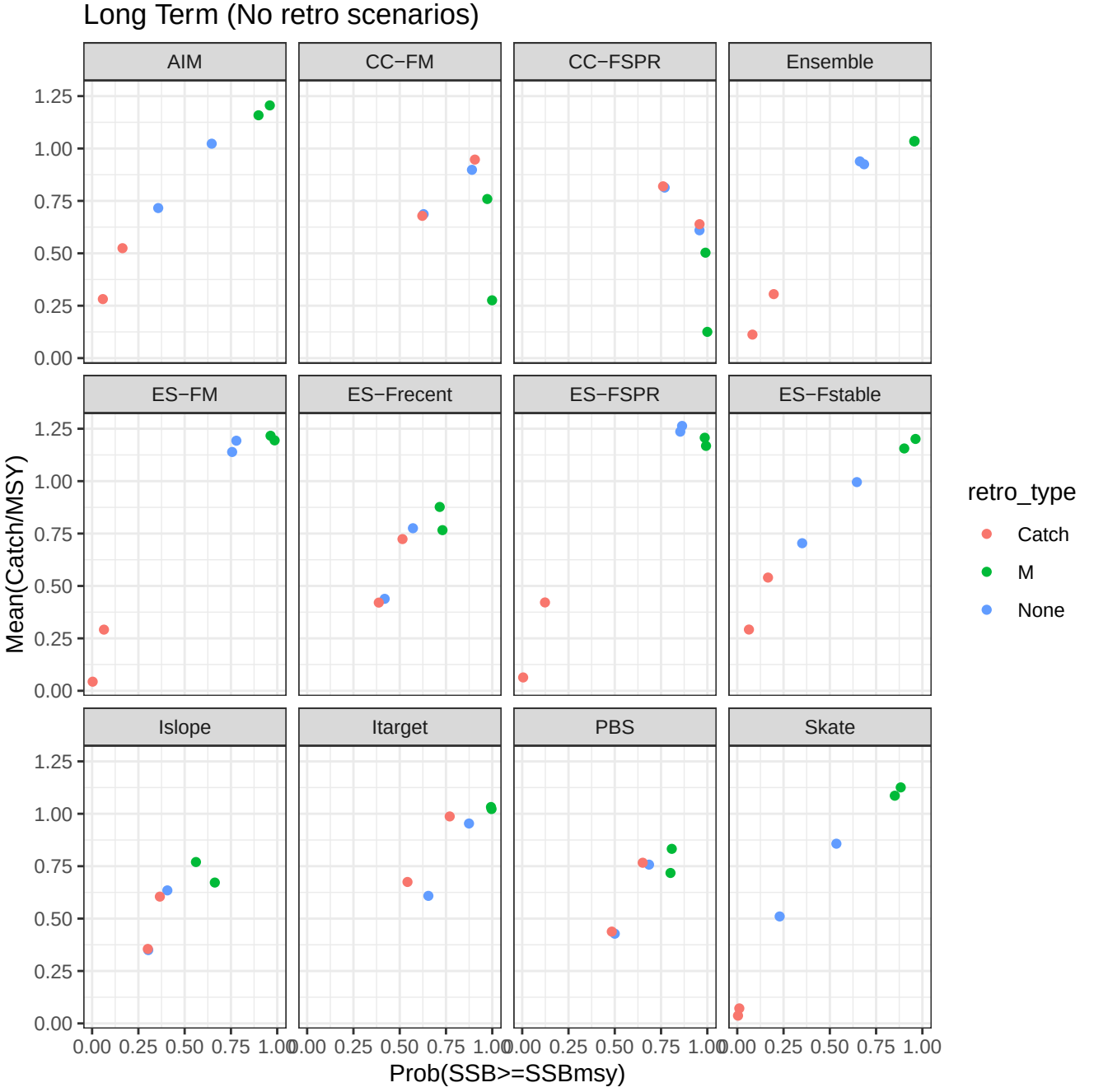

Catch (No retro scenarios)
l_avg_catch
l_sd_catch
s_avg_catch
s_sd_catch
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
Scenario
0
5000
10000
15000
Mean of Metric

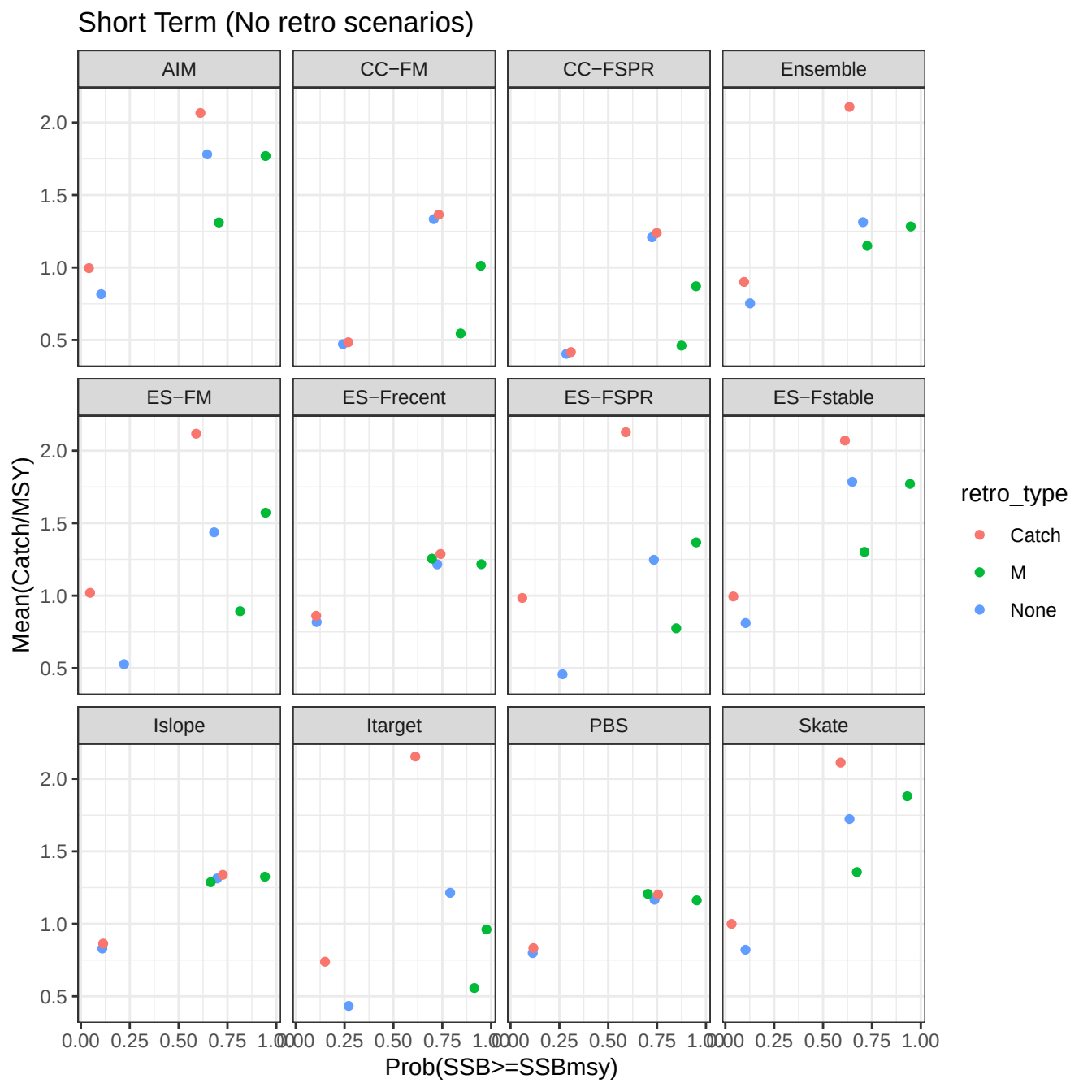

Catch (No retro scenarios)
l_avg_catch_msy
s_avg_catch_msy
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
IBM
0.0
0.5
1.0
1.5
2.0
Mean Catch/MSY

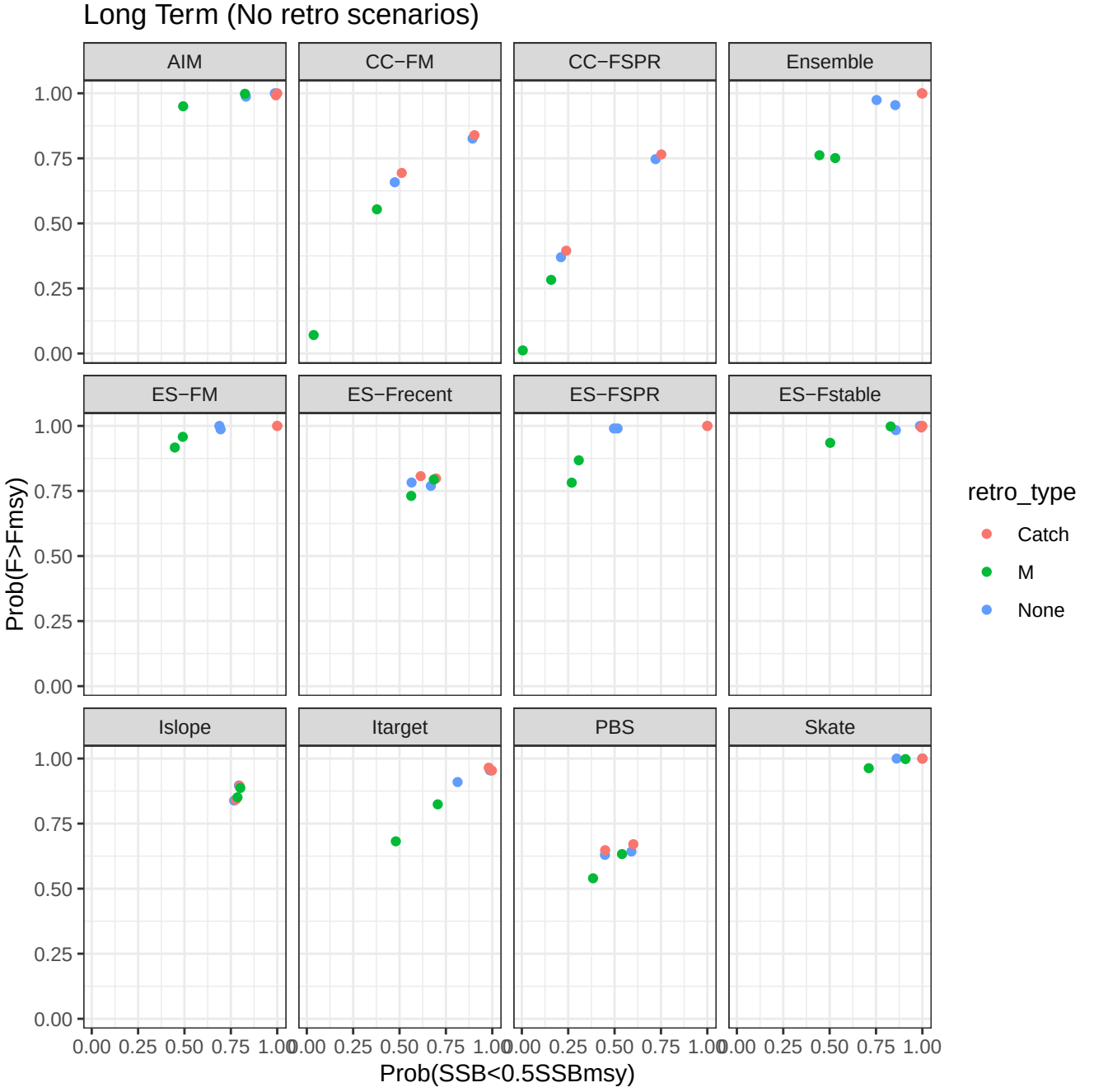

Catch (No retro scenarios)
l_avg_catch_msy
s_avg_catch_msy
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
Scenario
0.0
0.5
1.0
1.5
2.0
Mean Catch/MSY

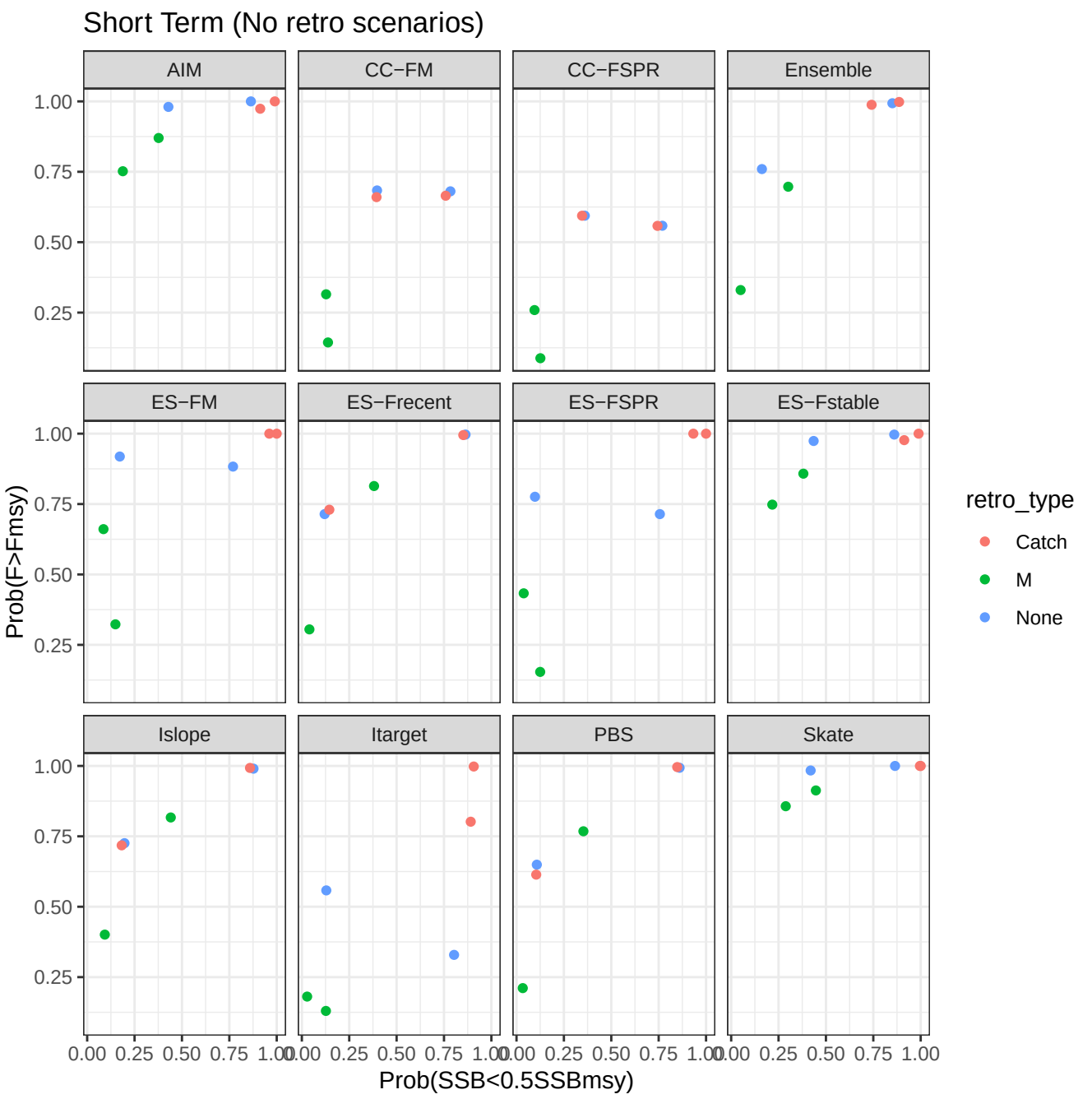

Catch (No retro scenarios)
a_iav_catch
l_iav_catch
l_prop_g_msy_2_of_3
s_iav_catch
IBM
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0.0
0.5
1.0
1.5
2.0
Mean of Metric

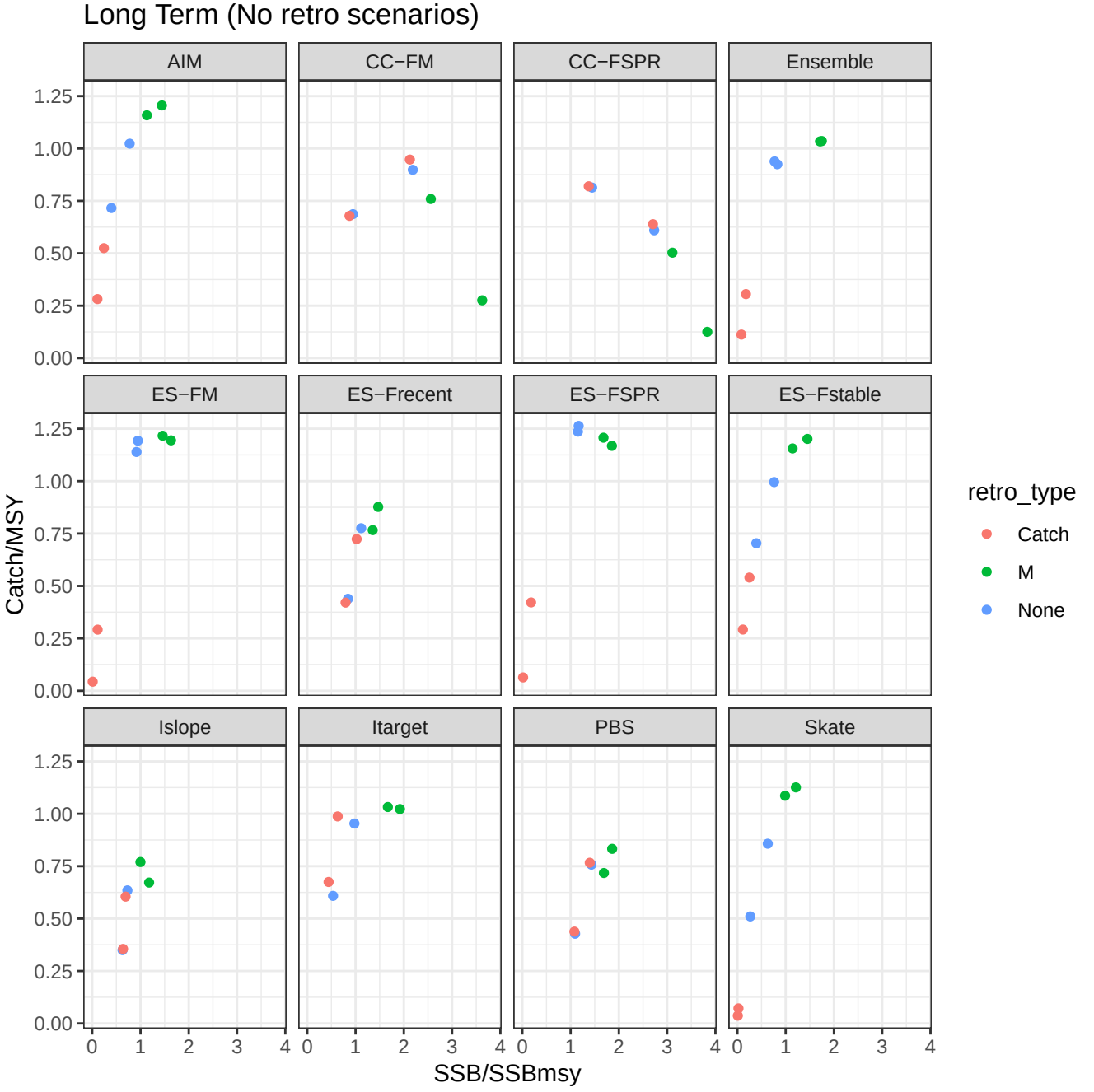

Catch (No retro scenarios)
a_iav_catch
l_iav_catch
l_prop_g_msy_2_of_3
s_iav_catch
Scenario
NO1A
NF1A
MO1A
MF1A
CO1A
CF1A
0.0
0.5
1.0
1.5
2.0
Mean of Metric

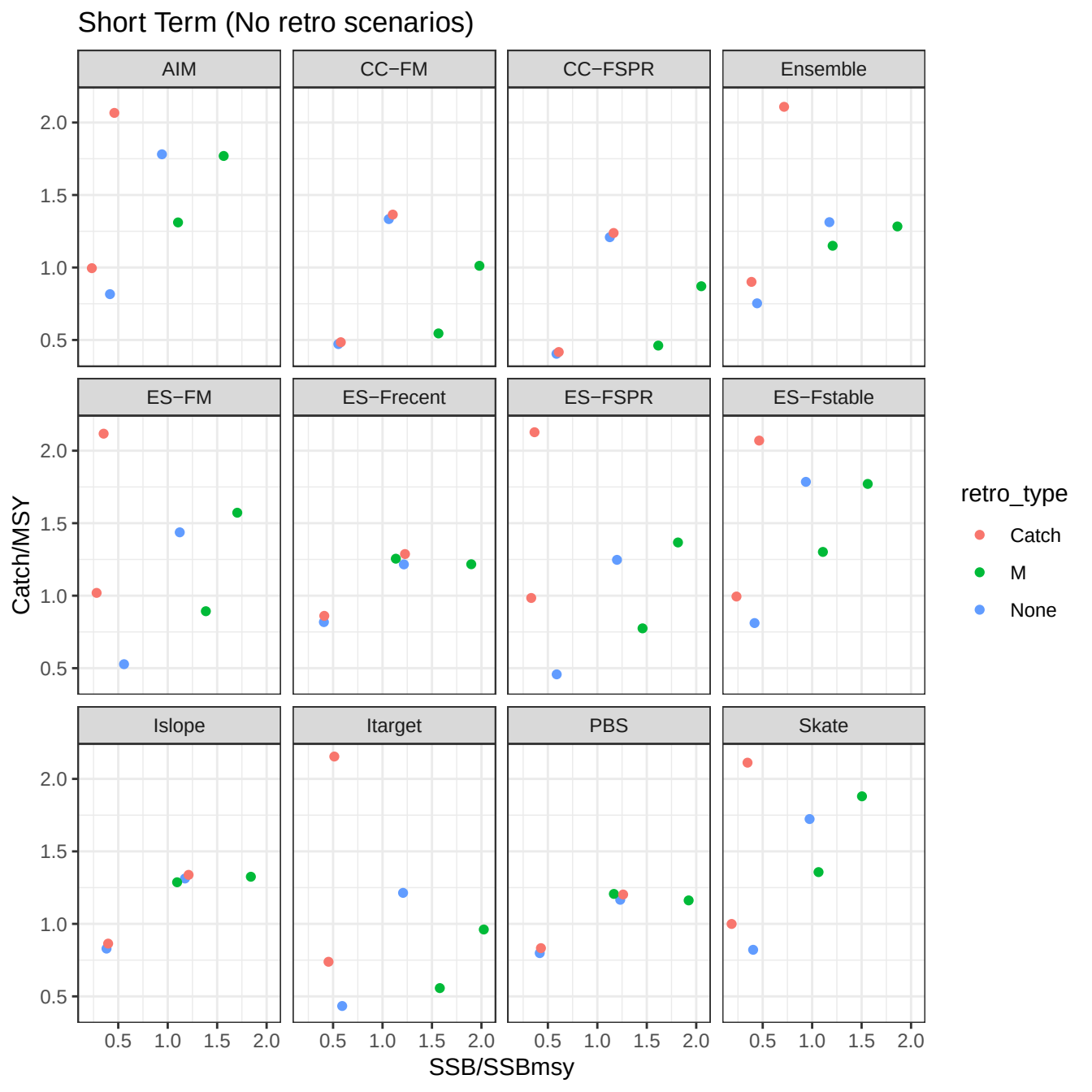

Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Mean(Catch/MSY)
Prob(SSB>=SSBmsy)
0.00
0.25
0.50
0.75
1.00
1.25
retro_type
Catch
M
None

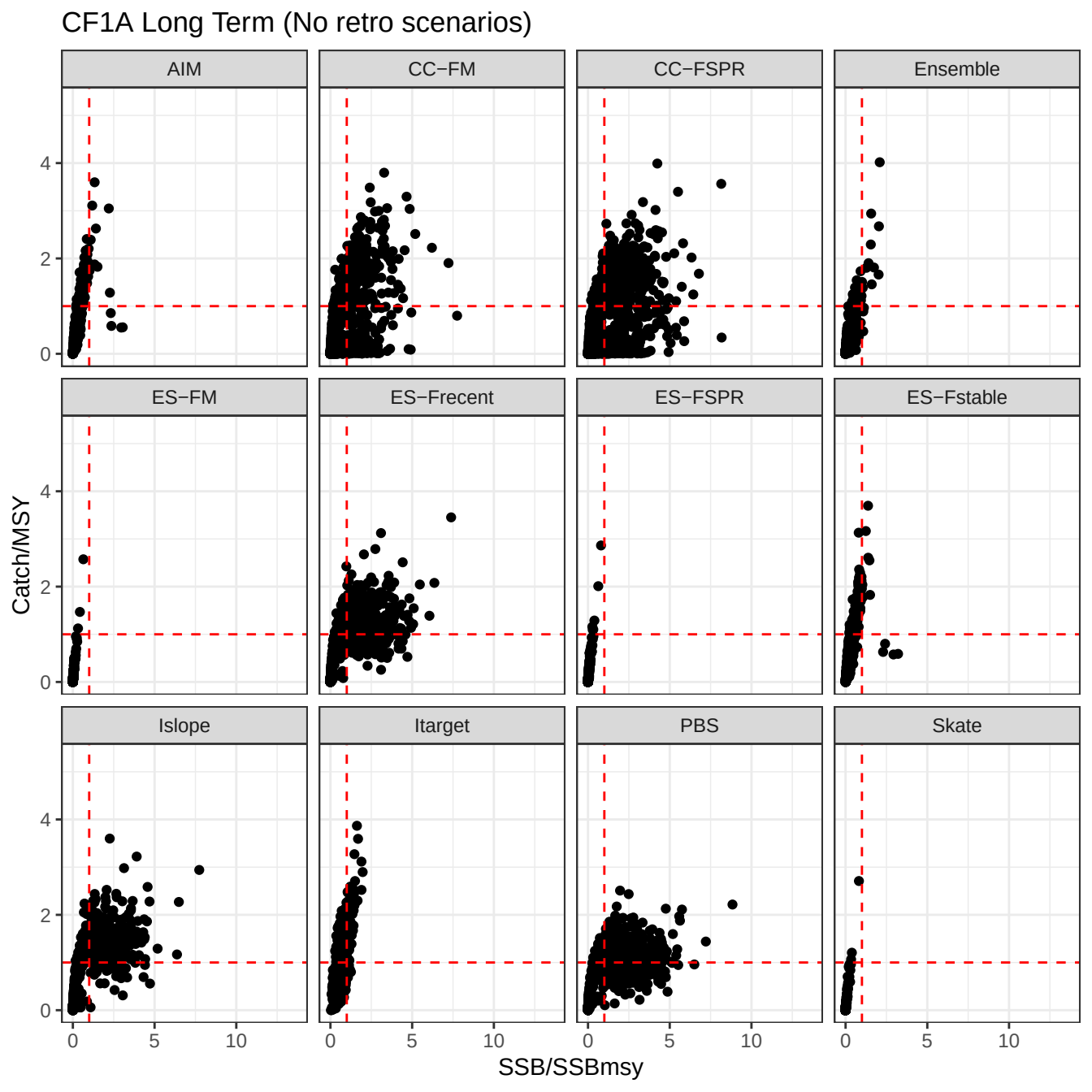

Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Mean(Catch/MSY)
Prob(SSB>=SSBmsy)
0.5
1.0
1.5
2.0
0.00
0.25
0.50
0.75
1.00
retro_type
Catch
M
None

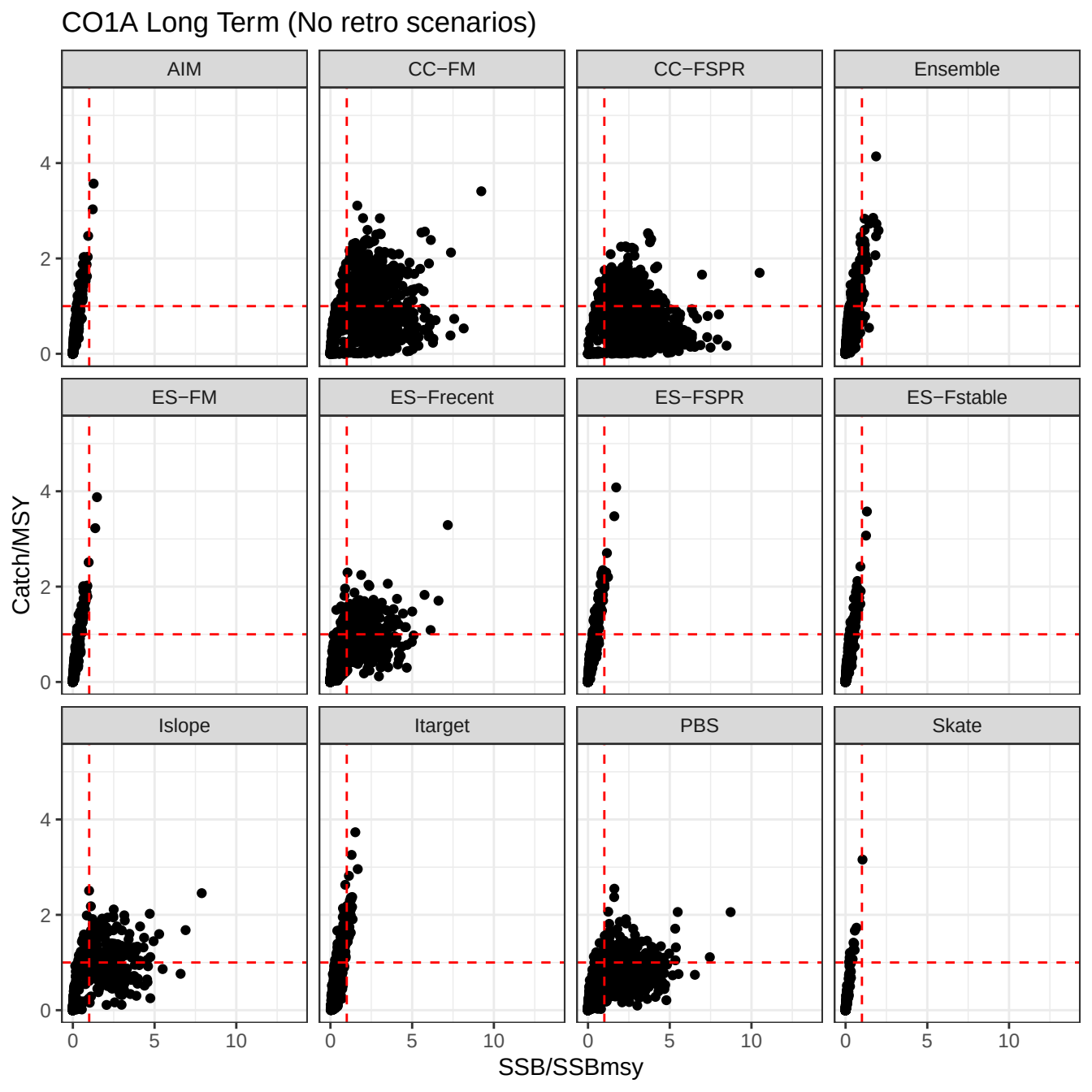

Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Prob(F>Fmsy)
Prob(SSB<0.5SSBmsy)
0.00
0.25
0.50
0.75
1.00
retro_type
Catch
M
None

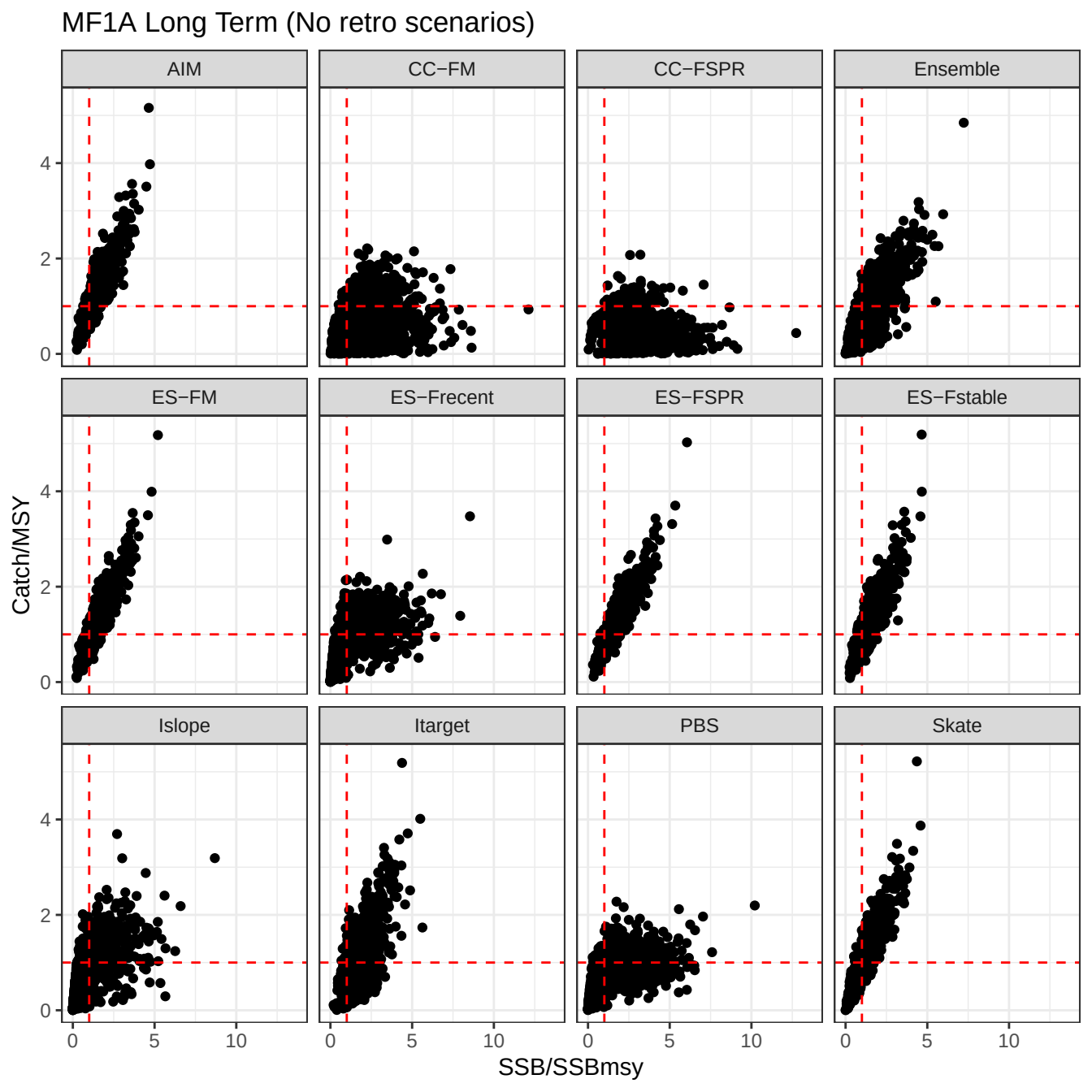

Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Prob(F>Fmsy)
Prob(SSB<0.5SSBmsy)
0.25
0.50
0.75
1.00
retro_type
Catch
M
None

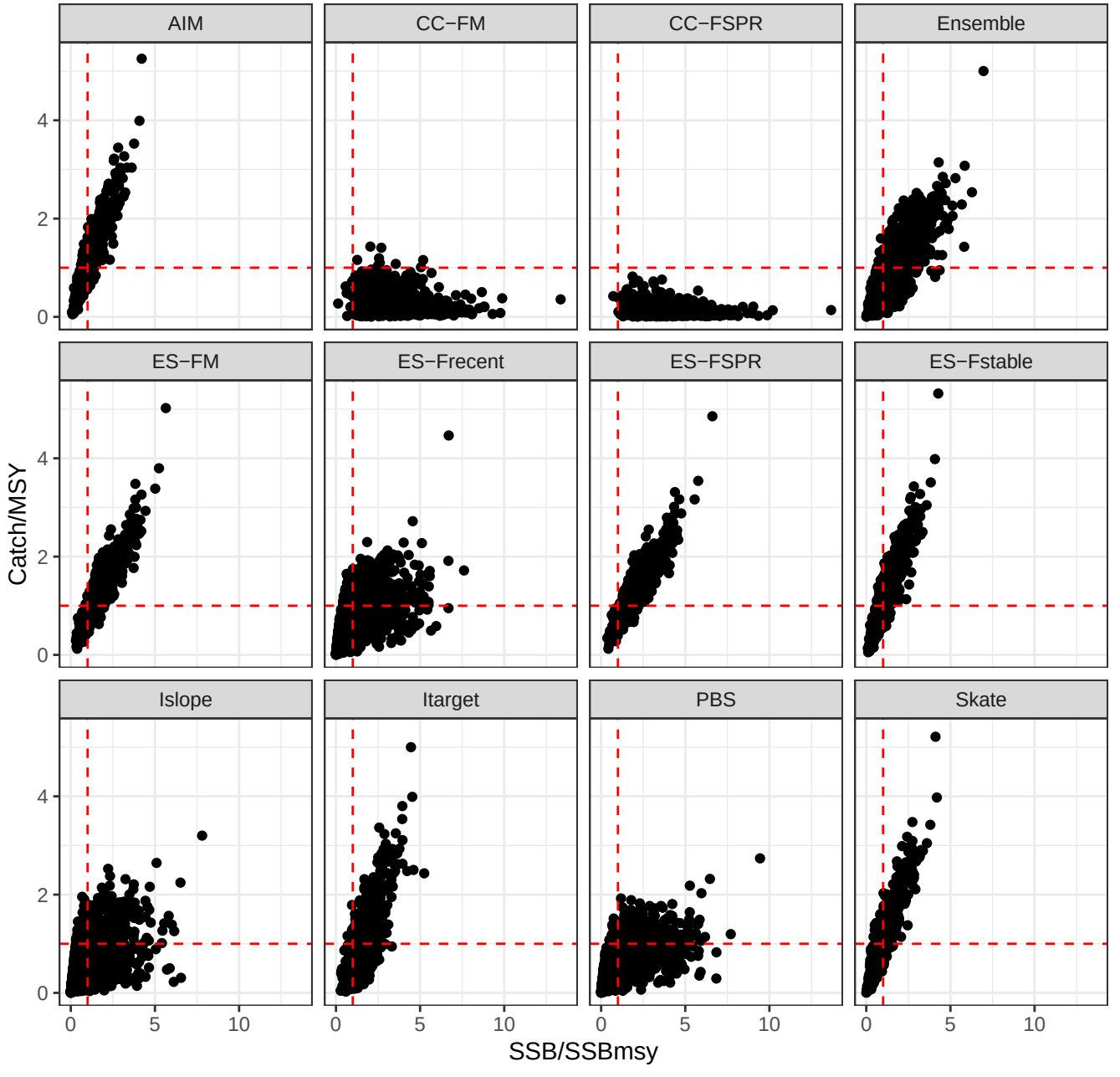

Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0.00
0.25
0.50
0.75
1.00
1.25
0
1
2
3
4
retro_type
Catch
M
None

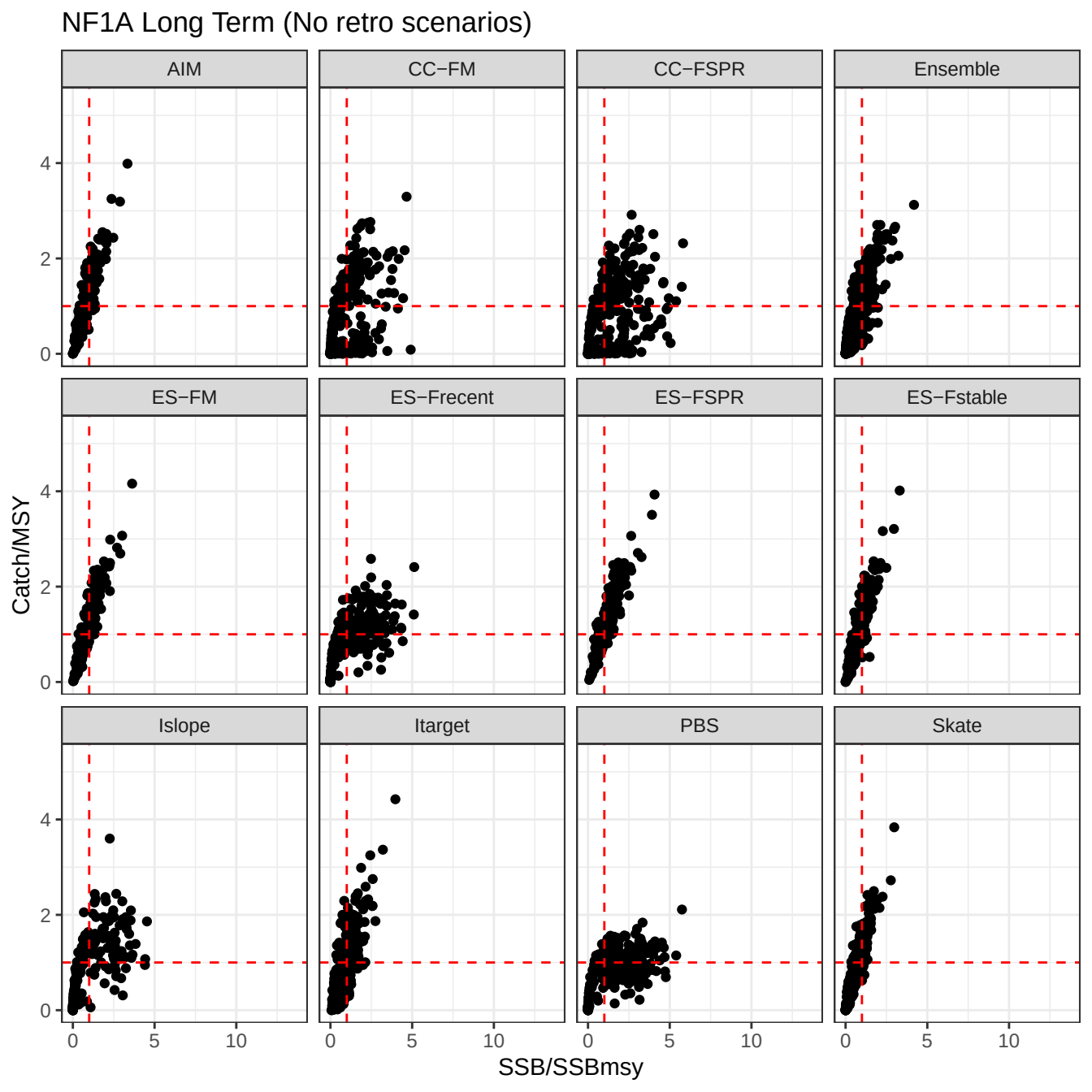

Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0.5
1.0
1.5
2.0
retro_type
Catch
M
None

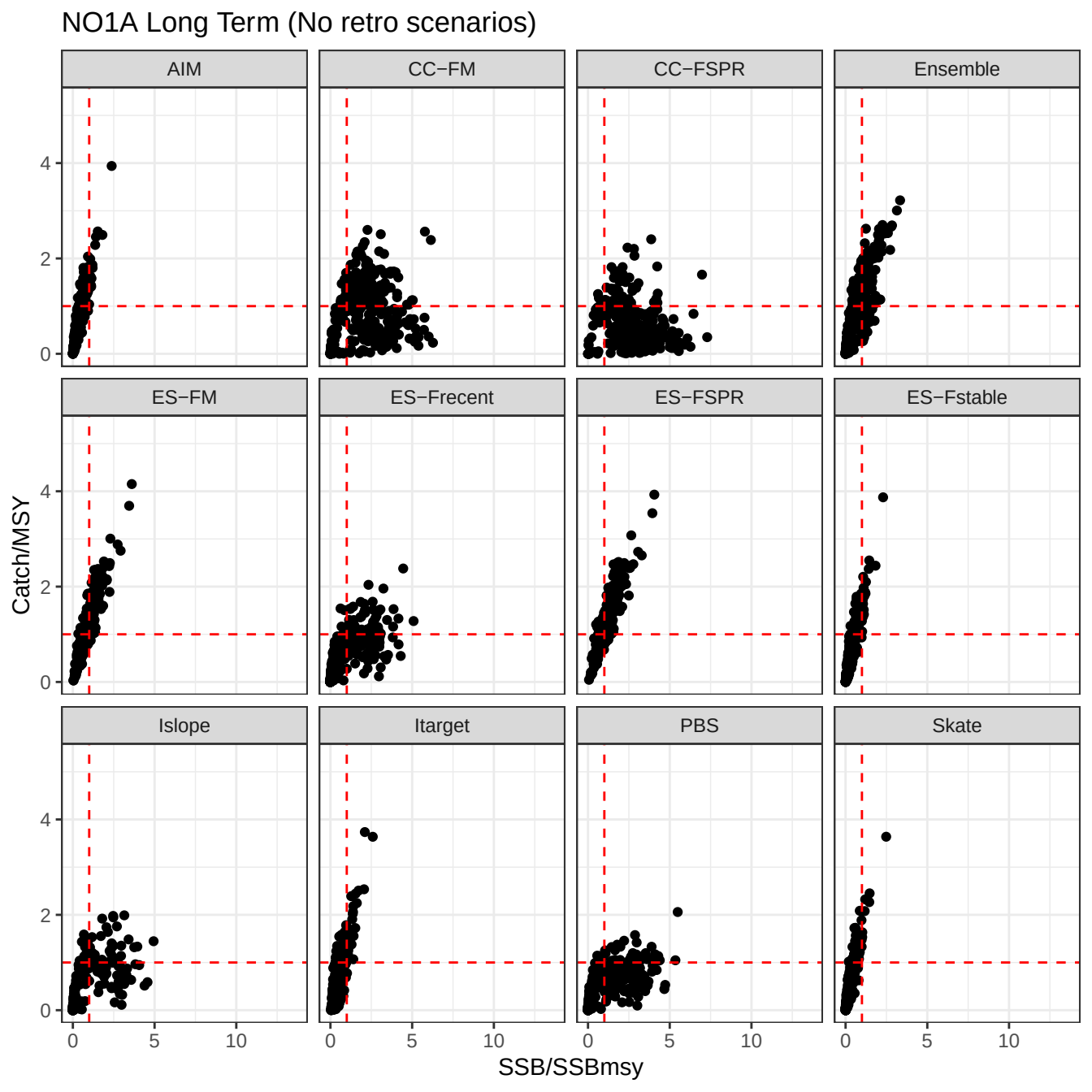

CF1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

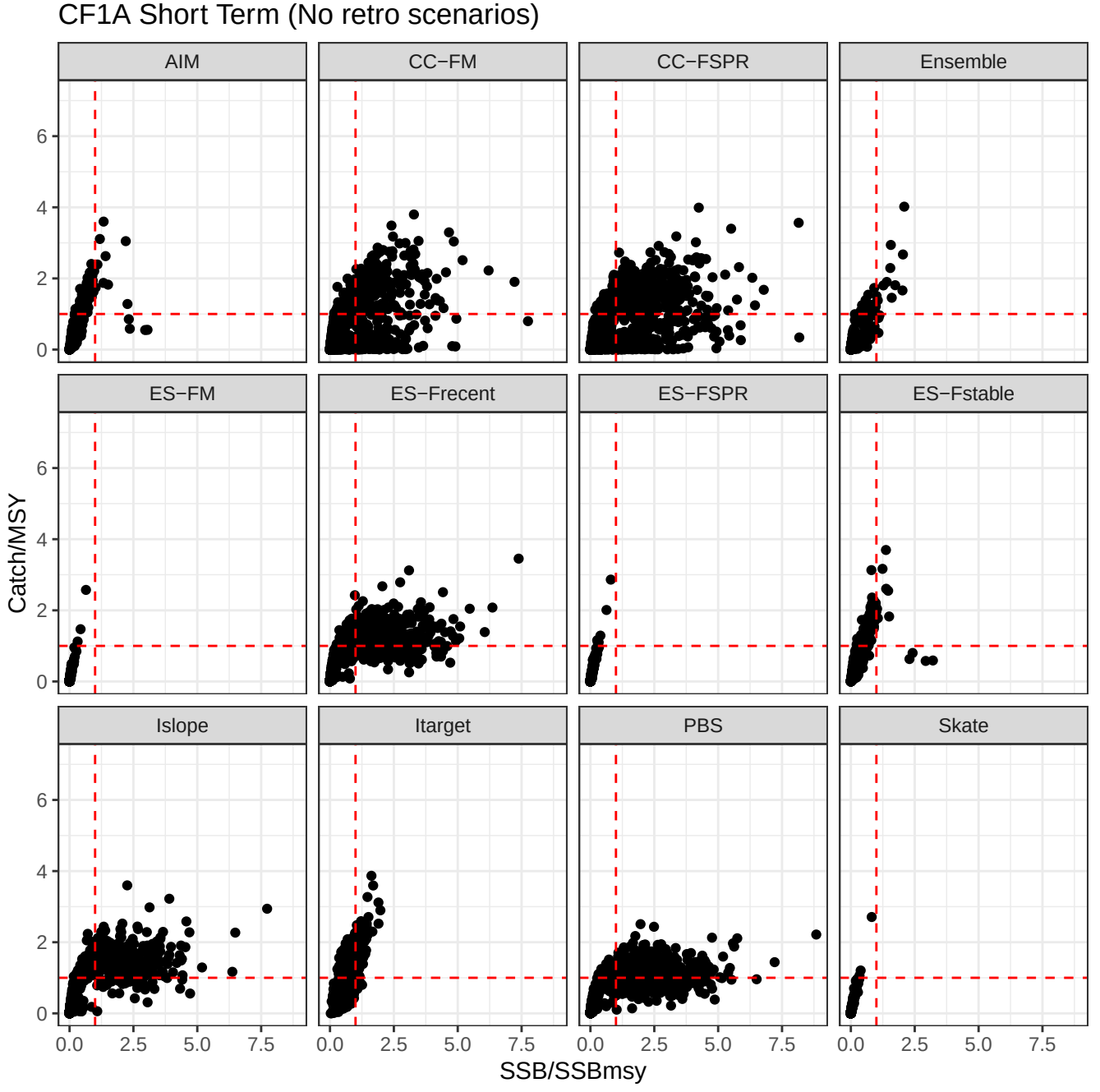

CO1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

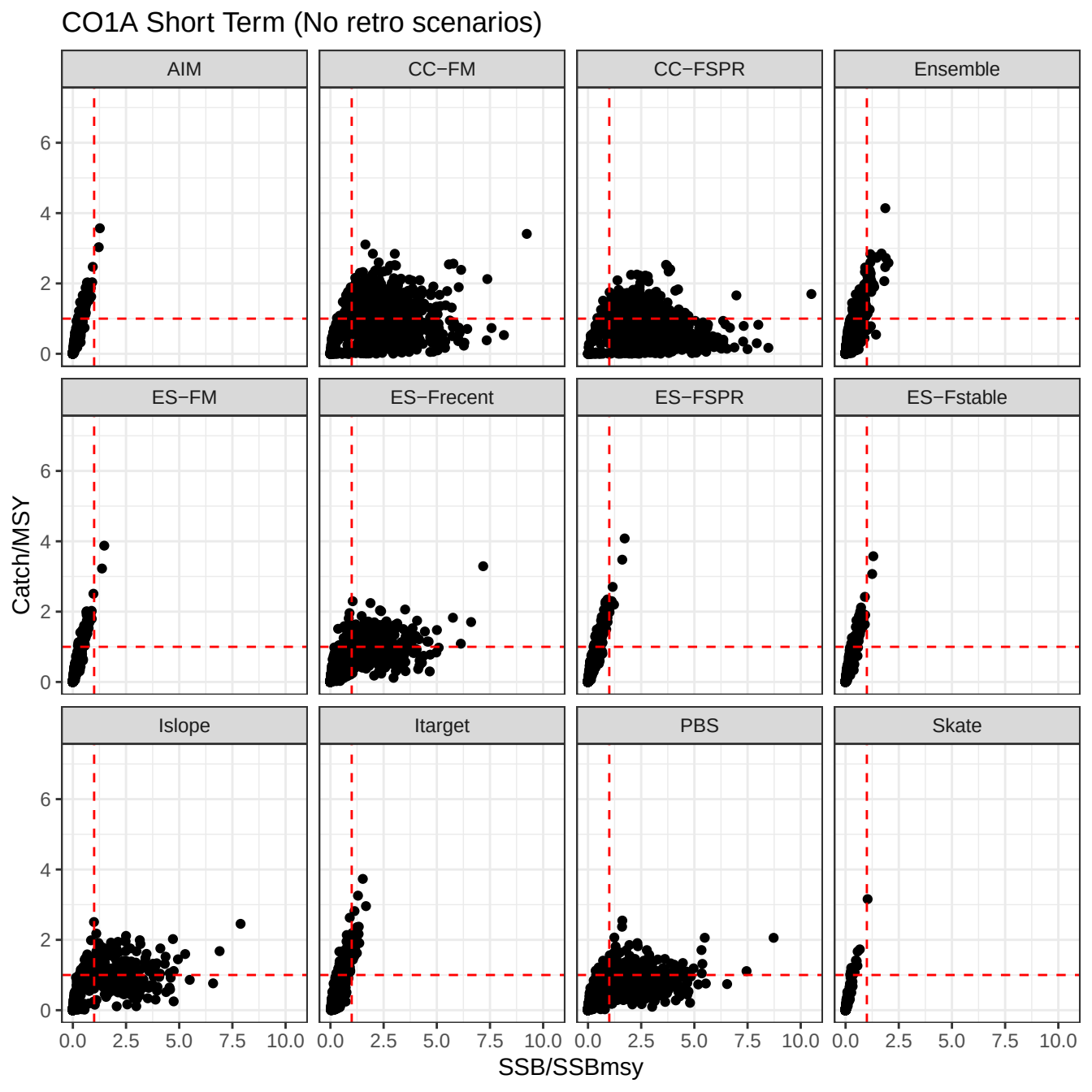

MF1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

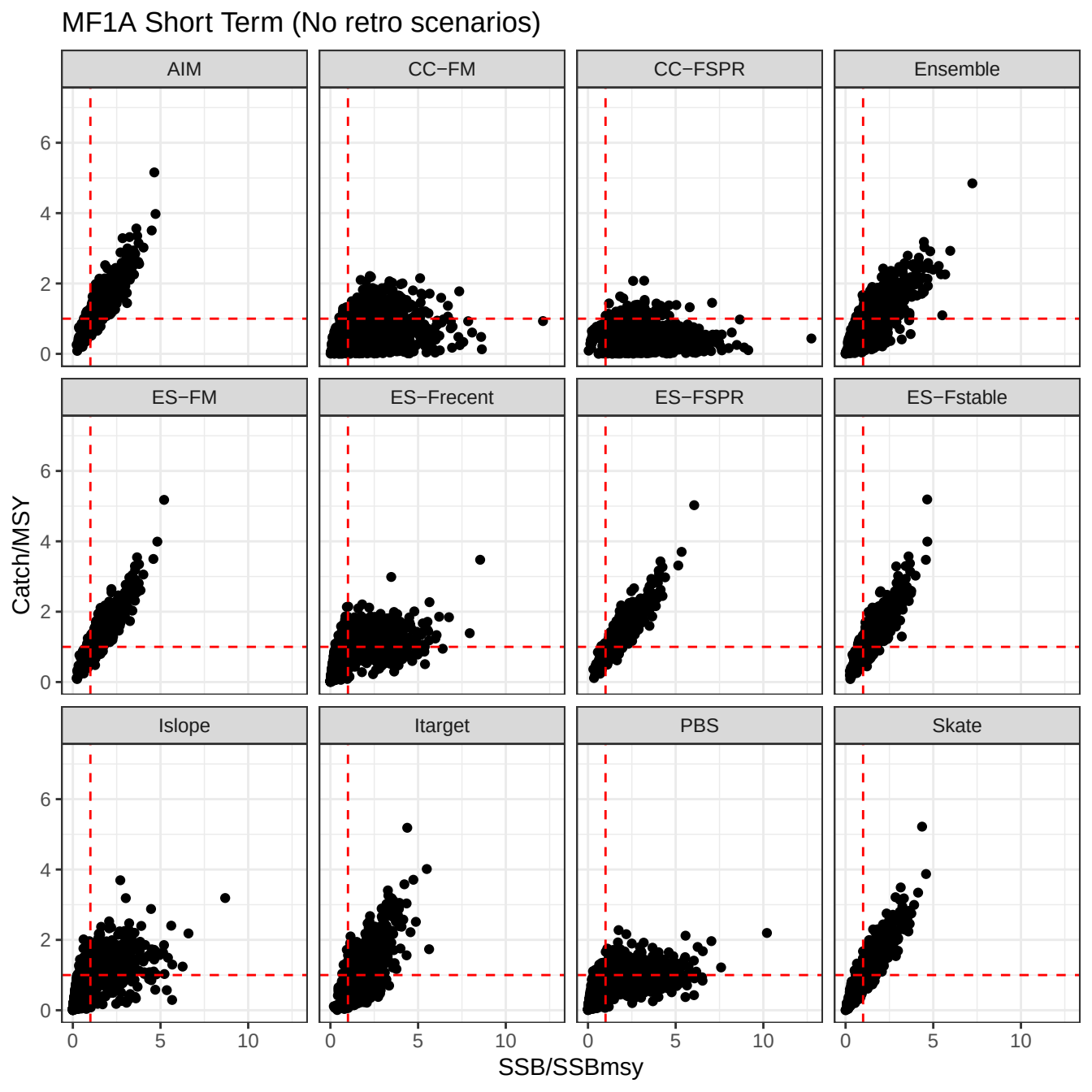

MO1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

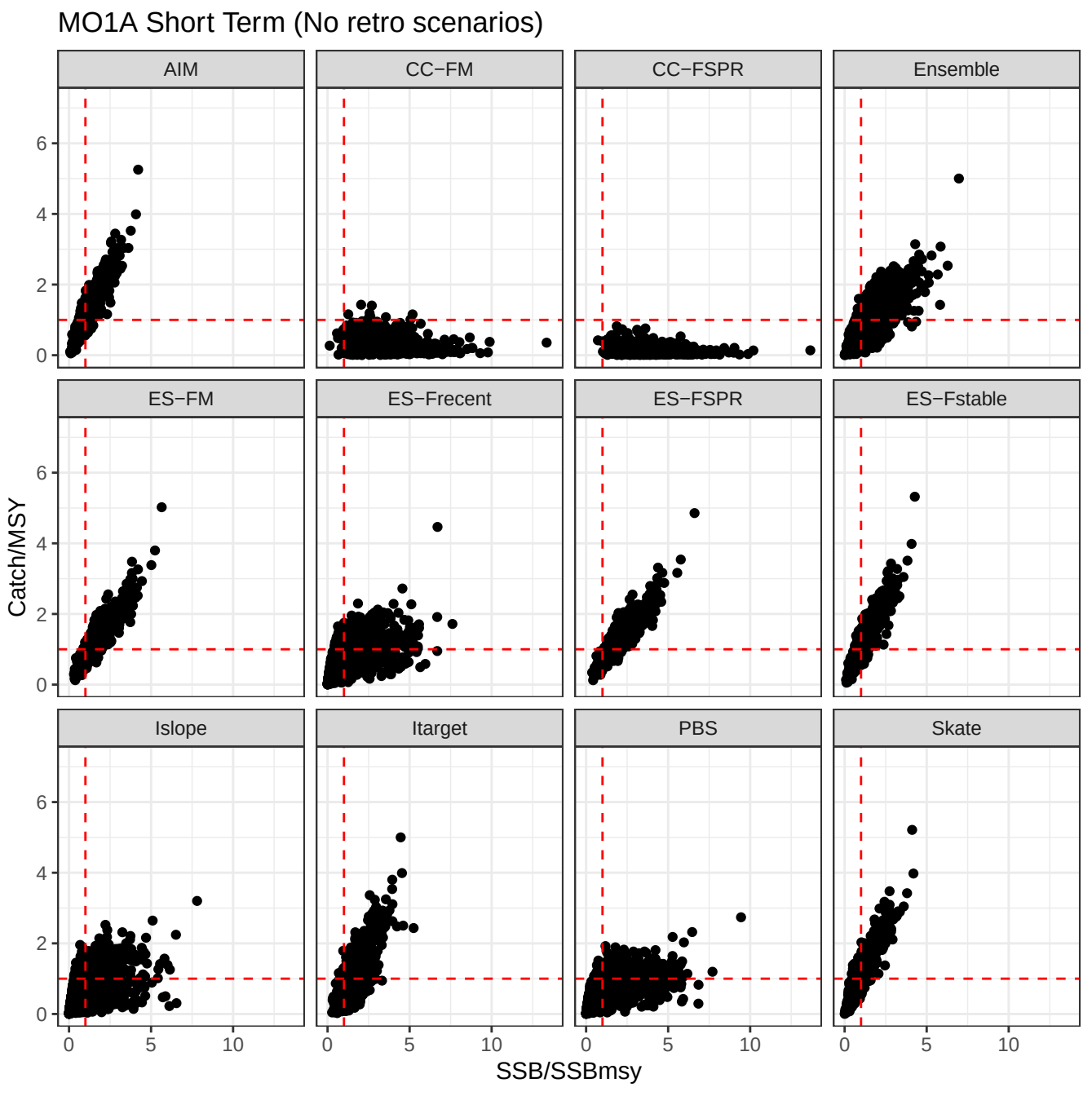

NF1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

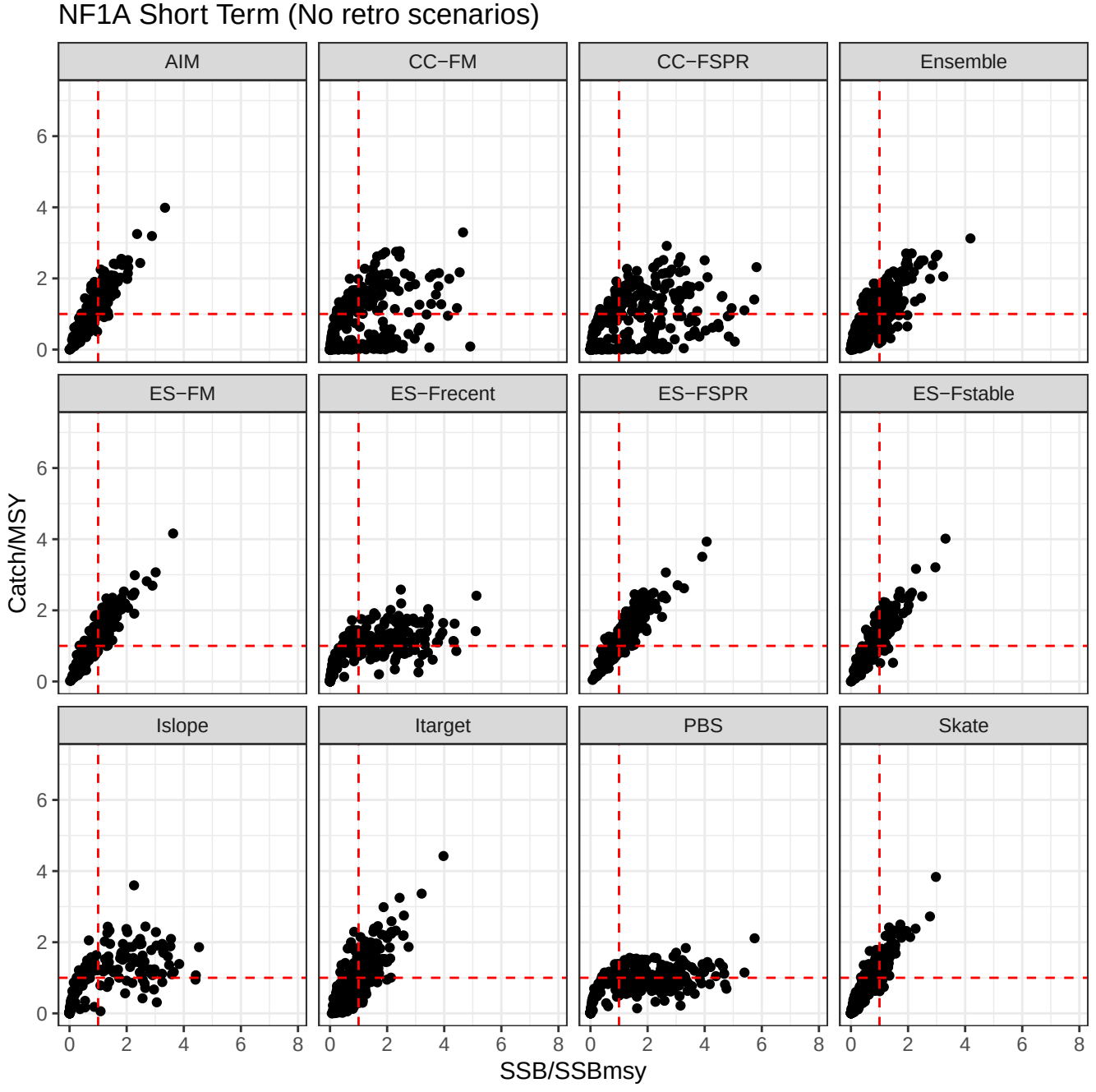

NO1A Long Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

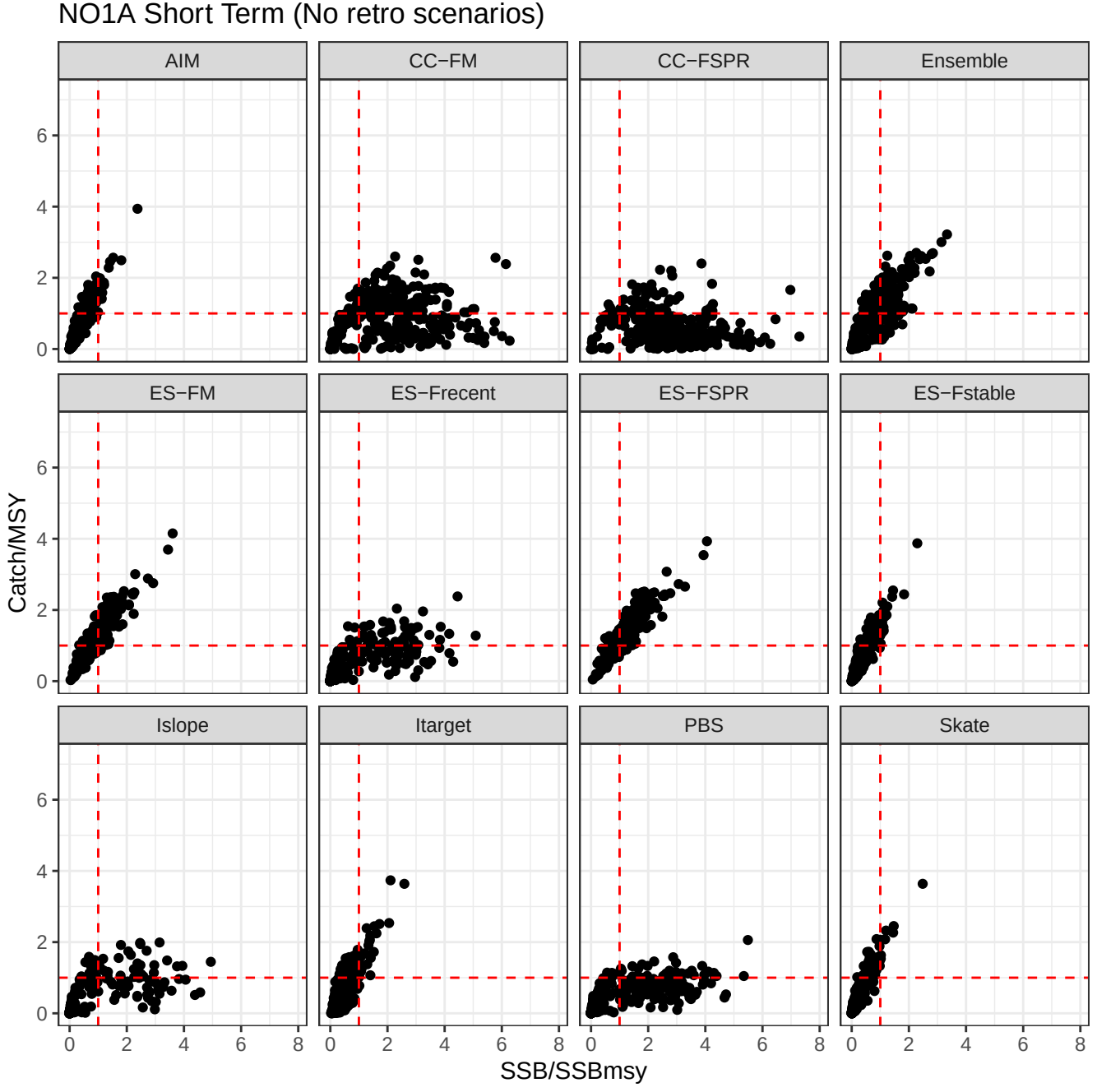

CF1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
0.0
2.5
5.0
7.5

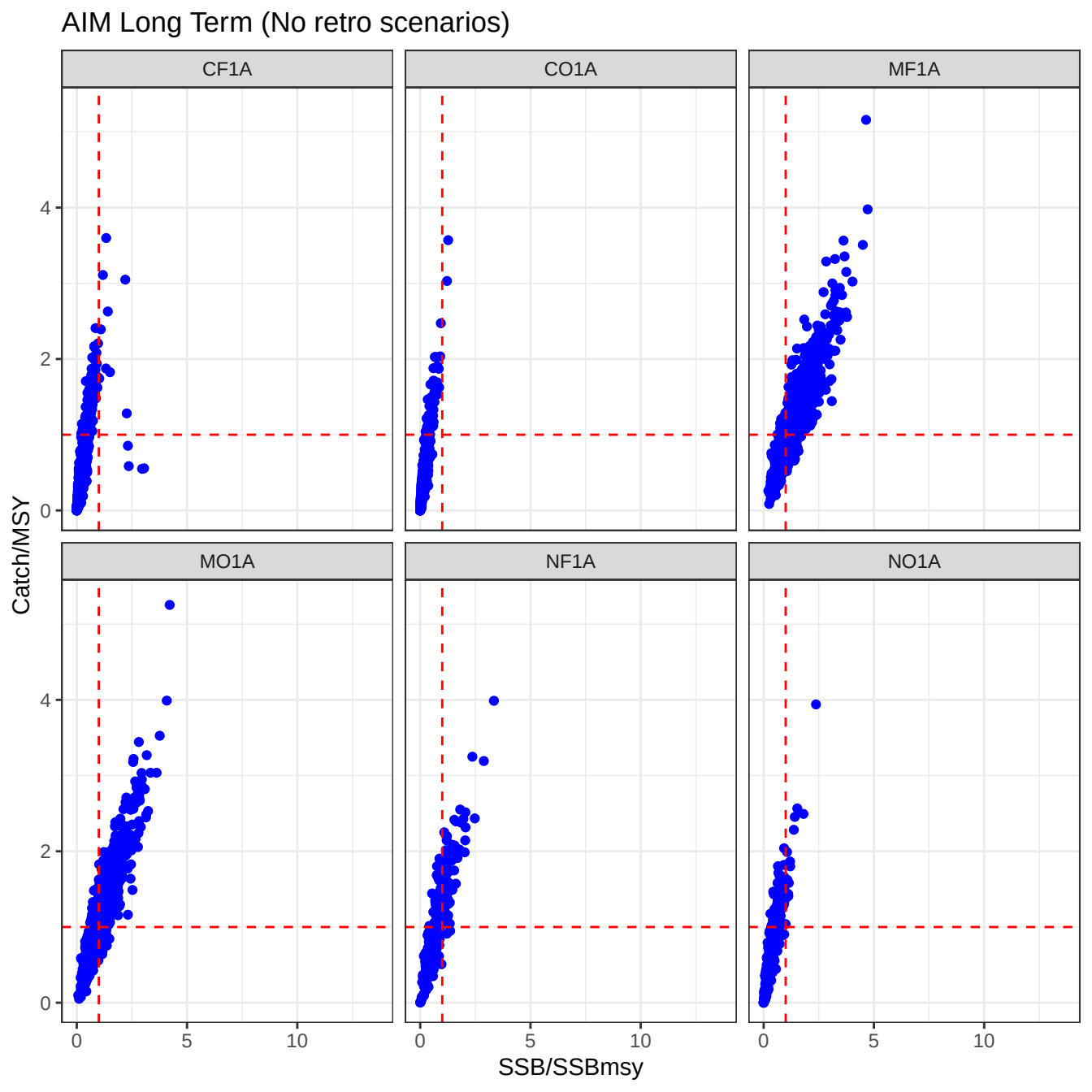

CO1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
0.0
2.5
5.0
7.5
10.0

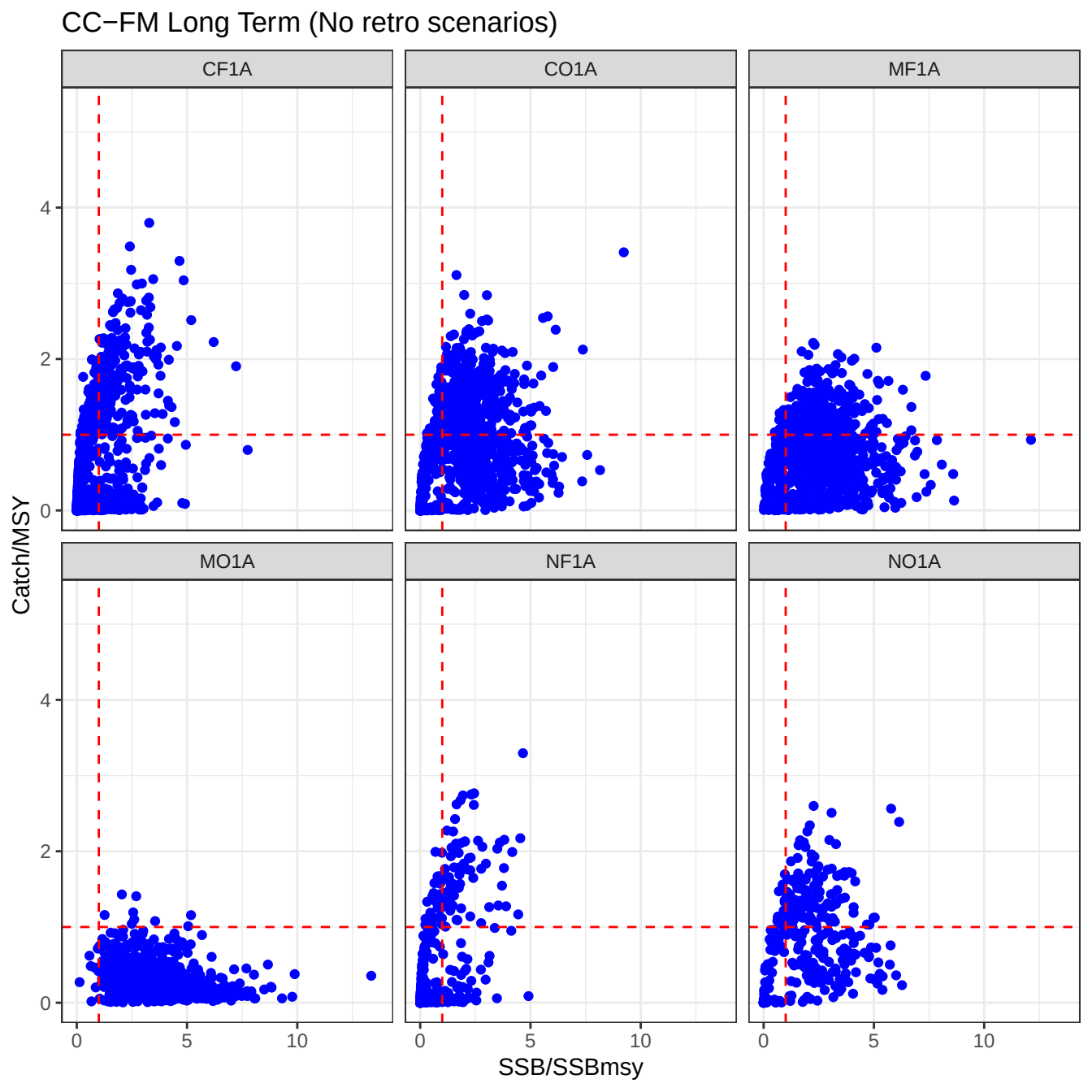

MF1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
0
5
10

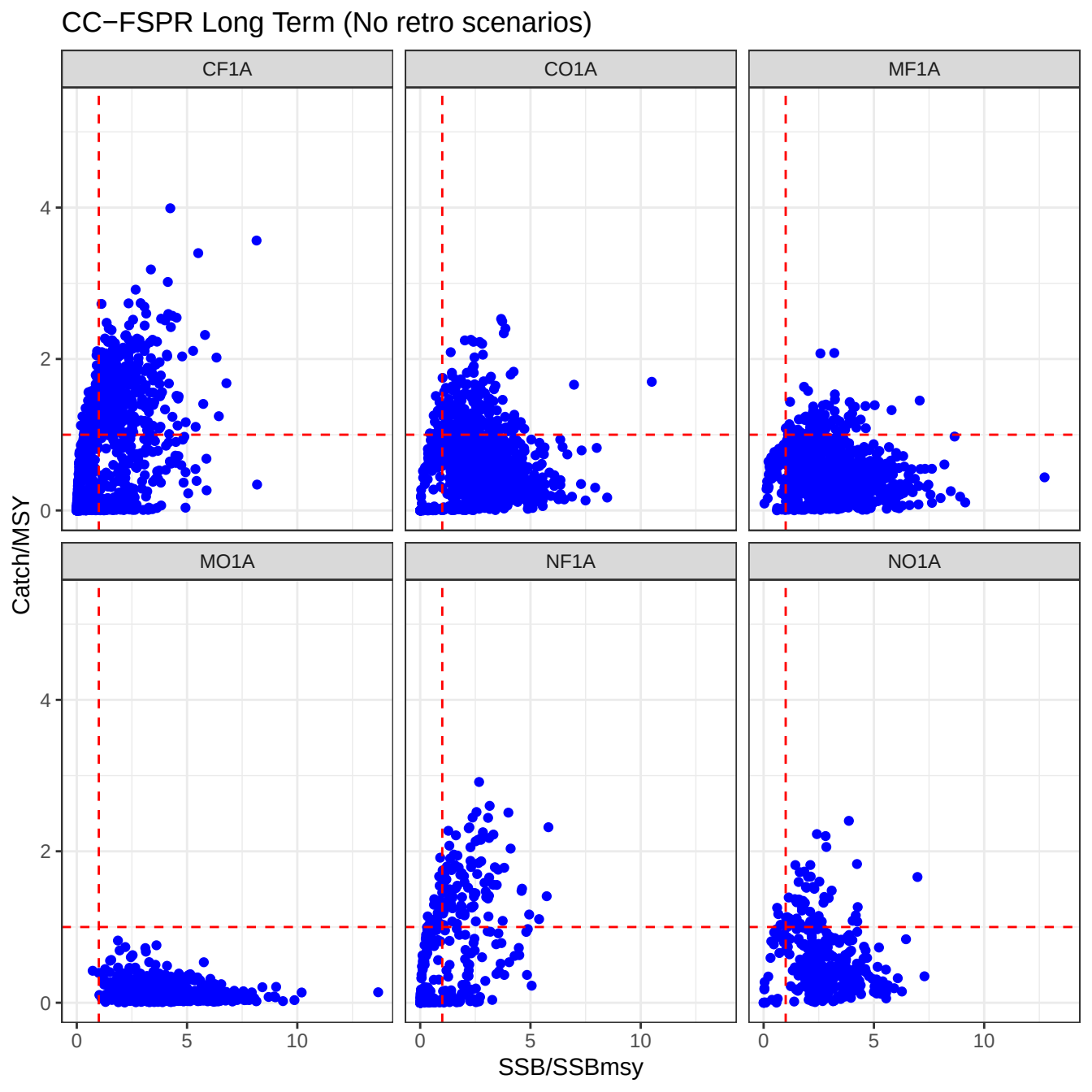

MO1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
0
5
10

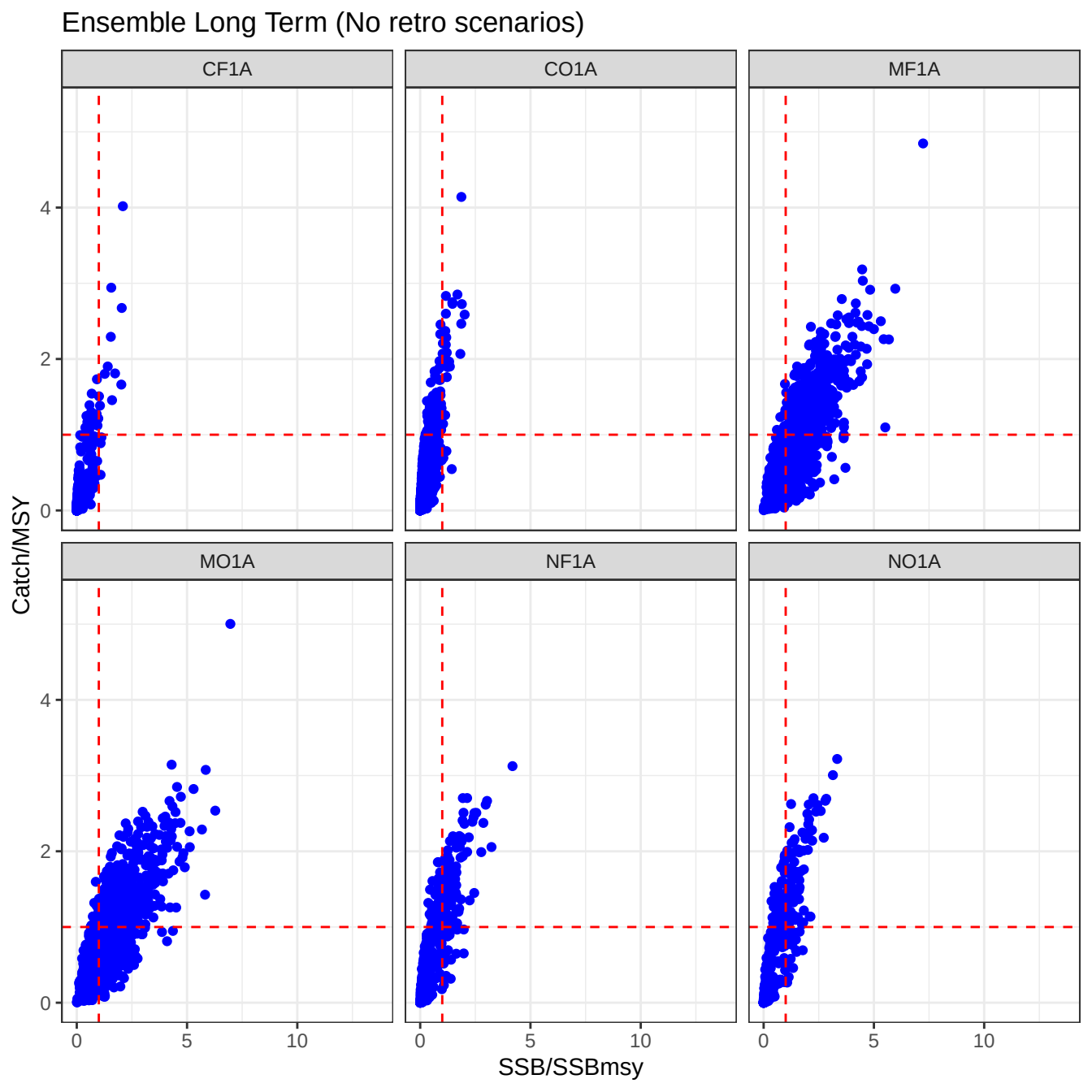

NF1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

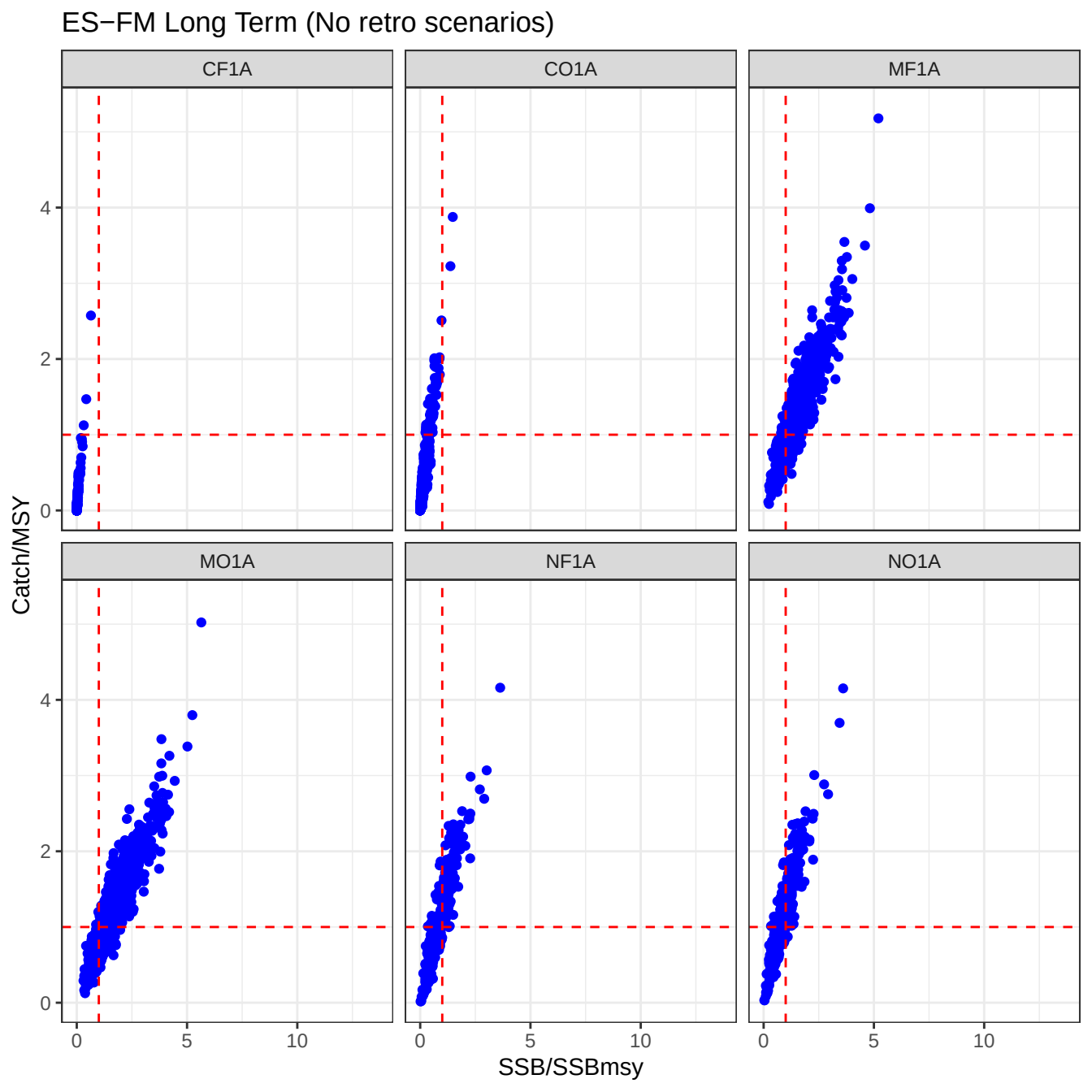

NO1A Short Term (No retro scenarios)
AIM
CC−FM
CC−FSPR
Ensemble
ES−FM
ES−Frecent
ES−FSPR
ES−Fstable
Islope
Itarget
PBS
Skate
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

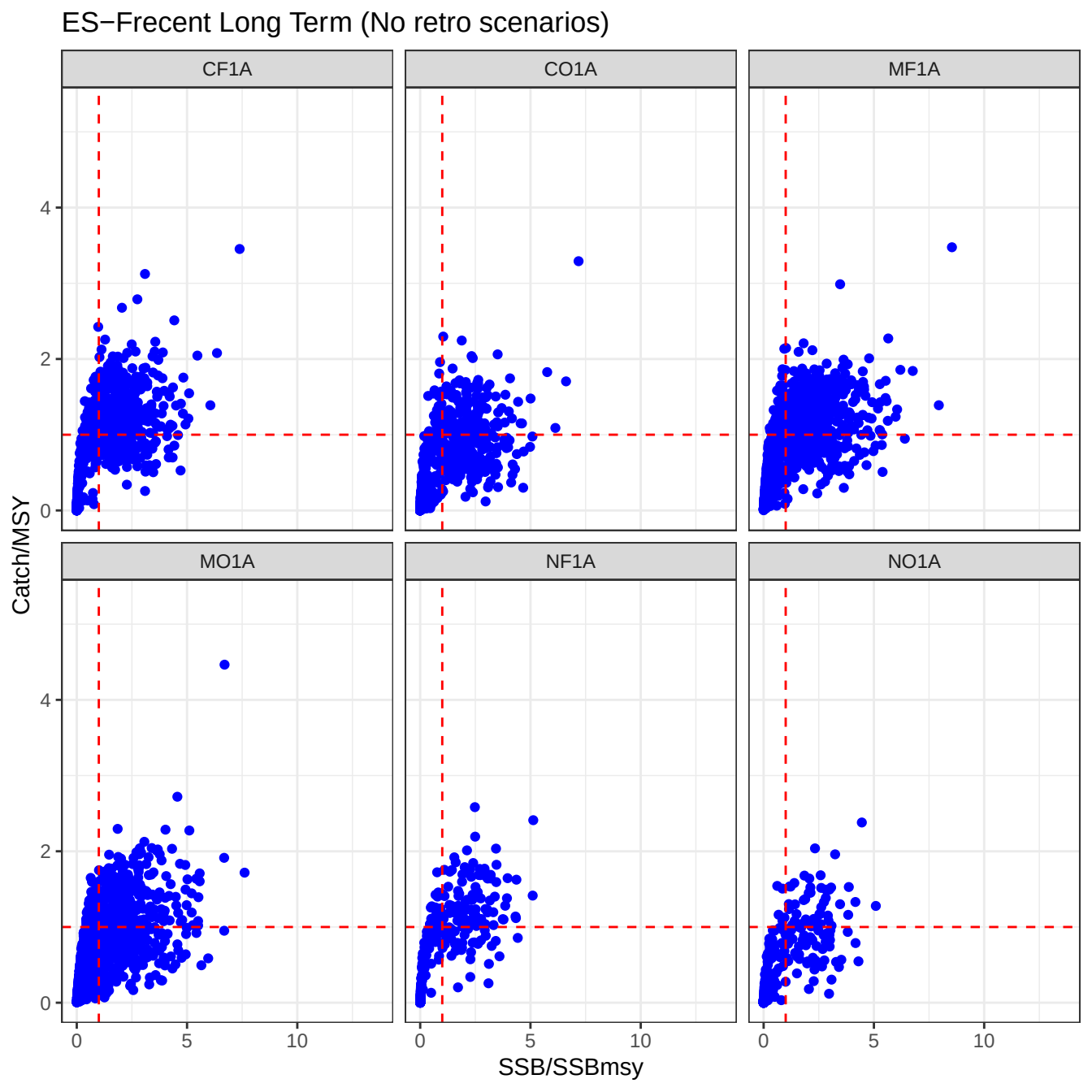

AIM Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

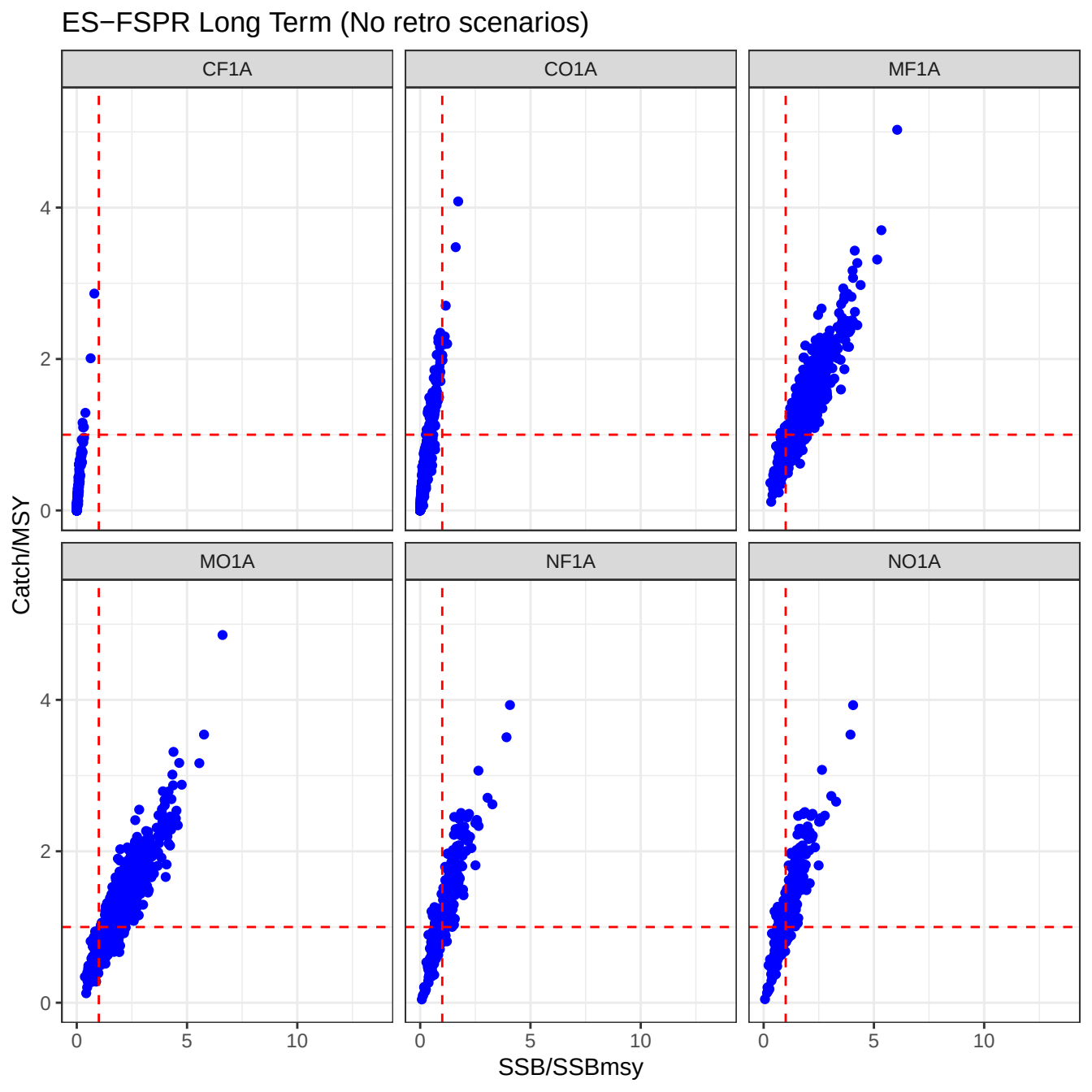

CC−FM Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

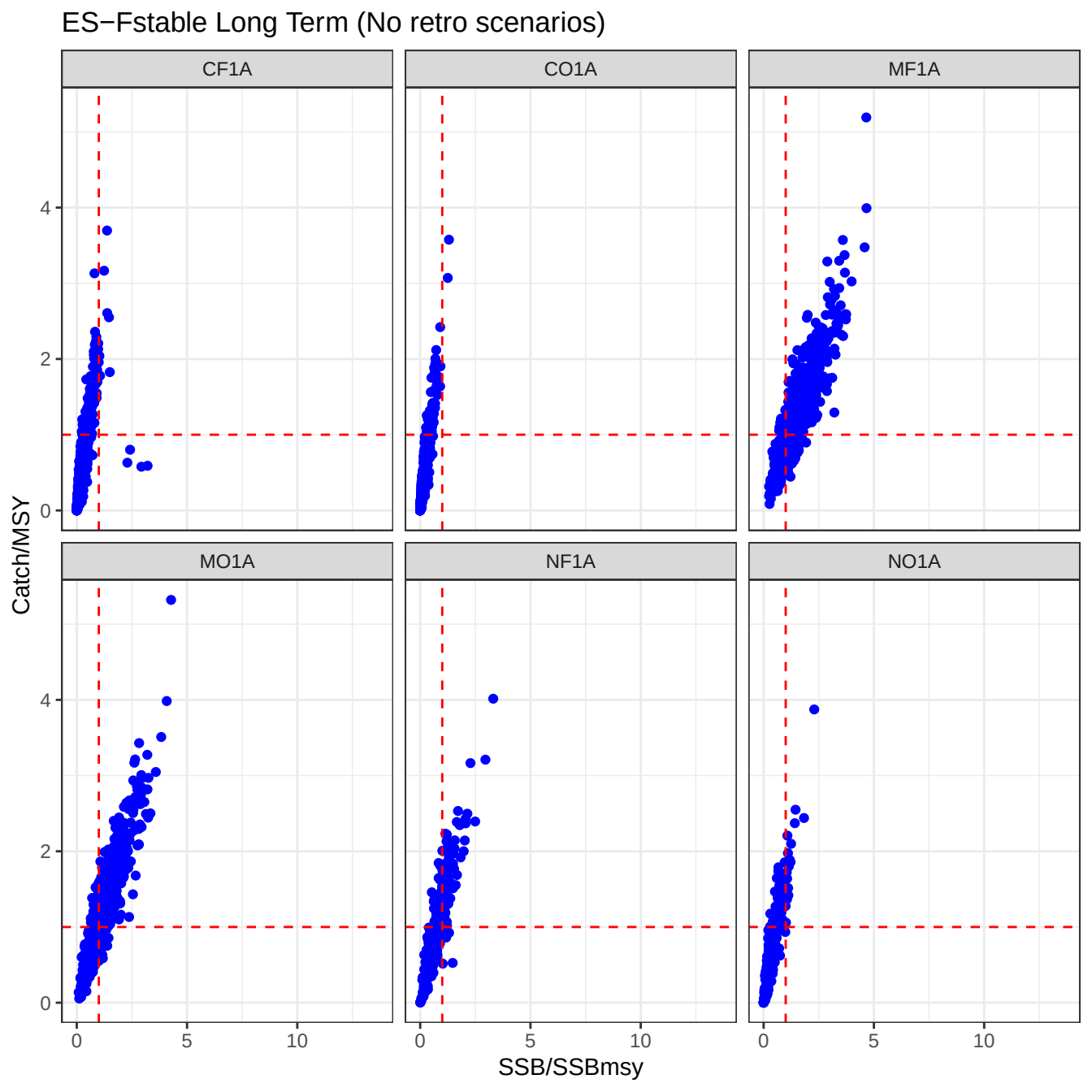

CC−FSPR Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

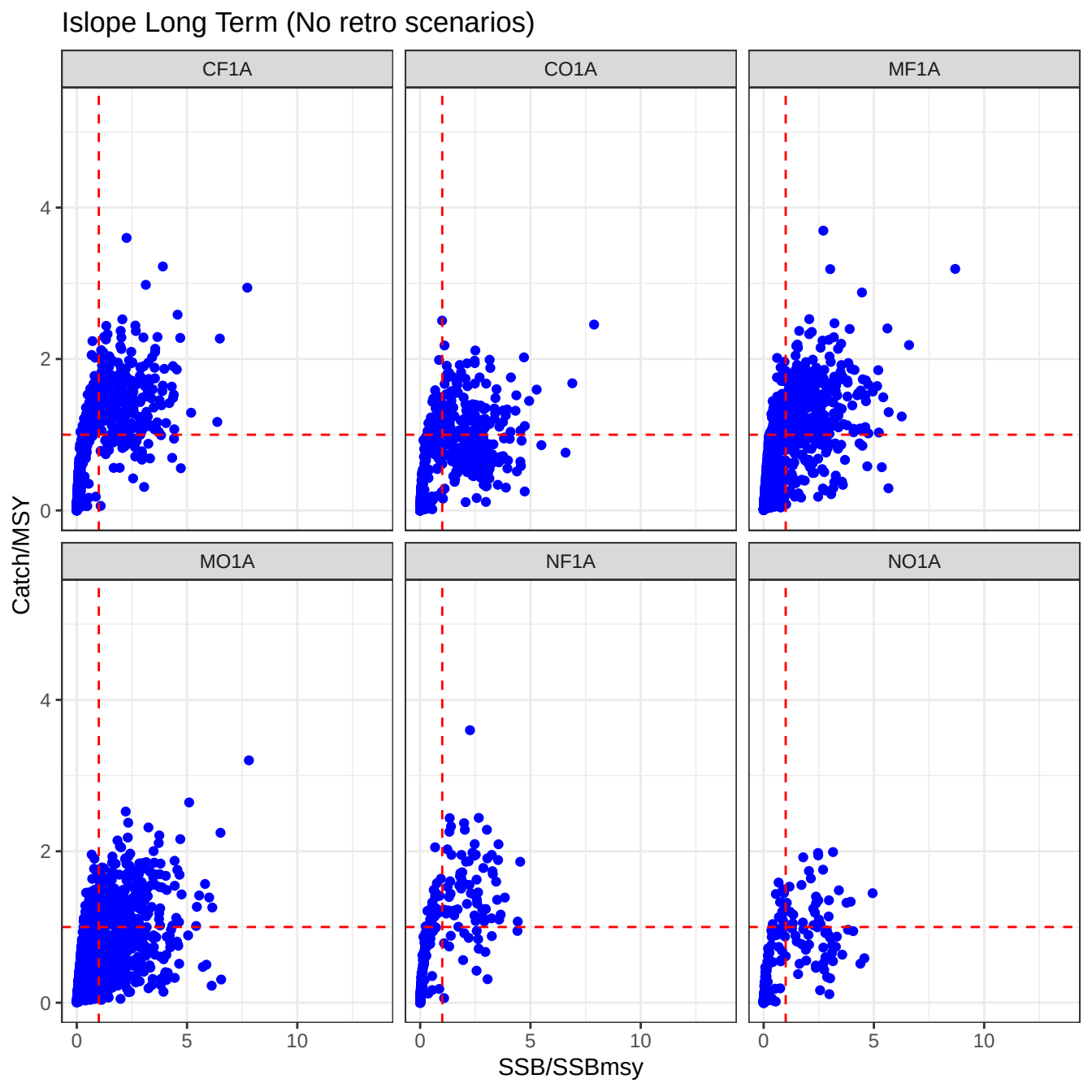

Ensemble Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

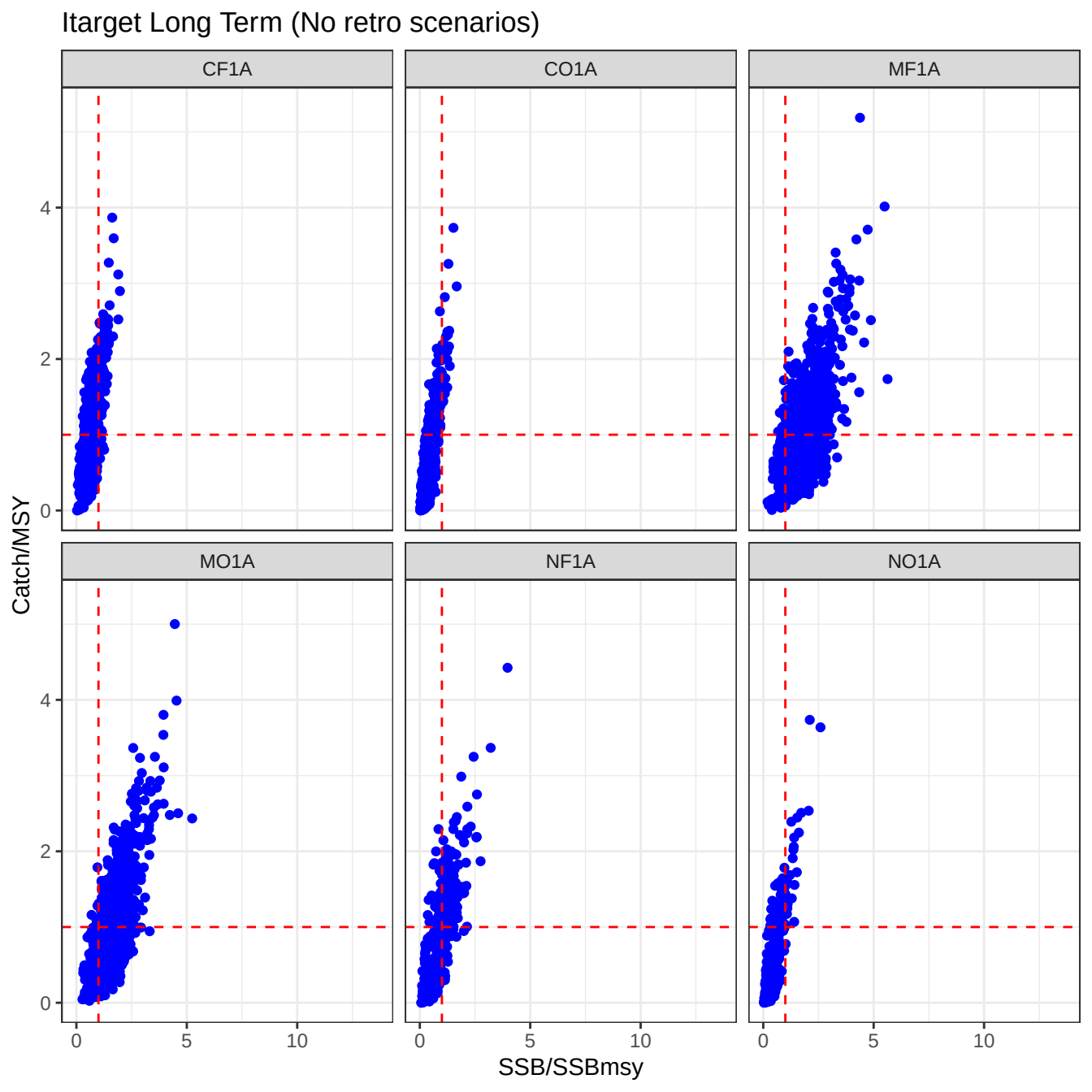

ES−FM Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

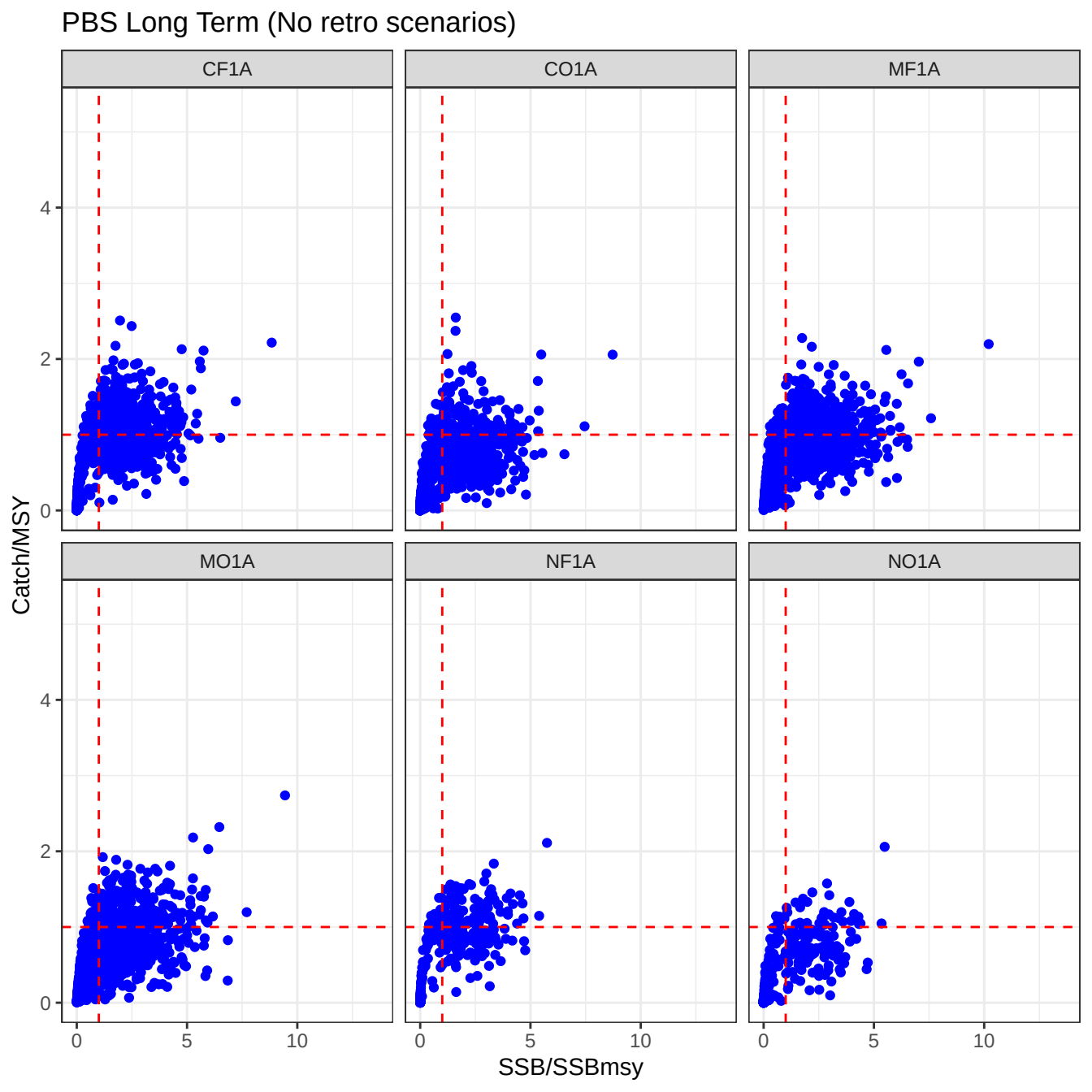

ES−Frecent Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

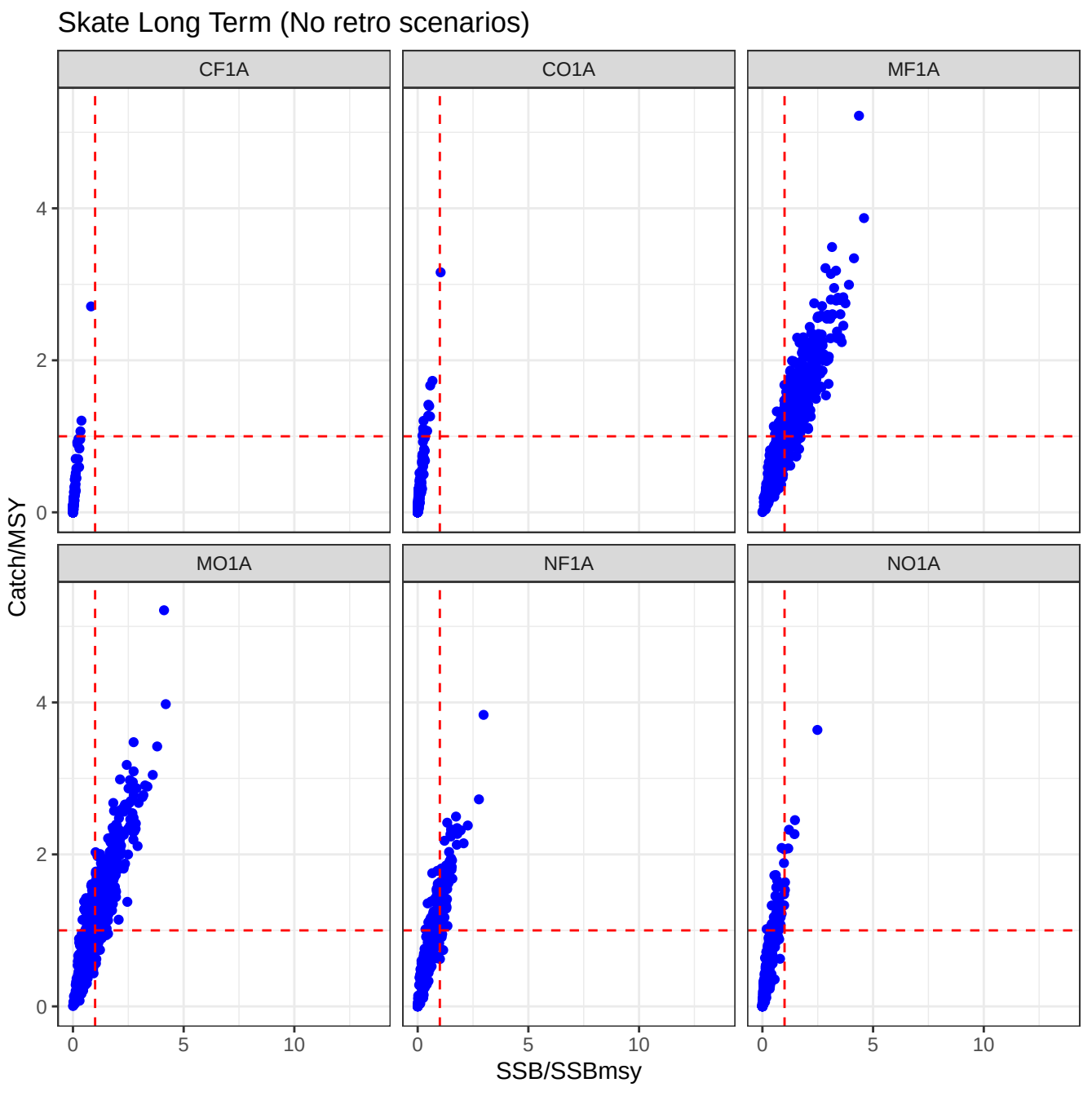

ES−FSPR Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

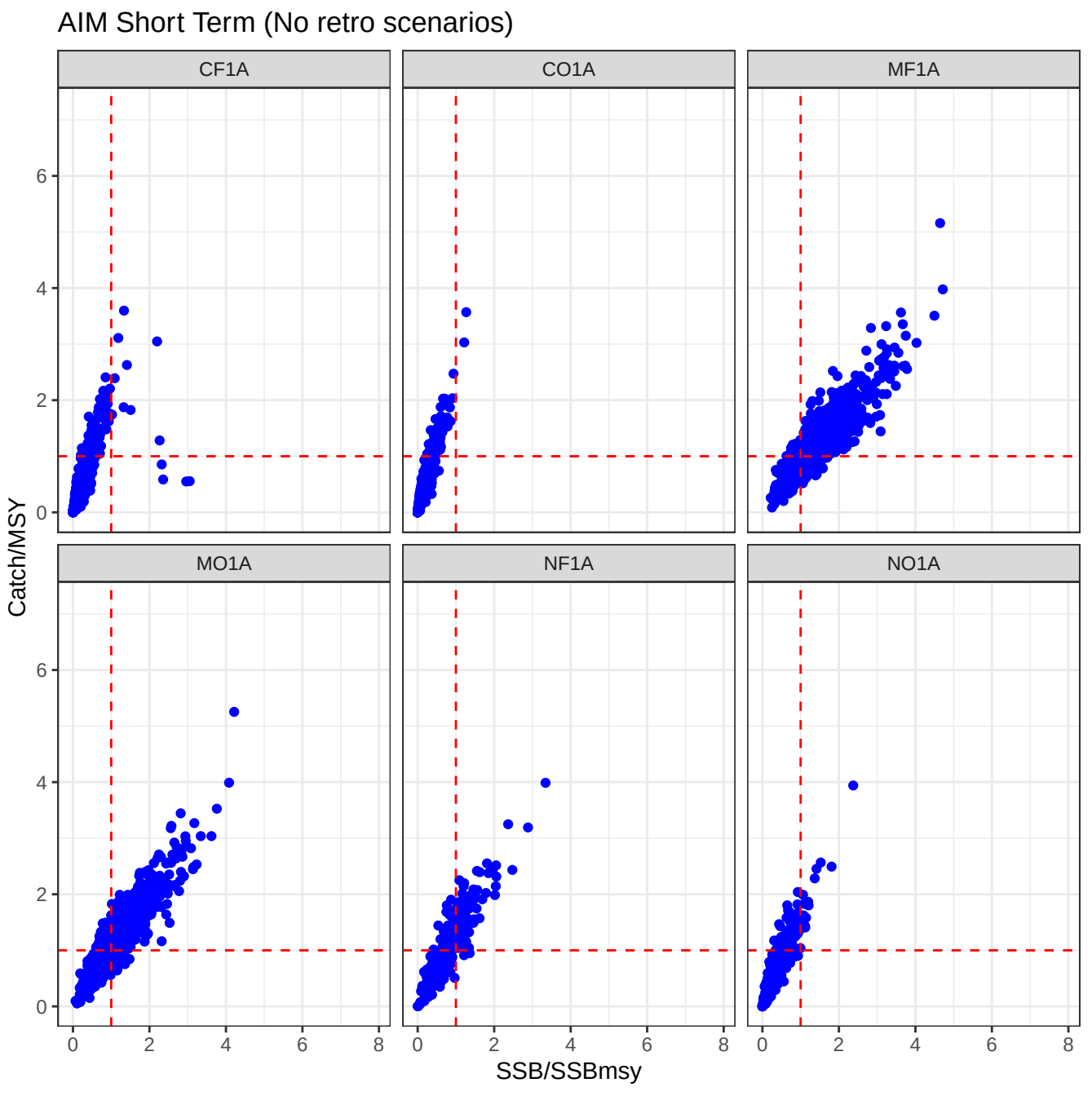

ES−Fstable Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

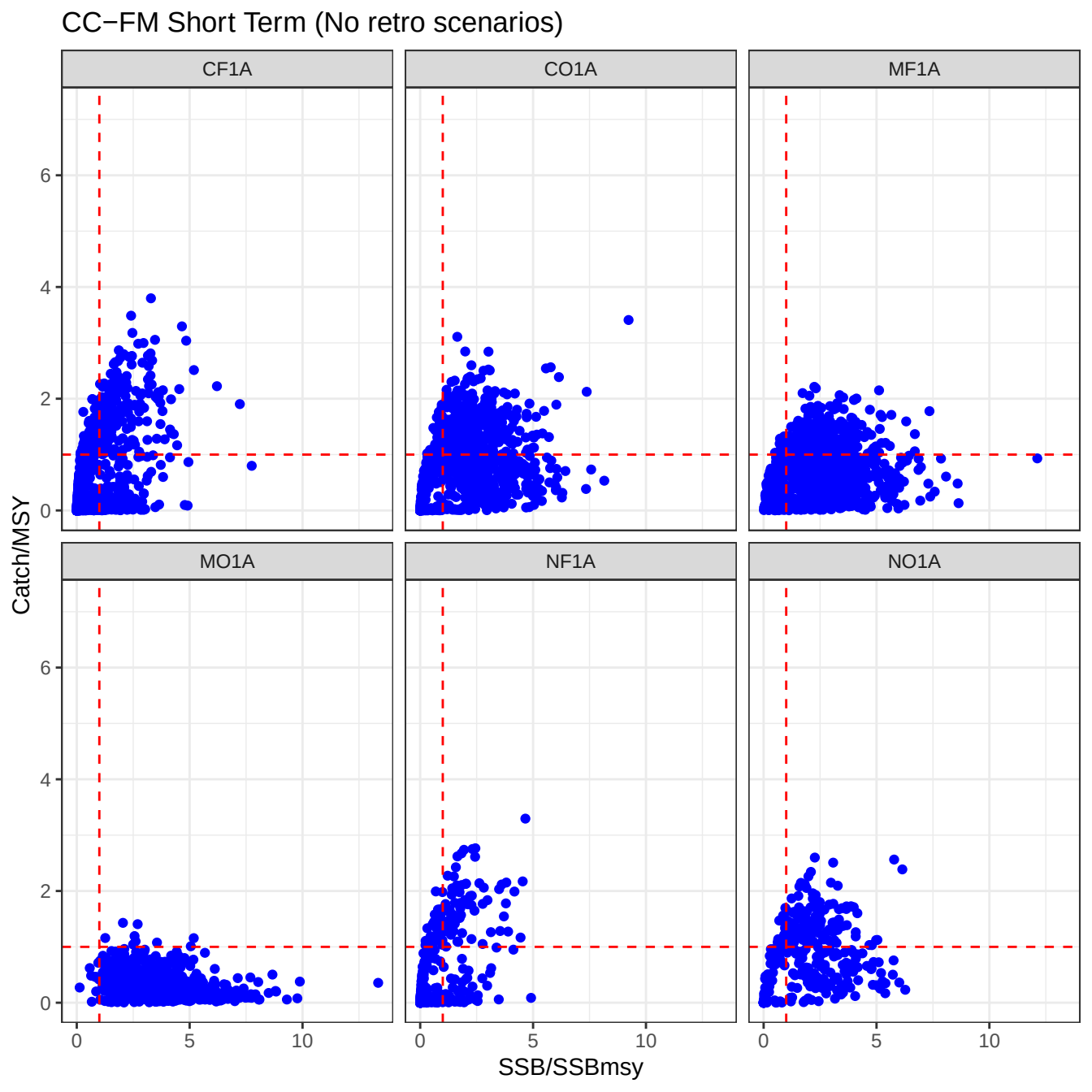

Islope Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

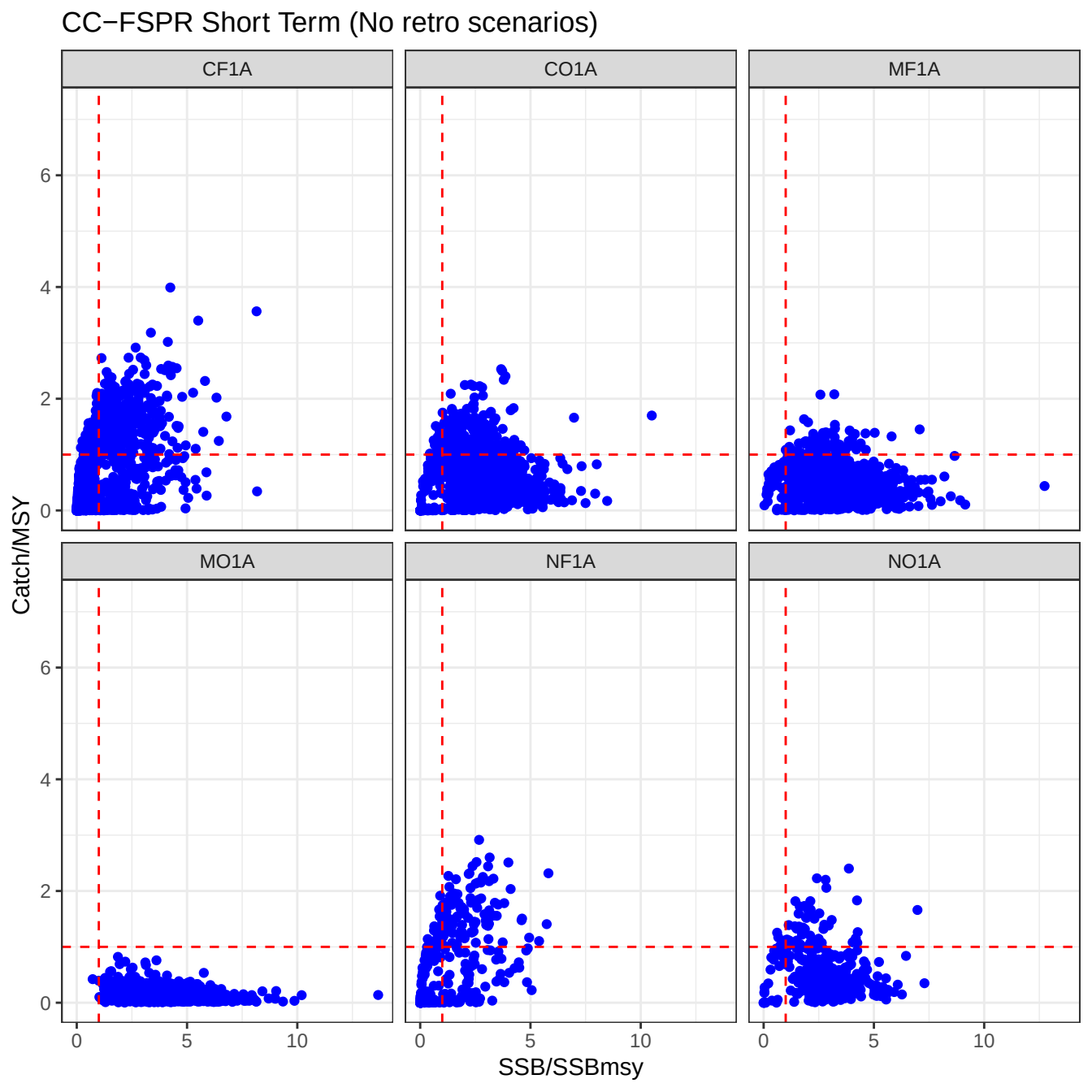

Itarget Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

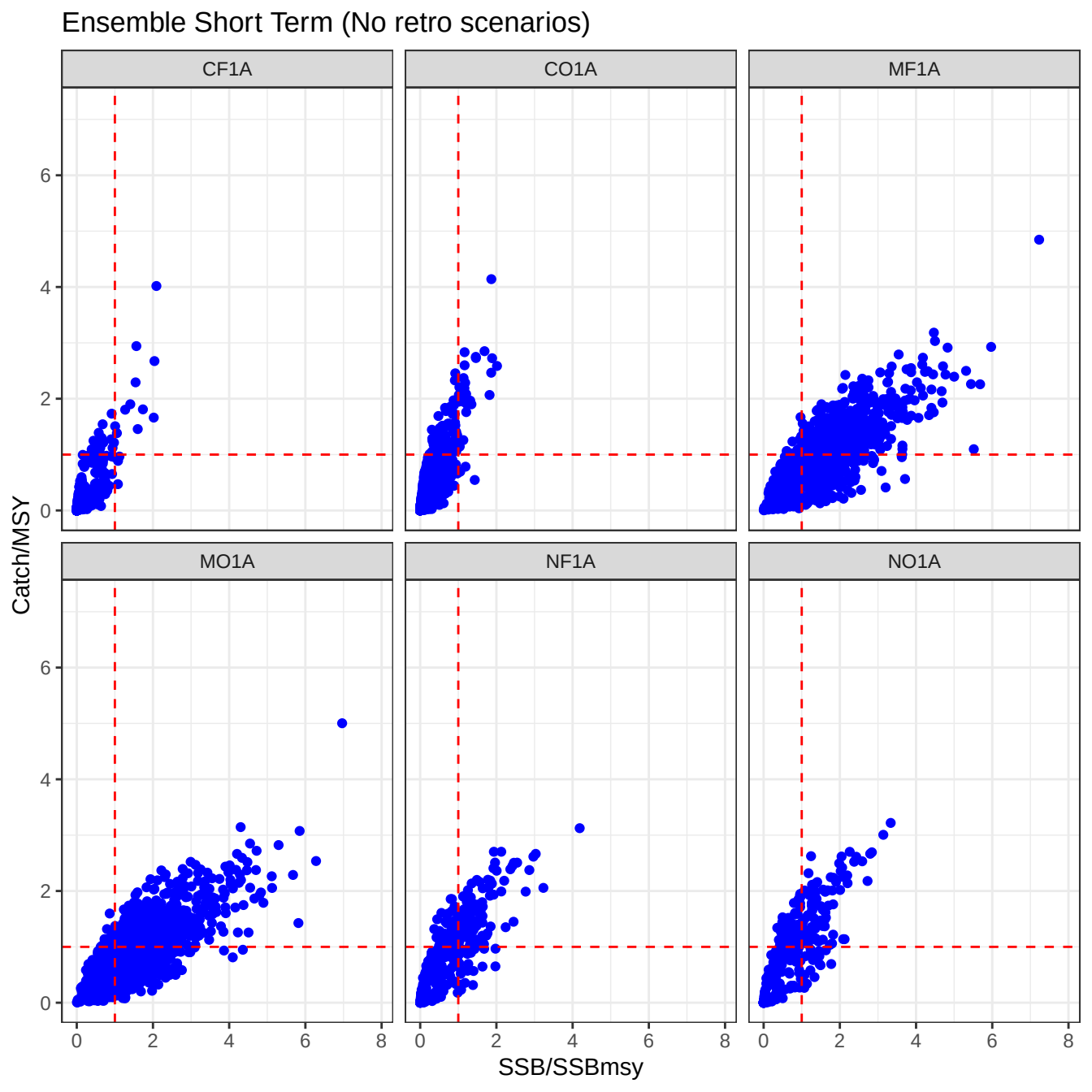

PBS Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

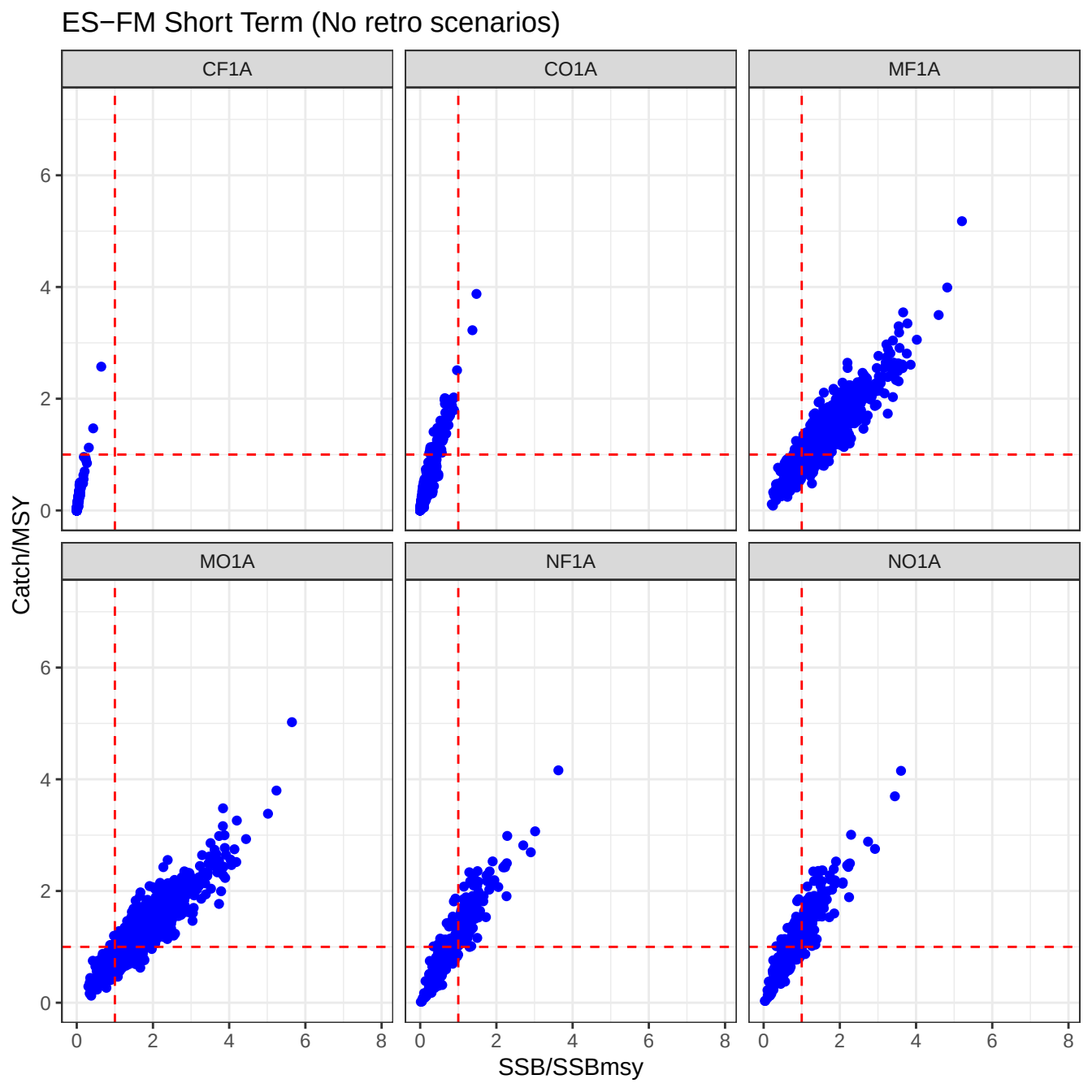

Skate Long Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
0
5
10

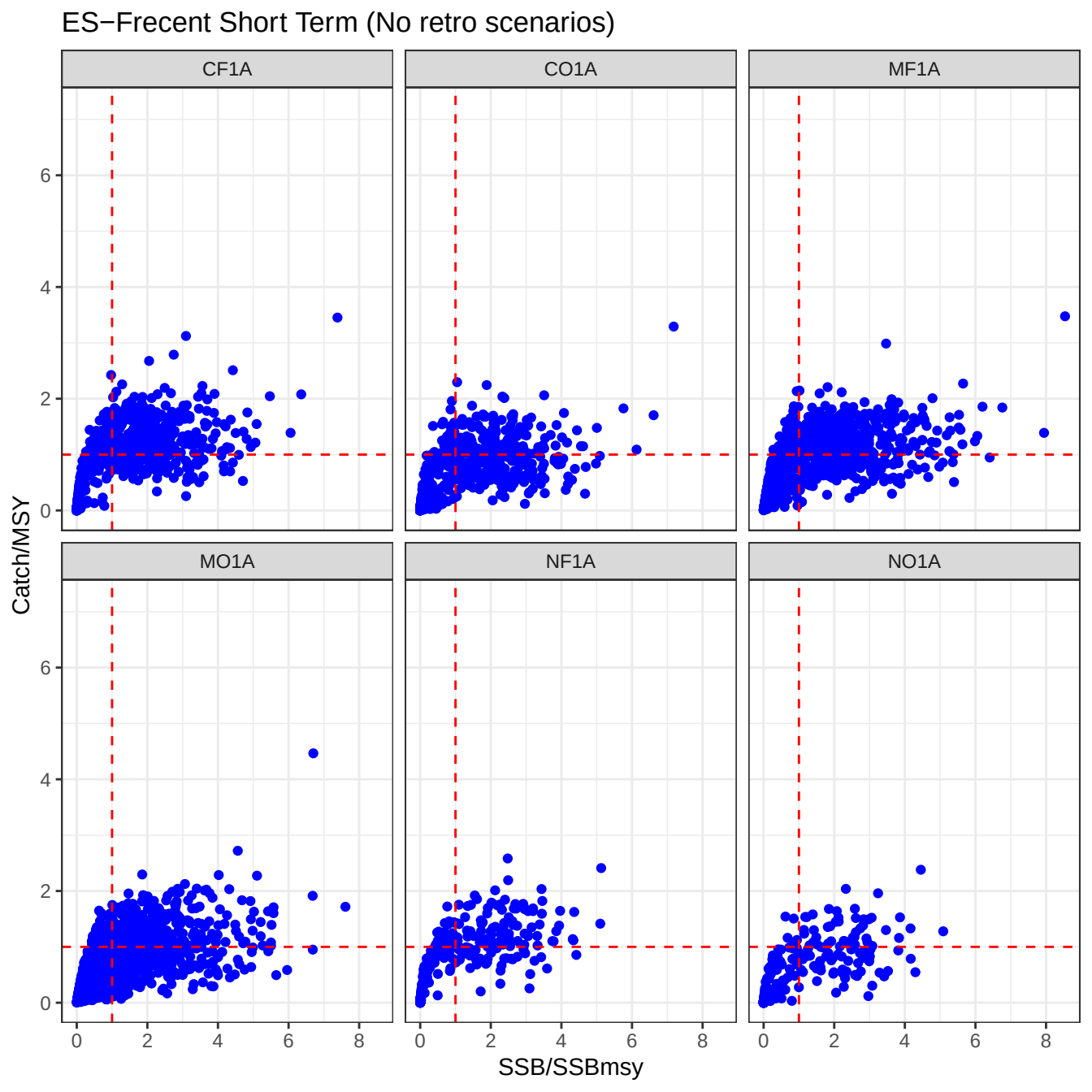

AIM Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

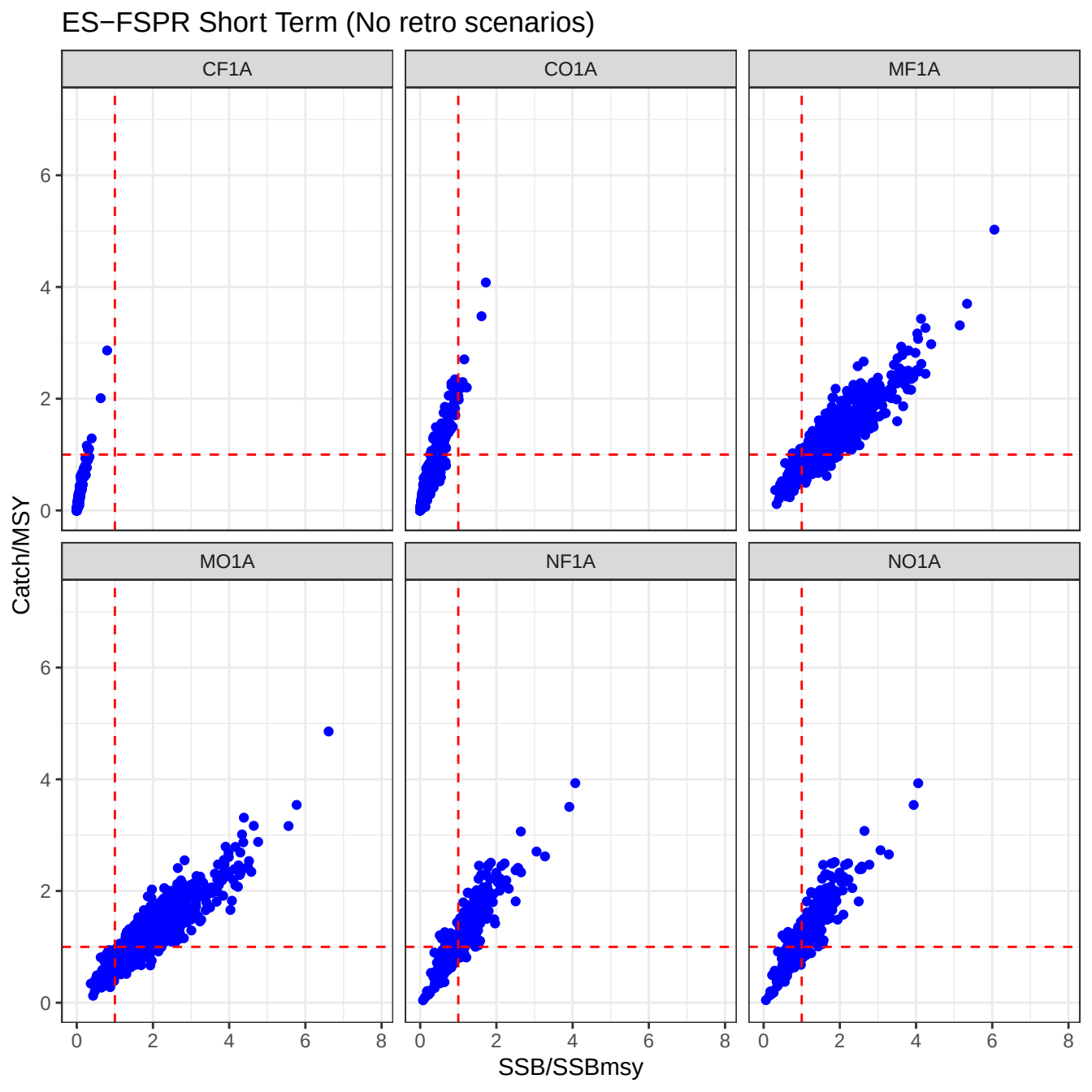

CC−FM Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
0
5
10

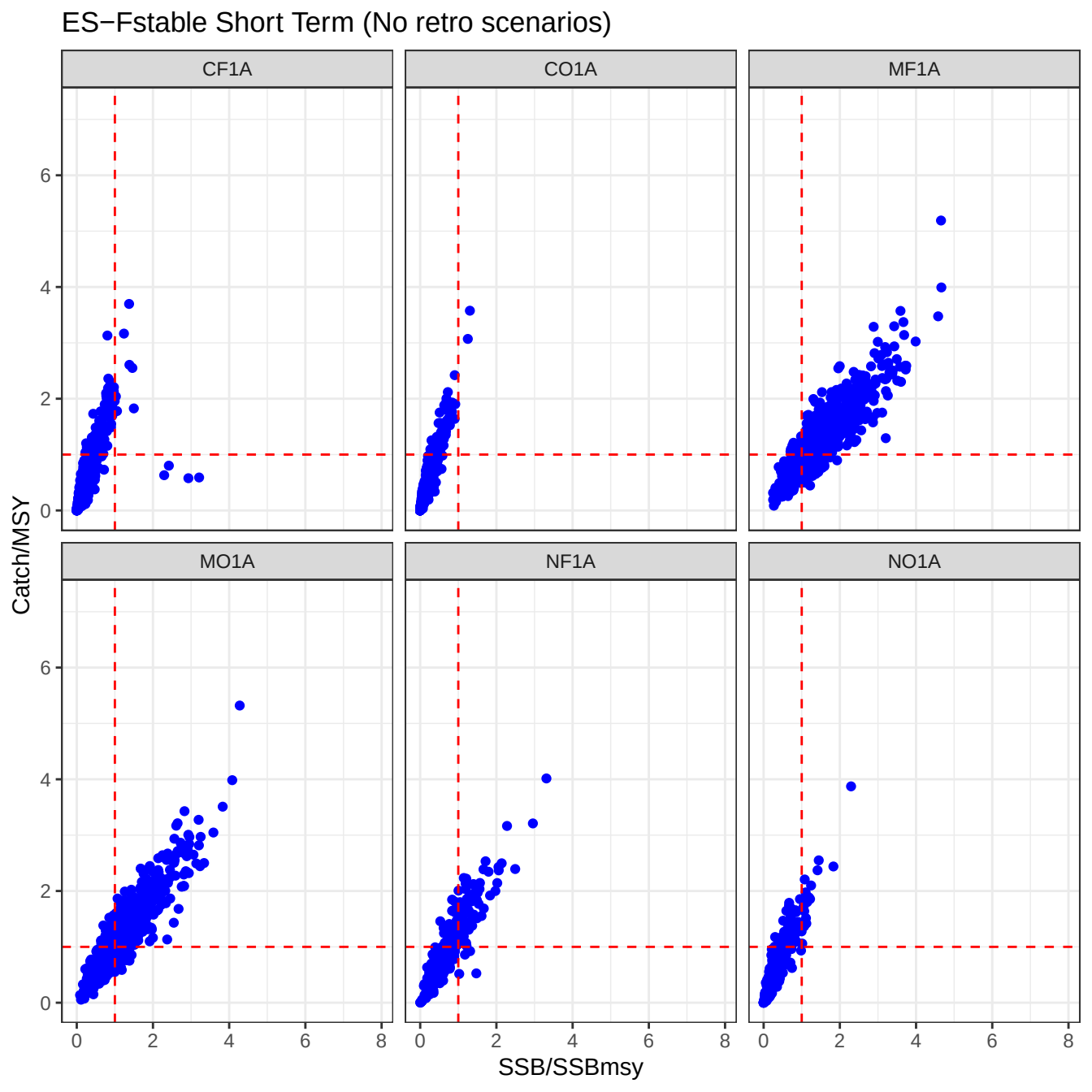

CC−FSPR Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
0
5
10

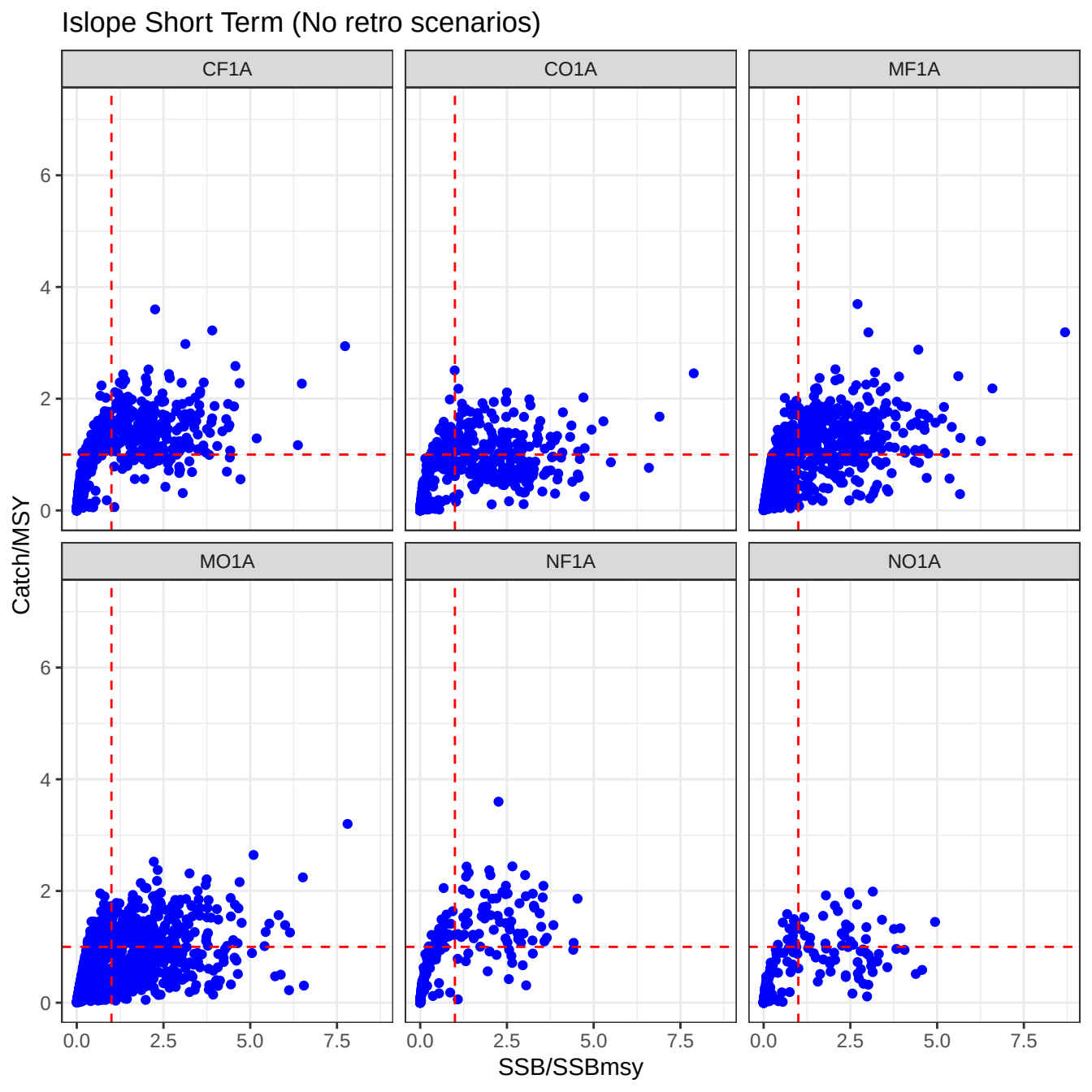

Ensemble Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

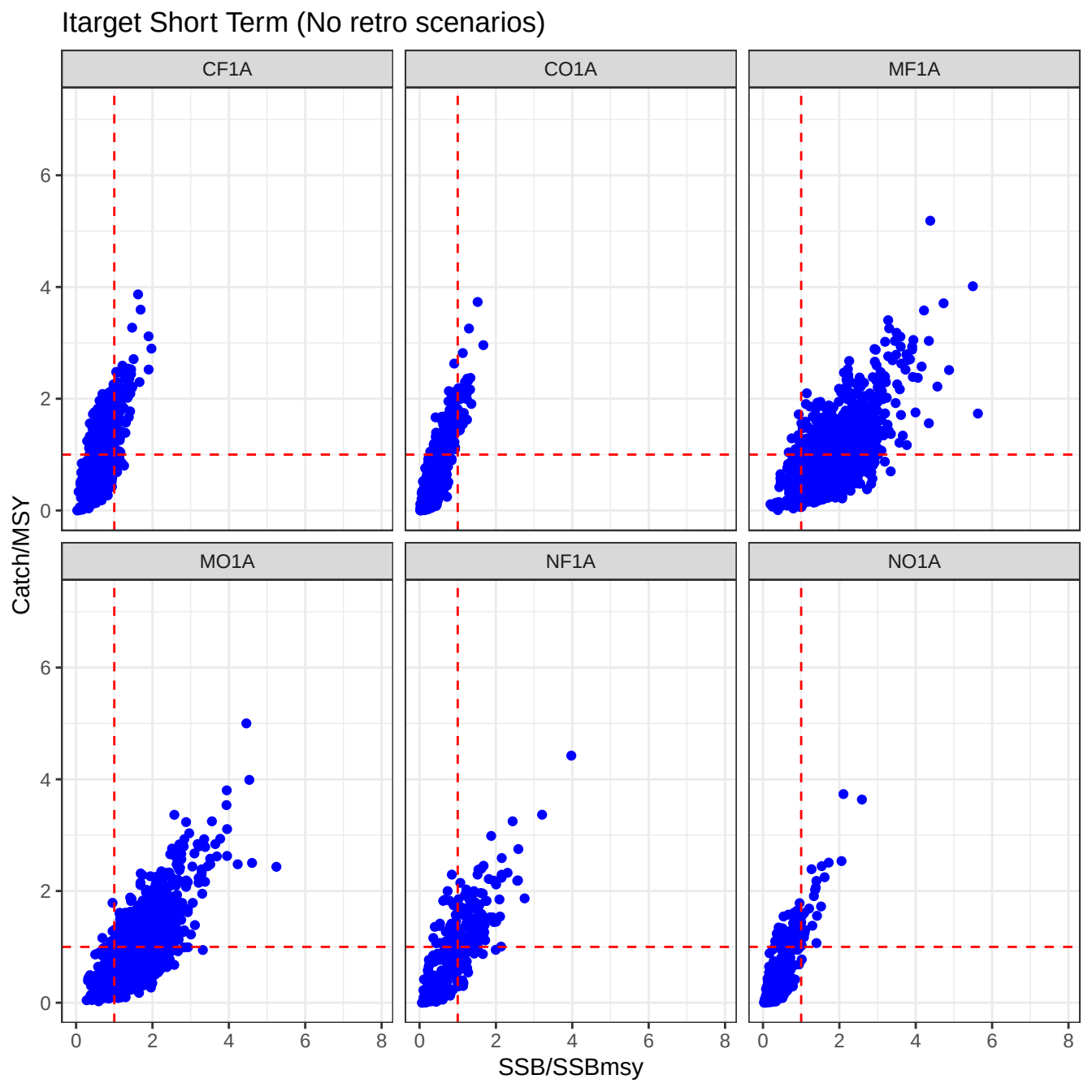

ES−FM Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

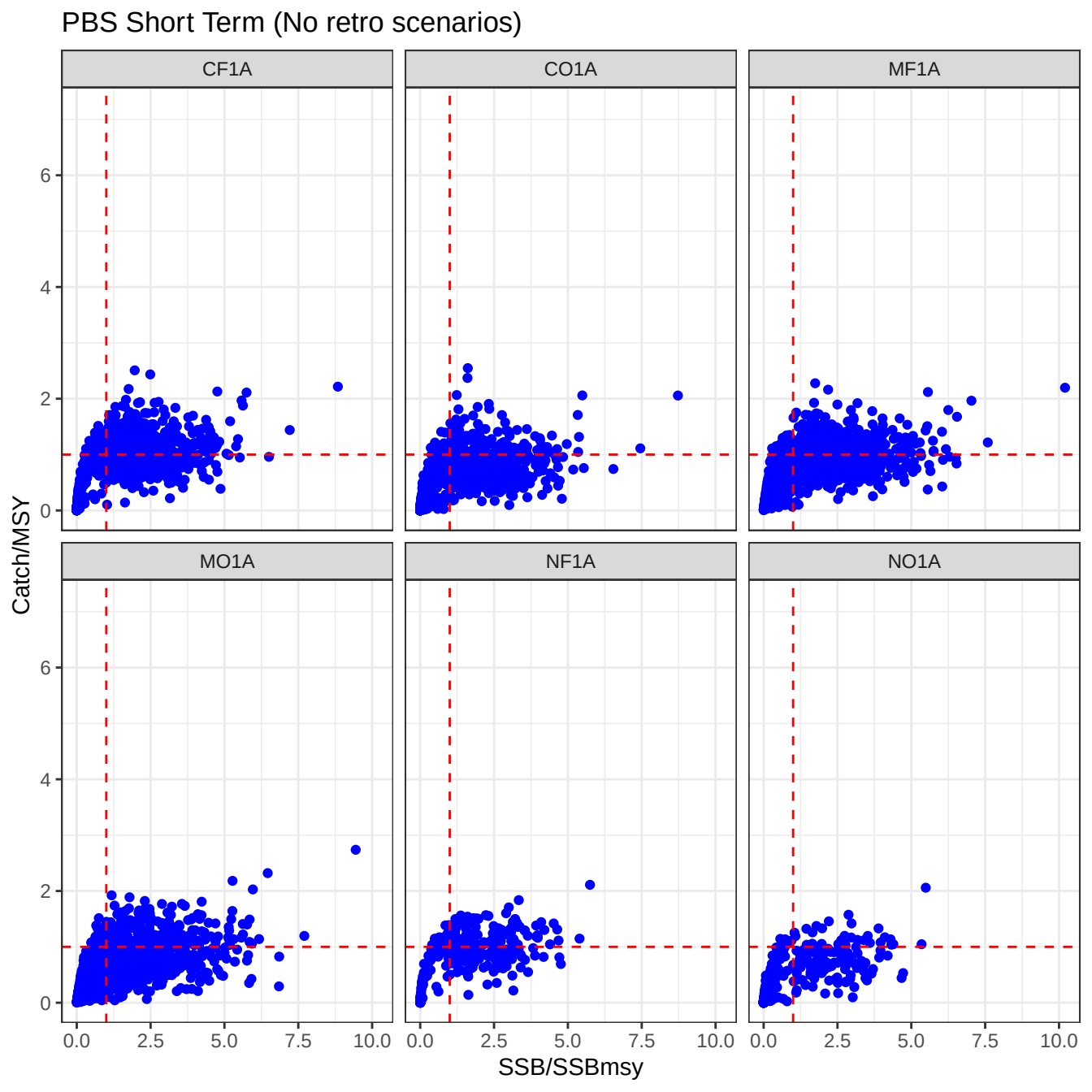

ES−Frecent Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

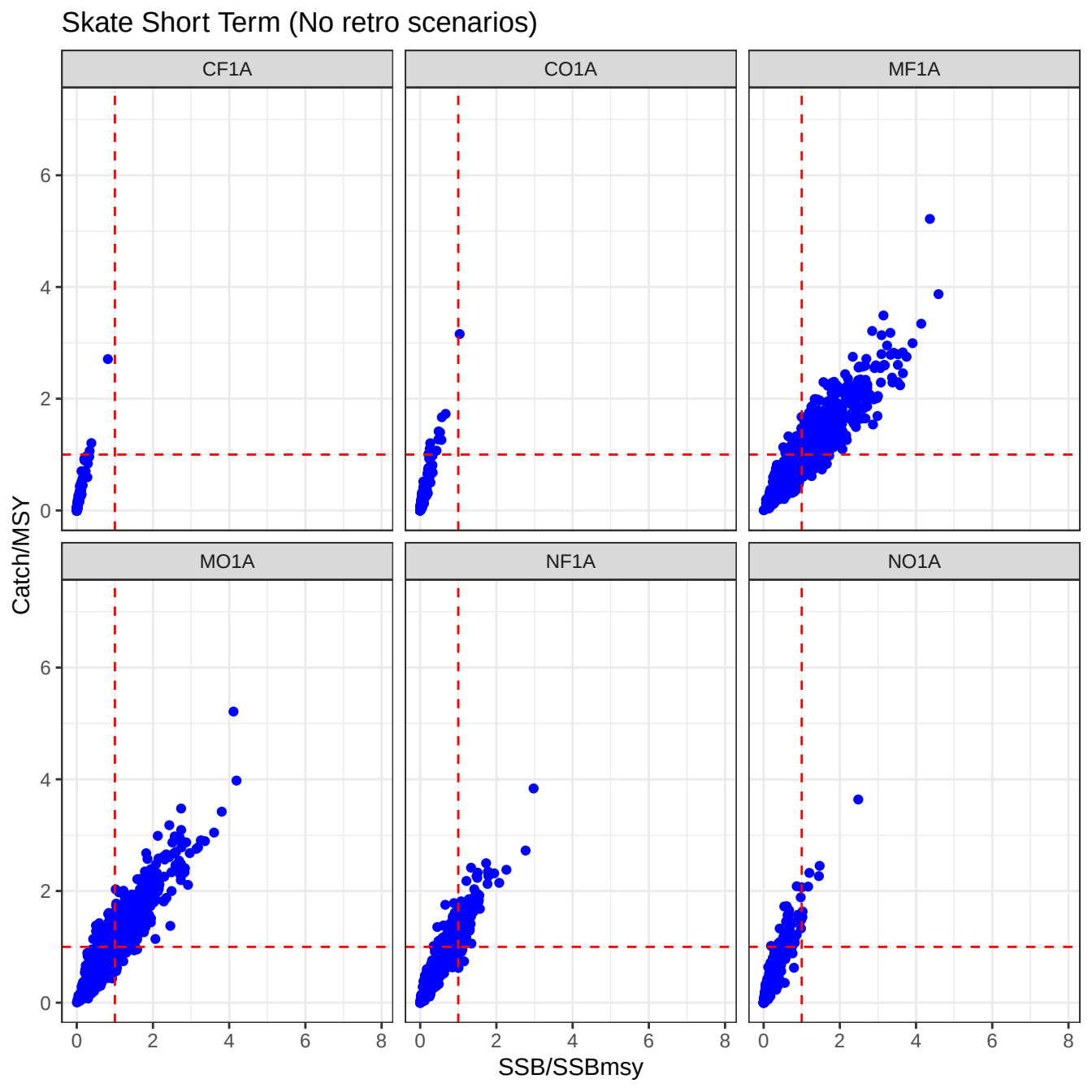

ES−FSPR Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

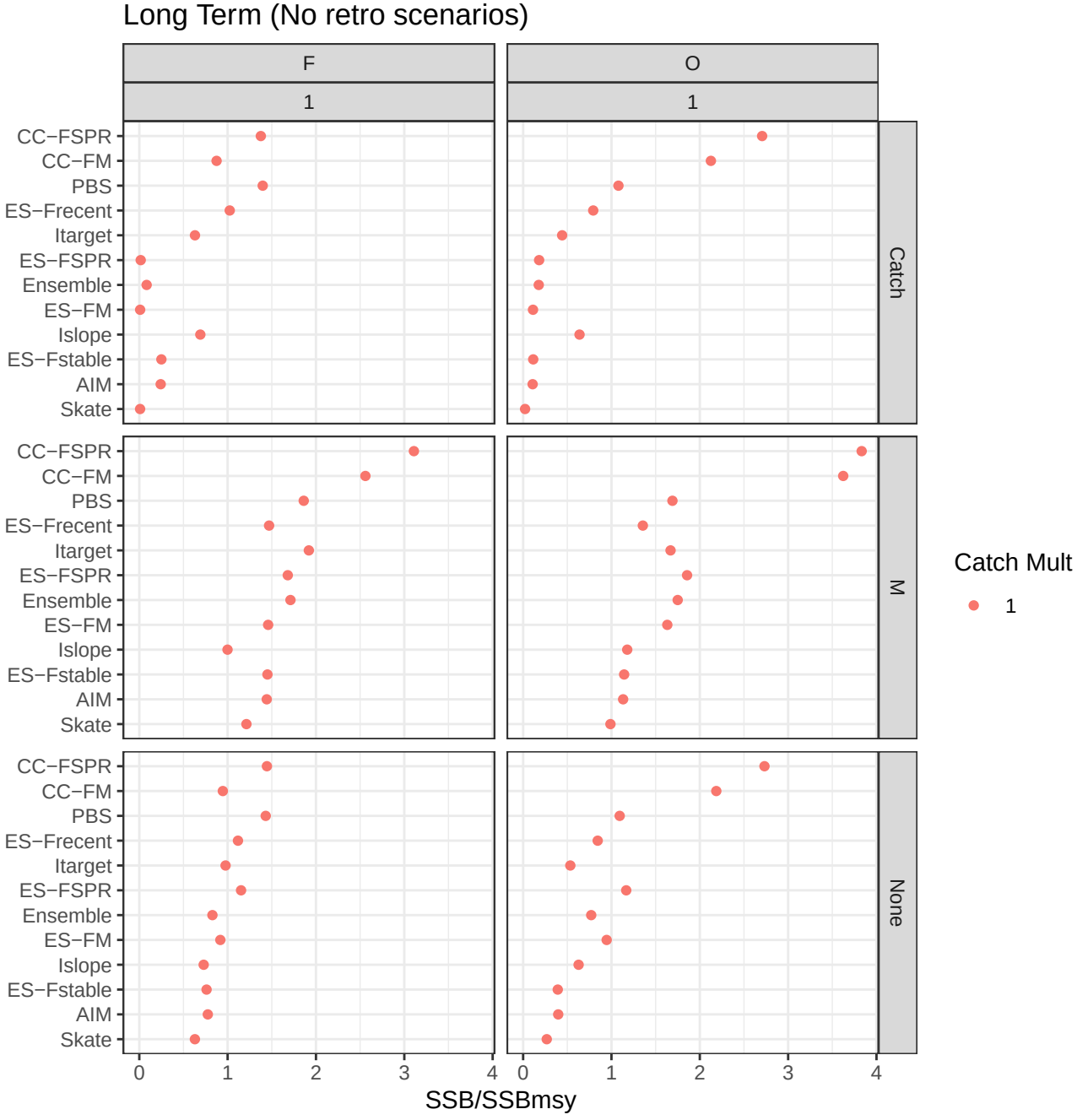

ES−Fstable Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

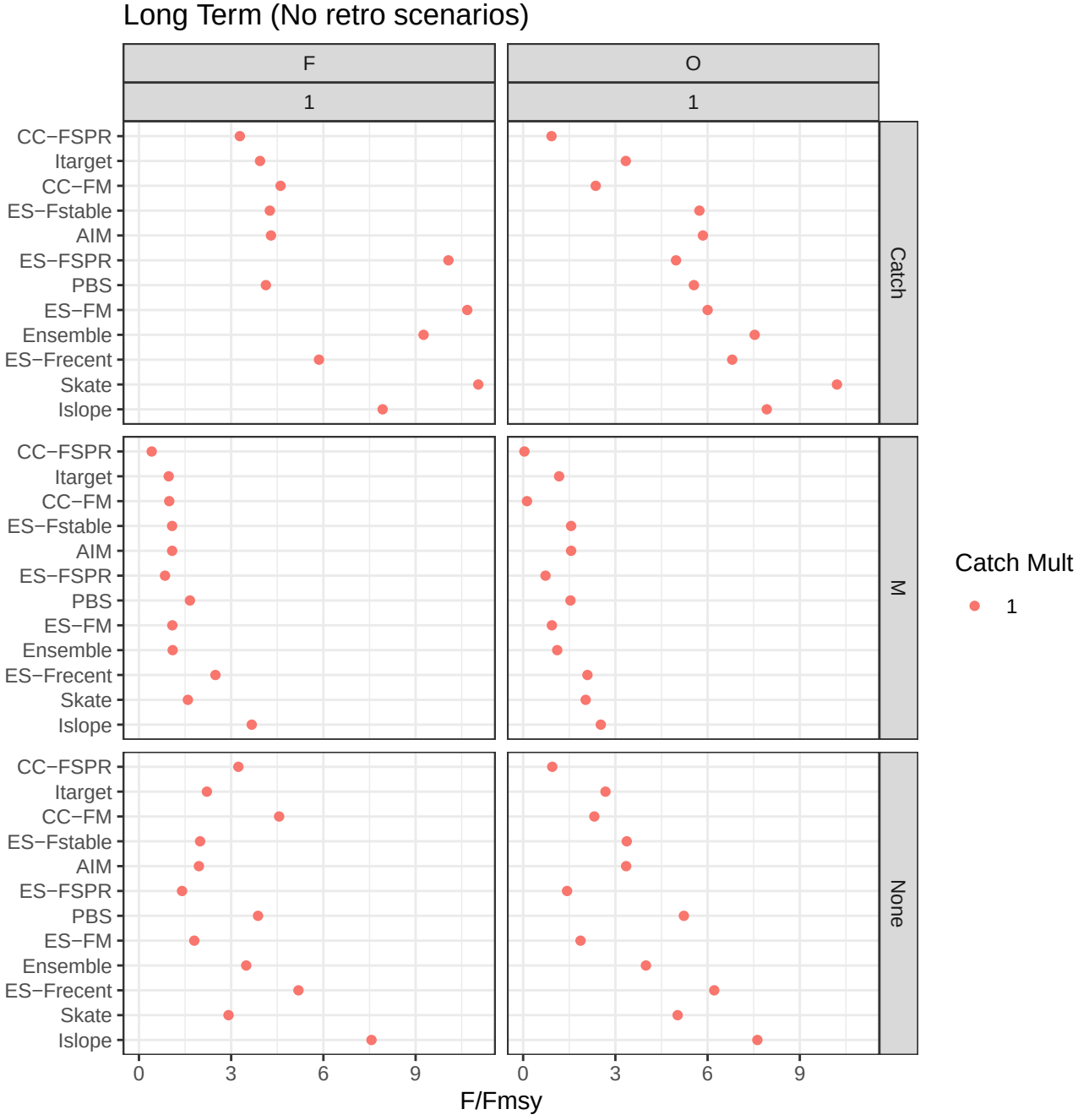

Islope Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
0.0
2.5
5.0
7.5

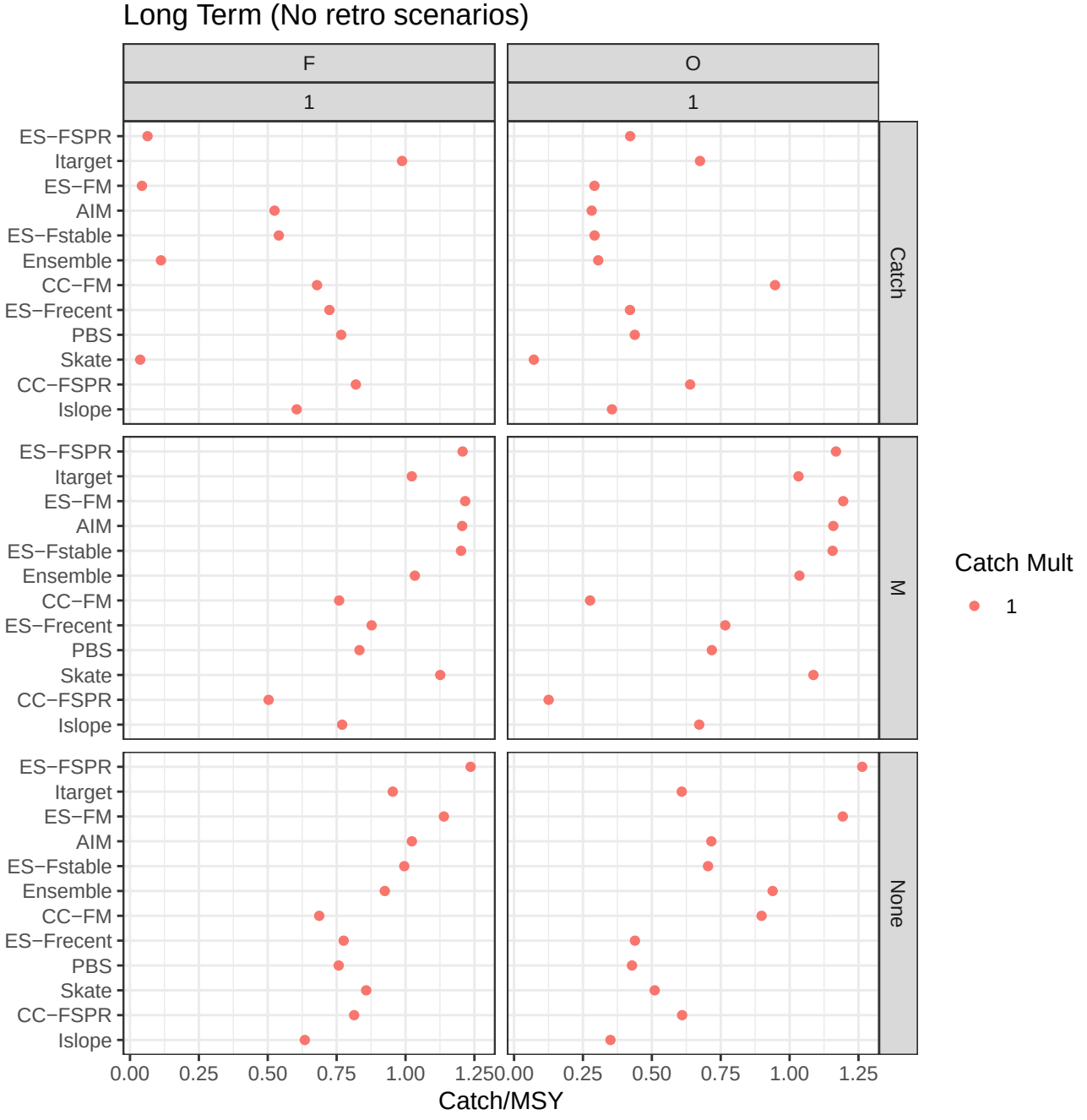

Itarget Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

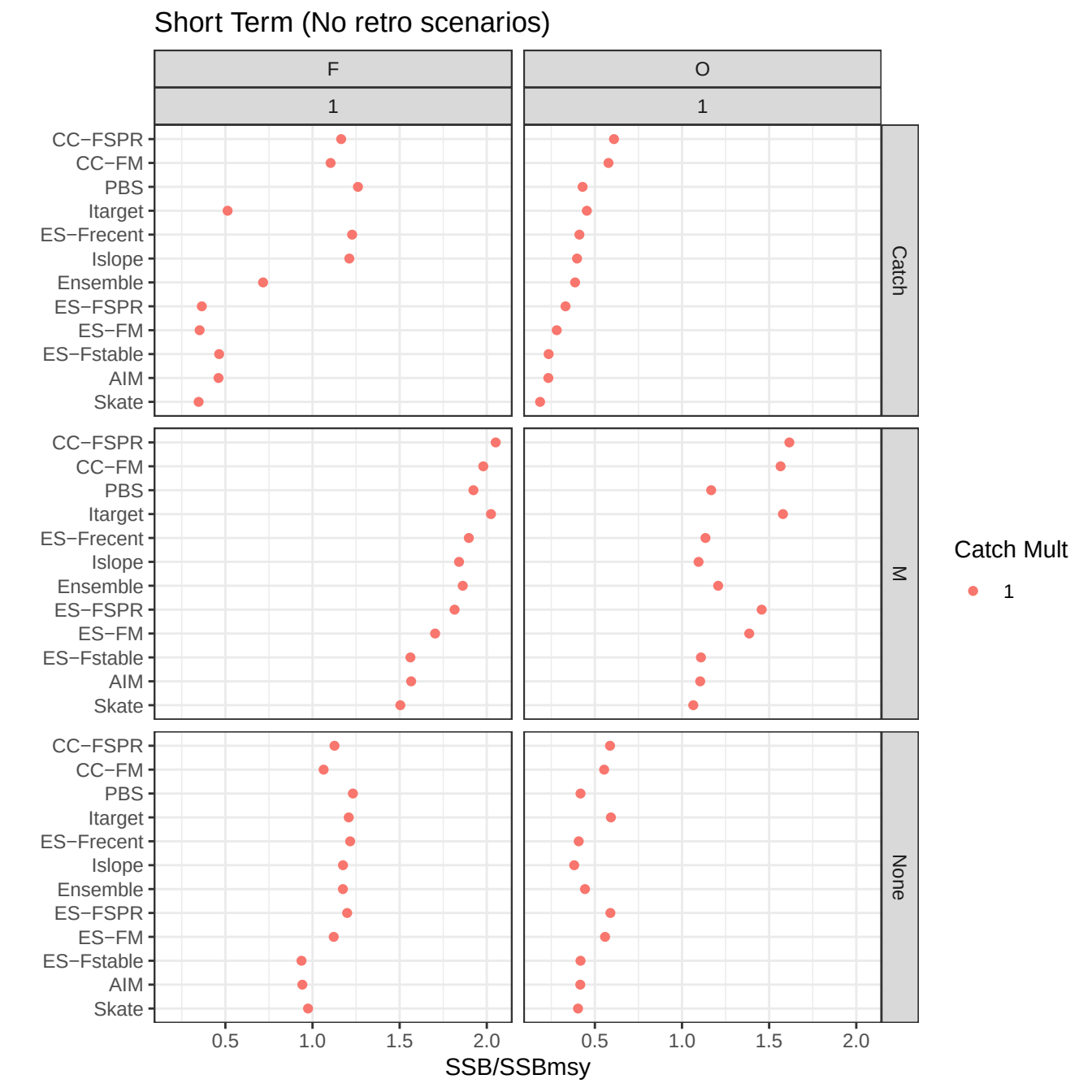

PBS Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
0.0
2.5
5.0
7.5
10.0

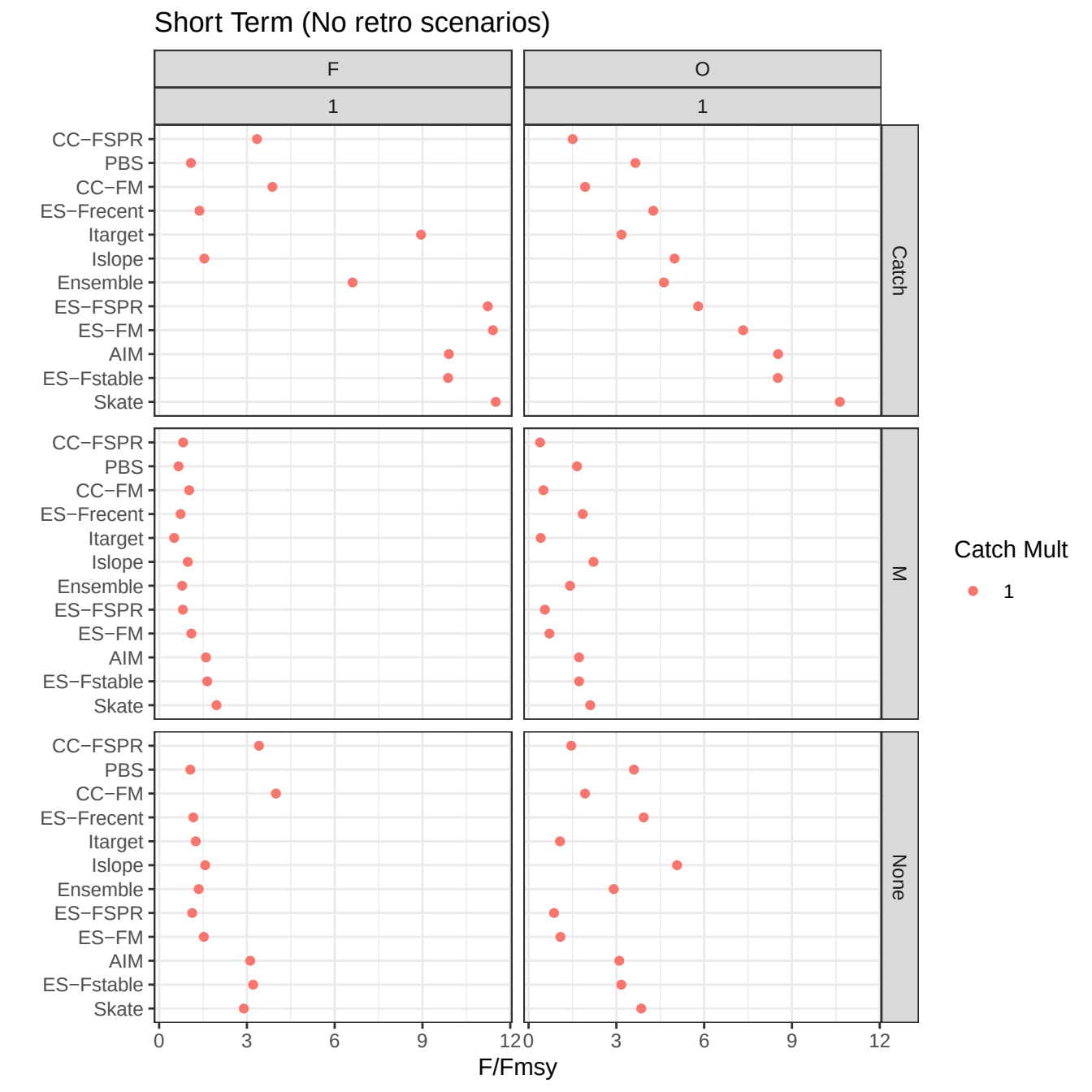

Skate Short Term (No retro scenarios)
CF1A
CO1A
MF1A
MO1A
NF1A
NO1A
Catch/MSY
SSB/SSBmsy
0
2
4
6
8

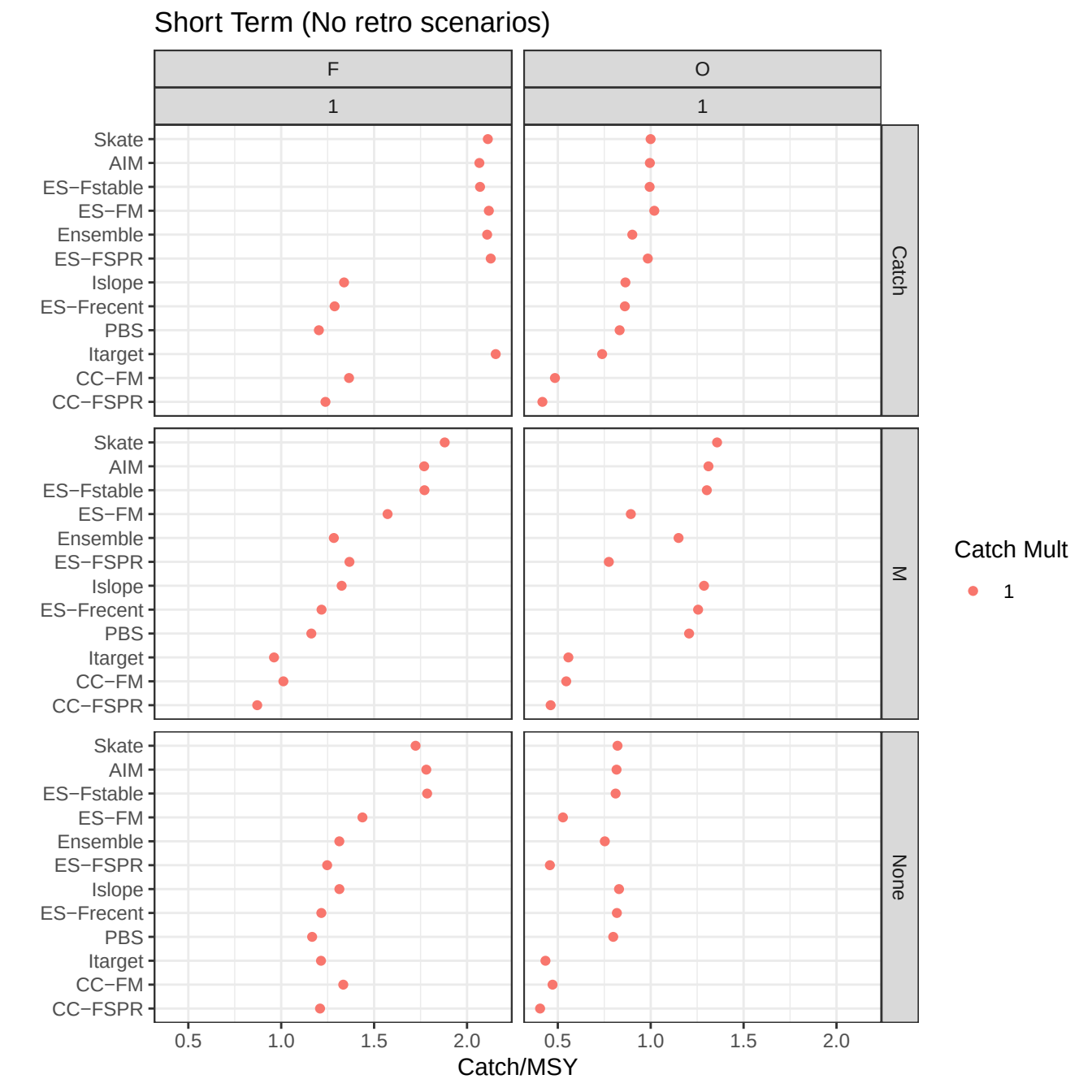

Long Term (No retro scenarios)
F
O
1
1
CC−FSPR
CC−FM
PBS
ES−Frecent
Itarget
ES−FSPR
Ensemble
ES−FM
Islope
ES−Fstable
AIM
Skate
Catch
M
None
0
1
2
3
4
SSB/SSBmsy
Catch Mult
1

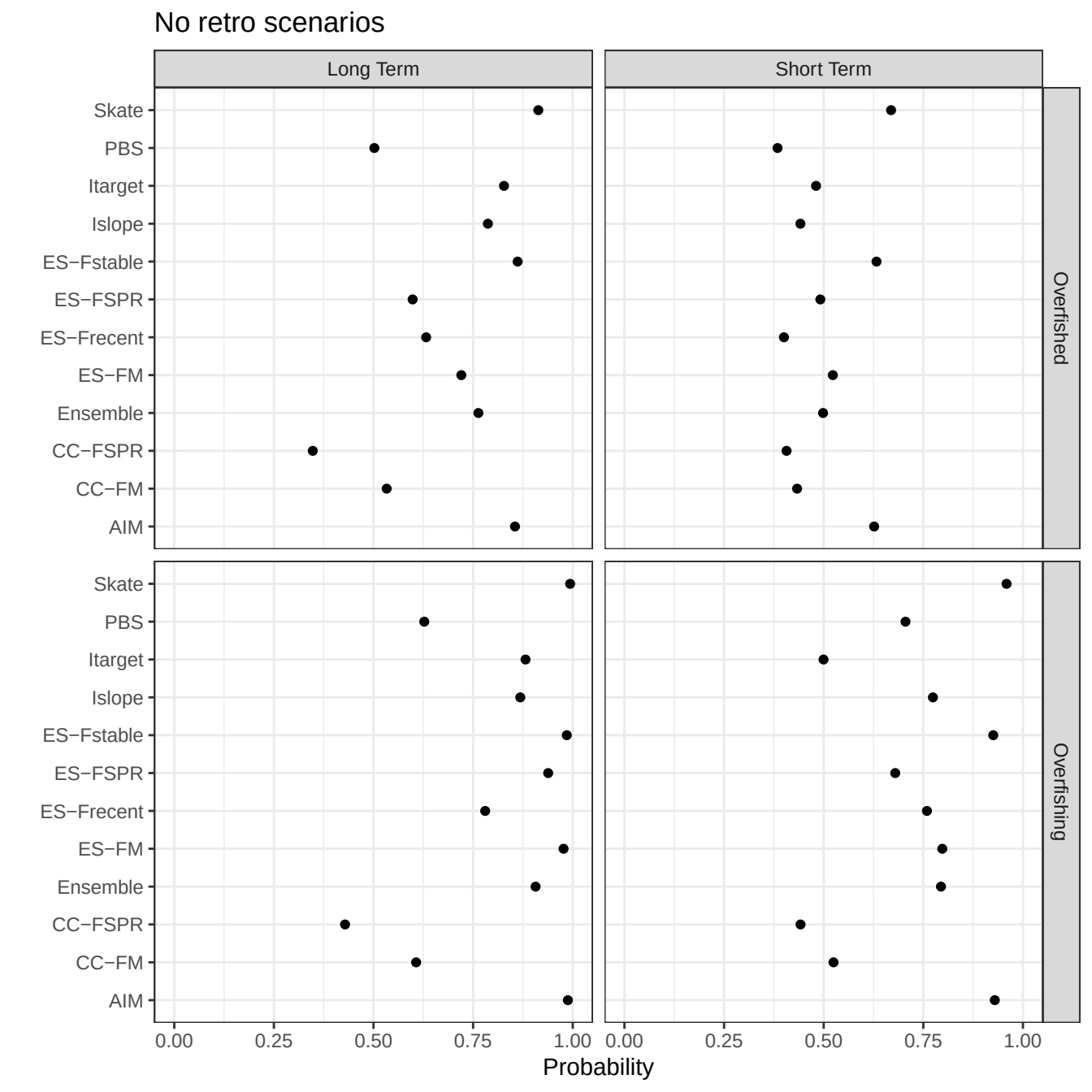

Long Term (No retro scenarios)
F
O
1
1
Catch
M
None
CC−FSPR
Itarget
CC−FM
ES−Fstable
AIM
ES−FSPR
PBS
ES−FM
Ensemble
ES−Frecent
Skate
Islope
0
3
6
9
F/Fmsy
Catch Mult
1

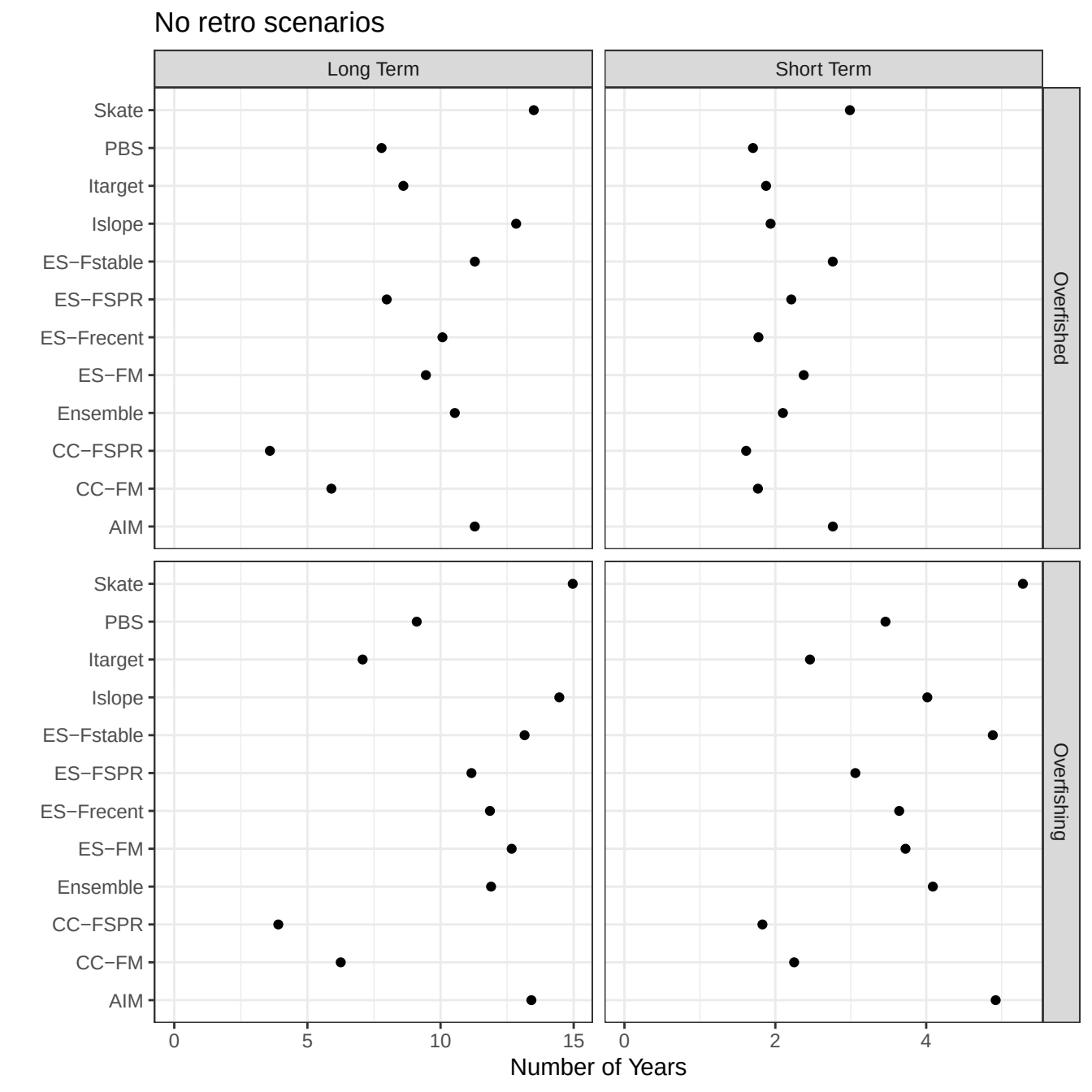

Long Term (No retro scenarios)
F
O
1
1
Catch
M
None
ES−FSPR
Itarget
ES−FM
AIM
ES−Fstable
Ensemble
CC−FM
ES−Frecent
PBS
Skate
CC−FSPR
Islope
0.00
0.25
0.50
0.75
1.00
1.25
Catch/MSY
Catch Mult
1


Short Term (No retro scenarios)
F
O
1
1
Catch
M
None
CC−FSPR
CC−FM
PBS
Itarget
ES−Frecent
Islope
Ensemble
ES−FSPR
ES−FM
ES−Fstable
AIM
Skate
0.5
1.0
1.5
2.0
SSB/SSBmsy
Catch Mult
1


Short Term (No retro scenarios)
F
O
1
1
CC−FSPR
PBS
CC−FM
ES−Frecent
Itarget
Islope
Ensemble
ES−FSPR
ES−FM
AIM
ES−Fstable
Skate
Catch
M
None
0
3
6
9
12
F/Fmsy
Catch Mult
1


Short Term (No retro scenarios)
F
O
1
1
Skate
AIM
ES−Fstable
ES−FM
Ensemble
ES−FSPR
Islope
ES−Frecent
PBS
Itarget
CC−FM
CC−FSPR
Catch
M
None
0.5
1.0
1.5
2.0
Catch/MSY
Catch Mult
1


No retro scenarios
Long Term
Short Term
Overfished
Overfishing
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0.00
0.25
0.50
0.75
1.00
Probability


No retro scenarios
Long Term
Short Term
Overfished
Overfishing
Skate
PBS
Itarget
Islope
ES−Fstable
ES−FSPR
ES−Frecent
ES−FM
Ensemble
CC−FSPR
CC−FM
AIM
0
5
10
15
0
2
4
Number of Years