

SSB I\_is\_ge\_bmsy I\_is\_less\_01\_bmsy I\_is\_less\_05\_bmsy 1.00 0.75 -0.50 -0.25 -Probablity
0.00 retro\_type Catch s\_is\_ge\_bmsy s\_is\_less\_01\_bmsy s\_is\_less\_05\_bmsy M 0.75 0.50 0.25 0.00

150

100

Scenario

50

100

150

200

0

50

200

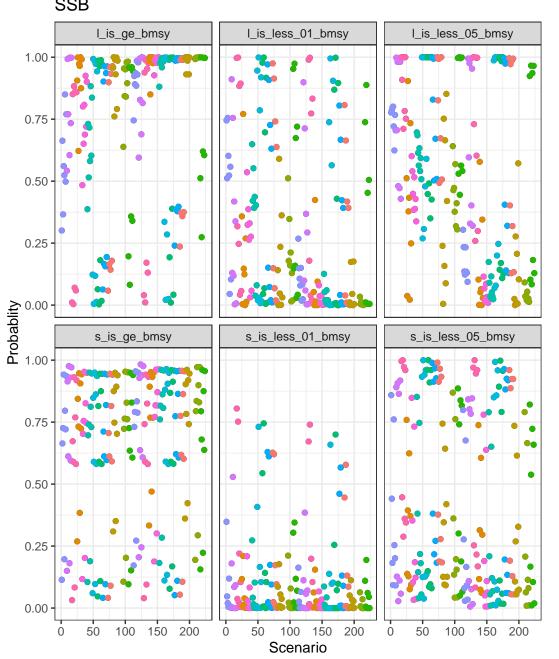
0

50

100

150

200



## **IBMlab**

- AIM
- CC-FM
- CC-FSPR
- DLM
- Ensemble
- ES-FM

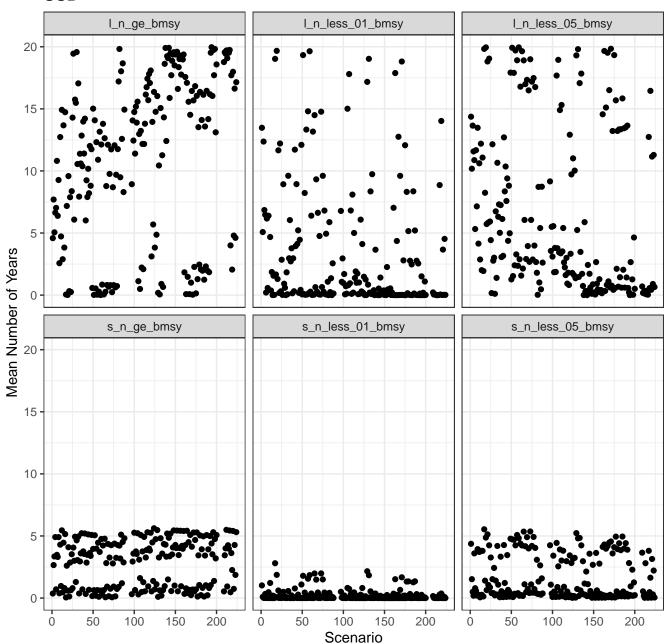
**ES-FSPR** 

- **ES-Frecent**
- ES-Fstable
- Islope
  - Itarget **PBS**
- Skate

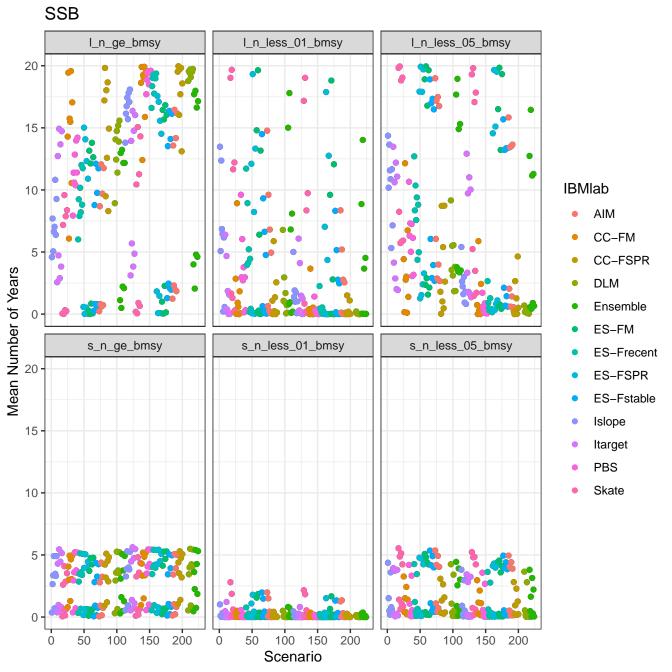
SSB I\_is\_less\_01\_bmsy I\_is\_ge\_bmsy I\_is\_less\_05\_bmsy 1.00 -0.75 -0.50 0.25 -Probablity 0.00 co.0 factor(Fhist) 1 s\_is\_ge\_bmsy s\_is\_less\_01\_bmsy s\_is\_less\_05\_bmsy 2 0.75 0.50 0.25 0.00 200 100 150 50 100 150 0 50 200 0 50 100 150 200 Scenario

SSB I\_is\_ge\_bmsy I\_is\_less\_01\_bmsy l\_is\_less\_05\_bmsy 1.00 0.75 -0.50 -0.25 -Probablity 00.00 factor(n\_selblocks) s\_is\_ge\_bmsy s\_is\_less\_01\_bmsy s\_is\_less\_05\_bmsy 2 0.75 0.50 -0.25 0.00 100 150 200 50 100 150 200 50 50 100 150 200 0 Scenario

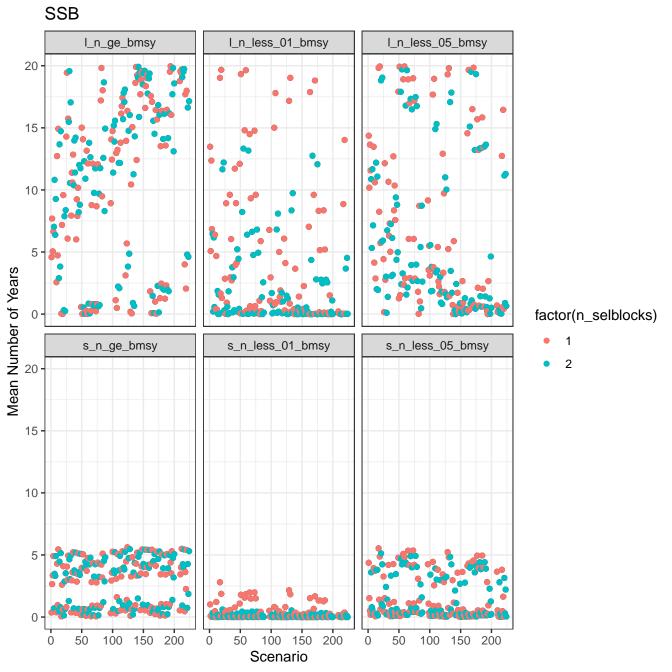
SSB I\_is\_ge\_bmsy I\_is\_less\_01\_bmsy I\_is\_less\_05\_bmsy 1.00 0.75 -0.50 -0.25 -Probablity
0.00 factor(catch.mult) 0.75 s\_is\_ge\_bmsy s\_is\_less\_01\_bmsy s\_is\_less\_05\_bmsy 1.00 0.75 0.50 0.25 0.00 100 150 50 100 150 200 0 50 200 50 100 150 200 0 Scenario

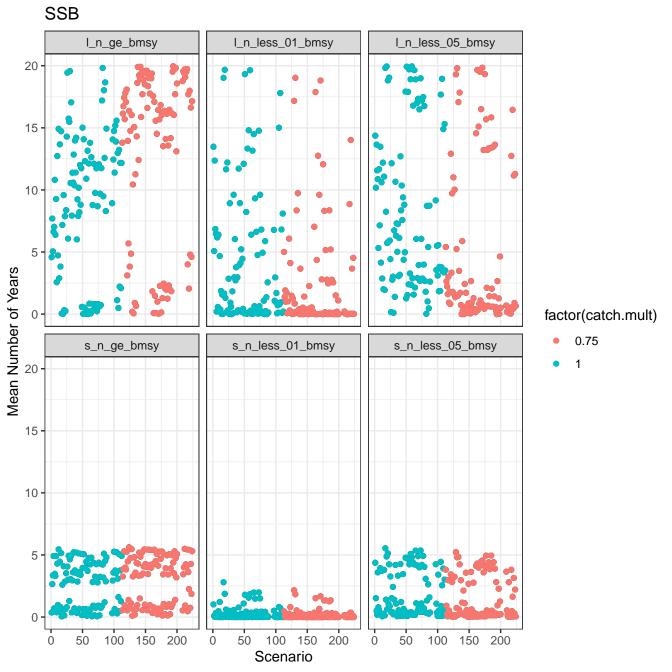


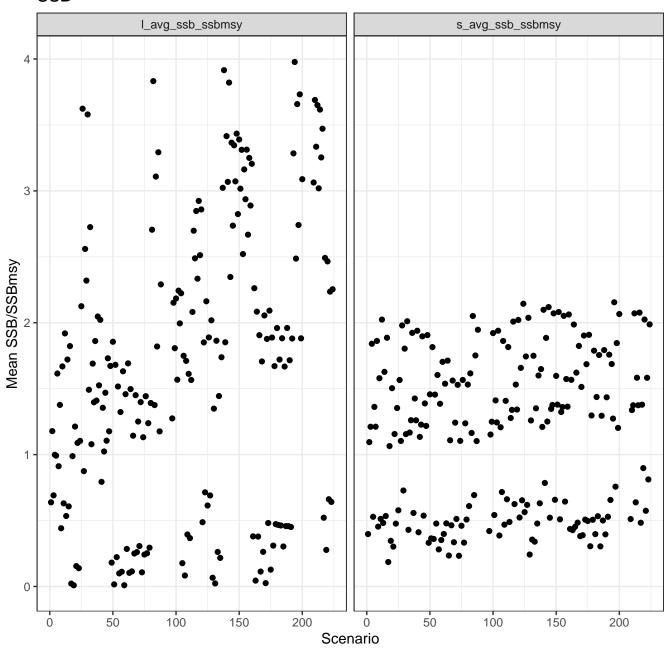
SSB I\_n\_ge\_bmsy I\_n\_less\_01\_bmsy I\_n\_less\_05\_bmsy 20 -15 -10 -Mean Number of Years retro\_type Catch s\_n\_ge\_bmsy s\_n\_less\_01\_bmsy s\_n\_less\_05\_bmsy M 15 -10 -100 150 50 100 150 200 0 50 200 50 100 150 200 Scenario

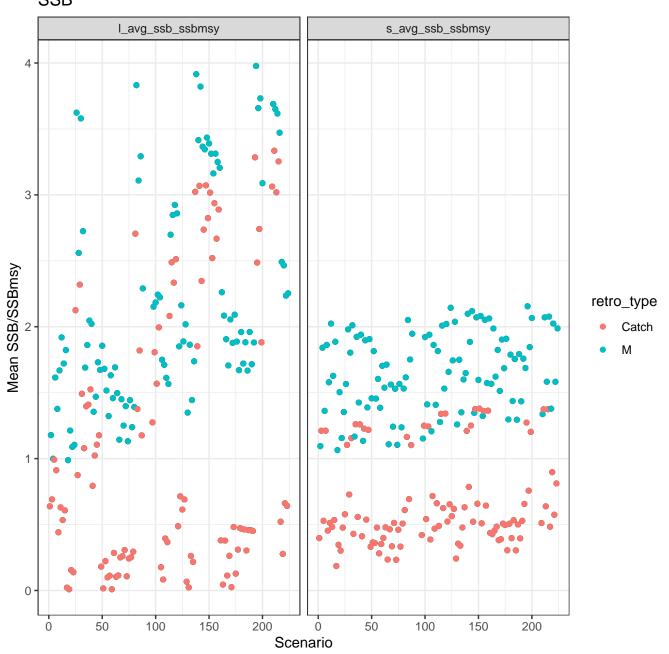


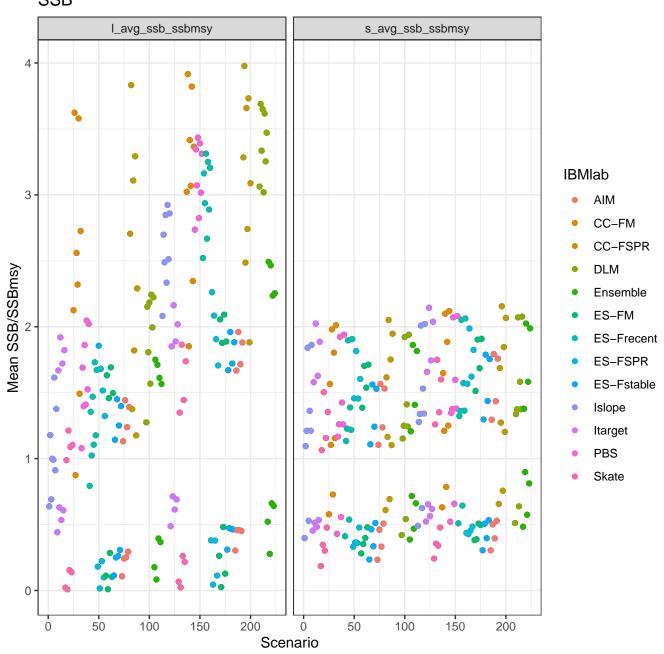
SSB I\_n\_ge\_bmsy I\_n\_less\_01\_bmsy I\_n\_less\_05\_bmsy 20 -15 -10 -Mean Number of Years factor(Fhist) 1 s\_n\_ge\_bmsy s\_n\_less\_01\_bmsy s\_n\_less\_05\_bmsy 2 15 -10 -100 150 200 50 100 150 200 50 0 50 100 150 200 0 Scenario

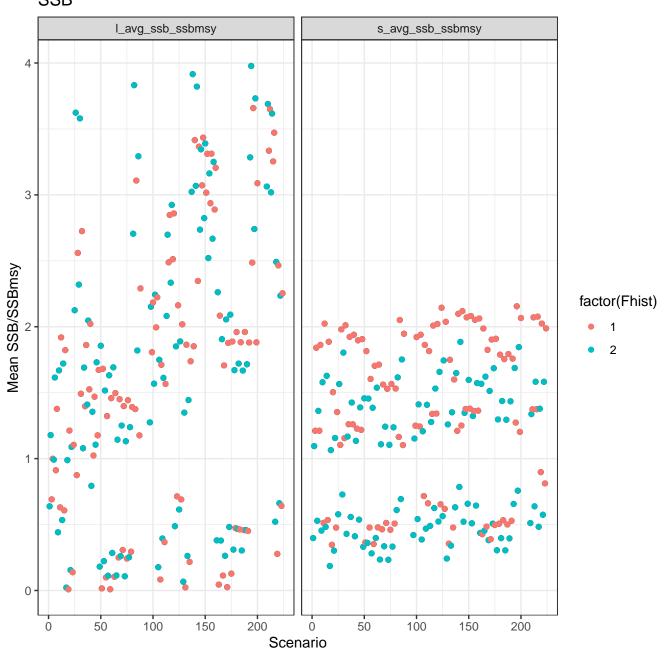


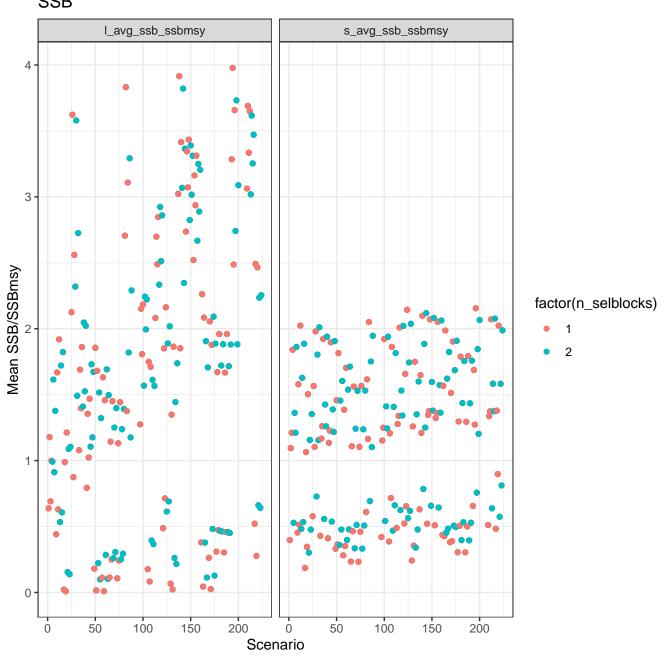


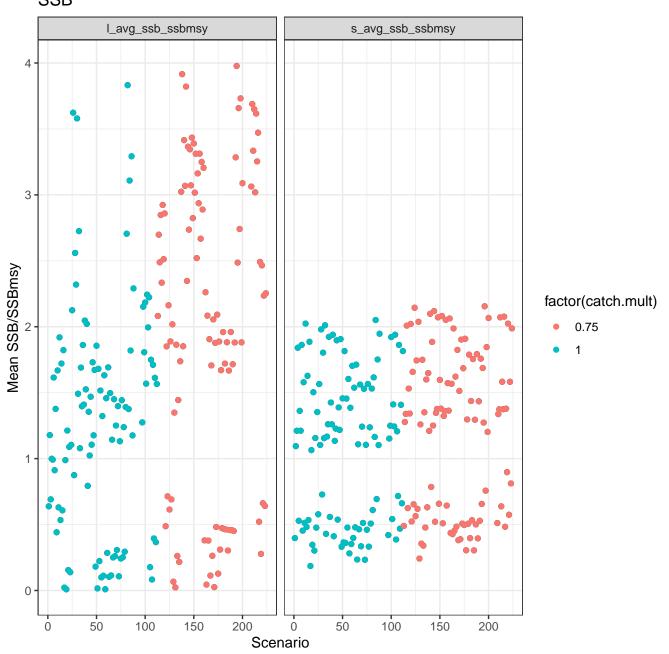


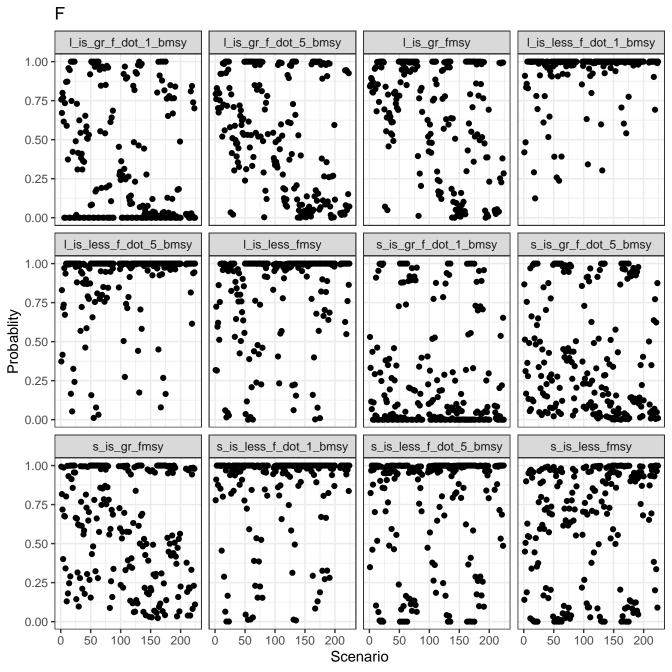


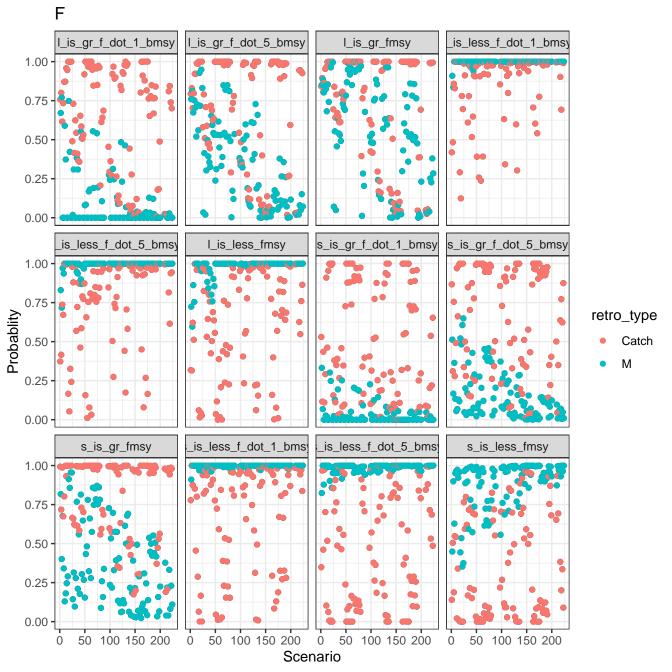


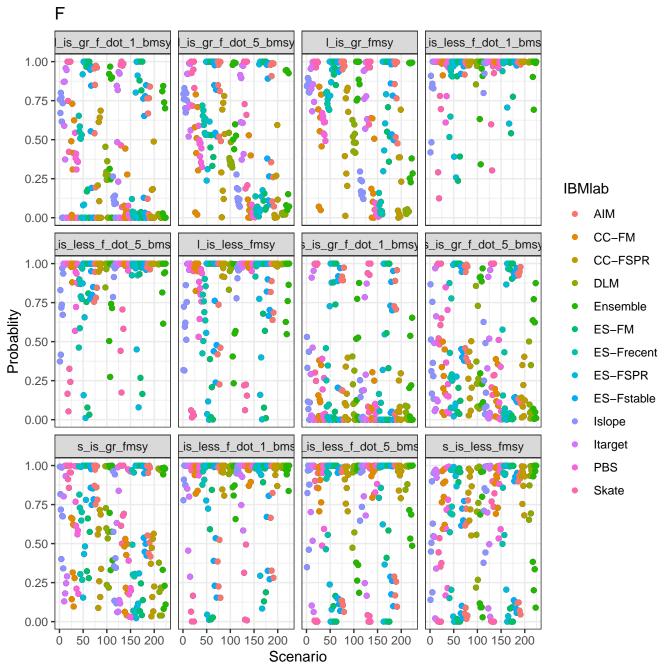


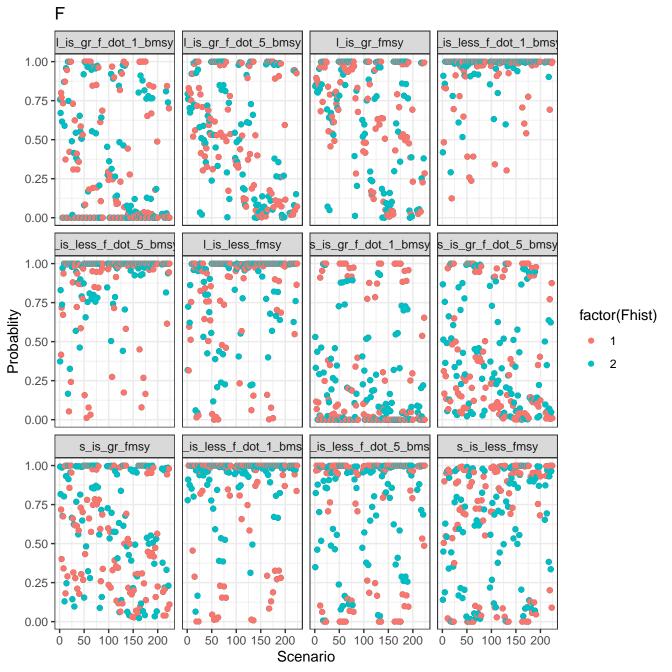


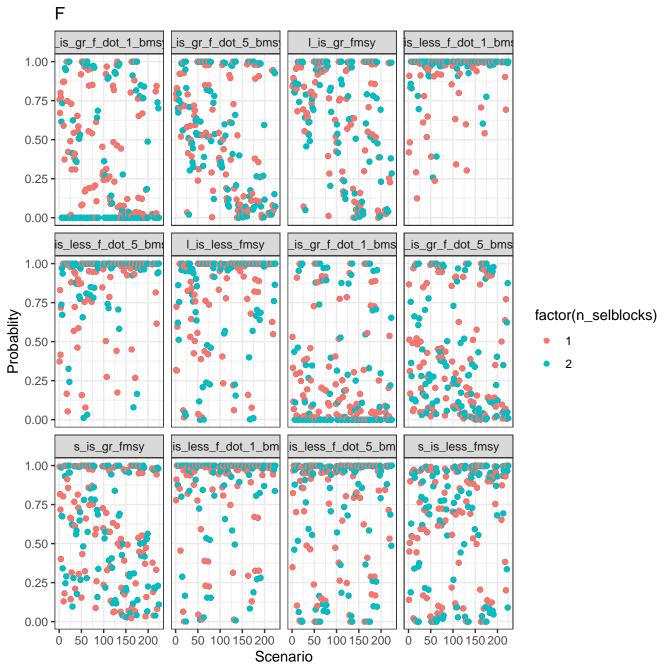


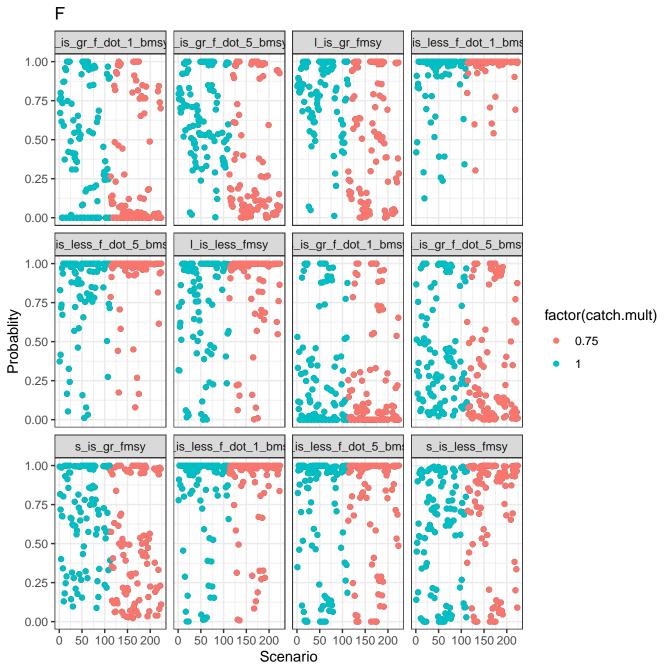


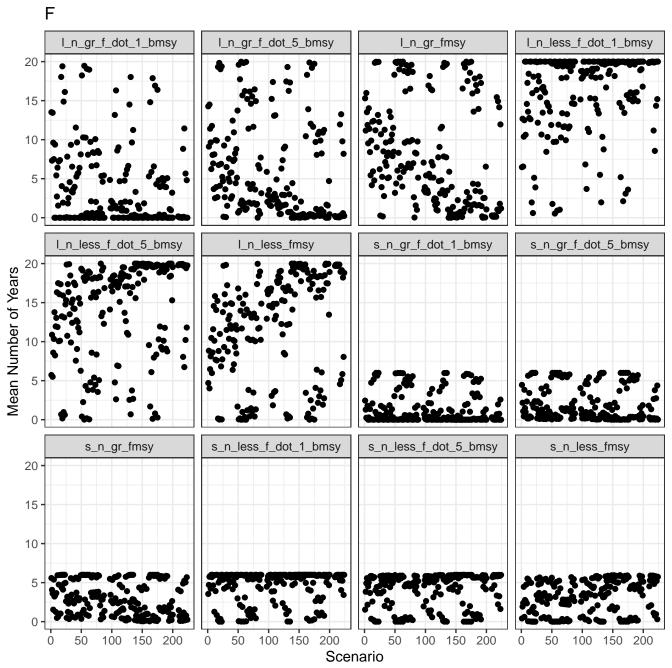


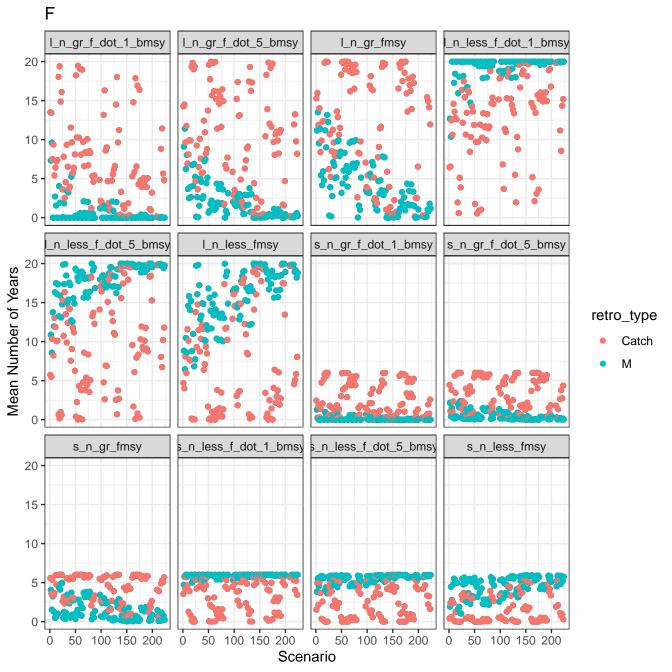


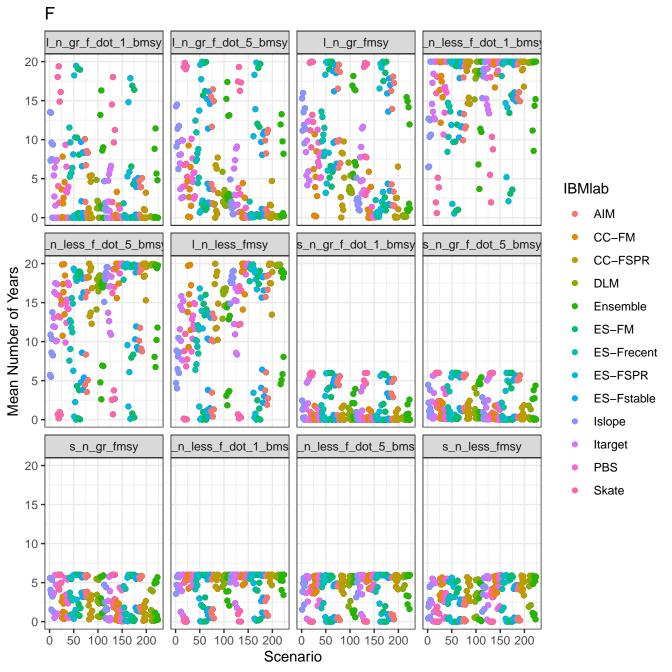


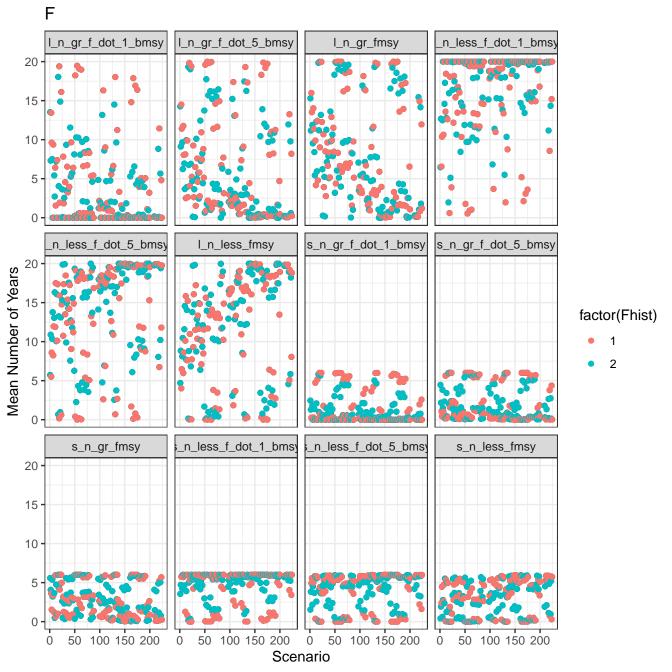


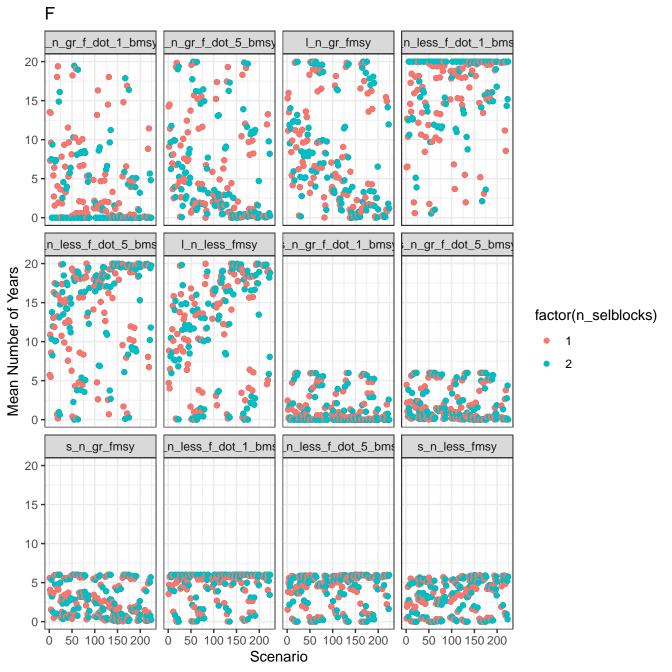


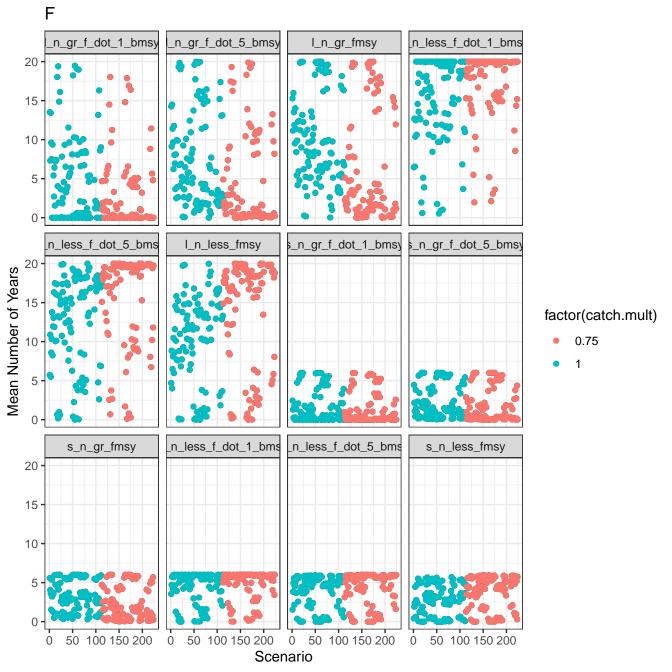


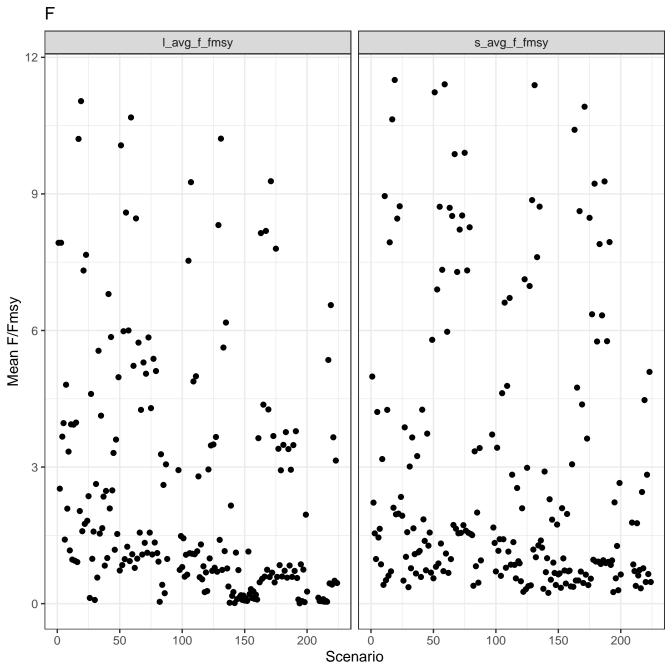


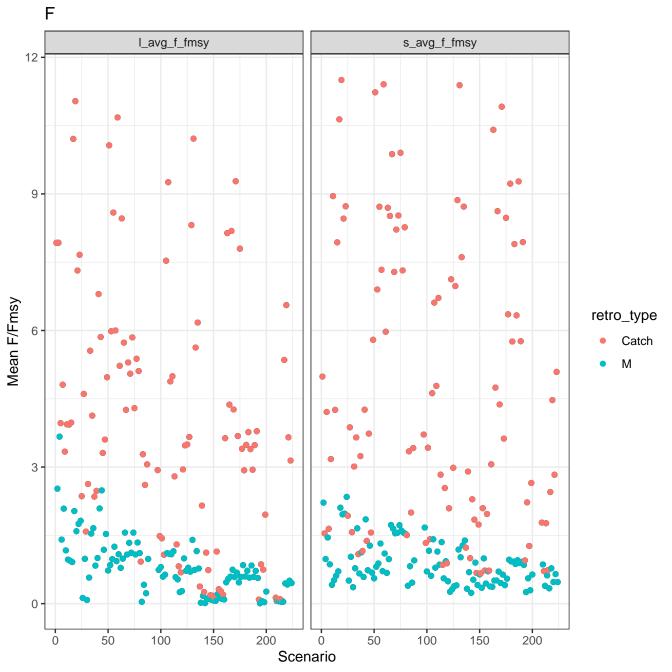


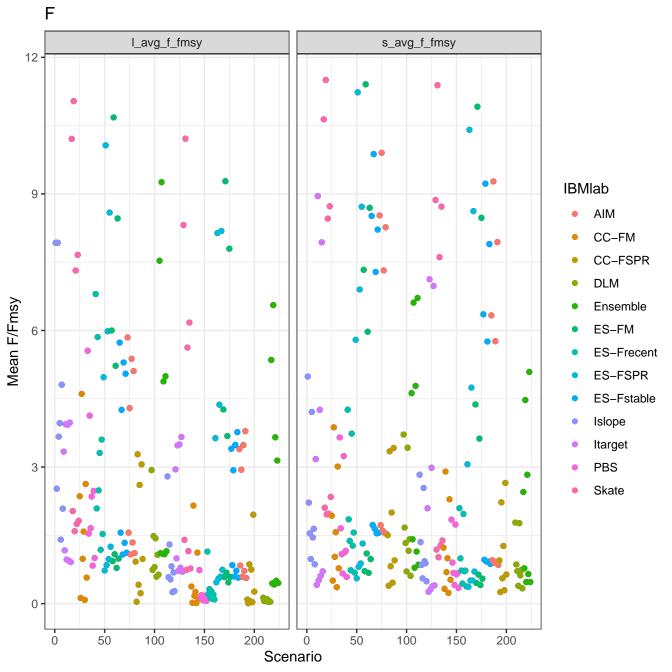


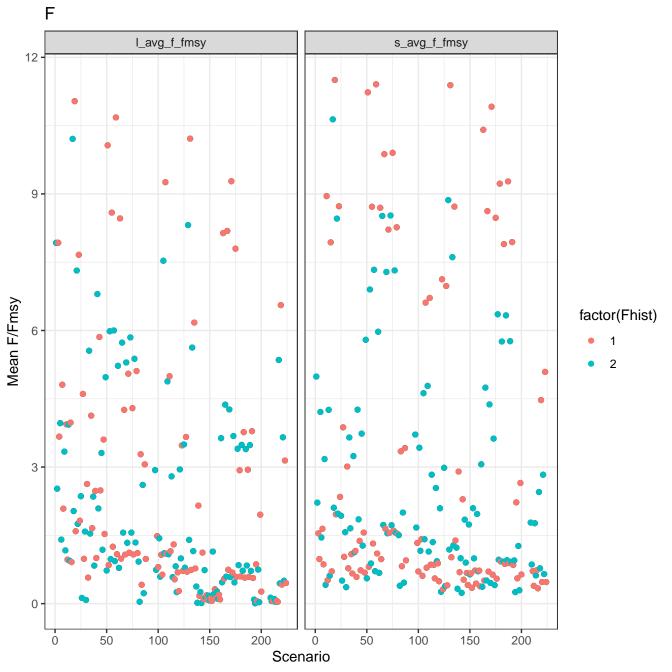


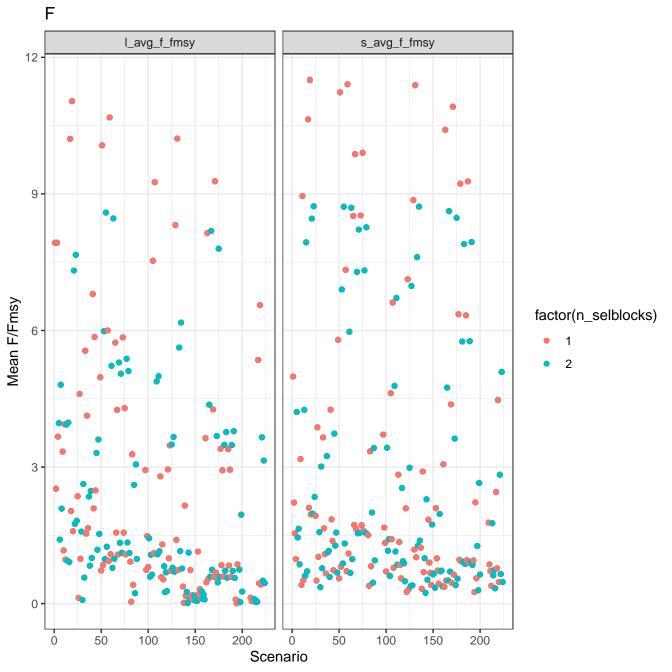


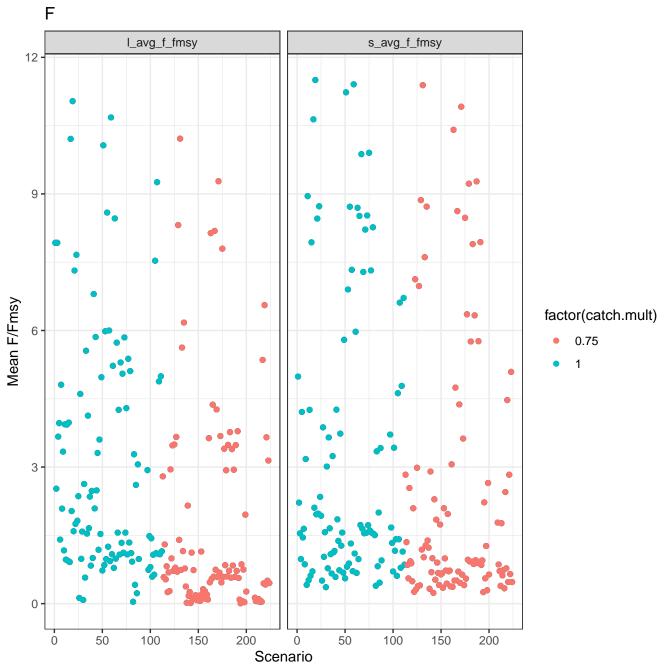


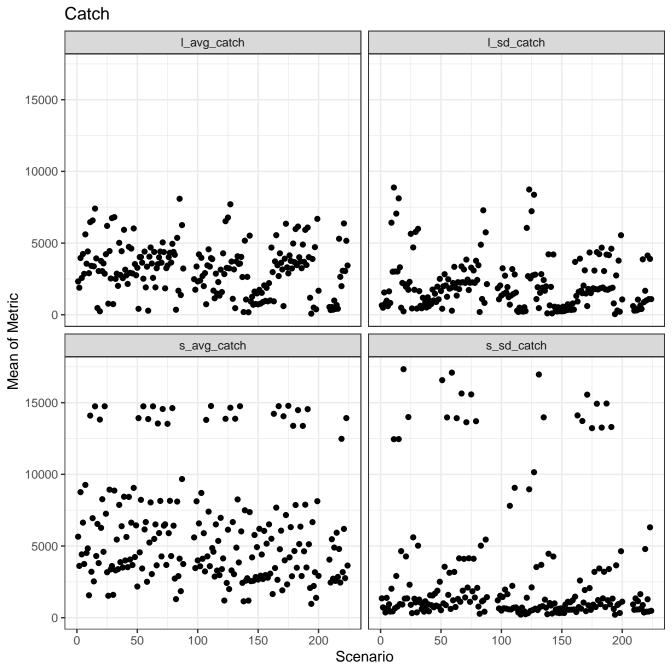




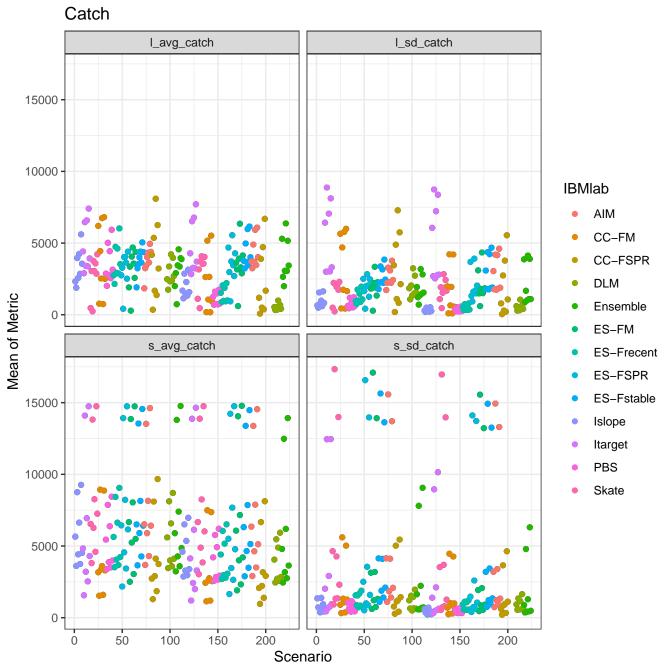


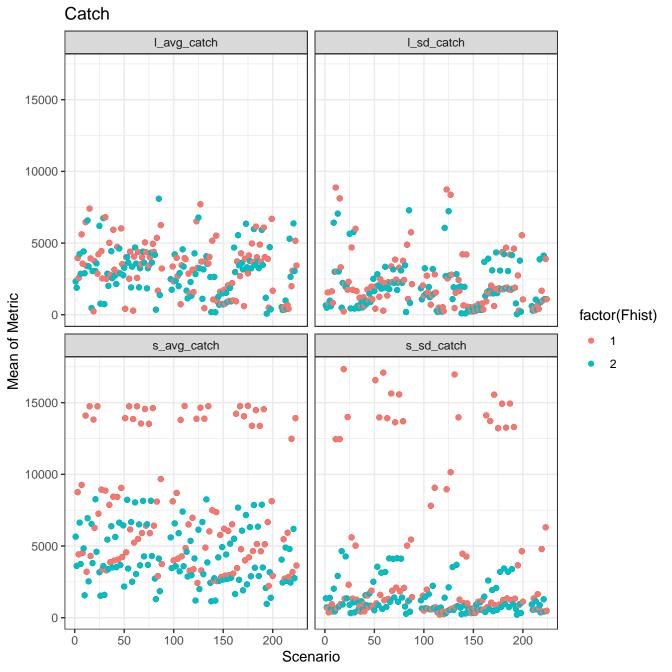


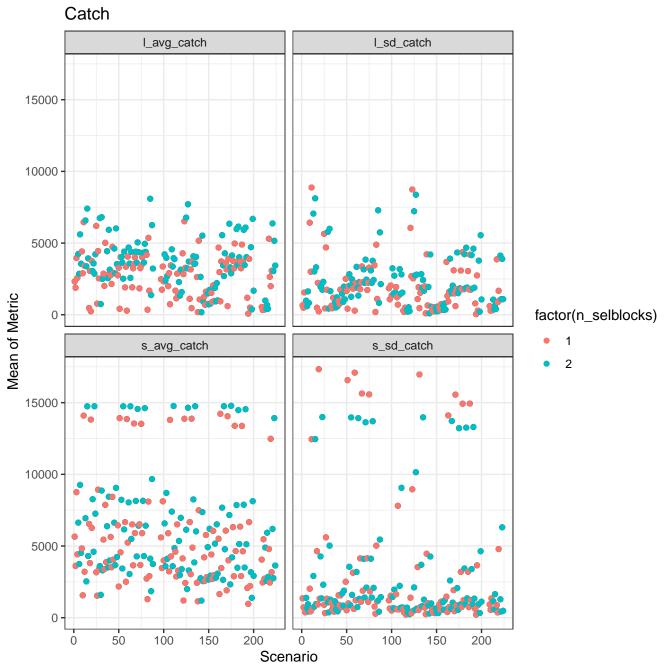


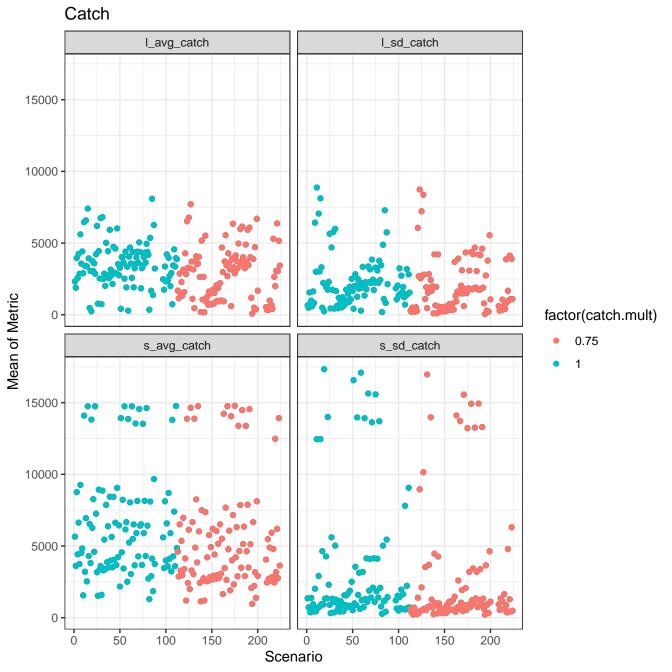


Catch I\_avg\_catch I\_sd\_catch 15000 -10000 -5000 -Mean of Metric 0 retro\_type Catch s\_sd\_catch s\_avg\_catch Μ 15000 -10000 -5000 0 -50 100 150 200 50 100 150 200 Scenario









Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 1.5 -Mean Catch/MSY 1588 0.5 0.0 -50 Ö 100 150 200 Ö 50 100 200 150 Scenario

Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 1.5 -Mean Catch/MSY retro\_type Catch Μ 0.5 0.0 -150 200 50 50 100 100 150 200 Ö Ö Scenario

## Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 **IBMlab** AIM CC-FM 1.5 CC-FSPR DLM Mean Catch/MSY Ensemble ES-FM ES-Frecent ES-FSPR ES-Fstable Islope Itarget **PBS** 0.5 Skate 0.0

100

50

150

200

50

0

100

150

200

Ö

Scenario

Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 1.5 -Mean Catch/MSY factor(Fhist) 2 0.5 0.0 -50 100 150 200 50 100 200 Ö 150 Scenario

Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 1.5 -Mean Catch/MSY factor(n\_selblocks) 2 0.5 0.0 50 150 200 100 100 50 200 Ö 150 Scenario

Catch I\_avg\_catch\_msy s\_avg\_catch\_msy 2.0 1.5 -Mean Catch/MSY factor(catch.mult) 0.75 0.5 0.0 -50 200 100 150 50 100 150 200 Ö Scenario

Catch a\_iav\_catch I\_iav\_catch 2.0 1.5 1.0 0.5 Mean of Metric s\_iav\_catch I\_prop\_g\_msy\_2\_of\_3 2.0 1.5 1.0 0.5 0.0 50 100 150 200 50 100 200 150 Ö Scenario

Catch I\_iav\_catch a\_iav\_catch 2.0 1.5 1.0 0.5 Mean of Metric retro\_type Catch s\_iav\_catch I\_prop\_g\_msy\_2\_of\_3 Μ 2.0 1.5 1.0 0.5 0.0 150 50 50 100 200 100 150 200 Ö Scenario

