> FITs <- eqsr\_fit(TUR, nsamp = nits, models = c( "Segreg"), remove.years=c((dims(TUR)$maxyear - 2):dims(TUR)$maxyear))

Blim – Bpa

|  |  |  |
| --- | --- | --- |
|  | Blim | Bpa = 1.4 \* Blim |
| 2016 | 4554.63 | 6376.482 |
| 2015 | 3775.536 | 5285.751 |
| 2014 | 4055.594 | 5677.831 |
| 2013 | 4122.854 | 5771.996 |
| 2012 | 4045.25 | 5663.349 |
| 2011 | 4269.924 | 5977.894 |

> SIMlim <- eqsim\_run(FITs, bio.years = c((dims(TUR)$maxyear - 10), dims(TUR)$maxyear), bio.const = FALSE,sel.years = c((dims(TUR)$maxyear - 10), dims(TUR)$maxyear), sel.const = FALSE, Fcv=0, Fphi=0, Btrigger = 0,Blim=Blim,Bpa=NA, Fscan = seq(0,1.2,len=61),verbose=FALSE)

Flim – Fpa

|  |  |  |
| --- | --- | --- |
|  | Flim | Fpa = Flim / 1.4 |
| 2016 | 0.4976091 | 0.3554351 |
| 2015 | 0.5062685 | 0.3616204 |
| 2014 | 0.5002033 | 0.3572881 |
| 2013 | 0.4971561 | 0.3551115 |
| 2012 | 0.4975126 | 0.3553662 |
| 2011 | 0.5019426 | 0.3585304 |

> SIM\_fmsy <- eqsim\_run(FITs, bio.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), bio.const = FALSE, sel.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), sel.const = FALSE, Fcv=0.212, Fphi=0.423, Btrigger = 0,Blim=Blim, Bpa=Bpa, Fscan = seq(0,1.0,len=51),verbose=FALSE)

Fmsys without Btrigger (so Btrigger = 0) – F05

|  |  |  |
| --- | --- | --- |
|  | Fmsy with Btrigger = 0 | F05 |
| 2016 | 0.3733734 | 0.4017995 |
| 2015 | 0.3543544 | 0.4058114 |
| 2014 | 0.4024024 | 0.397541 |
| 2013 | 0.3543544 | 0.3947998 |
| 2012 | 0.3723724 | 0.3953062 |
| 2011 | 0.4044044 | 0.4032499 |

> SIM2s <- eqsim\_run(FITs, bio.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), bio.const = FALSE, sel.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), sel.const = FALSE, Fcv=0, Fphi=0, Btrigger = 0,Blim=Blim,Bpa=Bpa,Fscan = seq(0.1,0.5,len=41),verbose=FALSE)

Btrigger

|  |  |
| --- | --- |
| 2016 | 6182.443 |
| 2015 | 5873.553 |
| 2014 | 5762.224 |
| 2013 | 5928.255 |
| 2012 | 5854.371 |
| 2011 | 5901.961 |

But actually Btrigger = Bpa because stock has not been fished at Fmsy for 5 or more years

> SIM3s <- eqsim\_run(FITs, bio.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), bio.const = FALSE, sel.years = c((dims(TUR)$maxyear - 5), dims(TUR)$maxyear), sel.const = FALSE, Fcv=0.212, Fphi=0.423, Btrigger = Btrigs ,Blim=Blim,Bpa=Bpa,Fscan = seq(0,1.2,len=61),verbose=FALSE)

Fmsys with Btrigger (value from above) – F05

|  |  |  |
| --- | --- | --- |
|  | Fmsy with Btrigger | F05 |
| 2016 | 0.3733734 | 0.4835863 |
| 2015 | 0.3831832 | 0.5611892 |
| 2014 | 0.387988 | 0.4977557 |
| 2013 | 0.3855856 | 0.5002467 |
| 2012 | 0.381982 | 0.5016659 |
| 2011 | 0.3987988 | 0.4819547 |