



**NOAA  
FISHERIES**

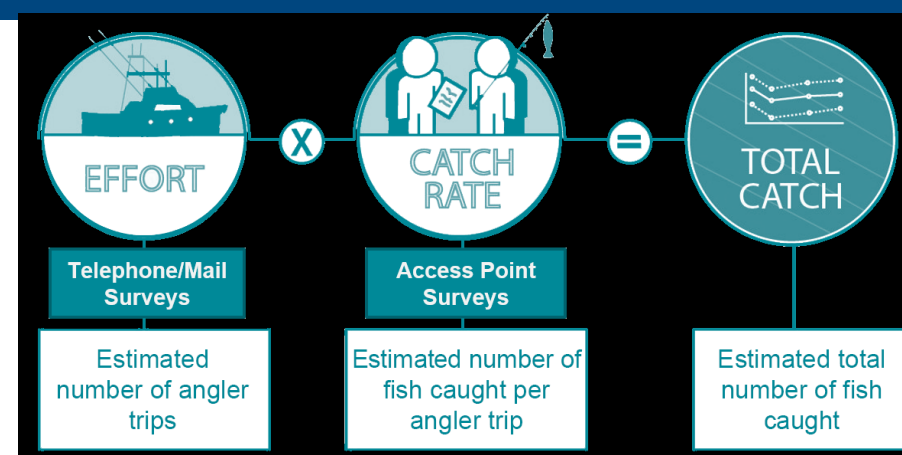
**Southeast  
Fisheries  
Science Center  
Beaufort Lab**

# **Revised stock assessments of Black Sea Bass, Blueline Tilefish, Red Grouper, and Vermilion Snapper in the U.S. South Atlantic region**

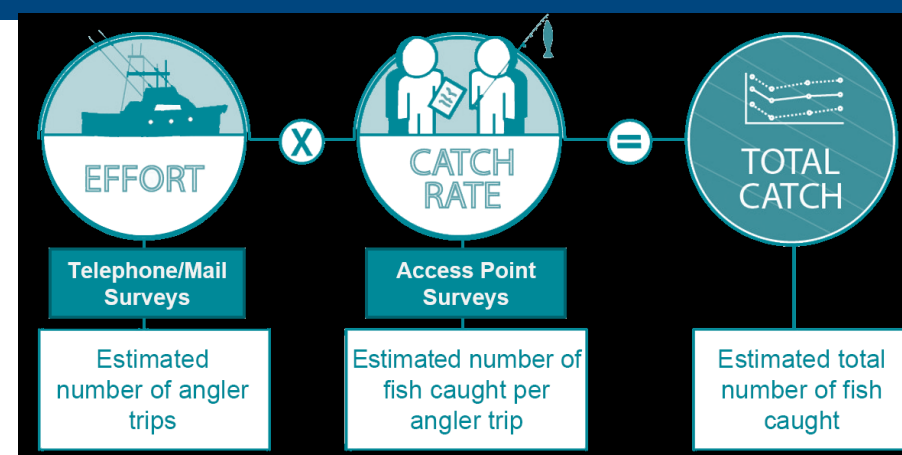
October, 2018

# Data Update

- July 2018
  - Marine Recreational Information Program (MRIP) provided revised estimates
    - Landings, discards, and effort
    - Change from telephone (CHTS) to mail (FES) survey
    - Old Method: APAIS-calibrated data (ACAL)
    - New Method: FES-calibrated data (FCAL)
  - Used FCAL/ACAL adjustment vectors in stock assessments based on South Atlantic region query
    - Note: Used an average FCAL/ACAL vector from Snowy Grouper and Tilefish for Blueline Tilefish (it was not part of the MRIP adjustment query)



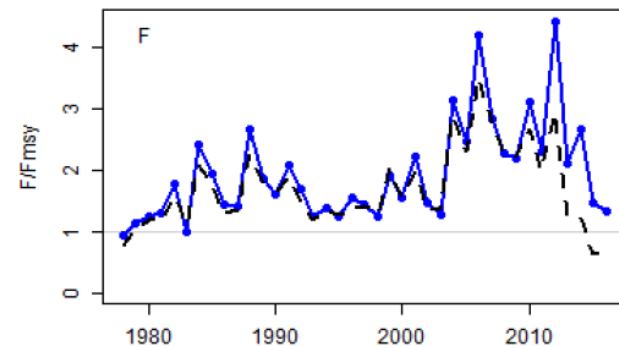
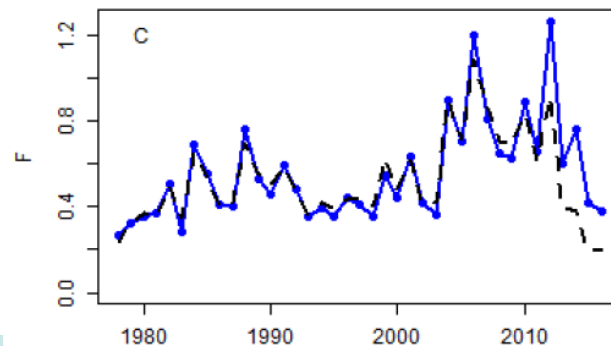
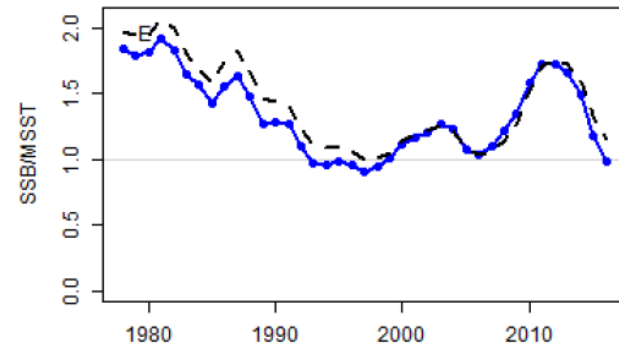
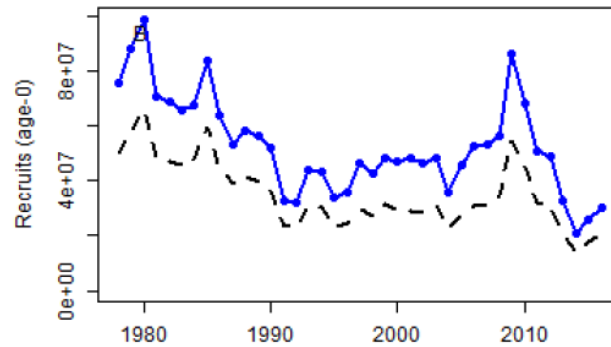
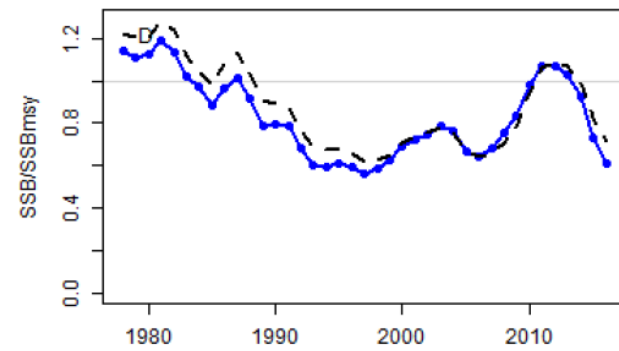
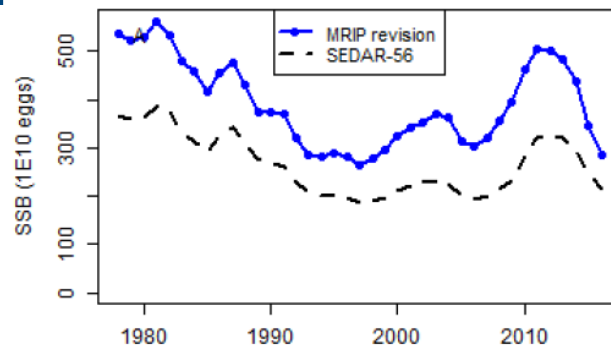
# Data Update



- MRIP landings and discards increased for all species
  - Shore mode had bigger increases compared to private boats
  - Slight increasing time trend in adjustment vectors
- All years in stock assessments for the catch and discard vectors were revised

# Black Sea Bass

MRIP revision  
SEDAR 56



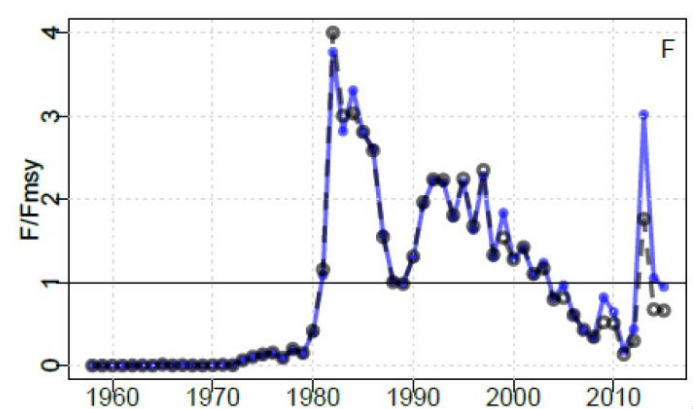
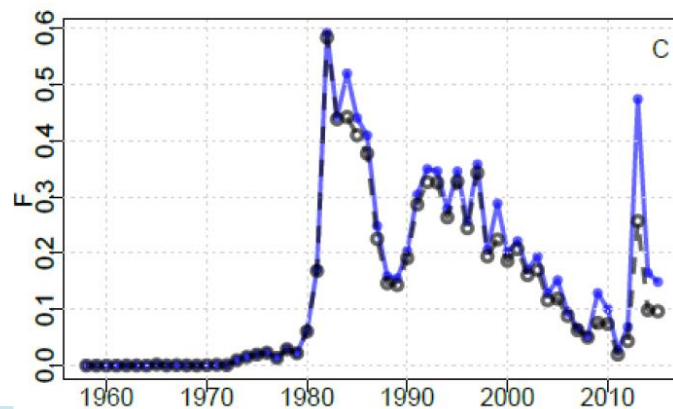
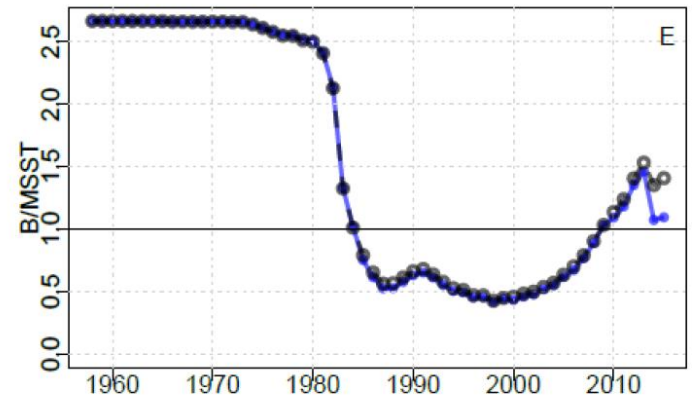
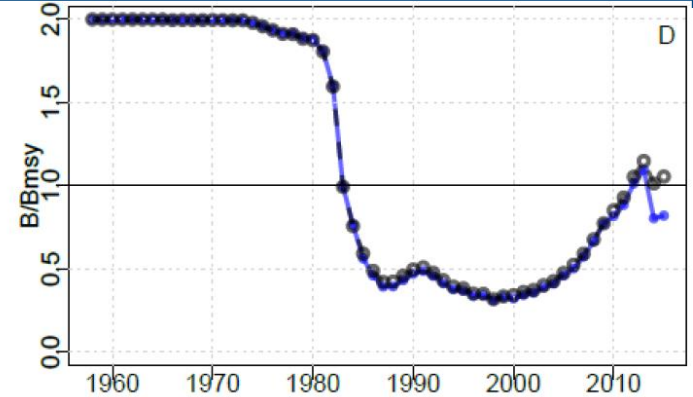
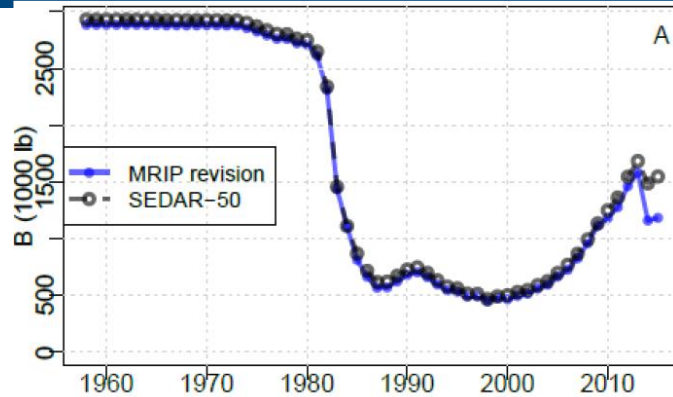
# Black Sea Bass

Quantity	Units	Estimate (Previous)
$F_{MSY}$	$y^{-1}$	0.29 (0.31)
$85\%F_{MSY}$	$y^{-1}$	0.19 (0.26)
$75\%F_{MSY}$	$y^{-1}$	0.13 (0.23)
$65\%F_{MSY}$	$y^{-1}$	0.09 (0.20)
$B_{MSY}$	mt	10775.9 (6824)
$SSB_{MSY}$	1E10 eggs	471.5 (300)
MSST	1E10 eggs	292.4 (186)
MSY	1000 lb	1272.4 (935)
$D_{MSY}$	1000 fish	2194.2 (1421)
$R_{MSY}$	1000 age-0 fish	55649.2 (36400)
Y at $85\%F_{MSY}$	1000 lb	1261.1 (793.9)
Y at $75\%F_{MSY}$	1000 lb	1238.0 (701.25)
Y at $65\%F_{MSY}$	1000 lb	1198.5 (607.75)
$F_{2015-2016}/F_{MSY}$	—	1.40 (0.64)
$SSB_{2016}/MSST$	—	0.98 (1.15)
$SSB_{2016}/SSB_{MSY}$	—	0.61 (0.71)

# Blueline Tilefish

South of Cape Hatteras

MRIP revision  
SEDAR 50



# Blueline Tilefish – South of Cape Hatteras

Quantity	Units	Estimate (Previous)
$F_{MSY}$	$y^{-1}$	0.157 (0.146)
$85\%F_{MSY}$	$y^{-1}$	0.134 (0.124)
$75\%F_{MSY}$	$y^{-1}$	0.118 (0.109)
$65\%F_{MSY}$	$y^{-1}$	0.102 (0.095)
$B_{MSY}$	1000 lb	1443 (1467)
MSST	1000 lb	1082 (1100)
MSY	1000 lb	225 (212)
Y at $85\%F_{MSY}$	1000 lb	220 (NA)
Y at $75\%F_{MSY}$	1000 lb	211 (NA)
Y at $65\%F_{MSY}$	1000 lb	197 (NA)
$F_{2013-2015}/F_{MSY}$	—	1.44 (0.92)
$B_{2015}/MSST$	—	1.09 (1.41)
$B_{2015}/B_{MSY}$	—	0.82 (1.06)

# Blueline Tilefish – North of Cape Hatteras

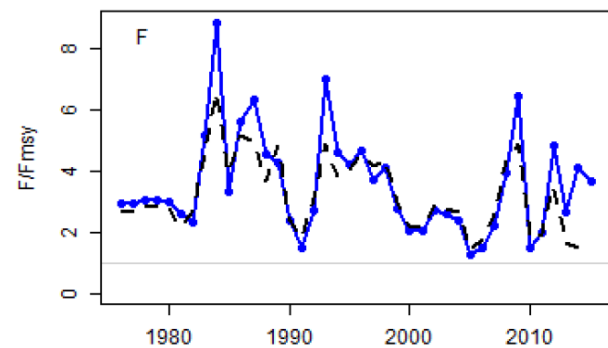
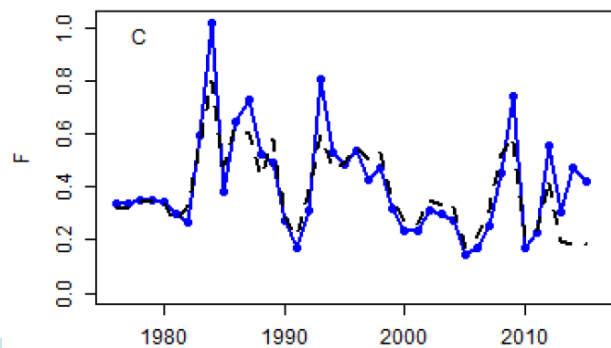
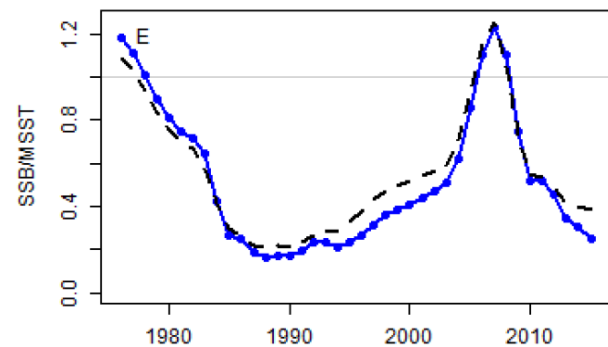
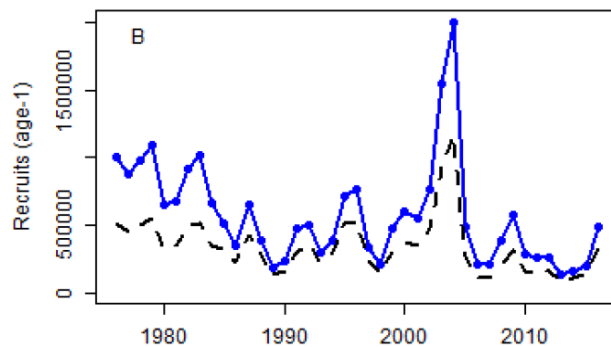
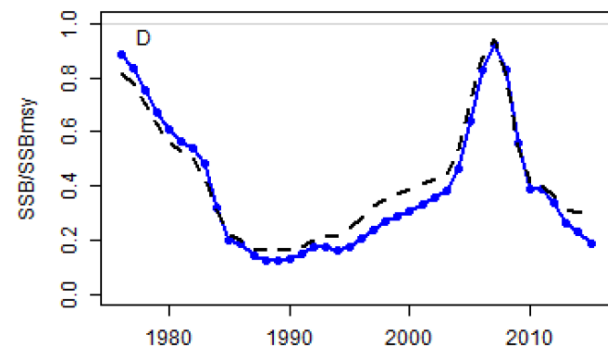
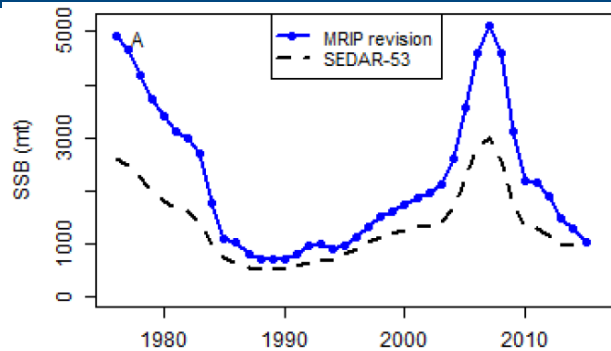
TAC quantiles for all DLM methods (1000 lb).

Quantile	AvC	CC1	CC4	Fdem.ML	SPMSY	YPR.ML	AvC.early	AvC.late	TOTAL
2.50%	119	230	156	58	11	80	27	279	31 (30)
5%	128	250	170	77	18	100	29	299	35 (40)
10%	136	270	188	112	32	139	30	319	43 (49)
25%	156	317	219	201	64	225	34	360	142 (103)
50%	179	372	259	395	120	428	40	409	250 (193)
75%	204	443	312	929	183	897	45	468	401 (413)
90%	229	507	361	2011	239	2198	51	537	600 (619)
95%	246	566	404	3060	266	3451	55	588	1105 (998)
97.50%	264	616	439	5348	283	5654	57	613	2077 (1854)



# Red Grouper

MRIP revision  
SEDAR 53



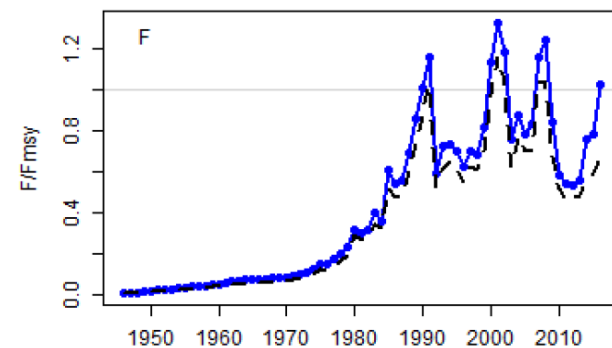
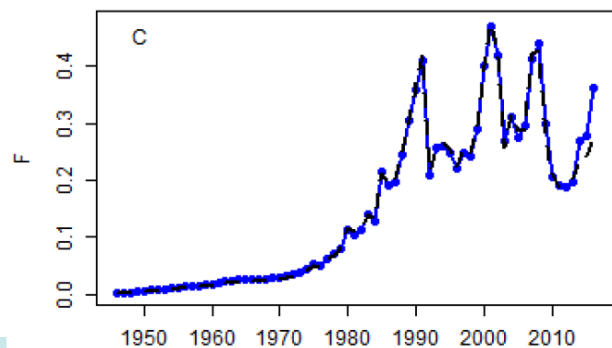
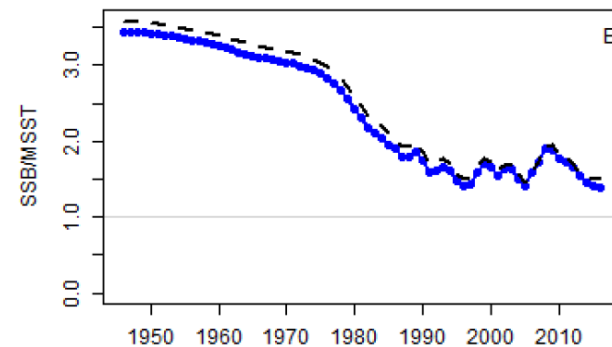
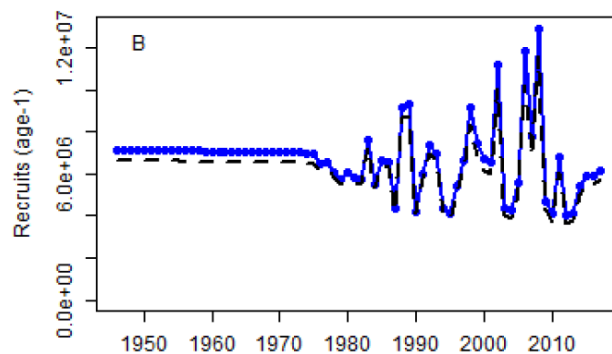
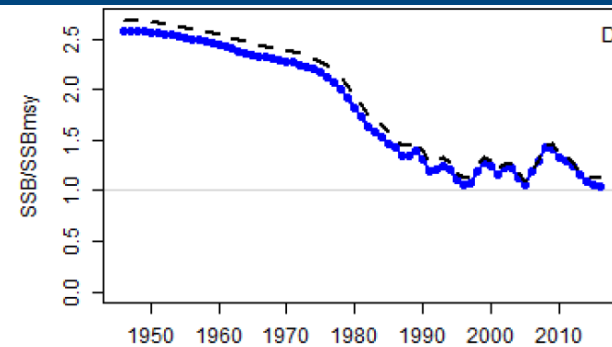
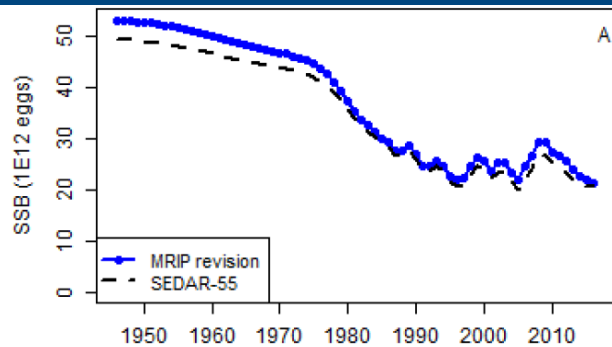
# Red Grouper

Quantity	Units	Estimate (Previous)
$F_{MSY}$	$y^{-1}$	0.12 (0.12)
$85\%F_{MSY}$	$y^{-1}$	0.10 (0.10)
$75\%F_{MSY}$	$y^{-1}$	0.09 (0.09)
$65\%F_{MSY}$	$y^{-1}$	0.07 (0.08)
$F_{20\%}$	$y^{-1}$	0.19 (0.20)
$F_{30\%}$	$y^{-1}$	0.13 (0.14)
$F_{40\%}$	$y^{-1}$	0.09 (0.10)
$B_{MSY}$	mt	7271.2 (4188.3)
$SSB_{MSY}$	mt	5558.9 (3183.4)
MSST	mt	4169.2 (2387.6)
MSY	1000 lb	1303.6 (794.3)
$D_{MSY}$	1000 fish	114.1 (60.9)
$R_{MSY}$	1000 age-1 fish	689.9 (399.9)
Y at $85\%F_{MSY}$	1000 lb	1291.0 (787.0)
Y at $75\%F_{MSY}$	1000 lb	1265.7 (772.0)
Y at $65\%F_{MSY}$	1000 lb	1222.9 (764.4)
D at $85\%F_{MSY}$	1000 fish	100.0 (NA)
D at $75\%F_{MSY}$	1000 fish	90.1 (NA)
D at $65\%F_{MSY}$	1000 fish	79.6 (NA)
$F_{2013-2015}/F_{MSY}$	—	3.43 (1.54)
$SSB_{2015}/MSST$	—	0.25 (0.38)
$SSB_{2015}/SSB_{MSY}$	—	0.19 (0.29)



# Vermilion Snapper

MRIP revision  
SEDAR 55



# Vermilion Snapper

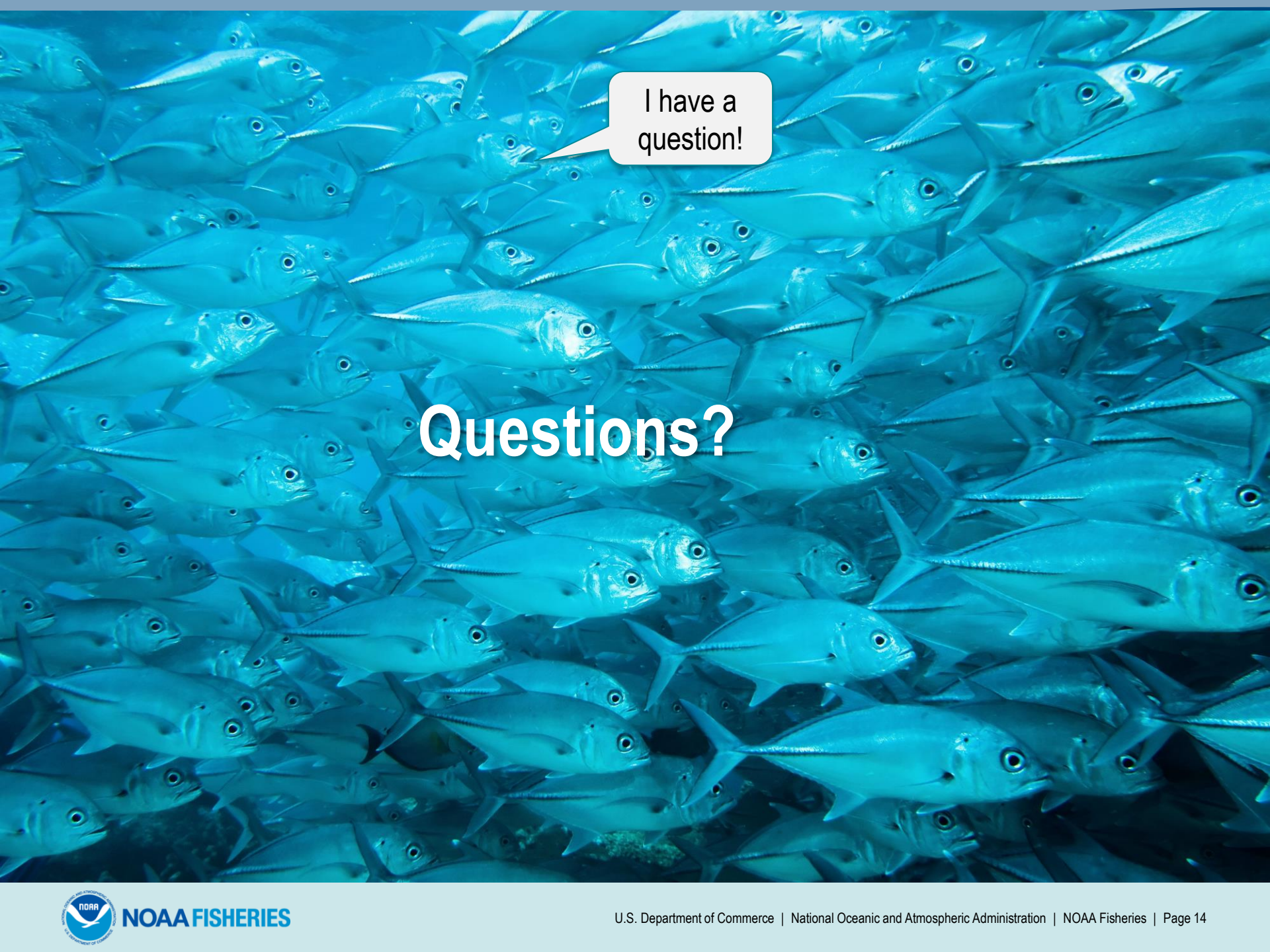
Quantity	Units	Estimate (Previous)
$F_{MSY}$	$y^{-1}$	0.35 (0.41)
$85\%F_{MSY}$	$y^{-1}$	0.30 (0.35)
$75\%F_{MSY}$	$y^{-1}$	0.26 (0.31)
$65\%F_{MSY}$	$y^{-1}$	0.23 (0.27)
$B_{MSY}$	mt	4743.1 (4249.2)
$SSB_{MSY}$	1E12 eggs	20.5 (18.3)
MSST	1E12 eggs	15.3 (13.7)
MSY	1000 lb	1298.7 (1305.8)
$D_{MSY}$	1000 fish	267.1 (245.9)
$R_{MSY}$	1000 age-1 fish	6072 (5591)
Y at $85\%F_{MSY}$	1000 lb	1292.1 (1300.3)
Y at $75\%F_{MSY}$	1000 lb	1277.9 (1288.2)
Y at $65\%F_{MSY}$	1000 lb	1252.1 (1266.0)
$F_{2014-2016}/F_{MSY}$	—	0.846 (0.609)
$SSB_{2016}/MSST$	—	1.38 (1.51)
$SSB_{2016}/SSB_{MSY}$	—	1.03 (1.13)



# Summary of Results

- Increased biomass and recruitment estimates for all species
- Increased MSY values for all species
- Worse stock status for all species:
  - Increased  $F/F_{MSY}$  values
  - Decreased SSB/MSST values
- Revised projections (tables) that were used for original ABC advice are in the report





I have a question!

Questions?

