



Potential Yield in SAFMC FMPs and progress toward achieving it

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Recreational Workshop
September 16, 2018

TOPICS

- What is potential yield
- How close are we to reaching it – based on ACL and recent landings
- Discard challenge
 - Black Sea Bass
 - Shallow Water Groupers



What is “Potential Yield”

Estimate of the available harvest when stocks are at equilibrium

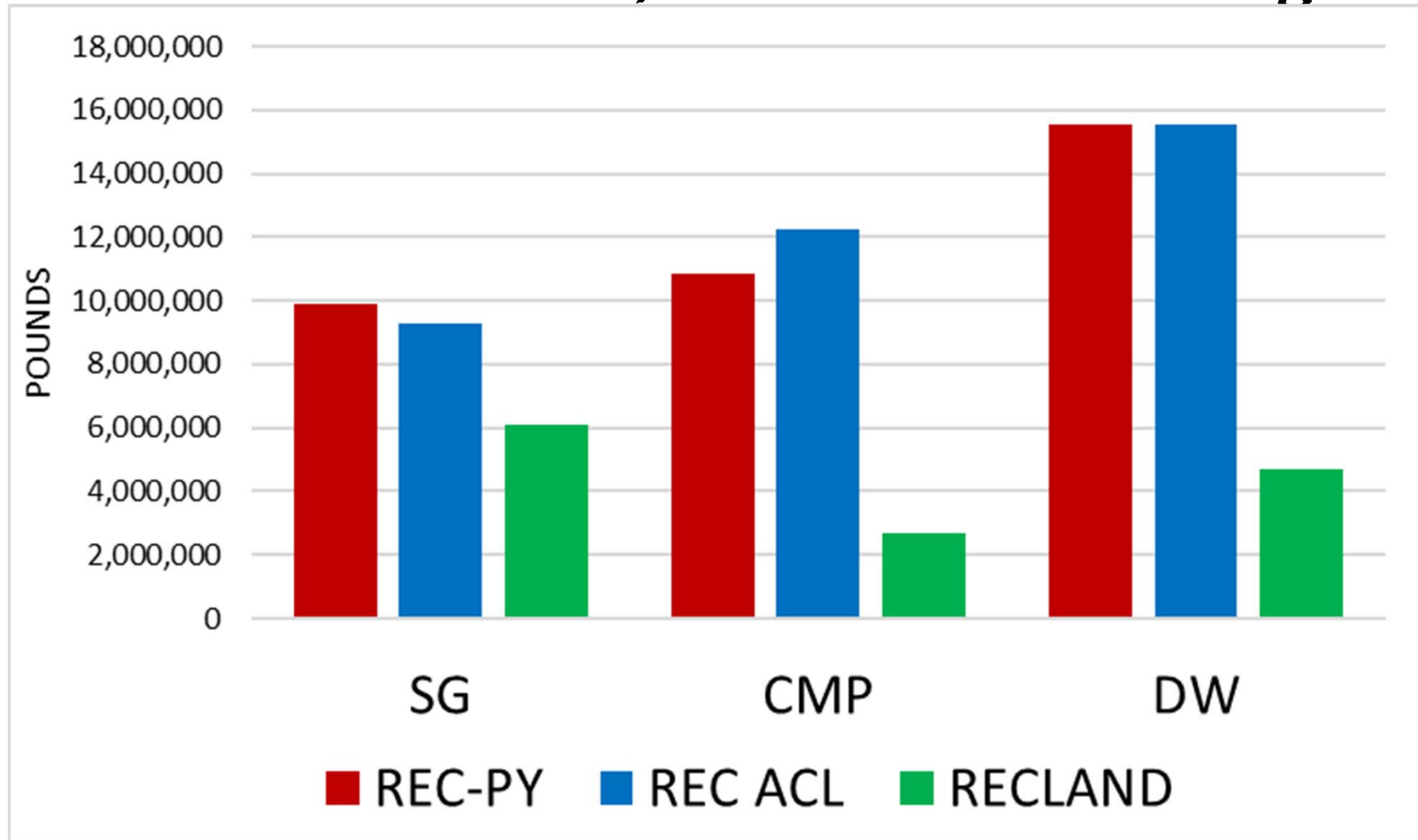
Developed by SAFMC staff to illustrate long term productivity

- For assessed stocks, it is the equilibrium yield at 75% FMSY
- For unassessed stocks, is the current ACL
- Focus here is on the recreational portion

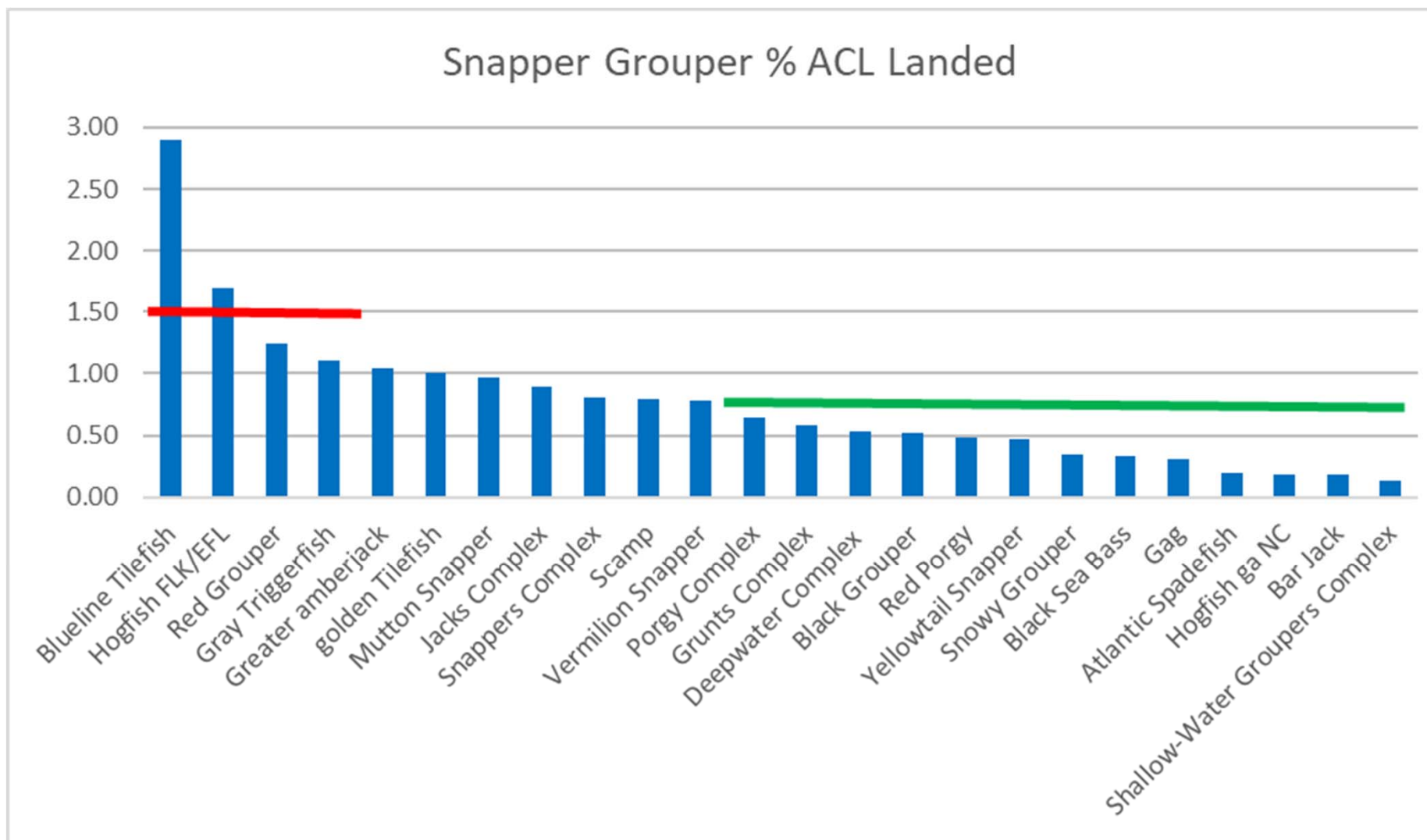
POTENTIAL YIELD IS NOT AN OFFICIAL MANAGEMENT PARAMETER

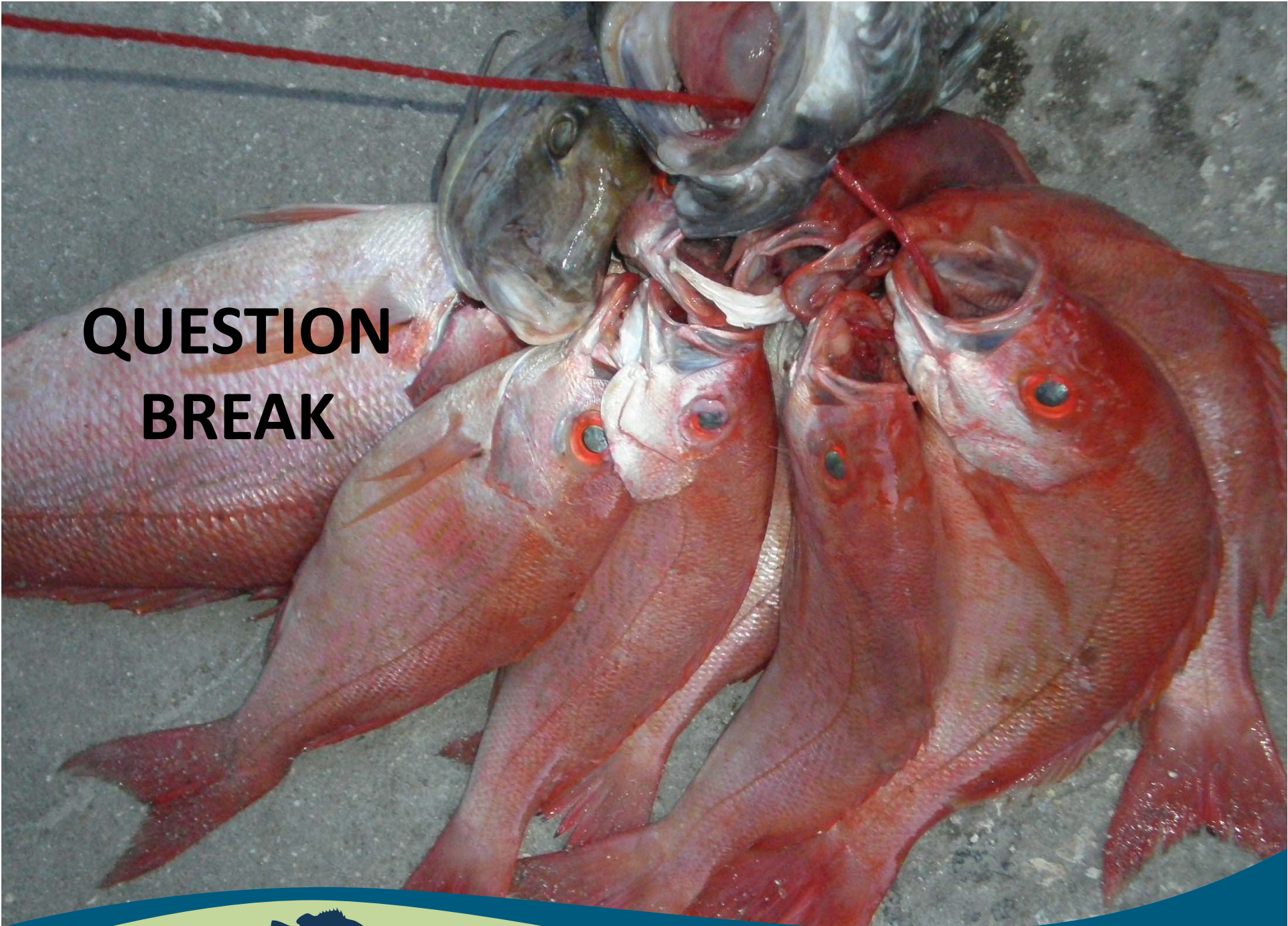


RECREATIONAL Potential Yield, ACL & 2017 Landings



Snapper Grouper Species, 2017 % ACL Landed





**QUESTION
BREAK**

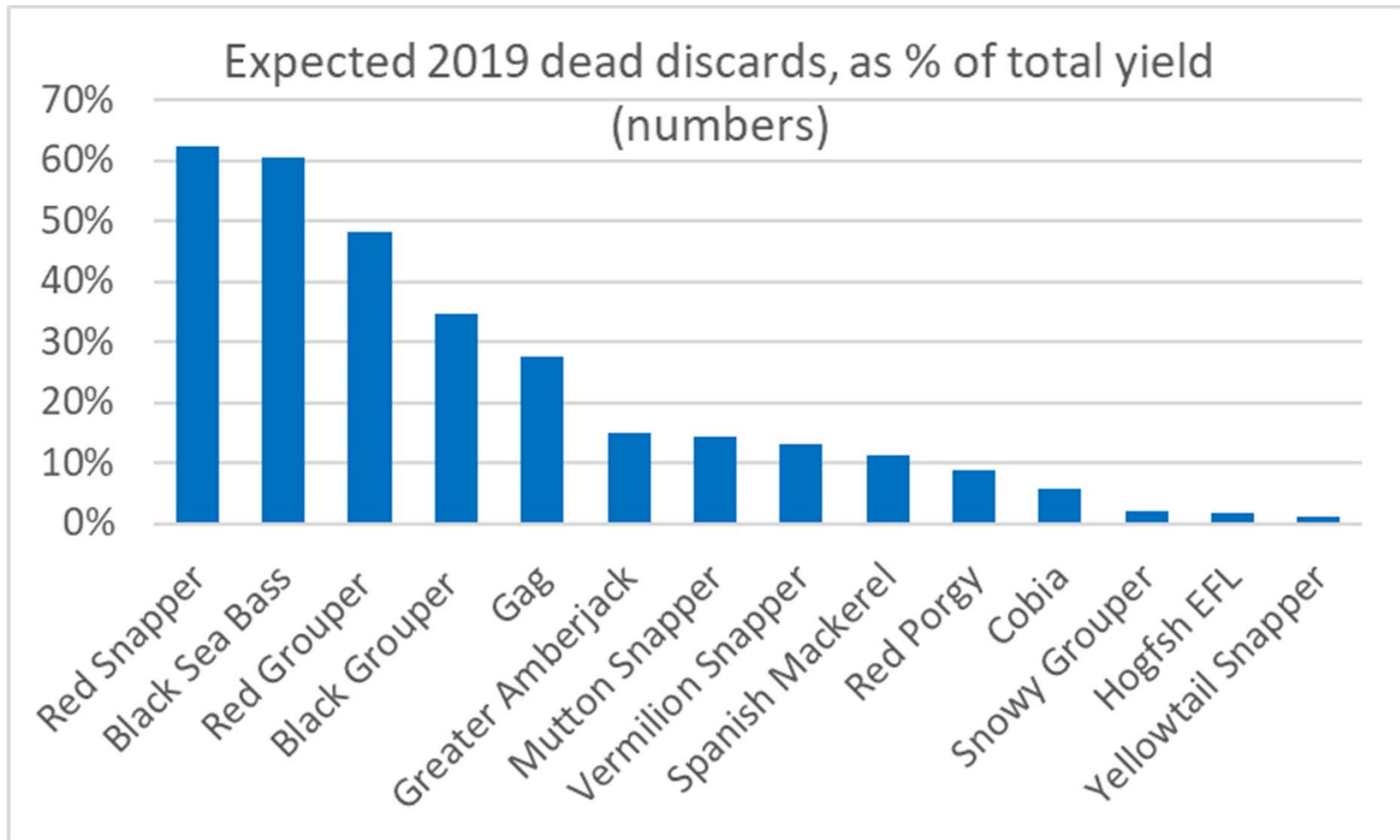


DISCARDS

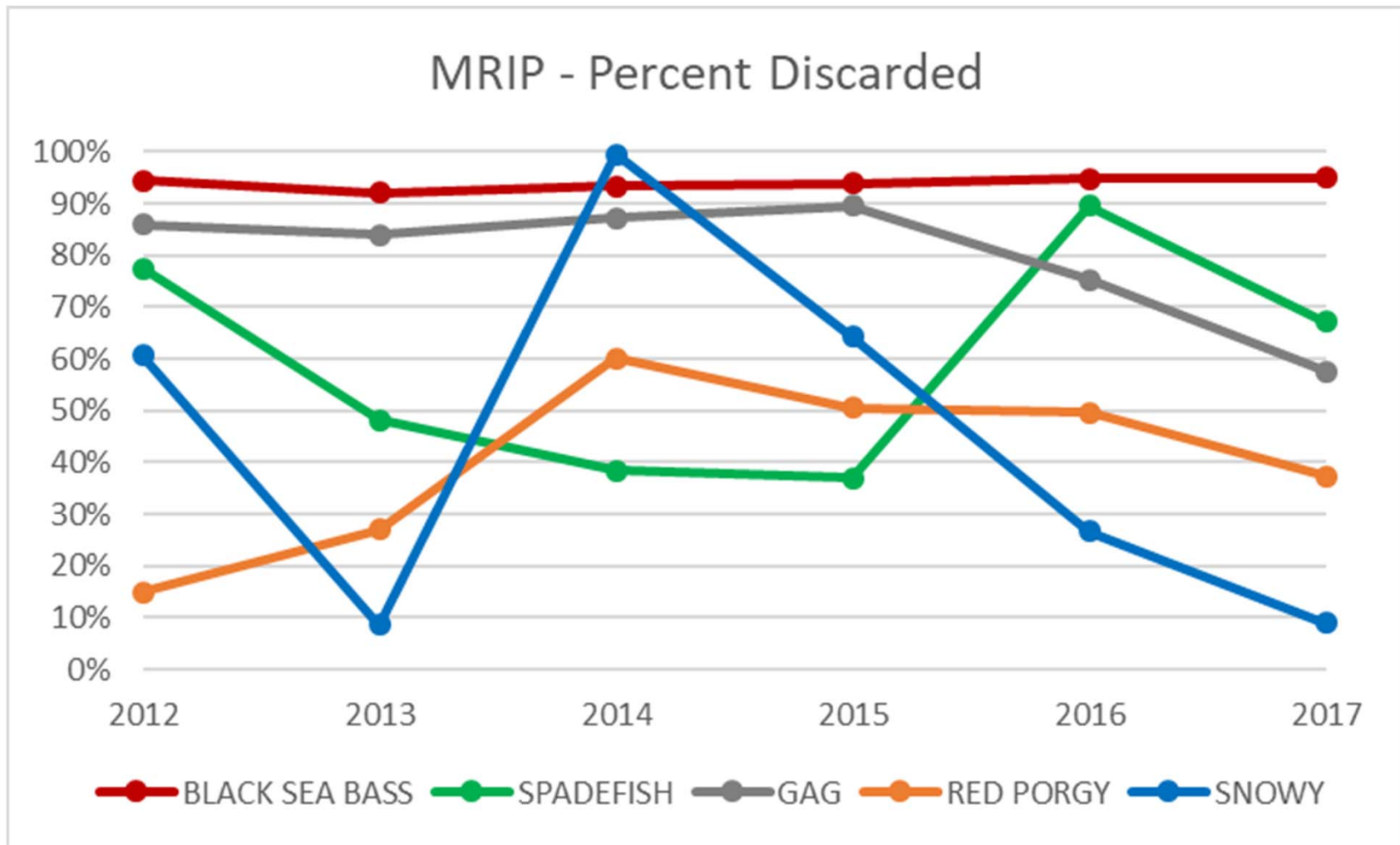
- Discards = Fish that are thrown back
 - aka RELEASES
 - includes all fish thrown back, whether alive or dead
 - Apply the DISCARD MORTALITY RATE to the total discards to estimate losses or removals from discarding




Impact of discard on yield – for assessed stocks



Percent of encountered fish discarded recently





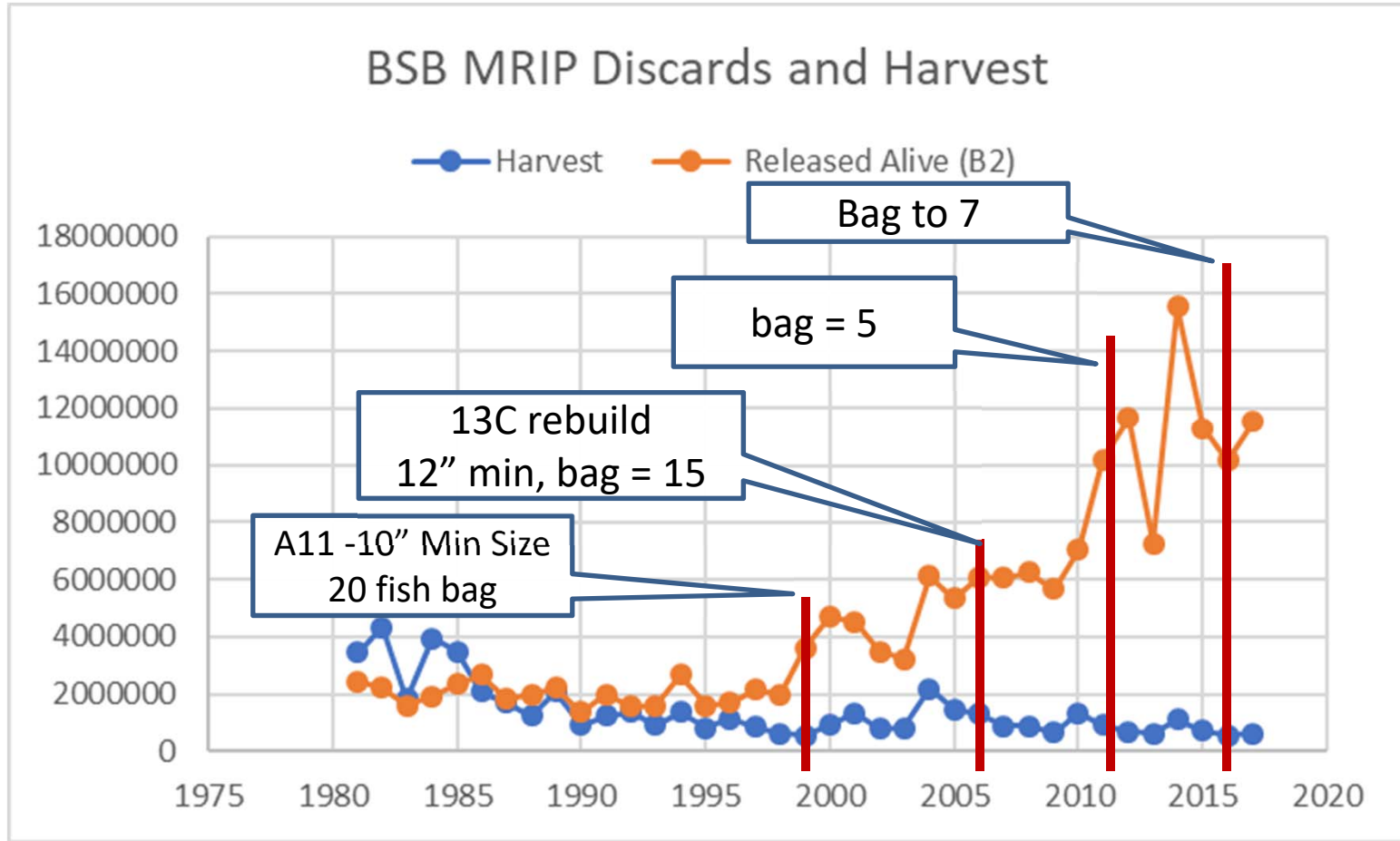
QUESTION BREAK



BLACK SEA BASS

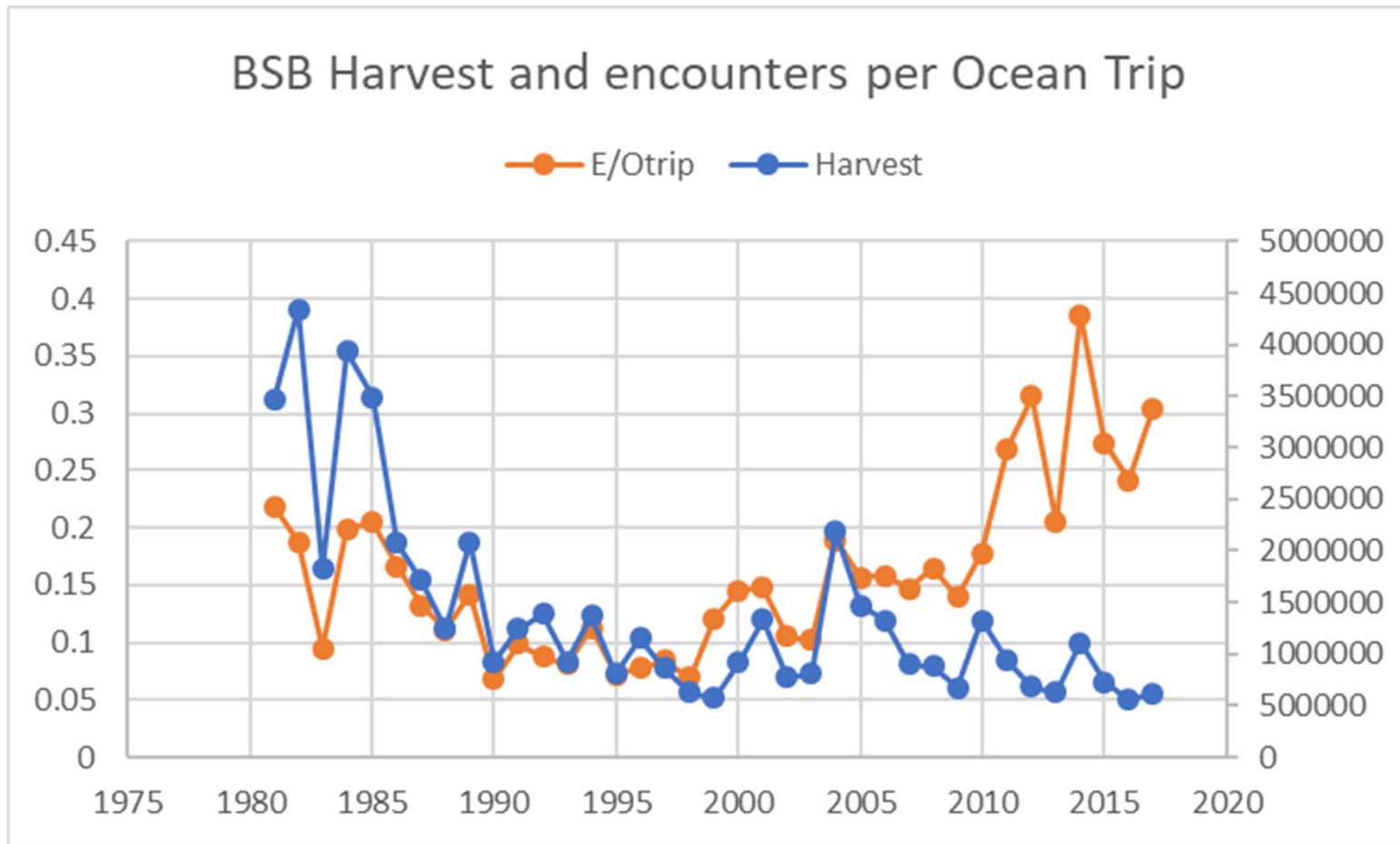


Black Sea Bass – Trend in Harvest and Discard (MRIP NUMBERS)

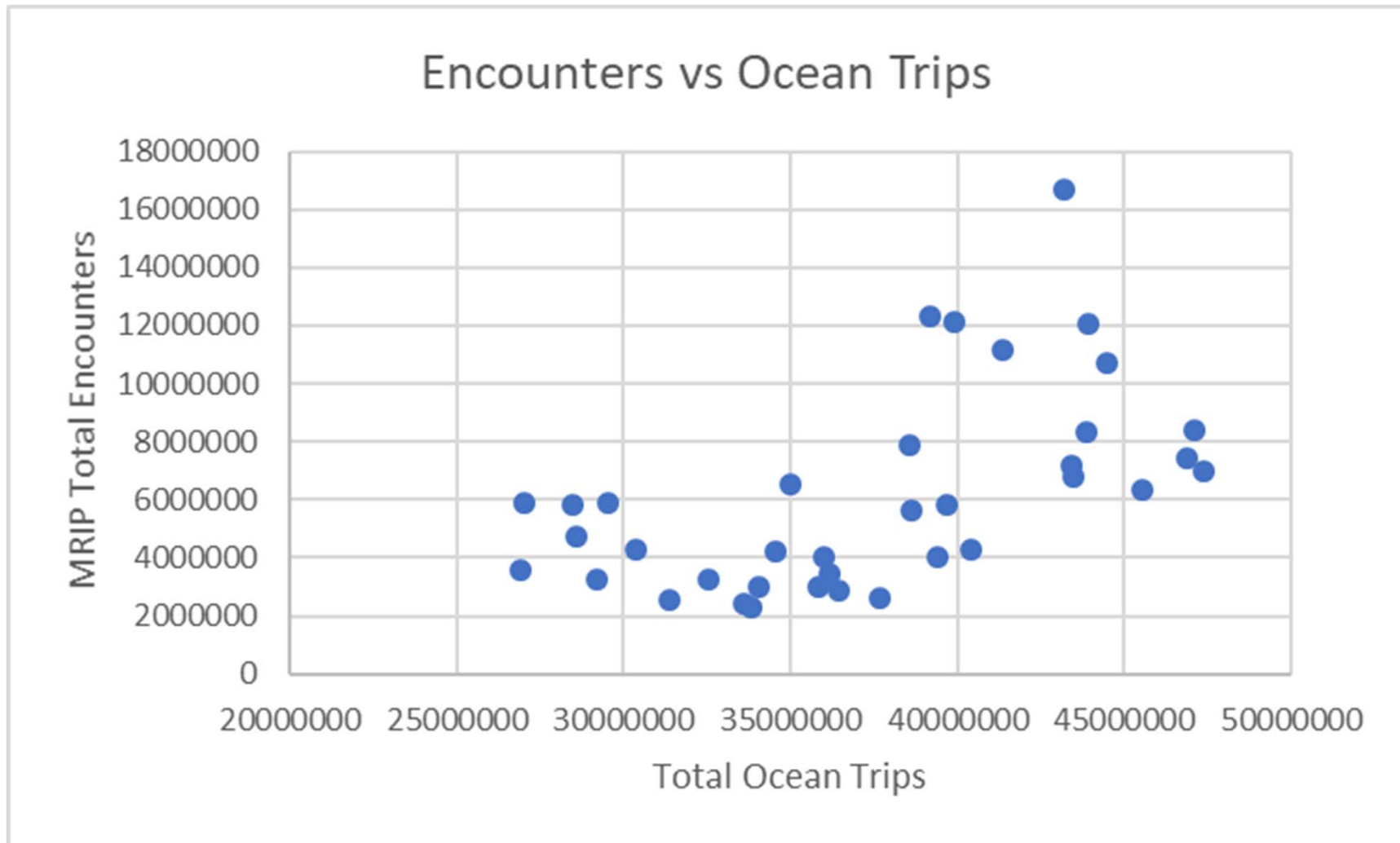


Harvest and Encounters

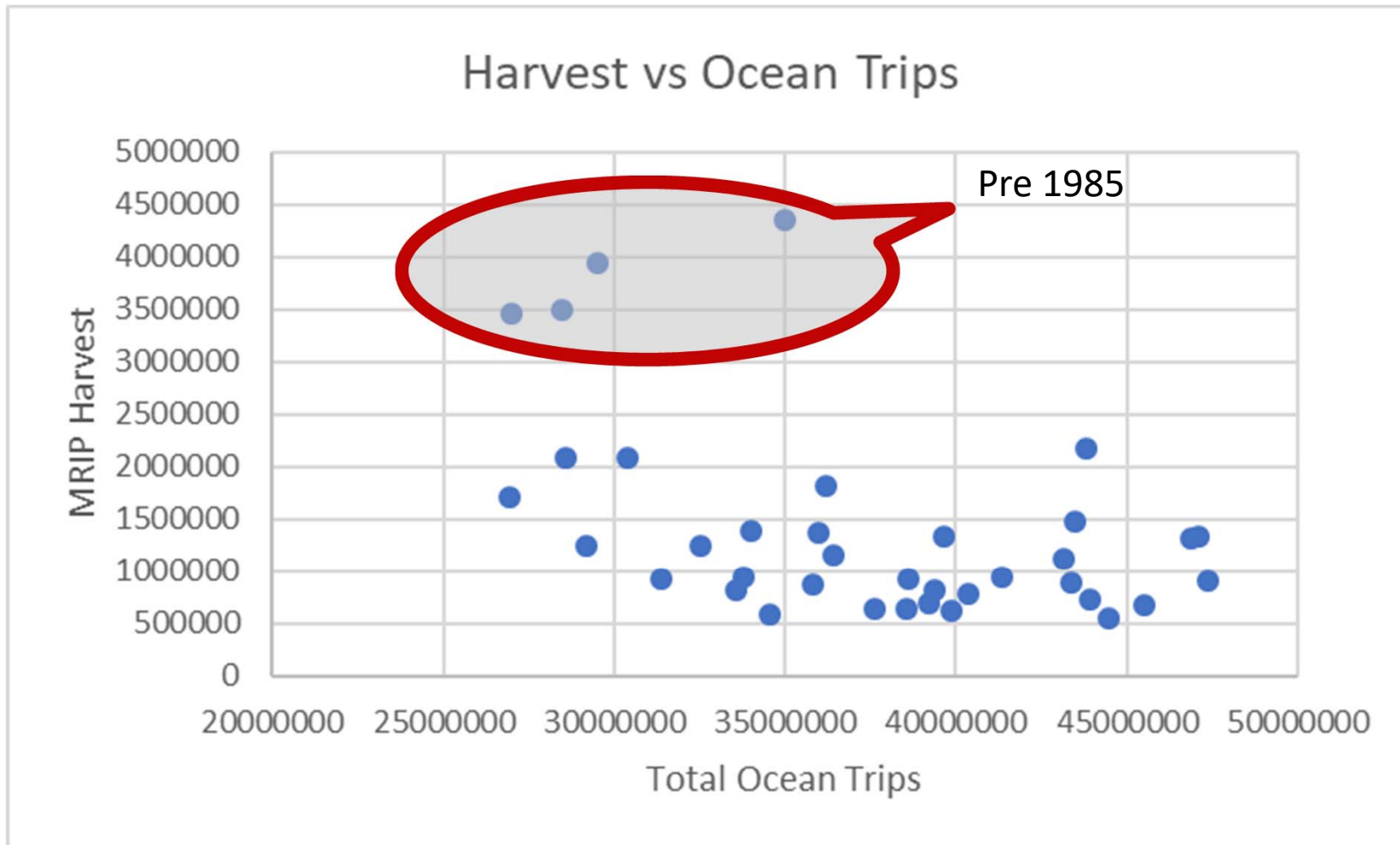
Encounters = Landings + Discards, shown per trip



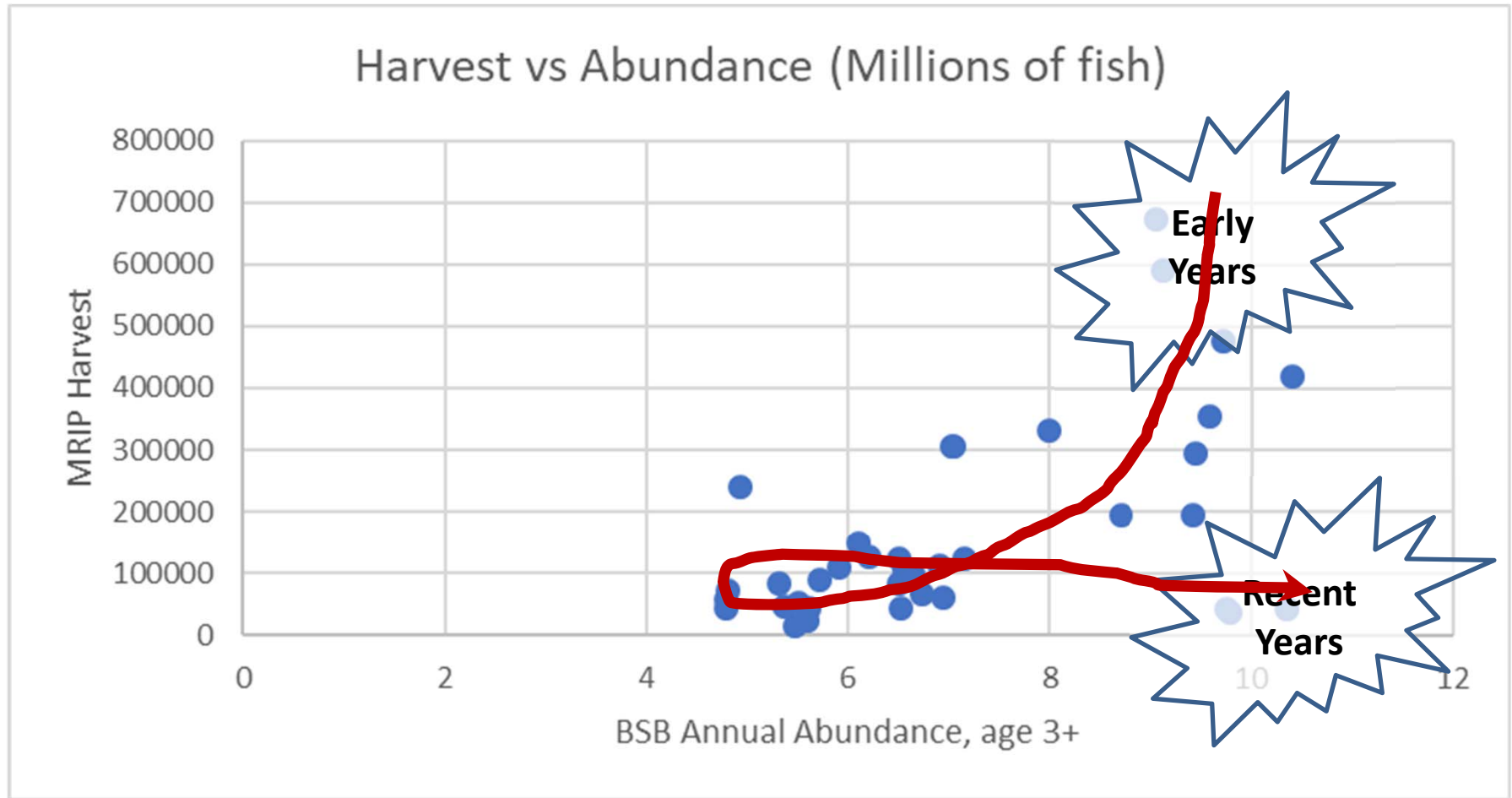
Sea Bass Encounters vs Total Ocean Trips



Sea Bass HARVEST vs Ocean Trips



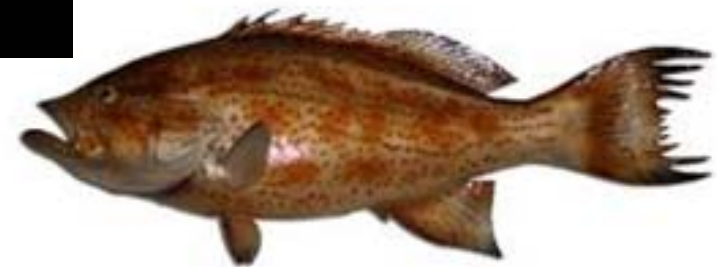
Sea Bass Harvest vs age 3+ Abundance



QUESTION BREAK



Shallow Water Groupers

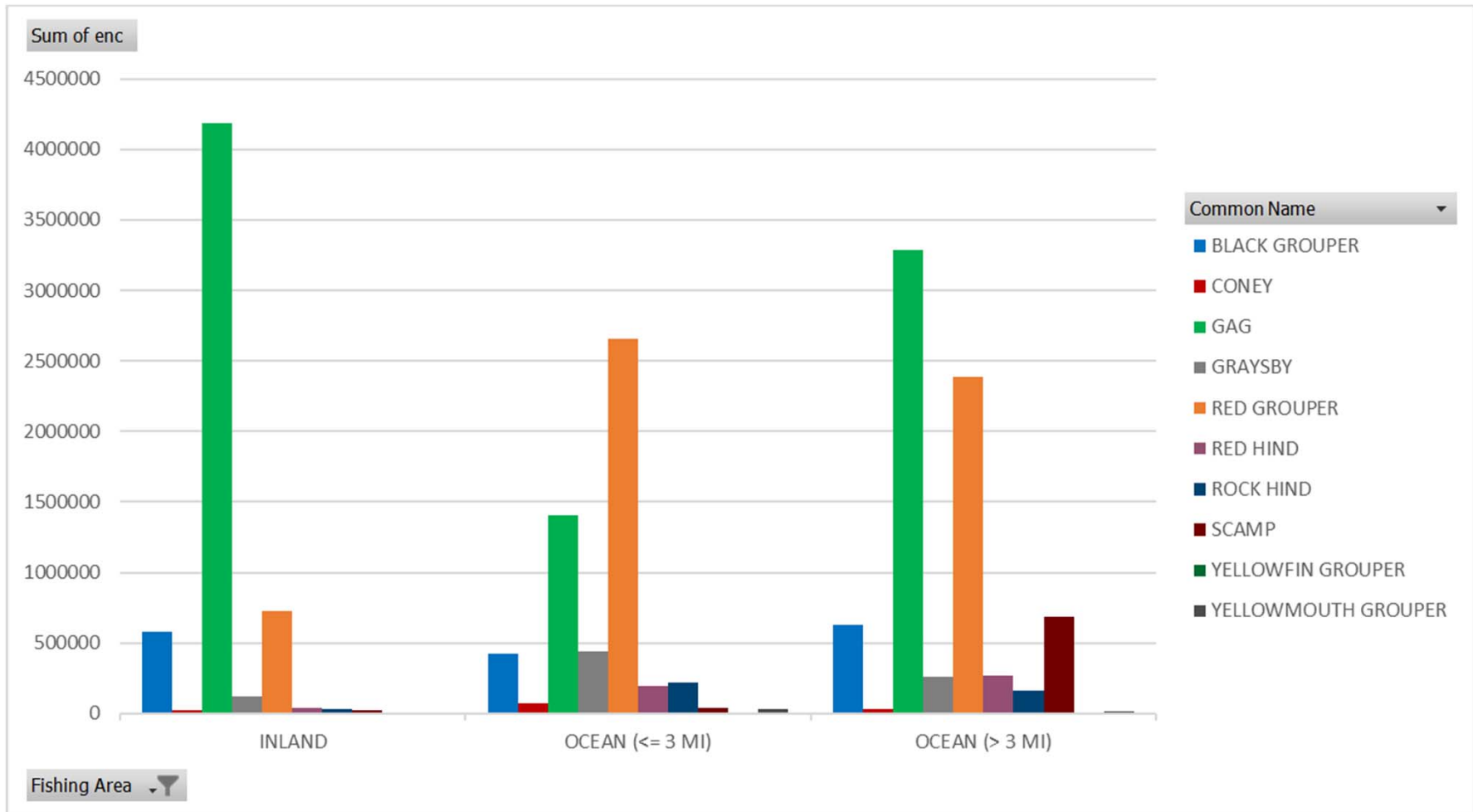


Shallow Water Groupers

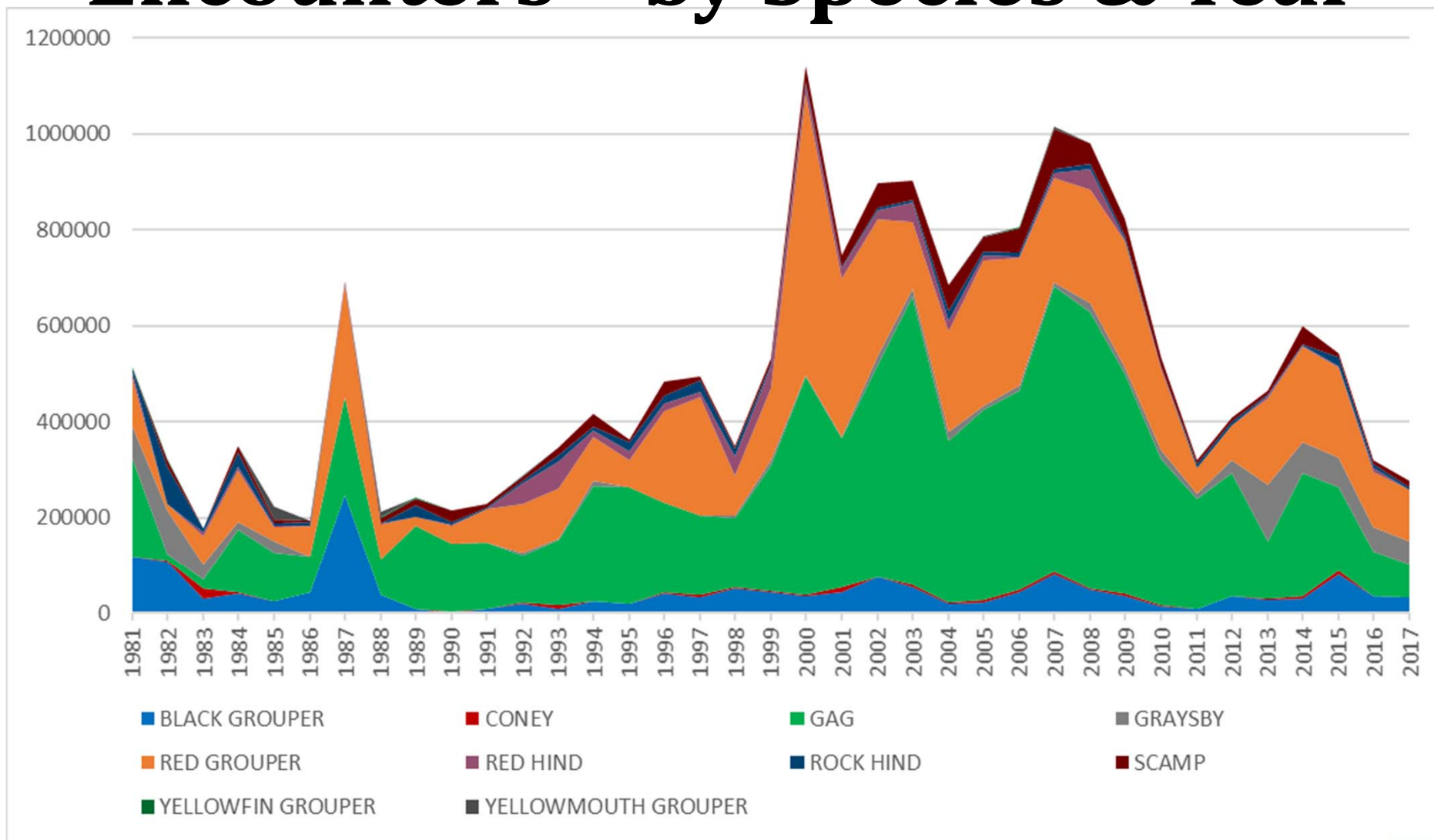
- As a complex, well below the ACL for several years
- Concerns expressed over many of the species, by Council, fishermen and scientists
- Latest Red Grouper assessment shows poor R and NMFS determined “inadequate rebuilding progress”



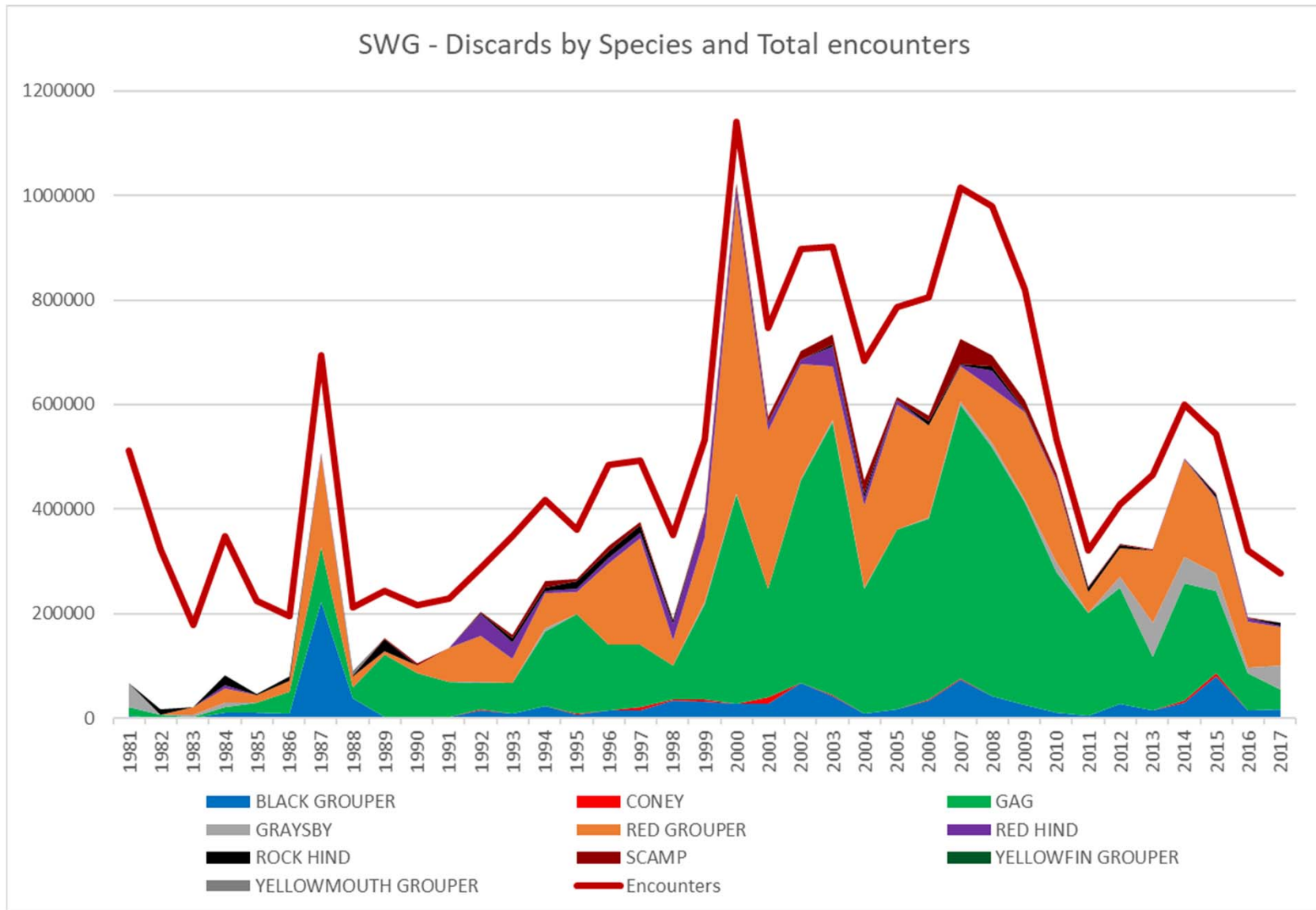
SWG – Encounters by Species, Area



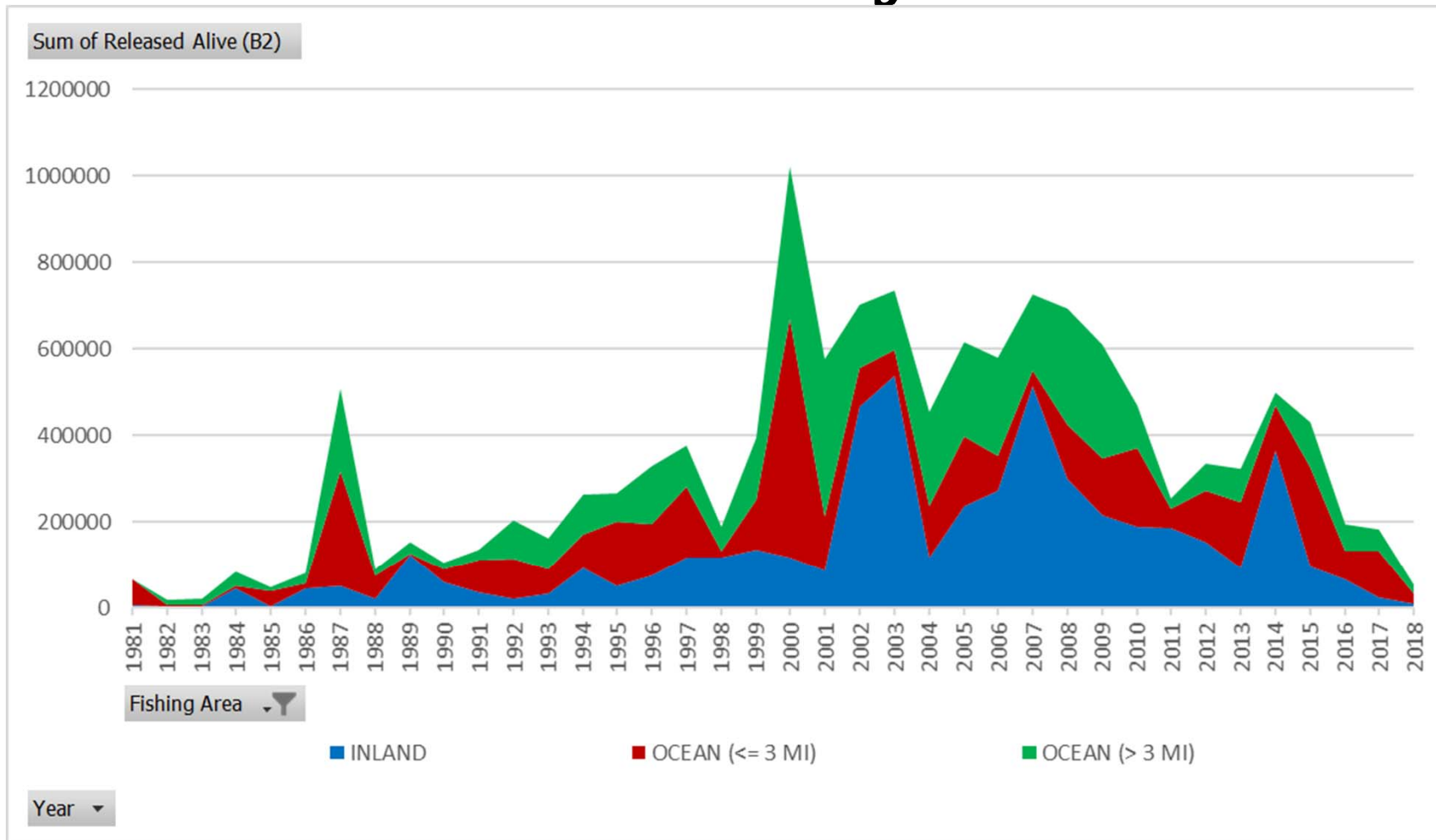
Encounters - by Species & Year



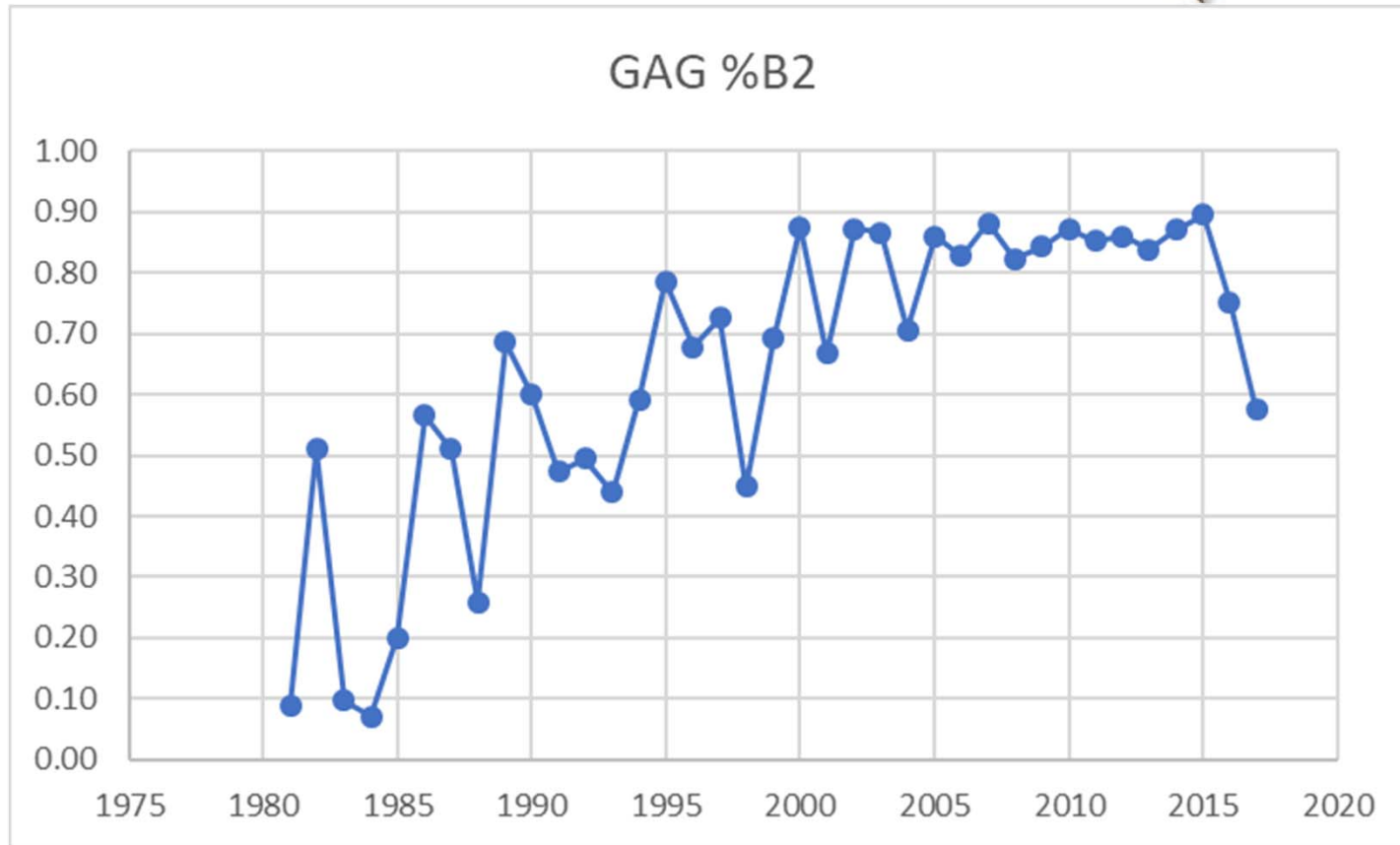
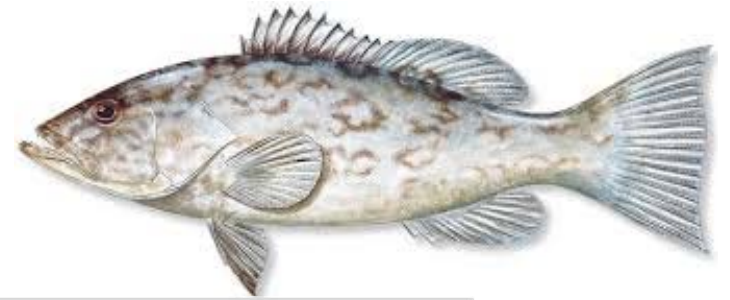
Releases by Species



Releases - by area



Gag % Released

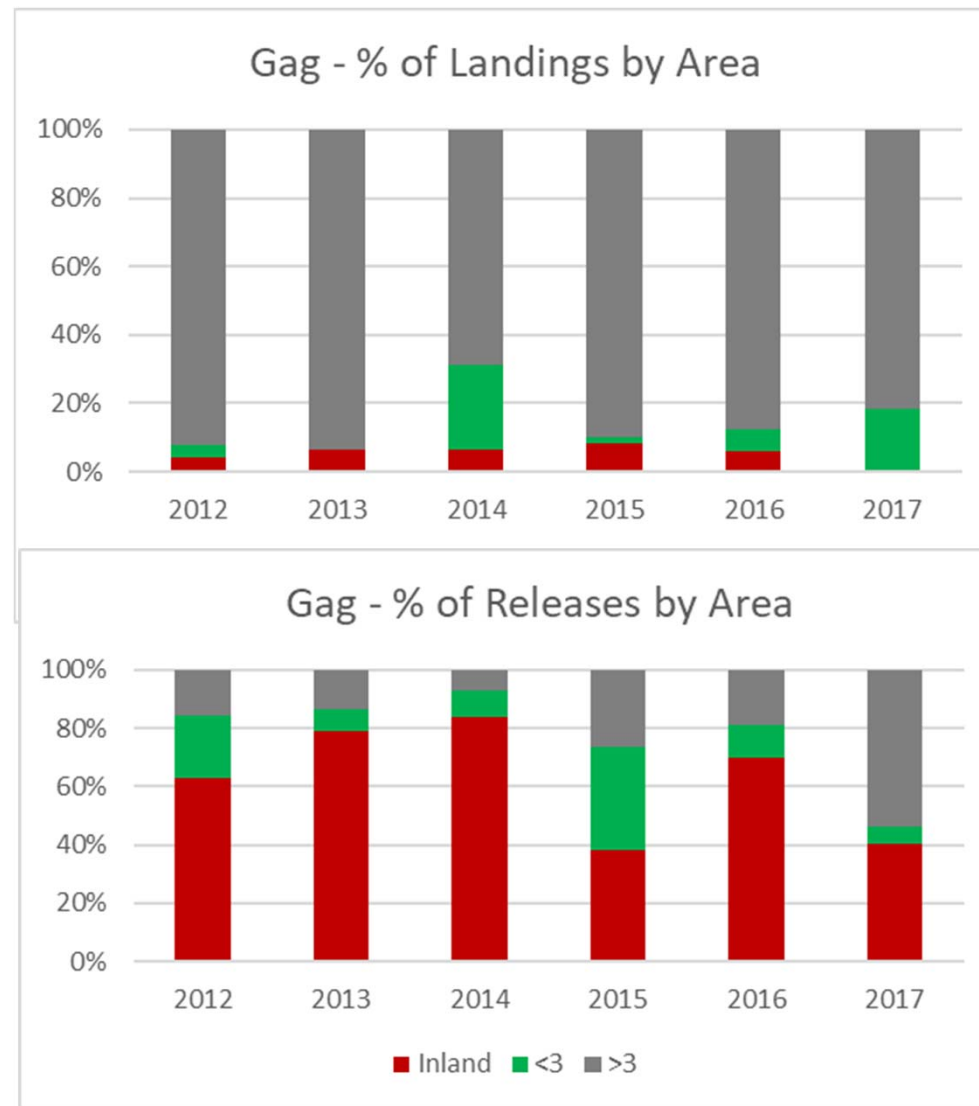


Why so many released Gag?

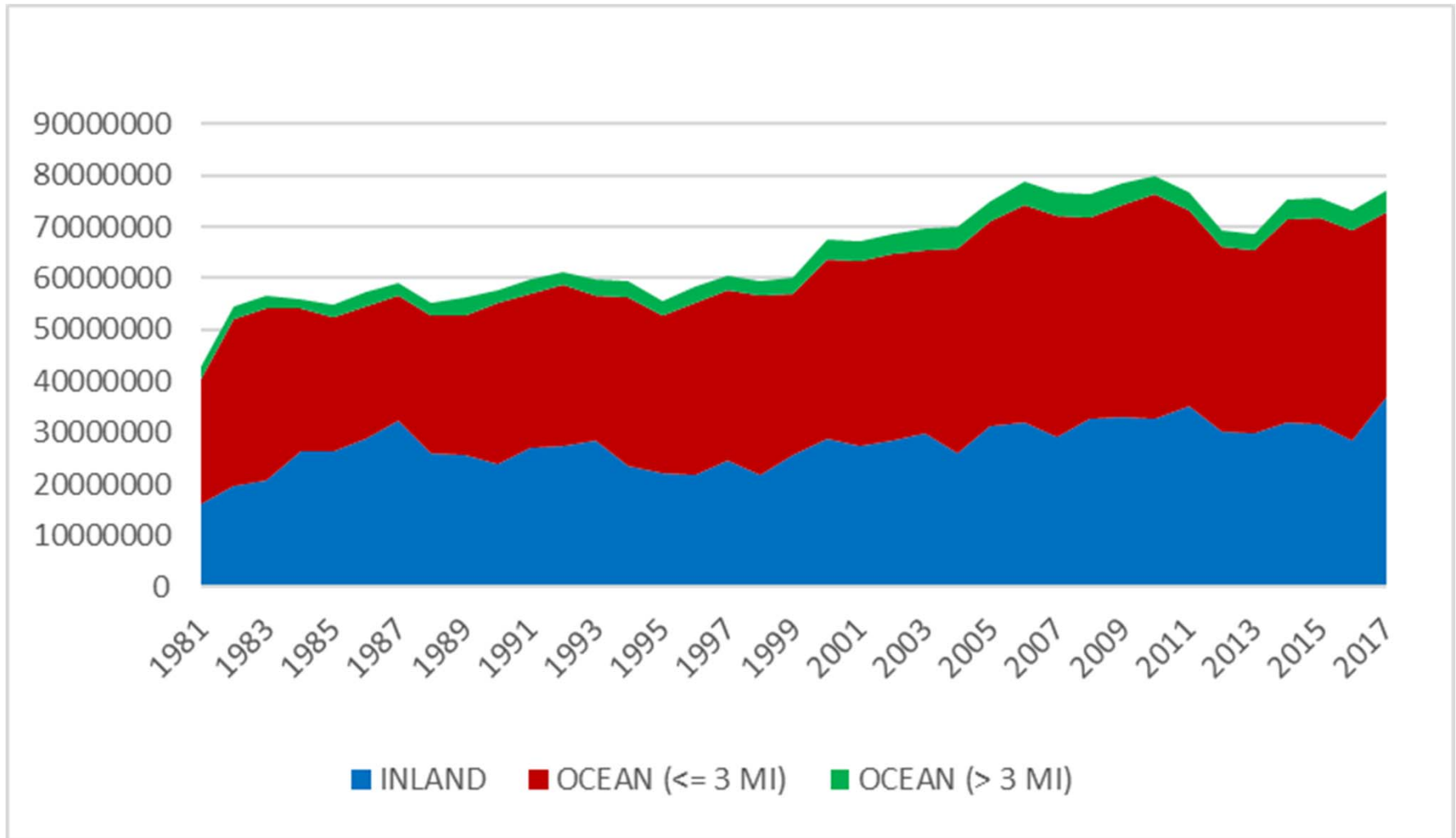
- Bag Limit?
 - Seems unlikely
 - Only 2.5% of trips (2013-17) reached the bag limit for the party.
 - No trips that reached the bag limit for the party reported any discards
- Spawning Season Closure?
 - also unlikely
 - % annual discards in waves 1+2 dropped by 10% since the spawning season closure in 2009



Gag - Landings and Releases by Area



Effort by Area



Potential Yield & Overall Performance

- Current ACLs are not far below long term expected yield
- Recreational fisheries are harvesting less than ACL
- High biomass can provide ACLs greater than the long-term Potential Yield



Discards are Complicated

- Long Term: Discard removals reduce the % of MSY that can be harvested
- Real Time: High discard rates affect trip satisfaction and attitudes toward management
- Discard impacts on the population depend on:
 - discard rate (how many discarded)
 - discard mortality rate (how many of those die)
 - other population impacts
 - (growth/spawning/migration disruption)

Need to understand how discards impact the fishery and the population to determine the right solution



Shallow Water Groupers are Complicated

- History of landings below ACL
- Population concerns for several stocks (Red Grouper & Gag. Scamp?)
- Hermaphroditic – complex life history
- Overlap highest effort areas – inland and nearshore
- Low harvest and encounters increases uncertainty



QUESTIONS & DISCUSSION

