Red Snapper Ponderings

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June 14, 2017

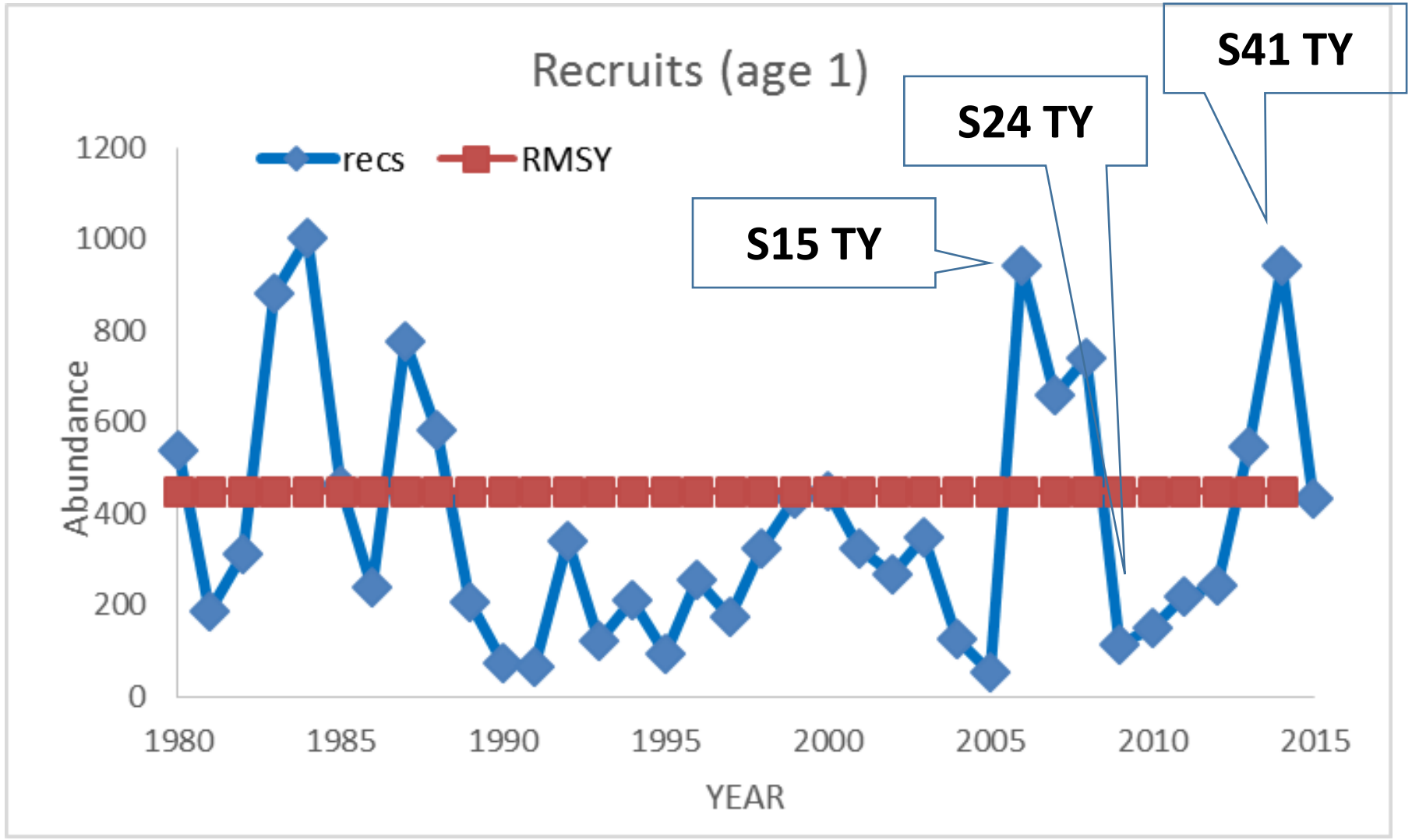
Red Snapper

- 2016 estimated encounters – discards and catch
  - 1,019,759 fish (SEFSC report)
- 2015 estimated total stock abundance, SEDAR 41 terminal year
  - 1,177,170 fish
- Suggests the 2016 fishery touched 86% of the red snapper population
  - maybe some caught more than once (likely, given tag returns?)
  - encounters and population are point estimates (2014 B2 PSE = 24%)
- Projected 2016 encounters (SEDAR 41) = 183,000
  - current estimate encounters is 5.5X predicted

WHY

WHY are projections and limits so far removed from current observations ????

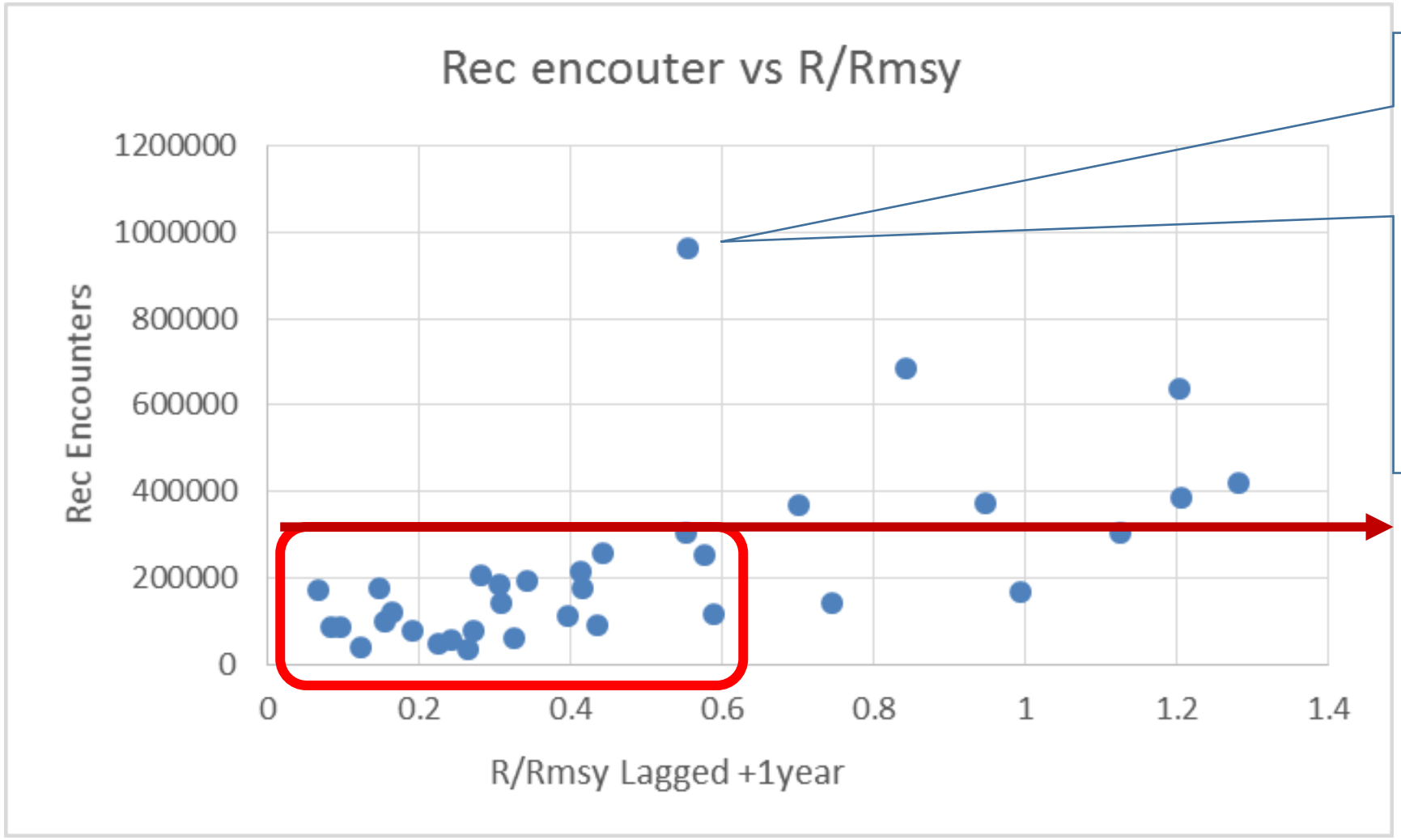
SEDAR 41 Recruits



Challenge

- MSY represents a long term average
- Fishery is driven by short term events – low R, high R
- Hook and Line fisheries respond strongly to abundance-availability
- Theoretically, conservative references (ABC reduced from OFL) spread out the high R to offset low R
- Realistically:
  - the bounty from high R is perishable – M and discards (model does not really "know" this)
  - constituents want to take advantage of the bounty today
- Under ACL management, high catches are viewed as a negative...while in the fishery they are viewed as a positive

Does the recreational fishery respond to abundance and recruitment spikes?



2016.
Recruits based on 2015 age 1's. Terminal year of 2014, so based on the SRR (which is non-existent, steepness fixed at .99)

>300,000
R/Rmsy>.6

What is required to ensure ACLs reflect current conditions?

- Annual assessment update
- Informed by a reliable index of recruitment
- Provide ABC values that reflect current trends and events
- Implement rapid management changes
- Establish ACLs that allow fishery to take advantage of bounty
  - And, when necessary, suffer the consequences of scarcity.

What can we do NOW ?

- recognize ACLs *per se* are not the problem – ACLs that do not reflect current population abundance are the problem
- consider that episodic recruitment may be the norm for many snapper grouper species (seen it in BSB and RG lately)
- find ways to access the surplus provided by a recruitment spike – what METRICS can we find to tell us when exceeding the ACL is not likely to be an overfishing situation?
  - Rumble strips, Stop lights, Triggers

Possible approach

- Establish bag-size-season regs that are precautionary for average conditions (current MSA requirements)
- Evaluate real-time metrics (between assessments) to inform appropriate action
  - if metrics indicate a recruitment spike: maintain regs, do not penalize if ACL exceeded
  - if metrics indicate ongoing* poor recruitment: trigger stock assessment, consider strengthening regulations
- RS metrics: encounters, HB CPUE & Discards, FI surveys

**IMHO Less risk from a single poor recruitment: the same mechanisms that make catches spike when R spikes tend to make catches drop when R drops (e.g., red grouper)*