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BLUE CRAB ADVISORY PANEL MEETING

March 1, 2018

5:30 – 7:30 p.m.

Coastal Resources Division - Brunswick, GA

2nd Floor Conference Room

Agenda

1. Roll Call – Lindsey Aubart
2. Need for New Members – Lindsey Aubart
3. Update of License Reform– Doug Haymans/Julie Califf
4. Fisheries Independent Survey / Commercial Landings Update / Stoplight update
– Lindsey Aubart/Pat Geer
5. Crabbing Effort in Ocean – Clay George
6. Other Business – Recreational Crabbers (Phil Viviani)

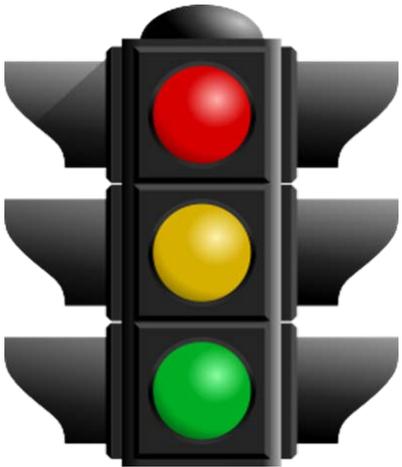


Georgia Blue Crab FMP Update March 1, 2018

Patrick Geer



Fishery Management Plan - 2008



"Traffic Light Analysis"

"Trigger Management"

"Adaptive Management"

"Threshold Management"

Present Blue Crab FMP (June 2008)

- Established as a result of a four year drought (1998-2003) and DOC/NMFS Fishery Failure Declaration (May 2003). Updated in June 2008.
- Threshold Management Approach
 - Data Sources:
 - GADNR EMS Trawl Survey - Spawning Stock
 - Commercial Trip Tickets CPUE (Catch per Trip)
 - Recommendations:
 - Thresholds were set at upper 95%, lower 81% and 95% confidence intervals
 - If a threshold is exceeded for 6 consecutive months a management action can be implemented
 - Implementation will remain until the threshold is NOT exceeded for three consecutive months.

Georgia Blue Crab Management

Criteria for a Threshold “Trigger” Action

- 6 consecutive months must be beyond the threshold value.
- Both Trawl and Commercial CPUE’s must agree.
- Other datasets will be incorporated as time series increases.
- Action can remain in effect up to 90 days (3 months) or until catches fall **WITHIN** acceptable values (recover).
- Actions will be reviewed by DNR Biologists and this advisory panel before implementation.

Georgia Blue Crab Management

What Happens When a Trigger is “Fired”

- Steps to Take
 1. Update all datasets
 2. Monitor closely beginning in the 4th consecutive month
 3. Convene a meeting of the Blue Crab AP
 - a. Consider the options
 - b. Make a recommendation based on the options
 4. Create an administrative order for Commissioner’s approval.
- Time Frame: 30 days to implement.
- Duration of Action: Up to 90 days (3 months) but can be continued if circumstances persist.

Georgia Blue Crab Management

Recommended Management Options for each Trigger*

Threshold Value 1: ($> 81\%$ Upper C.I.)

- Relax regulations on harvest of sponge crabs.



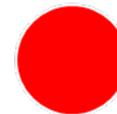
Threshold Value 2: ($\leq 81\%$ Lower C.I.)

- Seasonal restrictions on female harvest.
- Can be adults, peelers, or both.
- Does not need to be immediately after the the threshold is reached – Can be timed to allow for biological considerations.



Threshold Value 3: ($\leq 95\%$ Lower C.I.)

- A prohibition on ALL female harvest (hard & peelers)
- Complete harvest moratorium



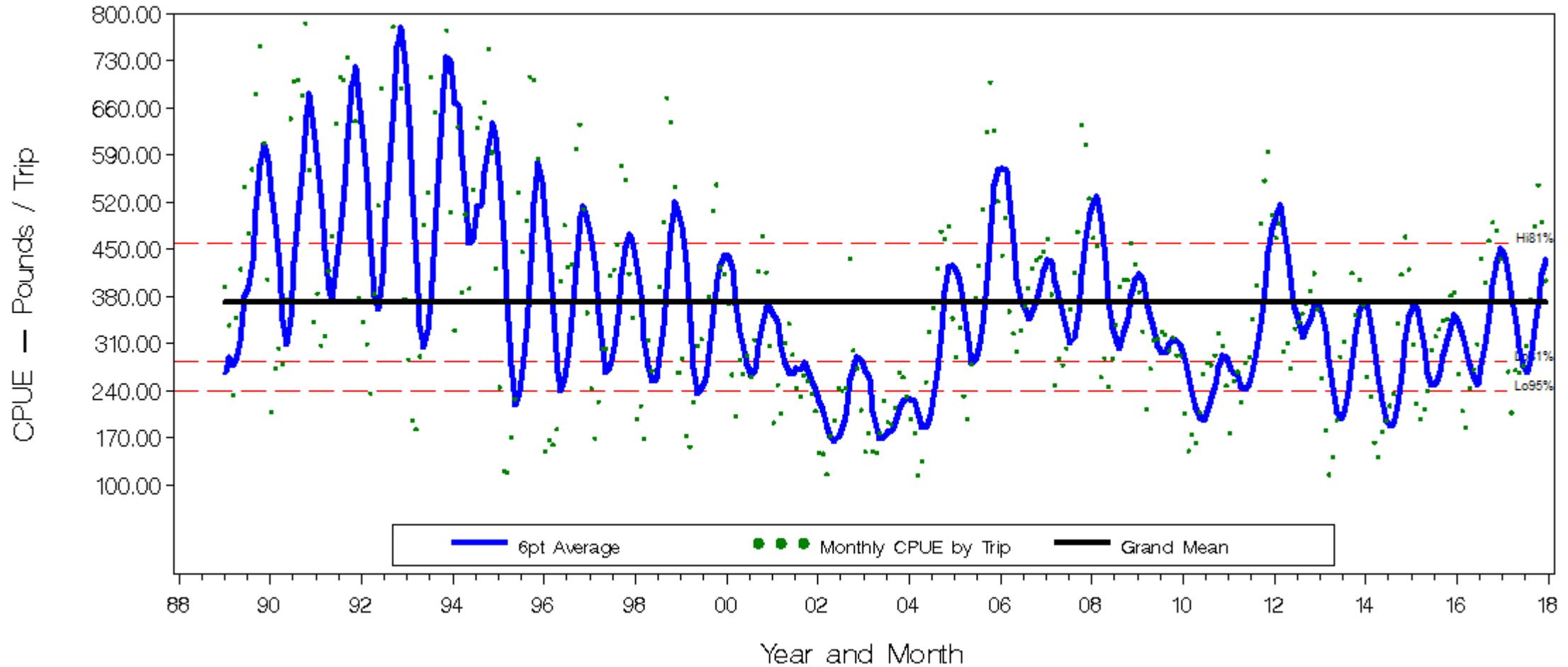
*: As written in 2008 Georgia Blue Crab Fishery Management Plan

Georgia Blue Crab Management

What Happens When a Trigger is “Fired”

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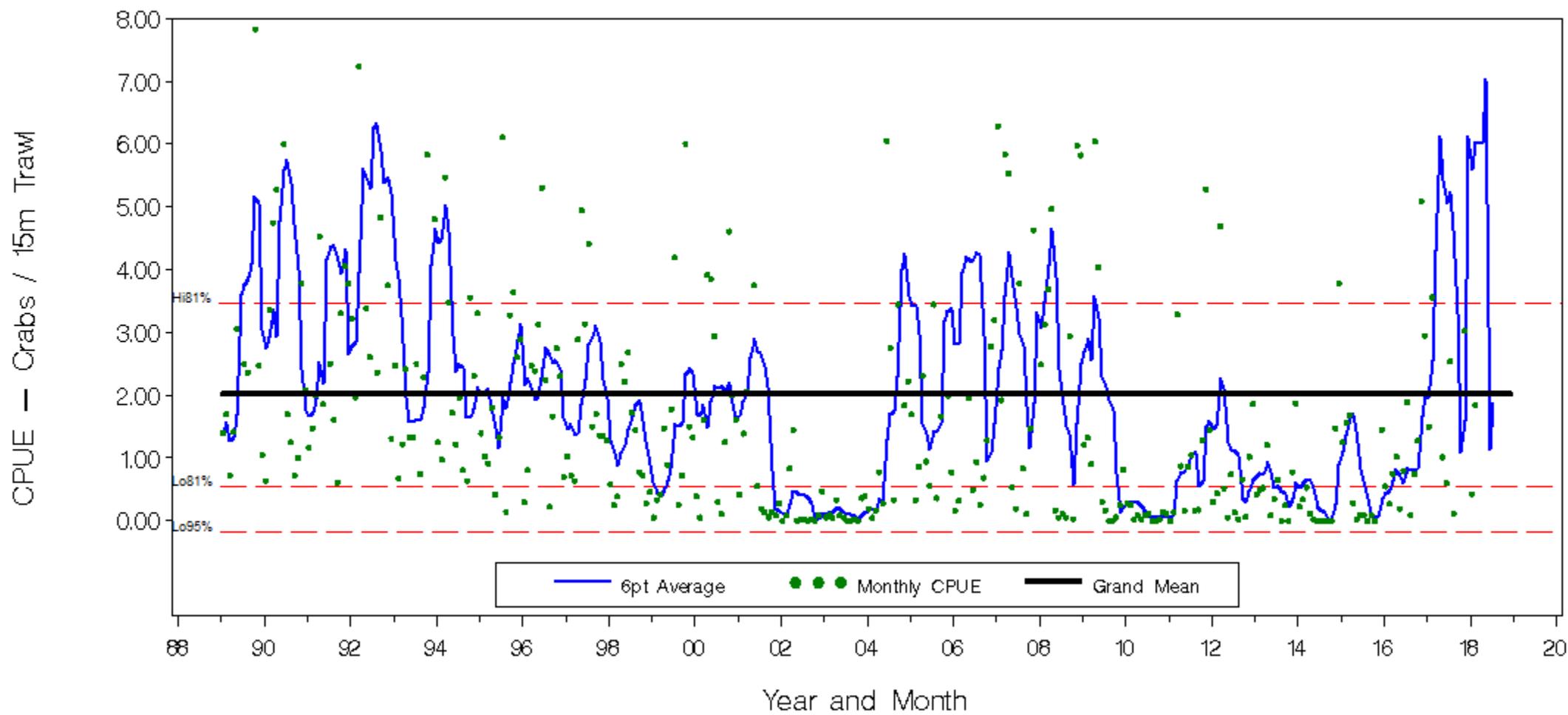
Commercial CPUE (lbs/trip)



Trigger Values (in lbs/trip): Hi81%: 459 Lo81%: 284 Lo95%: 240. Grand Mean: 371

No triggers have been met in almost 10 years

EMTS Spawning Stock

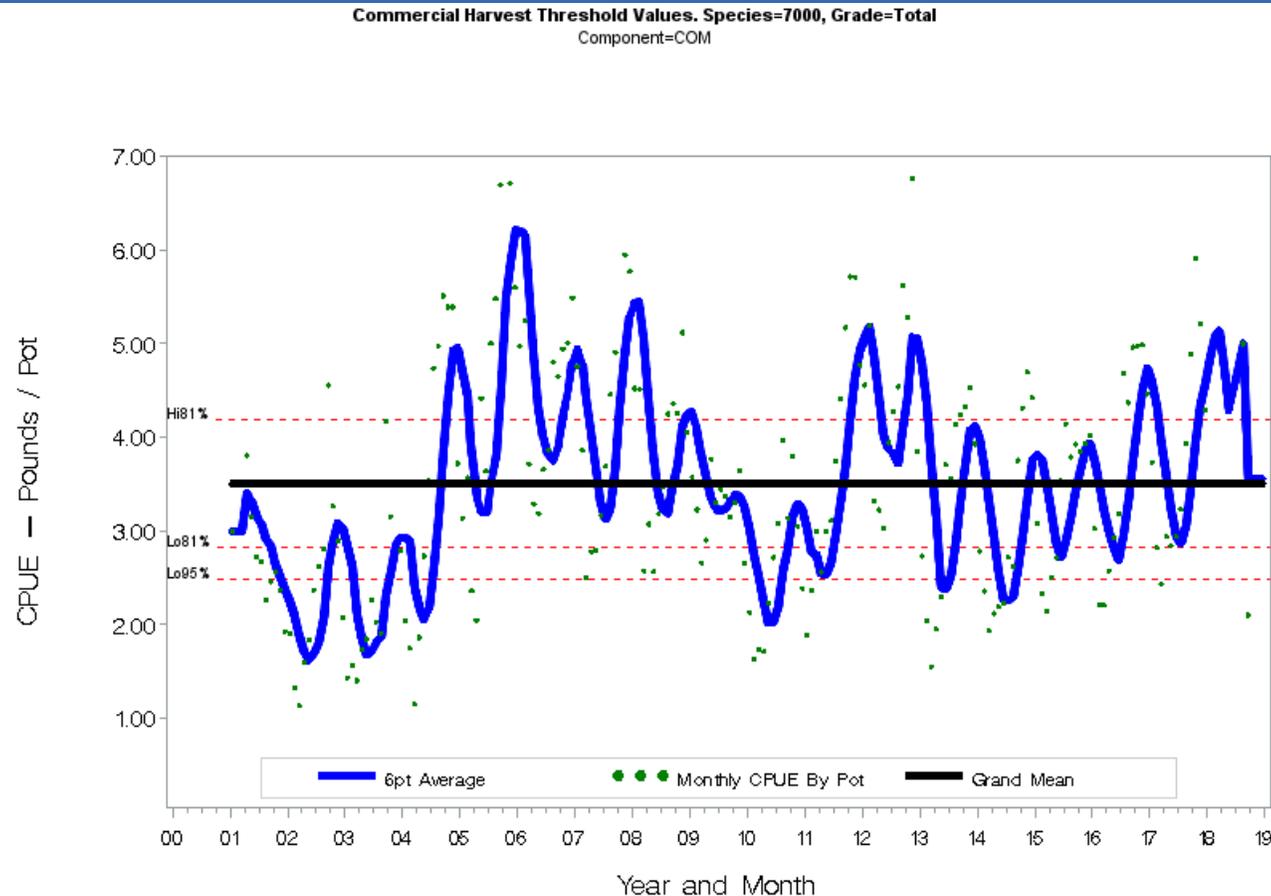


Trigger Values (in #/trawl): Hi81%: 3.47 Lo81%: 0.54 Lo95%: 0.01. Grand Mean: 2.01

Presently: 3 months (Dec-Feb) above the Hi 81% CI

2017: 6 months (Mar-Aug) above the Hi 81% CI - Trigger met

Commercial Catch and Effort (pounds per trap)**



Trigger Values (in lbs/pot): Hi81%: 4.18 Lo81%: 2.82 Lo95%: 2.48. Grand Mean: 3.50

Presently: 2 months (Nov-Dec) above the Hi 81% CI

2017: 5 months (Oct 16 – Feb 17) above the Hi 81% CI - Trigger NOT met

** : Not considered in 2008 FMP due to the short time series

Proposed Changes to the Plan

- Data Sets
 - Continue with EMTS Spawning Stock – Abundance Characteristic
 - Replace Commercial lbs/trip with lbs per pot – Harvest Characteristic
 - Develop an estimate of juveniles (recruits) from the EMTS
- Time Series
 - Should be consistent for all datasets – Start with 2002
 - EMTS: 1976-present
 - Commercial lbs per trip: 1989-present
 - Commercial lbs per pot: 2002-present
 - Eliminates older data that may not be representative of the present fishery
 - Month to Month Comparison replaces Month to Grand Mean Comparison

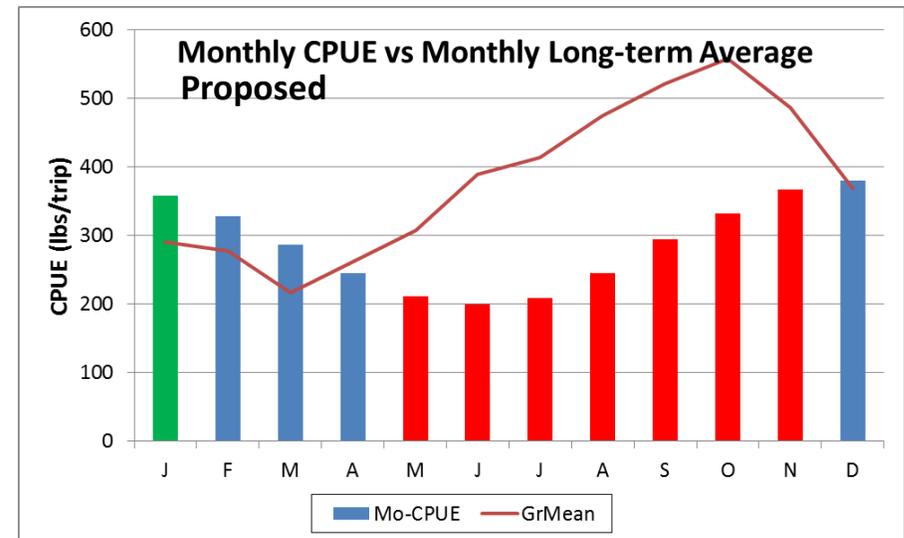
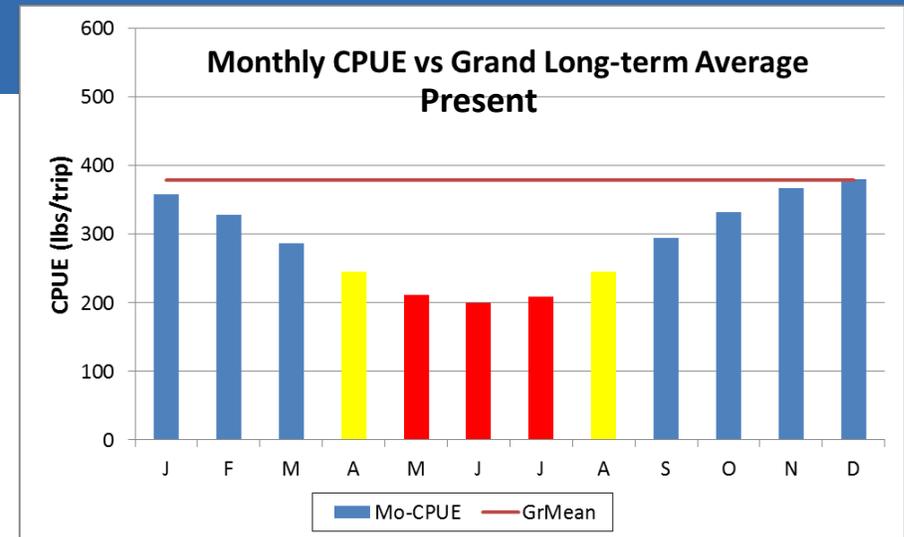
Issues to Consider

Previously Presented to BCAP

- Same Data – 2013 Commercial CPUE
- Using Long-term mean (top) vs monthly long-term mean (bottom)
- Bar color indicates status

Month	2013 CPUE	Long-term Average (89-14)	
		By Month	Overall
J	357.68	290.80	378.54
F	328.87	277.90	
M	286.55	216.59	
A	245.50	262.53	
M	210.97	307.17	
J	199.90	388.85	
J	209.14	413.66	
A	245.36	474.97	
S	295.16	521.56	
O	332.66	558.04	
N	366.73	486.99	
D	380.63	367.94	

2013 Commercial Crab Harvest

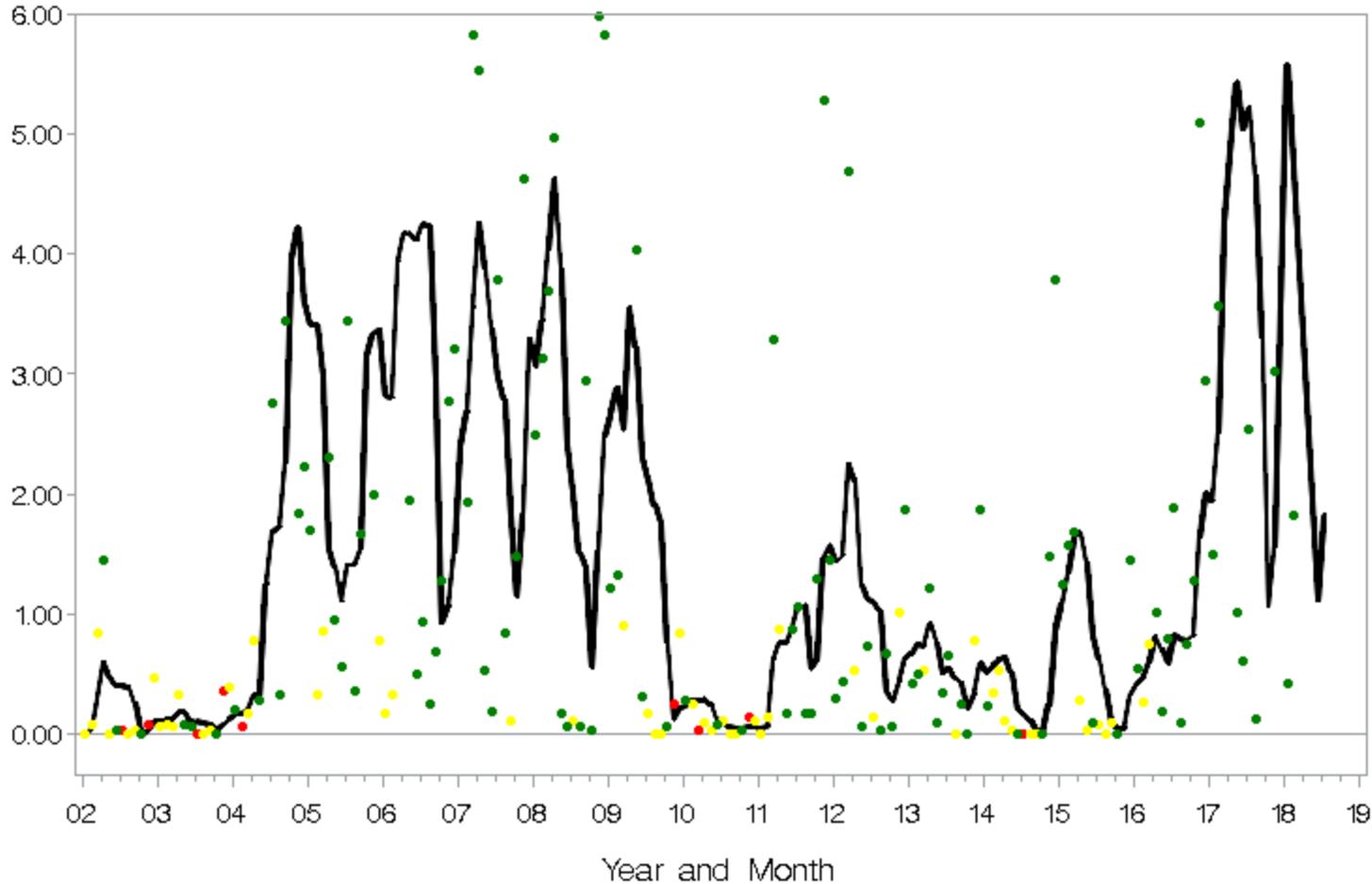


	Within Acceptable Ranges
	Below the lower 95% Confidence Interval
	Below the lower 81% Confidence Interval
	Above the upper 81% Confidence Interval

Alternative Method – Monthly Comparison

EMTS – Adult Females

EMS — Trawl Threshold Values. Variable: ADFEMALES, ARMEAN
Project=EMS



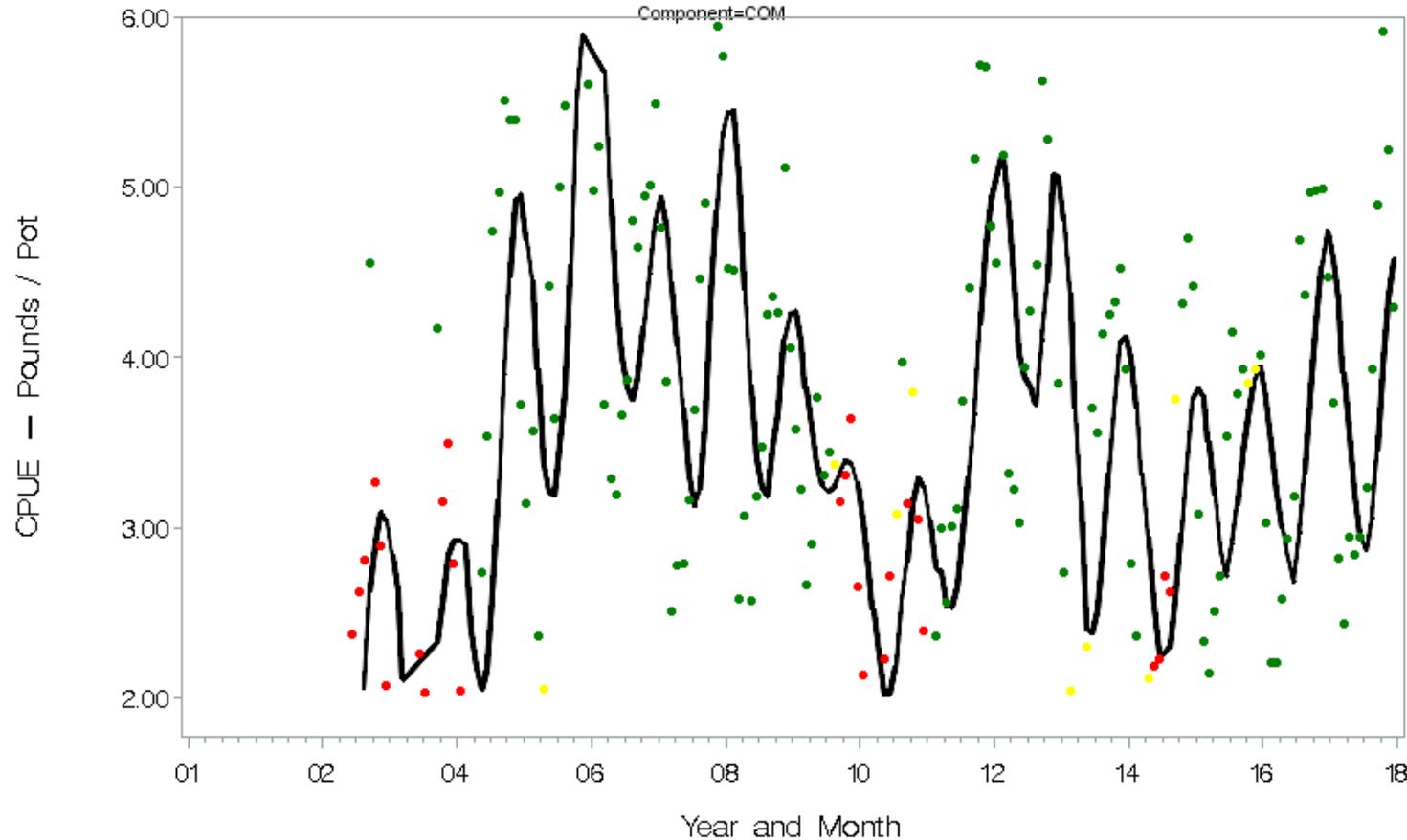
Trigger Values: Vary by Month
 Presently: 3 months (Dec17 – Feb 18)
 above the Hi 81% CI
 2017: 5 months (May-Sep) above
 the Hi 81% CI
 Trigger NOT met

Alternative Method – Monthly Comparison

Commercial CPUE – Pounds per Pot

Commercial Harvest Threshold Values: CPUE: Pounds per Pot

Species=7000, Grade=Total
YEARS: 2002 - 2018



Trigger Values: Vary by Month

Presently: Trigger NOT met (as of Dec17)

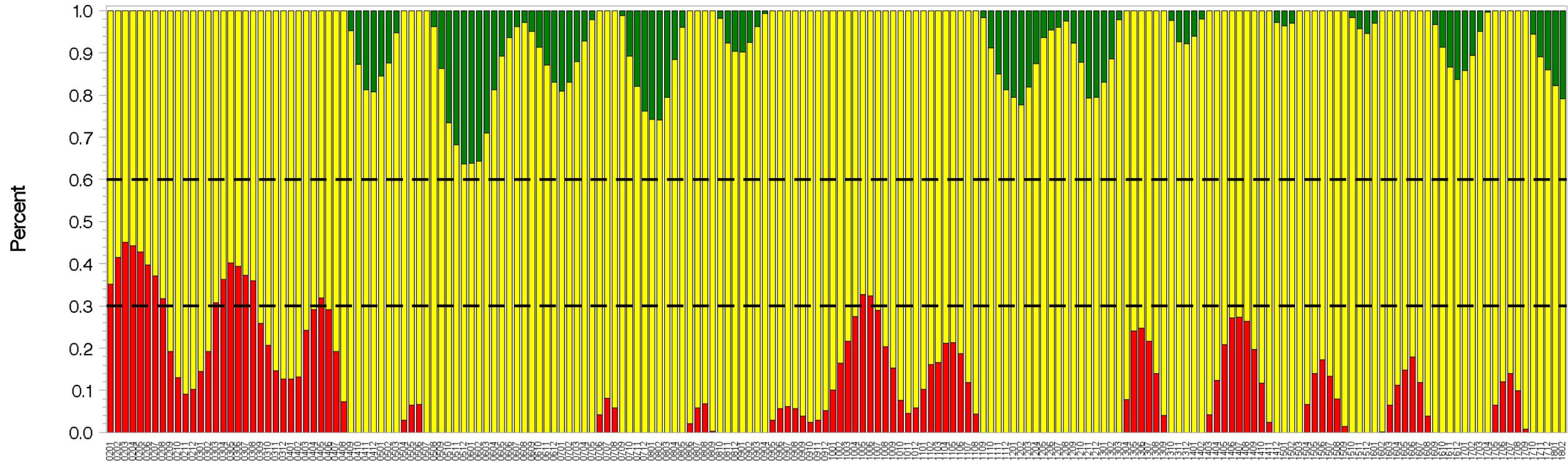
2017: 6 months (Dec-May) above the Hi 81% CI

Trigger Met through Aug 2017

TLA – Harvest Characteristic 2002-2017

Pounds per Pot

Traffic Light Approach
Project: EMTS, Species: 131, Stage: Adult Females, Analysis Years: 2002 - 2018
Variable: Avg6pct, Graph Years: 2002 to 2018



Proposed Changes to the Plan

- Data Sets
 - Continue with EMTS Spawning Stock – Abundance Characteristic
 - Replace Commercial lbs/trip with lbs per pot – Harvest Characteristic
 - Develop an estimate of juveniles from EMS – Recruit Characteristic
- Time Series
 - Should be consistent for all datasets – Start with 2002
 - Continue with Monthly Analysis
 - Continue with 6 consecutive months to trigger
 - Begin using Traffic Light Analysis/Approach
- FMP Update: Complete by ??