East Central Golden King crab management plan

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East Central GKC

Description of the mananagement area. Where it is located, typical participation from fleet and brief history of fishing pressure.

Proposed plan

Metrics to assess stock health and fishery performance.

Operational Objective

Maintain the average commercial catch per unit effort (CPUE) at or above 3.38 crab per pot and XX lbs per day.

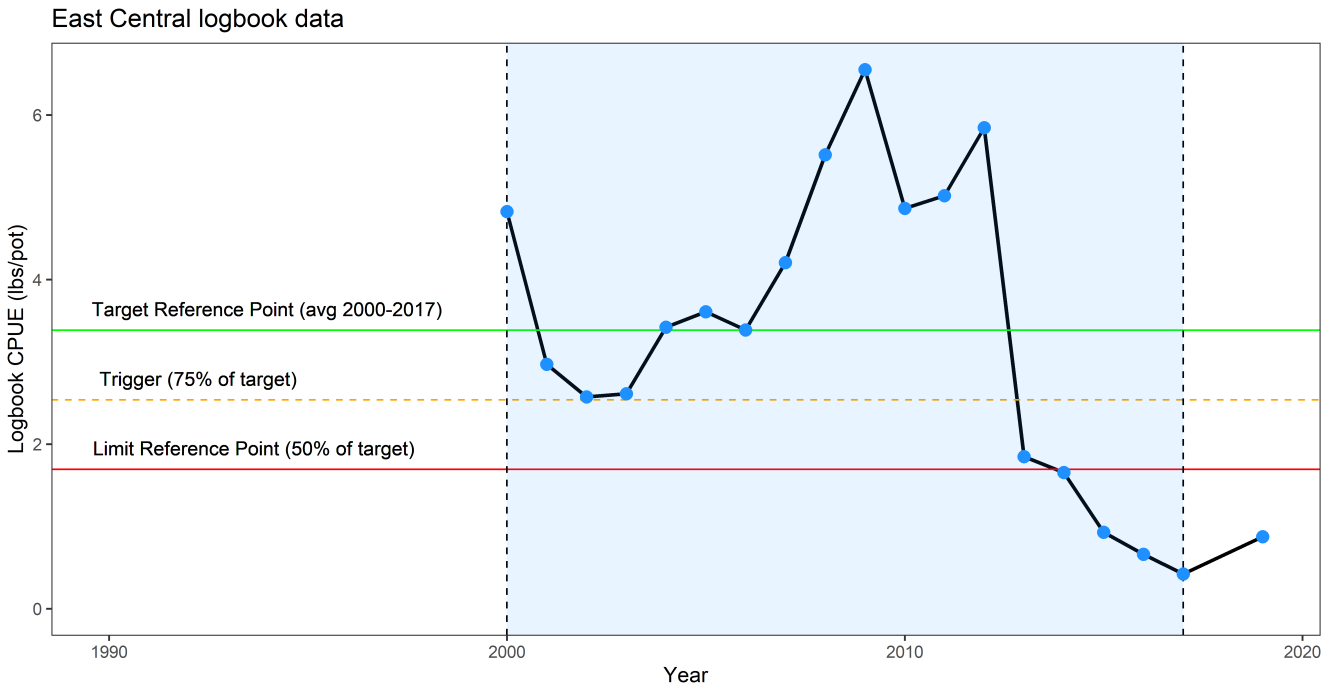
Performance Indicators

The primary performance indiactor used in this harvest strategy is commercial catch rate defined as logbook CPUE calculated from the CPUE at each logbook entry and averaged for the entire season. Commercial catch rate is the number of of legal sized male golden king crab per potlift.

Reference Points

The Target Reference Point (RP_{targ}) is set at the average logbook CPUE for the years 2000–2017 as these years capture when logbooks were required for the fishery in 2000 and represents contrasting data (highs and lows) in fishery performance. The Trigger Regerence Point (RP_{trig}) is set at 75% of the RP_{targ} and the Limit Reference Point (RP_{lim}) is set at 50% of the RP_{targ}.

Indicators	Reference.Point	Description
Target Reference Point	3.4 crab/pot	Average Commercial logbook CPUE from 2000-2017
Trigger Reference Point	2.5 crab/pot	75% of the Target Reference Point
Limit Reference Point	1.7 crab/pot	50% of the Target Reference Point



Monitoring Strategy

Decision Rules

Considering the primary performance indicator (logbook CPUE) being the most readily available estimate of fishery performance the folowing decision rules will be considered to guide in-season and post-season management decions.

- **Option A**
  - If logbook CPUE is >= the RP_{targ} increase the guideline harvest level (GHL) the following season;
  - If logbook CPUE is >= the RP_{trig} increase the GHL the following season;
  - If logbook CPUE is < the RP $_{trig}$ close fishery early and decrease GHL the following season;
  - If logbook CPUE is <= the RP_{lim} close fishery early, subjec to multiple year closure, and upon re-opening set GHL at a reduced level
- **Option B**
  - If logbook CPUE is >= RP_{targ} for 1 year increase GHL 0%-10% the following season and if logbook CPUE is > RP_{targ} for at least 3 years 0-15% increase in GHL the following season;
  - If logbook CPUE is >= RP_{trig} but < RP_{targ} increase GHL 0%-10% the following season;
  - If logbook CPUE is > RP_{lim} but < RP_{trig} close fishery early, decrease GHL 0%-20% the following season;
  - If logbook CPUE is <= RP_{lim} close fishery early, subject to multipler year closure, and upon re-opening set GHL at a reduced level

Other considerations for managment

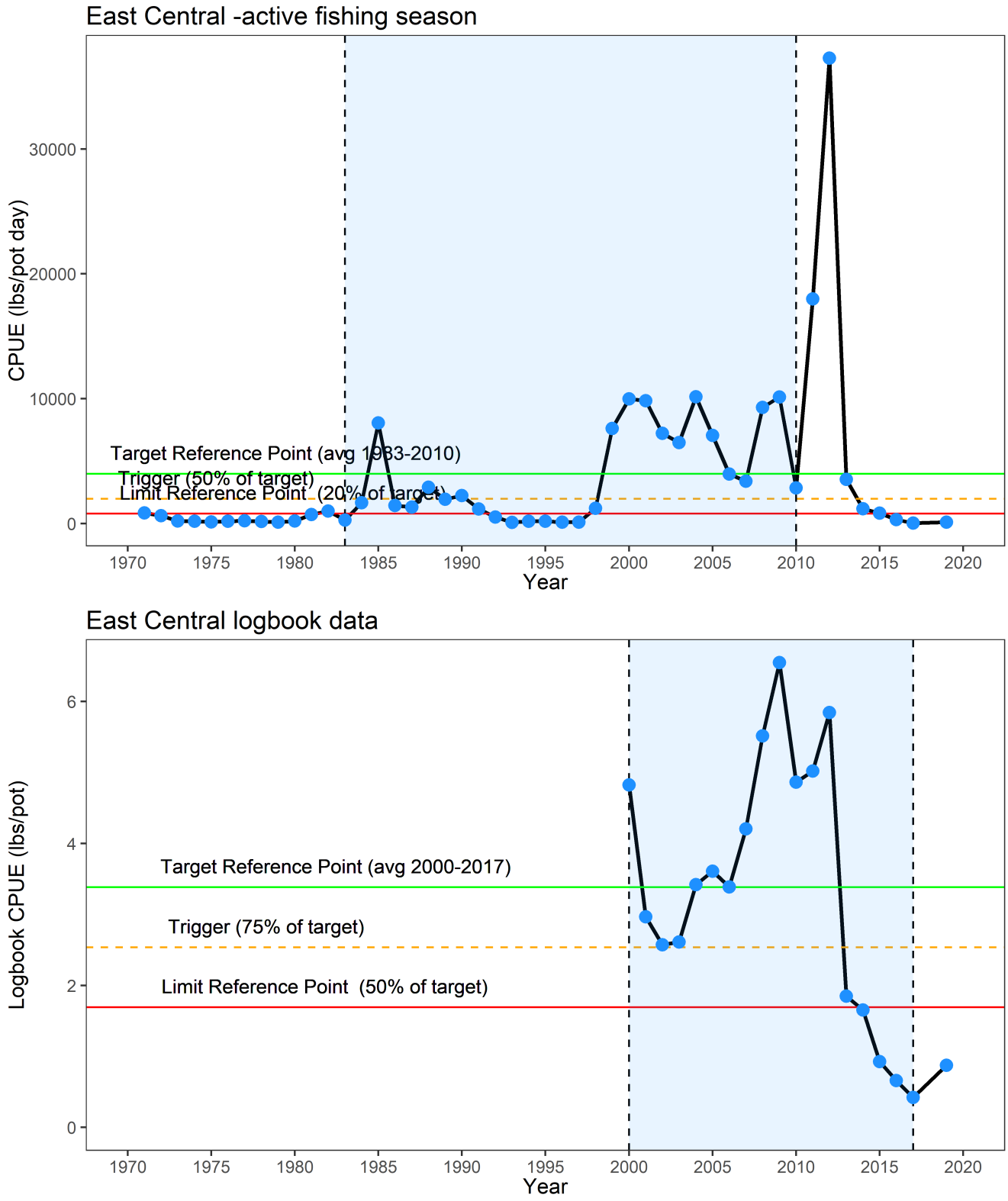

East Central -active fishing season
CPUE (lbs/pot day)
30000
20000
10000
0
Target Reference Point (avg 1983-2010)
Trigger (50% of target)
Limit Reference Point (20% of target)
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year
East Central logbook data
Logbook CPUE (lbs/pot)
6
4
2
0
Target Reference Point (avg 2000-2017)
Trigger (75% of target)
Limit Reference Point (50% of target)
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
Year

Figure 1: