

# **Comments on CSNA Management and CPS FMP Management Categories**

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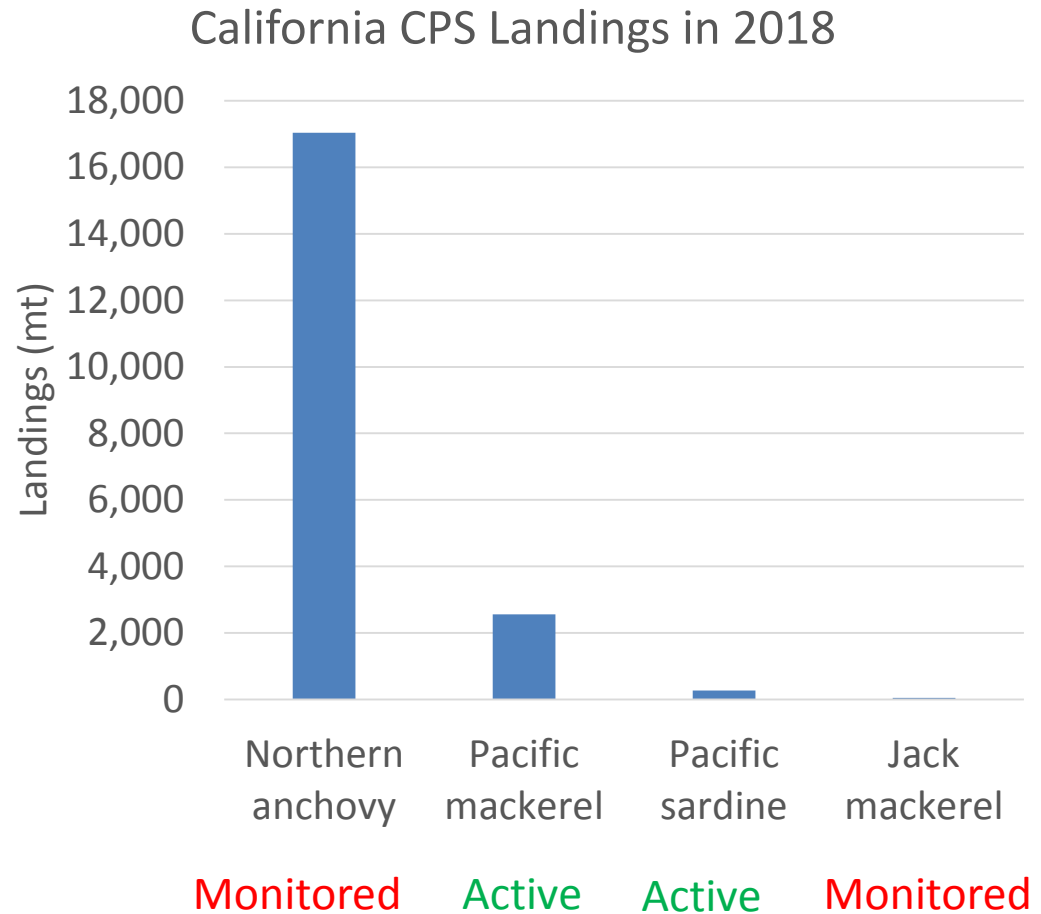
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# Concerns with Council's Implementation of CPS FMP "Monitored" Category

- Not using best available estimates of biomass to inform OFL, ABC, ACLs
- Leads to less data being collected or reviewed
- No way to determine whether stocks are overfished
- Static quotas result in more severe collapse for highly variable stocks (Siple et al. 2018, May 1978)
- 75% ABC buffer is not insufficient to prevent overfishing if stocks can drop by 99% in 2 years
- Not responsive to ecosystem concerns
  - No incorporation of ecological OY factors
  - Mortality events for dependent predators



Current categories  
do not reflect  
recent biological  
removals



# Minimum Stock Size Thresholds

- FMPs must contain Status Determination Criteria to determine whether stock is overfished
- NMFS tool is MSSTs
- Must be based on best available science

|                  | MSST in FMP   | NMFS (2016) MSST Estimates |
|------------------|---------------|----------------------------|
| Pacific sardine  | 50,000        | 61,074 - 121,697           |
| Pacific mackerel | 18,200        | 24,599 - 31,370            |
| CSNA             | Not specified | 69,049 - 69,781            |
| NSNA             | Not specified | Not complete               |
| Jack mackerel    | Not specified | 272,160                    |



# Summary of Requests

- Eliminate active vs. monitored categories from CPS FMP
- Establish a regular specifications cycle for all CPS finfish
- Establish/update minimum stock size thresholds (MSSTs) for all CPS finfish
- Establish new harvest control rule for CSNA using management strategy evaluation



# Useful Concepts from Groundfish and HMS Specifications Processes

- Single, regular specifications for all stocks in the fishery
- SSC reviews information for all stocks on a clear schedule
- Some catch limits do not change, but opportunity to bring in new data to inform management, determine whether overfished, & formally consider best available science

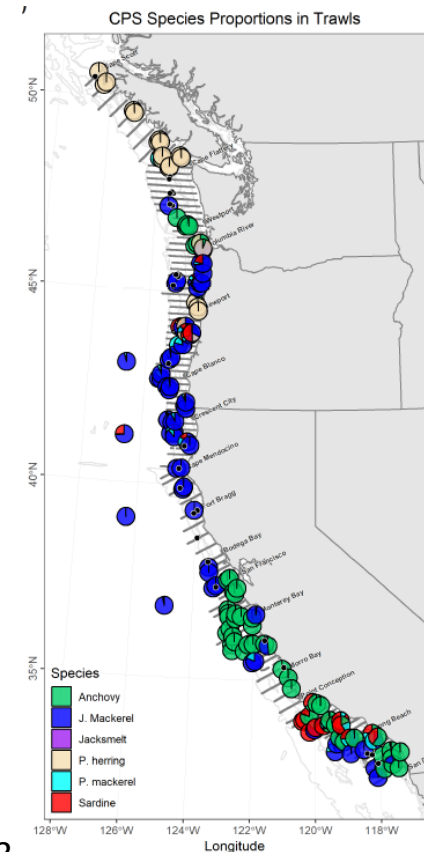


# ATM Methodology Review Report (April 2018):

*“The estimates of biomass from the ATM surveys can be used to directly inform management.... In the case of northern anchovy there is need to adjust the ATM biomass estimates for the biomass inshore of the survey area, ideally using directed sampling, before the estimates can be used in assessments and management.”*

| CPS Stock             | 2017 ATM | 2017 nearshore | 2018 ATM | 2018 nearshore |
|-----------------------|----------|----------------|----------|----------------|
| CSNA                  | 153,460  | 45,446         | 723,826  | 4,110          |
| NSNA                  | 22,709   | 117            | 24,419   | 1,310          |
| Pacific mackerel      | 41,139   | 1,105          | 31,221   | 1,320          |
| Jack mackerel         | 128,313  | 1,543          | 202,471  | 9,954          |
| Pacific sardine (NSP) | 14,103   | 146            | 25,148   | 309            |
| Pacific sardine (SSP) | N/A      | N/A            | 33,093   | 1,870          |

All figures in metric tons. From NMFS 2019. Tech memos SWFSC 610 & 613



# A New Framework for CPS

- Regular specification process for all 5 CPS finfish stocks:
  - Set OFLs, ABCs, and ACLs based on annual biomass estimates from surveys (not assessments)
  - Uses pre-determined formulas
  - Minimize time between surveys and specifications
- Periodic Stock Assessments
  - Adjust MSSTs,  $F_{msy}$ , Harvest Control Rules



# Required NMFS/PFMC Annual Workload:

## **Current Active vs. Monitored Approach**

- 1-2 CPS specs agenda items
- 1-2 CPS ATM surveys
- 1-2 stock assessments
- 1-2 implementing regulations
- 2 species managed

## **Proposed Annual Management Approach**

- 1 CPS specs agenda item
- 1-2 CPS ATM surveys
- 1 stock assessment
- 1 implementing regulation
- 5 species managed



# Management Strategy Evaluation for CSNA

- Stakeholder engagement
- Data inputs (ATM surveys, DEPM, aerial survey, other)
- Operating (simulation) model
- Performance metrics (average catch, years with stock below cutoff, risk of depletion, predator impacts)
- Compare alternative harvest control rules

# Next Steps

- Initiate an FMP amendment to:
  1. Remove active v. monitored
  2. Establish annual specs framework
  3. Establish harvest control rule for CSNA
  4. Update MSSTs
- Initiate an MSE for CSNA to establish harvest control rule