

Data-moderate assessments of California rockfish stocks - overview

Agenda Item C.6.a

Supplemental STAR Panel Presentation 2
(Data-Moderate: Copper, Quillback, Squarespot)

September 2021

Assessment history:

Length-based data-moderate assessments:

- Copper rockfish
- Quillback rockfish
- Squarespot rockfish

Reviewed at SSC Groundfish Subcommittee Workshop, June 2021

Reviewed & endorsed by SSC, June 2021

Species	Region	Depletion (%B0)	Category
Copper	WA	42%	2
	OR	74%	2
	N. CA	39%	2
	S. CA	18%	2
Quillback	WA	39%	3
	OR	47%	2
	CA	14%	2
Squarespot	CA	37%	2

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Outstanding issues for California assessments (Aug. 17 Groundfish SC meeting & Sept SSC meeting):

- Additional length data from CPFV surveys in 1970s-80s
- Additional age data from new otolith reads
- Increasing area & depth closures since 2001 – how to handle?

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(Aug. 17 Groundfish SC meeting):

- Additional length data from CPFV surveys in 1970s-80s
 - Only small changes in model fits, no cause to adjust endorsed models
 - Potential issues with older CPFV data – additional work is needed
 - Old species coding ('whitebelly' rockfish)
 - Misidentification of larger species as squarespot
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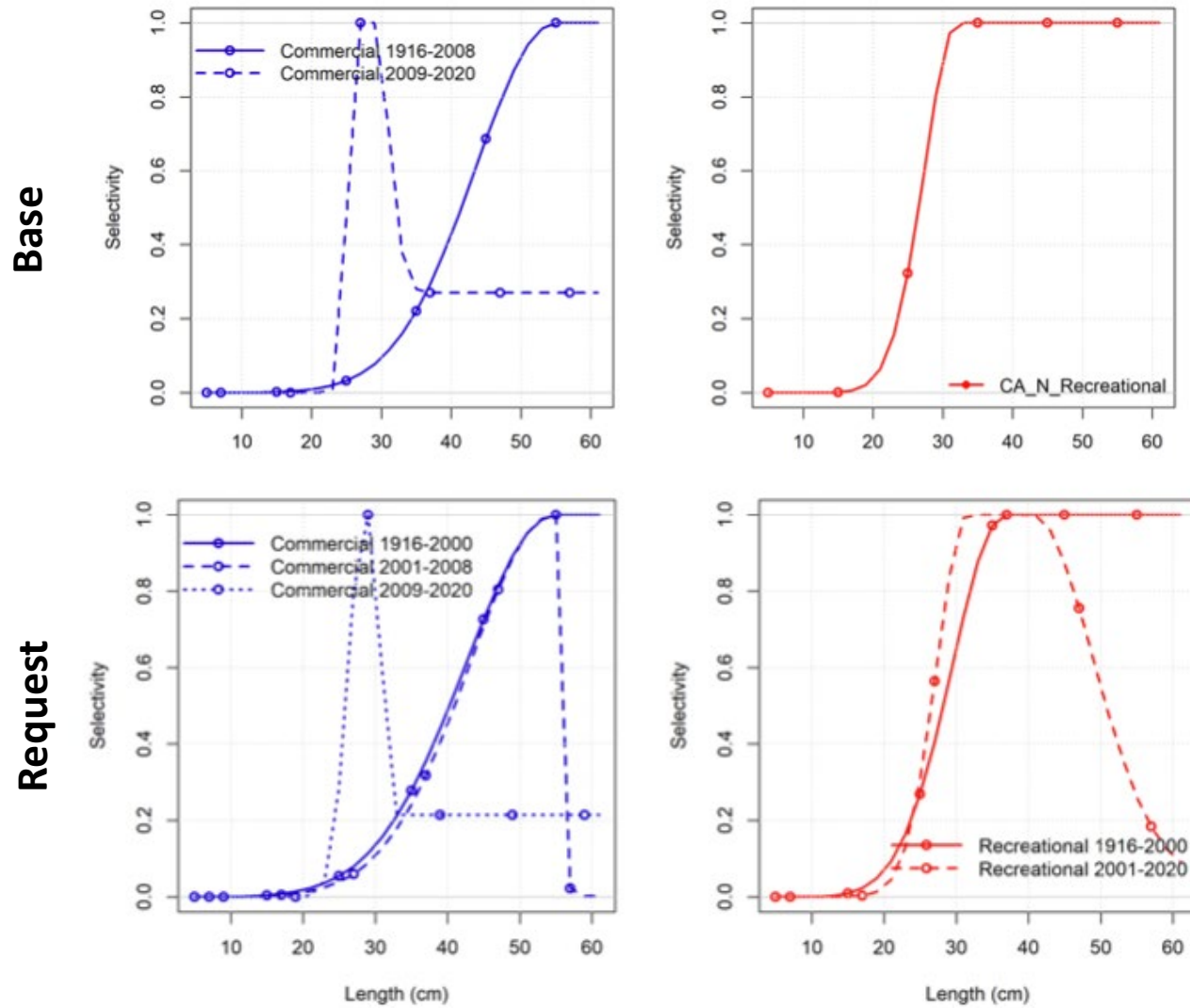
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- Increasing area & depth closures since 2001 – how to handle?
 - Various selectivity time blocks & dome-shaped options considered
 - More complex models had better fit, but may not capture actual dynamics
 - No change to endorsed models
 - More research & data needed to best account for these closures

Copper Rockfish

Request to STAT: Selectivity blocks post-2001, allowing dome shape

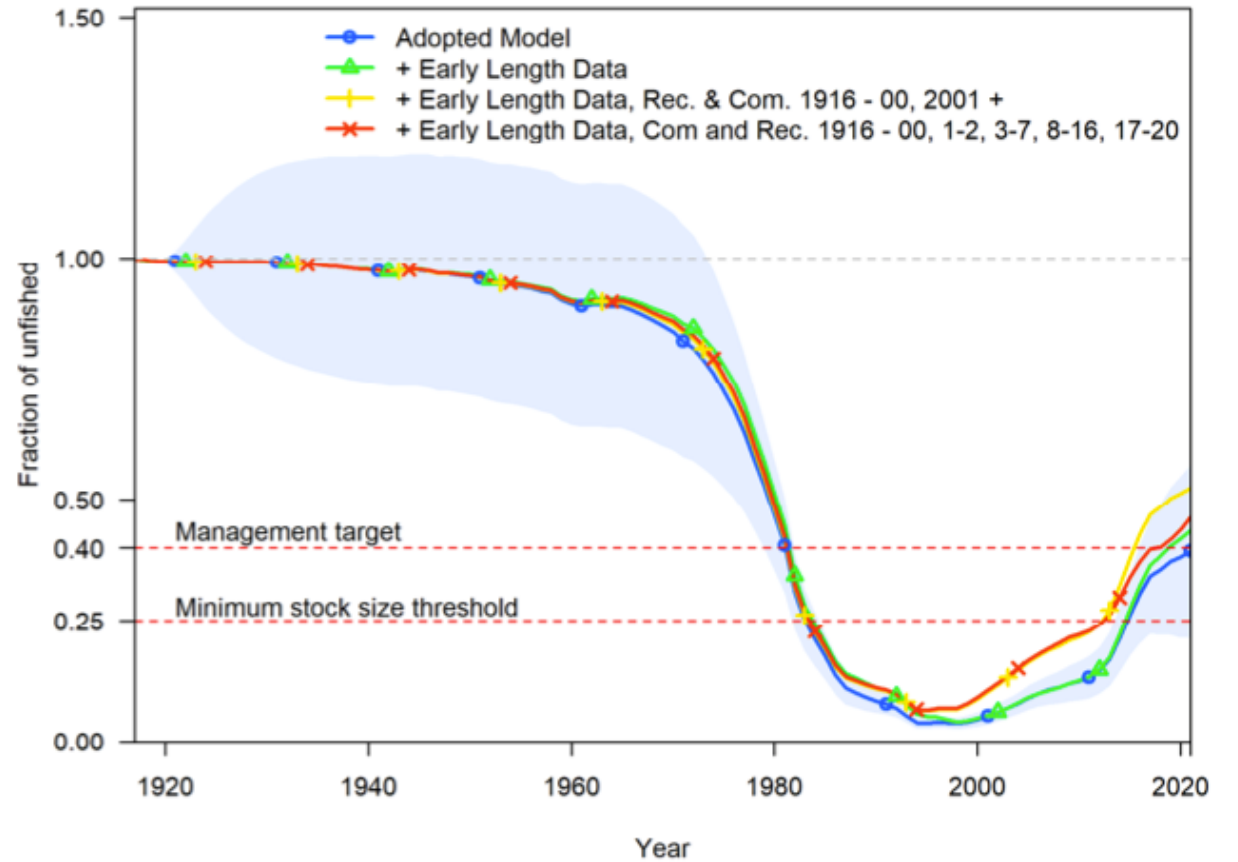


Copper Rockfish

Request to STAT: Selectivity blocks post-2001, allowing dome shape

Result:

- Model fits dome-shaped selectivity for both fleets
- More complex model (more parameters) does not have very different trajectory; no change recommended



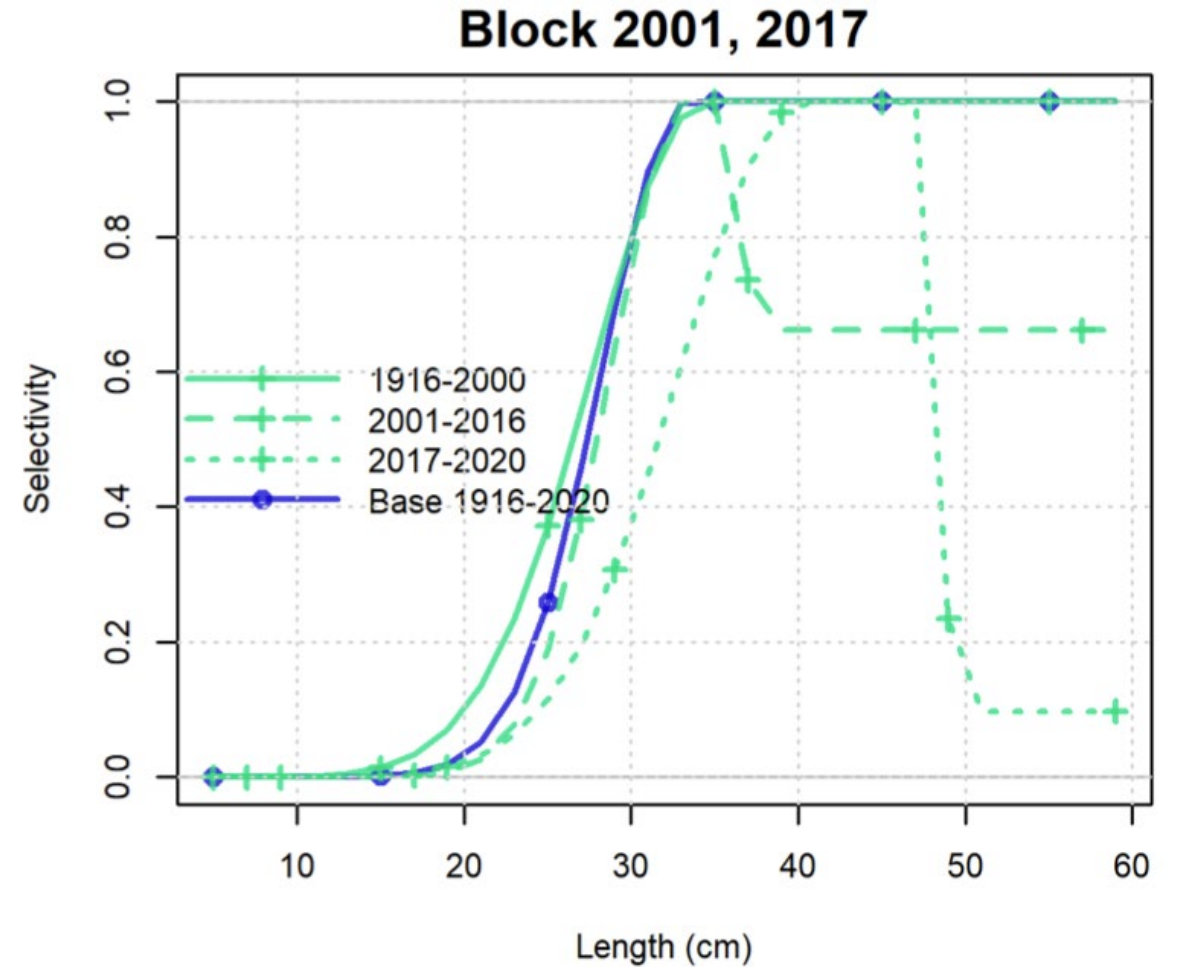
[N of Pt Conception model]

Quillback Rockfish

Request to STAT: Selectivity blocks post-2001 in recreational fleet, allowing dome shape

Result:

- Later time blocks had right-shifted selectivity, but perhaps too extreme?

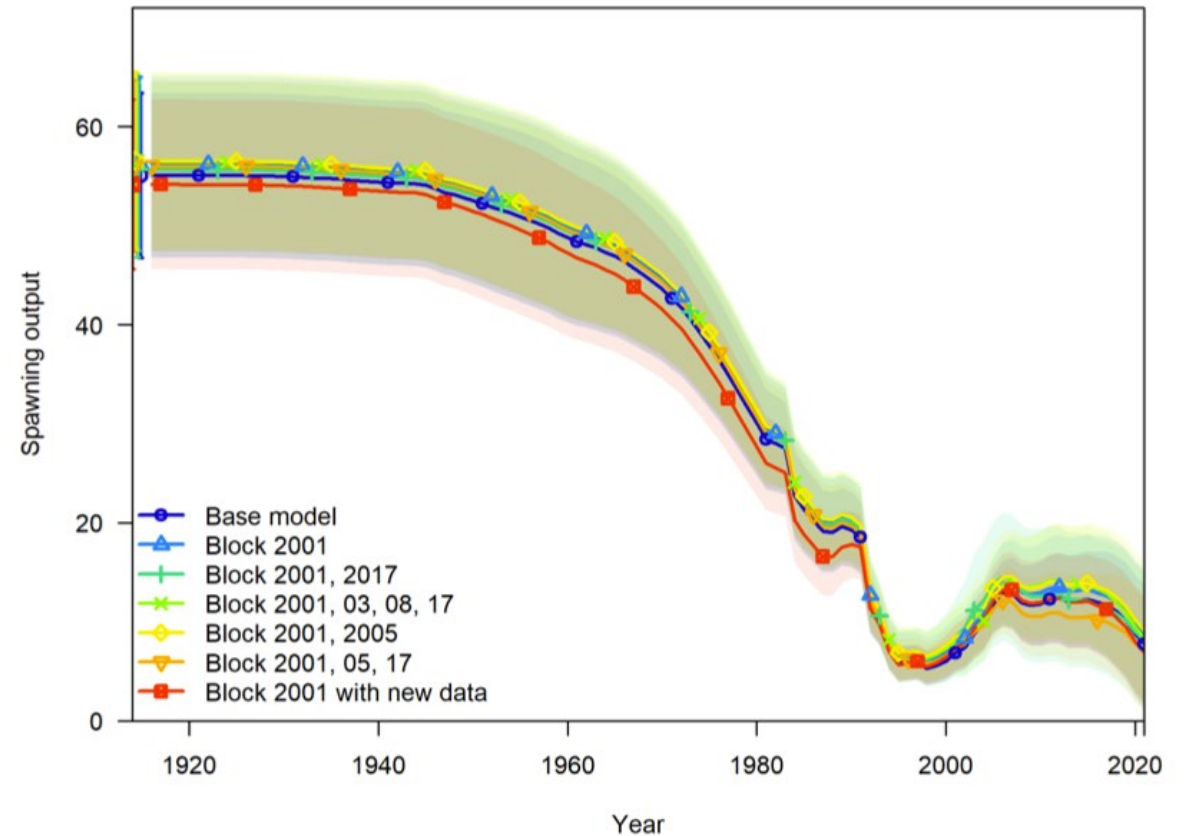


Quillback Rockfish

Request to STAT: Selectivity blocks post-2001 in recreational fleet, allowing dome shape

Result:

- Model fits dome-shaped selectivity (but perhaps too extreme?)
- More complex model (more parameters) does not have very different trajectory; no change recommended

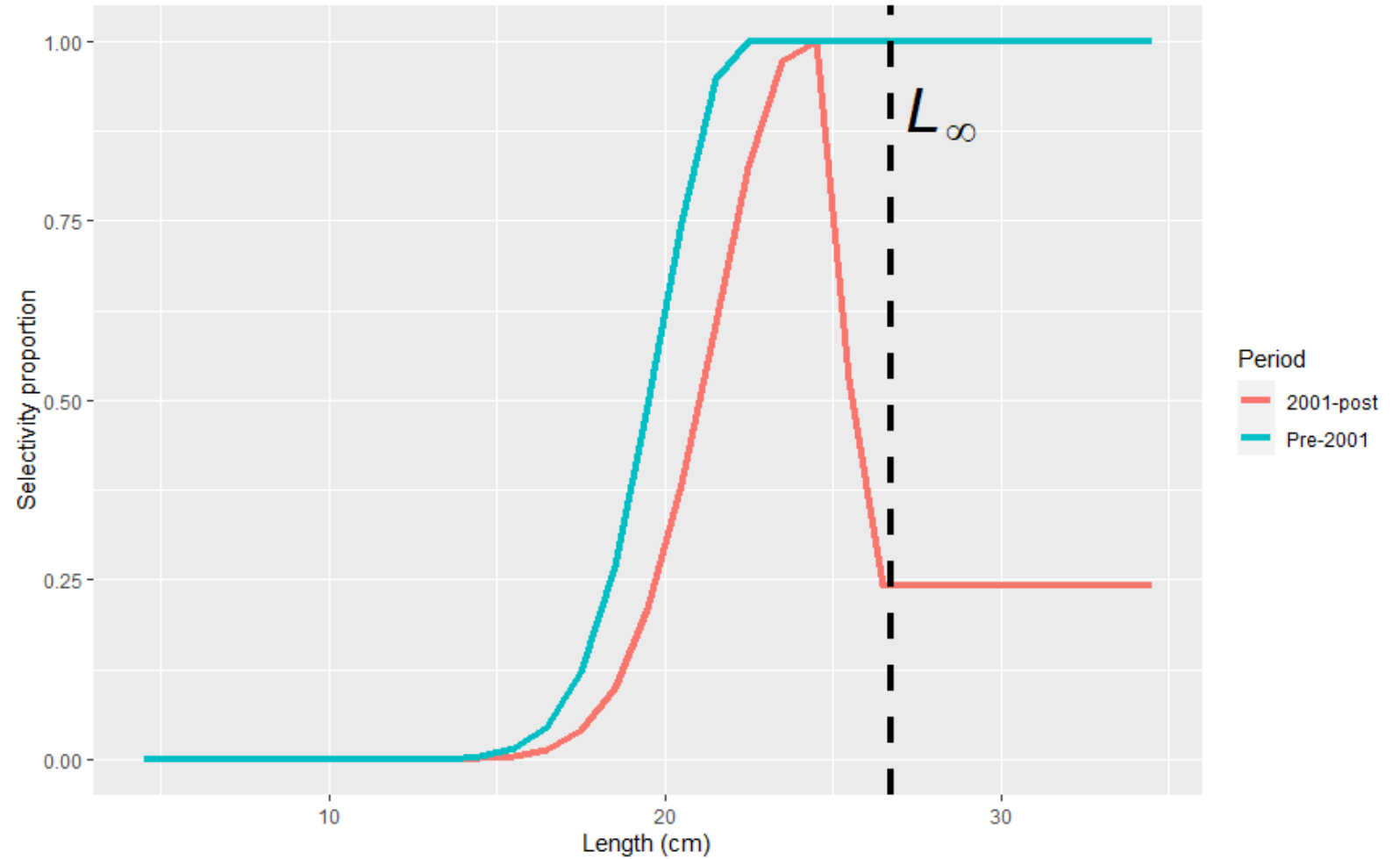


Squarespot Rockfish

Request to STAT: Selectivity blocks post-2001 in recreational fleet, allowing dome shape

Result:

- Implausibly narrow range of selected lengths post-2001

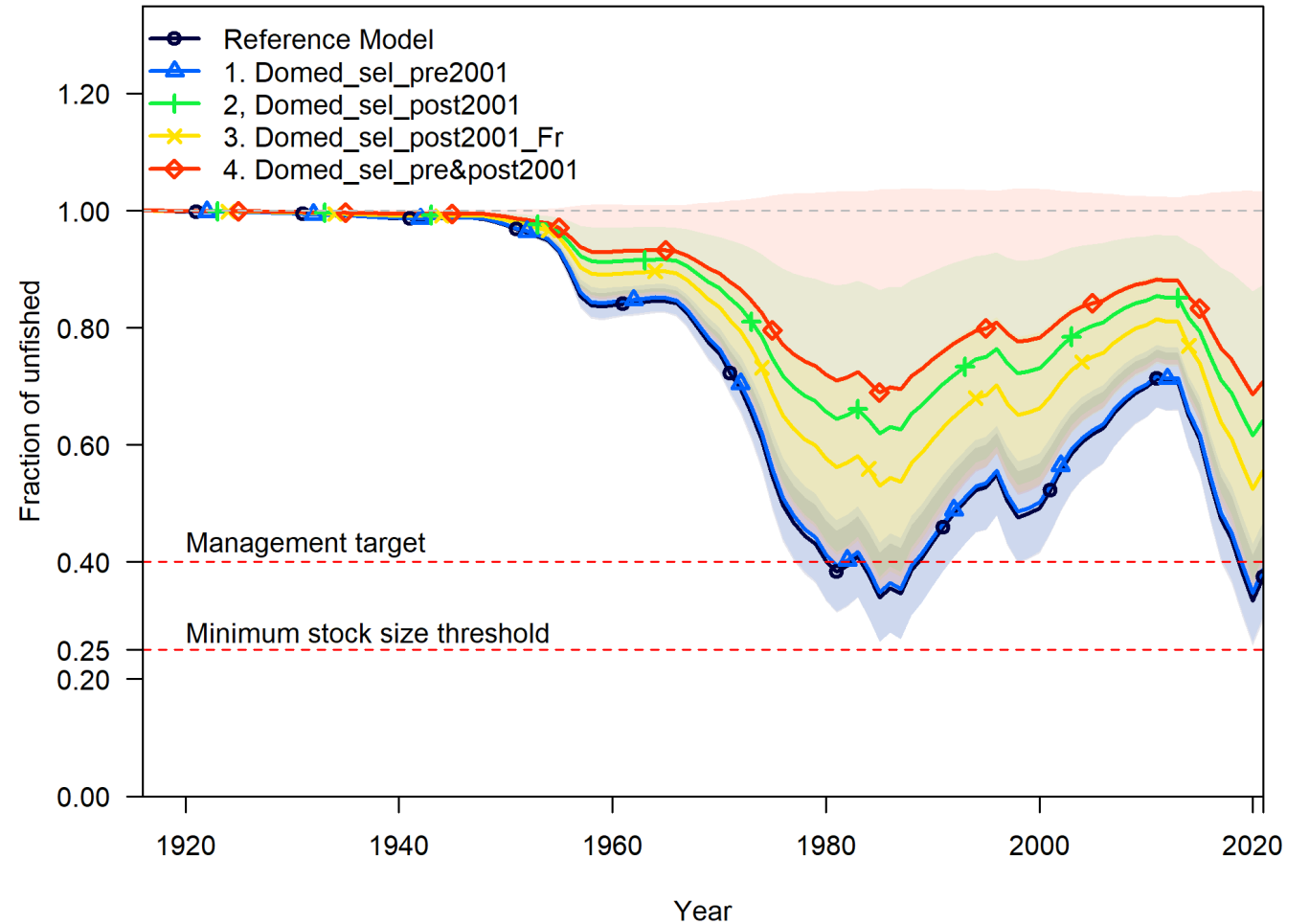


Squarespot Rockfish

Request to STAT: Selectivity blocks post-2001 in recreational fleet, allowing dome shape

Result:

- Implausibly narrow range of selected lengths post-2001
- Additional uncertain parameter → Much greater uncertainty bounds
- Reference model remains least uncertain & conservative



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 - No recommended change to endorsed models
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