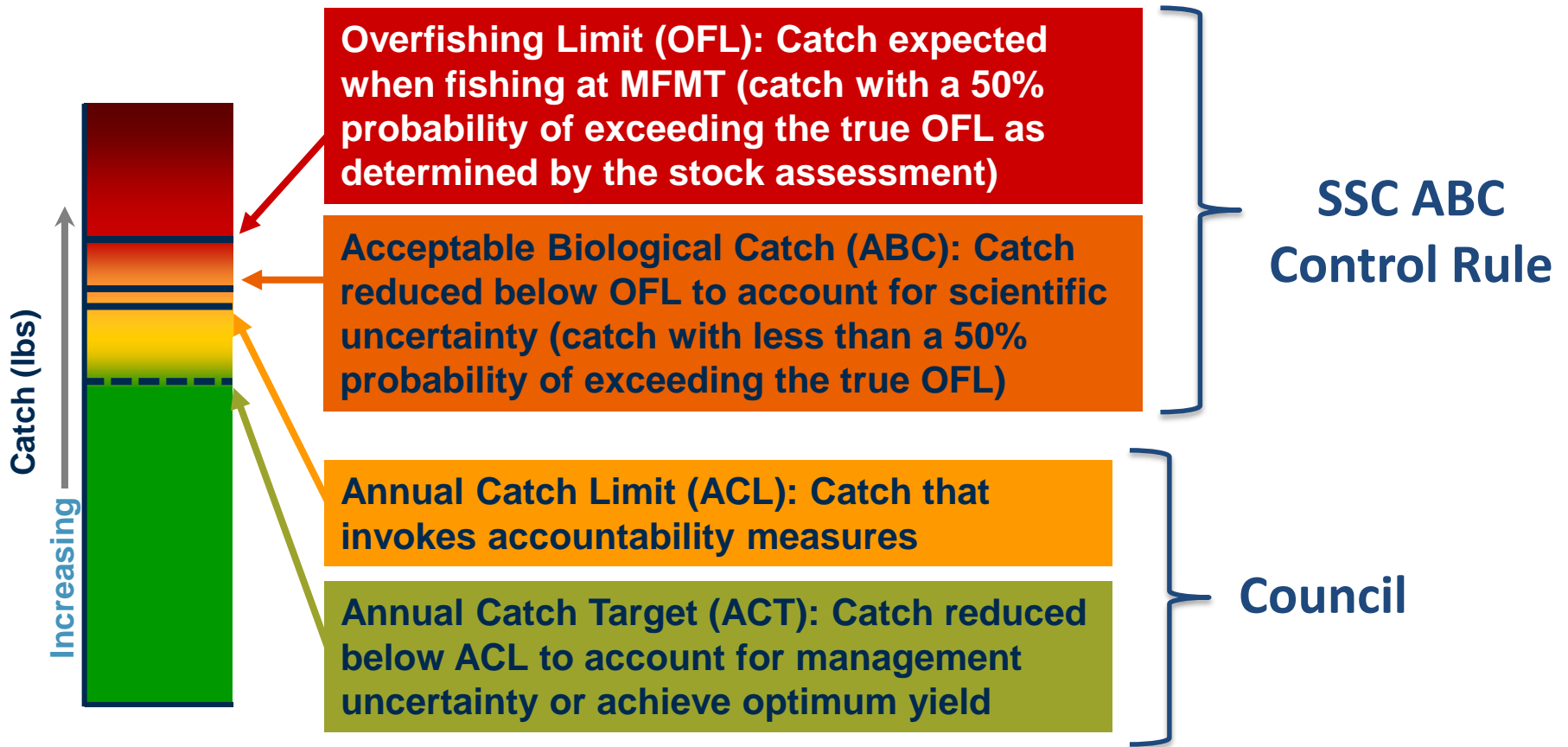


Discussion on limit and target reference points and MSY  
proxies for reef fish  
Review of ABC control rule alternatives

## Discussion on limit and target reference points and MSY proxies

- Target and limit reference points
- The components of risk and uncertainty associated with the choice and estimation of reference points
- The components of risk and uncertainty associated with choosing MSY proxies
- Perhaps Ad Hoc Working Group on MSY proxies

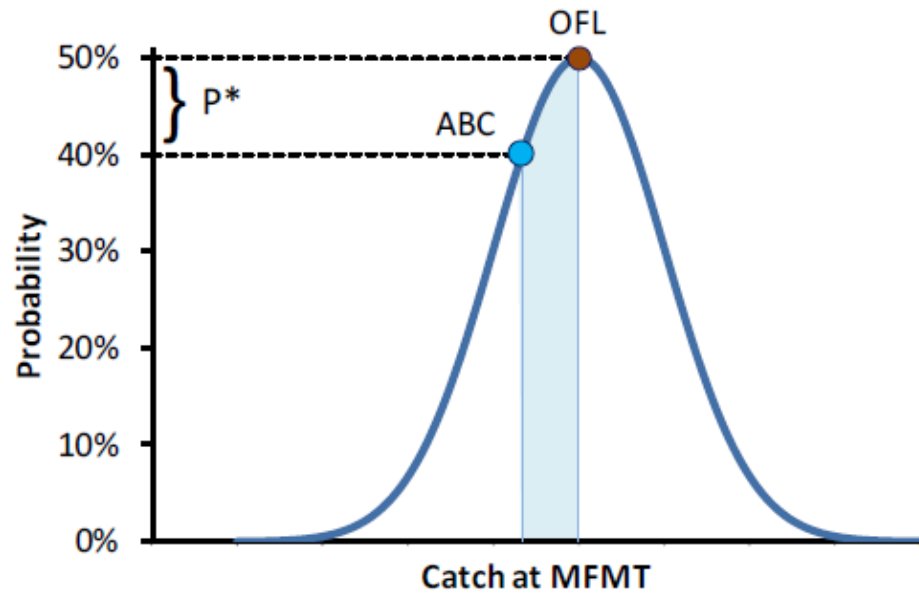
# NS1: Target and Limit RP Framework



# NS1: Target and Limit RP Framework

## ABC Control Rule: General Guidance

- The ABC control rule should consider reducing fishing mortality (MFMT) as stock size declines
- The determination of ABC should be based, when possible, on the probability that a catch equal to the stock's ABC would result in overfishing ( $P^*$ ). The probability of overfishing cannot exceed 50% and should be a lower value.



# Next Steps

- Initiate a more detailed discussion re. the development of a well informed framework for choosing MSY proxies for GMFMC-managed stocks
- Do we want to establish an Ad Hoc Working Group to assist us with this task? Let's wait until Data-Poor Review is done.
- How can we assist the Council in developing a more explicit risk policy for managed stocks?
- Help the Council move to a more Target Reference Point-centric harvest policy? (of the 34 finfish stocks managed by the Council only 10 have ACTs)

# Next Steps

How can we assist the Council in developing a more explicit risk policy for managed stocks?

There are socioeconomic risks from overregulation of foregone economic and social costs, as well. It was suggested that the socioeconomic scientists on the SSC work together to develop a white paper on this aspect for the next SSC meeting. Other SSC members could work on developing a list of other items to be discussed when developing MSY proxies.



# Review of ABC Control Rule Alternatives

Review of ABC Control Rule Alternatives used by the Gulf Council and compared to examples of some control rules used by other Councils. One issue with the Gulf Council's ABC control rule is that the probability distribution functions (PDF) produced by the stock assessment tend to be very narrow, resulting in low variance and only small changes in ABC over a range of  $P^*$  values.

One possible solution might be to estimate variance external to assessment process, which is a method used by the Pacific Council

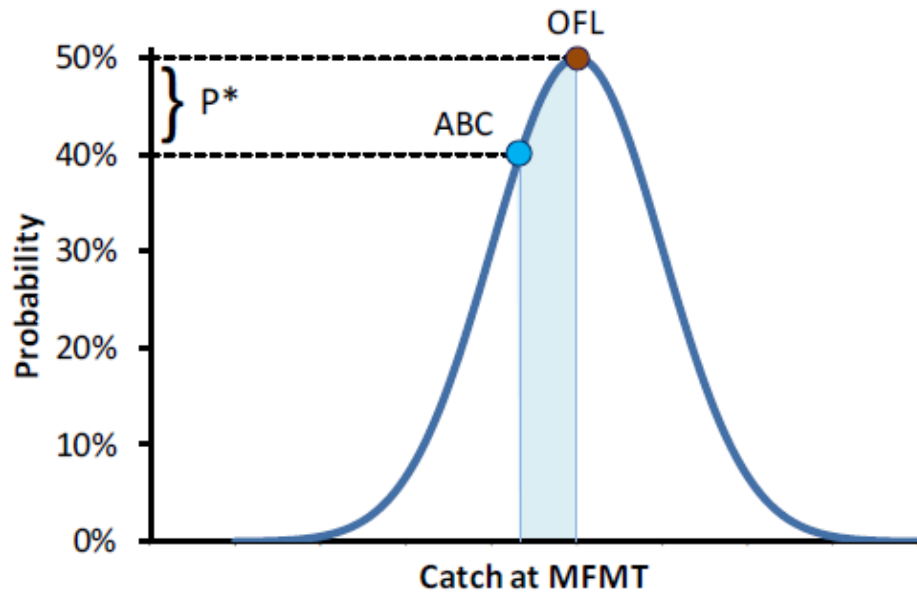
Another alternative is to set ABC at some fixed buffer to OFL (e.g.,  
 $ABC - 0.75 * FMFMT$ )



# Review of ABC Control Rule Alternatives

## ABC Control Rule: General Guidance

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# Review of ABC Control Rule Alternatives

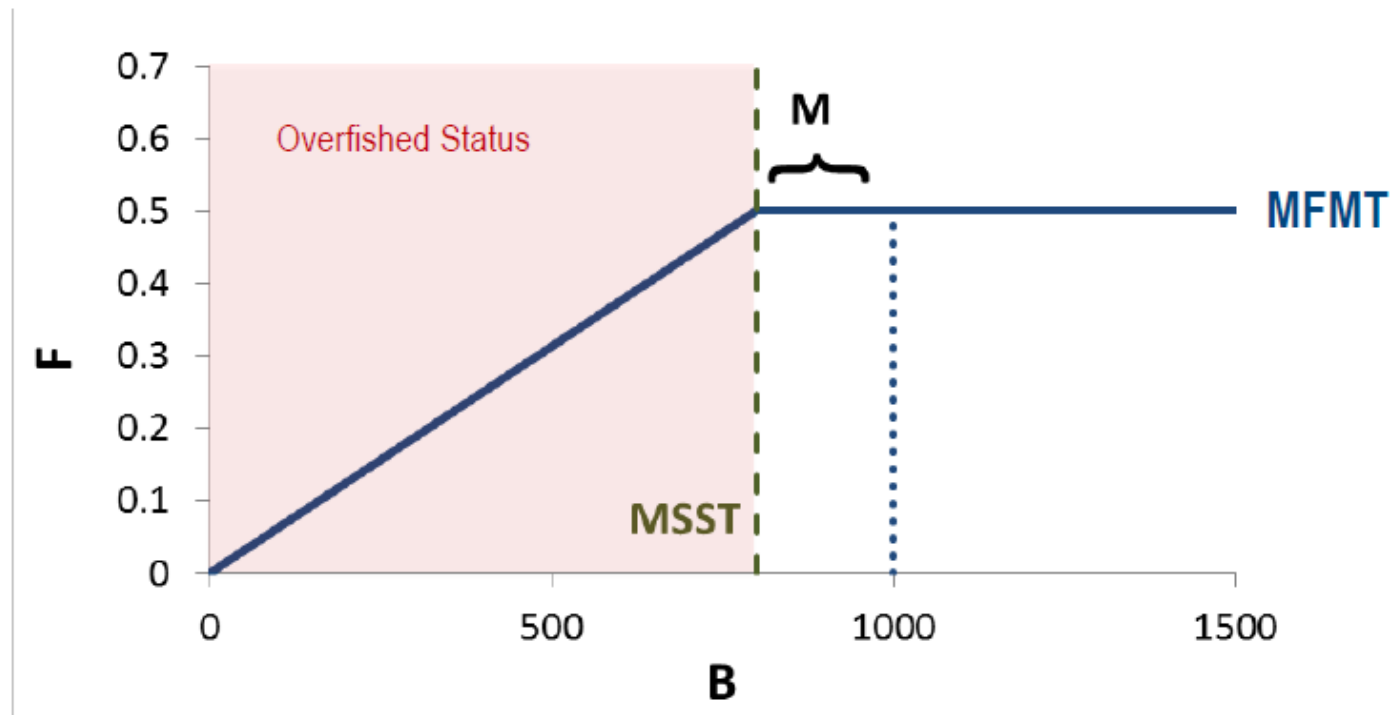
For stocks with insufficient data to conduct a typical stock assessment, data limited methods are available that can be used to set OFL and ABC.

Some recommendations for improving the Gulf Council's ABC control rule: Tier 1 (Data-Rich) should consider reducing fishing mortality (MFMT) as stock size declines, Tier 2 (Data-Moderate) should be revised to accommodate data limited scientific advice, and Tier 3 (Catch-Only) could also be improved.

# Review of ABC Control Rule Alternatives

## ABC Control Rule: General Guidance

- The ABC control rule should consider reducing fishing mortality (MFMT) as stock size declines



# Review of ABC Control Rule Alternatives

In the future, expanded use of management strategy evaluation (MSE) techniques should help to better identify sources of scientific variability.

# Review of ABC Control Rule Alternatives

A suggestion was made to wait and see the results of the SEDAR 49 (data poor stocks) assessment, and the findings of the socioeconomic sub-group before proceeding with ABC control rule.