



Annual Catch Limits:

Updating the National Standard 1 Guidelines

NOAA Fisheries Service

Office of Sustainable Fisheries, Silver Spring MD

Presentation to the Fishery Management Council Coordination Committee

January 2008



MSA Requirements to End and Prevent Overfishing



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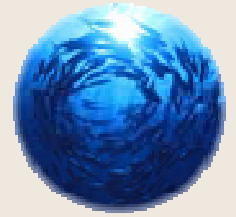
Adult Yelloweye

Photo by Tory O'Connell, ADF&G



Dann Blackwood, USGS

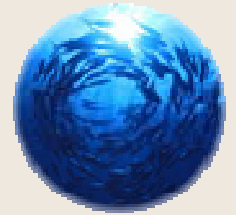
National Standard 1



- “Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.”



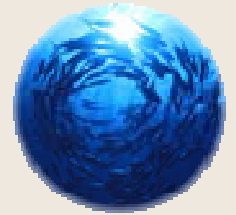
Annual Catch Limits (ACLs)



- Fishery management plans shall “establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations, or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability.”
 - MSA Section 303(a)(15)



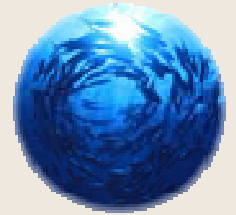
Annual Catch Limits (cont.)



- May not exceed a Council's Scientific and Statistical Committee's (SSC) recommendation
- Required for all managed fisheries except:
 - Species with annual life cycles, unless subject to overfishing
 - Stocks managed under an international agreement to which the U.S. is party
- Implementation in fishing year:
 - 2010 for stocks subject to overfishing
 - 2011 for all other stocks



For Overfished Stocks



- Effective July 12, 2009, within 2 years of an “overfished” or “approaching overfished” stock status notification, management measures must be prepared and implemented to:
 - Immediately end overfishing
 - Rebuild affected stocks
 - “in as short a time as possible”
 - In 10 years or less when possible on a biological basis
 - “should be calculated based on T_{min} ”
 - Prevent overfishing





Updating the National Standard 1 Guidelines

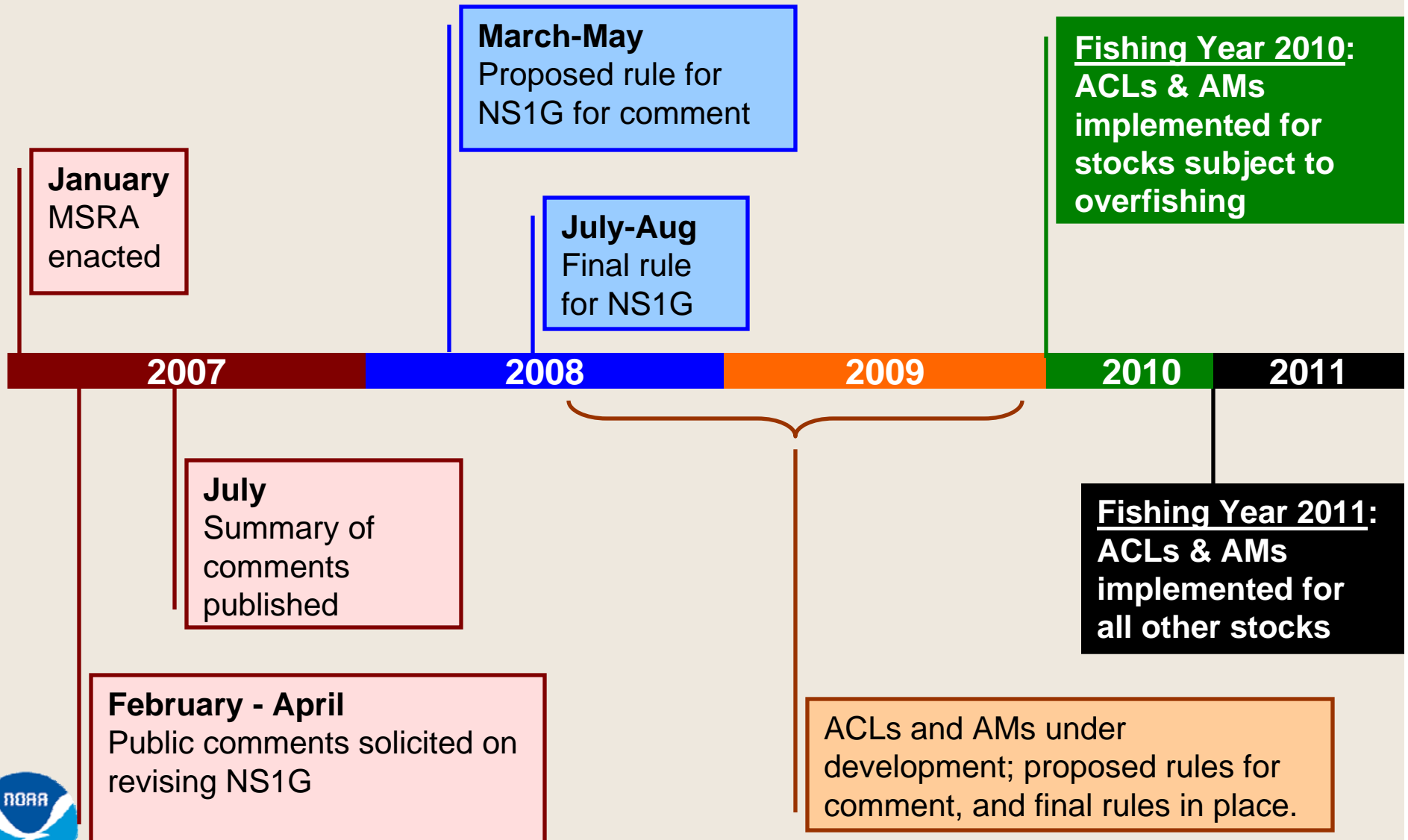
Why update the National Standard 1 Guidelines (NS1G)?



- Add guidance for new (MSRA) requirements
 - Annual catch limits (ACLs)
 - Measures for Accountability (Accountability Measures or AMs)
 - Acceptable biological catch (ABC)
- Explain their relationship to existing requirements
 - Maximum sustainable yield (MSY)
 - Optimum yield (OY)
 - Status determination criteria (SDC) for defining “overfishing” and “overfished”



Current Timeline



Themes from Public Comment Period (Feb-Apr 2007)



- Improve fisheries data
- Develop guidelines for Optimum Yield - incorporate ecosystem considerations
- Provide guidance on SSC role
- Allow Councils flexibility in developing ACLs and AMs
- AMs should provide short cycle-time; prefer inseason adjustments to corrective ones
- ACLs for rebuilding stocks must ensure rebuilding – not just prevent overfishing
- Protect sectors (e.g. commercial/recreational) from each other
- Ensure ongoing review of management effectiveness

How ACLs will work for stocks shared with states





Key Issues to Address in Revising the Guidelines

Ensuring national consistency but allowing for flexibility



- A strong national framework to ensure U.S. fisheries meet MSA requirements and intent
- Flexibility to account for diversity in U.S. fisheries
 - Biological and ecological
 - Management approaches
 - Scientific knowledge
 - Monitoring capacity
 - Overlap in management jurisdiction
 - Users harvesting
- Overarching goal: Strong Yet Flexible Guidelines



Defining Annual Catch Limits (ACLs)



- Include all sources of fishing mortality, where possible
 - (i.e., landings, bycatch/discards, all sectors and user groups)
- Could be set for multiple year periods
- A numerical annual value set in weight or numbers of fish
- Could be optional to sub-divide a stock ACL into sector-ACLs
- Consider the ACL a limit only, or a limit *and* a target?



Defining Measures to Ensure Accountability (Accountability Measures or AMs)



AMs are associated with the ACL, as described in 303(a)(15).

Two basic types have been suggested:

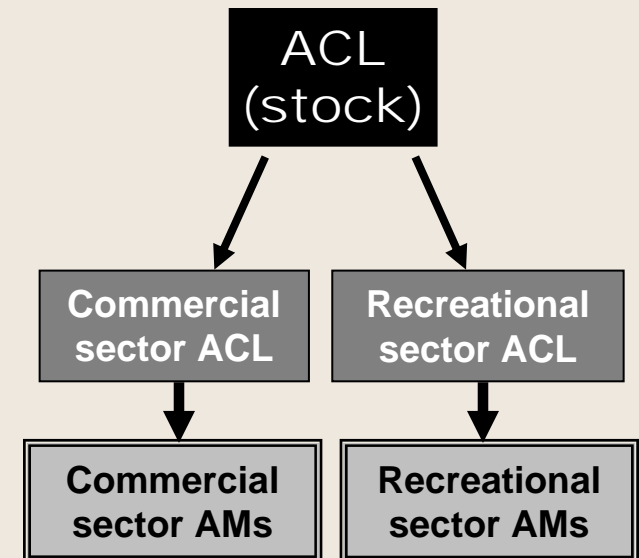
- Preventative in-season management actions to prevent reaching or exceeding the ACL, as possible.
- Corrective post-season management actions to address overages of the ACL after they occur.
 - Operational and biological issues



Considering sector-ACLs



- Considering that an ACL specified for a stock could be sub-divided into sector-ACLs
- Suggested that this would be **OPTIONAL**, not required
- Would sector-AMs be required for each sector-ACL?
- Sectors would be defined by the Councils
- Often ACLs and AMs would need to be developed to ensure fairness and equity throughout the fishery and among sectors



For a commercial sector, this could mean...



- Include commercial data in the overall ACL for the stock
 - AMs would be triggered if the overall ACL is reached

OR

- Create a commercial sector-ACL
 - If so, corresponding commercial-AMs should be established and would be triggered if the commercial sector reaches it's ACL
 - Continued monitoring
 - Potentially more in-season adjustments
 - Plan for overages in advance



For a recreational sector, this could mean...



- Include recreational data in the overall ACL for the stock
 - AMs would be triggered if the overall ACL is reached

OR

- Create a recreational sector-ACL
 - If so, corresponding recreational-AMs should be established and would be triggered if the recreational sector reaches it's ACL
 - If multi-year averaging of recreational data is used, recreational-AMs would be triggered if the multi-year average of the recreational-ACL is exceeded.

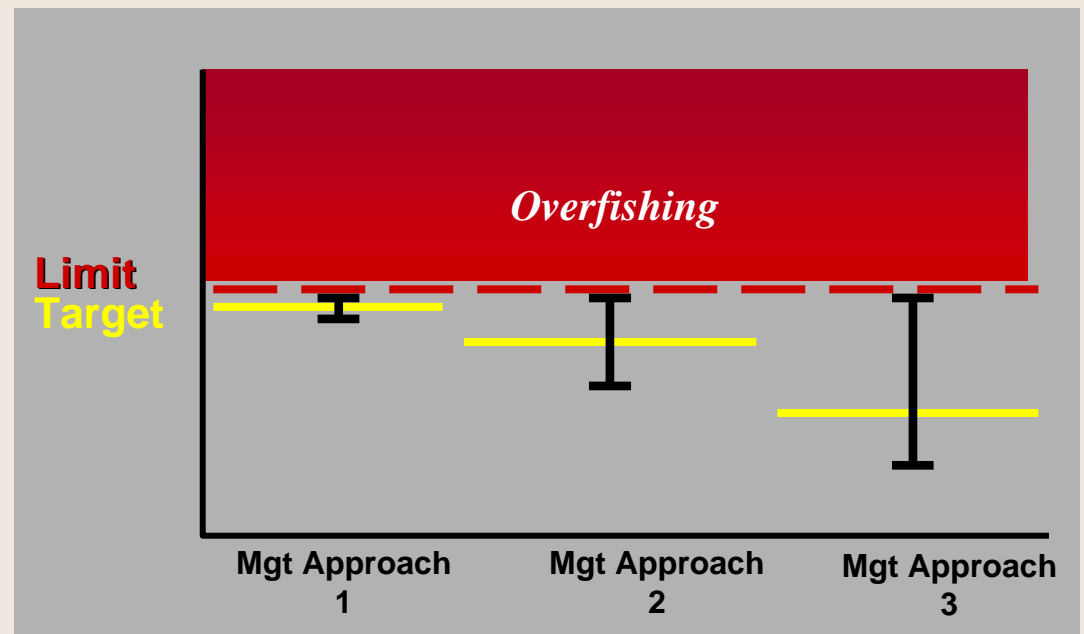


Accounting for uncertainty to prevent overfishing



- Considering how best to incorporate uncertainty in establishing ACLs and other reference points

- Scientific uncertainty
- Management uncertainty



- Roles for incorporating uncertainty

- NMFS Regions and Centers
- Councils and SSCs

Accounting for management uncertainty looking at past performance of achieving the target.



Establishing performance standards



- Considering national performance standards to establish for use by NMFS and the Councils:
 - to design ACLs and AMs,
 - to establish criteria for Secretarial approval, and
 - to evaluate success after implementation.
 - Possible approaches:
 - Frequency and magnitude of overages and overfishing, or
 - Minimum level of probability that overfishing will not occur



Creating a common language for clear and consistent communication of concepts



- Considering how to define terms introduced and required by MSRA
- Considering the relationships of these terms
- Considering the variety of terms currently used
 - Vary by Council
 - Often vary by FMP even within the same Council jurisdiction



Example: Reference points we are currently working with



Thresholds and Limits

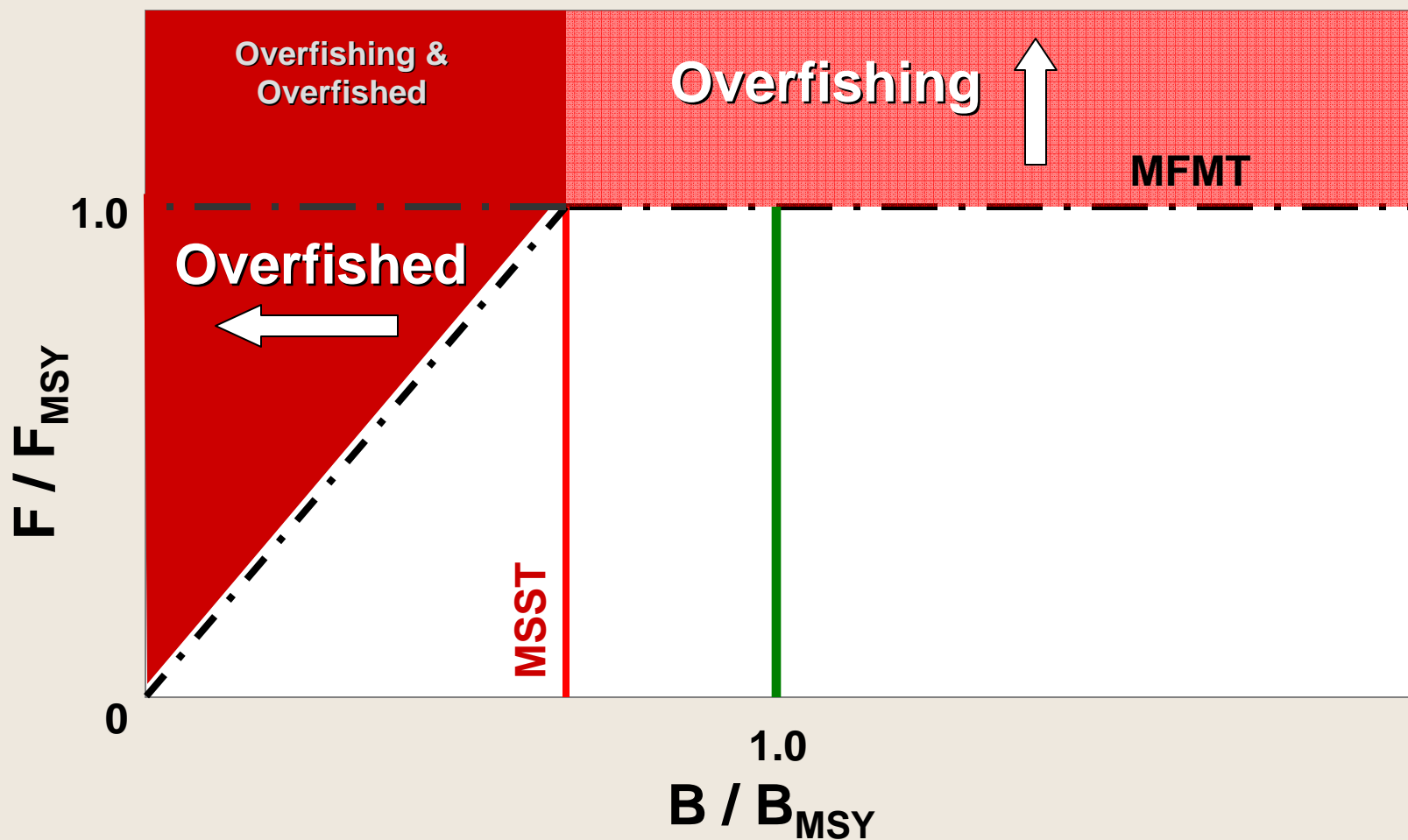
- **Maximum Sustainable Yield (MSY)**
- **Maximum Fishing Mortality Threshold (MFMT) – Overfishing**
- **Overfishing Limit (OFL)***
- **Minimum Stock Size Threshold (MSST) – Overfished**
- **Acceptable Biological Catch (ABC)**
- **Annual Catch Limit (ACL)**

Targets

- **Optimum Yield (OY)**
- **Annual Catch Target (ACT)***



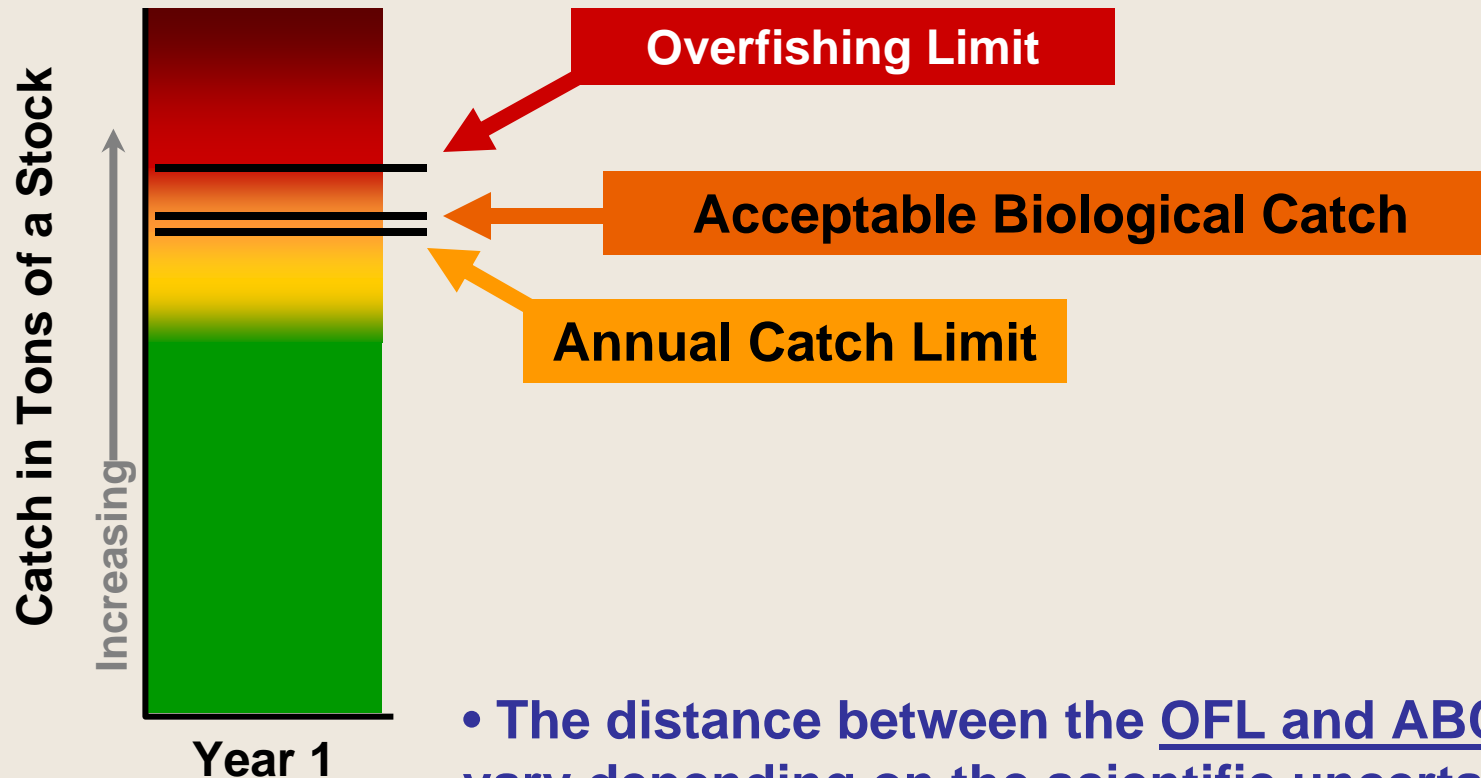
****Not required by MSA***



F = Fishing mortality rate

B = Biomass

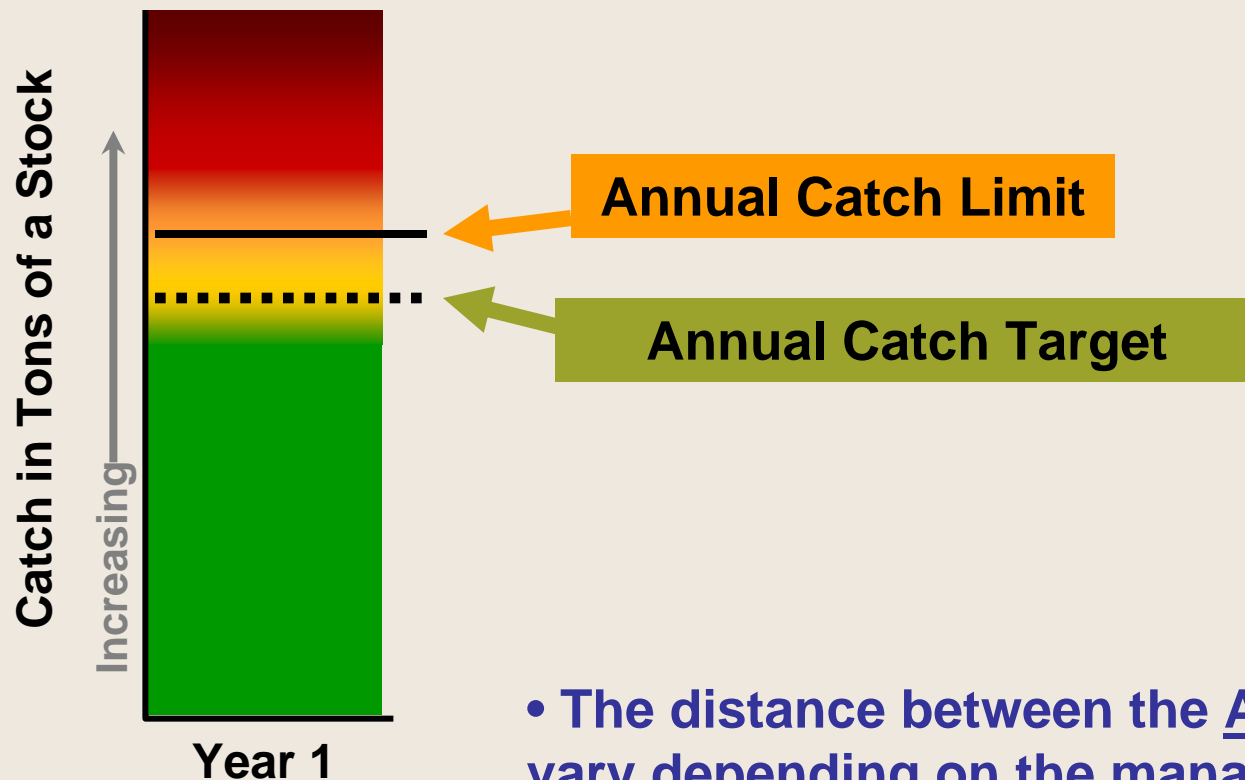
Limits: OFL, ABC, & ACL



- The distance between the OFL and ABC would vary depending on the scientific uncertainty associated with identifying the true overfishing limit.
- Accounting for this uncertainty is the first step in preventing overfishing.



Limits and Targets: ACL & ACT



- The distance between the ACL and ACT would vary depending on the management uncertainty, the degree to which management can control the actual catch in a fishery.
- Accounting for this uncertainty is the second step in preventing overfishing.



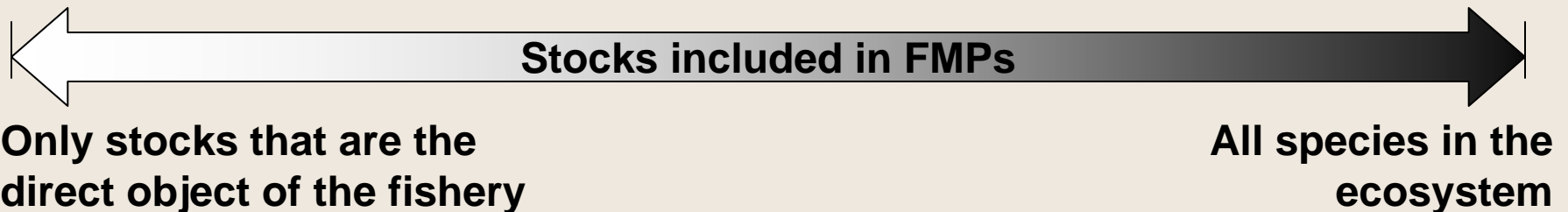


Challenges

Challenges



- Wide variation in the stocks currently identified in fishery management plans (FMPs).



- MSA Section 303(a)(2) requires FMPs to contain a description of the fishery, including “the species of fish involved”.
 - What does it mean to be “involved” in the fishery? What is an appropriate minimum expectation?
 - The more stocks included (*moving to the right on the spectrum*), the more likely data-poor stocks are included in the FMPs, which is a significant challenge for creating ACLs.



Challenges



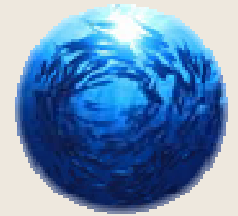
- Should ACLs be required for all stocks?
 - 2 statutory exemptions identified
 - Are there other situations in which ACLs may not be operationally feasible or necessary?
 - Data-poor stocks?
 - Some stocks in which most catch occurs in state waters?
 - Stocks minimally impacted by a fishery?
 - ESA stocks?
 - Aquaculture stocks?
 - If so, how should we address these while also meeting the intent of the ACL provision – to develop a system of management that prevents overfishing?
 - How do we focus our resources most effectively?





In closing...

ACLs and NOAA's Performance Management



- NOAA, DOC, and OMB have continued to demonstrate increased interest in performance measures relating to ending overfishing.
- Progress in the development and implementation of ACLs will be tracked via the Annual Operating Plans and reported quarterly to NOAA.
- Results of ACL effectiveness in ending overfishing will be reflected and reported in the Fish Stock Sustainability Index and related measures.
- Additional resources are easier to justify with:
 - a good track record for hitting performance measure targets
 - the ability to project an impact of the resource increases via a performance measure.



Stocks “Subject to Overfishing” (43) as of 3rd Quarter 2007



New England:

1. Cod – Gulf of Maine
2. Cod – Georges Bank
3. Yellowtail flounder – Georges Bank
4. Yellowtail flounder – Southern New England/Middle Atlantic
5. Yellowtail flounder – Cape Cod/Gulf of Maine
6. White Hake
7. Winter Flounder – Georges Bank
8. Winter Flounder – Southern New England/Middle Atlantic

Pacific:

1. Petrale sole
2. Yellowfin Tuna – Eastern Pacific

Pacific and Western Pacific

1. Bigeye Tuna – Pacific



Western Pacific

1. Bottomfish Multi-Species Complex – Hawaiian Archipelago



Mid-Atlantic:

1. Summer flounder
2. Scup

South Atlantic:

1. Vermilion Snapper
2. Red Snapper
3. Snowy Grouper
4. Tilefish
5. Red Grouper
6. Black Sea Bass
7. Gag
8. Black Grouper
9. Speckled Hind
10. Warsaw Grouper
11. *Red Drum

Highly Migratory Species:

1. Blue Marlin – Atlantic
2. White Marlin – Atlantic
3. Sailfish – West Atlantic
4. Bigeye Tuna – Atlantic
5. Albacore – North Atlantic
6. Bluefin Tuna – West Atlantic
7. Sandbar Shark
8. Finetooth Shark
9. Dusky Shark

Gulf of Mexico:

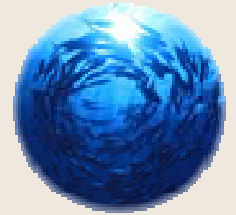
1. Red Snapper
2. Greater Amberjack
3. Gag
4. Gray Triggerfish

Caribbean:

1. Snapper Unit 1
2. Grouper Unit 1
3. Grouper Unit 4
4. Queen Conch
5. *Parrotfishes

Note: * indicates non-FSSI stock

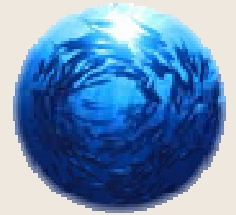
Bottom Line



- Even without revised NS 1 Guidelines in place, the statutory deadlines must be met (2010/2011).
- Statutory requirements:
 - FMPs must establish mechanisms for Annual Catch Limits and Measures to Ensure Accountability
 - In place by 2010 for stocks experiencing overfishing, 2011 for all others
 - Performance measure: “... such that overfishing does not occur”
- There’s not a lot of wiggle room here -- no “to the extent practicable” language



General principles to keep in mind



- **Thresholds, limits, and targets should be based upon the best scientific information available.**
- **Managers should establish a risk policy for scientists to use when establishing thresholds, limits, and targets.**
- **Incorporate science uncertainty in specifying catch thresholds and limits (OFL, MSST, MFMT, ABC, ACL).**
- **Set catch targets (ACTs) below limits (ACLs) to incorporate management uncertainty.**
- **Prevent exceeding limits (ACLs) in-season, where possible (AMs).**
- **If limits are exceeded, take corrective action immediately / as soon as possible (AMs).**
 - Correct the problem causing the overage
 - Mitigate any biological harm caused by the overage
- **Shorten the management cycle-time; speed up the feedback loop and response time.**





Questions

