Science, Service, Stewardship

Proposed Revisions to the Magnuson-Stevens Act National Standard 1, 3, & 7 Guidelines

April 27, 2015

NOAA FISHERIES SERVICE

Proposed Rule Next Steps

- Published on January 20, 2015.
- Accepting comments until June 30, 2015.
- Proposed rule was widely distributed.
- Presentations – all are open to public
  - Council Coordination Committee (February).
  - National Scientific & Statistical Committee Meeting (February).
  - Silver Spring (March).
  - Council Meetings (March and April).
  - MAFAC (April).
- Council Coordination Committee follow-up in June.

Background

- The Magnuson-Stevens Fishery Conservation and Management Act (MSA) includes 10 National Standards which guide all fisheries management actions.
- National Standard 1 (NS1) states that conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield (OY) from each US fishery.
- The NS1 guidelines were last updated in 2009 following passage of the MSA Reauthorization Act of 2006.
- The 2009 NS1 guidance addressed new MSA requirements for annual catch limits (ACLs) and accountability measures (AMs) to end and prevent overfishing.

Need/Basis for Action

- Address experience gained and concerns raised during the implementation of ACLs and AMs.
- Based on input from a wide range of perspectives:
  - Advanced notice of proposed rulemaking and extensive comment period (May to Oct. 2012)
  - Managing Our Nation's Fisheries (May 2013)
  - National Research Council study (Sept. 2013)
  - Marine Fisheries Advisory Committee Recreational Fishing Workgroup (Dec. 2013)
  - Commission on Saltwater Recreational Fisheries Management (Feb. 2014)
  - Council Coordination Committee meetings (2013 – 2014)

Overall Considerations

- Does not establish new requirements or require Councils to revise their current management plans; rather, it offers additional clarity and potential flexibility in meeting current MSA mandates.
- Maintains requirement that stocks in need of conservation and management must have ACLs, AMs, and other reference points.
- May address some of the topics being raised by Congress regarding MSA reauthorization.
- In application of proposed flexibilities, the NS2 requirement to use “best scientific information available” applies.

7 Major Elements

1. Increase flexibility in rebuilding programs within statutory limits.
2. Improve management of data limited stocks.
3. Clarify guidance on which stocks require conservation and management.
4. Enhance ecosystem approaches to management.
5. Provide more stability in annual catch limits.
6. Define depleted stocks.
7. Improve the routine review of management plans.

E1: Increase Flexibility in Rebuilding Programs

Proposed Revisions:

- Calculating Tmax
- Adequate progress
- Interim measures
- Extending rebuilding timelines
- Discontinuing rebuilding plans

Rebuilding: Maximum Time to Rebuild (T_{max})

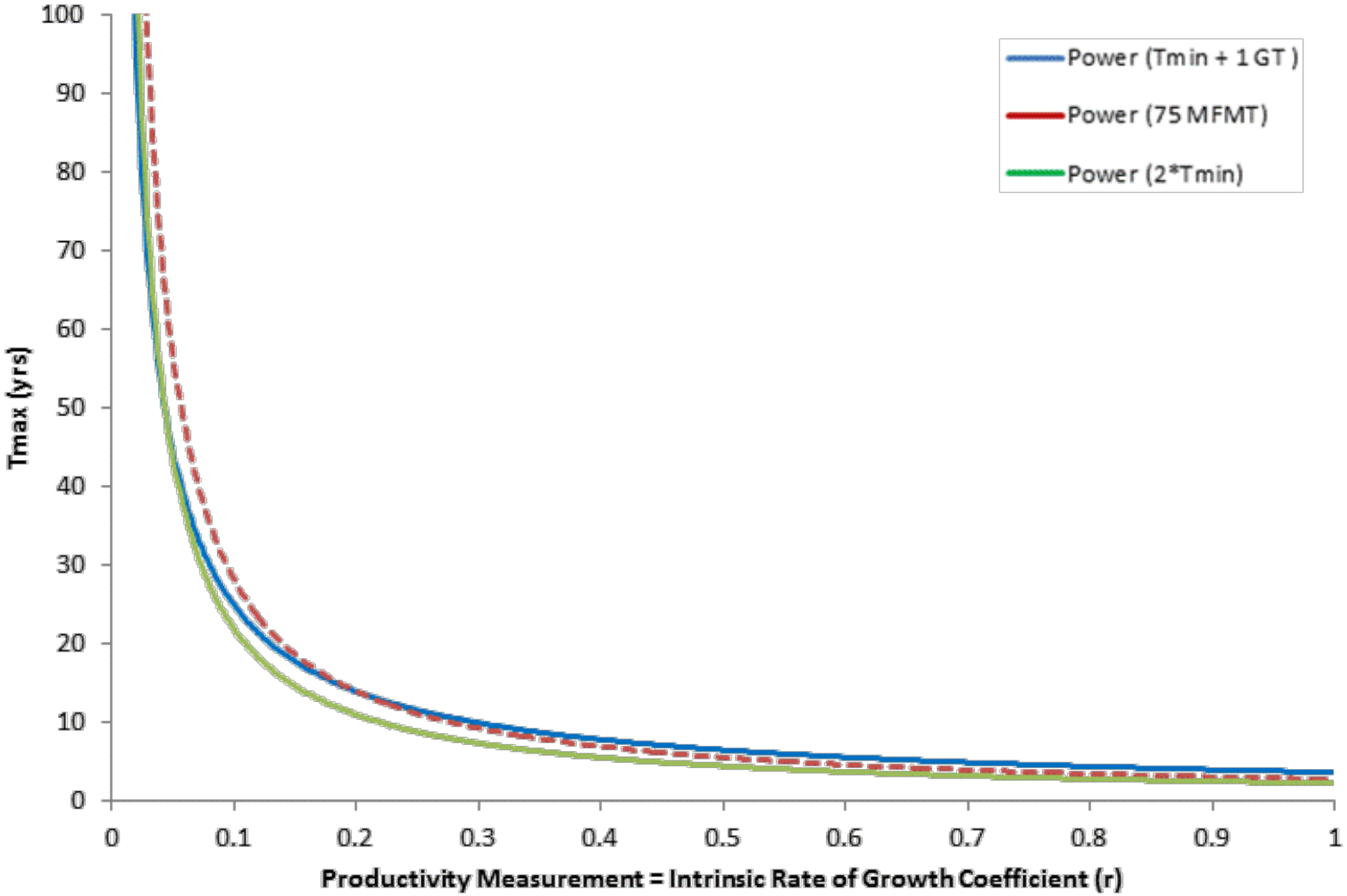
Flexibility in Rebuilding Time calculations for stocks requiring more than 10 years to rebuild.

- Current NS1 guidelines for stocks requiring more than 10 years to rebuild need to specify a maximum time to rebuild (Tmax):
  - T_{min} + Generation time
  - T_{min} is the time to rebuild with no fishing; Generation time is essentially the average age of the spawning population.

The proposed revisions provide two additional methods, which may be preferable based on the quality of available data for the stock

1. *$2 * T_{min}$*
2. *Time needed to rebuild to Bmsy when fished at 75% of MFMT (F_{msy})*

Rebuilding: Comparison of T_{max} Calculations



Rebuilding: Adequate Progress

How to measure adequate progress?

- MSA 304(e)(7) requires the Secretary to determine if adequate progress toward rebuilding is being made. The current NS1 guidelines do not provide guidance in how to determine adequate progress.

Proposed guidance:

Secretarial review of adequate progress can include:

- Recent stock assessments
- Comparison of catches to the ACL
- Other appropriate performance measures.

Adequate progress is not being made if:

1. $F > F_{rebuild}$ or associated ACL, and AMs are not effective, or
2. Rebuilding expectations significantly change – e.g. new assessment significantly increases the rebuilding target biomass

Rebuilding: Interim Measures

Using interim measures to reduce, but not necessarily end, overfishing.

MSA 304(e)(6) provides that under certain circumstances, interim (emergency) measures may be implemented to reduce, but not necessarily end, overfishing.

Proposed guidance:

- Such interim measures should rarely be used.
- Three criteria – all should be met:
  1. Unanticipated and significantly changed understanding of stock status.
  2. Ending overfishing immediately would result in severe social and/or economic impacts.
  3. Biomass must increase during the interim measure.

Rebuilding: Extending Timelines

Proposed guidance on modifying rebuilding plans, including when it is necessary to extend rebuilding timeframes:

- Unless adequate progress is not being made, it is not necessary to routinely modify rebuilding plans.
- Not required to revise T_{target}, T_{max}, and $F_{rebuild}$ throughout the course of the plan.
- Primary objective is to maintain $F \leq F_{rebuild}$.
- The rebuilding time provides the basis for determining the appropriate Frebuild.
- These values are expected to fluctuate due to scientific uncertainty.

Rebuilding: Discontinuing plans

Can rebuilding plans be discontinued under some circumstances?

- Currently, once a stock enters a rebuilding program, it remains in rebuilding until it is determined to be rebuilt.
  - The 2012 National Research Council Rebuilding Report found:
    - Biomass estimates are uncertain
    - 36% of rebuilding stocks they reviewed were later discovered to have never been overfished.

- Propose: A rebuilding plan may be discontinued if both of the following criteria are met:
  1. The Secretary determines the stock was never overfished, as originally thought.
  2. The biomass of the stock is above the MSST (it is not currently overfished).

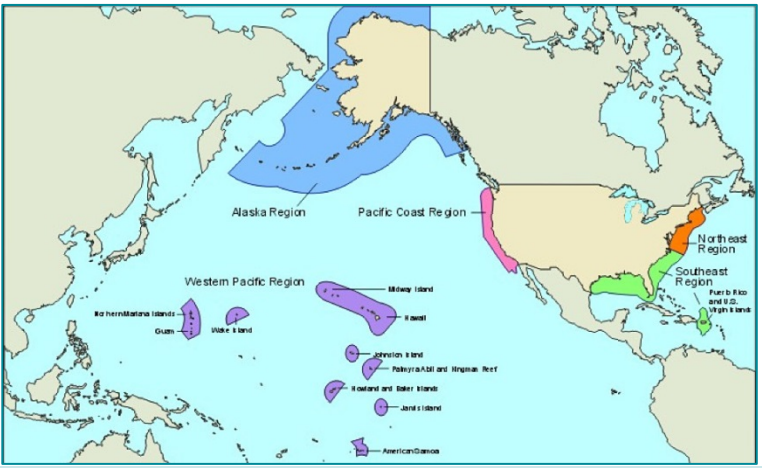
E2: Improve Management of Data Limited Stocks

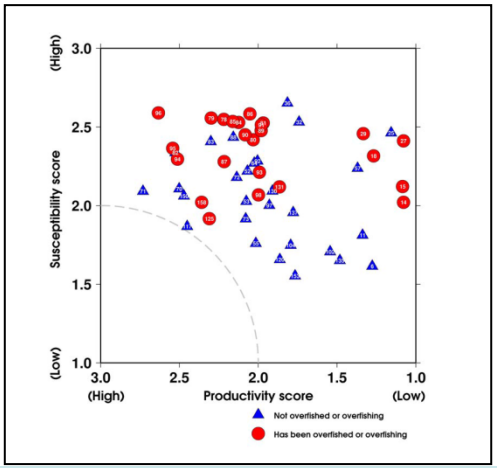
Clarifies that alternative approaches to setting status determination criteria for data-limited stocks are allowed when maximum sustainable yield can not be calculated.

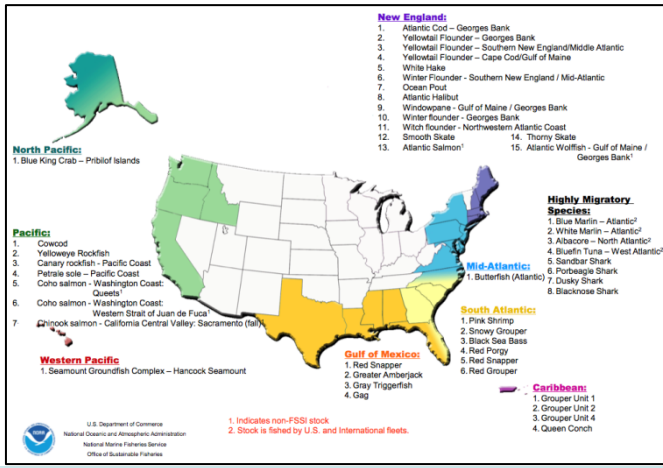
- The alternative approaches must promote sustainability. Some example approaches include:
  - Fish Density Ratio Control Rules
  - Only Reliable Catch Stocks (ORCS)
  - Restrepo's Sustainable Average Catch
  - Depleted Correction Adjusted Catch (DCAC)
- Data-limited stocks still require overfishing and overfished thresholds and related reference points like ABC, ACL, etc.
- Emphasizes use of assessed indicator stock(s) for management of data limited stock complexes

E3: Stocks that Require Conservation & Management

- Proposes that a stock requires conservation and management if the following two criteria are met:
  - Predominantly caught in Federal waters; and
  - Overfished or subject to overfishing, or likely to become overfished or subject to overfishing.
- Proposes 10 additional factors that may lead to determination that a stock requires conservation and management (next slide)







Conservation & Management: Other Factors

Other factors to consider in determining the need for conservation and management:

(i) The stock is an important component of the marine environment.

(ii) The stock is caught by the fishery.

(iii) Whether an FMP can improve or maintain the condition of the stocks.

(iv) The stock is a target of a fishery.

(v) The stock is important to commercial, recreational, or subsistence users.

(vi) The fishery is important to the Nation and to the regional economy.

(vii) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.

(viii) The economic condition of a fishery and whether an FMP can produce more efficient utilization.

(ix) The needs of a developing fishery, and whether an FMP can foster orderly growth.

(x) The extent to which the fishery could be or is already adequately managed by states, by state/Federal programs, by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the policies and standards of the Magnuson-Stevens Act.

Conservation & Management: Categories

Current guidelines describe categories of “stocks in the fishery” and “ecosystem component species.”

Proposed categories include:

1. Stocks that require conservation and management
   - Need SDCs, ACLs, AMs, etc.
   - Equivalent to “stocks in the fishery”
2. Stocks not in need of conservation and management
   - Don’t need SDCs, ACLs, AMs, etc.
   - Equivalent to “ecosystem components species”
3. Other managed stocks
   - SDCs, ACLs, AMs, etc. are specified in another FMP. Managements measure consistent with primary FMP.

E4: Ecosystem Approaches to Management & OY

Clarify the concept of aggregate maximum sustainable yield (MSY) and how it can be used as an optional tool in fisheries management.

- Can be estimated using models that account for multi-species interactions or other factors.
- Can be used as a basis to specify OY for a fishery.

Clarify the guidance on OY and better describe the relationship between OY and annual catch limits.

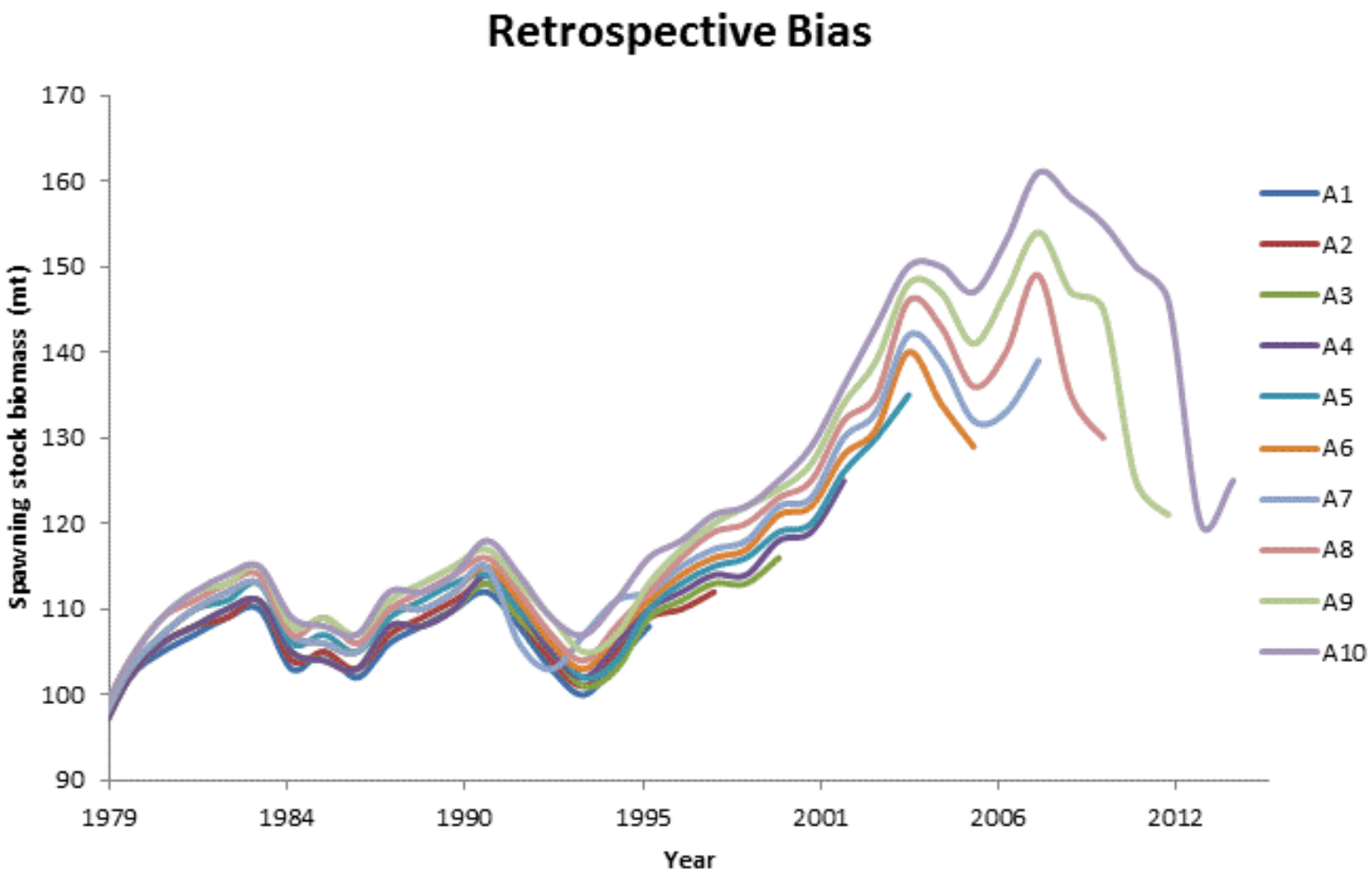
- Annualized expression of OY = ACL, similar to MSY = OFL.

Clarify that qualitative analysis of economic, ecological and social factors are permissible when quantitative analysis is not possible.

E5: Provide for More Stable Catch Levels in Fisheries

- Multi-year overfishing definitions
  - Status determinations
- Phase-in of stock assessment results
  - Reacting to stock assessment information
- Carryover unused portion of the ACLs
  - Assessment projections & safety at sea

Stable Fisheries: Issues with Uncertainty



Stable Fisheries: Issues with Uncertainty

Species	Year	Fmsy	% Difference	Bmsy	% Difference	MSY	% Difference
Pacific Ocean Perch	1998	0.060	-	13974	-	1620	-
	2000	0.035	53%	20006	36%	1588	2%
	2003	0.035	0%	13516	39%	1172	30%
	2005	0.031	12%	15135	11%	1181	1%
	2007	0.038	21%	14793	2%	1411	18%
	2009	0.041	6%	15112	2%	1124	23%
	2011	0.032	23%	-	-	863	26%
Petrale Sole	2005	0.130	-	6779	-	3164	-
	2009	0.230	56%	4796	34%	2376	28%
	2011	0.220	4%	5805	19%	2588	9%
	2013	0.190	15%	7146	21%	2761	6%
Cowcod	2005	0.033	-	1240	-	82	-
	2007	0.027	20%	995	22%	54	41%
	2009	0.027	0%	873	13%	47	13%
	2014	0.050	60%	620	34%	62	27%
Maximum			60%		39%		41%
Average			22%		21%		19%
Median			17%		21%		20%
Minimum			0%		2%		1%

Stable Fisheries: Multi-year Overfishing

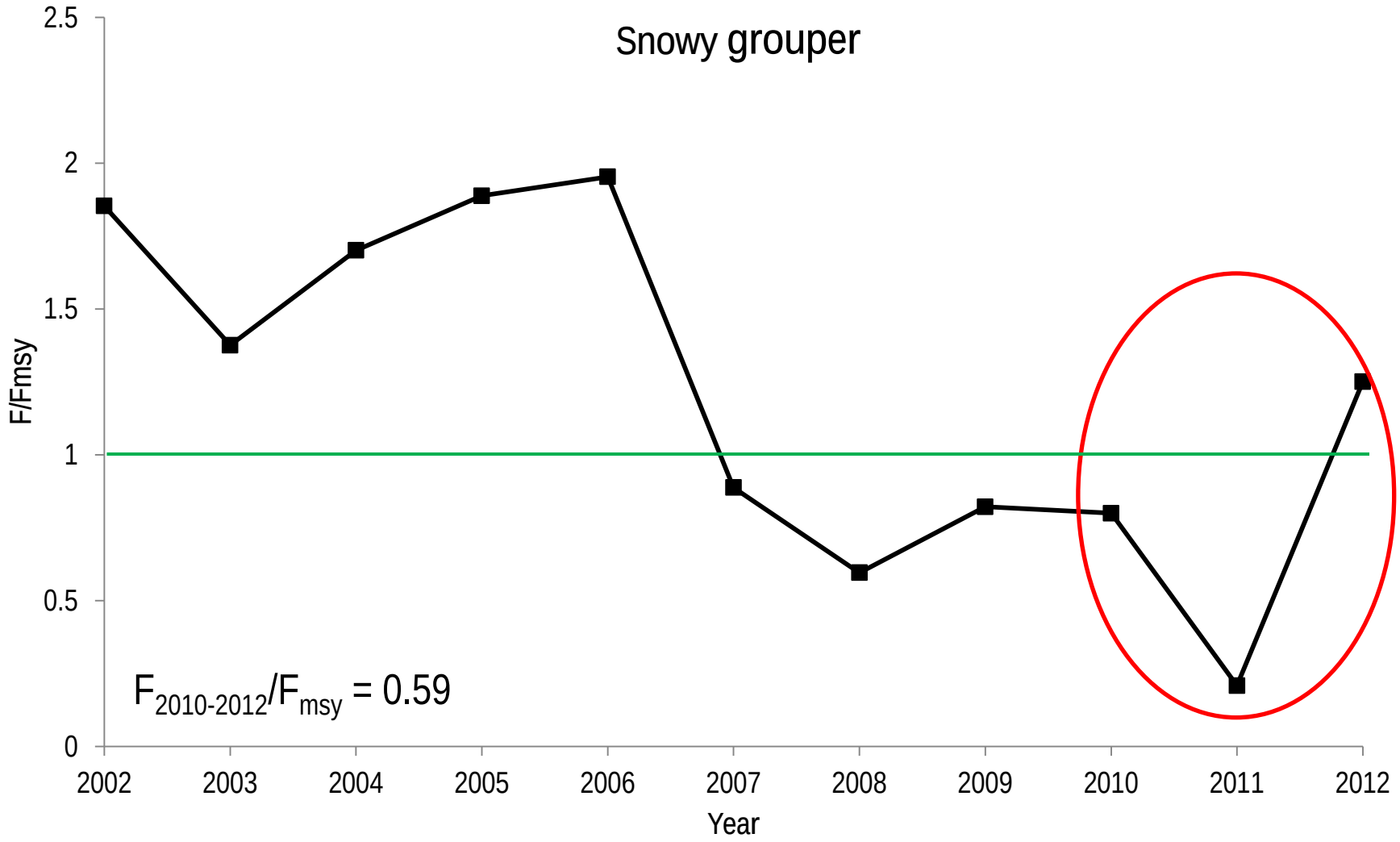
Current guidelines specify single year determinations – usually the last data year in an assessment.

Minimize false negative and false positive stock assessment findings.

Proposed guidance on the option to use of multi-year overfishing determinations.

- May not exceed 3-years
- Must document how the approach will not jeopardize the capacity of the stock to produce MSY.

Stable Fisheries: Multi-year Overfishing Example



Stable Fisheries: Phase-in ABC Control Rule

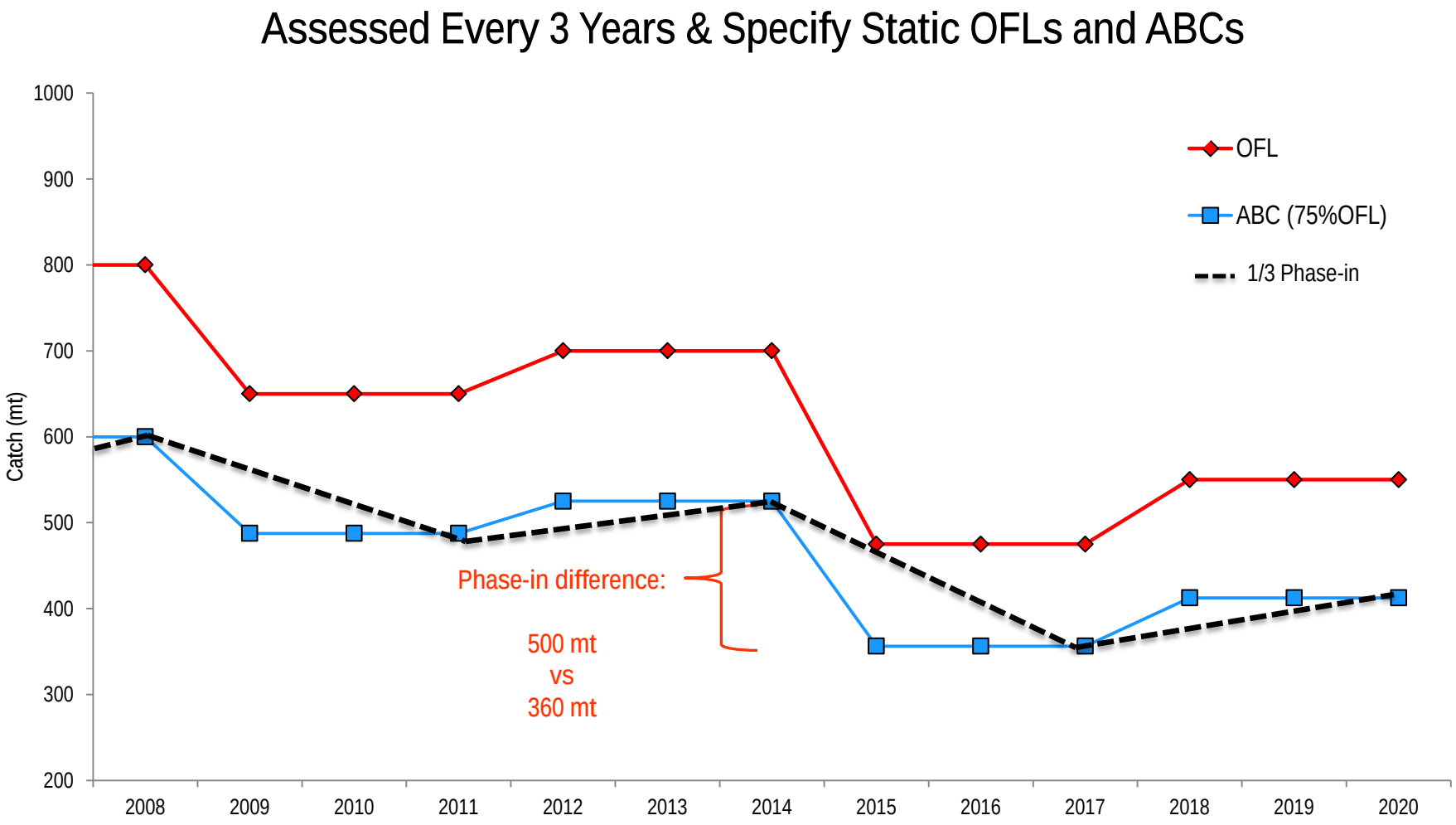
A tool for minimizing the dramatic shifts in catch that can occur with new stock assessments.

Used in the past by the International Pacific Halibut Commission and European Union.

Proposed guidance on phasing in results (catch increases or decreases) from new stock assessments.

- Phase-in may not exceed 3-years
- Must provide a comprehensive analysis of how the phase-in control rule prevents overfishing and when control rule can and cannot be used.

Stable Fisheries: Phase-in Example



Stable Fisheries: Carryover ABC Control Rule

- Traditionally used in Catch Share fisheries to address safety at sea issues.
- Propose:
  - Allow carry-over of all or some unused portion of the ACL to a subsequent year as long as overfishing is prevented.

Year	OFL	ABC = 85% of OFL	Actual Catch	Catch Difference (ABC – Actual Catch)	Natural mortality = Difference * 0.82
1	200,000	170,000	160,000	10,000	8,200
2	208,200 (200,000 + 8,200)	176,970 (170,000 + 6,970)	-	-	-

- OFL originally 200,000 for years 1 and 2.
- Normal ABC control rule = 85% OFL = ACL
- Annualized survival rate = 0.82, if *M* (instantaneous natural mortality) = 0.2

E6: Define Depleted Stocks

An overfished stock or stock complex is considered depleted when:

- Declined below MSST
  - it has not experienced overfishing at any point over a period of two generation times of the stock, or
- Overfished stock
  - when a rebuilding stock or stock complex has reached its targeted time to rebuild, and the stock's biomass has shown no significant signs of growth - despite being fished at or below catch levels that are consistent with the rebuilding plan.

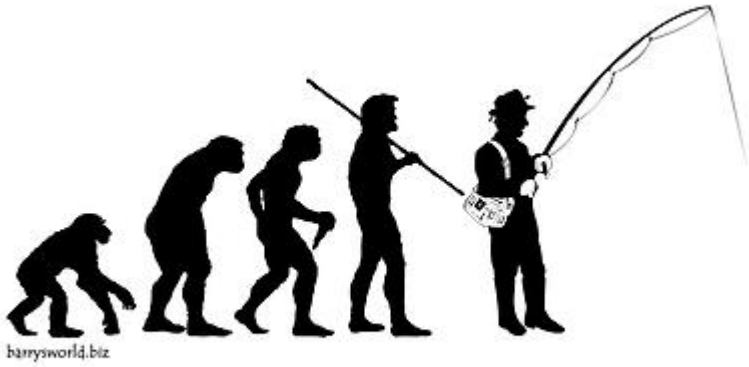
Must still prevent overfishing and rebuilding plans would still be required for depleted stocks.

Councils may identify or recommend habitat improvement and other environmental mitigation.

E7: Improve the Routine Review of FMPs

Recommend that Councils:

- Reassess the objectives of their fisheries on a regular basis to reflect the changing needs of the fishery over time.
- Consider the management objectives of their plans and their management framework to determine the relevant factors to determine OY.
- Periodically review their plans and determine if stocks are appropriately identified.



Summary

Proposed revisions:

- Improve, clarify, and streamline the NS1 Guidelines.
- Provide additional flexibility within current MSA statutory requirements.
- Specifically address input received by the Councils, commercial and recreational fishing industry, environmental organizations, National Research Council, and NOAA Fisheries.
- Will result in better managed and more sustainable fisheries.

Questions?

For additional information go to:
http://www.nmfs.noaa.gov/sfa/laws_policies/national_standards/ns1_revisions.html