

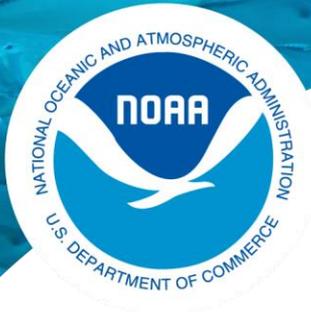


**NOAA  
FISHERIES**

Office of  
Sustainable  
Fisheries

# Annual Catch Limits *and* Accountability Measures

Presentation to the  
Regional Fishery Management Council Training  
October 2015  
Silver Spring, MD



**NOAA**  
**FISHERIES**

# Objectives

- Incorporate stock assessment information into setting ACLs
- Demonstrate skills in a test fishery



**NOAA**  
**FISHERIES**

# Overview

- Requirements
- Reference Points
- Performance
- Wrap-up and group exercise

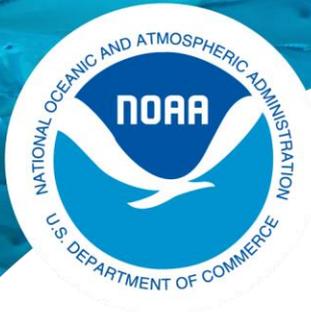


**NOAA  
FISHERIES**

# MSA Amendments - 2007

*“..establish a mechanism for specifying annual catch limits [ACLs] 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 [AMs].”*

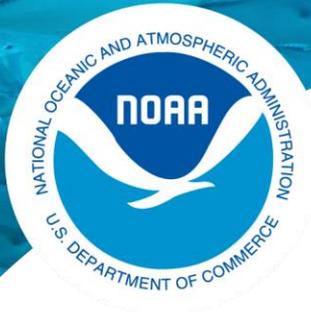
*“..develop annual catch limits for each of its managed fisheries that may not exceed the fishing level recommendations of its scientific and statistical committee”*



**NOAA**  
**FISHERIES**

# National Standard 1

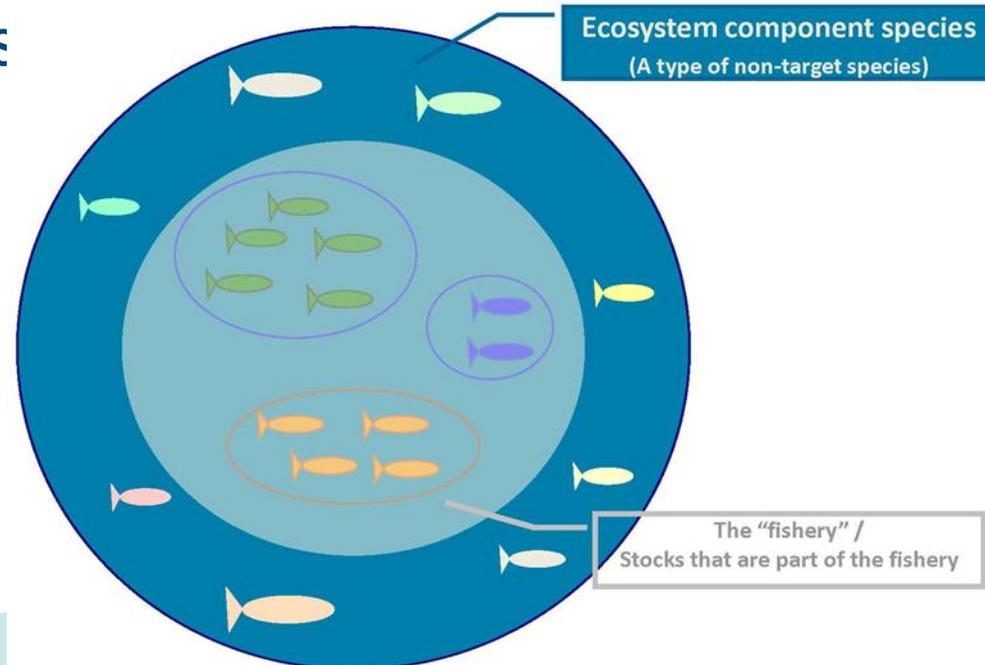
“Conservation and management measures shall **prevent overfishing** while achieving, on a continuing basis, the **optimum yield** from each fishery for the United States fishing industry.”



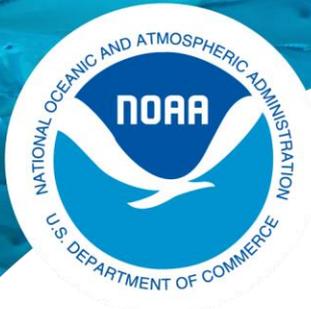
**NOAA**  
**FISHERIES**

# Stocks with ACLs

- ACLs for “*each of its managed fisheries*”
  - FMPs vary in their inclusiveness of stocks
  - Both target and non-target stocks for greater ecosystem considerations
- Only target stocks
- Single species
- Complex



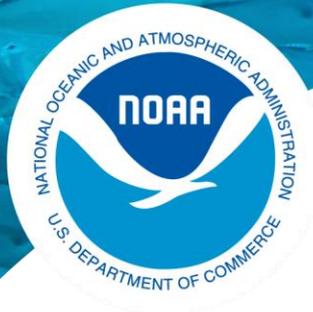
# Stocks with no ACLs



**NOAA**  
**FISHERIES**

## Exceptions to ACL requirements

- Under MSA
  - Species with annual life cycles, unless subject to overfishing
  - Stocks managed under an international agreement to which the U.S. is party
- Under Guidance
  - Stocks excepted under ecosystem considerations



**NOAA  
FISHERIES**

# Accountability Measures (AMs)

- MSA requires ACLs, including “*measures to ensure accountability*”
- Two types of AMs:
  - To prevent reaching the ACL (inseason)
  - To address an overage of the ACL (post season)
    - Operational factors leading to an overage
    - Mitigate biological harm to the stock, if any

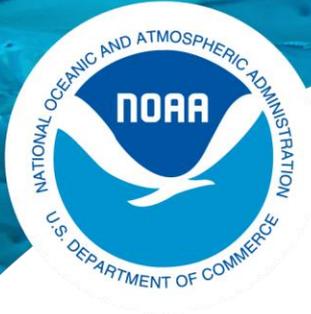


**NOAA**  
**FISHERIES**

# Overview of Stocks with ACLs

		As of September 30, 2015
Managed in a FMP N=471*	# of stocks meeting the ACL requirement	392
	# of stocks with international exemptions	68
	# of stocks with 1 year lifecycle exemptions	11
# Ecosystem Component stocks		10

\* Not including data collection only species.



**NOAA**  
**FISHERIES**

**Question:**  
Accountability measures must deduct ACL overages in the following year.

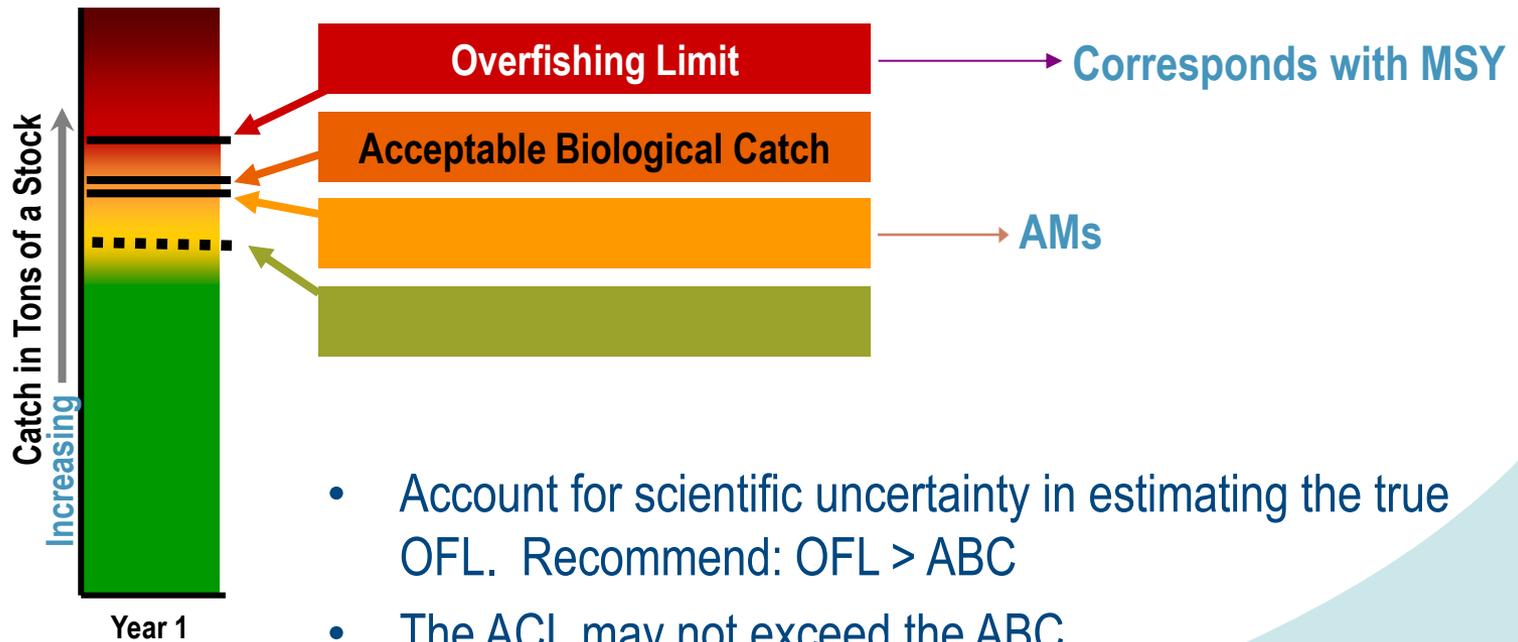
1. True
2. False



**NOAA  
FISHERIES**

# Know Your Reference Points

## OFL ≥ ABC ≥ ACL ≥ ACT



- Account for scientific uncertainty in estimating the true OFL. Recommend:  $OFL > ABC$
- The ACL may not exceed the ABC.
- Account for management uncertainty in estimating actual catch to the target

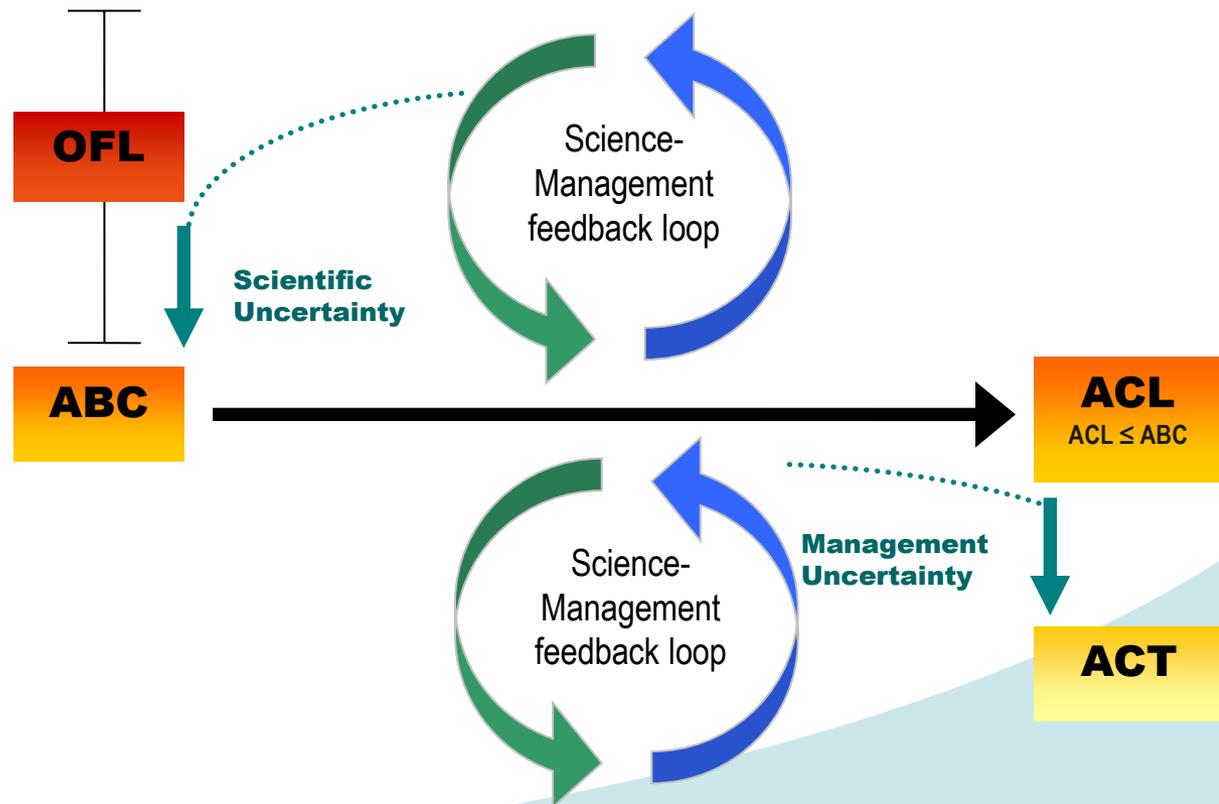


**NOAA**  
**FISHERIES**

# Roles in Setting ACLs

**SSC Role**

**Council Role**



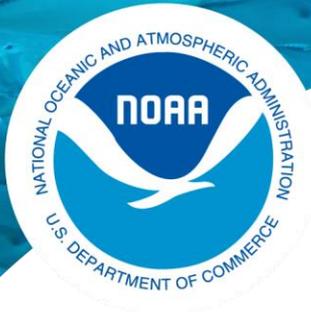


**NOAA  
FISHERIES**

# Assessing the risk of overfishing

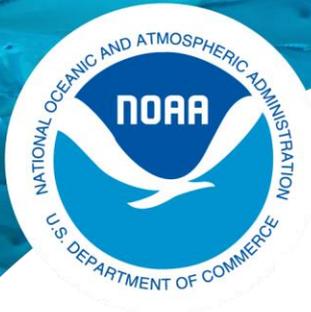
- ACL set “*such that overfishing does not occur*”
- Managers establish a policy, in consultation with the SSC, to use in specification of ABC such that there is an acceptably low risk that overfishing will occur.
- **ABC control rule**
  - *Scientific uncertainty*

# Management Uncertainty



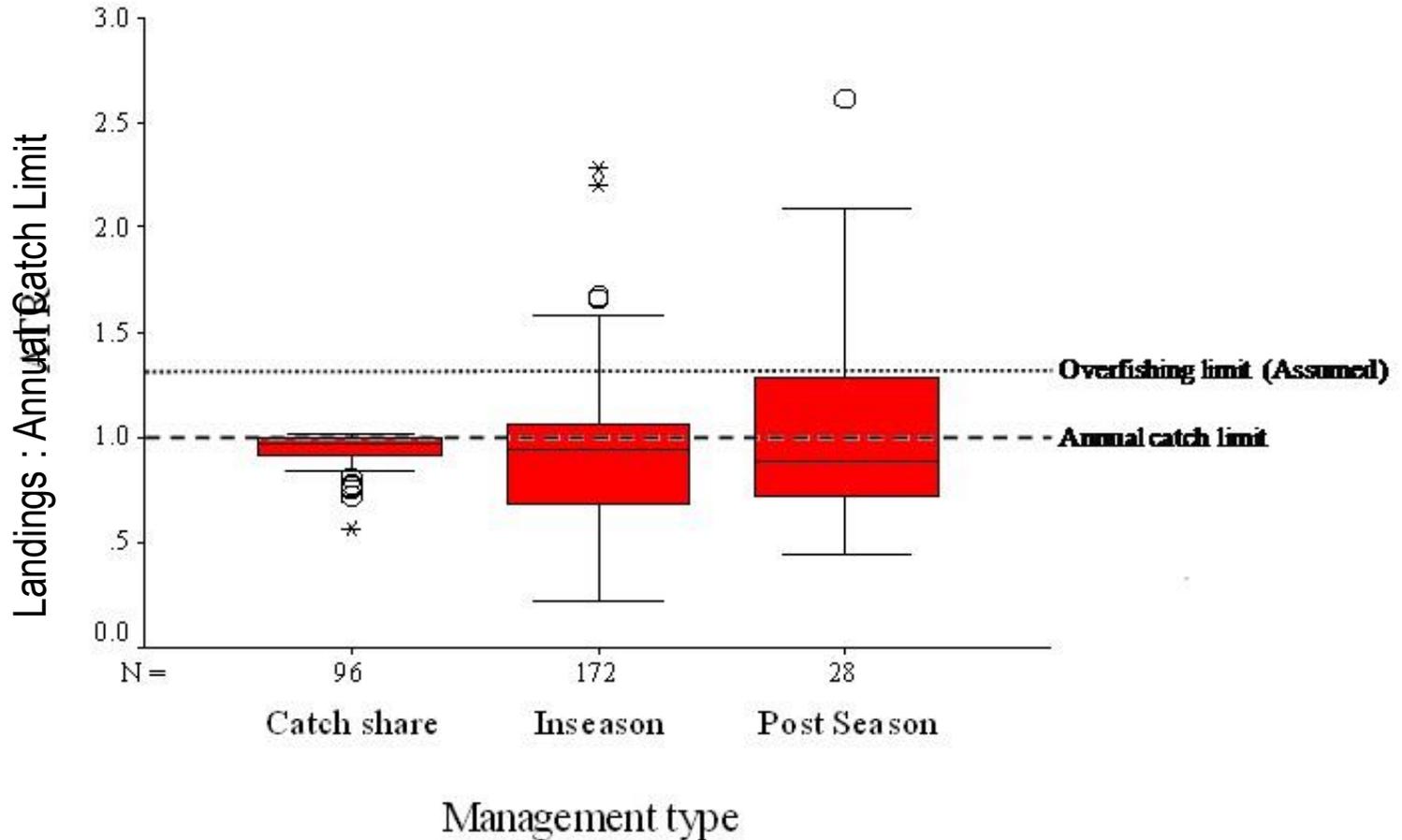
**NOAA**  
**FISHERIES**

- Management precision and setting appropriate catch levels
- **ACT control rule**
  - *Management uncertainty*



**NOAA  
FISHERIES**

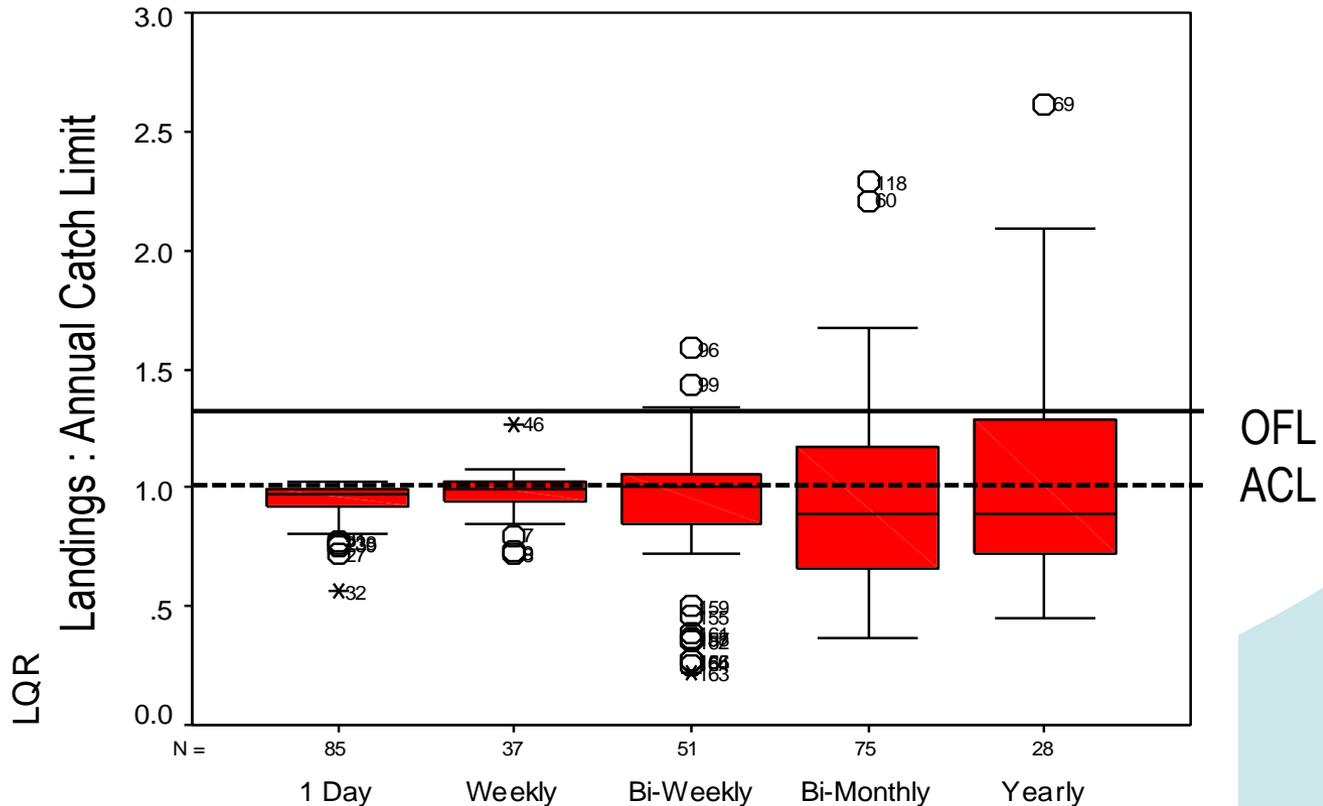
# Management Uncertainty – By Management Type

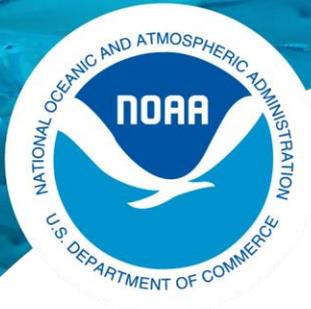




**NOAA**  
**FISHERIES**

# Management Uncertainty – By Reporting Frequency

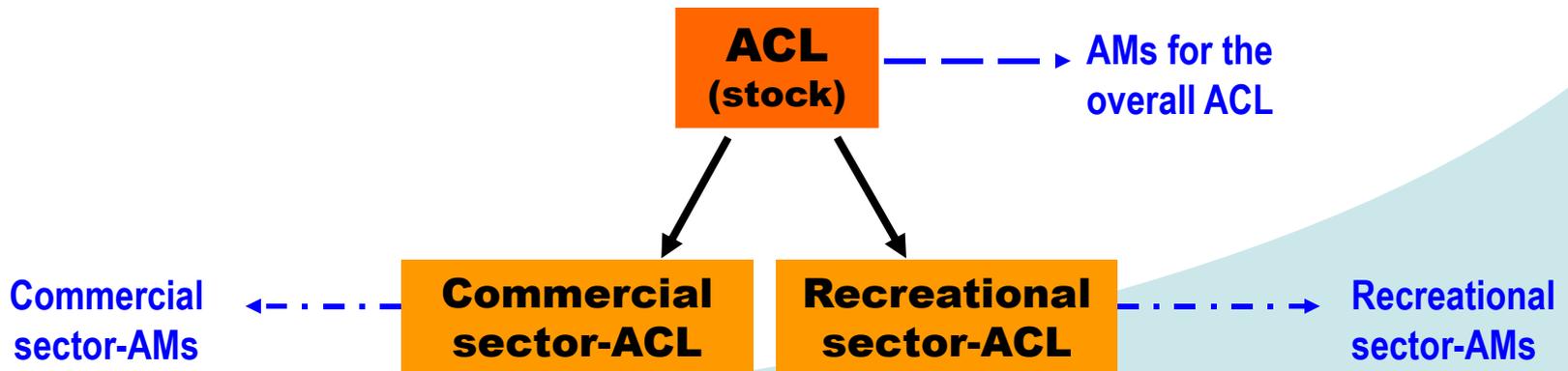


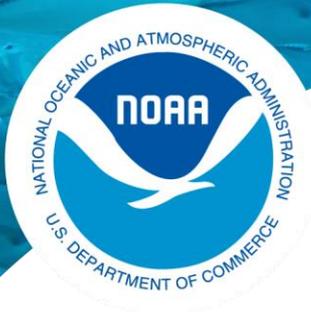


**NOAA  
FISHERIES**

# Allocations - Sectors

- **Optional** - sub-divide a stock's ACL into "sector-ACLs".
- The sum of sector ACLs must not exceed overall ACL.
- AMs required for the overall ACL to protect the stock as a whole.
- For each sector-ACL, "sector-AMs" should be established.
- Sector-AMs should be fair and equitable.





**NOAA**  
**FISHERIES**

**Question:**  
Which of these is NOT a source of management uncertainty?

1. Management program type.
2. Estimated discard mortality.
3. Reporting frequency.

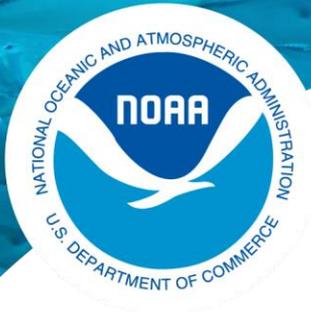
# Performance Standards



**NOAA**  
**FISHERIES**

- Because of uncertainty, there is always a chance that overfishing could occur.
- To prevent chronic overfishing:
  - The system of ACLs and AMs should be re-evaluated and modified if the ACL is exceeded *more than 1 in 4 years*.
  - A higher performance standard could be used if a stock is particularly vulnerable to the effects of overfishing.

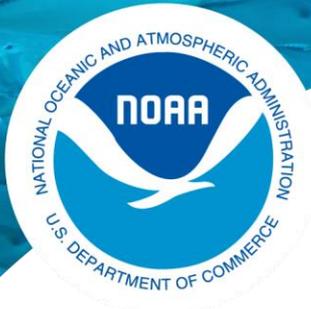
# Tracking ACL Progress



**NOAA**  
**FISHERIES**

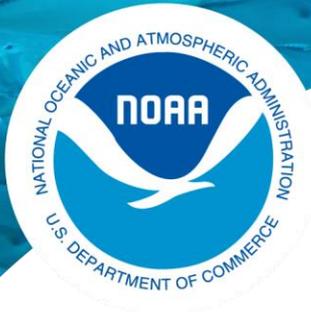
- Reporting to NOAA (*ongoing*)
  - % of ACLs not exceeded nationally
  - Report quarterly
- Reporting to the White House (*complete*)
  - Performance measure that tracks subset of stocks to show overfishing is ending
  - 1 of 5 Agency Priority Goal measures in Department of Commerce
  - Available at [performance.gov](http://performance.gov)

# Conceptual Model



**NOAA  
FISHERIES**

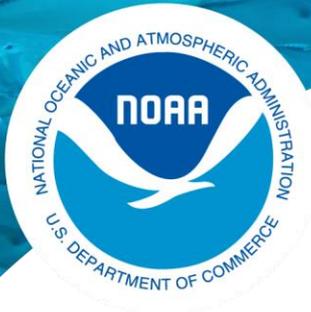
	SUBJECT TO OVERFISHING	NOT SUBJECT TO OVERFISHING
ACL EXCEEDED	Red dotted pattern	Yellow dotted pattern
ACL NOT EXCEEDED	Yellow dotted pattern	Green dotted pattern



**NOAA**  
**FISHERIES**

**Question:**  
Performance standards are intended to keep overfishing from becoming a chronic condition.

- True
- False



**NOAA**  
**FISHERIES**

# Summary

MSA requires:

- ACLs and AMs to end or prevent overfishing,
- ACLs may not exceed recommendations of SSC
- ACLs and AMs in all managed fisheries, with 2 exceptions.



**NOAA**  
**FISHERIES**

# Summary

- ACLs and AMs for all stocks/stock complexes, unless excepted.
- Clearly account for scientific and management uncertainty.
- AMs prevent ACL overages, where possible, and address overages, if they occur.
- “Ecosystem component” stocks: flexibility in FMPs.
- Performance standards: address assumptions in ACL setting to prevent chronic overfishing

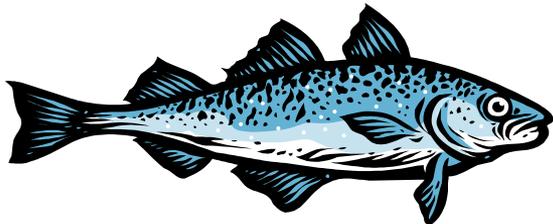


**NOAA**  
**FISHERIES**

# Group Exercise

## Given the data – set an ACL

Scenario 1 – Yellow-eye cod  
Data Rich



Scenario 2 – Shadow shark  
Data Poor

