



**NOAA
FISHERIES**

Office of
Sustainable
Fisheries

Annual Catch Limits *and* Accountability Measures

Presentation to the
Regional Fishery Management Council Training
November 2018
Silver Spring, MD



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Learning Objectives

- Describe the ACL and AM requirements
- Demonstrate skills in a test fishery



Road Map

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

Why do we have ACLs?

National Standard 1

- Prevent overfishing
- Achieve optimum yield



2007 MSA Reauthorization

- Annual Catch Limits (ACLs)
- Accountability measures (AMs)

Stocks with ACLs

- For “each of its managed fisheries”
 - FMPs vary in their inclusiveness of stocks
 - Both target and non-target stocks



Exceptions to ACLs

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



Accountability Measures (AMs)

- Management Controls
 - Prevent ACLs from being exceeded
 - Correct or mitigate any ACL overages
- Address & minimize
 - Frequency/magnitude of overage
- Correct problems that caused overage
 - In as short a time as possible

Types of Accountability Measures (AMs)

- Inseason
 - Monitoring
 - Management measures
 - Use when possible
- Post-Season
 - Operational issues
 - Biological consequences



Stability measures must deduct ACL overages
following year.

True

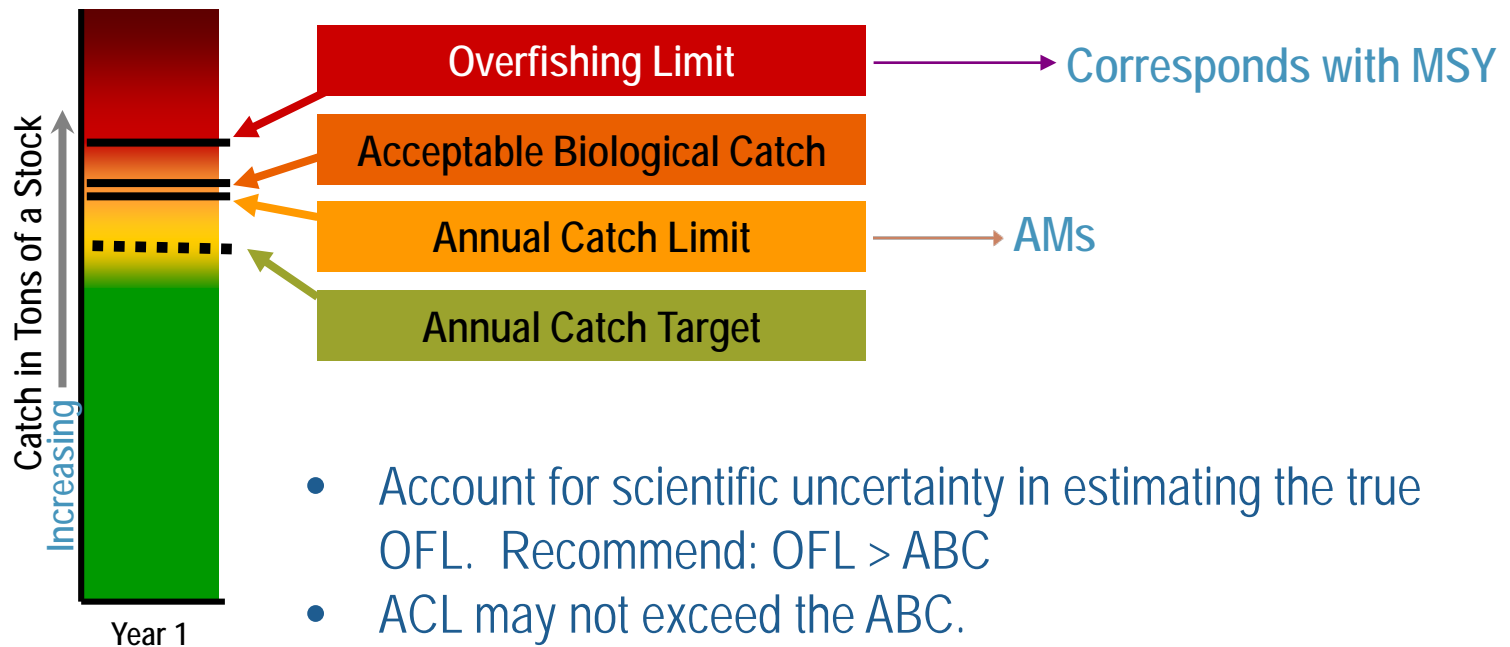
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Know Your Reference Points

OFL \geq ABC \geq ACL \geq ACT

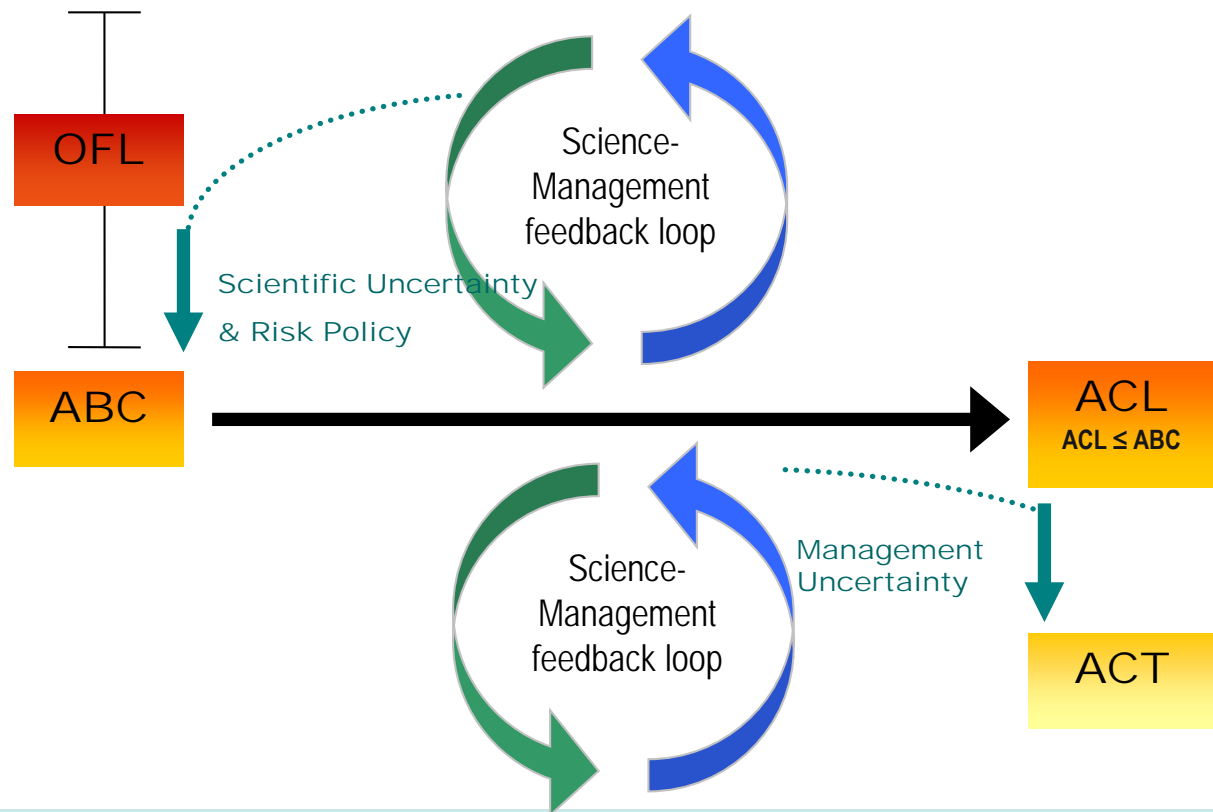


- Account for scientific uncertainty in estimating the true OFL. Recommend: $OFL > ABC$
- ACL may not exceed the ABC.
- Account for management uncertainty in controlling the actual catch to the target. For example: $ACL > ACT$

Roles in Setting ACLs

SSC Role

Council Role



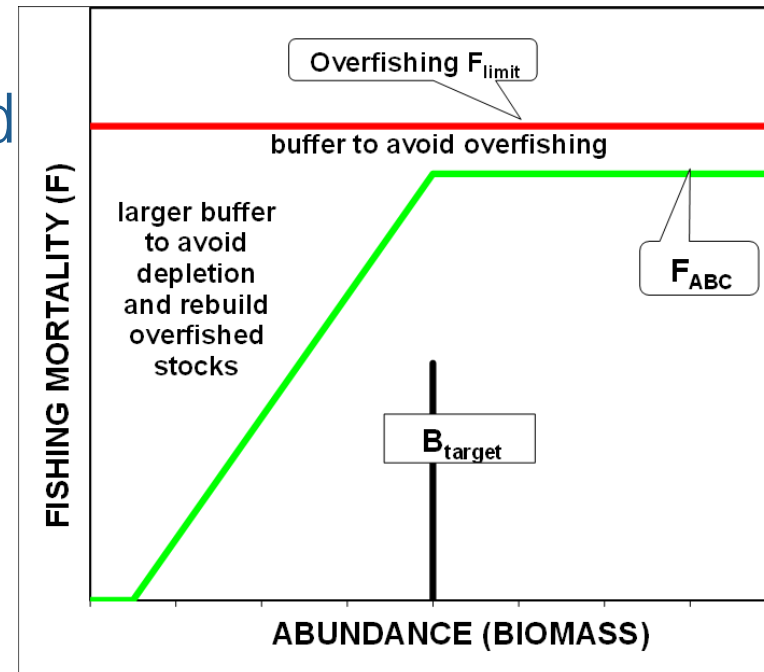
Assessing the Risk of Overfishing

- ACL = *"such that overfishing does not occur"*
- Managers establish policy
 - In consultation with SSC
 - Used in specifying ABC such that there is an acceptably low risk that overfishing will occur
- ABC control rule
Scientific uncertainty & risk policy

ABC Control Rule

Scientific Uncertainty and Risk Policy

- Captures how catch responds to abundance
 - Constant Fishing Mortality
 - Constant Catch
 - Fishing Mortality – B-based



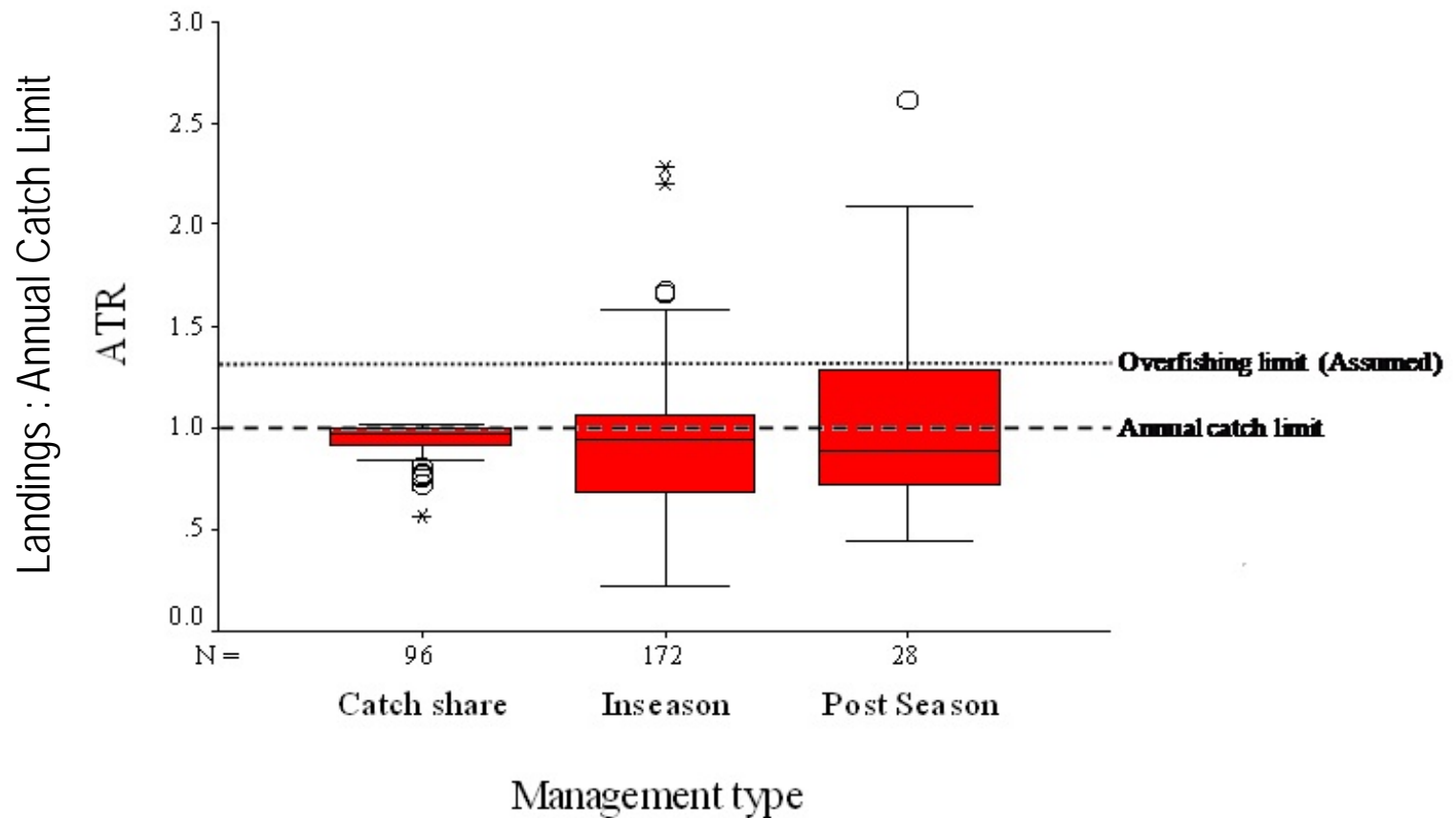
Management Uncertainty

- The ability of managers to constrain catch so that the ACL is not exceeded, and
- The uncertainty in quantifying the true catch amounts (i.e., estimation errors).

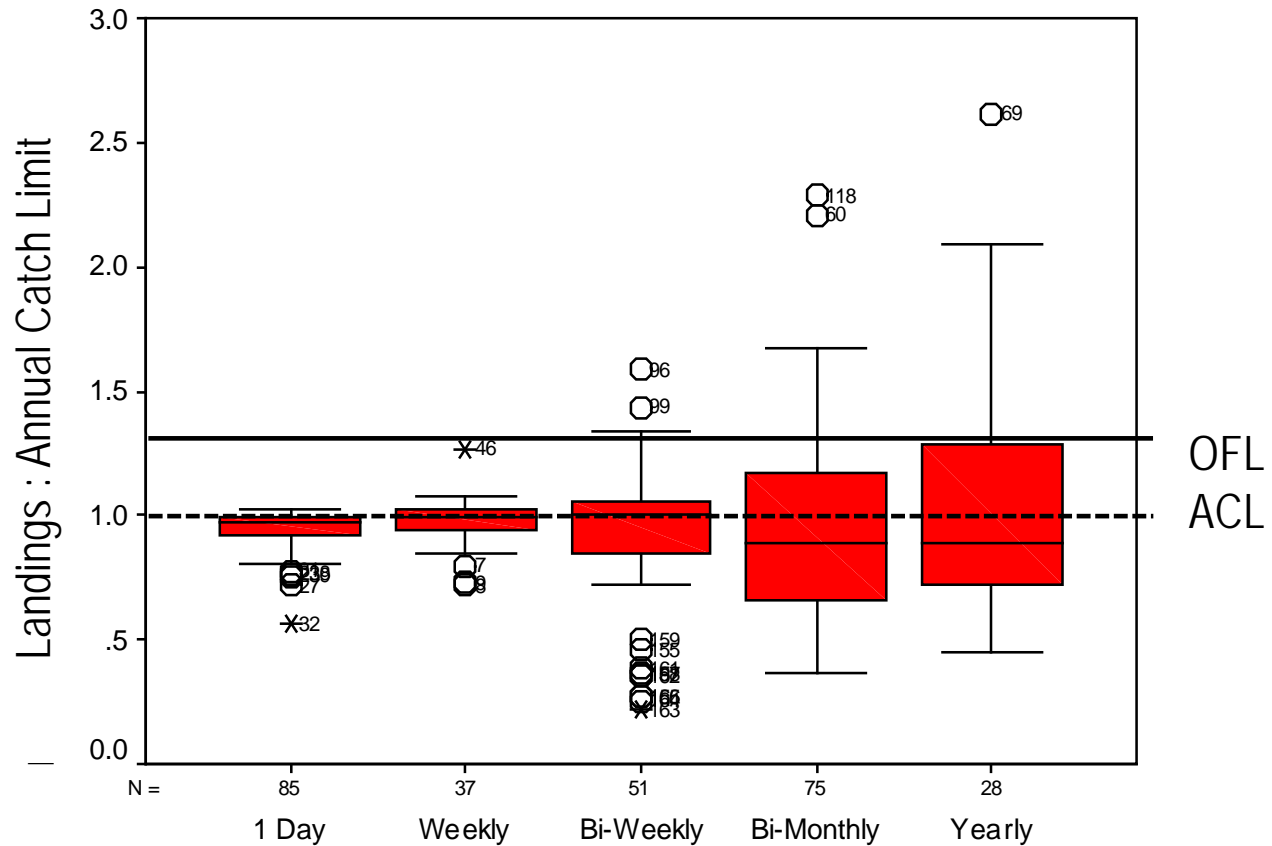


Management Uncertainty

- by management type

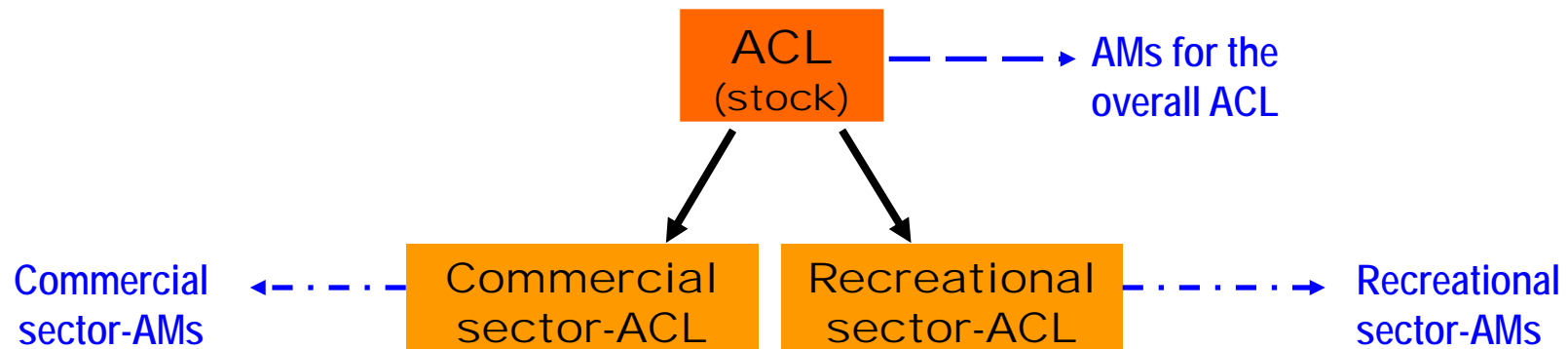


Management Uncertainty - by reporting frequency



Allocations - Sectors

- Sub-divide a stock's ACL into "sector-ACLs".
 - Optional
 - Sum must not exceed overall ACL
 - AMs for overall ACL
 - Sector-AMs for each sector-ACL
 - Fair and equitable.



If these is NOT a source of management uncertainty

Management program type

Estimated discard mortality

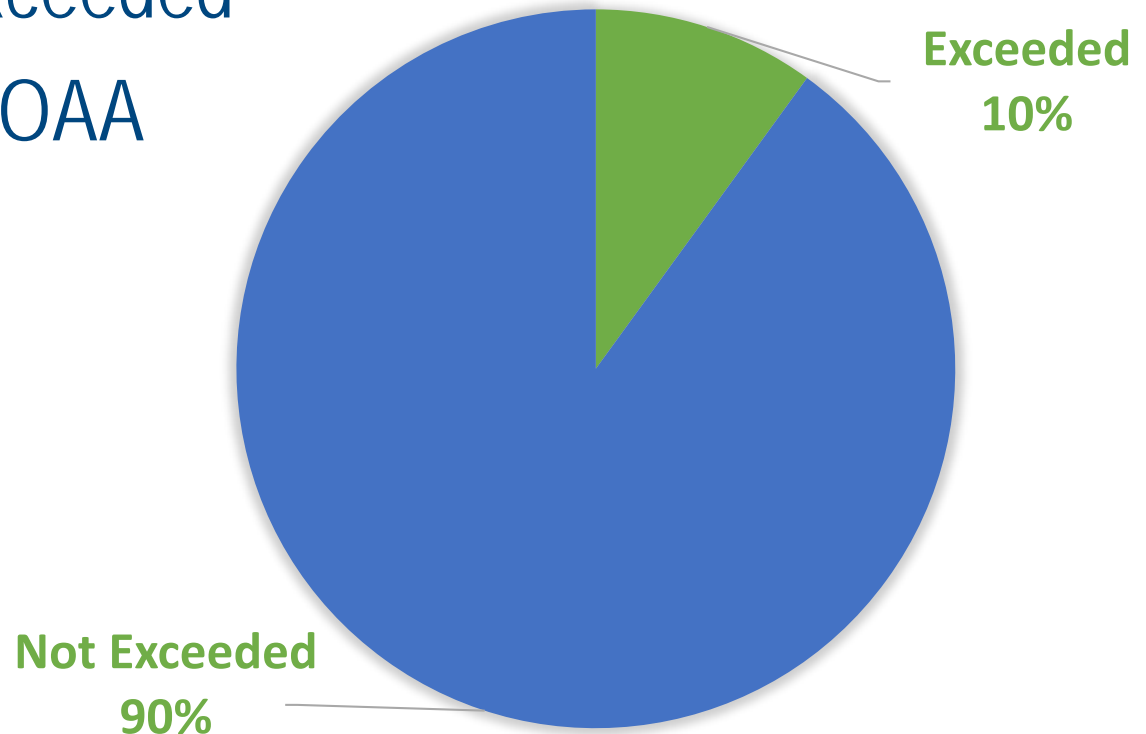
Reporting frequency

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Tracking ACL Performance

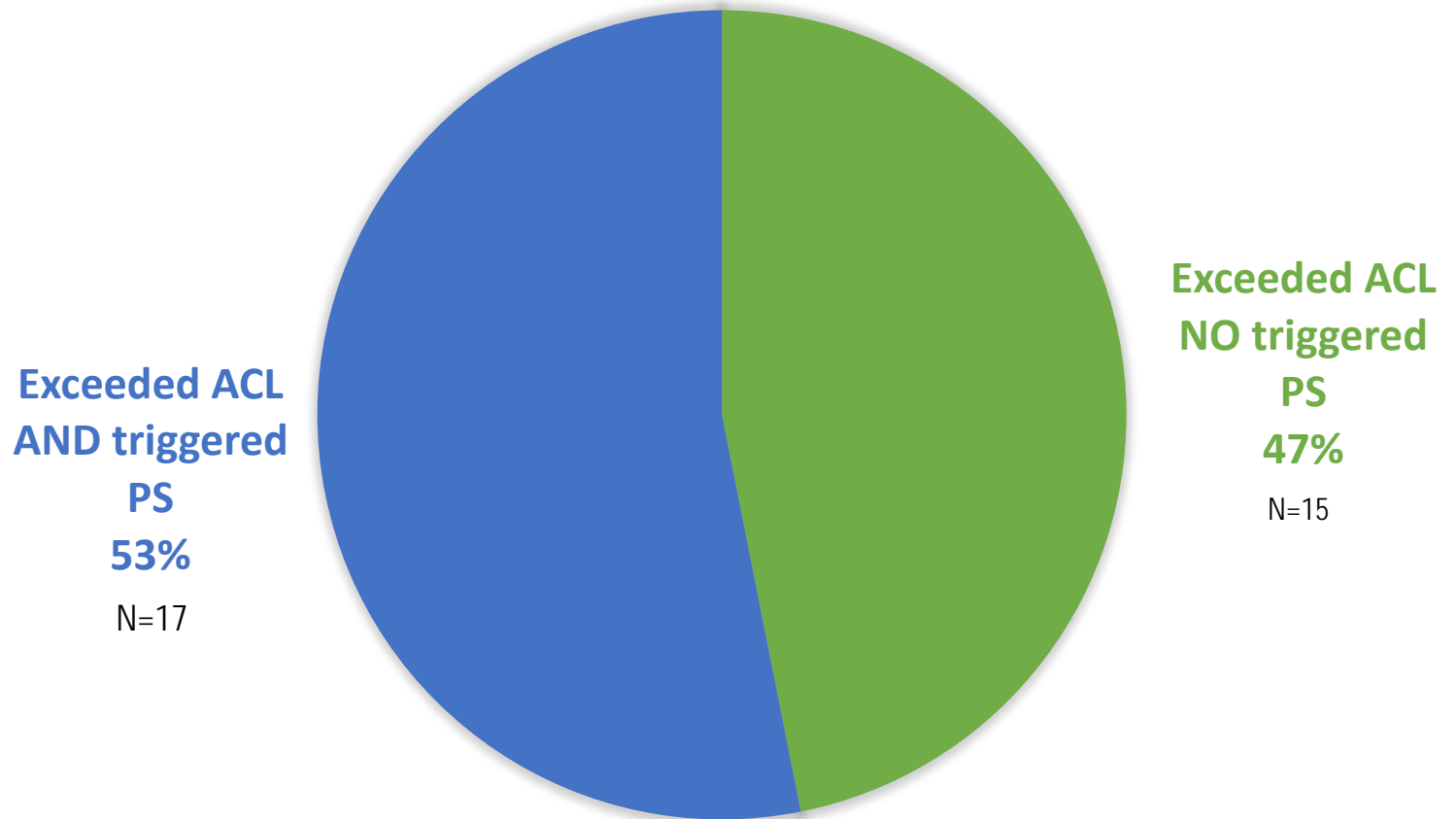
- % ACLs not exceeded
- Reporting to NOAA
- Ongoing
- Quarterly
- National



Performance Standards

- Uncertainty = chance of overfishing
- To prevent overfishing:
 - Re-evaluate and modify
 - ACLs and AM systems
 - If ACL is exceeded more than 1 in 4 years
 - Use a higher performance standard
 - If stock is particularly vulnerable to effects of overfishing

Performance Standards - Through 2017



N = 32

Management standards are intended to keep overfishing from becoming a chronic condition.

True

False

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Summary – MSA Requirements

- MSA Requires
 - ACLs and AMs
 - To end and prevent overfishing
 - In all managed fisheries
 - Unless exempted – 2 exceptions
 - ACLs may not exceed SSC recommendations
 - AMs
 - Prevent ACL overages and address any overages

Summary

- Clearly account for uncertainty
 - Scientific and management
- ABC Control Rules
 - Account for scientific uncertainty
 - Incorporate Council's risk policy
- Performance Standard
 - Address assumptions in ACL setting to prevent chronic overfishing

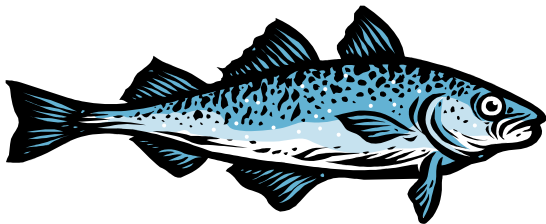


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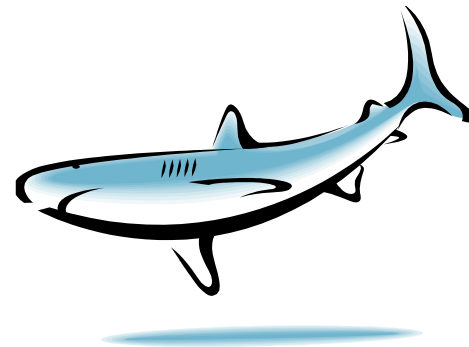
Group Exercise

Given the data – set an ACL

Scenario 1 – Yellow-eye cod
Data Rich



Scenario 2 – Shadow shark
Data Poor



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