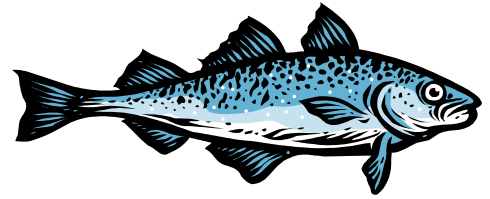


# Implementing ACLs and AMs

## Exercise A



This stock hosts one of the most prominent fisheries in your region. In the previous exercise, you went over the assessment results for yellow-eyed cod.

**Stock: Yellow-eyed cod**

Fishery: High value, commercial harvest (catch share), recreational harvest

Last assessed: This year

Status: Overfishing = yes; overfished = no

Management: The stock has been managed by annual catch limits since 2011. The total ACL is divided equally between recreational and commercial sectors. The FMP specifies that the commercial sector has 3 seasonal fisheries - each 4 months long starting on January 1 - where the ACL is allocated 25%, 50%, 25%. The recreational management measures, including season and bag limits, are specified annually. Commercial vessels report landings weekly. Recreational has no reporting requirements.

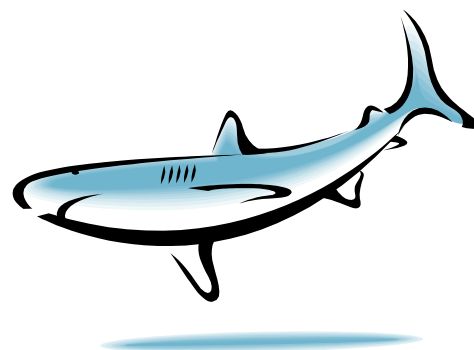
Science: The latest assessment found that overfishing is occurring and the stock is approaching an overfished condition (biomass is declining). The ABC Control Rule has a probability of exceeding the OFL and the  $P^* = 49.9\%$  probability of the stock's becoming overfishing, therefore needing a rebuilding plan.

Your task: Given the information provided, come up with appropriate ACL and ACT for this fishery. Discuss recommendations with the group.

MSY	54,500 mt
OFL	54,500 mt
ABC	49,500 mt
ABC Control Rule:	$P^* = 49.9\%$ (probability of exceeding the OFL)
ACL	
ACT	
AMs	Time/area closures (commercial and recreational), overharvest payback (commercial)

# Implementing ACLs and AMs

## Exercise B



This stock hosts a small fishery in your region. In the previous exercise, you went over the assessment results for shadow shark.

Fishery: Commercial harvest, negligible recreational harvest

Last assessed: This year, previous assessment results discarded

Status: Overfishing = no; overfished = unknown

**Stock: Shadow shark**

Management: The stock has been managed by an annual catch limit set at recent average landings since 2011. That level is 1,775 mt. The only management mechanism for this stock is a minimum fish size and gear restrictions. There are no seasons and the fishing year runs January 1 through December 31. Commercial vessels report landings weekly. There is negligible recreational fishing for this stock.

Science: The latest assessment found that overfishing is not occurring, but due to uncertainty in the estimates, could not determine if the stock is overfished. The SSC determined that, based on the available information, shadow shark could likely maintain the current level of landings, but the discard mortality may be unsustainable. The FMP's ABC Control Rule accounts for a negligible estimate of discard mortality from recent annual catch.

Your task: Given the information provided, come up with appropriate ACL and ACT for this fishery. Discuss recommendations with the group.

MSY	Undetermined
OFL	Undetermined
ABC	1,775 mt
ABC Control Rule:	Recent average catch, assumes negligible discard mortality estimate
ACL	
ACT	
AMs	Closure of the directed fishery when 100% of the ACL is reached.