Ad hoc committee on species complexes and non-target species management

Report for October 2003
Council meeting

The committee lumped...

All species we mean to catch	All species we DON'T mean to catch (but still do)

Because there are different management objectives within these categories,
We apply different management tools

First name them to distinguish from what we have now

The committee lumped...

Intended targets

Incidental species

"non-targets"

Management objective:

Optimize sustainable yields

Management objective:

Protect from fishing effects

Then the committee split...

Intended targets

- Managed with *single species* ABC, TAC, OFL

- Data quality goal is assessment at Tier 3 or above (Tier 6 phased out)

- No complexes allowed in this category (except*)

Who is in this category?

Pollock, Pacific cod, Sablefish, Atka mackerel,
Rock sole*, Yellowfin sole, Flathead sole, Dover sole, Rex sole, Greenland turbot,
Pacific Ocean perch, Shortraker rf, Rougheye rf *, SS Thornyheads, Yelloweye rf,

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Then the committee split...

- No directed fishing allowed
- Managed with Maximum Retainable Allowance (MRA)

- Divided into two further categories:
  - Monitor only
  - Monitor with additional management measures

Incidental species

"non-targets"

Who is in this category?

Every species not listed as a target...
Real bycatch complexes (observed to be caught together) are allowed

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Criteria for the major division:

- Is it actually caught in the groundfish fishery?
  - Threshold of x% of observed catch to get on the radar
  - Monitoring will allow us to add species for consideration
- Is it retained and landed (as other than fishmeal)?
  - Threshold of y% retention and landing
  - Market currently exists
- Do people want to catch it?
  - If we did not restrict fishing would they target it?

- Species that people want to catch are on the list.
- Species that people keep, but are secondary, are not considered targets till they reach the retention/landings threshold. Unless they say they want to keep little bitty amounts of species.

Species to emphasize: targets

- Current target species specification process is unchanged

- Improvements could include:
  - A systematic approach to improving assessment data quality
    - Still aiming for minimal Tier 3 designation if possible
    - Tier 6 not used (target species require biological data)
    - Include explanation in SAFE of why species is in given tier, and what it would take to improve data to change tiers
  - Focus resources on target species

Species to emphasize: non-targets

- Non-target species management (i.e., protection) would be *enhanced*.

- Improvements could include:
  - Monitoring for groups formerly unmonitored (the current "non-specified" category)
  - Control of new target fishery development via MRAs
  - More flexible management tailored as necessary to species sensitivity, ecological, and economic concerns

Species to emphasize: transitions

- Non-target species can still become targets
  - As increased retention is detected, data collection can increase
  - Interested industry can participate in collecting adequate data to support new fishery (EFP like system)
  - Fishery develops sustainably

- Target species can still become non-targets
  - If interest/market wanes, no need to continue management infrastructure, redirect resources to higher priorities

The details: non-targets

- Monitoring of catch for all groups
  - Selected (sensitive) groups monitored at species level
  - Other groups monitored at complex level
- MRAs defined with flexibility depending on goal
  - Can be single species or complex level
  - Can vary by target fishery for a given non-target group
  - Percent retainable may be set:
    - to zero in some cases (prohibited status)
    - to allow "natural" bycatch to be retained if desired
    - to allow some limited fishery/market exploration
  - But, does not allow for full blown directed fishery

The details: non-targets

- Additional management measures are developed for non-target species/groups sensitive to fishing effects where MRA alone is inadequate protection
- Sensitivity is multifaceted, considers
  - Current abundance level and trend
  - Life history traits
  - Range and habitat associations
  - Ecological role
  - Potential for future market value
- non-target species groups with high sensitivity in several areas have higher priority for management

A suggested process: non-targets

- Selected (sensitive) non-target species/groups would have regular evaluations, with authors compiling:
  - Current abundance level and trend (direction and uncertainty)
  - Information on life history traits (average size trend?)
  - Range and habitat (expansion, shrinkage, change?)
  - Ecological role (diet change, predator abundance change?)
  - Potential for future market value (markets exist/developing?)
  - Catch information (amount, location, retention change?)
- Review panel evaluates all non-target indices together to address concerns and prioritize further data collection and or management action

A suggested limit: non-targets

- If no OFL can be calculated, when should management be concerned enough to take action to reduce fishery impacts to non-targets? What is the limit?
- Some viewpoints:
  – Limit could be don't let any species go extinct
  – Limit not necessary if we follow National Standard 9 and minimize bycatch to extent practicable
  – Limit could be similar to tier 6 for target species, don't let catch exceed average observed catch over some time
  – Limit could be similar to tier 5 for target species, don't let catch exceed natural mortality rate times current biomass
  – We could combine these as data and concern allow, and include interactions other than catch alone

Why do this? What problems are we trying to solve?

- Some current management problems
  – BSAI rockfish
    - Northerns
    - Duskys (part of complex)
  – Other species complex
    - CDQ "squid box"
    - new GOA skate target fishery

BSAI northern rf single spp

- Problem: setting appropriate TAC by area (stock id), sensitive life history and poor biomass data

- Little corner of EBS, combine or not

BSAI dusky rf in (Other rf) complex

- Problem: sensitive life history traits combined with apparently high exploitation rates due to poor biomass estimates—can not set TAC

- Shortspine thornyhead and dusky rockfishes are primary components, not targets

BSAI squid complex

- Problem: a small TAC based on tier 6 is partitioned to CDQ groups which constrains target fishery but there is no evidence of damage to squid stocks

GOA atka mackerel

- Transition from "target" to "non-target"?

GOA skate complex

- Problem: uncontrolled fishery development combined with high complex-level TAC
- Sub-problems:
  - Target is one or two among ~12-14? skate species
  - No observers (small vessels and low volume plants)
  - Species id by processors problematic
  - No life history information from Alaska
  - Skates relatively long lived, late maturing, low fecundity as a group