SHARING THE CONSERVATION BURDEN

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Objectives

1. Explore options for developing index-based PSC limts.
2. Under fixed allocation agreements, explore the conservation incentives for each sector.
3. Create the necessary quantitative tools for analyizing harvest policy options for joint managmenet.

Key Points

- Fixed PSC limits create a perverse conservation incentive.
- Cooperative management under an allocation agreement.
  - Yield per recruit (**YPR**) allocations.
  - Mortality per recruit (**MPR**) allocations.
- YPR allocations provide net benefits only to the sector that participates in the conservation effort.
- Yield equivalence compares the pound for pound loss or gains between two or more sectors.
- Constant exploitation rate policy does not imply the same life-time mortality per recruit (MPR) in each of the regulatory areas.

Perverse Conservation Incentives

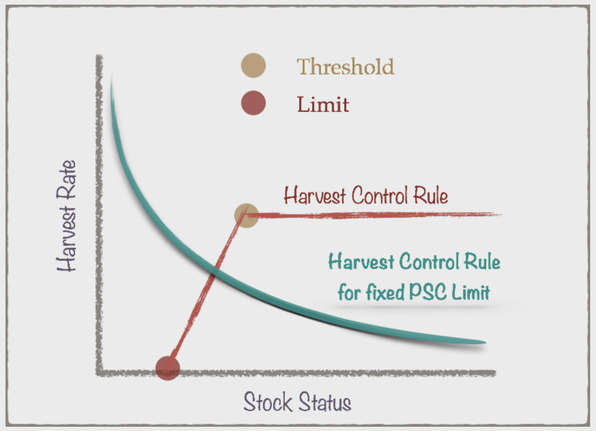

Fig. 1: General harvest control rule used for setting ABC and OFLs. Overlaid is the harvest rate calculation necessary for calculating a fixed PSC limit; **harvest rate increases as abundance decreases**.

Allocation Options

- Allocation among sectors can be based on YPR or MPR.
- 72.6% of the total removals removed by the commercial fishery which accounts for 35.7% of the MPR.
- 16.5% of the total removals in the form of bycatch, accounting for 54.2% of the MPR.

Sector	Removals (Mlb)	YPR proportion	MPR proportion
Commercial	59.730	72.6%	35.7%
Bycatch	13.298	16.5%	54.2%
Sport	8.285	10.4%	9.1%
Personal	1.051	1.3%	0.8%

Fig. 2: Average removals between 1990 and 2014, average proportion of the total removals (YPR), and the proportion of the total fishing mortality per recruit associated with each sector (MPR).