

Status Determination Criteria Definitions

Maximum Sustainable Yield Proxy (MSY)

The largest long-term average catch, or yield that can be taken from a stock or stock complex each year on a continuing basis under prevailing conditions (ecological, environmental, fishery characteristic). MSY can rarely be calculated with accuracy, so a proxy that can be more readily calculated and represents a sustainable level of harvest is usually used.

F_{MSY}

The rate of fishing mortality that, if applied over the long term, would result in catching the MSY.

BMSY

The long-term average size of the stock or stock complex that would be achieved by fishing at a constant fishing mortality rate equal to F_{MSY} . It can be measured in terms of spawning biomass or other appropriate measure of the stock's reproductive potential.

Minimum Stock Size Threshold (MSST)

The biomass level that a stock can decline to before being declared overfished (stock abundance is too low) and requiring a rebuilding plan. It can be no lower than 50% of the B_{MSY}.

Maximum Fishing Mortality Threshold (MFMT)

Maximum fishing mortality threshold (MFMT) is the rate of fishing mortality above which a stock is declared to be experiencing overfishing (fish are being removed at too rapid a rate). MFMT may not exceed F_{MSY} .

Optimum Yield (OY)

Optimum yield (OY) is a level of harvest that will provide the greatest overall benefit to the Nation, and is based on MSY as reduced by any relevant economic, social, or ecological factor. It takes the protection of marine ecosystems into account and, in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the MSY or MSY proxy.

Spawning Potential Ratio (SPR)

Sawning potential ratio (SPR) assumes that a certain amount of fish must survive and spawn in order to replenish the stock. It is calculated as the average number of eggs per fish over its lifetime when the stock is fished compared to the average number of eggs per fish over its lifetime when the stock is not fished.