

## A GLOSSARY OF SOME TERMS REFERRED TO IN PRESENTATIONS AND DISCUSSION AT THE TCMP02

<b>B<sub>LIMIT</sub></b>	Biomass Limit Reference Point. A biomass level below which is considered to be undesirable and which management action should avoid
<b>B<sub>TARGET</sub></b>	Target biomass. A biomass level that is desirable and which management action should aim for
<b>B<sub>THRESHOLD</sub></b>	Threshold biomass. A biomass level above B <sub>LIMIT</sub> and below B <sub>TARGET</sub>
<b>E</b>	Exploitation rate. The proportion of the stock removed by fishing
<b>F<sub>MSY</sub></b>	The fishing mortality rate that produces MSY
<b>F<sub>TARGET</sub></b>	The target fishing mortality rate corresponding to B <sub>TARGET</sub>
<b>Harvest Control Rule (HCR)</b>	A pre-agreed rule or action(s) that describes how management should adjust harvest regulations in response to the state of some indicator(s) of stock status (e.g. reference points). For example, a harvest control rule can describe the various values of fishing mortality which will be aimed for at different values of stock abundance. Constant catch and constant fishing mortality are two types of simple harvest control rules
<b>Kobe Plot</b>	Is used to show the trajectory of a stock over time, its current status, or both. Stock abundance is on the X-axis and fishing mortality on the Y-axis. The Kobe plot is usually divided into four quadrants by using a vertical line at B=B <sub>MSY</sub> and a horizontal line at F=F <sub>MSY</sub>
<b>Limit Reference Point (LRP)</b>	A level of biomass or fishing mortality beyond which is considered to be undesirable and which management action should avoid. LRPs should be avoided with high probability, even considering the uncertainty in stock status evaluations.
<b>Management Objectives (Objectives)</b>	The social, economic, biological, ecosystem, and political (or other) goals specified for a given management unit (e.g. stock).
<b>Management Procedure (MP)</b>	A set of formal actions, usually consisting of data collection, stock assessment, and harvest control rules, to iteratively and adaptively adjust harvest controls (e.g. catch or effort quotas).

<b>Management Strategy Evaluation (MSE)</b>	A procedure whereby the performance of alternative management procedures is tested and compared using stochastic simulations of stock and fishery dynamics against a set of management objectives
<b>MSY</b>	The largest long-term average catch or yield that can be taken from a stock without long-term depletion
<b>Operating Model (OM)</b>	A mathematical–statistical model used to describe the actual resource dynamics in simulation trials and to generate resource monitoring data when projecting forward
<b>Performance statistics</b>	A set of consistent statistics used to evaluate how well management objectives have been achieved under each candidate MP over a pre-defined simulated period
<b>Reference Points</b>	See definitions for <b>Limit Reference points</b> and <b>Target Reference Points</b>
<b>SB</b>	Spawning biomass. The total weight of sexually mature fish in the population. Biomass limit ( $B_{LIM}$ ) and Biomass target ( $B_{TARG}$ ) reference points, when possible, are defined in terms of SB
<b>SB<sub>0</sub></b>	Initial spawning biomass prior to fishing
<b>SB<sub>current</sub></b>	Spawning biomass (SB) in the last year of the stock assessment
<b>SB<sub>MSY</sub></b>	The equilibrium spawning biomass that results from fishing at $F_{MSY}$ . In the presence of recruitment variability, fishing a stock at $F_{MSY}$ will result in a biomass that fluctuates above and below $B_{MSY}$
<b>Stock assessment</b>	The process of estimating stock abundance and the impact of fishing on the stock
<b>Target Reference Point (TRP)</b>	The point which corresponds to a state of a fishery and/or resource which is considered desirable and which management is trying to achieve
<b>Trade-offs</b>	A balance or compromise achieved between desirable but potentially conflicting objectives when evaluating alternative management procedures. Trade-offs arise because some objectives for management conflict (e.g. maximizing catch vs. minimizing risk of unintended depletion)
<b>Tuning</b>	The process of adjusting Harvest Control Rules parameters in the Management Procedure to achieve a single, precisely-defined performance statistic in simulation tests