

Overview of Factors included in this analysis of stock assessment priorities

Based on the process described in: Prioritizing Fish Stock Assessments. U.S. Dep. Commer., NOAA Tech. Memo. NMFS-F/SPO-152, 31 p (included as attachment)

http://www.st.nmfs.noaa.gov/Assets/stock/documents/PrioritizingFishStockAssessments_FinalWeb.pdf

Category	Factors	Source/Basis	Range	Notes on Scoring
FISHERY Importance	Commercial Fishery Importance	Landed Ex-vessel Revenue, from PacFIN (transformed)	0-10	$\text{LOG}(1+1000*\text{Rev}) \rightarrow \text{MAX}(0.5+\text{species LOG}(1+1000*\text{Rev}) - \text{highest LOG}(1+1000*\text{Rev}))^2$ $\text{LOG}(1+1000*\text{Wt}*Mt) \rightarrow \text{MAX}(0.5+\text{species LOG}(1+1000*\text{Wt}*Mt) - \text{highest LOG}(1+1000*\text{Wt}*Mt))^2$ <p>Emphasis on rebuilding species (and degree of constraint), with lesser additions for state or FG rankings that are much higher than overall</p> <p>Commercial transformation used to score Tribal Commercial landings (0-7) + subsistence values scored with Tribal input and WA recreational weights</p> <p>Emphasis on nearness to shore, appearance, southerly distribution</p>
	Recreational Fishery Importance	Weighted Landed catch, from States (transformed)	0-10	
	Importance to Subsistence	Tribal Comm Revenue + Subsistence input from Habitat Assmt. & Tribes	0-10	
	Constituent Demand/Choke Stock	Higher Value to sub-fleet or -area + Constraining Species	0-10	
	Non-Catch Value	Currently: Scuba/snorkel Viewing	0-10	
STOCK Status	Rebuilding Status	Assessed Status + Rebuilding Proj.	0-10	<p>0 - Not in rebuilding</p> <p>3 - Newly rebuilt stock, but catch history impacted by previous rebuilding restrictions</p> <p>6 - Projected to rebuild in over 20 years</p> <p>8 - Projected to rebuild within 20 years</p> <p>9 - In rebuilding and projected to be rebuilt by next assessment</p> <p>10 - In rebuilding, with declining biomass</p>
	Relative Stock Abundance	Latest assessed depletion or PSA	1-10	
Ecosystem Role	Relative Fishing Mortality	Groundfish Mortality Reports	1-10	<p>1 point = negligible fisheries impact on stock ($F_C \leq 0.1 * F_L$)</p> <p>2 points = low fisheries impact on stock ($0.1 * F_L < F_C \leq 0.25 * F_L$)</p> <p>3 points = moderately low fisheries impact on stock ($0.25 * F_L < F_C \leq 0.5 * F_L$)</p> <p>4 points = caution - F_L is unknown and $F_C \leq 5 \text{ mt}$</p> <p>5 points = moderate fisheries impact on stock ($0.5 * F_L < F_C \leq 0.75 * F_L$)</p> <p>6 points = caution - F_C is unknown or F_L is unknown and $F_C > 5 \text{ mt}$</p> <p>7 points = moderately high fisheries impact on stock ($0.75 * F_L < F_C \leq 0.9 * F_L$)</p> <p>8 points = high impact, potential for overfishing ($0.9 * F_L < F_C \leq F_L$)</p> <p>9 points = slight overfishing ($F_L < F_C \leq 1.1 * F_L$)</p> <p>10 points = significant overfishing ($1.1 * F_L < F_C$)</p>
	Unexpected Stock Trends	LATER (before June): Trend information from surveys of fisheries	0-10	
ASSMT Info	Relevant New Type of Information Available	Updated Steepness Prior; New availability of trend or comp data; Ability to fix prior assmt. issues	0-10	<p>1 - point = stock biomass is way above target ($\text{SBC} > 2 * \text{SBMSY}$)</p> <p>2 - points = stock biomass is above target ($2 * \text{SBMSY} \geq \text{SBC} > 1.5 * \text{SBMSY}$)</p> <p>3 - points = stock biomass is above target ($1.5 * \text{SBMSY} \geq \text{SBC} > 1.1 * \text{SBMSY}$), or SBC is unknown and Vulnerability is low ($1.8 > \text{PSA}$)</p> <p>4 - points = stock biomass is near target ($1.1 * \text{SBMSY} \geq \text{SBC} > 0.9 * \text{SBMSY}$), or SBC is unknown and Vulnerability is intermediate ($2 > \text{PSA} \geq 1.8$)</p> <p>5 - points = stock biomass is below target ($0.9 * \text{SBMSY} \geq \text{SBC} > \text{MSST}$) and not declining</p> <p>6 - points = SBC is unknown and Vulnerability is high ($\text{PSA} \geq 2$)</p> <p>7 - points = stock biomass is below target ($0.9 * \text{SBMSY} \geq \text{SBC} > \text{MSST}$) and recent trend is declining or unknown</p> <p>8 - points = stock is overfished ($\text{SBC} \leq \text{MSST}$) and increasing</p> <p>9 - points = stock is overfished ($\text{SBC} \leq \text{MSST}$) and stable</p> <p>10 - points = stock is overfished ($\text{SBC} \leq \text{MSST}$) and declining</p>
	Years Assessment Overdue (relative to Target Frequency)	Assessment output, and Fishery Factor scores	0-10	
				Years since last assessment - Target Frequency
TARGET Freq	Mean Age in Catch (with regional modification)	Extraction from assessment data	Value	
	Stock Variability	Recruitment variability (Sigma-r) from last assessment	-1 to +1	Species with Sigma-r > 0.9 receive a -1; species Sigma-r < 0.3 receive a +1; others receive a 0.
	Fishery Importance	Sum of weighted scores for Fishery Factors (listed above)	-1 to +1	Species in the top third of each category receive a -1; species in the bottom third receive a +1; others receive a 0.
	Ecosystem Importance	LATER: using Ecosystem Score	-1 to +1	