

$$P^* = \exp \left[ -a - b \sum_{i \text{ dimension}} \text{Dimension score}_i \right]$$

**P\* = 0.410**

Maximum Risk **0.50**  
Minimum Risk **0.30**

S <sub>hi</sub> =	3.998
a=	0.693
b=	0.12777029

$$a = -\ln(0.50) \quad b = -\frac{a + \ln(0.30)}{S_{hi}} \quad S_{hi} = \text{highest possible score}$$

Element scores are scaled from zero to a maximum. In this example the maximum is 2.00, but this can be changed

Dimension	Dimension Wt	Tier No.	Tier Wt	Element Score	Element	Score it	Element Result	Tier Result	Dimension Result
Assessment Information	1	1	1	0.00	Quantitative, age-structured assessment that provides estimates of exploitation and biomass; includes MSY-derived benchmarks.		0.67	0.67	0.67
				0.67	Quantitative, age-structured assessment provides estimates of either exploitation or biomass, but requires proxy reference points.	x			
				1.33	Quantitative, non-age-structured assessment. Reference points may be based on proxy.				
				2.00	Quantitative assessment that provides relative reference points (absolute measures of status are unavailable) and require proxies.				
Characterization of Uncertainty	1	1	.333	0.0	The OFL pdf provided by the assessment model includes an appropriate characterization of "within model" and "between model/model structure" error. The uncertainty in important inputs (such as natural mortality, discard rates, discard mortality, age and growth parameters, landings before consistent reporting) has been described with using Bayesian priors and/or bootstrapping and/or Monte Carlo simulation and the full uncertainty has been carried forward into the projections.		0.67	0.22311	0.89
				0.67	The OFL pdf provided by the assessment model includes an approximation of observation and process error. The uncertainty in important inputs (such as natural mortality, discard rates, discard mortality, age and growth parameters, landings before consistent reporting) has been described with <b>SENSITIVITY RUNS</b> and the full uncertainty has been carried forward into the projections.	x			
				1.33	The OFL pdf provided by the assessment model includes an incomplete approximation of observation and process error. The uncertainty in important inputs (such as natural mortality, discard rates, discard mortality, age and growth parameters, landings before consistent reporting) has been described with <b>SENSITIVITY RUNS</b> but the full uncertainty <b>HAS NOT</b> been carried forward into the projections.				
				2.0	The OFL provided by the assessment <b>DOES NOT</b> include uncertainty in important inputs and parameters.				
		2	.333	0.0	Retrospective patterns have been described, and are not significant.		2.0	0.666	
				1.0	Retrospective patterns have been described and are moderately significant.				
				2.0	Retrospective patterns <b>have not</b> been described <b>or</b> are large.	X			
		3	0		NOT USED		0	0	
						z			
		4	.333	0.0	Known environmental covariates are accounted for in the assessment.		0.0	0	
				1.0	Known environmental covariates are <b>partially</b> accounted for in the assessment.				
				2.0	Known environmental covariates <b>are not</b> accounted for in the assessment.				