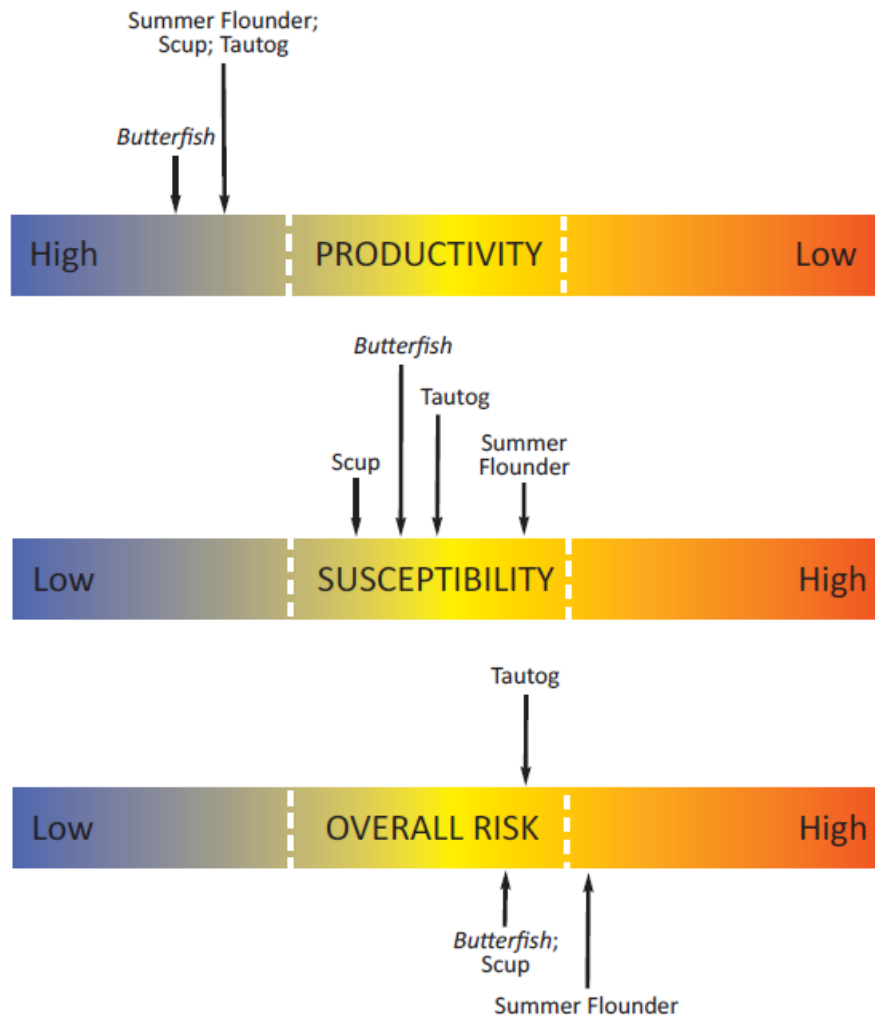


# Productivity and Susceptibility Analyses: Mid Atlantic

Productivity and susceptibility analyses (PSA) were conducted for four Mid-Atlantic species. Of these two are managed under the Summer Flounder, Scup and Black Sea Bass FMP by the Mid-Atlantic Fishery Management Council (MAFMC); the third, tautog, is managed by the Atlantic States Marine Fisheries Commission (ASMFC); and the finally butterfish is managed under the Atlantic Mackerel, Squid and Butterfish FMP. The recreation sectors of all of these fisheries are considerably valuable and important in fisheries management and species vulnerability.

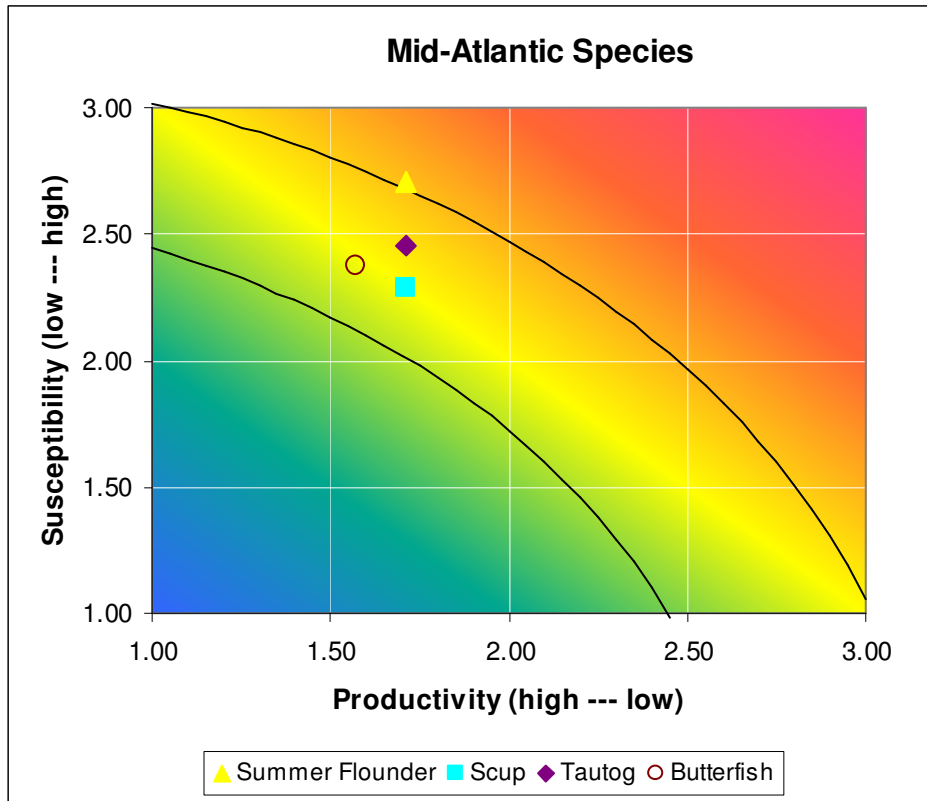
Of these four, three scored moderate overall risk, and one scored high overall risk. In the following figures, the italicizes stock names are those stocks where at least one attribute is missing information and was given a high score due to that uncertainty, in accordance with the CSIRO's treatment of uncertainty in their ERAEF methodology. In the plotted results below, open symbols indicate uncertainty.



Summer Flounder, Scup, Black Sea Bass FMP: Summer Flounder, Scup

Tautog FMP: Tautog

Atlantic Mackerel, Squid and Butterfish FMP: Butterfish



		Summer Flounder	Scup	Tautog	Butterfish	
Productivity	Age at maturity	low	med	med	low	
	Size at maturity	med	low	low	low	
	Maximum age	med	med	high	low	
	Maximum size	med	low	med	low	
	Fecundity	low	med	low	unk	
	Reproductive strategy	low	low	low	low	
	Trophic level	high	high	med	high	
	<b>Productivity Score</b>	1.71	1.71	1.71	1.57	
Susceptibility	Availability	Global Dist	med	med	med	med
		Behavior	high	high	high	high
	Encounterability	Habitat	high	high	high	high
		Bathymetry	high	high	high	high
	Selectivity	Size at Mat	med	low	low	low
		Max Size	med	low	med	low
		Desirability	high	med	high	low
	Post Capture Mortality	high	high	high	high	
	<b>Susceptibility Score</b>	2.71	2.29	2.46	2.38	
<b>Overall Risk Score</b>	3.21	2.86	3.00	2.85		
<b>Risk Ranking</b>	High	Med	Med	Med		
<b>Overfishing</b>	no	no	no	no		
<b>Overfished (Depleted)</b>	no	no	yes	yes		

unk = unknown attribute values are treated with precaution and assigned high risk; stock status unknown

low, med, high = risk score for attribute value