

	ModelConfiguration
1	2021-03-01 11:00:07
2	Home Directory: C:/Users/alicia.miller/Documents/Shiny/DecisionSupportToolApp
3	Model Version: DecisionSupportTool_V3.0.2.R
4	Input Spreadsheet: ScenarioTemplate_V3.0.0.csv
5	MapRefDomain: MapRef_HR_Lobster_V3.0.0.Rdata
6	GearMap: GearMap_Lobster_V3.0.0.Rdata
7	StringLengthModel: IncludedInGearMap
8	Rope Strength Model: LineStrengthModel_V2.1_60TrapThreshold.Rdata
9	Threat Model: ThreatMod_RW_Selectivity_Uncertainty.Rdata
10	Whale Model: Duke_RightWhaleModel_v10_1018.Rdata
11	
12	Comment: PrefAlt_MassRMA_v10_DST3_TotalMARiskReduction
13	CoOccurrence: FALSE
14	Run Test Scenario: TRUE
15	AggregateStrings= TRUE
16	HighResolution= FALSE
17	RelocationCostExp: 1
18	ExpressRedistribution: TRUE
19	Update Endline Strengths: FALSE
20	RopeStrengthResolution: 500
21	
22	PrintTables= TRUE
23	PrintDefaultMaps= FALSE
24	PrintScenarioMaps= TRUE
25	PrintRedistributionMaps= TRUE
26	WriteMapSources= FALSE
27	WriteOutputCsv= TRUE
28	WriteDetailedOutput= FALSE
29	ArchiveInputSpreadsheet: FALSE

Input Scenario Spreadsheet															
	Action	LMA	State	StatArea	Fishery	Shapefile	Months	Percentage	StringRegulation	StringLen	MaxRopeStrength	BuoylineDevice	RopelessDevice	GearCap	MaxGearSnglLn
1	StringLength	NA	ME	NA	NA	CoastalNonExempt	NA	NA	Min	3	NA	NA	NA	NA	NA
2	StringLength	A1	ME	NA	NA	3to6_A1_poly	NA	NA	Min	8	NA	NA	NA	NA	NA
3	StringLength	A1	NA	NA	NA	6to12_A1_poly	NA	NA	Min	15	NA	NA	NA	NA	NA
4	StringLength	OCC	NA	NA	NA	3nmi_to_12nmi	NA	NA	Min	15	NA	NA	NA	NA	NA
5	StringLength	A2	NA	NA	NA	3nmi_to_12nmi	NA	NA	Min	15	NA	NA	NA	NA	NA
6	StringLength	A1	NA	NA	NA	12nmi_to_EEZ_Boundary	NA	NA	Min	25	NA	NA	NA	NA	NA
7	StringLength	A2	NA	NA	NA	12nmi_to_EEZ_Boundary	NA	NA	Min	25	NA	NA	NA	NA	NA
8	GearReduction	A3	NA	NA	NA	NA	NA	0.12	NA	NA	NA	NA	NA	NA	NA
9	GearReduction	A2	NA	NA	NA	NA	NA	0.18	NA	NA	NA	NA	NA	NA	NA
10	Closure	NA	NA	NA	NA	LMA1_Restricted_Area	10,11,12,1	NA	NA	NA	NA	NA	NA	NA	NA
11	GearReduction	NA	NA	NA	NA	CCB	5	1.00	NA	NA	NA	NA	NA	NA	NA
12	GearReduction	OCC	NA	NA	NA	Coast_to_3nmi_DST	5	1.00	NA	NA	NA	NA	NA	NA	NA

Gear Numbers – Post Reductions

	Variable	Month	Default	Scenario	Reduction
1	GearFished_PostReduction	1	734,872	723,721	1.5 %
2	GearFished_PostReduction	2	515,843	504,436	2.2 %
3	GearFished_PostReduction	3	494,365	484,973	1.9 %
4	GearFished_PostReduction	4	699,674	686,914	1.8 %
5	GearFished_PostReduction	5	1,014,037	959,189	5.4 %
6	GearFished_PostReduction	6	1,377,487	1,355,526	1.6 %
7	GearFished_PostReduction	7	1,770,638	1,748,117	1.3 %
8	GearFished_PostReduction	8	1,944,675	1,922,383	1.1 %
9	GearFished_PostReduction	9	1,962,098	1,943,688	0.9 %
10	GearFished_PostReduction	10	1,965,957	1,947,153	1 %
11	GearFished_PostReduction	11	1,653,531	1,640,107	0.8 %
12	GearFished_PostReduction	12	1,101,908	1,087,635	1.3 %
13	GearFished_PostReduction	Total	15,235,087	15,003,844	1.5 %

Gear Numbers – Post GearCaps

	Variable	Month	Default	Scenario	Reduction
1	GearFished_PostCap	1	734,872	723,721	1.5 %
2	GearFished_PostCap	2	515,843	504,436	2.2 %
3	GearFished_PostCap	3	494,365	484,973	1.9 %
4	GearFished_PostCap	4	699,674	686,914	1.8 %
5	GearFished_PostCap	5	1,014,037	959,189	5.4 %
6	GearFished_PostCap	6	1,377,487	1,355,526	1.6 %
7	GearFished_PostCap	7	1,770,638	1,748,117	1.3 %
8	GearFished_PostCap	8	1,944,675	1,922,383	1.1 %
9	GearFished_PostCap	9	1,962,098	1,943,688	0.9 %
10	GearFished_PostCap	10	1,965,957	1,947,153	1 %
11	GearFished_PostCap	11	1,653,531	1,640,107	0.8 %
12	GearFished_PostCap	12	1,101,908	1,087,635	1.3 %
13	GearFished_PostCap	Total	15,235,087	15,003,844	1.5 %

Gear Numbers – Post Closure

	Variable	Month	Default	Scenario	Reduction
1	GearFished_PostClosure	1	734,872	723,497	1.5 %
2	GearFished_PostClosure	2	515,843	504,436	2.2 %
3	GearFished_PostClosure	3	494,365	484,973	1.9 %
4	GearFished_PostClosure	4	699,674	686,914	1.8 %
5	GearFished_PostClosure	5	1,014,037	959,189	5.4 %
6	GearFished_PostClosure	6	1,377,487	1,355,526	1.6 %
7	GearFished_PostClosure	7	1,770,638	1,748,117	1.3 %
8	GearFished_PostClosure	8	1,944,675	1,922,383	1.1 %
9	GearFished_PostClosure	9	1,962,098	1,943,688	0.9 %
10	GearFished_PostClosure	10	1,965,957	1,946,954	1 %
11	GearFished_PostClosure	11	1,653,531	1,640,035	0.8 %
12	GearFished_PostClosure	12	1,101,908	1,087,562	1.3 %
13	GearFished_PostClosure	Total	15,235,087	15,003,277	1.5 %

Total Strings					
	Variable	Month	Default	Scenario	Reduction
1	NumStrings	1	135,673	114,702	15.5 %
2	NumStrings	2	87,501	74,337	15 %
3	NumStrings	3	86,895	72,382	16.7 %
4	NumStrings	4	160,352	134,333	16.2 %
5	NumStrings	5	293,804	241,144	17.9 %
6	NumStrings	6	446,169	383,108	14.1 %
7	NumStrings	7	655,581	564,587	13.9 %
8	NumStrings	8	721,761	621,318	13.9 %
9	NumStrings	9	710,580	611,622	13.9 %
10	NumStrings	10	671,405	577,858	13.9 %
11	NumStrings	11	501,766	430,127	14.3 %
12	NumStrings	12	252,782	216,542	14.3 %
13	NumStrings	Total	4,724,269	4,042,059	14.4 %

Mean String Length (Gear per String)

	Variable	Month	Default	Scenario	Reduction
1	MeanStringLength	1	5.42	6.31	−16.5 %
2	MeanStringLength	2	5.90	6.79	−15.1 %
3	MeanStringLength	3	5.69	6.70	−17.8 %
4	MeanStringLength	4	4.36	5.11	−17.2 %
5	MeanStringLength	5	3.45	3.98	−15.2 %
6	MeanStringLength	6	3.09	3.54	−14.6 %
7	MeanStringLength	7	2.70	3.10	−14.6 %
8	MeanStringLength	8	2.69	3.09	−14.8 %
9	MeanStringLength	9	2.76	3.18	−15.1 %
10	MeanStringLength	10	2.93	3.37	−15.1 %
11	MeanStringLength	11	3.30	3.81	−15.7 %
12	MeanStringLength	12	4.36	5.02	−15.2 %

Total Vertical Lines

	Variable	Month	Default	Scenario	Reduction
1	NumVerticalLines	1	168,623	149,140	11.6 %
2	NumVerticalLines	2	110,033	96,843	12 %
3	NumVerticalLines	3	108,414	94,569	12.8 %
4	NumVerticalLines	4	188,094	163,861	12.9 %
5	NumVerticalLines	5	329,321	279,005	15.3 %
6	NumVerticalLines	6	492,984	436,435	11.5 %
7	NumVerticalLines	7	711,429	629,998	11.4 %
8	NumVerticalLines	8	780,812	692,020	11.4 %
9	NumVerticalLines	9	771,697	684,700	11.3 %
10	NumVerticalLines	10	735,745	653,871	11.1 %
11	NumVerticalLines	11	563,289	501,200	11 %
12	NumVerticalLines	12	298,605	266,988	10.6 %
13	NumVerticalLines	Total	5,259,045	4,648,630	11.6 %

Mean Rope Strength

	Variable	Month	Default	Scenario	Reduction
1	RopeStrength	1	2,329.581	2,330.119	0 %
2	RopeStrength	2	2,373.069	2,371.879	0.1 %
3	RopeStrength	3	2,348.531	2,347.077	0.1 %
4	RopeStrength	4	2,254.553	2,255.141	0 %
5	RopeStrength	5	2,183.597	2,184.102	0 %
6	RopeStrength	6	2,158.337	2,161.918	−0.2 %
7	RopeStrength	7	2,121.949	2,125.518	−0.2 %
8	RopeStrength	8	2,121.127	2,125.158	−0.2 %
9	RopeStrength	9	2,124.322	2,128.638	−0.2 %
10	RopeStrength	10	2,137.996	2,142.448	−0.2 %
11	RopeStrength	11	2,165.204	2,170.693	−0.3 %
12	RopeStrength	12	2,252.090	2,257.174	−0.2 %
13	RopeStrength	Total	2,165.039	2,168.444	−0.2 %

Mean Threat Score per Vertical Line

	Variable	Month	Default	Scenario	Reduction
1	MeanLineThreat_Threat	1	0.11	0.11	−0.2 %
2	MeanLineThreat_Threat	2	0.11	0.11	0 %
3	MeanLineThreat_Threat	3	0.11	0.11	0 %
4	MeanLineThreat_Threat	4	0.10	0.10	−0.1 %
5	MeanLineThreat_Threat	5	0.10	0.10	−0.1 %
6	MeanLineThreat_Threat	6	0.10	0.10	−0.3 %
7	MeanLineThreat_Threat	7	0.09	0.09	−0.3 %
8	MeanLineThreat_Threat	8	0.09	0.09	−0.3 %
9	MeanLineThreat_Threat	9	0.09	0.09	−0.3 %
10	MeanLineThreat_Threat	10	0.10	0.10	−0.3 %
11	MeanLineThreat_Threat	11	0.10	0.10	−0.4 %
12	MeanLineThreat_Threat	12	0.10	0.10	−0.4 %
13	MeanLineThreat_Threat	Total	0.10	0.10	−0.3 %

Total Gear Threat Score – CoOccurrence

	Variable	Month	Default	Scenario	Reduction
1	TotalGearThreat_CoOccurrence	1	168,623	149,140	11.6 %
2	TotalGearThreat_CoOccurrence	2	110,033	96,843	12 %
3	TotalGearThreat_CoOccurrence	3	108,414	94,569	12.8 %
4	TotalGearThreat_CoOccurrence	4	188,094	163,861	12.9 %
5	TotalGearThreat_CoOccurrence	5	329,321	279,005	15.3 %
6	TotalGearThreat_CoOccurrence	6	492,984	436,435	11.5 %
7	TotalGearThreat_CoOccurrence	7	711,429	629,998	11.4 %
8	TotalGearThreat_CoOccurrence	8	780,812	692,020	11.4 %
9	TotalGearThreat_CoOccurrence	9	771,697	684,700	11.3 %
10	TotalGearThreat_CoOccurrence	10	735,745	653,871	11.1 %
11	TotalGearThreat_CoOccurrence	11	563,289	501,200	11 %
12	TotalGearThreat_CoOccurrence	12	298,605	266,988	10.6 %
13	TotalGearThreat_CoOccurrence	Total	5,259,045	4,648,630	11.6 %

Total Gear Threat Score – Mean Threat

	Variable	Month	Default	Scenario	Reduction
1	TotalGearThreat_Threat	1	18,229	16,148	11.4 %
2	TotalGearThreat_Threat	2	12,262	10,796	12 %
3	TotalGearThreat_Threat	3	11,845	10,335	12.7 %
4	TotalGearThreat_Threat	4	19,349	16,880	12.8 %
5	TotalGearThreat_Threat	5	32,319	27,405	15.2 %
6	TotalGearThreat_Threat	6	47,636	42,296	11.2 %
7	TotalGearThreat_Threat	7	66,886	59,397	11.2 %
8	TotalGearThreat_Threat	8	73,376	65,239	11.1 %
9	TotalGearThreat_Threat	9	72,636	64,667	11 %
10	TotalGearThreat_Threat	10	69,951	62,380	10.8 %
11	TotalGearThreat_Threat	11	54,519	48,714	10.6 %
12	TotalGearThreat_Threat	12	30,698	27,554	10.2 %
13	TotalGearThreat_Threat	Total	509,705	451,811	11.4 %

Total Gear Threat Score – Threat Lower Bound

	Variable	Month	Default	Scenario	Reduction
1	TotalGearThreat_Threat_Lower	1	65,138	57,614	11.6 %
2	TotalGearThreat_Threat_Lower	2	42,636	37,522	12 %
3	TotalGearThreat_Threat_Lower	3	41,935	36,576	12.8 %
4	TotalGearThreat_Threat_Lower	4	72,274	62,965	12.9 %
5	TotalGearThreat_Threat_Lower	5	125,902	106,670	15.3 %
6	TotalGearThreat_Threat_Lower	6	188,134	166,597	11.4 %
7	TotalGearThreat_Threat_Lower	7	270,790	239,856	11.4 %
8	TotalGearThreat_Threat_Lower	8	297,182	263,464	11.3 %
9	TotalGearThreat_Threat_Lower	9	293,779	260,741	11.2 %
10	TotalGearThreat_Threat_Lower	10	280,367	249,247	11.1 %
11	TotalGearThreat_Threat_Lower	11	215,066	191,436	11 %
12	TotalGearThreat_Threat_Lower	12	114,717	102,608	10.6 %
13	TotalGearThreat_Threat_Lower	Total	2,007,920	1,775,297	11.6 %

Total Gear Threat Score – Threat Upper Bound

	Variable	Month	Default	Scenario	Reduction
1	TotalGearThreat_Threat_Upper	1	7,420	6,603	11 %
2	TotalGearThreat_Threat_Upper	2	5,180	4,574	11.7 %
3	TotalGearThreat_Threat_Upper	3	4,856	4,251	12.5 %
4	TotalGearThreat_Threat_Upper	4	7,441	6,519	12.4 %
5	TotalGearThreat_Threat_Upper	5	11,790	10,021	15 %
6	TotalGearThreat_Threat_Upper	6	17,139	15,291	10.8 %
7	TotalGearThreat_Threat_Upper	7	23,116	20,619	10.8 %
8	TotalGearThreat_Threat_Upper	8	25,355	22,655	10.6 %
9	TotalGearThreat_Threat_Upper	9	25,113	22,477	10.5 %
10	TotalGearThreat_Threat_Upper	10	24,537	21,996	10.4 %
11	TotalGearThreat_Threat_Upper	11	19,504	17,538	10.1 %
12	TotalGearThreat_Threat_Upper	12	11,840	10,689	9.7 %
13	TotalGearThreat_Threat_Upper	Total	183,291	163,233	10.9 %

Total Whale Density

	Variable	Month	Default	Scenario	Reduction
1	WhaleDensity	1	846	846	0 %
2	WhaleDensity	2	814	814	0 %
3	WhaleDensity	3	1,040	1,040	0 %
4	WhaleDensity	4	1,437	1,437	0 %
5	WhaleDensity	5	1,231	1,231	0 %
6	WhaleDensity	6	622	622	0 %
7	WhaleDensity	7	352	352	0 %
8	WhaleDensity	8	28	28	0 %
9	WhaleDensity	9	47	47	0 %
10	WhaleDensity	10	152	152	0 %
11	WhaleDensity	11	323	323	0 %
12	WhaleDensity	12	521	521	0 %
13	WhaleDensity	Total	7,414	7,414	0 %

Final Relative Risk Scores – CoOccurrence

	Variable	Month	Default	Scenario	Reduction
1	RelativeRisk_CoOccurrence	1	385	255	33.8 %
2	RelativeRisk_CoOccurrence	2	146	119	18.9 %
3	RelativeRisk_CoOccurrence	3	111	96	13.6 %
4	RelativeRisk_CoOccurrence	4	378	344	9.1 %
5	RelativeRisk_CoOccurrence	5	1,176	335	71.5 %
6	RelativeRisk_CoOccurrence	6	79	68	14.7 %
7	RelativeRisk_CoOccurrence	7	42	36	14.9 %
8	RelativeRisk_CoOccurrence	8	115	72	37.2 %
9	RelativeRisk_CoOccurrence	9	374	246	34 %
10	RelativeRisk_CoOccurrence	10	294	162	44.9 %
11	RelativeRisk_CoOccurrence	11	331	171	48.3 %
12	RelativeRisk_CoOccurrence	12	785	694	11.5 %
13	RelativeRisk_CoOccurrence	Total	4,215	2,597	38.4 %

Final Relative Risk Scores – Mean Threat

	Variable	Month	Default	Scenario	Reduction
1	RelativeRisk_Threat	1	70	51	26.6 %
2	RelativeRisk_Threat	2	33	28	15.4 %
3	RelativeRisk_Threat	3	27	24	12.6 %
4	RelativeRisk_Threat	4	71	65	8.3 %
5	RelativeRisk_Threat	5	145	54	62.8 %
6	RelativeRisk_Threat	6	19	16	13.2 %
7	RelativeRisk_Threat	7	10	9	13.2 %
8	RelativeRisk_Threat	8	11	7	34.7 %
9	RelativeRisk_Threat	9	37	25	32 %
10	RelativeRisk_Threat	10	36	21	41.7 %
11	RelativeRisk_Threat	11	44	24	44.8 %
12	RelativeRisk_Threat	12	108	96	11.5 %
13	RelativeRisk_Threat	Total	612	421	31.2 %

Final Relative Risk Scores – Threat Lower Bound

	Variable	Month	Default	Scenario	Reduction
1	RelativeRisk_Threat_Lower	1	159	107	32.8 %
2	RelativeRisk_Threat_Lower	2	62	51	18.3 %
3	RelativeRisk_Threat_Lower	3	48	41	13.4 %
4	RelativeRisk_Threat_Lower	4	156	142	9 %
5	RelativeRisk_Threat_Lower	5	460	135	70.6 %
6	RelativeRisk_Threat_Lower	6	34	29	14.4 %
7	RelativeRisk_Threat_Lower	7	18	15	14.6 %
8	RelativeRisk_Threat_Lower	8	44	28	36.9 %
9	RelativeRisk_Threat_Lower	9	143	95	33.8 %
10	RelativeRisk_Threat_Lower	10	115	64	44.5 %
11	RelativeRisk_Threat_Lower	11	132	68	48 %
12	RelativeRisk_Threat_Lower	12	312	276	11.6 %
13	RelativeRisk_Threat_Lower	Total	1,683	1,051	37.5 %

Final Relative Risk Scores – Threat Upper Bound

	Variable	Month	Default	Scenario	Reduction
1	RelativeRisk_Threat_Upper	1	43	34	21.3 %
2	RelativeRisk_Threat_Upper	2	24	21	13.6 %
3	RelativeRisk_Threat_Upper	3	21	18	12.1 %
4	RelativeRisk_Threat_Upper	4	46	42	7.9 %
5	RelativeRisk_Threat_Upper	5	69	32	54.2 %
6	RelativeRisk_Threat_Upper	6	13	12	12.5 %
7	RelativeRisk_Threat_Upper	7	8	7	12.5 %
8	RelativeRisk_Threat_Upper	8	4	3	31.4 %
9	RelativeRisk_Threat_Upper	9	13	9	29.3 %
10	RelativeRisk_Threat_Upper	10	15	9	38.5 %
11	RelativeRisk_Threat_Upper	11	21	12	40.6 %
12	RelativeRisk_Threat_Upper	12	56	50	10.7 %
13	RelativeRisk_Threat_Upper	Total	334	250	25.3 %