Statistical Analysis

      To determine whether relative depredation varied with fragmentation state, deployment position (edge or interior), and seasonality (proxied by water temperature, C), we used generalized linear models (GLMs) with normal error distribution. We used Akaike information criterion with a correction for small sample sizes (AICc) to the choose best fitting model.

      Squidpop depredation data required arcsine square-root transformation to meet assumptions of normality (Shapiro-Wilk test). Depredation assays were binned according to edge/interior positions each landscape on a given assay date (i.e., 10 tethered squidpopd). All analyses were performed in R version 3.3.2 (α <0.05; R Core Team 2016) using base R and the *car* package for ANOVAs (Fox and Weisberg 2011).

Literature Cited

Fox J, Weisberg S (2011) An {R} Companion to Applied Regression, Second Edition. Thousand Oaks CA: Sage. URL: http://socserv.socsci.mcmaster.ca/jfox/Books/Companion

Table 1. Continuous (C) and fragmented (F) seagrass landscape characteristics obtained from aerial photography and analyzed in ImageJ 1.x

Parameter	C or F	Max	Min	Mean	SE
Number of Patches	C	6	1	3.3	1.0
	F	82	13	44.8	16.0
Total Area (m^2)	C	29210	5995	13284	5451
	F	18111	1320	6950	3921
Perimeter (m)	C	2229	519	1010	408
	F	4387	569	1982	831
Perimeter:Area (m m^{-2})	C	0.10	0.05	0.08	0.01
	F	0.88	0.23	0.45	0.15
Largest Patch Area % of Total Area	C	100.0	99.5	99.8	0.1
	F	86.9	28.6	58.2	12.2

Table S1. Sampling effort during 2017. a) Sampling was split over 2 days, but pooled into 1 day here, as in statistical analysis. b) Storm prevented 1 h status checks at 2 landscapes and deployment of 10 crab tethers and 4 minnow traps. c) Only 4 landscapes (2 continuous and 2 fragmented) were sampled due to lack of crab availability

Date	Gear Deployment				
	Crab Tethers	Squid-pops	Minnow Traps	Trawl Tows	
Jun 9	160	-	32	-	
Jun 14	160	-	32	-	
Jun 27	-	-	-	12	a
Jul 5	150	160	28	-	b
Jul 13	80	80	16	-	c
Jul 18	-	-	-	12	
Jul 26	-	160	-	-	
Aug 8	-	160	-	-	a
Aug 30	-	160	-	-	a
Aug 31	-	-	-	12	
Total	**550**	**720**	**108**	**72**	

Fig. S1 Location of eight discrete seagrass meadow landscapes in Back Sound, NC. Circles denote continuous landscapes, while triangles denote fragmented landscapes
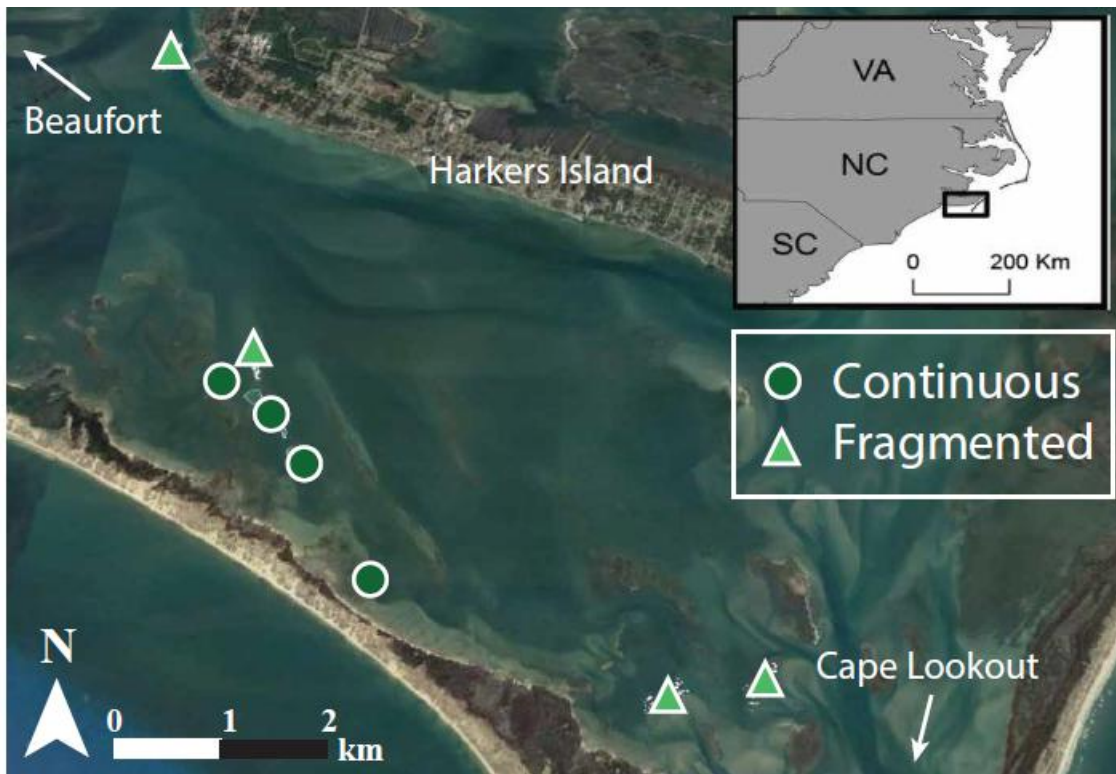
Fig. S2 Water temperature [mean SE] over the course of all predation assay dates in continuous and fragmented landscapes (n = 8). Water temperatures significantly differed by date ($P < 0.001$), but not by fragmentation state ($P = 0.66$)