

APPENDIX 2

TABLE A1

Negative binomial regressions comparing the numbers of organisms bycaught in experimental and control gillnets across years. There was less bycatch in 2018 than in 2017

Response Variable	Fixed Effects	X ²	df	P
Fish and invertebrate bycatch	Treatment	1.01	1	0.315
	Year	10.95	1	<.001
Bird bycatch ^a	Treatment	NA	NA	NA
	Year	NA	NA	NA
Total bycatch	Treatment	1.91	1	0.166
	Year	12.98	1	<.001

^aBird bycatch = models do not converge because the sample size is only zeroes except for 1 data point.

TABLE A2

Two-way ANOVA of the differences in mean weight (g) of herring between experimental (all types of banners combined) and control gillnets across years

	Sum of Squares	df	Mean Square	F	P
Treatment	4676	1	4676	2.90	0.089
Year	46750	1	46750	28.97	<.001
Treatment * Year	168	1	168	0.10	0.747
Residuals	1.02E+06	631	1614		

TABLE A3

Mean (\pm SD) herring fork length and weight based on the mean (\pm SD) number of fish sampled per treatment on each trip

Treatments	Number of trips	Number of fish	Mean fish sampled /trip	Fork length [cm]	Weight [g]
Banner 2018	17	219	6.59 \pm 4.27	23.63 \pm 0.69	200.88 \pm 46.77
Control 2018		264	7.74 \pm 3.62	25.91 \pm 0.75	223.38 \pm 47.12
Banner 2017	13	218	11.15 \pm 5.70	30.07 \pm 1.40	251.39 \pm 41.80
Control 2017		264	12.92 \pm 5.11	29.86 \pm 1.34	246.15 \pm 42.23

TABLE A4

Two-way ANOVA of differences in mean fork length (cm) between experimental (all types of banners combined) and control gillnets across years

	Sum of Squares	df	Mean Square	F
Treatment	9.00	1	9.00	3.96
Year	330.99	1	330.99	145.74
Treatment * Year	0.14	1	0.14	0.06
Residuals	1746.45	769	2.27	

TABLE A5

Non-target incidental bycatch caught in surface-set herring with high-contrast banners (large checkers and stripes) and in simultaneously set unmodified control herring gillnets during 2016 gillnets in NAFO area 3L off Bay de Verde, Newfoundland

Incidental Catch	Warning Banner	Control	Total
Finfish			
Atlantic Salmon <i>Salmo salar</i>	1		1
Atlantic Mackerel <i>Scomber scombrus</i>	3	4	7
Atlantic Cod <i>Gadus morhua</i>	2	1	3
Tom Cod <i>Microgadus tomcod</i>	1		1
Cunner <i>Tautogolabrus adspersus</i>		2	2
Shad <i>Alosa sapidissima</i>	1		1
Lumpfish <i>Cyclopterus lumpus</i>	1		1
Sculpin <i>Myoxocephalus</i> spp.		1	1
Cartilaginous Fish			
Porbeagle Shark <i>Lamna nasus</i>		1	1
Unidentified Skate	1		1
Seabirds			
Common Murre <i>Uria aalge</i>	1		1
Total Finfish	9	8	17
Total Cartilaginous Fish	1	1	2
Total Seabirds	-	1	1
Total Bycatch	21	20	41