Table 1 Summary data for the paired tow experiments.

Common Name	Scientific Name	Number of Hauls Sampled	Standard Dredge	CFTDD	% Difference
Sea Scallops	*Placopecten magellanicus*	*241*	388,666	394,205	1.43
Unclassified Skates	*Raja spp.*	*72*	5303	4745	-10.52
Winter Skate	*Raja ocellata*	*90*	546	574	5.13
Little skate	*raja erinacea*	*217*	15074	13420	-10.97
Barndoor skate	*Raja laevis*	*114*	150	141	-6.00
American Plaice	*Hippoglossoides platessoides*	*96*	176	104	-40.91
Summer Flounder	*Paralichtys dentatus*	*44*	34	37	8.82
Fourspot Flounder	*Paralichtys oblongotus*	*76*	170	182	7.06
Yellowtail Flounder	*Limanda ferruginea*	*217*	1422	1177	-17.23
Blackback Flounder	*Psuedopleuronectes americana*	*104*	228	173	-24.12
Witch Flounder	*Glyptocephalus cynoglossus*	*41*	36	40	11.11
Windowpane Flounder	*Scophthalmus aquasus*	*224*	2383	1755	-26.35
Monkfish	*Lophius americanus*	*121*	187	199	6.42

Table 2 Mixed effects model (gear effect only) results. Parameter estimates are on the logit scale and significant estimates are shown in bold.

Common Name	Scientific Name	Tows Sampled	DF	Estimate (β_0)	Standard Error	Lower 95% CI	Upper 95% CI	t	p-value
Sea Scallops	*Placopecten magellanicus*	*241*	*3*	0.021	0.044	-0.118	0.160	0.480	0.6639
Unclassified Skates	*Raja Spp.*	*72*	71	**-0.200**	**0.050**	**-0.300**	**-0.099**	**3.971**	**0.0002**
Winter skate	*Raja ocellata*	*90*	*89*	0.031	0.082	-0.132	0.193	0.374	0.7095
Little skate	*raja erinacea*	*217*	*3*	-0.103	0.129	-0.515	0.309	0.790	0.4849
Barndoor skate	*Raja laevis*	*114*	*3*	-0.096	0.245	-0.874	0.682	0.393	0.7203
American Plaice	*Hippoglossoides platessoides*	*96*	3	-0.469	0.271	-1.332	0.393	1.731	0.1819
Summer Flounder	*Paralichtys dentatus*	*44*	*43*	0.117	0.268	-0.423	0.658	0.437	0.6640
Fourspot Flounder	*Paralichtys oblongotus*	*76*	75	0.049	0.136	-0.222	0.320	0.362	0.7186
Yellowtail Flounder	*Limanda ferruginea*	*217*	3	-0.254	0.131	-0.670	0.162	1.946	0.1469
Blackback Flounder	*Psuedopleuronectes americana*	*104*	3	-0.662	0.342	-1.749	0.425	1.938	0.1480
Witch Flounder	*Glyptocephalus cynoglossus*	*41*	40	0.277	0.366	-0.462	1.017	0.758	0.4526
Windowpane Flounder	*Scophthalmus aquasus*	*224*	3	-0.245	0.159	-0.750	0.259	1.547	0.2196
Monkfish	*Lophius americanus*	*121*	120	0.071	0.112	-0.150	0.292	0.633	0.5278

Table 3 Two parameter mixed effects model results. The comparison models the logit of the proportion of the catch at length from the CFTDD relative to the total catch from both dredges. Confidence limits are Wald type confidence intervals. Parameter estimates are on the logit scale and significant parameter estimates are shown in bold.

Common Name	Scientific Name	Parameter	Estimate	Standard Error	Lower 95% CI	Upper 95% CI	t	p-value
Sea Scallop	*Placopecten magellanicus*	β_0	0.251	0.103	-0.077	0.579	2.434	0.093
		β_1	**-0.002**	**0.001**	**-0.003**	**0.000**	**-2.507**	**0.012**
Winter skate	*Raja ocellata*	β_0	0.551	0.464	-0.371	1.474	1.187	0.238
		β_1	-0.008	0.007	-0.021	0.005	-1.140	0.255
Barndoor skate	*Raja laevis*	β_0	-0.243	0.315	-1.244	0.758	-0.772	0.496
		β_1	0.002	0.003	-0.003	0.008	0.794	0.428
Summer Flounder	Paralichtys dentatus	β_0	0.858	1.024	-1.206	2.923	0.839	0.406
		β_1	-0.015	0.020	-0.055	0.025	-0.755	0.457
American Plaice	*Hippoglossoides platessoides*	β_0	-1.102	1.062	-4.481	2.277	-1.037	0.376
		β_1	0.017	0.027	-0.037	0.071	0.617	0.538
Fourspot Flounder	*Paralichtys oblongotus*	β_0	0.858	0.844	-0.823	2.538	1.017	0.312
		β_1	-0.025	0.026	-0.077	0.026	-0.971	0.333
Yellowtail Flounder	*Limanda ferruginea*	β_0	-0.157	0.464	-1.634	1.321	-0.338	0.758
		β_1	-0.003	0.012	-0.026	0.021	-0.219	0.827
Blackback Flounder	*Psuedopleuronectes americana*	β_0	-1.003	0.912	-3.906	1.901	-1.099	0.352
		β_1	0.008	0.021	-0.033	0.050	0.403	0.687
Witch Flounder	*Glyptocephalus cynoglossus*	β_0	1.292	3.043	-4.858	7.442	0.425	0.673
		β_1	-0.025	0.073	-0.173	0.124	-0.337	0.739
Windowpane Flounder	*Scophthalmus aquasus*	β_0	0.214	0.339	-0.864	1.292	0.632	0.572
		β_1	-0.017	0.011	-0.038	0.005	-1.539	0.124
Monkfish	*Lophius americanus*	β_0	-0.163	0.446	-1.046	0.720	-0.365	0.716
		β_1	0.004	0.008	-0.012	0.020	0.540	0.590