

The following are Supplementary materials from: Baker, R. et al. Underwater video as a tool to quantify fish density in complex coastal habitats. Diversity 2022, 14, 50. <https://doi.org/10.3390/d14010050>

Table S1: Underwater video results metrics by habitat and overall result summaries. Frequency of Occurrence (FoO; %), MaxN means (standard error), and Density (Dens; ind./m²) means (standard error) were calculated for taxa present in ≥ 5 % of non-empty underwater videos. N represents the total number of video replicates by habitat.

	Habitat							Overall
	Seawall	Jetty	Dock	BSJ Reef	Restored Reef	Seagrass	Sand	
<i>N</i>								
FoO	4	12	39	17	212	29	28	341
MaxN	4	12	39	17	212	29	28	341
Dens	3	9	37	16	212	28	28	333
<i>Lutjanus griseus</i>								
FoO	75	83	51	100	-	17	-	16
MaxN	1.500 (0.87)	2.917 (0.47)	1.436 (0.38)	4.000 (0.69)	-	0.31 (0.14)	-	0.510 (0.08)
Dens	0.296 (0.30)	0.173 (0.07)	0.162 (0.08)	0.493 (0.19)	-	0.067 (0.06)	-	0.055 (0.02)
<i>Mugil</i> spp.								
FoO	75	50	56	-	-	34	29	14
MaxN	0.750 (0.25)	2.000 (1.03)	1.590 (0.39)	-	-	1.207 (0.47)	1.179 (0.44)	0.460 (0.09)
Dens	-	0.080 (0.08)	0.066 (0.04)	-	-	0.010 (0.01)	0.030 (0.03)	0.013 (0.01)
<i>Lagodon rhomboides</i>								
FoO	-	8	31	6	6	38	18	13
MaxN	-	0.167 (0.17)	0.795 (0.24)	0.059 (0.06)	0.104 (0.04)	0.517 (0.15)	0.179 (0.07)	0.223 (0.04)
Dens	-	0.040 (0.04)	0.027 (0.02)	-	0.026 (0.02)	0.053 (0.03)	0.002 (0)	0.025 (0.01)
<i>Archosargus probatocephalus</i>								
FoO	-	42	49	41	1	-	-	10
MaxN	-	0.500 (0.19)	1.000 (0.23)	0.529 (0.19)	0.014 (0.01)	-	-	0.167 (0.03)
Dens	-	-	0.117 (0.04)	0.143 (0.08)	-	-	-	0.020 (0.01)
<i>Ariopsis felis</i>								
FoO	-	-	5	-	15	-	-	10
MaxN	-	-	0.051 (0.04)	-	0.212 (0.04)	-	-	0.138 (0.03)
Dens	-	-	-	-	0.177 (0.06)	-	-	0.113 (0.04)
<i>Clupaeidae</i>								
FoO	50	17	5	-	-	45	14	7
MaxN	25.750 (16.68)	8.750 (6.20)	1.282 (0.89)	-	-	7.828 (3.08)	3.321 (1.61)	1.695 (0.46)

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	Dens	-	3.956 (3.53)	0.030 (0.03)	-	-	1.575 (0.92)	0.081 (0.06)	0.250 (0.13)
<i>Orthopristis chrysoptera</i>									
	FoO	50	8	10	12	3	14	7	6
	MaxN	0.500 (0.29)	0.083 (0.08)	0.103 (0.05)	0.118 (0.08)	0.052 (0.02)	0.172 (0.09)	0.179 (0.13)	0.088 (0.02)
	Dens	-	-	-	-	0.024 (0.02)	-	-	0.015 (0.02)
Gobiidae/Bleniidae									
	FoO	-	-	-	12	6	3	-	4
	MaxN	-	-	-	0.176 (0.13)	0.066 (0.02)	0.034 (0.03)	-	0.053 (0.01)
	Dens	-	-	-	0.008 (0.01)	0.176 (0.08)	-	-	0.122 (0.05)
Gireidae									
	FoO	-	-	5	12	-	14	21	4
	MaxN	-	-	2.872 (2.82)	0.118 (0.08)	-	1.828 (1.19)	0.607 (0.33)	0.540 (0.34)
	Dens	-	-	-	-	-	0.161 (0.16)	0.010 (0.01)	0.014 (0.01)
<i>Cynoscion nebulosus</i>									
	FoO	-	-	-	6	5	7	-	4
	MaxN	-	-	-	0.059 (0.06)	0.057 (0.02)	0.069 (0.05)	-	0.044 (0.01)
	Dens	-	-	-	-	0.048 (0.03)	-	-	0.031 (0.02)

Table S2: Within- and between-observer coefficient of variations (CV = standard deviation / mean) for estimates of horizontal visibility determined by each observer (A, B, C) in each video (three attempts per observer), averaged across videos. CV was calculated separately for all videos with estimated visibility ≥ 0.5 m and for subsets of videos with estimated visibilities at different ranges (0.5 to 1.0 m, > 1.0 to 1.5 m, > 1.5 m).

Visibility (n)	Within-observer			Between Observer
	A	B	C	
All (61-66)	0.054	0.033	0.041	0.045
≥ 0.5 -1 (41-46)	0.060	0.035	0.043	0.054
>1-1.5 (15)	0.050	0.030	0.034	0.028
>1.5 (5)	0.020	0.029	0.048	0.025