Transactions of the American Fisheries Society 145:27–43, 2016

© American Fisheries Society 2016

DOI: 10.1080/00028487.2015.1091382

Supplement: Spatio Temporal Estuarine Habitat Use by Gulf Sturgeon

Supplementary Table S.1. Summary of the scaling adjustments by deployment year and season for adult and subadult Gulf Sturgeon and by year for juveniles. The values used were the absolute value of those presented in the table. Abbreviations are as follows: A = adult, SA = subadult, and J = juvenile.

Year	Size-class	Minimum occupancy value
2010–2011	SA, A	–0.843
	J	–0.582
2011–2012	SA, A	–0.955
	J	–0.954
2012–2013	SA, A	–0.889
	J	–1.158

Supplementary Table S.2. Adult Gulf Sturgeon three-way ANOVA results (year, season, and zone) for tests of between-subject effects with index as the dependent variable.

Source	Type III sum of squares	df	Mean square	<i>F</i>	Sig.	Partial eta squared
Corrected model	2.155 ^a	17	0.127	0.695	0.790	0.219
Intercept	0.913	1	0.913	5.003	0.031	0.106
Year	0.103	2	0.052	0.283	0.755	0.013
Season	0.237	1	0.237	1.299	0.261	0.030
Zone	0.516	2	0.258	1.413	0.255	0.063
Year × season	0.013	2	0.007	0.037	0.964	0.002
Year × zone	0.279	4	0.070	0.382	0.820	0.035
Season × zone	0.206	2	0.103	0.565	0.573	0.026
Year × season × zone	0.247	4	0.062	0.338	0.851	0.031
Error	7.663	42	0.182			
Total	10.949	60				
Corrected total	9.818	59				

^a *R* squared = 0.219 (adjusted *R* squared = −0.096).

Supplementary Table S.3. Subadult Gulf Sturgeon three-way ANOVA (year, season, and zone) for tests of between-subject effects with index as the dependent variable.

Source	Type III sum of squares	df	Mean square	<i>F</i>	Sig.	Partial eta squared
Corrected model	1.832 ^a	17	0.108	1.129	0.347	0.225
Intercept	1.740	1	1.740	18.226	0.000	0.216
Year	0.033	2	0.016	0.171	0.843	0.005
Season	0.036	1	0.036	0.375	0.543	0.006
Zone	0.741	2	0.371	3.881	0.026	0.105
Year × season	0.151	2	0.076	0.792	0.457	0.023
Year × zone	0.205	4	0.051	0.536	0.710	0.031
Season × zone	0.346	2	0.173	1.814	0.171	0.052
Year × season × zone	0.326	4	0.081	0.853	0.497	0.049
Error	6.303	66	0.095			
Total	9.918	84				
Corrected total	8.135	83				

^a *R* squared = 0.225 (adjusted *R* squared = 0.026).

Supplementary Table S.4. Subadult one-way ANOVA (zone only) for tests of between-subject effects with index as the dependent variable.

Source	Type III sum of squares	df	Mean square	<i>F</i>	Sig.	Partial eta squared
Corrected model	0.890 ^a	2	0.445	4.973	0.009	0.109
Intercept	1.783	1	1.783	19.935	0.000	0.198
Zone	0.890	2	0.445	4.973	0.009	0.109
Error	7.245	81	0.089			
Total	9.918	84				
Corrected total	8.135	83				

^a *R* squared = 0.109 (adjusted *R* squared = 0.087).

Supplementary Table S.5. Results of Games-Howell post hoc tests for subadults for multiple comparisons with index as the dependent variable. An asterisk indicates that the mean difference is significant at the 0.05 level. Tests are based on the observed means. The error term is mean square error = 0.089.

(I) Zone	(J) Zone	Mean difference (I-J)	SE	Sig.	95% Confidence interval	
					Lower bound	Upper bound
East	West	-0.25195846*	0.086155540	0.018	-0.46533570	-0.03858123
	River	-0.13301836*	0.047264944	0.023	-0.24978434	-0.01625237
West	East	0.25195846*	0.086155540	0.018	0.03858123	0.46533570
	River	0.11894011	0.097522850	0.448	-0.11807110	0.35595131
River	East	0.13301836*	0.047264944	0.023	0.01625237	0.24978434
	West	-0.11894011	0.097522850	0.448	-0.35595131	0.11807110

Supplementary Table S.6. Juvenile Gulf Sturgeon two-way ANOVA results (zone by year) for tests of between-subject effects with index as the dependent variable.

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial eta squared
Corrected model	7.240 ^a	8	0.905	3.038	0.007	0.310
Intercept	4.769	1	4.769	16.007	0.000	0.229
Zone	5.109	2	2.555	8.575	0.001	0.241
Year	0.266	2	0.133	0.446	0.642	0.016
Zone × year	0.308	4	0.077	0.259	0.903	0.019
Error	16.088	54	0.298			
Total	29.535	63				
Corrected total	23.328	62				

^a R squared = 0.310 (adjusted R squared = 0.208).

Supplementary Table S.7. Juvenile one-way ANOVA results for tests of between-subject effects with index as the dependent variable.

Source	Type III sum of squares	df	Mean square	<i>F</i>	Sig.	Partial eta squared
Corrected model	6.666 ^a	2	3.333	12.002	0.000	0.286
Intercept	6.207	1	6.207	22.351	0.000	0.271
Zone	6.666	2	3.333	12.002	0.000	0.286
Error	16.662	60	0.278			
Total	29.535	63				
Corrected total	23.328	62				

^a *R* squared = 0.286 (adjusted *R* squared = 0.262).

Supplementary Table S.8. Results of Games-Howell post hoc tests for juveniles for multiple comparisons with index as the dependent variable. An asterisk indicates that the mean difference is significant at the 0.05 level. Tests are based on the observed means. The error term is mean square error = 0.278.

(I) Zone	(J) Zone	Mean difference (I-J)	SE	Sig.	95% Confidence interval	
					Lower bound	Upper bound
East	West	-0.75269767*	0.193601463	0.003	-1.24241837	-0.26297696
	River	-0.14998124*	0.047255172	0.012	-0.26918477	-0.03077771
West	East	0.75269767*	0.193601463	0.003	0.26297696	1.24241837
	River	0.60271643*	0.199070393	0.016	0.10316602	1.10226683
River	East	0.14998124*	0.047255172	0.012	0.03077771	0.26918477
	West	-0.60271643*	0.199070393	0.016	-1.10226683	-0.10316602