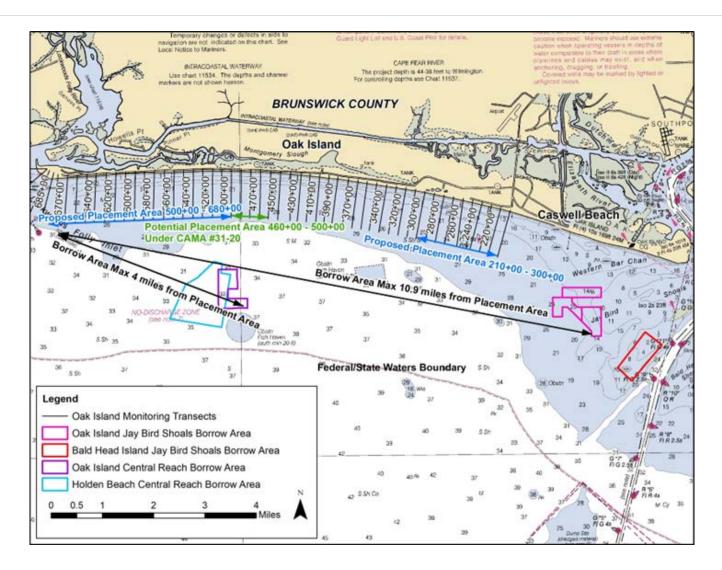


Atlantic Sturgeon Relocations off Cape Fear Inlet

Samantha Marchisin Cape Fear River Partnership May 25, 2022

Oak Island 2021/2022 Nourishment Project

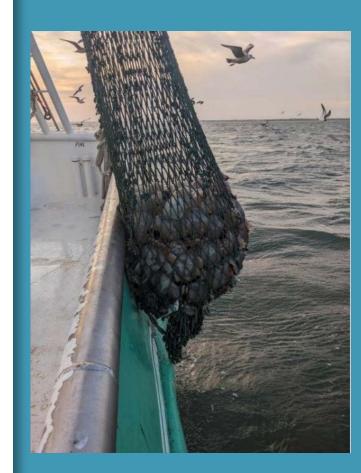


The Jay Bird Shoals borrow area is located approximately one mile off the shore of Caswell Beach near the mouth of the Cape Fear River

Trawling occurred within Jay Bird Shoals from February 19,2022 to April 20, 2022

Voluntary Trawling Efforts

- As part of the permit conditions, NMFS-approved Protected Species Observers (PSOs) monitored the presence of ESA- protected species
- The PSO on-duty is responsible for monitoring, handling, and reporting all captured ESA-listed species at all times when the hopper dredge is operating
- Relocation trawling was conducted using two 60-foot nets with 30-minute tow intervals throughout the project.
- Trawling was conducted 24 hours a day from beginning to end of the project



Sturgeon Sampling Procedure





Document all relevant details of the capture according to the reporting requirements in the 2020 SARBO, Section 2.9

- 1. A genetic sample was collected
- 2. Scanned for a for PIT tag. If not PIT tag was found, a new tag was applied
- 3. Fork length and total length were measured
- 4. Photograph was taken

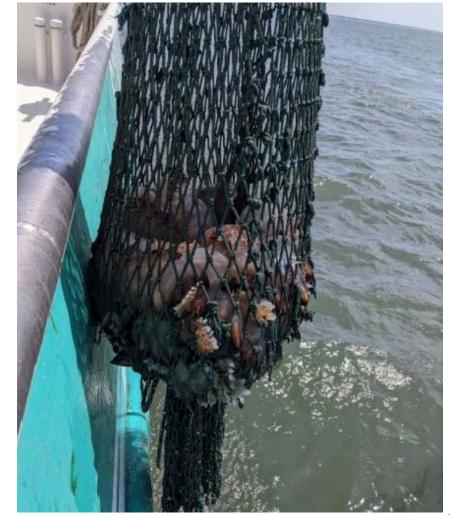
Relocated Sturgeon three miles from dredge project

Oak Island Relocation Data 2022

Date	Tow#	Start Time	End Time	Capture Latitude	Capture Longitude	Release Latititude	Release Longitude	H₂O Temp (°C)	Species Capture #	TL (in)	TL (ft)	PIT Tag
02/23/22	240	0838	0908	33'03.066	78'03.378	33'52.595	78'05.324	12.0	1	20.3	1.69	8900103909791
02/24/22	290	1709	1739	33"52.569	78'03.743	33'51.357	78'07.230	12.0	2	41.8	3.48	8900103909784
02/24/22	290	1709	1739	33'52.569	78'03.743	33'51.357	78'07.230	12.0	3	77.5	6.46	8900103909787
02/27/22	387	0655	0725	33'52.021	78'02.913	33'51.312	78'07.131	12.2	4	27.6	2.3	8900103909782
03/02/22	529	2329	2359	33'53.197	78*10.166	33'49.872	78'09,601	13.0	5	29.2	2.43	8900103909783
03/03/22	544	1122	1152	33*52.502	78*10.106	33'49.471	78*10.628	13.2	6	41	3.42	8900103909784
03/04/22	572	2233	2303	33'51.965	78'03.492	33*50.402	78'06.863	14.0	7	36.5	3	8900103816893
03/05/22	638	1838	1908	33'52.744	78'02.916	33"52.082	78'06.297	14.3	8	44.3	3.7	8900103909790
03/07/22	648	0155	0225	33*52.062	78'03.098	33*50.081	78'06.212	14.3	9	24.4	2.03	8900103909788
03/07/22	648	0155	0225	33*52.062	78'03.098	33*50.081	78'06.212	14.3	10	44.2	3.68	8900103909793
03/08/22	728	1641	1710	33'52.818	78'03.297	33"51.642	78'03.787	15.0	11	24.3	2.03	8900103816893
03/13/22	806	0847	0916	33*52.509	78'03.644	33'52.110	78*04.653	13.6	12	27.5	2.29	8900103816896
03/13/22	830	2331	2359	33'52.185	78'02.985	33"51.008	78'04.012	13.6	13	24	2	8900103816893
03/13/22	830	2331	2359	33'52.185	78'02.985	33'51.008	78'04.012	13.6	14	70.9	5.91	8900103816897
03/14/22	840	0603	0633	33*52.802	78'03.562	33'52.410	78'04.382	13.4	15	33.3	2.78	8900103816894
03/15/22	904	2159	2229	33'52.613	78'03.650	33"52.159	78'04.628	14.4	16	45.1	3.76	8900103816891
03/16/22	927	1103	1132	33*52.758	78'03.431	33'51.966	78*14.870	14.4	17	24.1	2.01	8900103816895
03/17/22	956	0632	0701	33*52,727	78'03.450	33*51.677	78'03.786	15.0	18	27.4	2.28	8900103816895
03/17/22	967	1323	1353	33*52.457	78'03.665	33"51.957	78'04.991	15.0	19	26.5	2.21	8900103816892
03/18/22	990	0402	0432	33'52.124	78'03.344	33'51.813	78'04.385	16.2	20	51.4	4.28	8900103816896
03/20/22	1068	1540	1609	33'52.438	78'03.596	33*52.528	78'04.928	16.6	21	27.9	2.33	8900103909784
03/21/22	1084	0130	0200	33"52.167	78'03.238	33*52.062	78*14.890	16.0	22	26.7	2.23	8900103909793
03/22/22	1120	0033	0103	33*52.067	78'03.444	33*52.142	78*05.030	16.4	23	71.1	5.93	8900103909791
03/28/22	1269	2139	2209	33*52,136	78'03.552	33*52.047	78*04.474	15.0	24	33.2	2.77	8900103909787
04/10/22	1523	2244	2314	33"52.627	78'03.214	33'51.383	78*05.026	17.4	25	60.7	5.06	8900104062052
04/11/22	1529	0257	0327	33"52.416	78'03.650	33*52.543	78*05.011	17.0	26	37.3	3.03	8900104062047
04/20/22	1831	1431	1501	33'52.310	78'03.251	33'49.425	78'05.743	17.9	27	48.2	4.02	8900104062047

Bycatch

Horseshoe Crab	Blue Crab	Other Invertebra te	Atlantic blacktip shark	Atlantic spiny dogfish shark	Bonnethead shark	Other Shark	Southern stingray	Cownose ray	Other Elasmobra nch	Atlantic croaker	Atlantic menhaden	Southern Flounder	Black drum	Red drum	Other Fish
8		Jellyfish								3	3				1 - Whiting, 1 - Harvestfis h, 3 - Butterfish
6	2	Jellyfish		4			6			16	5	1			1 - Whiting
				8			18			10	2	1	1		1 - Whiting 1 -
7		Jellyfish		10			12			37	14	1			Whiting, 4- Harvestfis h, 1- Butterfish, 2- Herring
4	3	Mantis shrimp, Jellyfish		6			4			18	12	1			1 - Harvestfis h
7	3	Jellyfish		2			13			25	17	1			1 - Harvestfis h
3	4						12			33	25	1			1 - Herring
5		Jellyfish		1			11			19	27				9 - Herring
10	2	Jellyfish, tunicates		5			24			36	29	1			1 - Harvestfis h
5	3	Jellyfish		11		1 - Sand tiger shark	17			31	23				1 - Harvestfis h





Questions?

Smarchisin@moffattnichol.com 732-447-7777