

Savannah Harbor Expansion Project

SHEP Progress Report January 1st – January 31st 2017

Task 1: SCDNR would acquire and insert 10 sonic transmitters per year into Atlantic sturgeon in the Savannah River Estuary and an additional 10 sonic transmitters into shortnose sturgeon. These fish should be collected and tagged with sonic transmitters within or as close as possible to the estuary. The goal would be a 50/50 split between adults/sub-adults and juvenile fish. All sturgeon collected will be weighed, measured, Passive Integrated Transponder (PIT) tagged, and have a fin clip taken for genetic analysis before being released.

Overview 1: A total of 144 Atlantic and 79 shortnose sturgeon were captured and 10 adult/20 juvenile Atlantic and 18 adult/14 juvenile shortnose were transmitted in year 1-3 of the study (Table 1). In study year four, 9 Atlantic and 20 shortnose sturgeon were captured and 2 juvenile Atlantic and 6 adult/1 juvenile shortnose were transmitted (Table 2). Fish condition and recaptures precludes some fish from receiving transmitters.

Task 2: SCDNR would acquire and insert 10 sonic transmitters per year into Atlantic sturgeon in the Savannah River, 10 sonic transmitters into shortnose sturgeon, and 20 transmitters into other species representative of the New Savannah Bluff Lock and Dam (NSBL&D) area fish community (striped bass, robust redhorse, and American shad). These fish should be collected and tagged with sonic transmitters within or as close as possible to the NSBL&D. If sufficient numbers of sturgeon are not available for capturing, tagging and tracking in the upper river, transmitters can be implanted in other species representative of the NSBL&D fish community, preferably American shad.

Overview 2: Task 2 was not funded by the USACE.

Task 3: Acquisition, operation and maintenance of 23 receivers per year are included in the statement of work. Receivers would be concentrated in the estuary, where the impacts of harbor deepening are anticipated (Figure 1).

Overview 3: Twenty-five receivers have been deployed from the South Channel of Savannah River to Front River at river kilometer (rkm) 50, Middle, and Back River (Table 3). GPS locations of receivers and locations of tagged fish (residency master list) are also included as part of this progress report. All accessible receivers were downloaded, and resulting telemetry data will continue to be shared with UGA with provided residency master list.

Task 4: To allow identification of fish movement upstream of the NSBL&D, the contractor should locate 5 receivers between NSBL&D and the Augusta Shoals.

Overview 4: Task 4 was not funded by the USACE.

Task 5: Manual tracking of instrumented fish will occur monthly July – September and at least quarterly for the remainder of the year.

Overview 5: Manual tracking efforts were completed on January 18^h with an emphasis on locating transmitted fish in Front, Middle, and Back Rivers. No sturgeon were located during manual tracking. Temperature, salinity, dissolved oxygen, and conductivity were recorded at 1-meter water depth intervals at the location of each detected sturgeon. Planned downloads of estuarine receivers should provide information for missing fish with subsequent manual tracking efforts based on those locations.

Table 1. Sturgeon, Striped Bass, and American Shad Capture Data for the Savannah River SHEP Monitoring Year 1-3

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
11/5/2013	Savannah	Middle River	A. oxy	4A73115815	638	744	1380	MS-245	A69-1601-12748	32.148669°	-81.132713°
11/5/2013	Savannah	Middle River	A. brev	4A0E18502E	438	501	300	MS-246	A69-1601-12759	32.148669°	-81.132713°
11/7/2013	Savannah	Middle River	A. oxy	4A0D4F704C	505	578	675	MS-247	A69-1601-12749	32.148669°	-81.132713°
11/7/2013	Savannah	Middle River	A. oxy	4A0E00482D	497	582	700	MS-248	A69-1601-12754	32.148669°	-81.132713°
11/13/2013	Savannah	Middle River	A. oxy	4A3F2A4F36	486	552	600	MS-249	A69-1601-12750	32.148669°	-81.132713°
11/14/2013	Savannah	Middle River	A. oxy	4A0E142F3A	477	555	635	MS-253	A69-1601-12752	32.148669°	-81.132713°
11/14/2013	Savannah	Middle River	A. oxy	4A0D5B5B7E	330	389	90	MS-251	A69-1601-12758	32.148669°	-81.132713°
11/14/2013	Savannah	Middle River	A. oxy	4A0E260F25	889	1030	8000	MS-250	A69-9001-26324	32.148669°	-81.132713°
11/14/2013	Savannah	Middle River	A. oxy	4A0E1D2325	439	502	357	MS-252	A69-1601-12753	32.148669°	-81.132713°
11/21/2013	Savannah	Middle River	A. brev	0A13675E58	584	683	1340	MS-257	A69-1601-12747	32.148669°	-81.132713°
11/21/2013	Savannah	Middle River	A. brev	0A13675E61	499	569	685	MS-258	A69-1601-12746	32.148669°	-81.132713°
11/21/2013	Savannah	Middle River	A. oxy	0A13675E1C	322	377	30	MS-256	N/A	32.148669°	-81.132713°
11/21/2013	Savannah	Middle River	A. oxy	0A13675E5E	540	637	900	MS-254	N/A	32.148669°	-81.132713°
11/21/2013	Savannah	Middle River	A. oxy	0A13675E35	536	632	960	MS-255	N/A	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. oxy	0A13674B1D	503	571	675	MS-263	N/A	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. oxy	0A13675E22	505	572	725	MS-259	N/A	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. brev	0A13675A75	554	641	1040	MS-264	A69-1601-12751	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. oxy	0A13674A79	528	602	820	MS-262	N/A	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. oxy	0A13674A61	538	629	940	MS-261	N/A	32.148669°	-81.132713°
11/22/2013	Savannah	Middle River	A. oxy	0A13674A63	504	579	695	MS-260	N/A	32.148669°	-81.132713°
12/5/2013	Savannah	Middle River	A. oxy	0A13675A77	842	967	6350	MS-266	A69-1303-45672	32.148669°	-81.132713°
12/5/2013	Savannah	Middle River	A. oxy	0A13674B19	383	441	280	MS-265	N/A	32.148669°	-81.132713°
12/10/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26582	N/A	N/A
12/10/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26584	N/A	N/A
12/10/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26583	N/A	N/A
12/11/2013	Savannah	Middle River	A. brev	0A13674B22	559	647	1100	MS-272	A69-9001-26322	32.148669°	-81.132713°
12/11/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26581	N/A	N/A
12/11/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26580	N/A	N/A
12/11/2013	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26579	N/A	N/A
12/11/2013	Savannah	Middle River	A. oxy	0A13674B08	415	479	280	MS-271	N/A	32.148669°	-81.132713°
12/11/2013	Savannah	Middle River	A. oxy	0A13674B21	355	416	120	MS-269	N/A	32.148669°	-81.132713°
12/11/2013	Savannah	Middle River	A. oxy	0A13675A7A	364	421	100	MS-268	N/A	32.148669°	-81.132713°
12/11/2013	Savannah	Middle River	A. oxy	0A13674A60	407	463	200	MS-267	N/A	32.148669°	-81.132713°
12/11/2013	Savannah	Middle River	A. oxy	0A13674B23	373	433	130	MS-270	N/A	32.148669°	-81.132713°
12/11/2013	Savannah	Middle River	A. brev	0A13674B1B	492	562	620	MS-273	A69-1601-12745	32.148669°	-81.132713°
2/4/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26586	N/A	N/A
2/4/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26585	N/A	N/A
2/21/2014	Savannah	Front River	A. brev	4A0E21071C	679	776	2280	MS-275	A69-9001-26318	32.263544°	-81.143622°
2/21/2014	Savannah	Front River	A. brev	4A0E16614C	511	598	795	MS-277	A69-1601-12770	32.263544°	-81.143622°
2/21/2014	Savannah	Front River	A. oxy	4A0D570F38	770	887	4990	MS-276	A69-9001-26320	32.263544°	-81.143622°
2/28/2014	Savannah	Front River	A. oxy	0A13675D70	858	1013	8172	MS-279	A69-9001-26316	32.263544°	-81.143622°
2/28/2014	Savannah	Front River	A. brev	0A13675D47	673	785	2000	MS-278	A69-9001-26314	32.263544°	-81.143622°
2/28/2014	Savannah	Front River	A. brev	0A13675D3C	780	880	5221	MS-280	A69-1303-45962	32.263544°	-81.143622°
3/7/2014	Savannah	Front River	A. brev	0A13092F54	636	720	1625	MS-284	A69-1303-45964	32.263544°	-81.143622°
3/7/2014	Savannah	Front River	A. brev	0A13675D5A	1040	1196	9979	MS-285	A69-1303-45954	32.263544°	-81.143622°
3/7/2014	Savannah	Front River	A. brev	2A13675D6C	693	810	2722	MS-282	A69-1303-45956	32.263544°	-81.143622°
3/7/2014	Savannah	Front River	A. oxy	0A13675D6D	597	699	1440	MS-283	N/A	32.263544°	-81.143622°
3/14/2014	Savannah	Front River	A. brev	0A13675E06	585	667	1580	MS-286	N/A	32.263544°	-81.143622°
3/14/2014	Savannah	Front River	A. brev	0A13675D70	947	1065	7000	MS-288	A69-1303-2235	32.263544°	-81.143622°
3/14/2014	Savannah	Front River	A. oxy	0A13675D2D	956	1084	6500	MS-287	A69-1303-45960	32.263544°	-81.143622°
3/21/2014	Savannah	Front River	A. brev	0A13675E10	550	644	800	MS-291	N/A	32.263544°	-81.143622°
3/21/2014	Savannah	Front River	A. oxy	0A13092F35	835	970	4500	MS-289	A69-9001-26323	32.263544°	-81.143622°
3/21/2014	Savannah	Front River	A. oxy	0A13675D79	676	780	1800	MS-290	N/A	32.263544°	-81.143622°
3/28/2014	Savannah	Front River	A. oxy	0A13675E01	957	1090	7500	MS-292	N/A	32.263544°	-81.143622°
3/31/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26587	N/A	N/A
3/31/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-12766	N/A	N/A
3/31/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-26588	N/A	N/A
4/3/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-12772	N/A	N/A
4/3/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-12760	N/A	N/A
4/3/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-12771	N/A	N/A
4/9/2014	Savannah	Savannah GADNR-tagged	M. sax	No PIT	N/A	N/A	N/A	N/A	A69-1601-12765	N/A	N/A
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	438	490	N/A	N/A	A69-1601-12762	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	M. sax	No PIT	550	595	2722	SH-1	A69-9001-26321	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	506	562	N/A	N/A	A69-1601-12755	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	477	520	N/A	N/A	A69-1601-12761	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	310	345	N/A	N/A	A69-1601-12767	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	M. sax	No PIT	631	667	4536	SH-2	A69-9001-26319	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	420	481	N/A	N/A	A69-1601-12756	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	489	544	N/A	N/A	A69-1601-12764	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	400	455	N/A	N/A	A69-1601-12769	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	391	440	N/A	N/A	A69-1601-12763	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	473	533	N/A	N/A	A69-1601-12757	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	455	513	N/A	N/A	A69-1601-12774	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	448	500	N/A	N/A	A69-1601-12768	33.372484°	-81.943088°
4/18/2014	Savannah	NSBL&D	A. sap	No PIT	478	532	N/A	N/A	A69-1601-12773	33.372484°	-81.943088°

Table 1. Sturgeon, Striped Bass, and American Shad Capture Data for the Savannah River SHEP Monitoring Year 1-3 (continued)

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
11/6/2014	Savannah	Middle River	A. oxy	0A13675D65	523	610	960	SH-7	A69-1601-21173	32.148669°	-81.132713°
11/11/2014	Savannah	Middle River	A. brev	0A13675E03	367	423	120	SH-9	N/A	32.148669°	-81.132713°
11/11/2014	Savannah	Middle River	A. brev	0A13675D32	800	915	5897	SH-8	A69-9001-26315	32.148669°	-81.132713°
12/17/2014	Savannah	Middle River	A. brev	0A13675D3B	715	815	4000	SH-12	A69-9001-26341	32.148669°	-81.132713°
12/17/2014	Savannah	Middle River	A. brev	0A13675D41	740	843	4500	SH-11	A69-9001-26337	32.148669°	-81.132713°
12/17/2014	Savannah	Middle River	A. brev	0A13675D44	751	860	5000	SH-13	A69-9001-26342	32.148669°	-81.132713°
12/17/2014	Savannah	Middle River	A. brev	0A13675E04	946	1066	8618	SH-14	A69-9001-26317	32.148669°	-81.132713°
12/17/2014	Savannah	Middle River	A. oxy	0A13675D46	516	610	920	SH-10	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. oxy	0A13675D7A	702	805	4536	SH-22	A69-1601-21172	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675E0C	729	820	4536	SH-15	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675E0E	765	865	4990	SH-16	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675D3F	823	924	5443	SH-17	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	No PIT	881	996	9525	SH-18	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675D53	684	780	4536	SH-21	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675D48	664	764	4309	SH-19	N/A	32.148669°	-81.132713°
1/29/2015	Savannah	Front River	A. brev	0A13675D7C	627	712	1750	SH-20	N/A	32.148669°	-81.132713°
2/13/2015	Savannah	Front River	A. brev	0A13675D56	1009	1150	13154	SH-24	N/A	32.148669°	-81.132713°
2/13/2015	Savannah	Front River	A. brev	0A13675D4B	740	832	4990	SH-25	N/A	32.148669°	-81.132713°
2/13/2015	Savannah	Front River	A. brev	0A13675D6E	818	918	7257	SH-26	N/A	32.148669°	-81.132713°
2/13/2015	Savannah	Front River	A. brev	0A13675E00	850	969	6804	SH-27	N/A	32.148669°	-81.132713°
2/13/2015	Savannah	Front River	A. brev	0A13675D42	1032	1170	13381	SH-23	N/A	32.148669°	-81.132713°
2/20/2015	Savannah	Front River	A. oxy	0A13675D7B	635	741	1800	SH-28	A69-1601-21167	32.148669°	-81.132713°
3/6/2015	Savannah	Front River	A. brev	0A13675D31	515	584	875	SH-32	A69-1601-21168	32.148669°	-81.132713°
3/6/2015	Savannah	Front River	A. oxy	0A13675D7F	602	708	1500	SH-30	A69-1601-21163	32.148669°	-81.132713°
3/6/2015	Savannah	Front River	A. brev	0A13675D2E	765	851	4990	SH-29	N/A	32.148669°	-81.132713°
3/6/2015	Savannah	Front River	A. oxy	0A13675D6F	745	843	5443	SH-31	A69-9001-26333	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. oxy	0A13675D30	737	842	4990	SH-35	N/A	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. brev	0A13675E0B	924	1040	8165	SH-34	N/A	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. brev	4B02477733	732	834	4536	SH-36	N/A	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. brev	No PIT	609	694	1790	SH-37	N/A	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. brev	No PIT	631	722	1600	SH-38	N/A	32.148669°	-81.132713°
3/20/2015	Savannah	Front River	A. brev	No PIT	477	548	500	SH-39	A69-1601-21162	32.148669°	-81.132713°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	431	495	No weight	N/A	A69-1601-21149	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	370	424	No weight	N/A	A69-1601-21174	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	360	409	No weight	N/A	A69-1601-21175	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	460	517	No weight	N/A	A69-1601-21176	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	411	464	No weight	N/A	A69-1601-21150	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	462	526	No weight	N/A	A69-1601-21171	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	458	508	No weight	N/A	A69-1601-21170	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	387	432	No weight	N/A	A69-1601-21169	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	458	520	No weight	N/A	A69-1601-21166	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	368	415	No weight	N/A	A69-1601-21165	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	371	421	No weight	N/A	A69-1601-21161	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	365	415	No weight	N/A	A69-1601-21160	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	366	415	No weight	N/A	A69-1601-21159	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	420	480	No weight	N/A	A69-1601-21156	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	369	416	No weight	N/A	A69-1601-21155	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	430	486	No weight	N/A	A69-1601-21154	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	405	456	No weight	N/A	A69-1601-21151	33.371817°	-81.944083°
3/31/2015	Savannah	NSBL&D	A. sap	No PIT	421	478	No weight	N/A	A69-1601-21164	33.371817°	-81.944083°
4/23/2015	Savannah	NSBL&D	M. sax	No PIT	841	879	9979	SH-45	A69-9001-26334	33.371817°	-81.944083°
5/5/2015	Savannah	Middle River	A. brev	0A13675C6B	640	735	2300	SH-46	N/A	32.148669°	-81.132713°
6/2/2015	Savannah	Middle River	A. brev	0A13675C52	847	975	7257	SH-47	A69-9001-26332	32.148669°	-81.132713°
6/10/2015	Savannah	Savannah river	A. brev	421430074D	694	785	5000	N/A	N/A	32.196933°	-81.154317°
6/10/2015	Savannah	Savannah river	A. oxy	0A13675C63	566	649	4000	SH-49	N/A	32.196933°	-81.154317°
6/10/2015	Savannah	Savannah river	A. oxy	0A13675C61	677	800	5000	SH-50	N/A	32.196933°	-81.154317°
6/10/2015	Savannah	Savannah river	A. oxy	0A13675D27	624	724	4000	SH-51	N/A	32.196933°	-81.154317°
6/10/2015	Savannah	Savannah river	A. brev	989001001956592	739	824	6000	SH-48	N/A	32.196933°	-81.154317°
7/15/2015	Savannah	Middle River	A. oxy	0A13675C7F	739	863	4200	SH-57	N/A	32.148669°	-81.132713°
7/24/2015	Savannah	Savannah River	A. brev	989001003461473	639	718	1600	SH-62	N/A	32.196933°	-81.154317°
7/24/2015	Savannah	Savannah River	A. brev	0A13675D07	698	789	2260	SH-61	N/A	32.196933°	-81.154317°
7/24/2015	Savannah	Savannah River	A. oxy	989001003460833	654	766	1940	SH-58	N/A	32.196933°	-81.154317°
7/24/2015	Savannah	Savannah River	A. oxy	989001003461654	675	788	2120	SH-59	N/A	32.196933°	-81.154317°
7/24/2015	Savannah	Savannah River	A. oxy	989001001956589	674	770	1940	SH-63	N/A	32.196933°	-81.154317°
7/24/2015	Savannah	Savannah River	A. oxy	989001001956421	635	747	1780	SH-60	N/A	32.196933°	-81.154317°
7/30/2015	Savannah	Savannah River	A. oxy	989001001956431	652	761	1740	SH-64	N/A	32.248220°	-81.152540°

Table 1. Sturgeon, Striped Bass, and American Shad Capture Data for the Savannah River SHEP Monitoring Year 1-3 (continued)

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
8/6/2015	Savannah	Savannah River	A. oxy	0A13675D19	614	707	1500	SH-71	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	0A13675C76	773	882	7000	SH-69	N/A	32.248220°	-81.152540°
8/6/2015	Savannah	Savannah River	A. brev	989001003461725	850	973	8000	SH-68	N/A	32.248220°	-81.152540°
8/6/2015	Savannah	Savannah River	A. brev	0A13675C5F	895	1010	9000	SH-67	N/A	32.248220°	-81.152540°
8/6/2015	Savannah	Savannah River	A. oxy	0A13092F20	979	1133	1100	SH-73	A69-9001-26330	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. oxy	0A13675D28	419	485	250	SH-72	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	0A13675C6C	836	937	7000	SH-66	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. oxy	0989001001956377	686	800	2400	SC-45	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	0A13675D23	715	820	6000	SH-65	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. oxy	0989001001956545	613	714	2000	SC-46	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. oxy	989001001956377	690	799	4000	SH-70	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	0A181B4945	563	642	1600	SC-44	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	4213685345	780	884	3700	SC-43	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. brev	0A181B494B	755	859	3600	SC-42	N/A	32.248220	-81.152540
8/6/2015	Savannah	Savannah River	A. oxy	0989001003461613	435	506	500	SC-41	N/A	32.248220	-81.152540
9/21/2015	Savannah	Savannah River	A. oxy	0A13675D03	900	1025	6000	SH-76	A69-9001-23542	32.249200°	-81.153183°
9/21/2015	Savannah	Savannah River	A. oxy	0A13675C7E	637	735	1640	SH-75	A69-1601-22350	32.249200°	-81.153183°
9/21/2015	Savannah	Savannah River	A. oxy	989001003461644	632	720	1550	SH-74	A69-1601-22355	32.249200°	-81.153183°
9/22/2015	Savannah	Savannah river	A. oxy	989001000099554	578	667	400	SH-79	N/A	32.196933°	-81.154317°
9/22/2015	Savannah	Savannah river	A. oxy	0A13675D0A	811	930	4400	SH-83	A69-9001-26328	32.248220°	-81.152540°
9/22/2015	Savannah	Savannah river	A. oxy	0A181B4853	999	1142	13608	SH-85	A69-9001-26335	32.248220°	-81.152540°
9/22/2015	Savannah	Savannah river	A. brev	0A181B4869	765	860	4050	SH-86	A69-9001-26326	32.248220°	-81.152540°
9/22/2015	Savannah	Savannah river	A. brev	989001004299626	723	803	2850	SH-84	A69-9001-23546	32.248220°	-81.152540°
9/22/2015	Savannah	Savannah river	A. oxy	989001003461562	608	675	1350	SH-77	N/A	32.196933°	-81.154317°
9/22/2015	Savannah	Savannah river	A. oxy	0A13675D08	640	750	775	SH-80	N/A	32.196933°	-81.154317°
9/22/2015	Savannah	Savannah river	A. brev	0A13675D10	744	875	3900	SH-82	A69-9001-26336	32.196933°	-81.154317°
9/22/2015	Savannah	Savannah river	A. oxy	0A13675D1C	791	894	3700	SH-81	A69-9001-26338	32.196933°	-81.154317°
9/22/2015	Savannah	Savannah river	A. oxy	0A13675C71	615	713	800	SH-78	N/A	32.196933°	-81.154317°
9/23/2015	Savannah	Savannah river	A. oxy	0A13675C78	659	757	2400	SH-89	N/A	32.196933°	-81.154317°
9/23/2015	Savannah	Savannah river	A. oxy	0A13675C5A	498	580	700	SH-88	N/A	32.196933°	-81.154317°
9/23/2015	Savannah	Savannah river	A. oxy	989001001956421	665	775	2300	SH-87	N/A	32.196933°	-81.154317°
11/5/2015	Savannah	Middle River	A. brev	0A13675C5C	740	841	3900	SH-91	A69-9001-26329	32.148669°	-81.132713°
11/5/2015	Savannah	Middle River	A. oxy	0A13675C79	1473	1684	N/A	SH-92	A69-9001-26331	32.148669°	-81.132713°
11/5/2015	Savannah	Middle River	A. oxy	0A13675D1E	642	750	2300	SH-90	A69-1601-21152	32.148669°	-81.132713°
11/20/2015	Savannah	Savannah River	A. oxy	0A13675C66	587	681	1280	SH-93	A69-1601-21157	32.196933°	-81.154317°
11/20/2015	Savannah	Savannah River	A. oxy	4A0E260F25	1000	1165	N/A	MS-250	Recap	32.196933°	-81.154317°
12/3/2015	Savannah	Middle River	A. brev	0A13675D21	808	911	6400	SH-103	A69-9001-26325	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. oxy	0A13675C58	585	672	1400	SH-96	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. brev	0A13675C49	849	943	7100	SH-102	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. brev	0A13675D13	861	989	6100	SH-101	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. brev	457F75711F	888	991	7000	SH-99	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. oxy	0A13675C6E	548	641	880	SH-97	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. oxy	0A13675C7A	747	855	3300	SH-98	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. oxy	0A13675D18	642	749	2400	SH-95	N/A	32.148669°	-81.132713°
12/3/2015	Savannah	Middle River	A. brev	0A13675D2B	780	881	5500	SH-94	N/A	32.148669°	-81.132713°
12/4/2015	Savannah	Middle River	A. oxy	0A13675C65	528	623	1200	SH-104	N/A	32.148669°	-81.132713°
12/4/2015	Savannah	Middle River	A. brev	0A13675D1F	737	821	3600	SH-105	N/A	32.148669°	-81.132713°
2/26/2016	Savannah	Front River	A. brev	0989001003461711	719	830	3200	SH-108	N/A	32.148669°	-81.132713°
2/26/2016	Savannah	Front River	A. oxy	0A13675D1B	646	746	1650	SH-106	N/A	32.148669°	-81.132713°
2/26/2016	Savannah	Front River	A. brev	0A13675C50	751	871	2950	SH-109	N/A	32.148669°	-81.132713°
2/26/2016	Savannah	Front River	A. oxy	0A13675C55	473	558	490	SH-107	N/A	32.148669°	-81.132713°
3/11/2016	Savannah	Front River	A. oxy	0A13675C67	741	870	3300	SH-110	N/A	32.148669°	-81.132713°
3/11/2016	Savannah	Front River	A. brev	0900236000056678	668	770	2450	SH-111	N/A	32.148669°	-81.132713°
3/16/2016	Savannah	Front River	A. brev	0A13675D00	650	776	2000	SH-112	N/A	32.148669°	-81.132713°
3/24/2016	Savannah	Front River	A. brev	0A13675C74	660	775	2100	SH-113	N/A	32.148669°	-81.132713°
3/24/2016	Savannah	Front River	A. brev	0A13675D15	706	828	3700	SH-114	N/A	32.148669°	-81.132713°

Table 1. Sturgeon, Striped Bass, and American Shad Capture Data for the Savannah River SHEP Monitoring Year 1-3 (continued)

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
4/13/2016	Savannah	Middle River	A. oxy	0A13675C6A	683	796	2650	SH-115	N/A	32.148669°	-81.132713°
4/13/2016	Savannah	Middle River	A. oxy	0A13675D0D	589	685	1550	SH-116	N/A	32.148669°	-81.132713°
4/20/2016	Savannah	Middle River	A. oxy	0A13675C64	499	584	725	SH-118	N/A	32.148669°	-81.132713°
4/20/2016	Savannah	Middle River	A. brev	0A13675D24	800	900	4000	SH-117	N/A	32.148669°	-81.132713°
4/29/2016	Savannah	Middle River	A. brev	0A13675D7C	660	751	2300	SH-20	N/A	32.148669°	-81.132713°
5/5/2016	Savannah	Middle River	A. oxy	0A181B4765	723	832	1250	SH-119	N/A	32.148669	-81.132713
5/20/2016	Savannah	Savannah River	A. oxy	0A181B4779	304	350	50	SH-120	N/A	32.196369	-81.157587
5/20/2016	Savannah	Savannah River	A. oxy	0A181B477B	375	437	200	SH-121	N/A	32.196369	-81.157587
5/20/2016	Savannah	Savannah River	A. oxy	0A181B4755	379	430	200	SH-122	N/A	32.196369	-81.157587
5/27/2016	Savannah	Savannah River	A. oxy	0A181B474B	419	476	300	SH-126	N/A	32.196933	-81.154317
5/27/2016	Savannah	Abercorn	A. oxy	0A181B484C	932	1080	8550	SH-130	N/A	32.25752	-81.14506
5/27/2016	Savannah	Savannah River	A. oxy	0A181B4763	348	401	125	SH-129	N/A	32.196933	-81.154317
5/27/2016	Savannah	Savannah River	A. oxy	0A181B475D	348	391	100	SH-127	N/A	32.196933	-81.154317
5/27/2016	Savannah	Savannah River	A. oxy	0A181B4771	414	479	350	SH-125	N/A	32.196933	-81.154317
5/27/2016	Savannah	Savannah River	A. oxy	0A181B475B	360	421	175	SH-124	N/A	32.196933	-81.154317
5/27/2016	Savannah	Savannah River	A. oxy	0A181B4775	665	774	2650	SH-123	N/A	32.196933	-81.154317
5/27/2016	Savannah	Savannah River	A. oxy	0989001003461361	616	715	1800	SH-128	N/A	32.196933	-81.154317
6/2/2016	Savannah	RM 22.5	A. oxy	0A181B4801	335	402	150	SH-131	N/A	32.18412	-81.15641
6/2/2016	Savannah	RM 22.5	A. oxy	0A181B4748	338	381	90	SH-132	N/A	32.18412	-81.15641
6/2/2016	Savannah	RM 22.5	A. oxy	0A181B4800	373	434	185	SH-133	N/A	32.18412	-81.15641
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B4816	324	372	75	SH-139	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B481E	508	590	850	SH-134	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B475B	378	430	180	recap	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B481D	360	414	150	SH-138	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B4764	543	641	1050	SH-135	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B4823	380	432	200	SH-136	N/A	32.196933	-81.154317
6/3/2016	Savannah	RM 24.5	A. oxy	0A181B4807	399	450	225	SH-137	N/A	32.196933	-81.154317
6/14/2016	Savannah	RM 24.5	A. oxy	0A181B474B	428	498	350	recap	N/A	32.196933°	-81.154317
6/14/2016	Savannah	RM 24.5	A. oxy	0A181B4820	350	406	120	SH-140	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. oxy	0A181B4824	405	463	1280	SH-144	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. oxy	0A181B4772	410	475	320	SH-145	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. oxy	0A181B4826	620	720	1440	SH-143	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. oxy	0A181B4758	545	626	1010	SH-142	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. oxy	0A181B4825	408	469	280	SH-141	N/A	32.196933°	-81.154317
6/17/2016	Savannah	RM 24.5	A. brev	0A181B477C	406	463	350	SH-146	A69-1601-21148	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4818	545	630	900	SH-150	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B481A	366	425	150	SH-154	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4813	310	355	50	SH-162	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. brev	0A181B4803	435	500	450	SH-161	A69-1601-21158	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. brev	0A181B4811	477	551	700	SH-160	A69-1601-21153	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4815	357	393	150	SH-159	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4822	342	392	105	SH-158	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4768	315	364	75	SH-157	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B475C	340	392	125	SH-156	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4946	547	646	950	SH-155	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B476E	351	404	150	SH-153	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4817	343	405	100	SH-152	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B474B	431	501	360	RECAP	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4804	406	461	290	SH-149	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B480E	408	472	300	SH-148	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0989001004299024	335	390	75	SH-147	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. brev	0A13675E0B	888	1047	6800	RECAPH	N/A	32.196933°	-81.154317
6/21/2016	Savannah	RM 24.5	A. oxy	0A181B4827	360	415	150	SH-151	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	989001004299276	440	503	345	SH-165	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	0A181B4819	364	424	125	SH-164	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. brev	0A181B4809	435	512	450	SH-169	A69-1601-53535	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	0A181B4810	387	446	215	SH-168	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	989001004299223	396	461	220	SH-167	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	0A181B481C	347	395	105	SH-166	N/A	32.196933°	-81.154317
6/22/2016	Savannah	RM 24.5	A. oxy	0A181B4773	518	601	680	SH-163	N/A	32.196933°	-81.154317
6/24/2016	Savannah	RM 24.5	A. oxy	0A181B480A	350	406	85	SH-171	N/A	32.196933°	-81.154317
6/24/2016	Savannah	RM 24.5	A. oxy	0A181B480F	464	536	605	SH-170	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. brev	0A181B481F	370	430	200	SH-172	A69-1601-38014	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4814	415	478	350	SH-173	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4812	371	421	150	SH-178	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4751	620	692	1900	SH-177	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4754	590	685	1450	SH-176	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B475A	661	776	2200	SH-175	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4777	630	725	2100	SH-174	N/A	32.196933°	-81.154317
6/27/2016	Savannah	RM 24.5	A. oxy	0A181B4749	366	425	175	SH-179	N/A	32.196933°	-81.154317

Table 1. Sturgeon, Striped Bass, and American Shad Capture Data for the Savannah River
SHEP Monitoring Year 1-3 (continued)

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
8/25/2016	Savannah	RM 24.5 Front River	A. oxy	0A181B4817	381	449	195	recap		32.196933°	-81.154317
8/25/2016	Savannah	RM 24.5 Front River	A. oxy	0A181B4771	443	513	460	SH-180		32.196933°	-81.154317
8/25/2016	Savannah	RM 24.5 Front River	A. oxy	0A181B477A	596	685	1140	SH-181	A69-1601-53538	32.196933°	-81.154317
8/25/2016	Savannah	RM 24.5 Front River	A. oxy	0989001004299159	474	547	580	SH-182	A69-1601-53537	32.196933°	-81.154317

Table 2. Sturgeon Capture Data for the Savannah River
SHEP Monitoring Year 4

Date	River	CollectionSite	Species	PIT	ForkLength_mm	TotalLength_mm	Weight_g	Genetics	Transmitter	Latitude	Longitude
11/9/2016	Savannah	Middle River	A. brev	0A13675D44	761	876	3600	recap	N/A	32.148669	-81.132713
11/9/2016	Savannah	Middle River	A. brev	0A181B4745	800	899	4200	SH-183	A69-9001-23544	32.148669	-81.132713
11/9/2016	Savannah	Middle River	A. brev	0900236000056138	881	1008	7800	SH-184	A69-9001-23541	32.148669	-81.132713
11/17/2016	Savannah	Middle River	A. brev	0A13675C5C	748	833	3000	recap	N/A	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. brev	0A181B474D	671	770	2650	SH-188	N/A	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. oxy	0A181B475E	611	718	1685	SH-185	N/A	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. brev	0A181B481B	770	885	4300	SH-187	A69-9001-20499	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. brev	0989001001956805	749	872	3600	SH-189	A69-9001-26327	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. brev	501C766F55	795	921	4450	SH-190	A69-9001-23548	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. brev	0A13675D3B	719	816	4000	recap	N/A	32.148669	-81.132713
11/30/2016	Savannah	Middle River	A. oxy	0A181B480B	650	761	1815	SH-186	N/A	32.148669	-81.132713
12/1/2016	Savannah	Middle River	A. oxy	0A181B480C	531	626	1010	SH-193	A69-1601-53541	32.148669	-81.132713
12/1/2016	Savannah	Middle River	A. brev	0A181B4744	837	949	5550	SH-191	N/A	32.148669	-81.132713
12/1/2016	Savannah	Middle River	A. brev	0A181B4750	664	730	2300	SH-192	N/A	32.148669	-81.132713
12/1/2016	Savannah	Middle River	A. brev	0A13675C50	754	874	3290	recap	N/A	32.148669	-81.132713
12/2/2016	Savannah	Middle River	A. brev	0A13675E06	651	732	2040	recap	N/A	32.148669	-81.132713
12/2/2016	Savannah	Middle River	A. oxy	0A181B476B	558	654	1310	SH-194	A69-1601-53540	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4752	700	809	3500	SH-201	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. oxy	0A181B4757	574	660	1220	SH-195	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. oxy	0A181B4766	506	600	835	SH-196	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. oxy	0A181B4753	634	743	1940	SH-197	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4747	865	986	5300	SH-198	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. oxy	0A181B474C	559	646	1080	SH-200	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4760	930	1048	7100	SH-202	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. oxy	0989001005761445	663	778	2060	SH-203	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0989001001956027	580	667	1580	SH-204	A69-9001-18509	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4770	894	1002	8100	SH-205	A69-9001-18507	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4802	596	682	1120	SH-206	N/A	32.148669	-81.132713
12/8/2016	Savannah	Middle River	A. brev	0A181B4761	697	789	2650	SH-199	N/A	32.148669	-81.132713

Table 3. GPS Coordinates of Savannah River Receiver Locations

Receiver #	Station Name	Latitude	Longitude
111318	Savannah Jetty	32°02.074'N	80°51.064'W
111321	RM 0	32°02.248'N	80°53.990'W
111717	RM 3	32°04.274'N	80°57.289'W
111316	RM 6	32°04.616'N	80°57.394'W
111293	RM 9	32°05.390'N	81°01.173'W
111292	RM 15	32°04.972'N	81°05.615'W
108392	RM 17	32°07.596'N	81°08.058'W
108385	RM 17.5	32°08.188'N	81°08.383'W
111654	RM 18.5	32°08.699'N	81°08.416'W
111652	RM 21.5	32°09.647'N	81°09.256'W
111648	RM 22.5	32°10.971'N	81°09.368'W
111655	RM 24	32°11.816'N	81°09.259'W
111659	RM 27.5	32°14.164'N	81°09.012'W
111333	MR RM 0	32°08.794'N	81°07.974'W
111326	MR RM 1.5	32°09.523'N	81°08.253'W
111650	MR RM 2.5	32°10.342'N	81°08.150'W
111653	MR RM 4	32°11.602'N	81°08.252'W
111647	MR RM 5	32°12.613'N	81°08.289'W
111305	BR RM 4	32°06.673'N	81°06.471'W
111325	BR RM 7	32°08.704'N	81°07.236'W
111657	BR RM 9.5	32°10.068'N	81°07.790'W
111651	BR RM 13.5	32°11.574'N	81°07.096'W
111658	BR RM 16.5	32°13.280'N	81°08.598'W
111766	RM 31.5	32°16.141'N	81°08.052'W
111755	Abercorn RM 0	32°14.952'N	81°09.191'W
111754	Abercorn RM 1	32°15.127'N	81°10.057'W
111753	RM 39	32°20.490'N	81°07.932'W
111825	RM 45	32°22.882'N	81°10.856'W
111818	RM 53	32°27.582'N	81°11.424'W
111824	RM 61.5	32°31.723'N	81°16.084'W
111764	RM 68	32°33.678'N	81°18.593'W
111826	RM 74	32°35.544'N	81°22.437'W
111813	RM 79.5	32°38.516'N	81°24.591'W
111759	RM 85.5	32°41.699'N	81°24.622'W

Table 3. GPS Coordinates of Savannah River Receiver Locations (continued)

Receiver #	Station Name	Latitude	Longitude
111756	RM 89.5	32°43.956'N	81°24.958'W
111758	RM 94.5	32°46.322'N	81°25.766'W
111814	RM 100.5	32°48.034'N	81°25.761'W
111757	RM 105	32°50.435'N	81°26.475'W
111763	RM 110.5	32°52.905'N	81°27.962'W
111762	RM 115.5	32°54.521'N	81°28.952'W
111752	RM 119	32°56.234'N	81°30.159'W
111815	RM 123	32°58.508'N	81°29.767'W
111820	RM 125.5	33° 0.3180'N	81° 29.688'W
111819	RM 133	33° 2.6160'N	81° 33.402'W
111821	RM 137	33° 4.3680'N	81° 35.502'W
111823	RM 147	33° 6.9420'N	81° 41.910'W
111812	RM 153	33° 10.578'N	81° 46.152'W
111716	RM 157	33° 13.044'N	81° 46.080'W
111817	RM 161.5	33° 13.542'N	81° 49.014'W
111715	RM 168	33° 15.810'N	81° 50.166'W
111721	RM 173	33° 17.946'N	81° 51.054'W
111718	RM 177.5	33° 19.656'N	81° 54.594'W
111816	RM 182	33° 19.656'N	81° 54.594'W
111720	RM 186	33° 21.540'N	81° 56.298'W
111719	RM 187	33° 22.302'N	81° 56.670'W
111822	RM 187.5	33° 22.308'N	81° 56.232'W
123576	RM 190 (Jason's Dock)	33° 23.052'N	81° 55.864'W
123593	Rm 199.7 (Marina)	33° 28.613'N	81° 57.591'W
123597	Lower Shoals	33° 30.751'N	82° 00.096'W
123601	Upper Shoals	33° 32.889'N	82° 02.157'W
123591	I20 Downstream	33° 31.458'N	82° 00.674'W

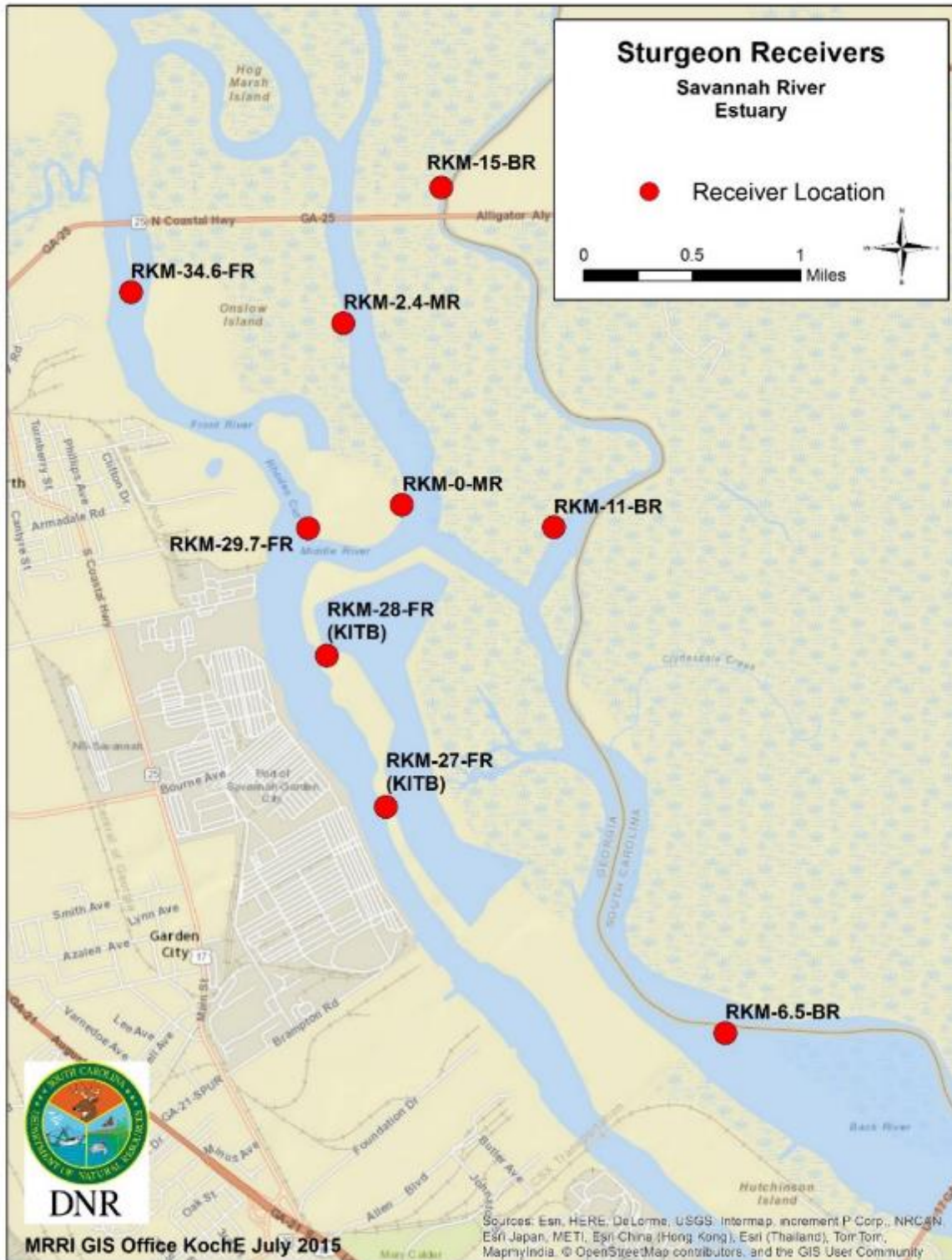
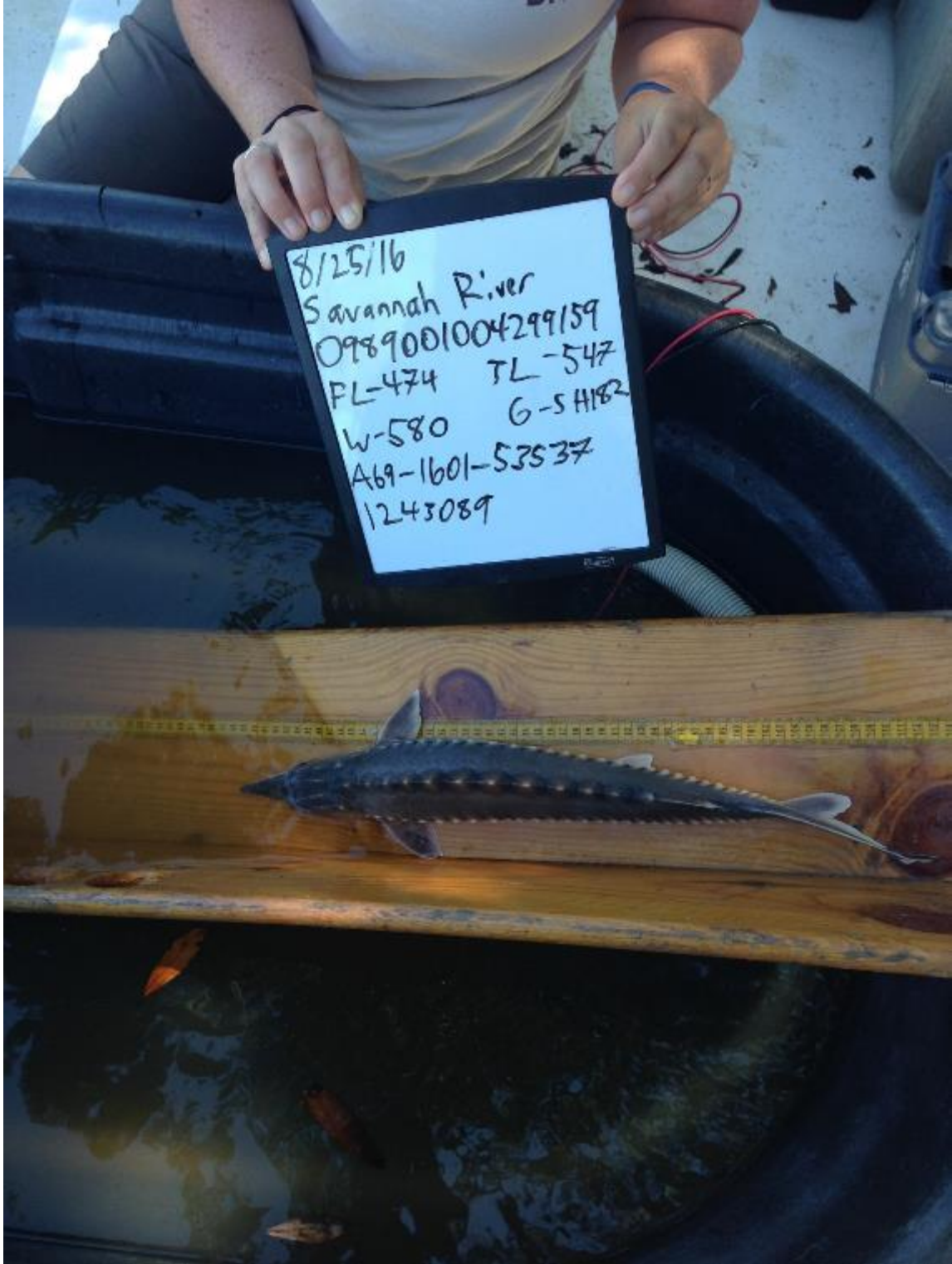
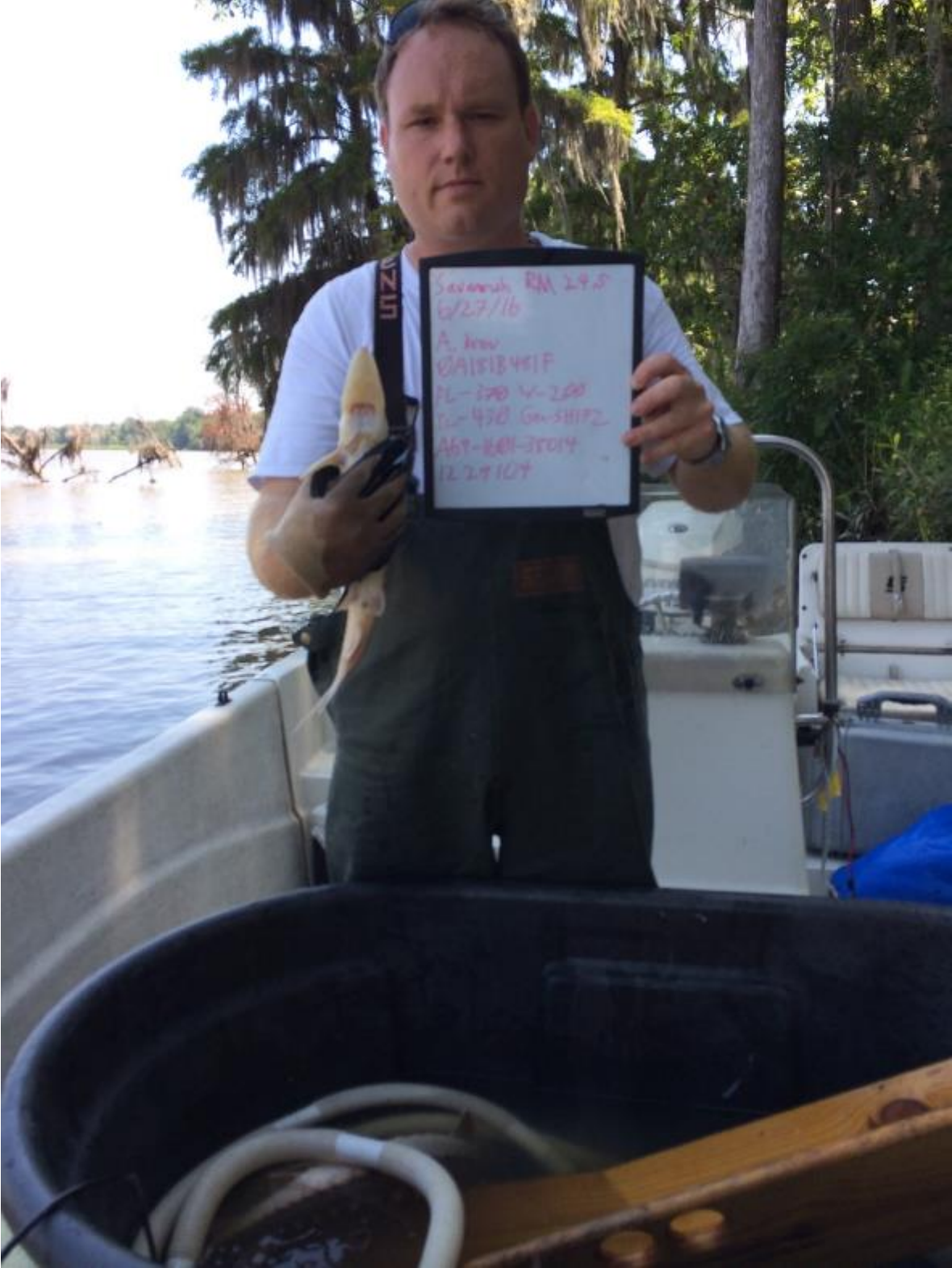


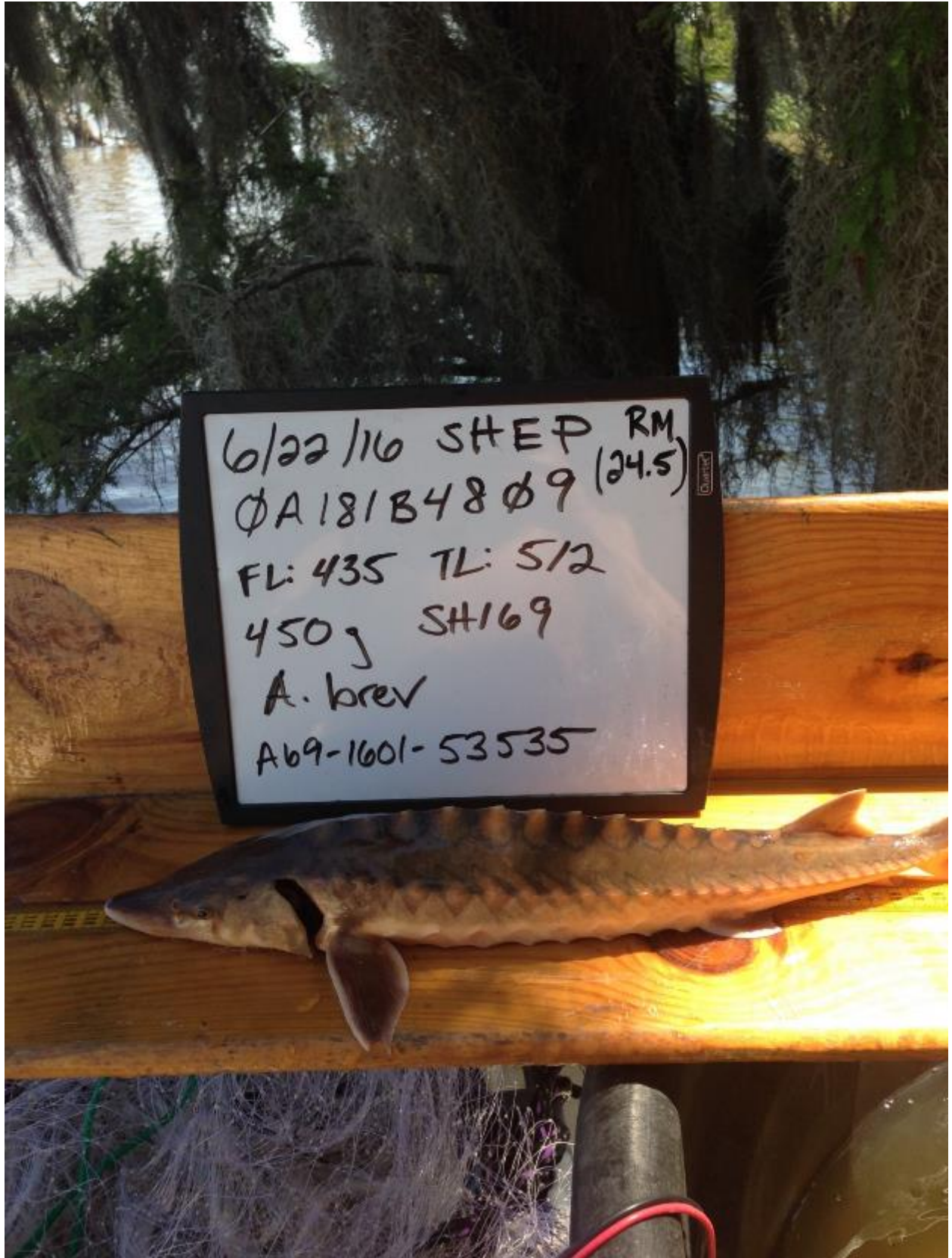
Figure 1. Vemco Receiver locations within proximity to the Kings Island Turning Basin.

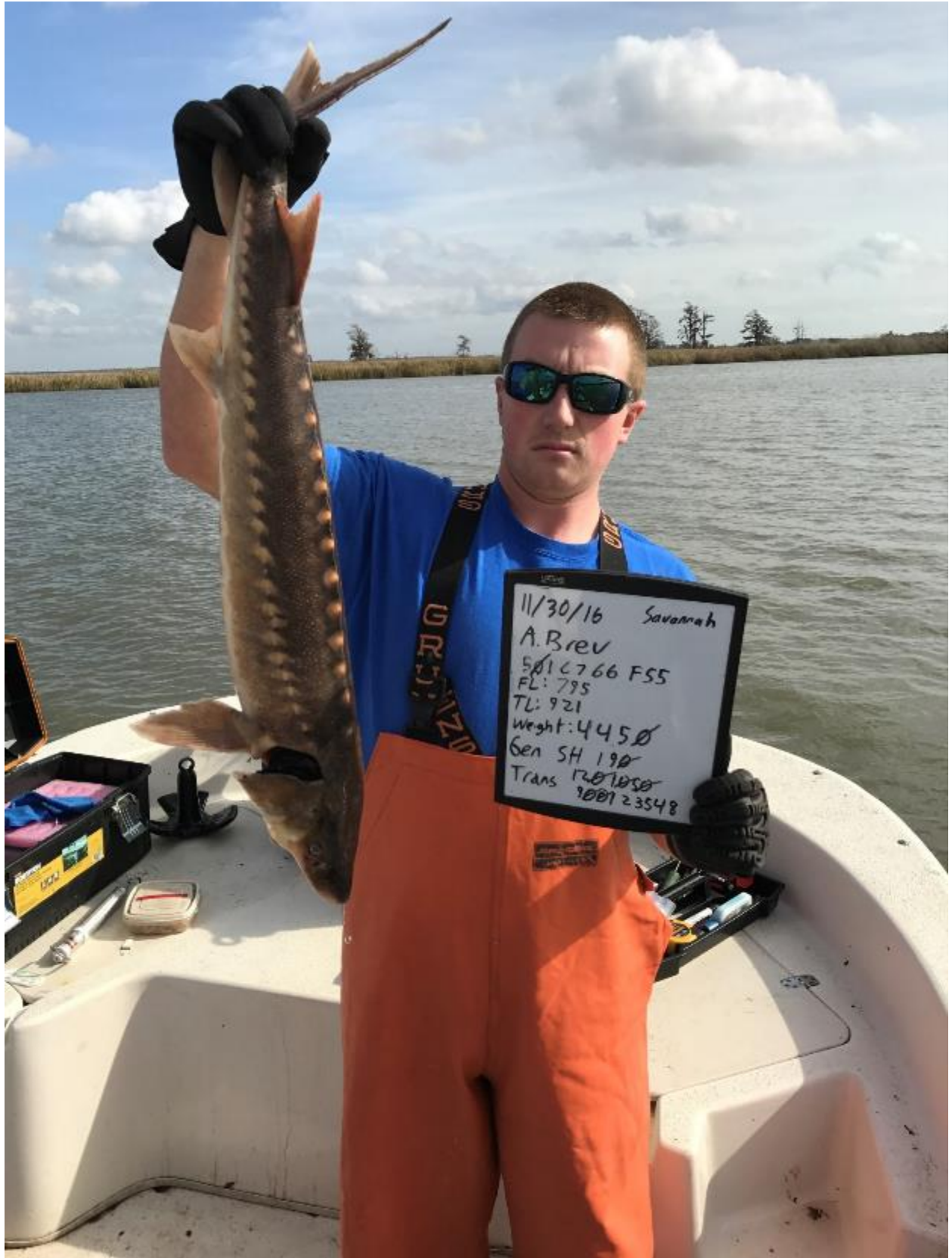
Appendix 1

Pictures of Project









11/30/16 Savannah
A. Brev
SP: 6766 F55
FL: 795
TL: 921
weight: 44.50
Gen SH 190
Trans 1207050
900123548







SHEP 2/21/14
A. brev
4AØE16614C-PIT
FL-511 TL-598
WT-795 Gm-Ns 277
Trans code -12770
Trans serial -1169595

