

Tables and Figures

Table 1. Number of samples and eggs collected at each egg sampling station, with percent of total and mean egg density, March 7 - May 12, 2000, Savannah River, Georgia.

Sampling Station	Total Samples	Total Eggs	Percent of Total Eggs Captured	Mean Egg Density	
				no./100m ³	Std. Dev.
BR2	99	0	0.0	0.00	0.00
BR6	101	0	0.0	0.00	0.00
BR10	99	44	4.8	0.42	1.25
BR15	95	24	2.6	0.23	0.80
MR2	95	7	0.8	0.07	0.20
SR12	96	2	0.2	0.02	0.12
SR19	96	2	0.2	0.02	0.10
SR24	95	150	16.3	1.45	3.27
SR26	96	581	62.9	5.62	11.84
SR31	93	113	12.2	1.15	2.38

Table 2. Developmental stages of striped bass eggs collected in the Savannah River estuary, 2000. Unstageable eggs were either dead, deformed, or had disrupted internal features, as described in Van Den Avyle et al. 1990.

Station	Developmental Stage ¹					Unstage-able Eggs	Total Stageable Eggs	Total Eggs Collected
	One	Two	Three	Four	Five			
BR2	0	0	0	0	0	0	0	0
BR6	0	0	0	0	0	0	0	0
BR10	0	7	10	2	0	25	19	44
BR15	1	1	3	6	3	10	14	24
MR2	1	2	0	3	0	1	6	7
SR12	0	0	0	2	0	0	2	2
SR19	0	1	0	1	0	0	2	2
SR24	1	14	20	13	4	98	52	150
SR26	0	35	84	19	1	442	139	581
SR31	1	7	18	4	1	82	31	113

¹Following criteria of Bayless (1972). Approximate ages (hours after fertilization) at 19°C are 0-10 hr (Stage 1), 10-19 (Stage 2), 19-26 hr (Stage 3), 26-33 hr (Stage 4), and 33-44 hr (Stage 5).

Table 3. Mean surface salinity and water temperature (~1m) on egg collection dates, and the mean, maximum, and minimum surface salinity for the entire spawning season, Savannah River Estuary, March - May, 2000. Eggs were not collected at stations BR2 or BR6.

Station	Mean salinity for egg collection dates	Surface salinity for the entire season			Mean temp. for egg collection dates	Water temperature for the entire season		
		Mean (STD)	Max	Min		Mean (STD)	Max	Min
BR2	n/a	10.11 (3.24)	17.3	4.2	n/a	19.5 (2.22)	25.6	16.7
BR6	n/a	6.24 (2.96)	12.6	0.6	n/a	19.6 (2.34)	25.4	16.2
BR10	0.8	0.78 (0.63)	2.6	0.1	18.9	19.4 (2.53)	25.4	16.0
BR15	0.1	0.24 (0.15)	0.6	0.0	18.2	19.2 (2.65)	25.7	15.5
MR2	0.8	1.31 (1.00)	3.9	0.1	19.0	19.7 (2.38)	25.4	16.1
SR12	5.8	9.81 (3.06)	16.3	3.1	17.6	19.6 (2.04)	25.2	17.3
SR19	1.1	3.70 (2.25)	10.4	0.5	17.9	19.7 (2.26)	25.0	16.8
SR24	0.1	0.11 (0.11)	0.7	0.1	18.3	19.4 (2.45)	25.3	16.4
SR26	0.1	0.10 (0.00)	0.1	0.0	18.8	19.4 (2.79)	26.0	15.8
SR31	0.1	0.10 (0.00)	0.1	0.0	19.6	19.3 (2.95)	25.8	15.4

Table 4. Density of striped bass eggs (#/100 m³) collected in the Savannah River Estuary, averaged for all sample days in each spawning season (March-May) at selected estuary locations during current and previous studies. Blank entries (-) indicate that a station was not sampled that year. Standard deviation is shown in parentheses for 1990 - 2000.

Year ¹	SR19	SR24	SR26	SR31	BR10
1977	8.72	-	-	-	14.71
1978	4.49	-	6.70	-	20.58
1984	1.09	-	0.68	-	8.17
1986	0.29	-	8.78	2.10	11.66
1987	0.02	2.30	3.97	0.40	0.07
1988	0.03	0.60	1.61	2.30	1.52
1989	0.04	2.00	1.13	0.80	0.37
1990	0.00	0.98 (3.18)	2.07 (6.76)	1.07 (4.00)	0.22 (1.32)
1991	0.03 (0.13)	0.60 (2.70)	0.56 (3.26)	0.07 (0.45)	0.00
1994	0.03 (0.13)	1.17 (2.83)	2.21 (8.43)	0.51 (1.98)	0.03 (0.12)
1995	0.17 (0.72)	0.64 (1.81)	0.68 (1.84)	0.47 (1.57)	0.14 (0.47)
1996	0.09 (0.62)	0.58 (2.27)	0.22 (0.67)	0.09 (0.62)	0.02 (0.18)
1997	0.06 (0.26)	0.14 (0.51)	0.18 (0.62)	0.48 (1.53)	0.03 (0.16)
1998	0.13 (0.39)	0.10 (0.34)	0.01 (0.05)	0.03 (0.12)	0.04 (0.17)
1999	0.05 (0.28)	1.37 (5.69)	0.26 (1.25)	0.03 (0.21)	0.30 (2.05)
2000	0.02 (0.10)	1.45 (3.27)	5.62 (11.84)	1.15 (2.38)	0.42 (1.25)

¹ Data were obtained from Dudley and Black (1979) for 1977-1978, Larson (1985) for 1984, Van Den Avyle and Maynard (1990) for 1986-1989, Wallin and Van Den Avyle (1991) for 1990-1991, Reinert et al. (1998) for 1994-1998, and Will et al. (2000a) for 2000.

Table 5. Striped bass collected in the Savannah River Estuary and used for ultrasound imaging during March-April 2000 (sex determination and ovary measurements). Location (FR = Front River, BR = Back River, MR = Middle River, UC = Union Creek, MC = Mcoys's Cut, corresponding number = river mile), Status (R = released, S = sacrificed).

Fish Number	Date	Location	Status	Total Length (mm)	Weight (grams)
1	3/8/00	FR22	R	730	5300
2	3/8/00	FR22	R	770	5400
3	3/8/00	FR22	R	780	7300
4	3/8/00	FR22	R	760	6300
5	3/8/00	FR22	R	660	4500
6	3/8/00	FR22	R	640	3400
7	3/8/00	MR3	R	860	9300
8	3/9/00	FR22	R	910	10500
9	3/9/00	MR2	R	910	12000
10	3/9/00	MR2	R	900	11500
11	3/12/00	FR25	R	894	10886
12	3/15/00	FR22	R	915	1100
13	3/15/00	FR22	R	1000	13000
14	3/15/00	UC1	R	880	9500
15	3/15/00	UC1	R	760	5700
16	3/15/00	UC1	R	990	14000
17	3/15/00	FR28	R	1050	18750
18	3/17/00	MC0.1	S	845	8164
19	3/17/00	MC0.1	S	750	6123
20	3/20/00	FR24	R	790	8000
21	3/21/00	FR27	R	1055	19050
22	3/21/00	FR27	R	855	8845

Table 5. Continued

Fish Number	Date	Location	Status	Total Length (mm)	Weight (grams)
23	3/21/00	FR27	S	955	9979
24	3/23/00	FR29	S	948	13154
25	3/27/00	FR26	R	778	7484
26	3/27/00	UC0.0	R	785	8165
27	4/5/00	UC0.0	S	791	7938
28	4/12/00	MC1	R	820	7711

Table 6. Striped bass collected in the Savannah River Estuary and used for fecundity estimates during March-April, 2000. Status (R = released, S = sacrificed), SE = standard error. Individuals listed as n/a were either immature or spent and fecundity could not be estimated. Asterisks (*) indicate that only one ovarian tissue sample was taken; therefore, standard errors could not be calculated.

Fish Number	Date	Status	Total Length (mm)	Weight (grams)	# of tissue samples	Predicted Values	
						Estimated Fecundity (thousands)	SE (thousands)
1	3/08/00	R	730	5300	1	n/a	n/a
2	3/08/00	R	770	5400	1	n/a	n/a
3	3/08/00	R	780	7300	3	355	20
4	3/08/00	R	760	6300	1	n/a	n/a
5	3/08/00	R	660	4500	1	n/a	n/a
6	3/08/00	R	640	3400	1	275	*
7	3/08/00	R	860	9300	3	819	46
8	3/09/00	R	910	10500	3	1144	25
9	3/09/00	R	910	12000	3	1426	140
10	3/09/00	R	900	11500	3	826	103
11	3/12/00	R	894	10886	3	547	90
12	3/15/00	R	915	1100	3	1424	84
13	3/15/00	R	1000	13000	3	1089	51
14	3/15/00	R	880	9500	3	854	101
15	3/15/00	R	760	5700	1	n/a	n/a
16	3/15/00	R	990	14000	3	1281	129
17	3/15/00	R	1050	18750	1	1759	*
18	3/17/00	S	845	8164	1	n/a	n/a
19	3/17/00	S	750	6123	3	557	26

Table 6. Continued

Fish Number	Date	Status	Total Length (mm)	Weight (grams)	# of tissue samples	Predicted Values	
						Estimated Fecundity (thousands)	SE (thousands)
20	3/20/00	R	790	8000	3	174	23
21	3/21/00	R	1055	19050	3	2338	123
22	3/21/00	R	855	8845	3	741	72
23	3/21/00	S	955	9979	3	845	82
24	3/23/00	S	948	13154	3	945	153
25	3/27/00	R	778	7484	3	322	25
26	3/27/00	R	785	8165	1	511	*
27	4/05/00	S	791	7938	3	632	141
28	4/12/00	R	820	7711	1	n/a	n/a