

**Percentage, by age class, of red drum tagged by the SC marine game fish tagging program**

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A marine game fish tagging program has run in SC since 1974. It relies on volunteer anglers, who tag and release fish and report the species, length and location to the SC Department of Natural Resources. As many as 14,000 anglers actively participated in tagging at least 1 fish during the period 1974-2004. Since then, participation has been limited to recreational anglers who have completed a training workshop, and the total number of trained taggers was limited to 225 statewide. Further details of the tagging program are provided in the working document SEDAR18-DW02.

During the SEDAR18 assessment workshop, problems arose in estimating the age selectivity of B2 (caught and released) red drum in the southern region (SC, GA, FL) due to lack of relevant data. Information on the ages of fish tagged by SC anglers might therefore be useful since these fish effectively represent the B2 component of the recreational catch.

For each year since 1981, the total lengths of red drum at the time of tagging (extracted from marine game fish tag database) were used to estimate the number of fish tagged and released by age class. In order to do this, age-length keys were derived using the SCDNR Inshore Fisheries database, which ages a proportion of red drum caught in its fishery-independent surveys. These fish are aged according to either size-cohorts (age 0 and some age 1 fish), scales (fish  $\leq 4$  yrs) or otoliths (fish  $> 4$  yrs).

Table 1 shows the numbers of red drum tagged by the SC marine game fish tagging program, by size class (TL), for each year since 198. The results from applying the age-lengths keys to the marine game fish tag data are shown in Table 2.

**Table 1.** Numbers of red drum tagged by the SC marine game fish tagging program, by size class (TL), for each year since 1981. Major changes in regulation periods are shown below.

TL (inch)	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total	
54																							1					1	
53															1													1	
52																										1		1	
51															1													1	
50					1										2			1	1	1			1	1				8	
49												1		1			1		1			2	1					7	
48											1			1	1		2	3		1	3	2	1	1			1	17	
47							1							3	2	3			3	3	1	9	3					28	
46					2			1		1	2			3	7		1	6		6	8	10	3	2	3		1	56	
45									1		3	1		4	5	7	3	6	15	1	4	14	20	13	8	2	3	2	112
44													3	7	18	6	11	42	5	9	23	24	12	7	9	8	4	188	
43								1		4	1	1	5	8	17	8	7	43	5	11	14	28	17	10	8	6	1	195	
42							1		2	1	2	3	7	14	25	16	13	69	9	27	34	63	25	12	13	7	8	351	
41			1				1	1		2			3	5	8	15	20	7	66	11	25	23	33	29	15	5	10	13	293
40					1			1	1	3	2		6	7	8	9	15	33	11	94	23	29	45	88	27	10	19	8	450
39						1			3	6		2	3	7	11	14	12	72	13	32	20	35	18	6	3	10	7	278	
38					2	1			6	5		2	2	5	5	15	17	10	56	12	27	20	54	38	6	20	4	12	319
37	1								1	1	1	1	3	2	13	3	11	14	41	14	19	17	31	23	11	12	4	5	228
36	1	1				1	3	2	4	5	5	1	1	9	16	17	17	24	53	27	17	20	44	28	9	16	6	3	330
35	1						1		3	4		4	2	8	21	14	13	18	49	37	24	23	50	27	12	14	9	10	345
34	0						2	1	7	7	2	2	6	16	27	20	36	37	57	51	31	32	41	26	15	24	14	10	465
33	0				1	1	6	5	3	4	6	2	10	19	28	46	57	49	97	74	51	50	57	30	23	35	31	12	697
32	1	2				1	12	1	13	5	6	3	17	27	55	76	79	106	145	126	106	99	75	46	41	44	45	48	1179
31	1	2	1			4	2	3	8	9	6	4	13	68	54	94	123	161	160	119	121	82	75	52	53	56	54	36	1361
30	2	1	1	1	1	4	14	5	11	12	18	9	20	102	115	163	186	242	264	134	158	91	98	85	114	78	96	58	2082
29	3	3			0	2	4	10	10	14	7	10	35	90	100	147	189	277	257	139	134	100	83	110	126	91	97	52	2090
28	3	4			4	1	5	8	13	20	14	15	52	164	144	172	272	349	287	156	154	107	88	173	182	100	140	59	2686
27	7	6			1	2	6	18	11	26	20	20	70	151	131	136	202	299	230	179	179	96	104	260	201	125	156	78	2714
26	1	3	1	2	3	15	21	12	35	25	27	63	184	124	110	211	227	181	203	168	80	102	327	197	130	129	68	2649	
25	2	3	1	3	6	24	17	15	39	26	29	86	237	159	131	232	332	215	208	165	84	143	282	235	126	105	81	2986	
24	1	2	2	4	9	22	29	32	68	29	37	102	271	205	197	358	406	283	173	175	73	153	228	152	96	57	75	3239	
23	3	4	3	5	5	20	20	22	55	21	22	96	221	167	160	351	304	199	129	136	53	108	161	129	82	53	52	2581	
22	2	6	7	2	3	19	30	33	71	18	24	118	211	102	138	335	245	179	111	106	39	96	188	124	63	45	39	2354	
21	2	4	6	1	3	16	17	36	72	12	21	101	153	76	95	241	148	153	82	93	19	89	118	92	53	39	30	1772	
20	1	8	7	7	3	26	21	45	93	18	35	126	161	83	105	178	94	159	75	80	30	102	138	106	41	27	25	1794	
19	0	3	11	5	10	18	27	33	50	16	23	86	122	61	104	157	79	139	88	75	27	104	135	66	28	35	39	1541	
18	7	5	12	9	16	29	58	58	63	43	48	116	148	92	292	311	161	306	160	218	37	116	127	80	38	70	85	2705	
17	6	10	11	17	31	42	67	46	55	96	133	189	182	75	171	312	323	380	240	44	37	46	53	24	33	15	22	2660	
16	8	7	28	16	44	89	88	132	151	159	265	502	233	107	143	193	229	229	178	35	48	62	39	21	32	13	30	3081	
15	16	21	33	22	67	74	152	149	212	180	358	863	294	108	178	180	179	163	102	33	66	30	26	8	16	10	33	3573	
14	18	15	33	32	40	77	304	278	220	280	450	865	353	102	186	129	130	155	64	25	78	23	15	10	4	8	15	3909	
13	20	31	14	25	46	68	247	157	118	262	382	603	302	56	107	41	71	111	43	14	40	23	10	2	3	1	8	2805	
12	7	20	17	35	43	82	248	274	227	217	348	488	354	49	86	42	63	85	26	13	17	17	3	5	2	2	15	2785	
11	4	23	7	11	15	33	208	112	177	186	205	349	204	49	27	19	24	49	14	9	11	3	2	2	1		8	1752	
10	1	17	23	6	13	60	160	68	169	148	123	225	171	38	27	8	25	18	9	3	8	1	2				4	1327	
9		2			5	30	41	30	45	65	44	49	43	9	12	2	7	2	4	1	1							392	
8		1	1		1	4	16	7	24	15	16	34	24	5	6		11	3	1	1			1	1				172	
7							3	3	5		7	7	6	0	2		1		1	1								36	
6							2	1	1		4	5	2	1	1		2											20	
5				1	1				1	1		2	1				1											8	
Total	119	204	222	210	386	807	1832	1642	2075	1909	2693	5324	4572	2443	3303	4605	4719	5116	3051	2564	1670	2333	2903	2120	1416	1329	1057	60624	

No management

Jun 1986 – Jun 1993

Jun 1993 – Aug 2001

Aug-2001 to Jun-2007

Min = 14"; only 1 > 32"  
(various time windows and  
bag limits of up to 20 fish)

14"-27" slot limit; bag limit = 5

15"-24" slot limit; bag  
limit = 2

### Table 2

The percentage of red drum tagged by the SC marine game fish tagging program, by age class, for each year since 1981. Major changes in regulation periods are shown below.

	Year																											
Age	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	
7+	1.3	0.1	0.5	0.0	1.5	0.6	0.2	0.9	0.9	0.5	0.6	0.3	0.8	3.0	4.1	2.8	2.2	9.2	4.0	5.1	11.6	13.8	5.7	3.5	5.0	4.6	5.9	
6	0.5	0.3	0.2	0.1	0.2	0.3	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.7	0.3	0.7	1.1	1.5	1.7	0.6	1.7	1.1	2.6	1.6	1.4	1.2	0.6	
5	2.6	1.3	0.6	0.5	0.9	1.5	0.5	1.1	1.0	0.8	0.1	0.2	0.7	2.1	3.2	6.2	4.3	9.1	9.3	8.3	7.7	10.5	8.6	6.8	8.6	7.7	8.0	
4	7.7	5.2	1.5	2.4	2.9	4.9	2.0	3.2	3.8	2.9	0.3	0.8	5.8	17.1	18.1	16.2	22.4	20.2	17.0	21.7	22.3	15.5	22.0	26.6	26.0	27.4	15.4	
3	9.3	7.9	3.6	5.2	4.4	7.9	4.2	5.0	8.4	4.5	2.4	5.0	19.1	26.7	16.3	17.7	27.7	13.2	22.6	26.9	24.6	18.9	29.9	31.6	35.7	31.7	27.1	
2	22.7	22.7	34.4	27.9	28.9	28.5	19.3	24.2	28.1	20.0	17.9	32.5	34.8	32.8	29.7	45.4	24.9	30.8	29.3	29.0	15.2	34.0	28.3	27.2	19.3	23.2	30.5	
1	55.9	62.5	59.3	63.5	61.0	56.2	73.4	65.0	57.3	71.2	78.1	60.8	38.6	17.6	28.2	11.0	17.0	16.0	16.1	8.3	16.9	6.1	2.8	1.8	3.9	3.3	12.5	
0	0.0	0.0	0.0	0.5	0.3	0.0	0.3	0.3	0.3	0.0	0.5	0.2	0.2	0.0	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	