

## 2014 WILD TURKEY SUMMER SURVEY

### WILD TURKEY REPRODUCTION INCREASES SLIGHTLY THIS SUMMER

Annually since the early 1980's, the S.C. Department of Natural Resources (DNR) conducts a Summer Turkey Survey to estimate reproduction and recruitment of turkeys in South Carolina. The survey involves agency wildlife biologists, technicians and conservation officers, as well as many volunteers from other natural resource agencies and the general public. Although reproduction increased over last year it remained lower than desirable.

Although wild turkeys nest primarily in April and May in South Carolina, the survey does not take place until late summer, according to Charles Ruth, DNR Deer and Wild Turkey Program coordinator. Therefore, the survey statistics document poults (young turkeys) that actually survived and entered the fall population.

"Reproduction in turkeys has generally been poor for the last decade", said Ruth. "This year, average brood size of 3.9 poults remained relatively consistent and the total recruitment ratio of 1.6 was actually up about 23 percent from 2013. However, 2013 was the lowest recruitment ratio since the survey began in 1982, therefore, a modest increase is still below what is considered good. Recruitment ratio is a measure of young entering the population based on the number of hens in the population. This figure was driven by a high percentage of hens (59%) that had no poults at all by late summer. "At the regional level it appears that with the exception of the lower coastal plain, reproduction was poor in most of the state."

Unlike deer, wild turkeys are much more susceptible to significant fluctuations in reproduction and recruitment. Lack of reproductive success is often associated with bad weather (cold and wet) during nesting and brood rearing season. However, there are a host of predators that take advantage of turkey nests and broods including; raccoons, opossums, snakes, foxes, bobcats, and numerous avian predators. Coyotes which are not native but are now well established in the state can be added to the list of turkey predators. Turkeys naturally have high reproductive potential and are therefore able to maintain populations in spite of predation and other mortality factors. The problem is that we have not been getting much "bounce back" amid years of poor survival.

What does poor reproduction in 2014 mean for the spring turkey hunter? Ruth indicated, "spring harvest trends have followed trends in reproduction for many years. As was expected, with poor reproduction in 2012 and 2013 the spring harvest in 2014 was down significantly. The percentage of jakes (juvenile males) harvested in 2014 was the lowest on record supporting the record low reproductive data from last year. The record low reproduction in 2013 will not be felt until the 2015 spring season because 2 year old gobblers in 2015 would have been hatched in 2013 and that simply did not happen in most parts of the state. Also, the gobbler to hen ratio during this summer's survey was 0.60 which is the lowest since the year 2000, said Ruth. Low gobbler to hen ratios can affect the quality of hunting because hens are extremely available which affects gobbling and responsiveness to calling by hunters."

"The bottom line," Ruth said, "is the state's turkey population is about 35 percent below record levels of 12 years ago. We need better reproduction for several years to get the population back up. That is the nice thing about turkeys though; given the right conditions they can naturally bounce back in a short period of time."

Anyone interested in participating in the annual Summer Turkey Survey is encouraged to sign-up. The survey period is July 1-August 29 annually and those who participate typically spend a reasonable amount of time outdoors during that time period. Cooperators obviously must be able to identify wild turkeys and must be comfortable in telling the difference between hens, poults, and gobblers. If you would like to participate in the survey, send your name and address to Summer Turkey Survey, P.O. Box 167, Columbia, SC 29202. You will be added to the cooperator list and receive materials at the end of June annually. Those interested in the survey can also download instructions and survey forms at the following website:

<http://www.dnr.sc.gov/wildlife/turkey/volunbroodsurvey.html>

Figure 1. Map of physiographic regions for 2014 Summer Turkey Survey.

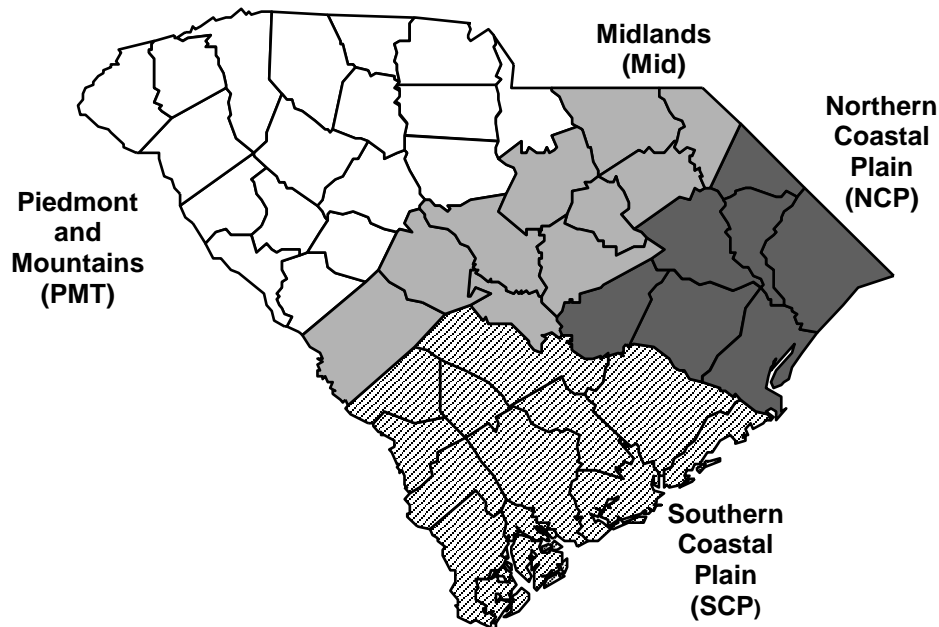


Table 1. Summary of reproductive data for 2014 Summer Turkey Survey by region.

Region	Gobbler Hen Ratio	No. Hens w/Poults	No. Hens w/o Poults (%)	No. Poults	Avg. Brood Size	Total Recruitment Ratio
Piedmont	0.49	362	675 (65)	1,307	3.6	1.3
Midlands	0.90	96	111 (54)	386	4.0	1.9
Northern Coastal	0.73	143	219 (60)	504	3.5	1.4
Southern Coastal	0.69	382	398 (51)	1,637	4.3	2.1
Statewide	0.60	983	1,403 (59)	3,834	3.9	1.6

Table 2. Statewide Summer Turkey Survey reproductive data 2010-2014.

Year	Gobbler Hen Ratio	No. Hens w/Poults	No. Hens w/o Poults (%)	No. Poults	Avg. Brood Size	Total Recruitment Ratio
2010	0.69	1,687	1,151 (41)	7,508	4.5	2.6
2011	0.76	1,442	1,223 (46)	5,987	4.2	2.3
2012	0.78	1,208	1,472 (55)	5,085	4.2	1.9
2013	0.70	810	1,588 (66)	3,169	3.9	1.3
2014	0.60	983	1,403 (59)	3,834	3.8	1.6
Average	0.70	1,226	1,367 (53)	5,117	4.1	1.9

Table 3. 2014 Summer Turkey Survey Results by County.

County	No. Observ.	No. Poult	No. Hens w/ Poult	No. Hens w/o Poult	No. Hens	% Hens w/o Poult	No. Gobblers	No. Unid.	Total Turkeys Observed
Abbeville	39	57	20	71	91	78	32	0	180
Aiken	57	33	14	39	53	74	76	19	181
Allendale	19	9	2	14	16	88	33	16	74
Anderson	8	0	0	15	15	100	4	0	19
Bamberg	4	4	1	6	7	86	6	0	17
Barnwell	51	33	12	41	53	77	62	7	155
Beaufort	36	43	29	46	75	61	39	9	166
Berkeley	163	642	152	104	256	41	217	57	1172
Calhoun	17	31	9	14	23	61	22	0	76
Charleston	48	185	48	48	96	50	40	8	329
Cherokee	8	47	11	7	18	39	12	0	77
Chester	31	57	18	25	43	58	46	8	154
Chesterfield	46	234	49	16	65	25	47	25	371
Clarendon	7	16	5	11	16	69	4	5	41
Colleton	29	84	26	39	65	60	44	0	193
Darlington	0	0	0	0	0		0	0	0
Dillon	7	24	6	1	7	14	2	0	33
Dorchester	15	25	10	18	28	64	13	19	85
Edgefield	30	59	20	37	57	65	14	0	130
Fairfield	70	150	39	89	128	70	70	14	362
Florence	9	14	6	14	20	70	8	0	42
Georgetown	47	135	35	57	92	62	66	24	317
Greenville	36	49	21	48	69	70	35	5	158
Greenwood	30	49	25	39	64	61	22	3	138
Hampton	90	460	83	68	151	45	61	21	693
Horry	69	122	42	52	94	55	81	58	355
Jasper	16	129	14	0	14	0	6	0	149
Kershaw	2	0	0	3	3	100	0	0	3
Lancaster	5	33	8	8	16	50	5	0	54
Laurens	20	39	11	13	24	54	16	14	93
Lee	0	0	0	0	0		0	0	0
Lexington	2	0	0	8	8	100	3	0	11
McCormick	15	30	10	11	21	52	6	0	57
Marion	22	21	7	13	20	65	34	2	77
Marlboro	0	0	0	0	0		0	0	0
Newberry	44	120	24	53	77	69	36	21	254
Oconee	11	10	2	11	13	85	6	1	30
Orangeburg	14	23	5	14	19	74	14	5	61
Pickens	52	196	52	49	101	49	35	18	350
Richland	7	13	6	14	20	70	0	2	35
Saluda	12	35	7	11	18	61	12	11	76
Spartanburg	51	99	27	58	85	68	37	22	243
Sumter	18	75	18	17	35	49	38	2	150
Union	84	216	51	104	155	67	53	17	441
Williamsburg	61	172	42	71	113	63	70	8	363
York	20	61	16	26	42	62	10	3	116
State Total	1,422	3,834	983	1,403	2,386	59	1437	424	8,081