



**LOWCOUNTRY WILDLIFE
SPECIALISTS, LLC**
Innovative Solutions to Urban Wildlife Problems

December 13, 2019

Ms. Heather Paton
Seabrook Island POA
1202 Landfall Way
Seabrook Island, SC 29455

RE: 2019 Deer Spotlight Surveys

Dear Ms. Paton:

Thank you for the opportunity to conduct spotlight surveys on Seabrook Island this year. Spotlight surveys were conducted September 23-25 and October 28-30, 2019. The route used for the spotlight surveys was 12.1 miles long and identical to the route established in 2000 and used during 2004-2018. The route effectively covered all habitat types present on the island.

During September, we saw a total of 82 deer the first night, 74 deer the second night, and 87 the third night. In October, we recorded 96 deer the first night, 90 the second night, and 73 the third night.

Table 1 and 2 show the mean results of each set of surveys. These tables show how the “acres of visibility” were calculated and used to estimate the density of deer on the island. Additionally, the ratio of does per buck, fawns per doe, and herd increment are also included.

The September surveys estimated that there are 142 deer per square mile (deer/mi²) on Seabrook Island. This density is lower than the September 2017 surveys (173 deer/mi²) but higher than the September 2018 survey (119 deer/mi²). In comparison, the October surveys estimated 151 deer/mi², which is slightly above the 2 prior sets of winter surveys (129 deer/mi² in November 2017 and 137 deer/mi² in November 2018). Figure 1 provides a graphical display of deer densities from each of the 32 surveys conducted on Seabrook Island.

Data from spotlight surveys was also used to calculate an approximate number of deer on Seabrook Island. This estimate is best used to give managers a “general idea” of the number of deer on the island. The September 2019 surveys estimate that there are 412 deer on the island, while the October surveys estimate 438 deer. Figures 2 (fall) and 3 (winter) provide a graphical display of population estimates from all spotlight surveys by season conducted on Seabrook Island and includes harvest data.



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Table 3 shows important population data from each of the 32 surveys conducted on Seabrook Island. The September 2019 survey yielded a fawn/doe ratio of 0.46, up from 0.36 last year and slightly above the long-term average. In comparison, the October 2019 survey produced a fawn/doe ratio of 0.59 which is almost identical to last winter's estimate of 0.57 and very close to the long-term winter average. The doe to buck ratio was estimated to be 1.1 in September and 1.3 in December. These ratios continue to reflect the focus of harvest efforts on female deer.

Figures 4-6 show the locations of all deer seen on each survey night in September and Figure 7 combines the daily data into a composite map of all deer locations. Figures 8-11 provide the same level of detail for the October surveys. As always, this information will continue to be helpful in determining specific areas on which to concentrate during future deer harvest efforts.

The Seabrook Island deer management program was initiated in December 2007. A total of 551 deer have been harvested over the last 12 years, including 426 females (77% of the harvest). The most recent harvest consisted of 35 deer in January 2019.

If you have any questions about anything, please do not hesitate to call me. I look forward to working with you in the future.

Sincerely,

Jim Jordan
Wildlife Biologist
Lowcountry Wildlife Specialists, LLC
843-670-1533



Table 1

**Results from deer spotlight surveys conducted on Seabrook Island, South Carolina,
September 23, 24 and 25, 2019**

1. Length of line in miles	12.1
2. Length of line in yards (# miles x 1,760 yards)	21296
3. Number of visibility stations (include .0 station)	120
4. Grand total of all visibilities	9965
5. Average visibility per station (yards visible/# stations)	83.04
6. Square yards in line (length of line in yards x average visibility per station)	1,768,455.33
7. Acres of visibility (Square yards in line/4,840 yards in an acre)	365.38

Bucks	Does	Fawns	Unidentified	Total Observed	Acres of Visibility	Acres per deer	Deer per square mile
25.0	28.3	13.0	14.7	81.0	365.38	4.51	142

Does Per Buck (does/bucks)	1.13
Fawns Per Doe (fawns/does)	0.46
Herd Increment (fawns/bucks + does)	0.24
Percent Identified (100 - unidentified/total)	82.9
Spotters	J. Jordan, A. Given
Observer (with binoculars)	J. Jordan
Recorder	J. Jordan
Drivers	M. Hill, J. Wilson



Table 2

**Results from deer spotlight surveys conducted on Seabrook Island, South Carolina,
October 28, 29 and 30, 2019**

1. Length of line in miles	12.1
2. Length of line in yards (# miles x 1,760 yards)	21296
3. Number of visibility stations (include .0 station)	120
4. Grand total of all visibilities	9965
5. Average visibility per station (yards visible/# stations)	83.04
6. Square yards in line (length of line in yards x average visibility per station)	1,768,455.33
7. Acres of visibility (Square yards in line/4,840 yards in an acre)	365.38

Bucks	Does	Fawns	Unidentified	Total Observed	Acres of Visibility	Acres per deer	Deer per square mile
24.3	31.3	18.3	12.3	86.3	365.38	4.23	151

Does Per Buck (does/bucks)	1.29
Fawns Per Doe (fawns/does)	0.59
Herd Increment (fawns/bucks + does)	0.33
Percent Identified (100 - unidentified/total)	85.7
Spotters	J. Jordan, A. Given
Observer (with binoculars)	J. Jordan
Recorder	J. Jordan
Drivers	M. Hill, J. Wilson

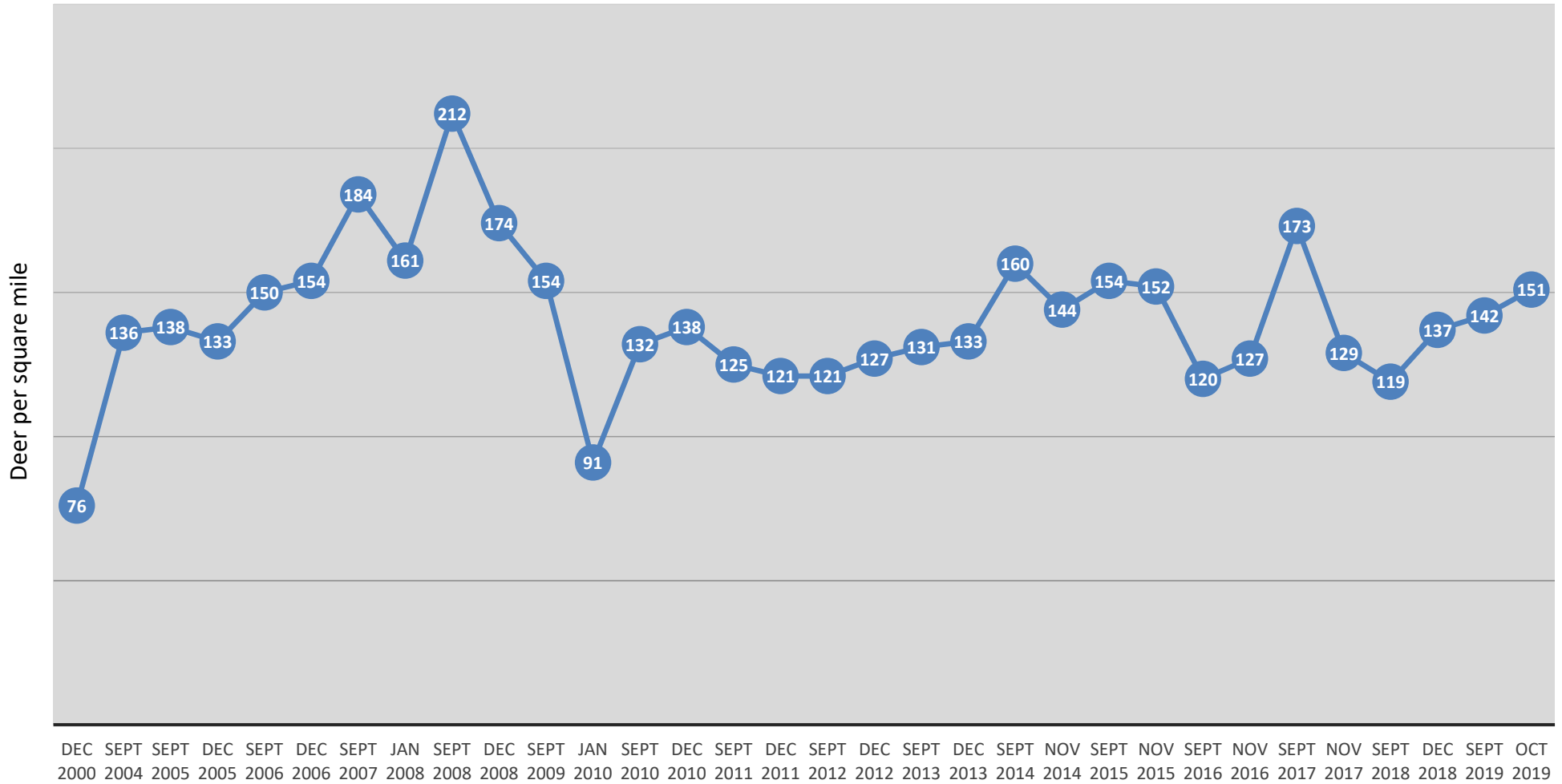


Figure 1. Estimated deer density on Seabrook Island from 32 sets of spotlight surveys conducted 2000-2019.

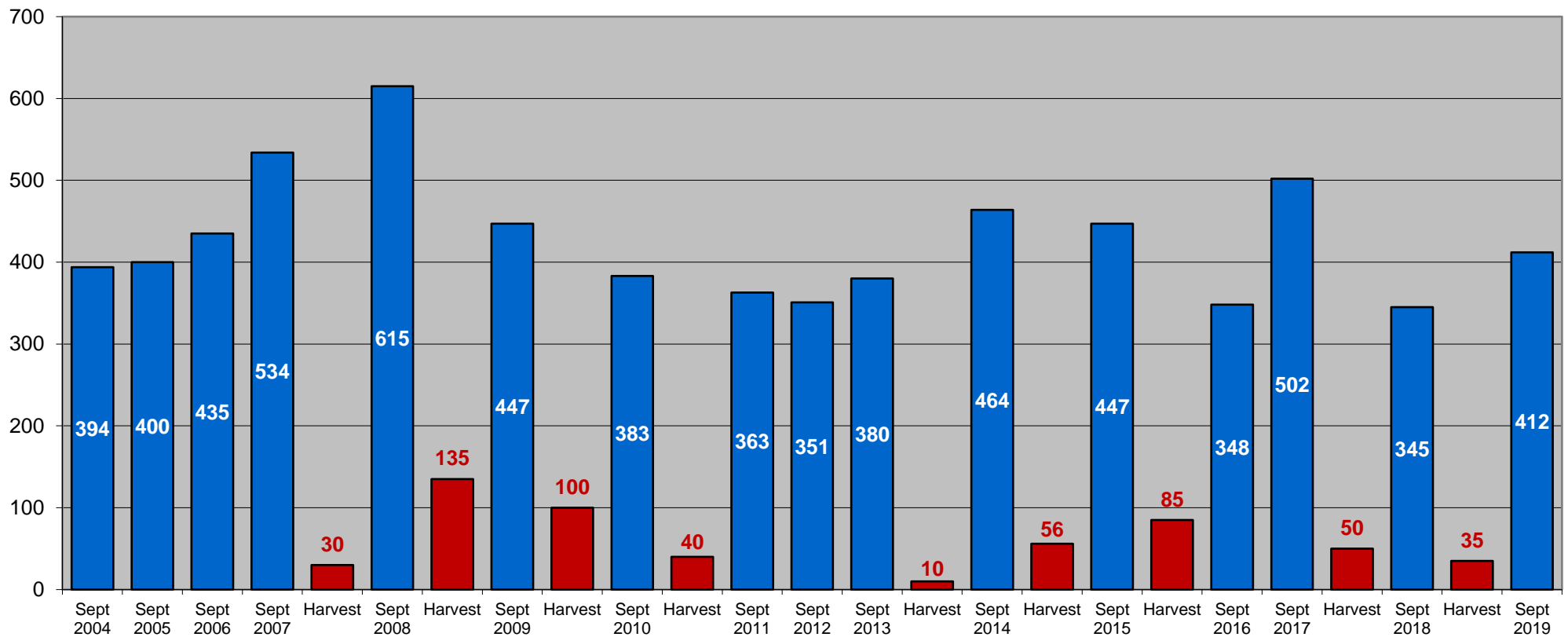


Figure 2. Estimated number of deer on Seabrook Island from 16 sets of fall spotlight surveys conducted 2004-2019 including deer harvest numbers.

*This figure is intended for informational purposes only and is not an actual census of deer numbers.

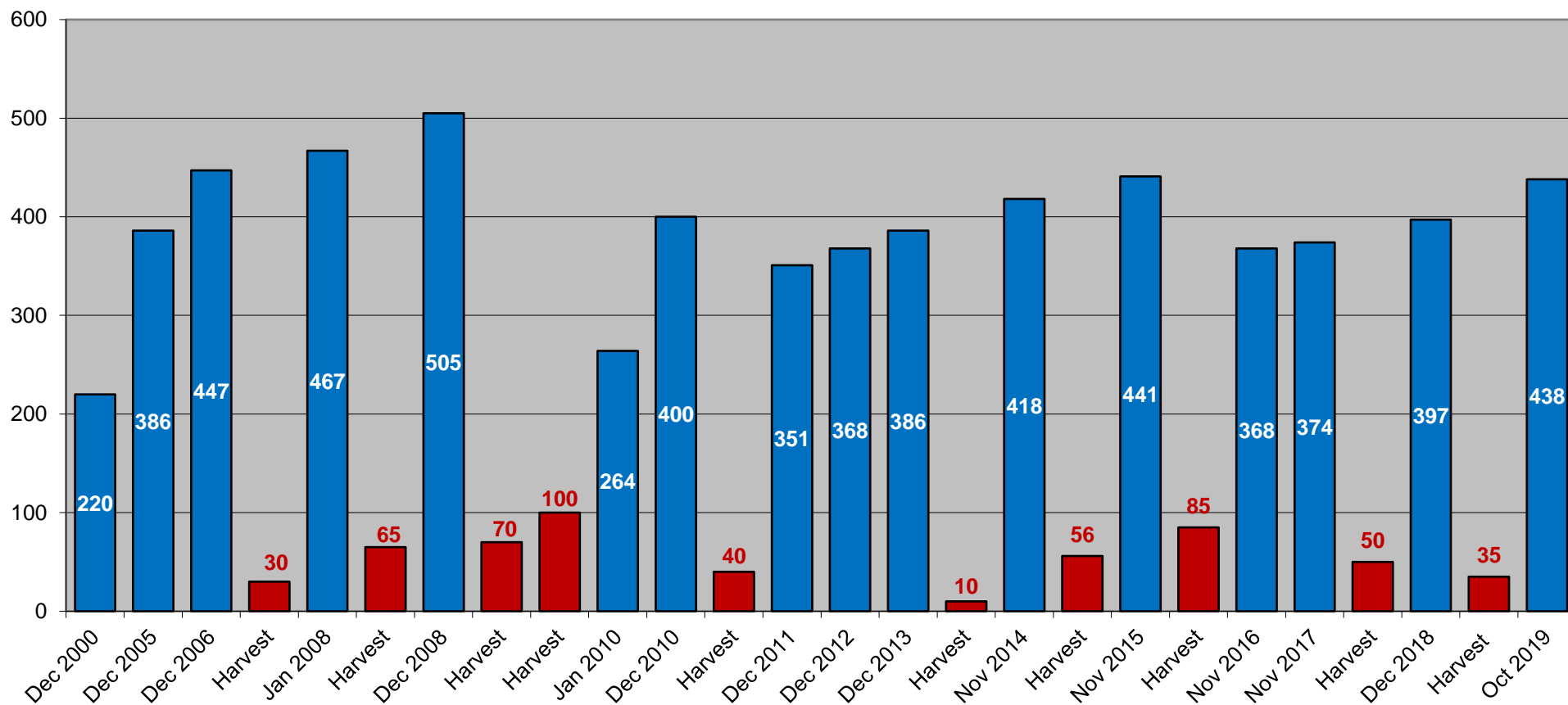


Figure 3. Estimated number of deer on Seabrook Island from 16 sets of winter spotlight surveys conducted 2000-2019 including deer harvest numbers.

*This figure is intended for informational purposes only and is not an actual census of deer numbers.



Table 3. Deer Population Parameters from 32 spotlight surveys conducted on Seabrook Island, South Carolina, 2000-2019.

Date	Fawn/doe	Does/buck	Herd Increment	Density
Dec 2000	0.46	3.7	0.37	76
Sept 2004	0.30	4.4	0.24	136
Sept 2005	0.37	3.8	0.29	138
Dec 2005	0.32	4.8	0.27	133
Sept 2006	0.41	4.8	0.34	150
Dec 2006	0.55	9.3	0.50	154
Sept 2007	0.29	2.1	0.20	184
Jan 2008	0.56	2.1	0.40	161
Sept 2008	0.57	2.7	0.41	212
Dec 2008	0.78	2.3	0.55	174
Sept 2009	0.26	1.7	0.16	154
Jan 2010	0.44	2.3	0.31	91
Sept 2010	0.44	2.2	0.30	132
Dec 2010	0.87	3.8	0.69	138
Sept 2011	0.44	1.9	0.29	125
Dec 2011	0.53	2.5	0.37	121
Sept 2012	0.25	2.2	0.17	121
Dec 2012	0.55	2.4	0.39	127
Sept 2013	0.31	2.4	0.21	131
Dec 2013	0.34	2.6	0.24	133
Sept 2014	0.68	2.2	0.47	160
Nov 2014	0.65	2.8	0.49	144
Sept 2015	0.44	2.3	0.31	154
Nov 2015	0.51	2.2	0.35	152
Sept 2016	0.45	0.9	0.22	120
Nov 2016	0.53	2.1	0.36	127
Sept 2017	0.53	1.2	0.29	173
Nov 2017	0.52	2.0	0.34	129
Sept 2018	0.36	1.5	0.21	119
Dec 2018	0.57	2.0	0.45	137
Sept 2019	0.46	1.1	0.24	142
Oct 2019	0.59	1.3	0.33	151

Figure 4. Map of Seabrook Island showing the location of all deer seen during September 23, 2019 deer survey (Yellow line indicates survey route).



Figure 6. Map of Seabrook Island showing the location of all deer seen during September 25, 2019 deer survey (Yellow line indicates survey route).



Figure 7. Map of Seabrook Island showing the location of all deer seen during all 3 nights of the September 2019 deer survey (Yellow line indicates survey route).



Figure 8. Map of Seabrook Island showing the location of all deer seen during the October 28, 2019 deer survey (Yellow line indicates survey route).



Figure 9. Map of Seabrook Island showing the location of all deer seen during the October 29, 2019 deer survey (Yellow line indicates survey route).



Figure 11. Map of Seabrook Island showing the location of all deer seen during all 3 nights of the October 2019 deer survey (Yellow line indicates survey route).

