

Table 1. Observations of selected animals (per 100 hours hunting) by cooperating archery hunters from 6 October to 16 November 2018 statewide, east (EBR) and west (WBR) of the Blue Ridge Mountains, and on private and public lands in Virginia.

Animal	Total	<u>Animals Seen/100 hrs. ± SE</u>				
	Seen	State	EBR	WBR	Private	Public Land
Deer (antlered)	1,863	16.83 ± 1.27	16.47 ± 1.44	17.49 ± 2.44	17.99 ± 1.36	5.89 ± 1.13
Deer (doe)	4,212	38.04 ± 5.39	31.11 ± 2.46	50.99 ± 14.45	40.14 ± 5.93	18.33 ± 2.95
Deer (fawn)	1,443	13.03 ± 1.24	12.82 ± 1.56	13.42 ± 2.02	13.99 ± 1.35	4.02 ± 1.59
Deer (unknown)	1,099	9.92 ± 0.95	9.84 ± 1.20	10.08 ± 1.53	10.60 ± 1.03	3.65 ± 1.17
Gray Squirrel	9,991	90.22 ± 4.53	99.71 ± 6.37	72.50 ± 4.62	91.90 ± 4.92	74.52 ± 9.85
Fox Squirrel	592	5.35 ± 1.07	0.83 ± 0.37	13.79 ± 2.56	5.58 ± 1.18	3.18 ± 1.15
Turkey (bearded)	393	3.55 ± 0.57	3.02 ± 0.53	4.53 ± 1.27	3.78 ± 0.61	1.40 ± 0.86
Turkey (no beard)	1,151	10.39 ± 1.66	11.17 ± 2.08	8.94 ± 2.77	11.20 ± 1.80	2.90 ± 1.28
Turkey (unknown)	678	6.12 ± 0.84	6.97 ± 1.18	4.53 ± 0.95	6.38 ± 0.92	3.74 ± 1.46
Turkey (total)	2,222	20.07 ± 2.35	21.17 ± 2.80	18.01 ± 4.30	21.35 ± 2.55	8.04 ± 2.21
Grouse	17	0.15 ± 0.08	0.01 ± 0.01	0.41 ± 0.21	0.09 ± 0.05	0.75 ± 0.66
Bear (adult)	102	0.92 ± 0.16	0.72 ± 0.18	1.30 ± 0.29	0.90 ± 0.17	1.12 ± 0.31
Bear (cub)	55	0.50 ± 0.13	0.47 ± 0.18	0.54 ± 0.14	0.47 ± 0.14	0.75 ± 0.30
Bear (total)	157	1.42 ± 0.25	1.19 ± 0.34	1.84 ± 0.34	1.37 ± 0.27	1.87 ± 0.52
Red Fox	110	0.99 ± 0.19	1.30 ± 0.29	0.41 ± 0.14	1.07 ± 0.21	0.28 ± 0.15
Gray Fox	22	0.20 ± 0.05	0.22 ± 0.07	0.16 ± 0.07	0.19 ± 0.05	0.28 ± 0.21
Coyote	113	1.02 ± 0.22	0.96 ± 0.27	1.14 ± 0.38	1.01 ± 0.23	1.12 ± 0.69
Bobcat	12	0.11 ± 0.04	0.12 ± 0.05	0.08 ± 0.04	0.11 ± 0.04	0.09 ± 0.09
Raccoon	124	1.12 ± 0.17	1.19 ± 0.22	0.98 ± 0.25	1.19 ± 0.18	0.47 ± 0.28
Opossum	22	0.20 ± 0.05	0.24 ± 0.07	0.13 ± 0.07	0.21 ± 0.06	0.09 ± 0.09
Striped Skunk	14	0.13 ± 0.05	0.11 ± 0.05	0.16 ± 0.13	0.14 ± 0.06	0.00 ± 0.00
Elk	0	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Feral Hog	0	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Dog	102	0.92 ± 0.31	0.78 ± 0.21	1.19 ± 0.80	0.70 ± 0.18	2.99 ± 2.76
House Cat	93	0.84 ± 0.19	0.54 ± 0.14	1.40 ± 0.48	0.79 ± 0.17	1.31 ± 1.10
Hunter	272	2.46 ± 0.51	1.98 ± 0.55	3.34 ± 0.97	2.06 ± 0.48	6.17 ± 2.52
Total Hunters		230	154	92	217	37
Total Hunts		2,606	1,722	884	2,392	214
Total Hours		11,074	7,214	3,859	10,004	1,070
Avg. Hrs. Per Hunt		4.25 ± 0.05	4.19 ± 0.06	4.37 ± 0.08	4.18 ± 0.05	5.00 ± 0.16

Table 2. Observations of selected animals (per 100 hours hunting) by cooperating archery hunters from 6 October to 16 November 2018 on private and public lands east (EBR) and west (WBR) of the Blue Ridge Mountains in Virginia.

Animal	<u>Animals Seen/100 hrs. ± SE</u>			
	EBR		WBR	
	Private Land	Public Land	Private Land	Public Land
Deer (antlered)	17.16 ± 1.50	6.56 ± 1.92	19.71 ± 2.78	5.36 ± 1.47
Deer (doe)	32.22 ± 2.60	15.24 ± 4.59	56.53 ± 16.95	20.77 ± 3.68
Deer (fawn)	13.50 ± 1.65	3.18 ± 2.18	15.02 ± 2.31	4.69 ± 2.24
Deer (unknown)	10.37 ± 1.26	2.33 ± 0.98	11.07 ± 1.75	4.69 ± 1.82
Gray Squirrel	100.97 ± 6.73	81.69 ± 18.52	73.17 ± 5.20	68.84 ± 9.35
Fox Squirrel	0.89 ± 0.39	0.00 ± 0.00	15.27 ± 2.97	5.70 ± 1.83
Turkey (bearded)	3.17 ± 0.56	0.85 ± 0.60	5.03 ± 1.45	1.84 ± 1.48
Turkey (no beard)	11.75 ± 2.19	2.96 ± 2.55	10.05 ± 3.21	2.85 ± 1.21
Turkey (unknown)	7.25 ± 1.25	2.97 ± 2.20	4.57 ± 1.07	4.36 ± 1.92
Turkey (total)	22.18 ± 2.93	6.77 ± 3.72	19.65 ± 5.00	9.05 ± 2.63
Grouse	0.01 ± 0.01	0.00 ± 0.00	0.25 ± 0.13	1.34 ± 1.16
Bear (adult)	0.73 ± 0.19	0.63 ± 0.49	1.26 ± 0.33	1.51 ± 0.40
Bear (cub)	0.46 ± 0.19	0.63 ± 0.49	0.49 ± 0.15	0.84 ± 0.39
Bear (total)	1.19 ± 0.36	1.27 ± 0.92	1.75 ± 0.39	2.35 ± 0.62
Red Fox	1.38 ± 0.30	0.21 ± 0.21	0.43 ± 0.15	0.34 ± 0.21
Gray Fox	0.21 ± 0.07	0.42 ± 0.44	0.15 ± 0.08	0.17 ± 0.16
Coyote	1.01 ± 0.29	0.21 ± 0.23	1.01 ± 0.39	1.84 ± 1.16
Bobcat	0.13 ± 0.05	0.00 ± 0.00	0.06 ± 0.04	0.17 ± 0.16
Raccoon	1.25 ± 0.23	0.42 ± 0.44	1.07 ± 0.28	0.50 ± 0.38
Opossum	0.24 ± 0.08	0.21 ± 0.22	0.15 ± 0.08	0.00 ± 0.00
Striped Skunk	0.12 ± 0.05	0.00 ± 0.00	0.18 ± 0.01	0.00 ± 0.00
Elk	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Feral Hog	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Dog	0.83 ± 0.22	0.00 ± 0.00	0.43 ± 0.26	5.36 ± 4.79
House Cat	0.56 ± 0.15	0.21 ± 0.21	1.26 ± 0.44	2.18 ± 1.91
Hunter	1.66 ± 0.50	6.56 ± 4.16	2.88 ± 0.97	5.86 ± 3.19
Total Hunters	148	13	80	26
Total Hunts	1,626	96	766	118
Total Hours	6,742	473	3,262	597
Avg. Hrs. Per Hunt	4.15 ± 0.06	4.92 ± 0.25	4.26 ± 0.08	5.06 ± 0.19

Table 3. Observations of selected animals (per 100 hours hunting) by cooperating archery hunters from 6 October to 16 November 2018 within geographic regions of Virginia.

Animal	<u>Animals Seen/ 100 hrs. ± SE</u>				
	Tidewater	S. Piedmont	N. Piedmont	S. Mountain	N. Mountain
Deer (antlered)	15.80 ± 2.08	13.55 ± 2.60	20.17 ± 2.57	18.50 ± 4.05	16.52 ± 2.79
Deer (doe)	24.06 ± 2.66	29.42 ± 4.05	40.22 ± 5.39	62.61 ± 28.04	39.76 ± 7.82
Deer (fawn)	9.89 ± 2.55	11.35 ± 2.49	17.40 ± 2.93	13.33 ± 3.33	13.51 ± 2.37
Deer (unknown)	8.96 ± 2.33	7.83 ± 1.60	12.84 ± 2.13	9.86 ± 2.55	10.30 ± 1.77
Gray Squirrel	72.96 ± 6.38	81.13 ± 9.03	146.84 ± 12.92	64.19 ± 6.53	80.54 ± 6.16
Fox Squirrel	0.00 ± 0.00	0.58 ± 0.27	1.96 ± 1.07	12.81 ± 3.54	14.73 ± 3.76
Turkey (bearded)	3.50 ± 1.06	2.57 ± 0.78	2.99 ± 0.77	7.22 ± 2.20	1.94 ± 1.11
Turkey (no beard)	16.61 ± 4.41	9.74 ± 2.74	6.95 ± 2.59	14.49 ± 5.17	3.57 ± 0.97
Turkey (unknown)	7.82 ± 1.67	6.67 ± 2.26	6.40 ± 2.21	6.22 ± 1.60	2.91 ± 0.97
Turkey (total)	27.93 ± 5.69	18.98 ± 4.10	16.33 ± 3.73	27.93 ± 7.92	8.41 ± 1.89
Grouse	0.00 ± 0.00	0.04 ± 0.04	0.00 ± 0.00	0.53 ± 0.38	0.31 ± 0.20
Bear (adult)	0.08 ± 0.08	0.70 ± 0.22	1.41 ± 0.49	1.05 ± 0.32	1.53 ± 0.47
Bear (cub)	0.08 ± 0.08	0.29 ± 0.16	1.07 ± 0.51	0.58 ± 0.20	0.51 ± 0.19
Bear (total)	0.16 ± 0.16	0.99 ± 0.35	2.47 ± 0.92	1.63 ± 0.45	2.04 ± 0.50
Red Fox	0.45 ± 0.16	0.58 ± 0.28	2.94 ± 0.76	0.16 ± 0.11	0.66 ± 0.23
Gray Fox	0.24 ± 0.11	0.21 ± 0.15	0.21 ± 0.11	0.16 ± 0.09	0.15 ± 0.12
Coyote	1.02 ± 0.45	1.20 ± 0.40	0.64 ± 0.35	1.53 ± 0.63	0.76 ± 0.43
Bobcat	0.08 ± 0.06	0.21 ± 0.12	0.09 ± 0.06	0.05 ± 0.05	0.10 ± 0.07
Raccoon	1.71 ± 0.42	0.58 ± 0.23	1.28 ± 0.40	0.74 ± 0.26	1.22 ± 0.41
Opossum	0.33 ± 0.12	0.21 ± 0.13	0.17 ± 0.13	0.16 ± 0.11	0.10 ± 0.07
Striped Skunk	0.08 ± 0.05	0.17 ± 0.10	0.09 ± 0.08	0.32 ± 0.24	0.00 ± 0.00
Elk	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Feral Hog	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Dog	0.57 ± 0.21	0.99 ± 0.52	0.77 ± 0.29	2.37 ± 1.63	0.05 ± 0.05
House Cat	0.33 ± 0.12	0.58 ± 0.21	0.73 ± 0.34	1.69 ± 0.70	1.12 ± 0.67
Hunter	2.65 ± 1.06	1.12 ± 0.42	2.18 ± 0.97	3.85 ± 1.36	2.85 ± 1.37
Total Hunters	51	58	66	44	49
Total Hunts	553	554	615	392	492
Total Hours	2,456	2,414	2,345	1,898	1,962
Avg. Hrs. Per Hunt	4.44 ± 0.09	4.36 ± 0.11	3.81 ± 0.09	4.84 ± 0.12	3.99 ± 0.09

Table 4. Observations of selected animals (per 100 hours hunting) by cooperating archery hunters by week from 6 October to 16 November 2018 in Virginia.

Animal	<u>Animals Seen/100 hrs. + SE</u>						
	Day 1 (10/4)	Week 1 (10/5-11)	Week 2 (10/12-18)	Week 3 (10/19-25)	Week 4 (10/26-11/1)	Week 5 (11/2-8)	Week 6 (11/9-14)
Deer (antlered)	11.44 ± 1.98	13.24 ± 1.79	15.14 ± 1.50	21.11 ± 2.27	16.72 ± 1.84	18.81 ± 1.74	19.42 ± 2.43
Deer (doe)	23.67 ± 2.86	32.49 ± 3.72	35.43 ± 3.74	45.77 ± 5.86	40.78 ± 8.78	38.73 ± 10.31	43.44 ± 10.92
Deer (fawn)	10.24 ± 1.60	11.71 ± 1.50	14.28 ± 1.92	17.56 ± 2.58	12.87 ± 1.92	10.44 ± 1.85	12.89 ± 2.01
Deer (unknown)	8.51 ± 1.88	9.03 ± 1.37	11.97 ± 1.89	11.91 ± 1.73	8.49 ± 1.17	9.96 ± 1.69	8.45 ± 1.58
Gray Squirrel	95.75 ± 6.99	91.07 ± 5.65	99.84 ± 6.11	105.13 ± 7.30	88.94 ± 6.49	81.30 ± 7.09	65.79 ± 7.50
Fox Squirrel	7.31 ± 2.07	7.44 ± 2.54	4.19 ± 1.09	7.10 ± 1.87	3.90 ± 0.84	5.17 ± 1.49	2.85 ± 0.95
Turkey (bearded)	2.79 ± 1.27	2.84 ± 0.83	2.15 ± 0.58	3.43 ± 0.88	3.90 ± 1.04	4.74 ± 1.49	5.02 ± 1.93
Turkey (no beard)	9.97 ± 3.33	9.74 ± 2.49	7.35 ± 2.06	10.83 ± 2.85	14.03 ± 3.42	10.18 ± 3.01	10.38 ± 4.04
Turkey (unknown)	7.71 ± 2.16	4.16 ± 1.09	7.89 ± 1.81	5.17 ± 1.68	7.91 ± 1.96	5.33 ± 1.51	5.11 ± 2.55
Turkey (total)	20.48 ± 4.62	16.74 ± 2.99	17.39 ± 2.98	19.43 ± 3.73	25.85 ± 4.40	20.25 ± 4.33	20.51 ± 5.67
Grouse	0.13 ± 0.13	0.16 ± 0.16	0.27 ± 0.22	0.06 ± 0.06	0.21 ± 0.17	0.00 ± 0.00	0.25 ± 0.14
Bear (adult)	1.73 ± 0.52	1.53 ± 0.42	1.18 ± 0.31	0.66 ± 0.24	0.79 ± 0.29	0.43 ± 0.17	0.42 ± 0.18
Bear (cub)	1.20 ± 0.56	0.55 ± 0.23	0.48 ± 0.30	0.12 ± 0.08	0.47 ± 0.20	0.64 ± 0.38	0.03 ± 0.02
Bear (total)	2.93 ± 0.98	2.08 ± 0.50	1.66 ± 0.53	0.78 ± 0.26	1.27 ± 0.45	1.07 ± 0.52	0.75 ± 0.32
Red Fox	0.53 ± 0.26	1.09 ± 0.33	0.70 ± 0.32	0.78 ± 0.36	0.84 ± 0.32	1.39 ± 0.49	1.51 ± 0.48
Gray Fox	0.13 ± 0.13	0.05 ± 0.05	0.38 ± 0.22	0.30 ± 0.16	0.32 ± 0.15	0.11 ± 0.08	0.00 ± 0.00
Coyote	1.06 ± 0.06	0.38 ± 0.16	0.91 ± 0.29	1.92 ± 0.63	1.27 ± 0.41	0.53 ± 0.28	1.26 ± 0.57
Bobcat	0.13 ± 0.13	0.05 ± 0.05	0.16 ± 0.12	0.00 ± 0.00	0.11 ± 0.07	0.21 ± 0.13	0.08 ± 0.08

Table 4 (continued). Observations of selected animals (per 100 hours of hunting) by cooperating archery hunters by week from 6 October to 16 November 2018 in Virginia.

Animal	<u>Animals Seen/100 hrs. + SE</u>						
	Day 1 (10/4)	Week 1 (10/5-11)	Week 2 (10/12-18)	Week 3 (10/19-25)	Week 4 (10/26-11/1)	Week 5 (11/2-8)	Week 6 (11/9-14)
Raccoon	1.33 ± 0.49	1.26 ± 0.33	0.54 ± 0.21	2.35 ± 0.61	1.53 ± 0.39	0.59 ± 0.25	0.17 ± 0.12
Opossum	0.13 ± 0.13	0.22 ± 0.11	0.21 ± 0.11	0.24 ± 0.12	0.16 ± 0.09	0.21 ± 0.10	0.17 ± 0.12
Striped Skunk	0.00 ± 0.00	0.11 ± 0.08	0.05 ± 0.05	0.24 ± 0.19	0.37 ± 0.17	0.00 ± 0.00	0.00 ± 0.00
Elk	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.15 ± 0.01
Feral Hog	0.00 ± 0.00	0.00 ± 0.00	0.03 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00	0.00 ± 0.00
Dog	0.66 ± 0.35	0.61 ± 0.27	1.29 ± 0.63	0.84 ± 0.35	1.27 ± 0.62	0.91 ± 0.31	0.59 ± 0.30
House Cat	0.40 ± 0.23	0.38 ± 0.16	1.02 ± 0.27	1.08 ± 0.40	0.90 ± 0.32	0.91 ± 0.34	1.00 ± 0.38
Hunter	2.79 ± 0.80	2.30 ± 0.62	2.47 ± 0.61	1.98 ± 0.61	2.43 ± 0.73	2.18 ± 0.66	3.60 ± 1.04
Total Hunters	147	177	188	174	176	134	102
Total Hunts	151	419	480	443	456	401	256
Total Hours	752	1,828	1,863	1,663	1,896	1,877	1,195
Avg. Hrs. Per Hunt	4.98 ± 0.20	4.36 ± 0.11	3.88 ± 0.09	3.75 ± 0.09	4.16 ± 0.10	4.68 ± 0.13	4.67 ± 0.16

Table 5. Doe-buck and fawn-doe ratio estimates (a) east and west of the Blue Ridge Mountains, (b) by land ownership, (c) by region, and (d) by week of survey season based on cooperating archery hunter observations in Virginia from 6 October to 16 November 2018.

(a)

Ratio	Statewide	East of BR	West of BR
Doe: Buck	2.26	1.89	2.92
Fawn: Doe	0.34	0.41	0.26

(b)

Ratio	Private	Public
Doe: Buck	2.23	3.11
Fawn: Doe	0.35	0.22

(c)

Ratio	Tidewater	S. Piedmont	N. Piedmont	S. Mountain	N. Mountain
Doe: Buck	1.52	2.17	1.99	3.38	2.41
Fawn: Doe	0.41	0.39	0.43	0.21	0.34

(d)

Ratio	Day 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Doe: Buck	2.07	2.45	2.34	2.17	2.44	2.06	2.24
Fawn: Doe	0.43	0.36	0.40	0.38	0.32	0.27	0.30

Table 6. Statewide total observations and total observations per 100 hunts of miscellaneous animals by cooperating archery hunters 6 October to 16 November 2018 in Virginia.

Animal	Total Observations	Observations / 100 Hunts
Bats	7	0.20
Beaver	1	0.03
Buzzard	2	0.06
Chipmunk	35	1.00
Crow	162	4.61
Doves	100	2.84
Ducks	141	4.01
Eagle	15	0.74
Falcon	1	0.03
Fisher	1	0.03
Flying Squirrels	0	0.00
Geese	695	19.77
Groundhog	17	0.48
Hawk	71	2.02
Herons	4	0.11
Mink	2	0.06
Miscellaneous Birds	51	1.45
Mouse	1	0.03
Muskrat	0	0.00
Nutria	0	0.00
Otter	1	0.09
Owl	28	1.08
Pheasant	0	0.00
Quail	8	0.23
Rabbit	27	0.77
Red Squirrel	0	0.00
Shrew	0	0.00
Sika & Other Deer	0	0.00
Snake	2	0.06
Snipe	1	0.03
Turtles	5	0.14
Weasel	0	0.00
Woodcock	3	0.09

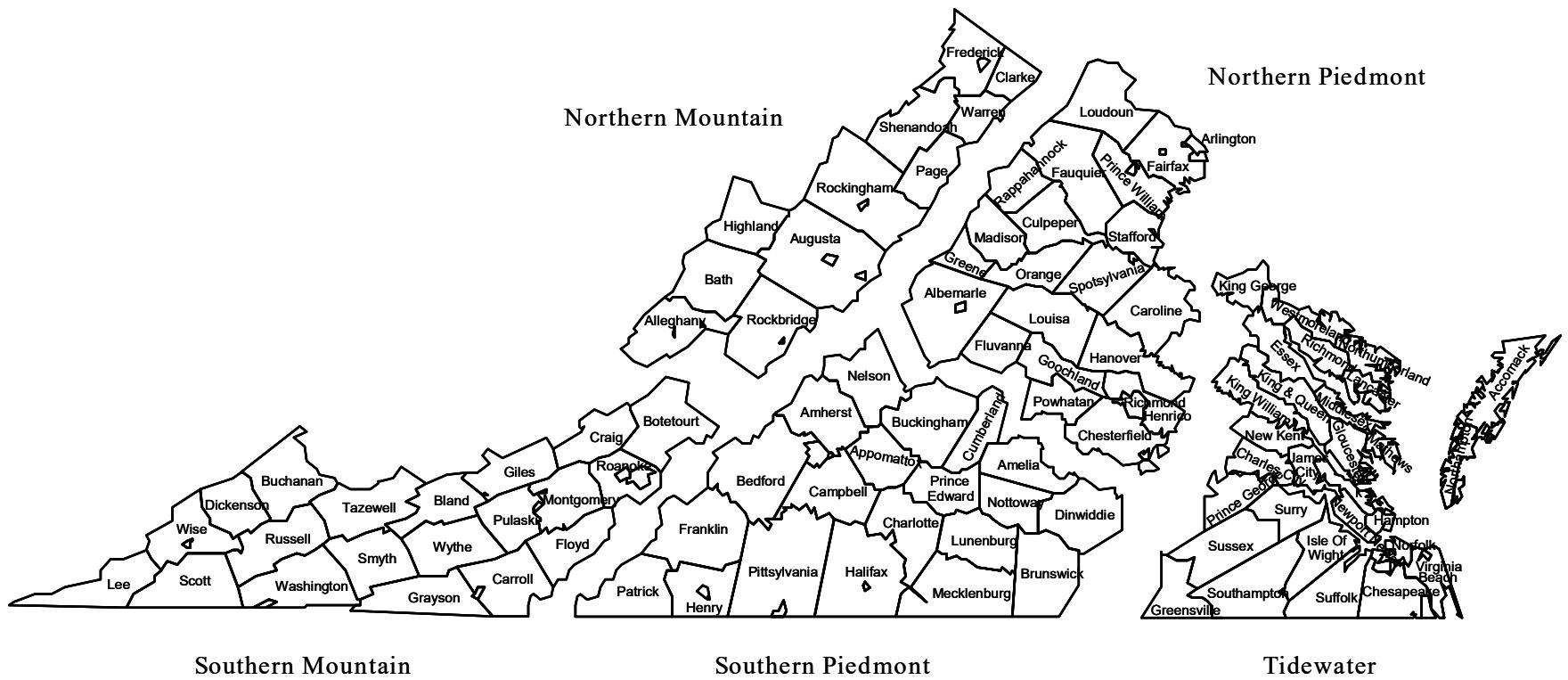


Figure 1. Geographic regions used for analyses in this report.

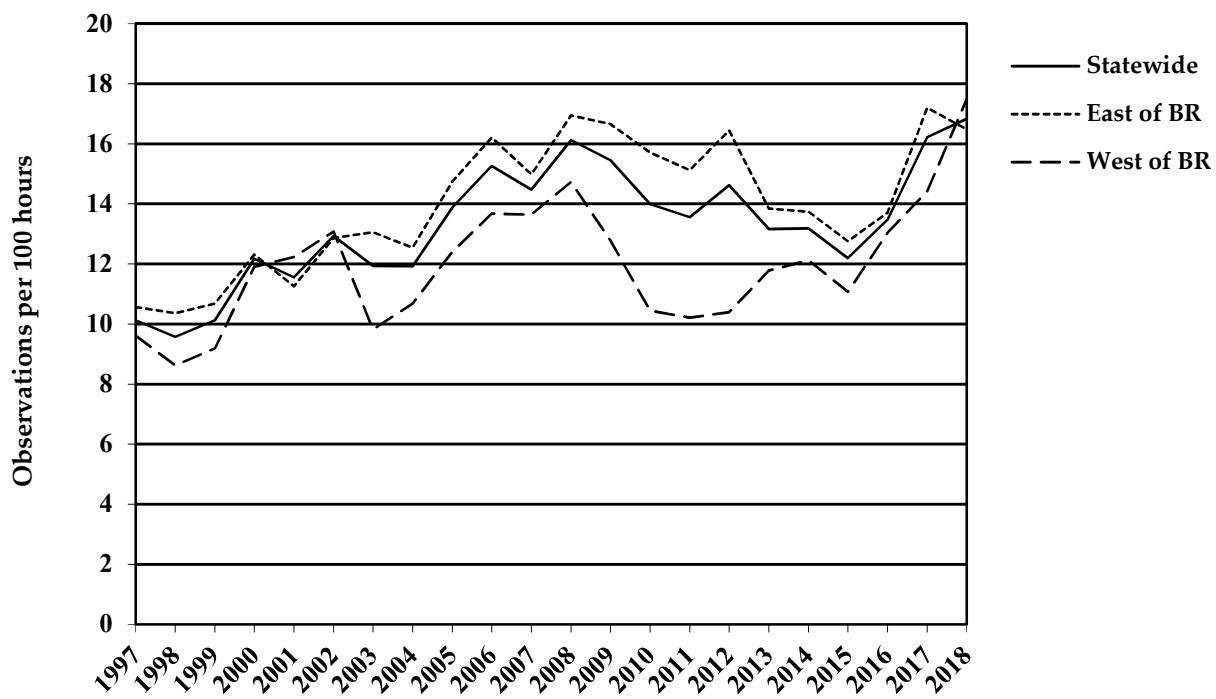


Figure 2. Antlered deer observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

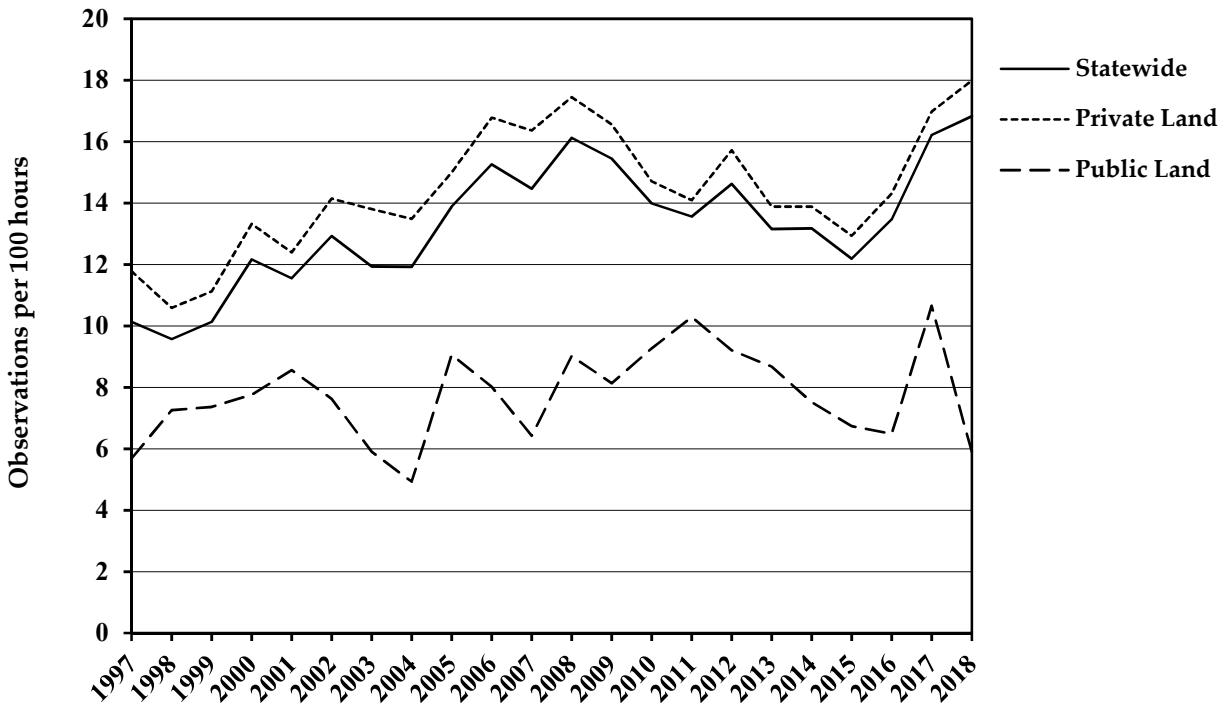


Figure 3. Antlered deer observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

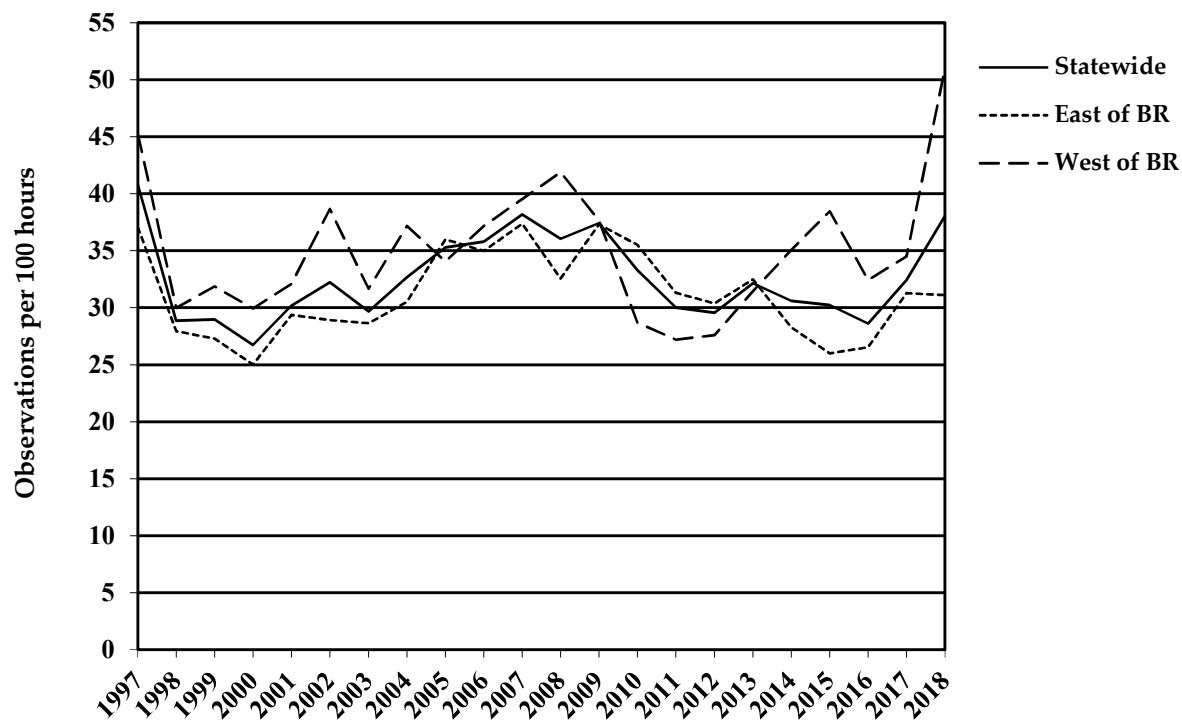


Figure 4. Doe deer observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

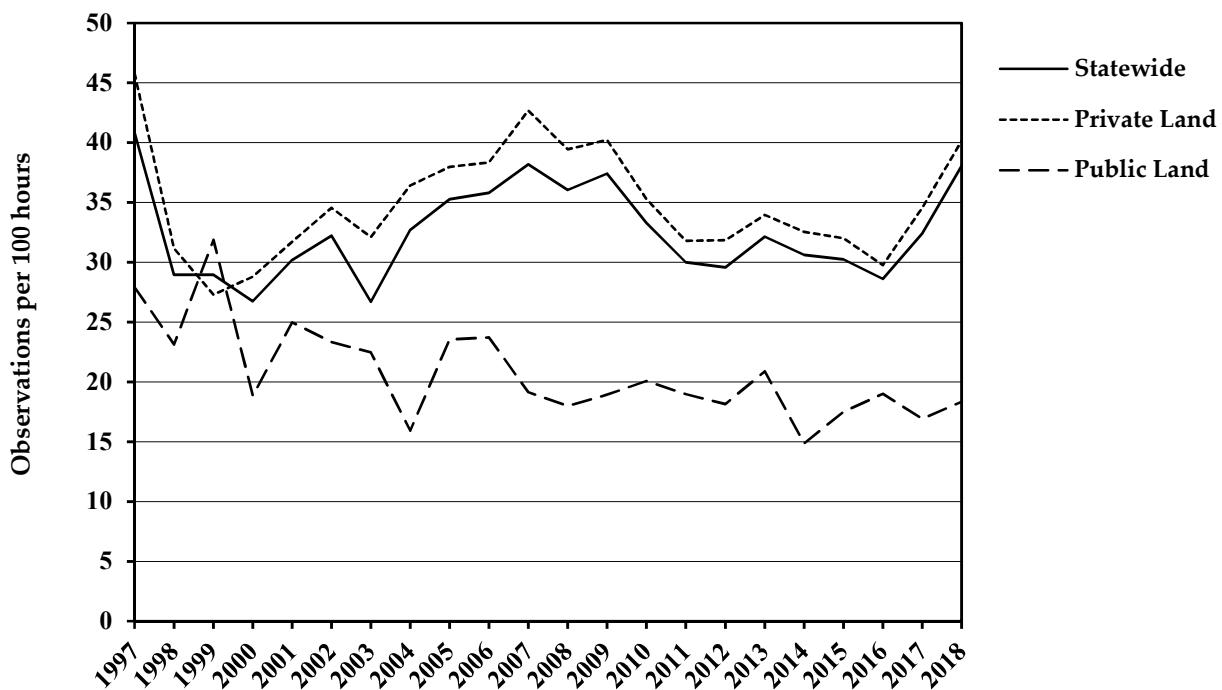


Figure 5. Doe deer observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

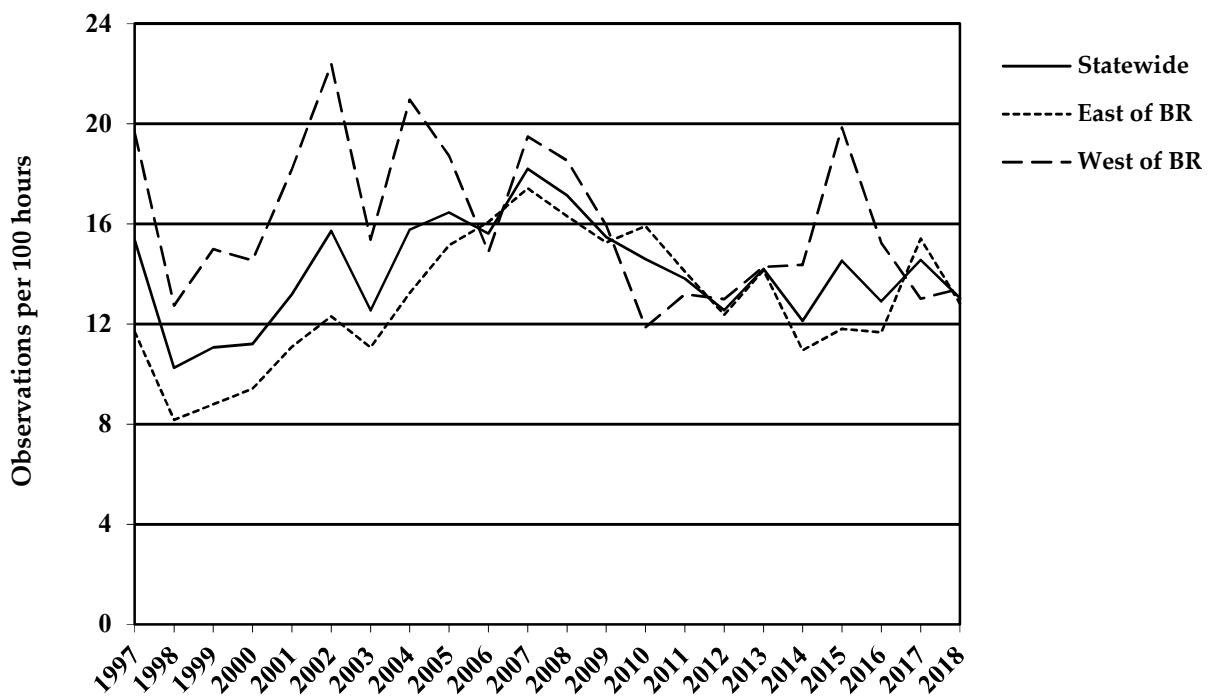


Figure 6. Fawns observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

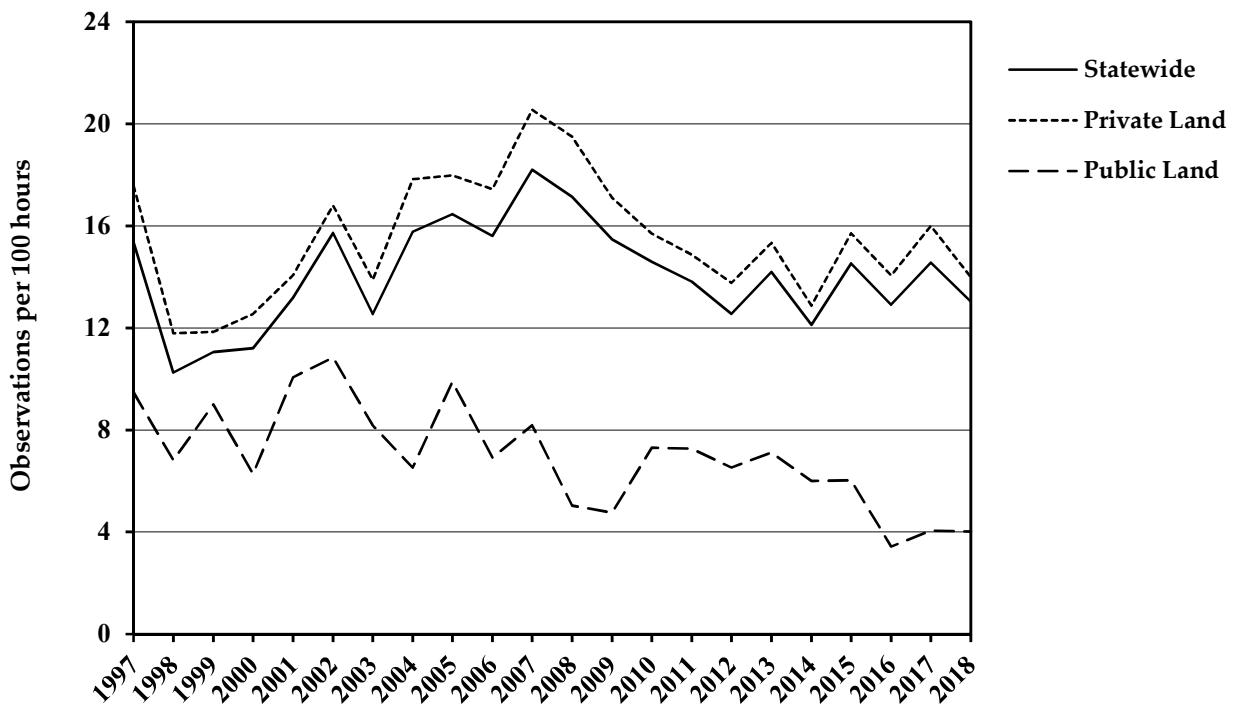


Figure 7. Fawns observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

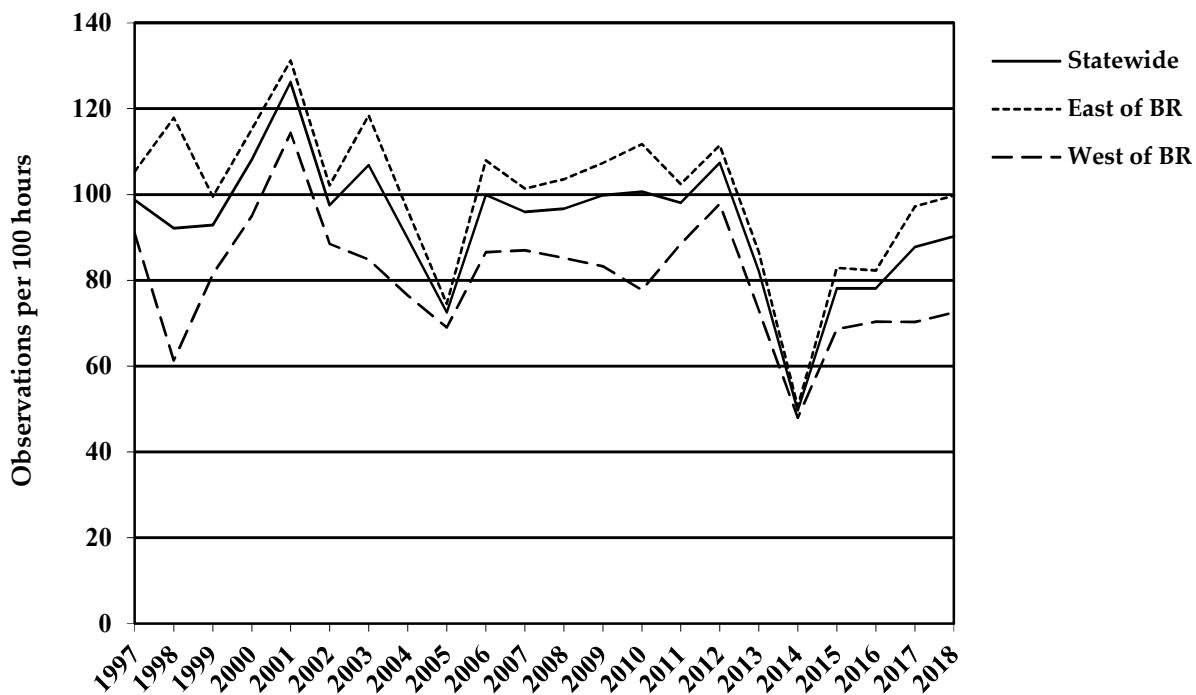


Figure 8. Gray squirrels observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

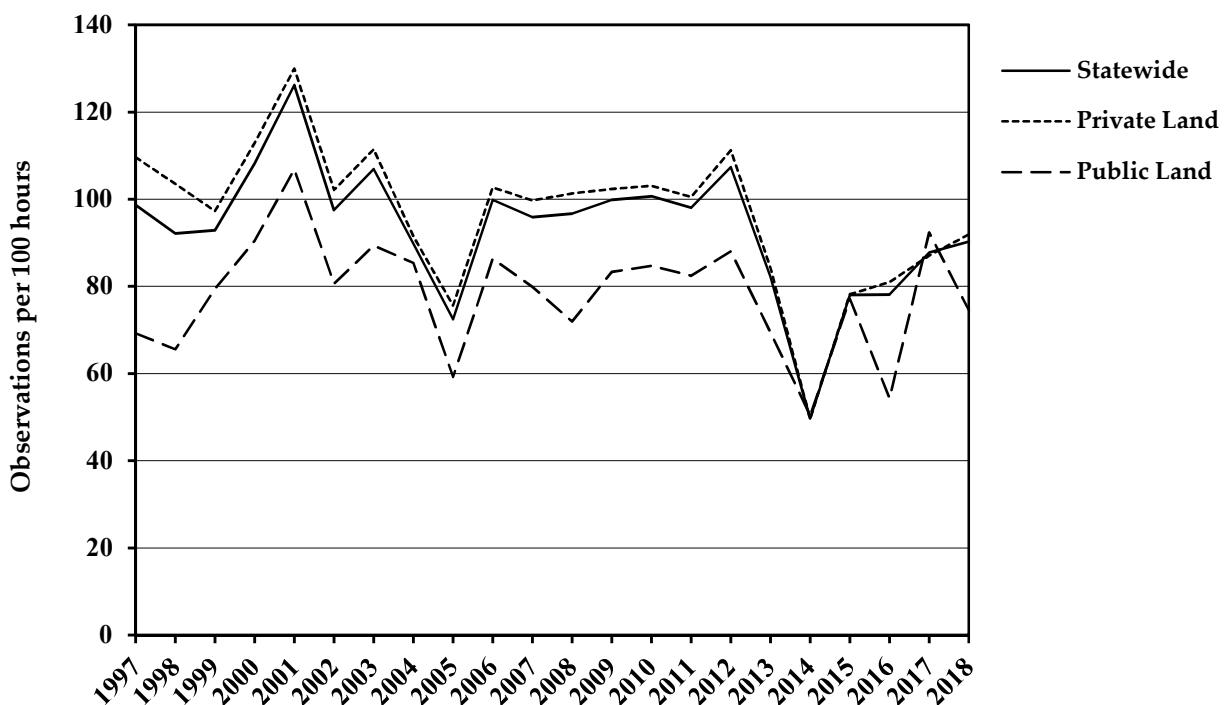


Figure 9. Gray squirrels observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

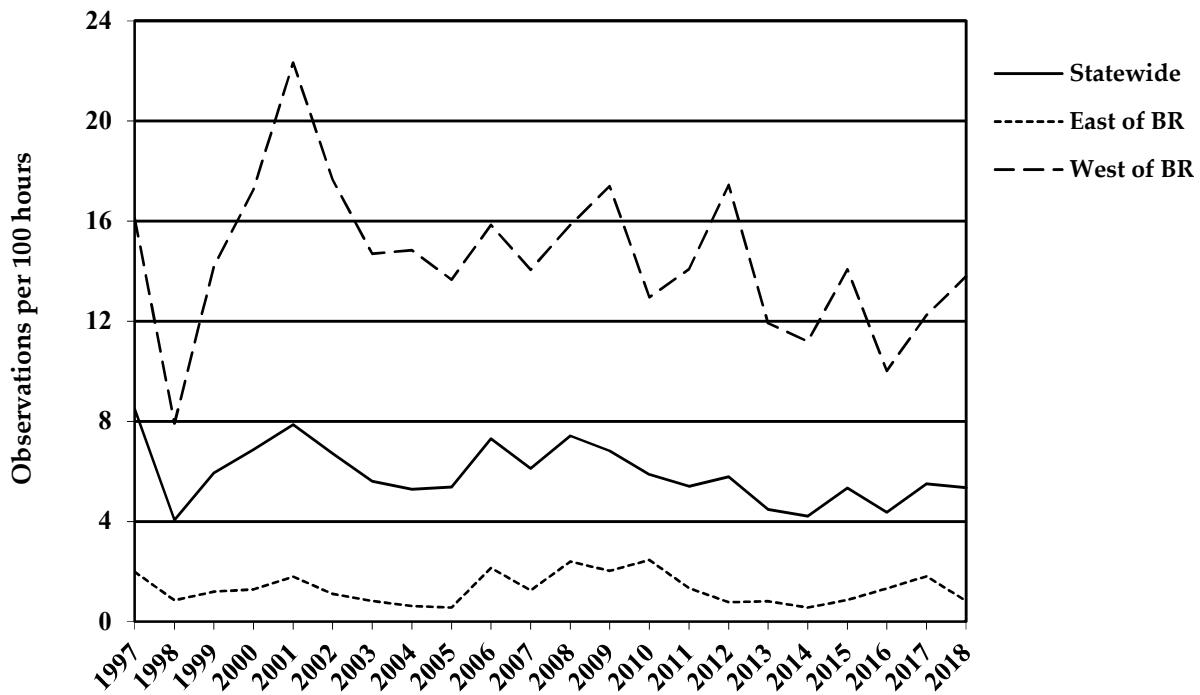


Figure 10. Fox squirrels observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

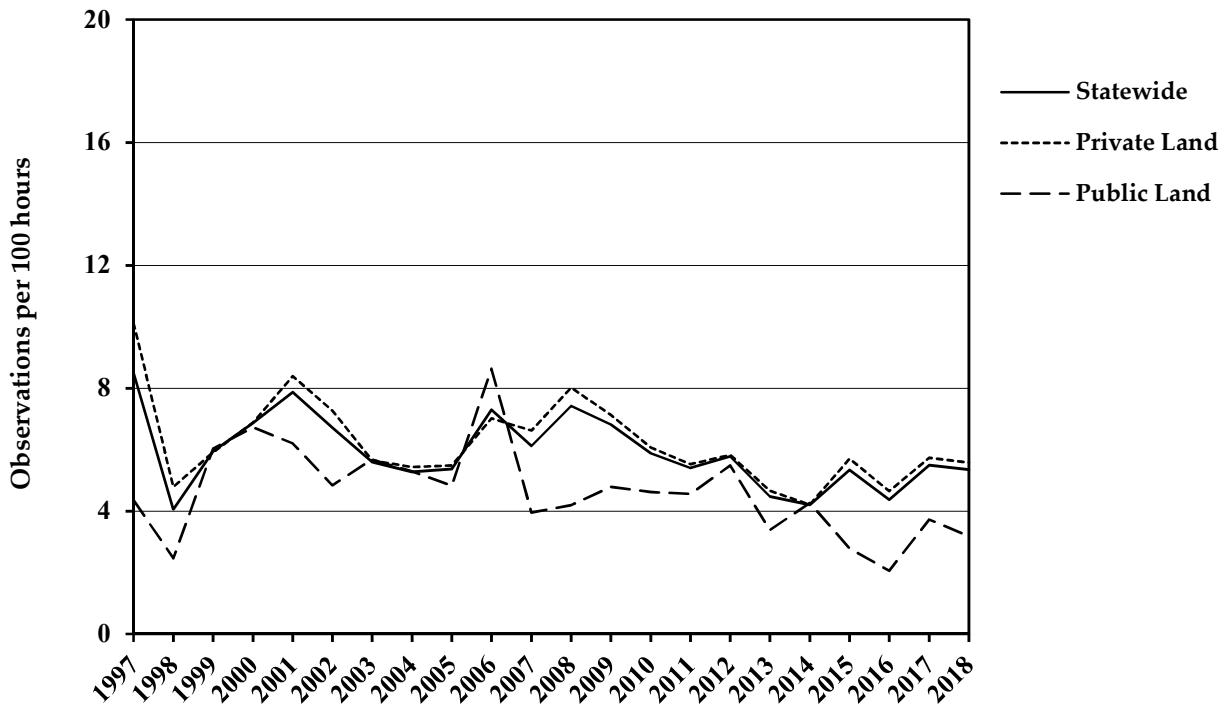


Figure 11. Fox squirrels observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

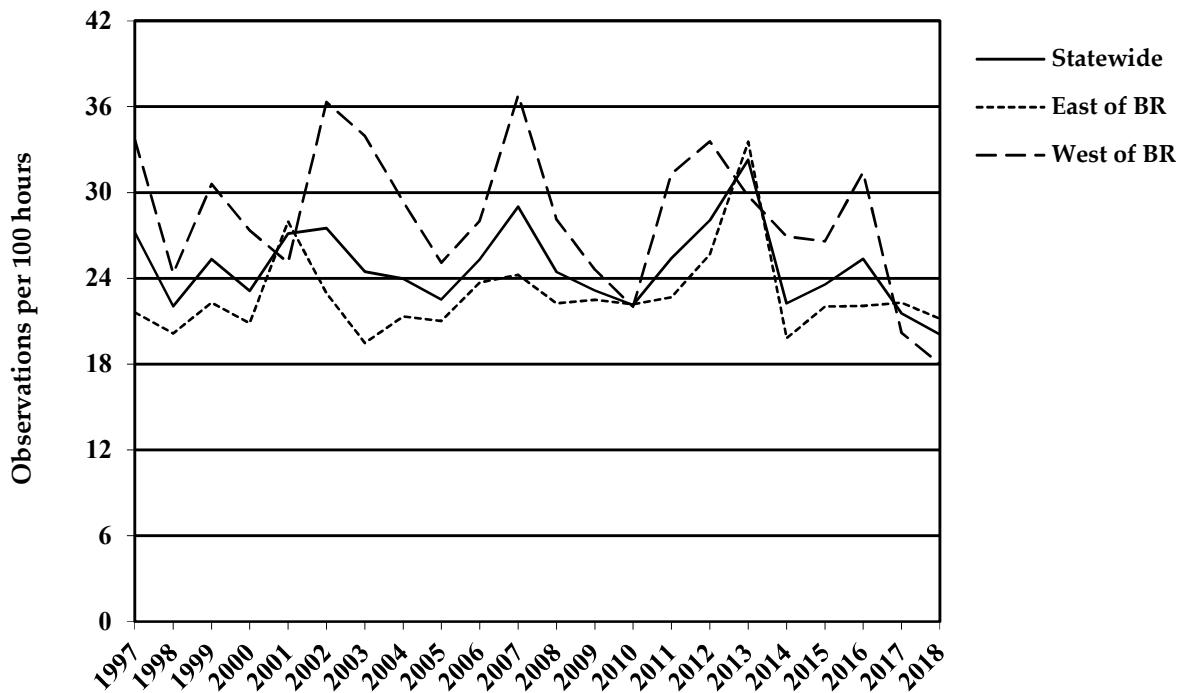


Figure 12. Wild turkeys observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

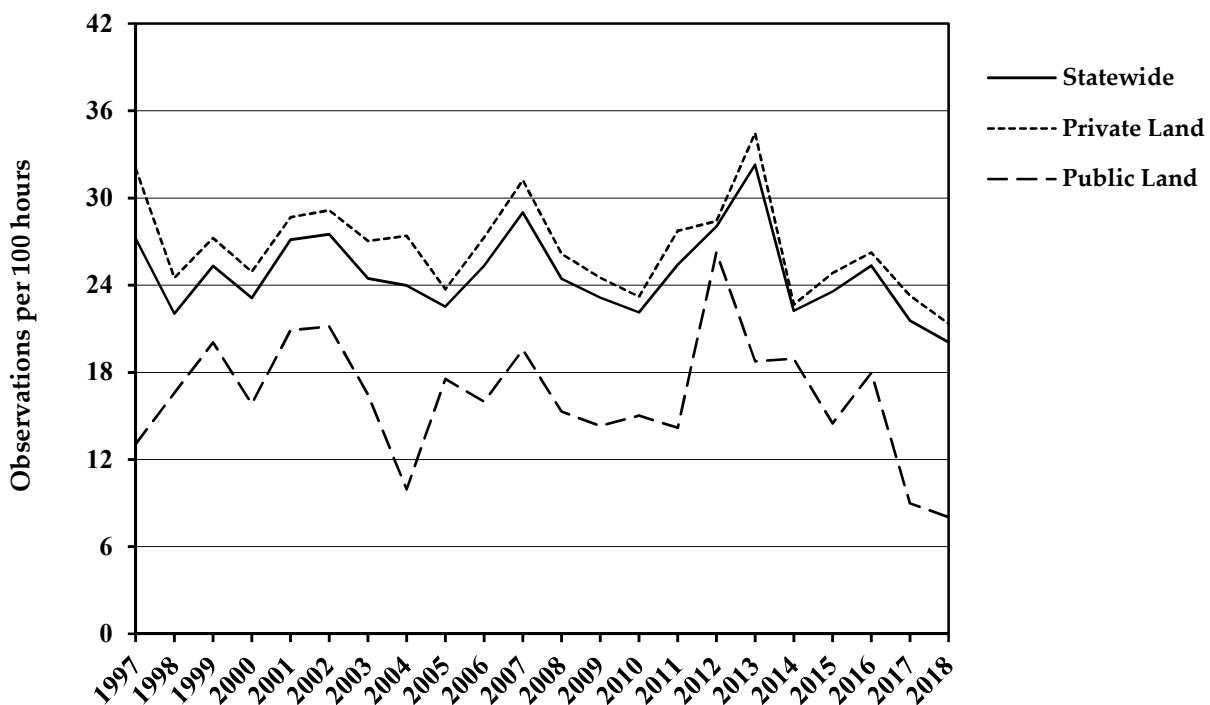


Figure 13. Wild turkeys observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

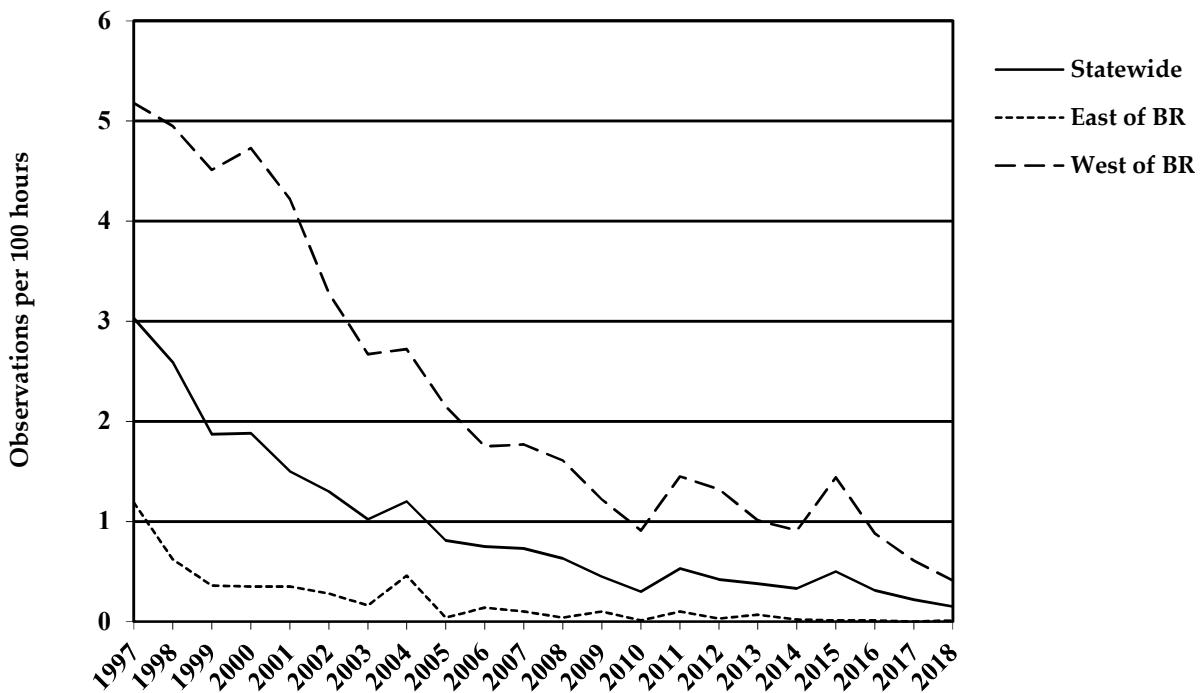


Figure 14. Ruffed grouse observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

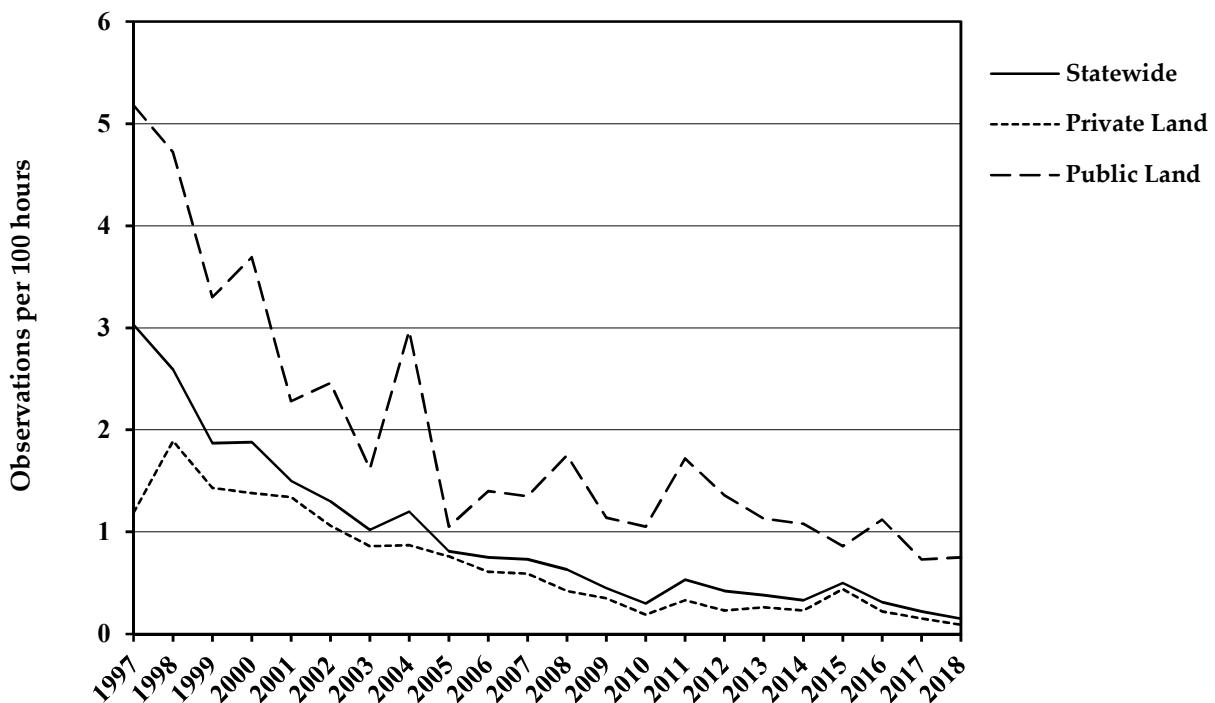


Figure 15. Ruffed grouse observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

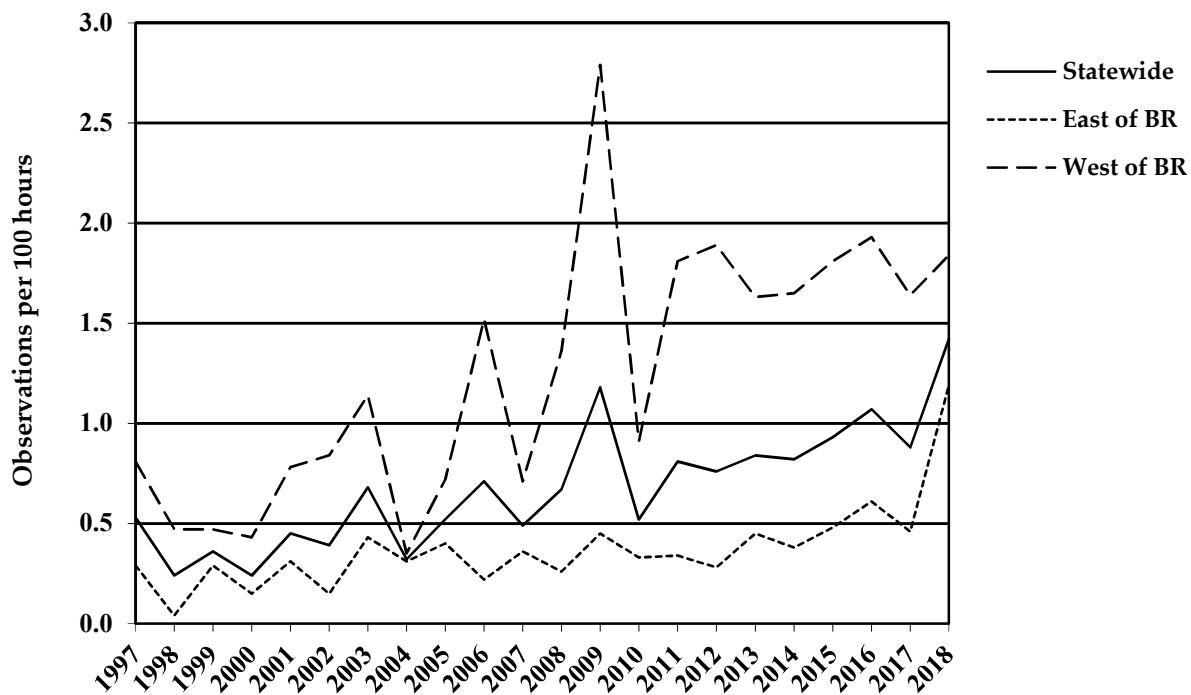


Figure 16. Black bears observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

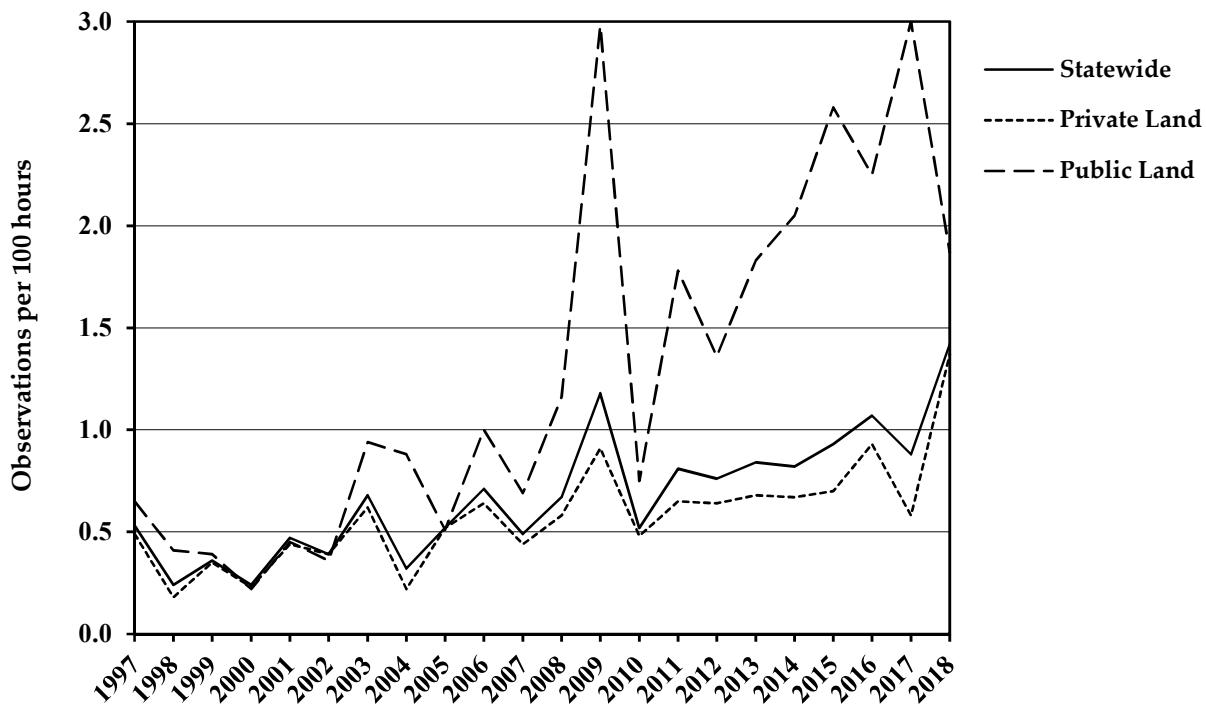


Figure 17. Black bears observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

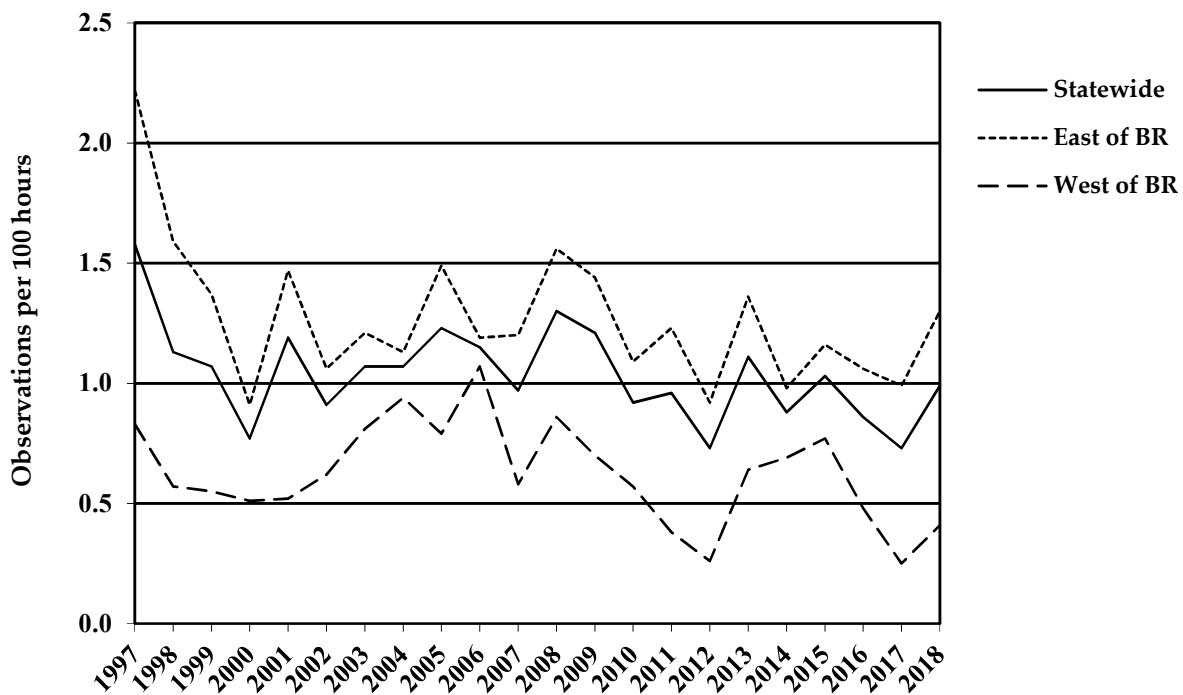


Figure 18. Red foxes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

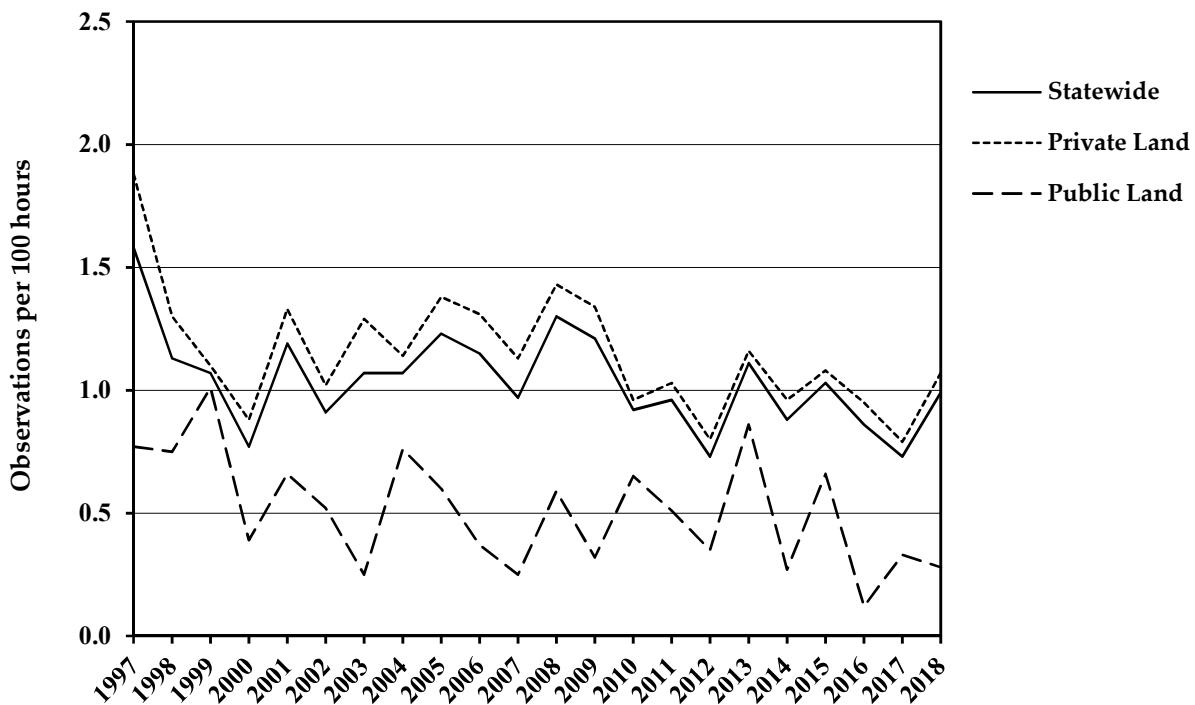


Figure 19. Red foxes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

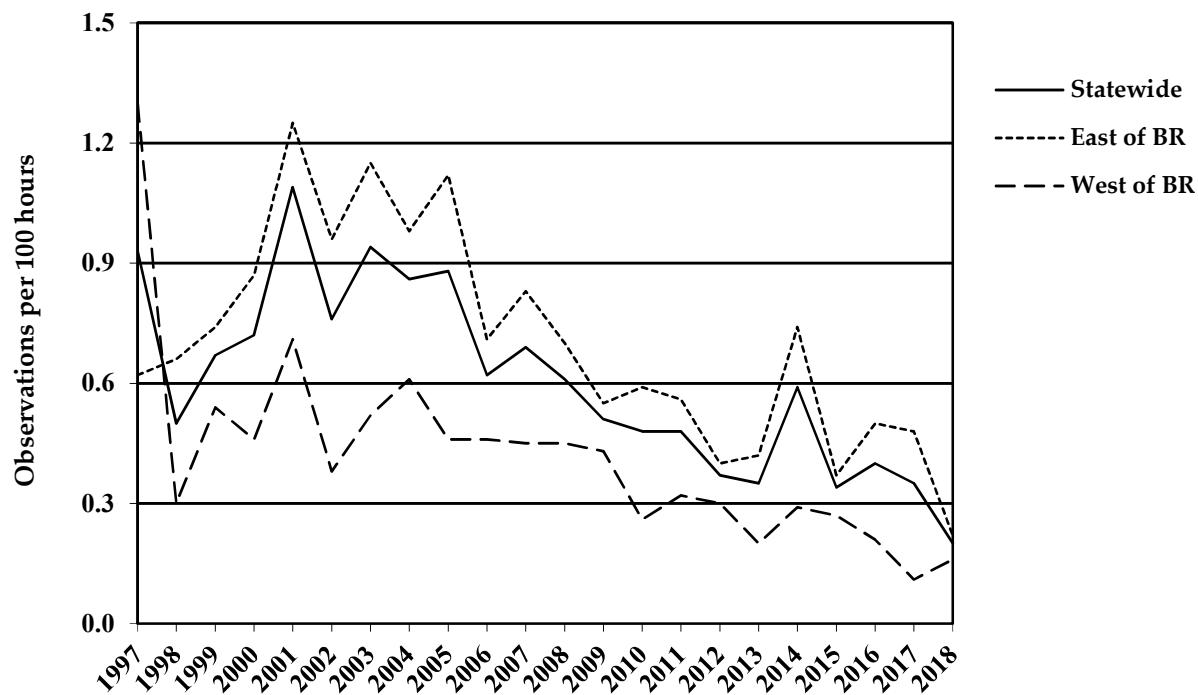


Figure 20. Gray foxes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

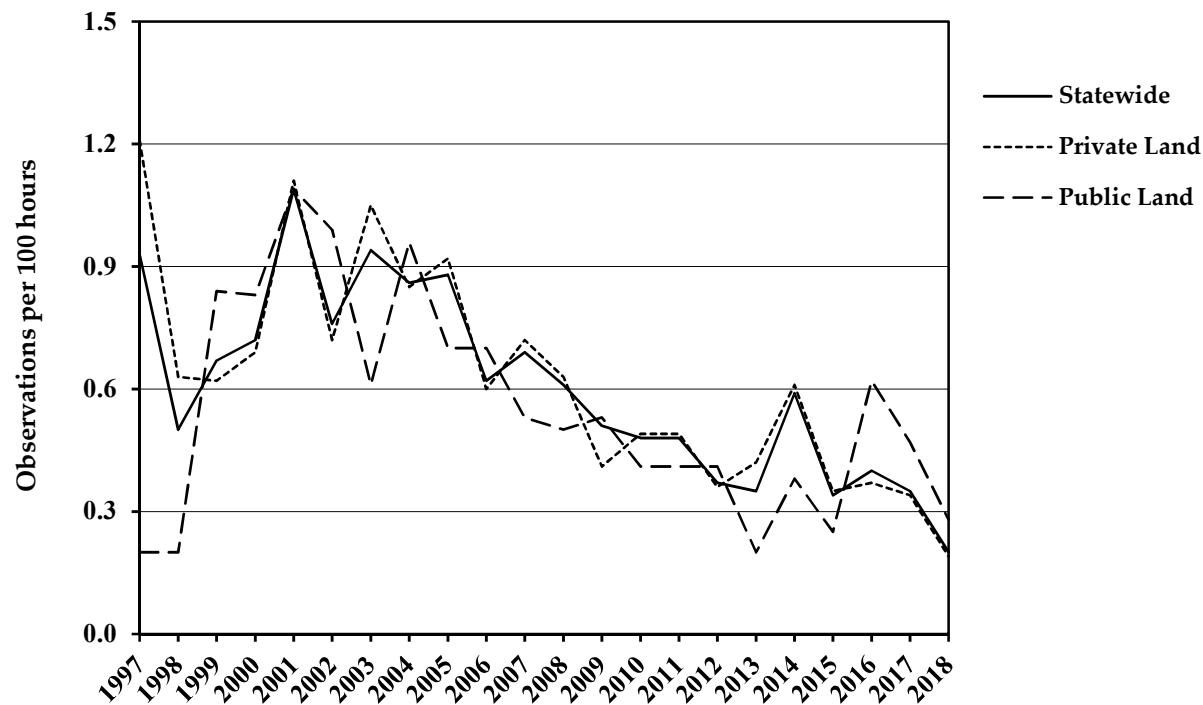


Figure 21. Gray foxes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

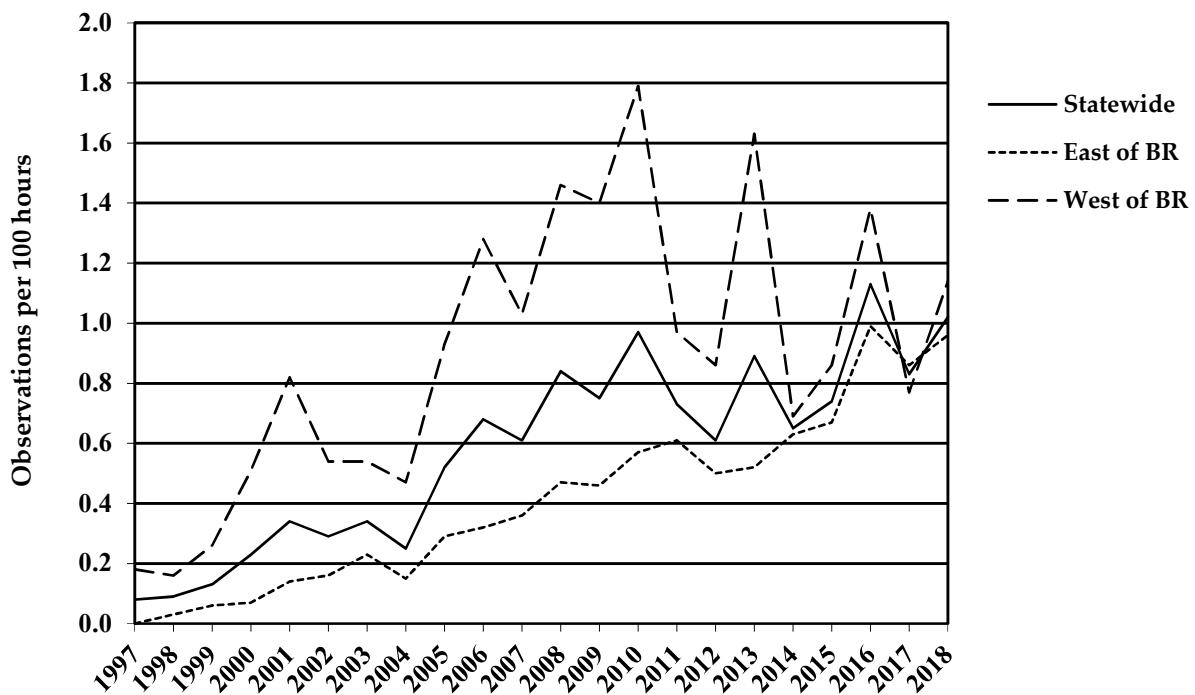


Figure 22. Coyotes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

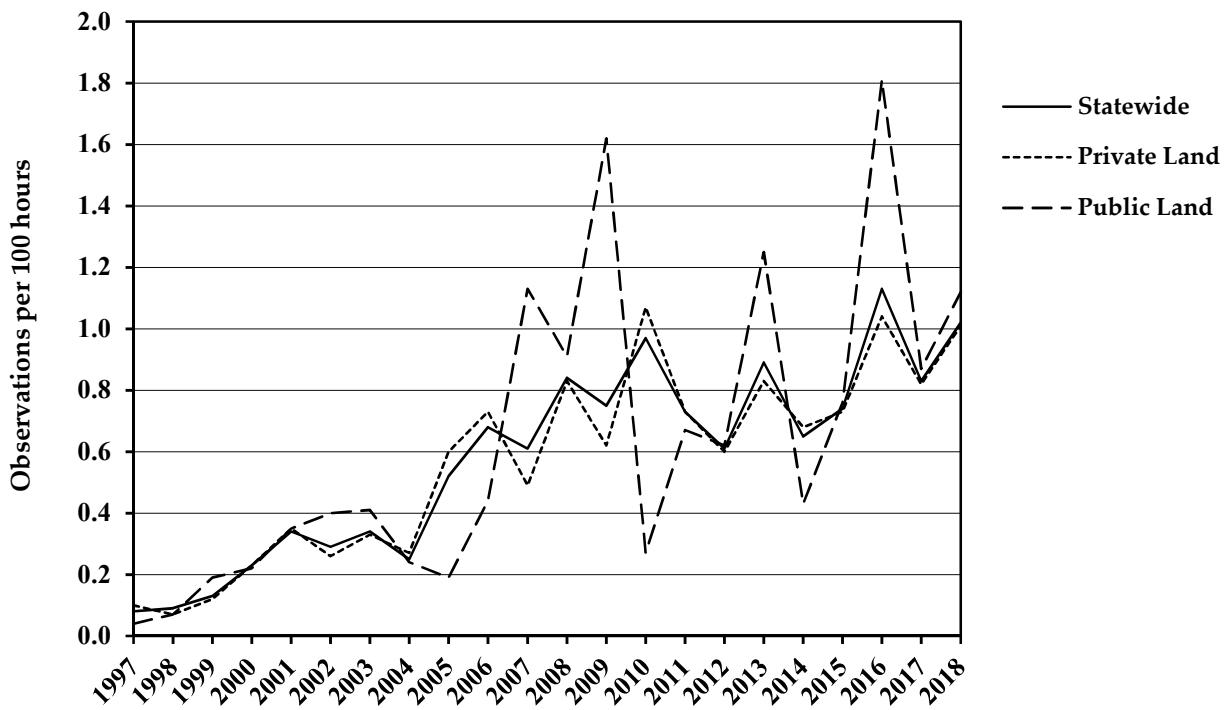


Figure 23. Coyotes observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

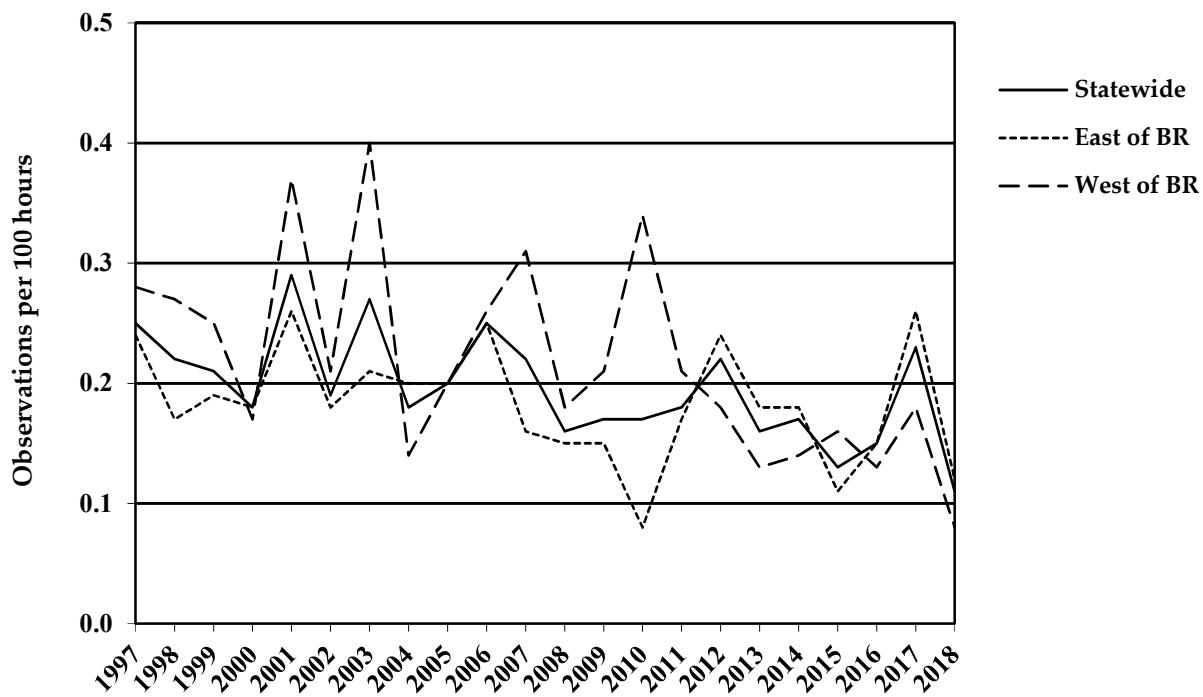


Figure 24. Bobcats observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

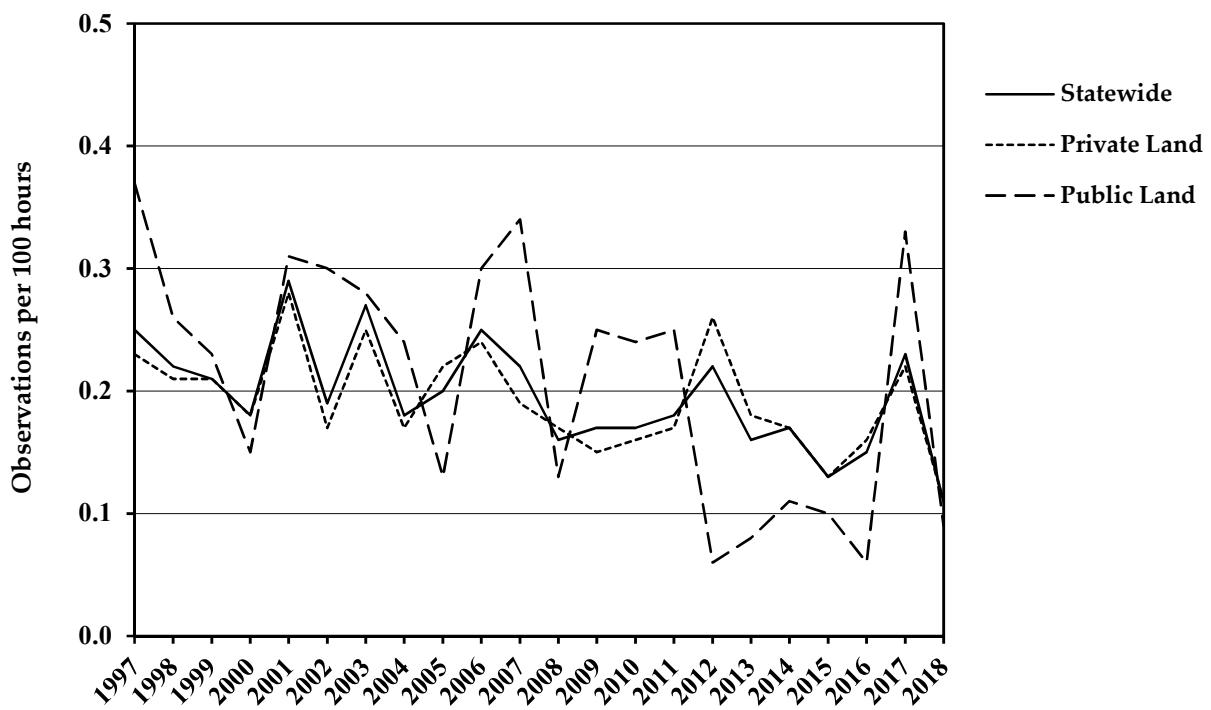


Figure 25. Bobcats observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

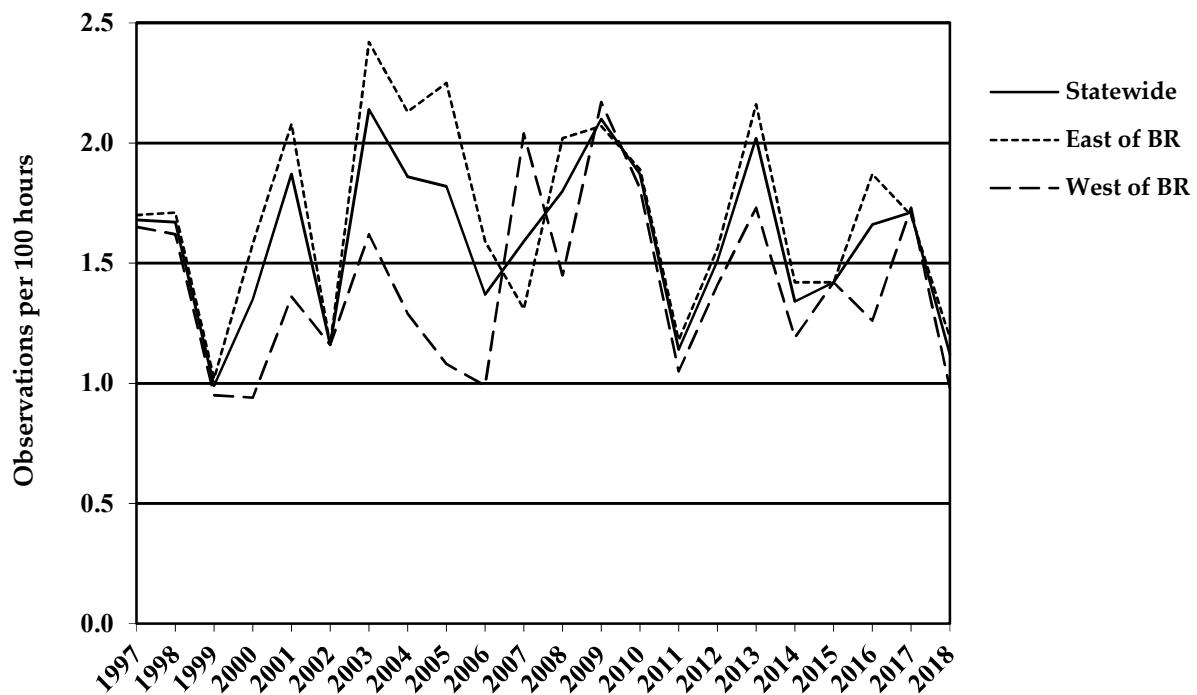


Figure 26. Raccoons observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

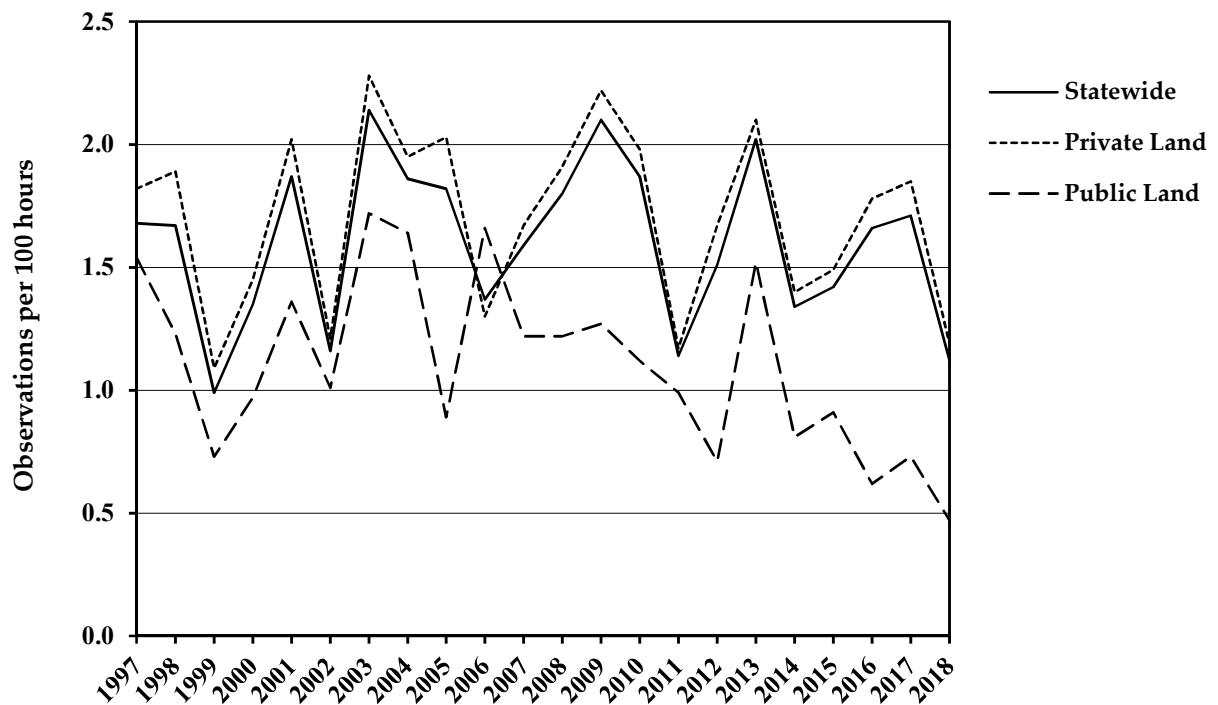


Figure 27. Raccoons observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

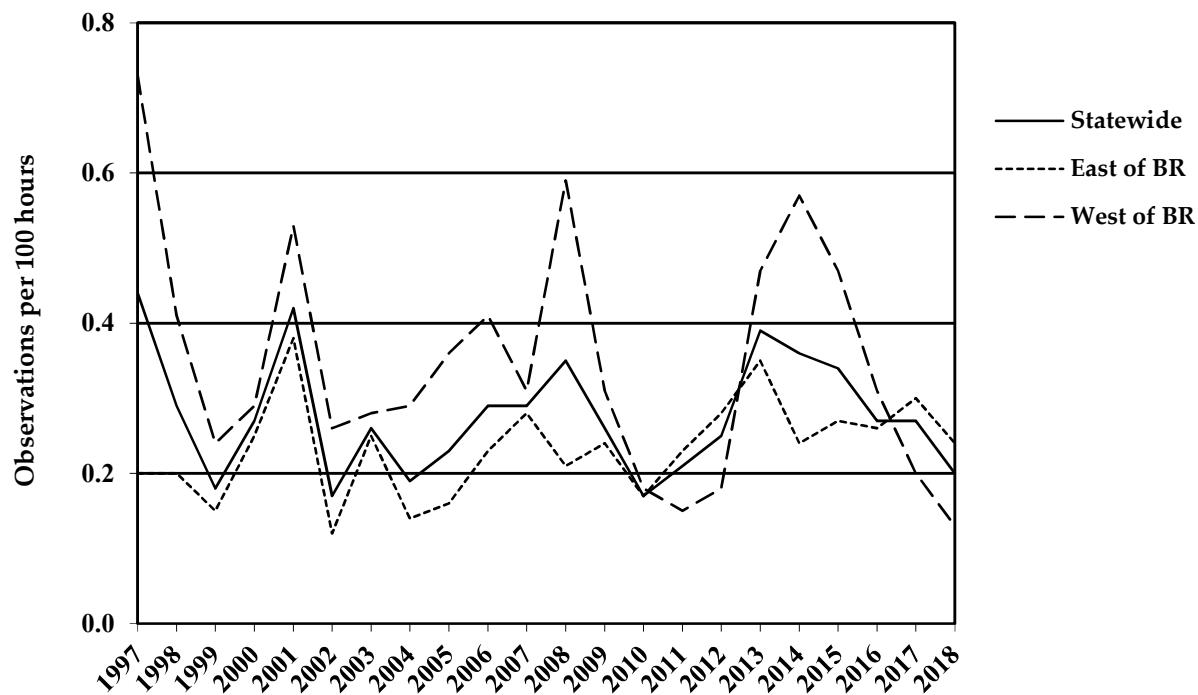


Figure 28. Opossums observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

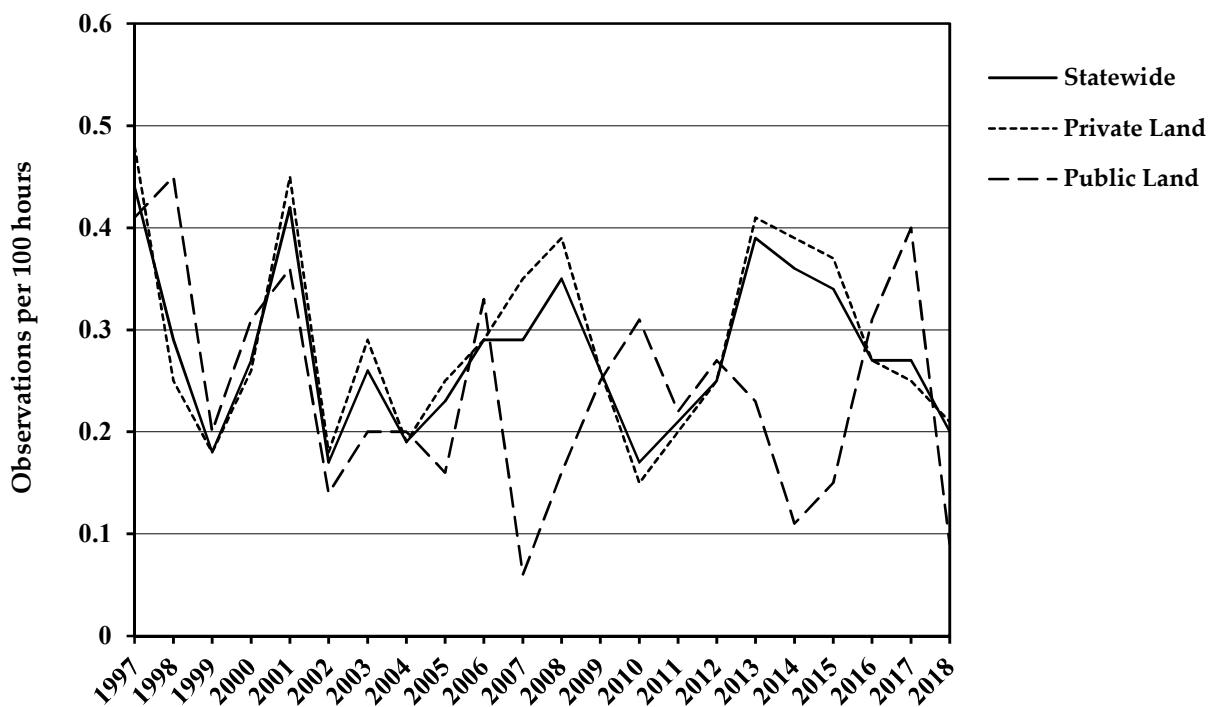


Figure 29. Opossums observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

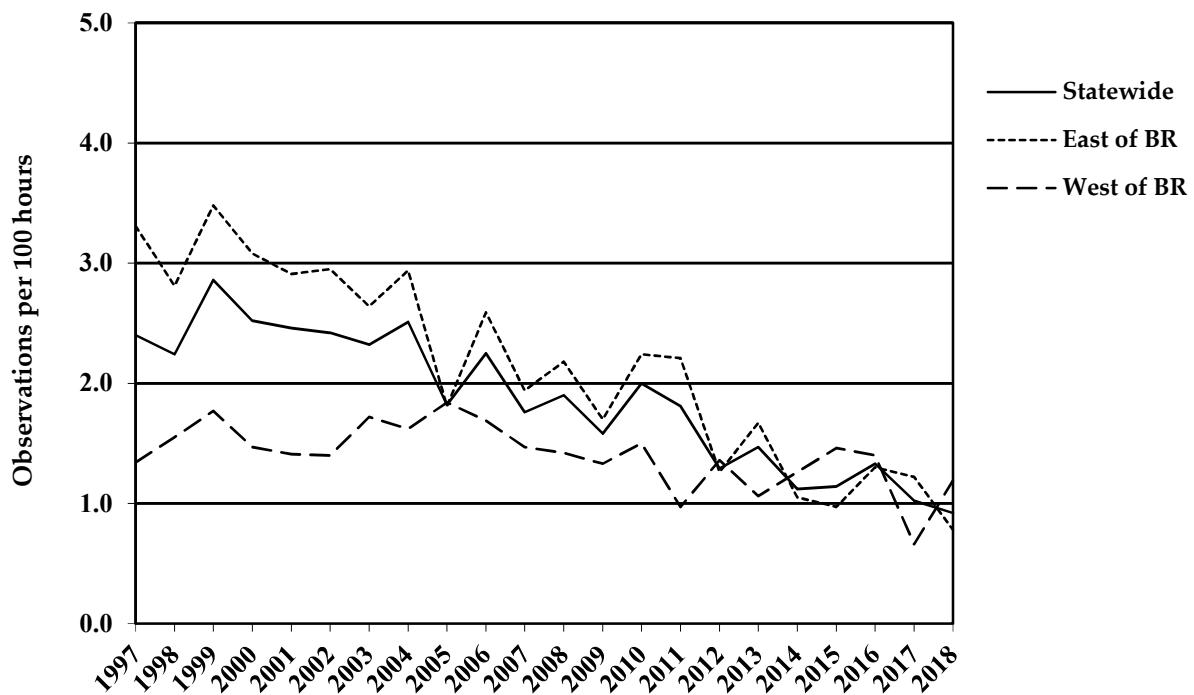


Figure 30. Dogs observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

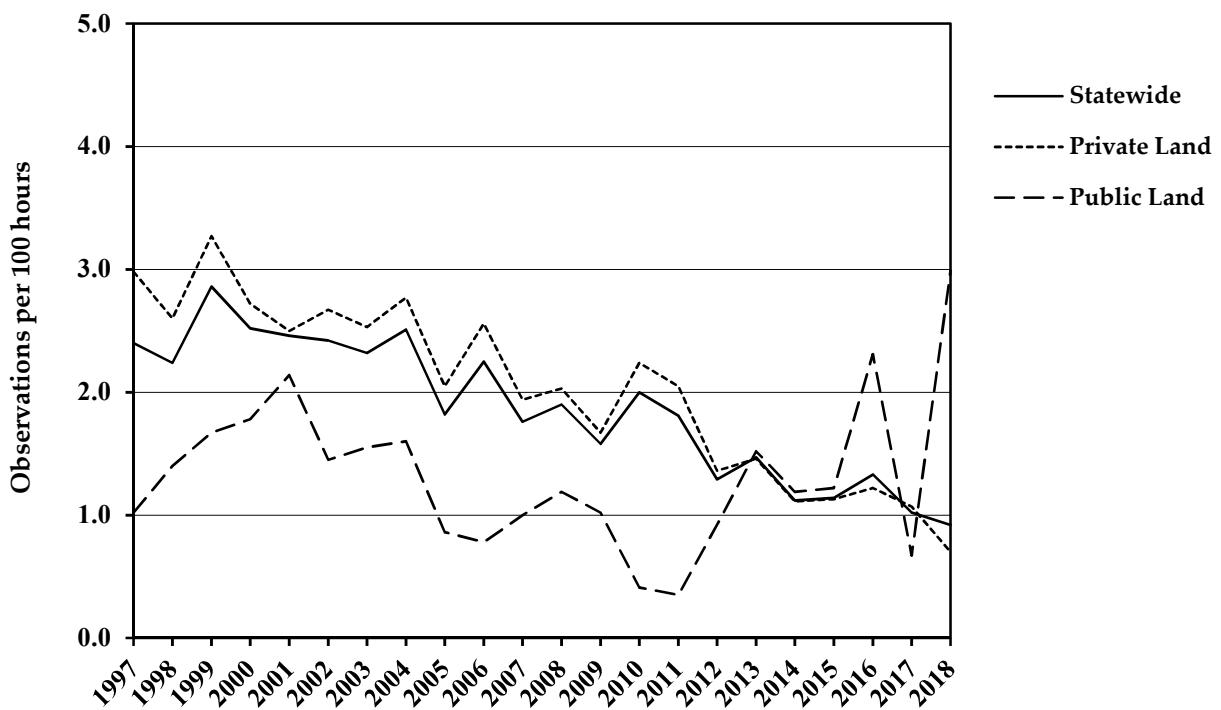


Figure 31. Dogs observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

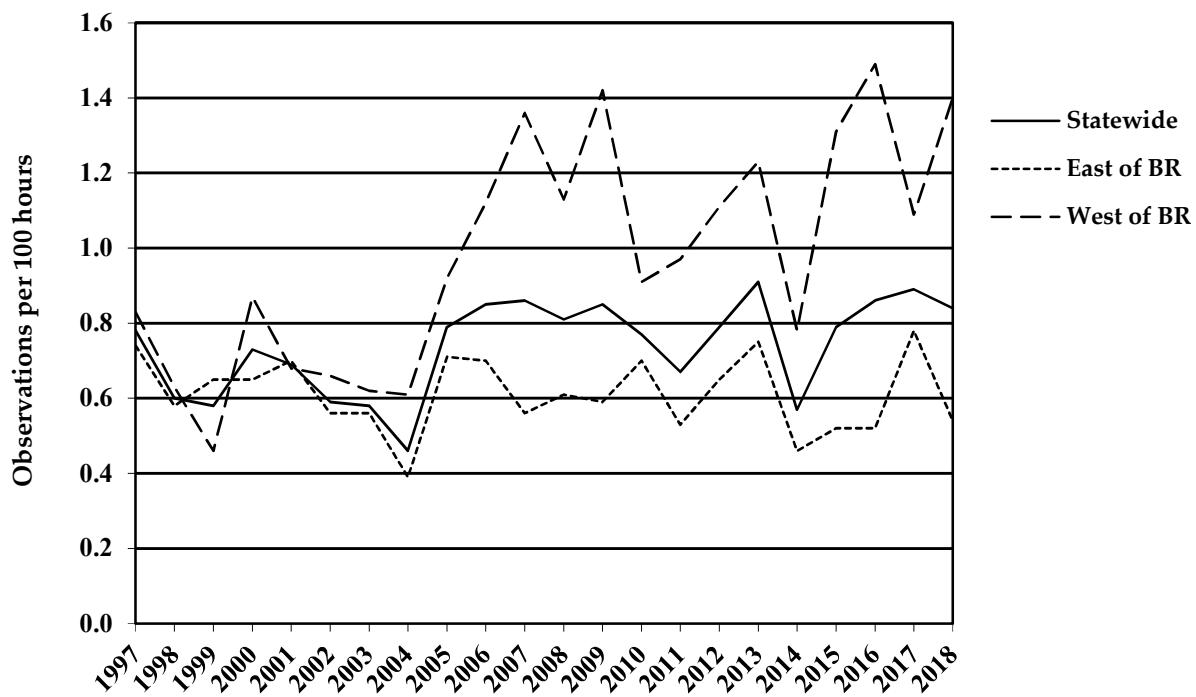


Figure 32. House cats observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

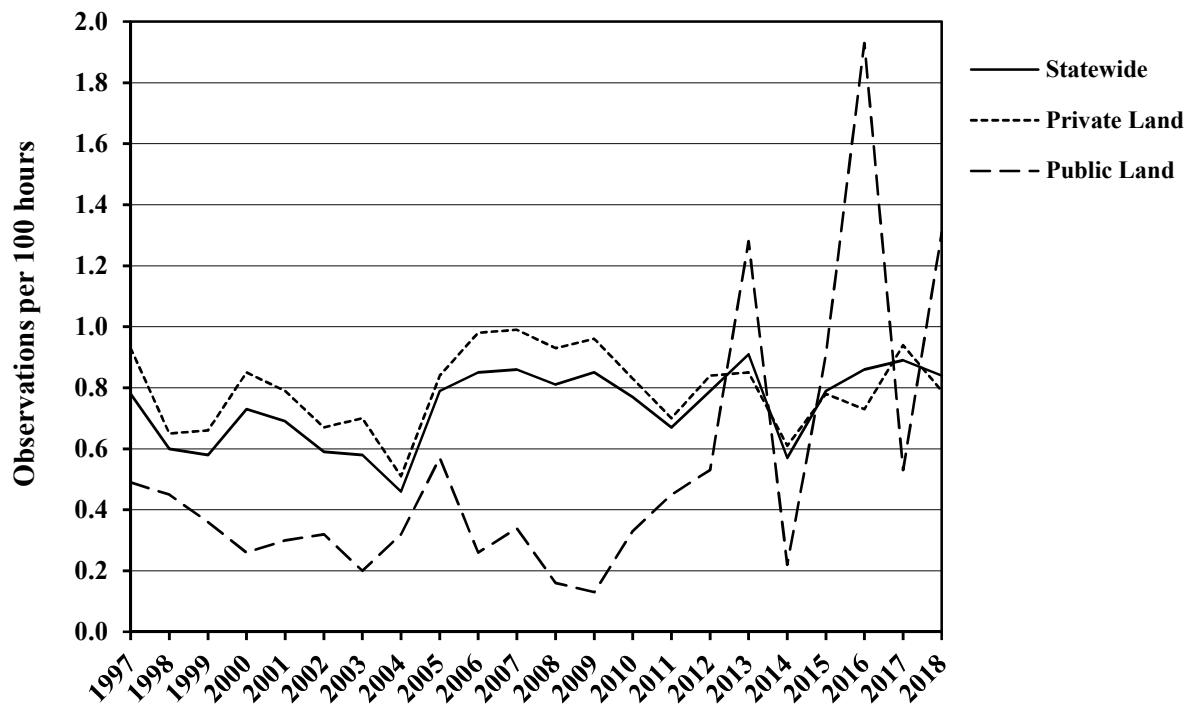


Figure 33. House cats observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

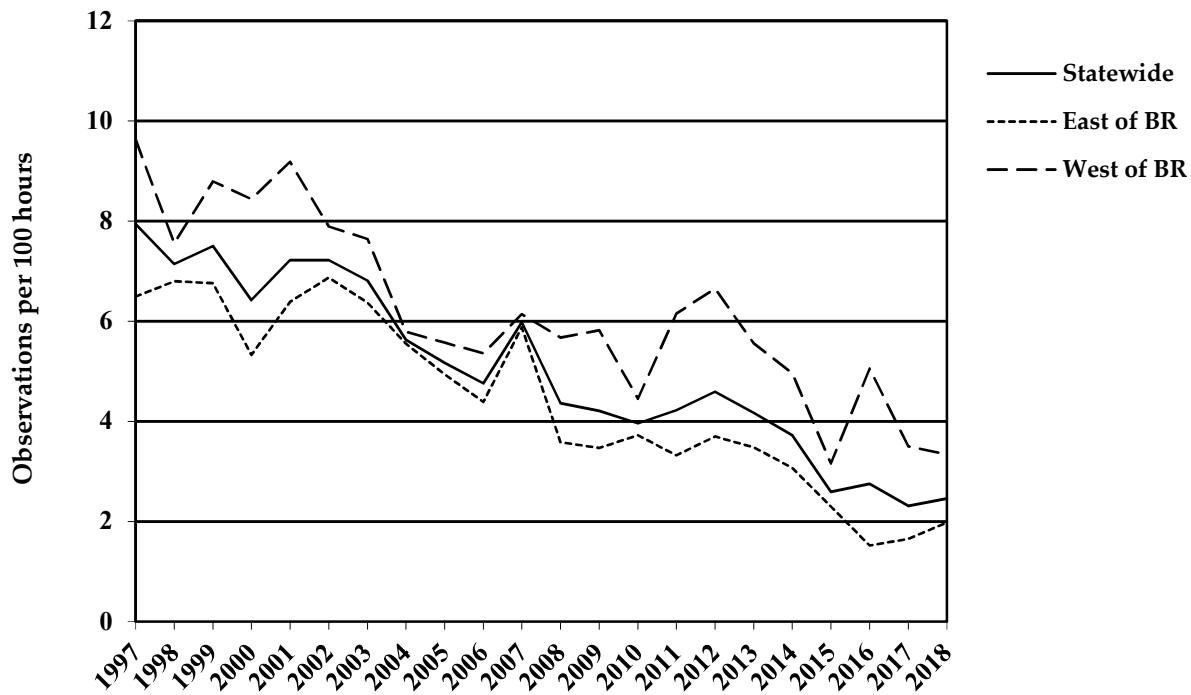


Figure 34. Hunters observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 east and west of the Blue Ridge Mountains and statewide in Virginia.

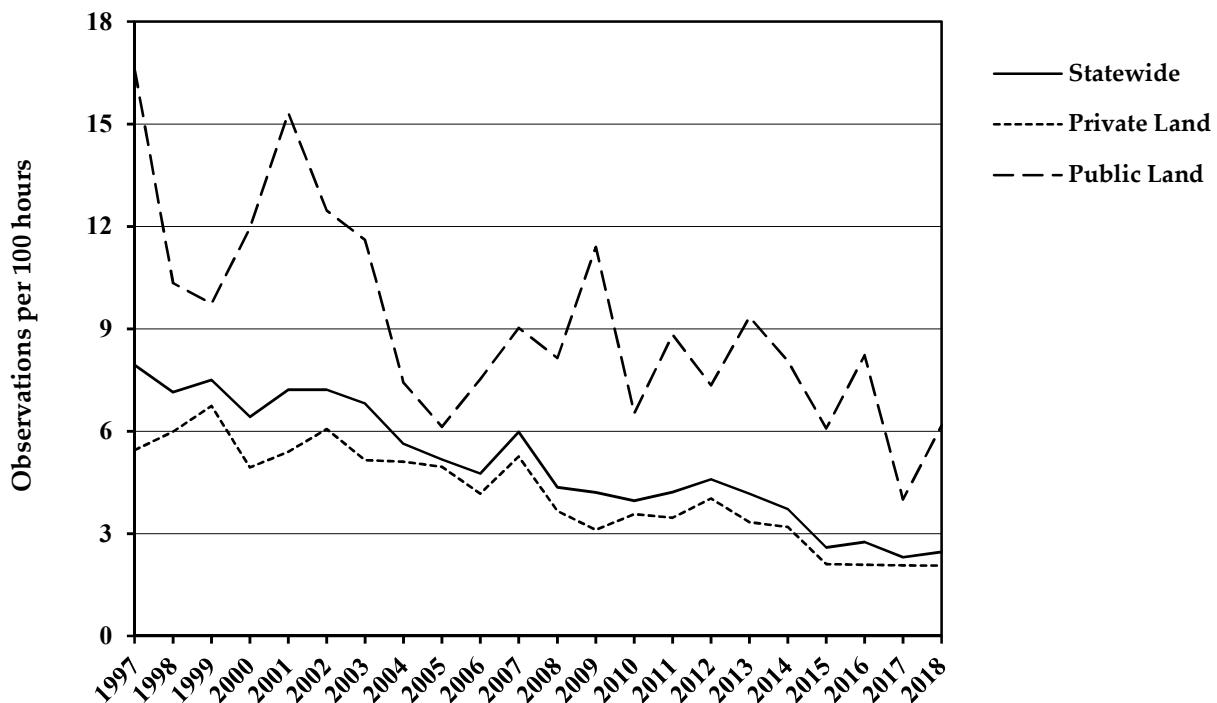


Figure 35. Hunters observed (per 100 hours of hunting) by cooperating early archery hunters from 1997-2018 by land ownership and statewide in Virginia.

2018 Bowhunter Observation Record

Virginia Department of Game and Inland Fisheries

Please see instructions on back of form.

Name: _____
Address: _____
City and Zip Code: _____

* Mast Crop and Weather Codes:

Mast Crop: 1) none 2) light 3) moderate 4) heavy

Precipitation: 1) none 2) drizzle 3) moderate 4) heavy

Wind: 1) none 2) light 3) breezy 4) strong

Temperature: 1) <40° F 2) 40-70° F 3) >70° F

INSTRUCTIONS

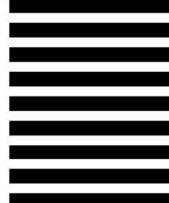
1. If you wish to participate in next years survey, and do not wish to maintain your confidentiality, please fill in your name and address at the top of the form and in the return address box below.
2. Enter *number of hours* for each *date* you hunted **between Oct. 6 and Nov. 16** (early season) **only**. Do not separate morning and evening hunts on different lines (combine data from both hunts).
3. Write in the *county* where you hunted. If you hunted in more than one county on a single day, record different counties on different lines of the form.
4. Report whether or not you were hunting on *public owned land* (state or federal).
5. Enter the *number* of animals and other hunters you observed while hunting. Begin observations upon leaving your vehicle and end observations when you return to your vehicle.
6. If you saw a species *not listed* at the top of the chart, enter the *name* and *number* of animals in the "Other Animals" column near the right side of the form.
7. On the last four columns of the chart, record the *most abundance* (acorn crop) and *average weather* conditions for the time period hunted. Use the *number codes* at the top right corner of the form.
8. *Fold* this form along the lines below so that our address shows, and *tape* it together.
9. Please *mail* this form to us by **January 1, 2019**. *No postage is needed.*



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BOWHUNTER SURVEY
VA DEPT OF GAME & INLAND FISHERIES
PO BOX 996
VERONA VA 24482-9901



Name: _____
Address: _____
City/Town: _____

If you wish to continue to participate in the Virginia Bowhunter Survey, and do not wish to maintain confidentiality, please enter your name and address in the return address box. Thank you.

RETURN ADDRESS (OPTIONAL).

DO YOU KNOW OF OTHER HUNTERS WHO WOULD LIKE TO PARTICIPATE IN THE BOWHUNTER SURVEY? IF SO, PLEASE ENTER THEIR NAMES AND ADDRESSES BELOW:

Name: _____
Address: _____
City/Town: _____

Name: _____
Address: _____
City/Town: _____

THANK YOU FOR PARTICIPATING!!

Type Here

Appendix 3. Virginia counties hunted, hunts per county, and percentage of total state hunts per county by cooperating archery hunters 6 October to 16 November 2018 in Virginia.

County	No. Hunts	% of Hunts	County	No. Hunts	% of Hunts
Accomack	30	1.15	King William	53	2.03
Albemarle	66	2.53	Lancaster	22	0.84
Alleghany	16	0.61	Lee	6	0.23
Amelia	9	0.35	Loudoun	21	0.81
Amherst	63	2.42	Louisa	21	0.81
Appomattox	0	0.00	Lunenburg	22	0.84
Augusta	41	1.57	Madison	35	1.34
Bath	16	0.61	Mathews	17	0.65
Bedford	186	7.14	Mecklenburg	20	0.77
Bland	17	0.65	Middlesex	1	0.04
Botetourt	21	0.81	Montgomery	34	1.30
Brunswick	37	1.42	Nelson	48	1.84
Buchanan	2	0.08	New Kent	22	0.84
Buckingham	5	0.19	Northampton	7	0.27
Campbell	0	0.00	Northumberland	16	0.61
Caroline	2	0.08	Nottoway	27	1.04
Carroll	15	0.58	Orange	25	0.96
Charles City	23	0.88	Page	9	0.35
Charlotte	2	0.08	Patrick	0	0.00
Chesapeake	13	0.50	Pittsylvania	63	2.42
Chesterfield	9	0.35	Powhatan	37	1.42
Clarke	32	1.23	Prince Edward	0	0.00
Craig	16	0.61	Prince George	84	3.22
Culpeper	73	2.80	Prince William	16	0.61
Cumberland	16	0.61	Pulaski	7	0.27
Dickenson	34	1.30	Rappahannock	29	1.11
Dinwiddie	1	0.04	Richmond	0	0.00
Essex	9	0.35	Roanoke	34	1.30
Fairfax	27	1.04	Rockbridge	53	2.03
Fauquier	88	3.38	Rockingham	132	5.07
Floyd	30	1.15	Russell	11	0.42
Fluvanna	45	1.73	Scott	4	0.15
Franklin	46	1.77	Shenandoah	110	4.22
Frederick	33	1.27	Smyth	21	0.81
Giles	12	0.46	Southampton	50	1.92
Gloucester	1	0.04	Spotsylvania	30	1.15
Goochland	17	0.65	Stafford	34	1.30
Grayson	20	0.77	Suffolk	14	0.54
Greene	1	0.04	Surry	34	1.30
Greenville	10	0.38	Sussex	37	1.42
Halifax	9	0.35	Tazewell	6	0.23
Hanover	14	0.54	Virginia Beach	3	0.12
Henrico	25	0.96	Warren	10	0.38
Henry	0	0.00	N. News / Hampton	0	0.00
Highland	40	1.53	Washington	54	2.07
Isle of Wight	12	0.46	Westmoreland	25	0.96
James City	32	1.23	Wise	0	0.00
King & Queen	3	0.12	Wythe	48	1.84
King George	30	1.15	York	5	0.19