

Results of the 2015-2016 Virginia Trapper Harvest Survey



ABSTRACT

A random sample of 1,500 people who purchased an annual trapping license after 28 February 2015, held a multi-year trapping license valid during 2015-2016 season, or purchased a nonresident trapping license after 28 February 2015 was generated from Virginia Department of Game & Inland Fisheries data. Licensees were mailed a one-page (front and back) questionnaire, and 533 usable questionnaires were returned. Trappers set an average of 8.6 ± 0.3 traps for 18.5 ± 0.4 nights during the 2015-2016 seasons and harvest an estimated 39,043 furbearers. The largest individual species harvest was $9,641 \pm 1,123$ raccoon during the 2015-2016 season. Muskrat harvest was next highest with an estimated $6,040 \pm 743$ muskrat trapped. Observations of fishers, spotted skunks, and least weasels were also documented.

OBJECTIVE

To survey trappers in Virginia to quantify statewide furbearer harvest and effort, and to obtain additional occurrence information about several rare furbearer species (fisher, spotted skunk, and least weasel).

METHODS

A total of 1,729 persons held Virginia trapping licenses in 2015-2016. From that total, a random sample of 1,500 persons was generated from Virginia Department of Game & Inland Fisheries data on licensed Virginia trappers. The sample represented 86.7% of license holders from three categories of licenses: annual license holders who purchased a license after 29

February 2015, the end of 2014-2015 season (N=1,441); multi-year license holders valid during the 2015-2016 season (N=36); and nonresident license holders (N=23). Each trapper was mailed a one-page (front and back) questionnaire (Appendix A), cover letter (Appendix B), and a postage-paid return envelope starting on 15 March 2016. A reminder postcard (Appendix C) was sent to the on 27 April 2016. Surveys were accepted until 1 July 2016. The original sample of 1,500 was reduced to 1,465 due to 35 undeliverable addresses. Trapping season date information is provided in Appendix D.

RESULTS

A total of 537 (36.6% effective response rate) license holders responded to the survey. The margin of error for the entire sample is ± 3.5 at the 95% level of confidence. This means that for any given question where the responses are evenly distributed across the answer categories we can be 95% confident that the population average is ± 3.5 of the sample average. Of the 537 surveys returned, 533 were considered usable surveys, and four were considered unusable or unreliable because the respondents filled in the same numbers across all or most of the categories of the survey.

Of the 534 usable surveys, 367 (68.8%) reported trapping activity and 166 (31%) reported no trapping activity. Trappers set an average of 8.6 ± 0.3 traps for 18.5 ± 0.4 nights during the 2015-2016 seasons and harvest an estimated 39,043 furbearers. Trapper responses by license type, reported trapper effort, and reported trapper harvest are summarized in Figures 1 and Tables 1-7. Extrapolations with a finite population correction factor (Berenson, Levine, and Szabat 2015 and Steffen 1981) were produced to estimate total statewide trapper effort and

harvest for all furbearer species in Virginia (Tables 8-19). Additionally, rare furbearer observations are reported in Table 20.

Table 1: Response and participation rate by license type of trappers selected to participation in the 2015-2016 Virginia Trapper Harvest Survey

License Type	Number of Licenses Sold	Number in sample	Number of respondents (% of sample)	Number who trapped (% of respondents)	Number who did not trap (% of respondents)
Annual	1,662	1,441	507 (35.2%)	349 (68.8%)	158 (31.1%)
Multi year	40	36	15 (41.7%)	10 (66.7%)	5 (33.3%)
Nonresident	27	23	11 (47.8%)	8 (72.7%)	3 (27.3%)
Total	1,729	1,500	533 (35.5%)	367 (68.8%)	166 (31.1%)

Table 2: Trapping locations and regional breakdown of trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey

Numbers (%) of trapping locations		Region of trapping for primary trapping location	
First county/city (primary trapping location)	285 (77.4%)	Tidewater	73 (19.8%)
		S. Piedmont	74 (20.1%)
Second county/city	56 (15.2%)	N. Piedmont	60 (16.3%)
Third county/city	19 (5.2%)	S. Mountain	81 (22.0%)
Fourth county/city	4 (1.1%)	N. Mountain	79 (21.5%)
Fifth county/city	3 (0.8%)		

Table 3: Participation and effort of trappers who reported targeting furbearer species in the 2015-2016 Virginia Trapper Harvest Survey (n=367)

Species	# Trappers that targeted species (% of total trappers)	Total # days trapped	Average # traps set per day per trapper	Total # trap days
Beaver	149 (40.6)	2,987	7.9	23,557
Bobcat	136 (37.1)	3,793	9.6	36,383
Coyote	224 (61.0)	7,103	11.3	80,429
Gray Fox	177 (48.2)	5,361	12.5	67,094
Red Fox	232 (63.2)	6,815	12.1	82,440
Mink	54 (14.7)	1,170	11.5	13,416
Muskrat	130 (35.4)	2,629	11.4	29,903
Nutria	7 (1.9)	227	12.9	2,919
Opossum	76 (20.7)	2,293	15.5	35,529
Otter	85 (23.2)	1,643	9.8	16,073
Raccoon	220 (59.9)	6,126	10.8	65,952
Striped Skunk	44 (12.0)	1,337	10.7	14,241
Long-tailed Weasel	4 (1.1)	54	3.8	203

Table 4: Number of successful trappers and reported harvest by species for respondents to the 2015-2016 Virginia Trapper Harvey Survey (n=367)

Species	# (%) Successful Trappers			Reported Harvest		
	Target (%)	Non-target (%)	Total (%)	Target	Non-target	Total
Beaver	127 (85.2)	2 (0.9)	130 (35.4)	1,325	6	1,337
Bobcat	66 (48.5)	7 (3.0)	75 (20.4)	174	12	191
Coyote	153 (68.3)	7 (4.9)	162 (44.1)	1,056	12	1,078
Gray Fox	131 (74.0)	23 (12.1)	155 (42.2)	727	58	787
Red Fox	164 (70.7)	15 (11.1)	182 (49.6)	1,241	49	1,339
Mink	22 (40.7)	9 (2.9)	31 (8.4)	73	10	83
Muskrat	119 (91.5)	20 (8.4)	140 (38.1)	1,724	127	1,862
Nutria	2 (28.6)	1 (0.3)	3 (0.8)	19	2	21
Opossum	69 (90.8)	154 (52.9)	225 (61.3)	628	1,027	1,695
Otter	65 (76.5)	13 (4.6)	76 (20.7)	227	42	269
Raccoon	200 (90.9)	73 (49.7)	271 (73.8)	2,457	455	2,972
Striped Skunk	37 (84.1)	71 (22.0)	109 (29.7)	168	230	401
Long-tailed Weasel	0 (0.0)	1 (0.3)	1 (0.3)	0	1	1

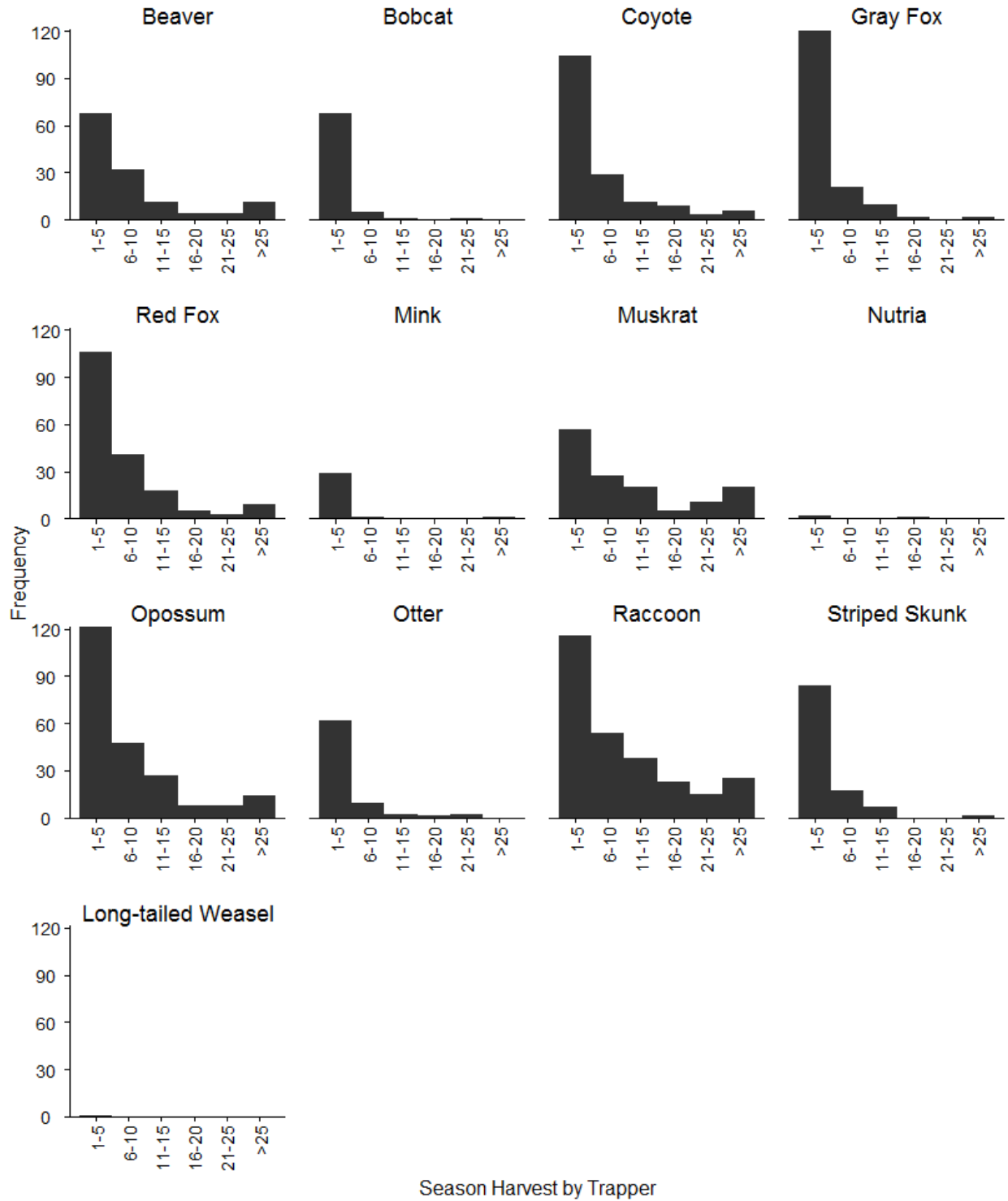


Figure 1. Frequency of total season harvest by species.

Table 6: Reported harvest of land furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367)

County	Bobcat	Coyote	Gray Fox	Red Fox	Raccoon	Opossum	Striped Skunk	Long-tailed Weasel
Accomack	0	1	27	119	53	16	0	0
Albemarle	0	0	0	0	2	0	0	0
Alleghany	13	11	8	10	17	13	0	0
Amelia	1	16	30	7	81	23	2	0
Amherst	0	6	0	1	6	2	0	0
Appomattox	0	4	2	3	3	2	2	0
Augusta	3	31	25	102	151	56	8	0
Bath	0	0	0	5	18	11	1	0
Bedford	4	14	10	17	59	48	17	0
Bland	0	10	2	3	13	7	1	0
Botetourt	2	42	21	20	71	78	8	0
Brunswick	4	5	2	3	11	36	0	0
Buchanan	1	0	0	0	1	1	0	0
Buckingham	0	23	15	2	8	7	0	0
Campbell	0	1	0	2	11	12	0	0
Caroline	0	8	9	11	11	17	0	0
Carroll	1	24	2	6	75	29	7	0
Charles City	3	10	7	1	18	23	1	0
Charlotte	3	23	30	35	70	28	10	0
Chesterfield	4	5	15	18	16	4	2	0
Clarke	0	0	0	0	34	4	1	0
Craig	2	1	3	2	4	2	2	0
Culpeper	0	16	3	41	38	7	4	0
Cumberland	0	0	0	0	0	0	0	0
Dickenson	6	8	3	2	9	20	0	0
Dinwiddie	8	25	0	8	43	56	10	0
Essex	0	1	6	3	22	3	2	0
Fairfax	0	0	0	30	7	0	0	0
Fauquier	5	16	0	17	22	12	1	0
Floyd	3	4	2	9	24	9	4	0
Franklin	1	17	8	16	51	41	3	0
Frederick	0	7	1	17	4	7	0	0
Giles	0	0	0	0	2	3	0	0
Gloucester	0	1	0	0	28	6	1	0
Goochland	0	0	0	0	19	0	0	0
Grayson	1	2	1	2	30	13	5	0

Table 6: Reported harvest of land furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367), Cont.

County	Bobcat	Coyote	Gray Fox	Red Fox	Raccoon	Opossum	Striped Skunk	Long-tailed Weasel
Greene	1	1	1	0	2	3	1	0
Greensville	2	18	4	2	10	26	1	0
Halifax	2	23	71	24	178	46	6	0
Hanover	0	37	10	5	48	12	2	0
Henrico	0	2	0	1	11	2	3	0
Henry	0	1	0	0	0	1	0	0
Highland	4	3	5	3	23	15	5	0
Isle of Wight	0	2	1	2	4	1	0	0
James City	0	1	0	0	18	14	0	0
King and Queen	0	0	0	0	0	0	0	0
King George	1	4	2	16	5	5	1	0
King William	0	7	3	6	18	4	1	0
Lancaster	0	2	4	1	3	10	1	0
Lee	25	97	4	29	29	68	50	0
Loudoun	1	8	5	85	60	12	6	0
Louisa	2	13	10	10	5	6	0	0
Lunenburg	0	2	1	2	0	15	8	0
Madison	0	0	2	8	8	4	2	0
Mathews	0	6	0	0	0	0	0	0
Mecklenburg	1	11	33	18	108	33	6	0
Middlesex	0	0	0	0	16	0	0	0
Montgomery	0	0	0	0	7	4	0	0
Nelson	1	5	2	0	8	3	0	0
New Kent	1	5	7	9	16	22	8	0
Northampton	0	0	0	21	3	0	0	0
Northumberland	0	2	11	9	13	12	3	0
Nottoway	6	13	28	7	42	27	0	0
Orange	0	0	0	1	12	4	0	0
Page	0	6	6	22	19	25	3	0
Patrick	0	3	9	1	44	10	2	0
Pittsylvania	7	59	133	26	61	59	27	0
Powhatan	2	1	1	8	19	13	0	0
Prince Edward	0	0	0	8	0	3	2	0
Prince George	2	4	4	1	24	8	3	0
Prince William	0	6	2	15	15	4	0	0
Pulaski	0	0	0	0	0	0	0	0

Table 6: Reported harvest of land furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367), Cont.

County	Bobcat	Coyote	Gray Fox	Red Fox	Raccoon	Opossum	Striped Skunk	Long-tailed Weasel
Rappahannock	5	41	4	36	8	14	4	0
Richmond	0	2	0	1	2	0	0	0
Roanoke	0	0	3	2	14	7	1	0
Rockbridge	8	28	23	47	46	79	7	0
Rockingham	1	55	32	165	230	143	81	0
Russell	10	57	5	18	57	45	0	0
Scott	2	30	2	5	17	5	6	0
Shenandoah	0	5	13	77	43	5	1	0
Smyth	6	31	4	20	82	36	4	0
Southampton	4	7	24	18	3	20	5	0
Spotsylvania	2	4	3	11	6	13	0	0
Stafford	0	0	0	3	7	3	9	0
Surry	0	0	0	0	2	2	0	0
Sussex	1	9	8	16	50	12	0	0
Tazewell	4	25	6	7	122	58	5	0
Warren	0	0	2	11	4	12	14	0
Washington	11	38	9	14	64	58	5	1
Westmoreland	0	0	0	1	12	0	0	0
Wise	2	8	4	2	12	2	0	0
Wythe	6	54	11	25	169	47	21	0
York	0	0	0	0	80	29	0	0
Alexandria	0	0	0	0	9	0	0	0
Chesapeake	0	3	24	5	36	8	0	0
Covington	0	1	0	1	2	0	0	0
Harrisonburg	0	0	0	0	0	0	0	0
Newport News	0	0	0	1	9	4	0	0
Norfolk	0	0	0	0	3	0	0	0
Suffolk	0	3	3	1	4	2	0	0
Virginia Beach	6	3	16	0	18	23	0	0
Waynesboro	0	0	0	0	0	1	5	0

Table 7: Reported harvest of aquatic furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367)

County	Beaver	Muskrat	Otter	Mink	Nutria
Accomack	0	255	6	0	0
Albemarle	3	0	0	0	0
Alleghany	6	9	4	0	0
Amelia	45	5	5	0	0
Amherst	0	0	0	0	0
Appomattox	0	0	0	0	0
Augusta	15	79	6	1	0
Bath	5	0	0	0	0
Bedford	3	3	1	0	0
Bland	0	30	0	0	0
Botetourt	1	41	5	1	0
Brunswick	6	0	1	0	0
Buchanan	4	11	0	0	0
Buckingham	6	11	0	0	0
Campbell	1	0	0	0	0
Caroline	55	21	2	4	0
Carroll	15	31	2	1	0
Charles City	12	18	1	0	0
Charlotte	0	0	0	0	0
Chesterfield	39	22	10	0	0
Clarke	0	0	0	0	0
Craig	0	0	0	0	0
Culpeper	21	4	5	1	0
Cumberland	8	1	1	0	0
Dickenson	16	0	0	1	0
Dinwiddie	52	18	2	0	0
Essex	26	6	1	1	0
Fairfax	0	3	0	0	0
Fauquier	4	2	1	0	0
Floyd	0	0	1	0	0
Franklin	8	22	0	0	0
Frederick	0	0	0	0	0
Giles	0	4	0	0	0
Gloucester	13	65	19	0	0
Goochland	24	22	3	0	0
Grayson	4	4	2	2	0
Greene	0	0	0	0	0
Greensville	21	0	12	0	0
Halifax	17	1	8	14	0
Hanover	83	30	16	0	0
Henrico	62	43	14	0	0

Table 7: Reported harvest of aquatic furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367), Cont.

County	Beaver	Muskrat	Otter	Mink	Nutria
Henry	0	0	0	0	0
Highland	1	0	1	0	0
Isle of Wight	14	16	1	1	12
James City	0	42	0	0	0
King and Queen	0	0	2	0	0
King George	14	0	0	0	0
King William	50	0	0	0	0
Lancaster	9	25	0	0	0
Lee	3	17	2	4	0
Loudoun	7	4	8	0	0
Louisa	22	22	2	0	0
Lunenburg	0	0	0	0	0
Madison	2	0	0	0	0
Mathews	0	0	0	0	0
Mecklenburg	24	0	7	11	0
Middlesex	0	0	0	0	0
Montgomery	0	0	0	0	0
Nelson	1	0	0	0	0
New Kent	38	1	1	0	0
Northampton	0	98	0	0	0
Northumberland	7	15	1	0	0
Nottoway	39	10	5	2	0
Orange	0	0	0	0	0
Page	2	25	0	0	0
Patrick	1	12	3	2	0
Pittsylvania	24	19	19	0	0
Powhatan	14	5	3	0	0
Prince Edward	6	0	2	0	0
Prince George	76	10	2	0	1
Prince William	3	0	4	0	0
Pulaski	0	0	1	0	0
Rappahannock	4	10	6	1	0
Richmond	4	19	0	0	0
Roanoke	0	0	0	0	0
Rockbridge	5	11	3	2	0
Rockingham	8	246	1	8	0
Russell	8	28	0	1	0
Scott	11	0	3	0	0
Shenandoah	0	0	0	0	0
Smyth	3	21	0	3	0
Southampton	97	6	28	1	0

Table 7: Reported harvest of aquatic furbearer species by county for trappers who responded to the 2015-2016 Virginia Trapper Harvest Survey (n=367), Cont.

County	Beaver	Muskrat	Otter	Mink	Nutria
Spotsylvania	40	3	4	0	0
Stafford	21	1	3	0	0
Surry	3	21	0	0	0
Sussex	61	20	0	0	0
Tazewell	8	16	4	5	0
Warren	6	2	1	0	0
Washington	12	63	4	5	0
Westmoreland	16	15	1	0	0
Wise	5	0	0	0	0
Wythe	3	130	8	10	0
York	3	0	0	0	0
Alexandria	0	0	0	0	0
Chesapeake	23	7	1	0	0
Covington	0	0	0	0	0
Harrisonburg	0	22	0	1	0
Newport News	0	6	0	0	0
Norfolk	0	50	0	0	2
Suffolk	62	20	0	0	6
Virginia Beach	2	63	10	0	0
Waynesboro	0	0	0	0	0

Table 8: Expanded statewide estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	483 (\pm 28)	6 (\pm 4)	490 (\pm 28)	412 (\pm 27)	6 (\pm 4)	418 (\pm 27)	4,318 (\pm 672)	19 (\pm 14)	4,337 (\pm 672)
Bobcat	441 (\pm 27)	23 (\pm 7)	464 (\pm 28)	214 (\pm 21)	23 (\pm 7)	237 (\pm 21)	581 (\pm 81)	39 (\pm 14)	620 (\pm 81)
Coyote	727 (\pm 31)	23 (\pm 7)	749 (\pm 31)	496 (\pm 28)	23 (\pm 7)	519 (\pm 29)	3,548 (\pm 426)	39 (\pm 16)	3,497 (\pm 426)
Gray Fox	574 (\pm 29)	75 (\pm 13)	649 (\pm 30)	425 (\pm 27)	75 (\pm 13)	500 (\pm 28)	2,365 (\pm 526)	188 (\pm 48)	2,253 (\pm 527)
Red Fox	704 (\pm 31)	49 (\pm 10)	753 (\pm 31)	532 (\pm 29)	49 (\pm 10)	581 (\pm 29)	4,185 (\pm 500)	159 (\pm 62)	4,344 (\pm 523)
Mink	175 (\pm 19)	29 (\pm 8)	204 (\pm 30)	71 (\pm 12)	29 (\pm 8)	101 (\pm 15)	237 (\pm 78)	32 (\pm 9)	269 (\pm 79)
Muskrat	422 (\pm 27)	65 (\pm 12)	487 (\pm 28)	386 (\pm 26)	65 (\pm 12)	451 (\pm 27)	5,628 (\pm 726)	412 (\pm 184)	6,040 (\pm 744)
Nutria	23 (\pm 7)	3 (\pm 3)	26 (\pm 8)	6 (\pm 4)	3 (\pm 3)	10 (\pm 5)	62 (\pm 49)	6 (\pm 3)	68 (\pm 49)
Opossum	247 (\pm 22)	500 (\pm 28)	746 (\pm 31)	224 (\pm 21)	500 (\pm 28)	723 (\pm 31)	2,167 (\pm 329)	3,331 (\pm 327)	5,498 (\pm 433)
Otter	276 (\pm 23)	42 (\pm 10)	318 (\pm 24)	211 (\pm 20)	42 (\pm 10)	253 (\pm 22)	736 (\pm 109)	136 (\pm 57)	873 (\pm 123)
Raccoon	714 (\pm 31)	237 (\pm 21)	950 (\pm 31)	649 (\pm 30)	237 (\pm 21)	886 (\pm 31)	8,165 (\pm 1,121)	1,476 (\pm 201)	9,641 (\pm 1,123)
Striped Skunk	143 (\pm 17)	230 (\pm 21)	373 (\pm 26)	120 (\pm 16)	230 (\pm 21)	350 (\pm 25)	555 (\pm 147)	746 (\pm 90)	1,301 (\pm 168)
Long-tailed Weasel	13 (\pm 5)	3 (\pm 3)	16 (\pm 6)	0 (\pm 0)	3 (\pm 3)	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	3 (\pm 3)

Table 9: Expanded statewide estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 trap nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (±SE)	% of total license buyers (N=1,729) (±SE)	Estimated average # days trapped per trapper (±SE)	Estimated total # days trapped (±SE)	Estimated average # traps set per day per trapper (±SE)	Estimated average season harvest per trapper (±SE)	Estimated average harvest per 100 trap days per trapper (±SE)
Beaver	483 (±28)	28.0% (±1.6%)	15.8 (±1.1)	7,637 (±532)	7.7 (±0.8)	7.0 (±0.7)	4.5 (±0.7)
Bobcat	441 (±27)	25.5% (±1.6%)	24.5 (±1.5)	10,809 (±662)	9.4 (±0.9)	1.2 (±0.1)	0.5 (±0.0)
Coyote	727 (±31)	42.0% (±1.8%)	26.4 (±1.3)	19,183 (±945)	11.2 (±0.7)	4.0 (±0.4)	1.2 (±0.2)
Gray Fox	574 (±29)	33.2% (±1.7%)	26.8 (±1.5)	15,388 (±861)	12.4 (±1.0)	3.6 (±0.6)	1.0 (±0.1)
Red Fox	704 (±31)	40.7% (±1.8%)	26.6 (±1.2)	18,724 (±845)	11.7 (±0.9)	5.0 (±0.5)	1.5 (±0.2)
Mink	175 (±19)	10.1% (±1.1%)	19.2 (±1.9)	3,363 (±333)	11.3 (±2.5)	1.2 (±0.3)	0.5 (±0.0)
Muskrat	422 (±27)	24.4% (±1.5%)	18.8 (±1.1)	7,928 (±464)	11.3 (±1.0)	12.4 (±1.5)	5.9 (±0.5)
Nutria	23 (±7)	1.3% (±0.4%)	28.4 (±8.9)	645 (±202)	11.2 (±3.3)	2.4 (±1.4)	0.8 (±0.0)
Opossum	247 (±22)	14.3% (±1.3%)	24.7 (±2.3)	6,089 (±567)	14.8 (±1.9)	7.2 (±0.7)	1.9 (±0.2)
Otter	276 (±23)	15.9% (±1.3%)	17.5 (±1.5)	4,825 (±414)	9.6 (±1.7)	2.4 (±0.3)	1.2 (±0.1)
Raccoon	714 (±31)	41.3% (±1.8%)	23.5 (±1.3)	16,771 (±928)	10.4 (±0.9)	9.6 (±0.8)	3.7 (±0.5)
Striped Skunk	143 (±17)	8.3% (±1.0%)	29.1 (±3.1)	4,153 (±442)	10.0 (±1.2)	3.7 (±0.9)	1.0 (±0.1)
Long-tailed Weasel	13 (±5)	0.8% (±0.3%)	13.5 (±5.2)	175 (±67)	3.8 (±1.3)	0.0 (±0.0)	0.0 (±0.0)

Table 10: Expanded TIDEWATER REGION estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	130 (\pm 16)	0 (\pm 0)	130 (\pm 16)	117 (\pm 16)	0 (\pm 0)	117 (\pm 16)	1,804 (\pm 233)	0 (\pm 0)	1,804 (\pm 233)
Bobcat	55 (\pm 11)	0 (\pm 0)	55 (\pm 11)	26 (\pm 8)	0 (\pm 0)	26 (\pm 8)	65 (\pm 8)	0 (\pm 0)	65 (\pm 8)
Coyote	133 (\pm 17)	3 (\pm 3)	136 (\pm 17)	88 (\pm 14)	3 (\pm 3)	91 (\pm 14)	295 (\pm 25)	3 (\pm 1)	298 (\pm 25)
Gray Fox	117 (\pm 16)	16 (\pm 6)	133 (\pm 17)	94 (\pm 14)	16 (\pm 6)	110 (\pm 15)	468 (\pm 36)	26 (\pm 4)	494 (\pm 36)
Red Fox	127 (\pm 16)	10 (\pm 5)	136 (\pm 17)	81 (\pm 13)	10 (\pm 5)	91 (\pm 14)	743 (\pm 104)	16 (\pm 4)	763 (\pm 104)
Mink	10 (\pm 5)	6 (\pm 4)	16 (\pm 6)	3 (\pm 3)	6 (\pm 4)	10 (\pm 5)	3 (\pm 1)	7 (\pm 2)	10 (\pm 2)
Muskrat	81 (\pm 13)	19 (\pm 7)	101 (\pm 15)	78 (\pm 13)	19 (\pm 7)	97 (\pm 14)	2,508 (\pm 281)	39 (\pm 7)	2,547 (\pm 280)
Nutria	10 (\pm 5)	3 (\pm 3)	13 (\pm 5)	6 (\pm 4)	3 (\pm 3)	10 (\pm 5)	62 (\pm 22)	7 (\pm 2)	69 (\pm 22)
Opossum	68 (\pm 12)	62 (\pm 12)	130 (\pm 16)	62 (\pm 12)	62 (\pm 12)	123 (\pm 16)	514 (\pm 59)	305 (\pm 32)	819 (\pm 62)
Otter	71 (\pm 12)	13 (\pm 5)	84 (\pm 13)	55 (\pm 11)	13 (\pm 5)	68 (\pm 12)	259 (\pm 33)	20 (\pm 5)	282 (\pm 33)
Raccoon	136 (\pm 17)	45 (\pm 10)	182 (\pm 19)	130 (\pm 16)	45 (\pm 10)	175 (\pm 19)	1,450 (\pm 106)	69 (\pm 7)	1,539 (\pm 104)
Striped Skunk	29 (\pm 8)	16 (\pm 6)	45 (\pm 10)	26 (\pm 8)	16 (\pm 6)	42 (\pm 10)	56 (\pm 8)	33 (\pm 6)	88 (\pm 10)
Long-tailed Weasel	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)

Table 11: Expanded TIDEWATER REGION estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 trap nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (\pm SE)	% of total license buyers (N=1,729) (\pm SE)	Estimated average # days trapped per trapper (\pm SE)	Estimated total # days trapped (\pm SE)	Estimated average # traps set per day per trapper (\pm SE)	Estimated average season harvest per trapper (\pm SE)	Estimated average harvest per 100 trap days per trapper (\pm SE)
Beaver	130 (\pm 16)	7.5% (\pm 1.0%)	16.9 (\pm 2.0)	2,193 (\pm 260)	0.0 (\pm 0.0)	9.8 (\pm 1.8)	0.0 (\pm 0.0)
Bobcat	55 (\pm 11)	3.2% (\pm 0.6%)	21.6 (\pm 2.8)	1,191 (\pm 154)	11.6 (\pm 2.5)	1.1 (\pm 0.2)	0.5 (\pm 0.0)
Coyote	133 (\pm 17)	7.7% (\pm 1.0%)	17.3 (\pm 1.9)	2,301 (\pm 253)	0.0 (\pm 0.0)	2.0 (\pm 0.3)	0.0 (\pm 0.0)
Gray Fox	117 (\pm 16)	6.8% (\pm 0.9%)	18.9 (\pm 1.9)	2,207 (\pm 222)	12.4 (\pm 1.5)	3.8 (\pm 0.5)	1.5 (\pm 0.1)
Red Fox	127 (\pm 16)	6.9% (\pm 0.9%)	0.0 (\pm 0.0)	0 (\pm 0)	0.0 (\pm 0.0)	5.3 (\pm 1.7)	0.0 (\pm 0.0)
Mink	10 (\pm 5)	0.6% (\pm 0.3%)	5.8 (\pm 1.2)	56 (\pm 12)	4.0 (\pm 0.7)	0.2 (\pm 0.2)	1.0 (\pm 0.0)
Muskrat	81 (\pm 13)	4.7% (\pm 0.8%)	14.5 (\pm 2.3)	1,176 (\pm 187)	18.5 (\pm 3.6)	27.4 (\pm 6.3)	11.1 (\pm 0.4)
Nutria	10 (\pm 5)	0.6% (\pm 0.3%)	13.0 (\pm 3.9)	127 (\pm 38)	12.0 (\pm 4.5)	4.8 (\pm 2.6)	2.2 (\pm 0.0)
Opossum	68 (\pm 12)	3.9% (\pm 0.7%)	20.8 (\pm 2.9)	1,417 (\pm 198)	12.1 (\pm 1.8)	6.3 (\pm 1.1)	2.2 (\pm 0.1)
Otter	71 (\pm 12)	4.3% (\pm 0.7%)	0.0 (\pm 0.0)	0 (\pm 0)	0.0 (\pm 0.0)	2.9 (\pm 0.8)	0.0 (\pm 0.0)
Raccoon	136 (\pm 17)	8.1% (\pm 1.0%)	0.0 (\pm 0.0)	0 (\pm 0)	0.0 (\pm 0.0)	8.5 (\pm 1.3)	0.0 (\pm 0.0)
Striped Skunk	29 (\pm 8)	1.7% (\pm 0.5%)	25.1 (\pm 4.8)	733 (\pm 140)	13.5 (\pm 3.1)	1.7 (\pm 0.3)	0.4 (\pm 0.0)
Long-tailed Weasel	0 (\pm 0)	0.0% (\pm 0.0%)	0.0 (\pm 0.0)	0 (\pm 0)	0.0 (\pm 0.0)	0.0 (\pm 0.0)	0.0 (\pm 0.0)

Table 12: Expanded SOUTH PIEDMONT REGION estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	88 (\pm 14)	3 (\pm 3)	91 (\pm 14)	68 (\pm 12)	3 (\pm 3)	71 (\pm 12)	786 (\pm 102)	3 (\pm 1)	789 (\pm 102)
Bobcat	104 (\pm 15)	6 (\pm 4)	110 (\pm 15)	42 (\pm 10)	6 (\pm 4)	49 (\pm 10)	111 (\pm 12)	13 (\pm 4)	124 (\pm 13)
Coyote	175 (\pm 19)	16 (\pm 6)	191 (\pm 20)	133 (\pm 17)	16 (\pm 6)	149 (\pm 17)	789 (\pm 70)	33 (\pm 7)	822 (\pm 69)
Gray Fox	133 (\pm 17)	6 (\pm 4)	139 (\pm 17)	101 (\pm 15)	6 (\pm 4)	107 (\pm 15)	1,215 (\pm 229)	20 (\pm 6)	1,234 (\pm 228)
Red Fox	159 (\pm 18)	10 (\pm 5)	169 (\pm 18)	107 (\pm 15)	10 (\pm 5)	117 (\pm 16)	540 (\pm 82)	56 (\pm 18)	596 (\pm 83)
Mink	19 (\pm 7)	0 (\pm 0)	19 (\pm 7)	6 (\pm 4)	0 (\pm 0)	6 (\pm 4)	95 (\pm 33)	0 (\pm 0)	95 (\pm 33)
Muskrat	42 (\pm 10)	13 (\pm 5)	55 (\pm 11)	36 (\pm 9)	13 (\pm 5)	49 (\pm 10)	314 (\pm 35)	16 (\pm 4)	334 (\pm 34)
Nutria	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)
Opossum	58 (\pm 11)	114 (\pm 15)	172 (\pm 19)	52 (\pm 11)	114 (\pm 15)	165 (\pm 18)	570 (\pm 92)	933 (\pm 95)	1,503 (\pm 125)
Otter	36 (\pm 9)	13 (\pm 5)	49 (\pm 10)	29 (\pm 8)	13 (\pm 5)	42 (\pm 10)	160 (\pm 28)	13 (\pm 3)	177 (\pm 28)
Raccoon	149 (\pm 17)	42 (\pm 10)	191 (\pm 20)	127 (\pm 16)	42 (\pm 10)	169 (\pm 18)	2,269 (\pm 461)	344 (\pm 50)	2,613 (\pm 460)
Striped Skunk	42 (\pm 10)	45 (\pm 10)	88 (\pm 14)	29 (\pm 8)	45 (\pm 10)	75 (\pm 13)	167 (\pm 23)	147 (\pm 18)	314 (\pm 28)
Long-tailed Weasel	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)

Table 13: Expanded SOUTH PIEDMONT REGION estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 trap nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (±SE)	% of total license buyers (N=1,729) (±SE)	Estimated average # days trapped per trapper (±SE)	Estimated total # days trapped (±SE)	Estimated average # traps set per day per trapper (±SE)	Estimated average season harvest per trapper (±SE)	Estimated average harvest per 100 trap days per trapper (±SE)
Beaver	88 (±14)	5.1% (±0.8%)	19.5 (±3.7)	1,708 (±324)	15.4 (±3.7)	7.3 (±1.6)	1.9 (±0.1)
Bobcat	104 (±15)	6.0% (±0.9%)	25.5 (±3.4)	2,647 (±353)	0.0 (±0.0)	0.9 (±0.2)	0.0 (±0.0)
Coyote	175 (±19)	10.1% (±1.1%)	25.5 (±2.6)	4,467 (±455)	14.6 (±2.2)	4.0 (±0.8)	1.0 (±0.1)
Gray Fox	133 (±17)	7.7% (±1.0%)	23.6 (±2.8)	3,139 (±372)	0.0 (±0.0)	7.0 (±2.2)	0.0 (±0.0)
Red Fox	159 (±18)	8.4% (±1.0%)	24.2 (±2.7)	3,847 (±429)	19.0 (±3.3)	2.9 (±0.6)	0.6 (±0.0)
Mink	19 (±7)	1.1% (±0.4%)	19.0 (±3.3)	370 (±64)	30.0 (±14.7)	3.6 (±1.9)	0.5 (±0.0)
Muskrat	42 (±10)	2.6% (±0.6%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	6.4 (±1.0)	0.0 (±0.0)
Nutria	3 (±3)	0.2% (±0.2%)	30.0 (±0.0)	97 (±0)	7.0 (±0.0)	0.0 (±0.0)	0.0 (±0.0)
Opossum	58 (±11)	3.4% (±0.7%)	21.9 (±4.0)	1,279 (±234)	24.9 (±6.9)	7.2 (±1.2)	1.9 (±0.1)
Otter	36 (±9)	2.3% (±0.5%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	3.5 (±1.1)	0.0 (±0.0)
Raccoon	149 (±17)	8.6% (±1.0%)	22.4 (±3.0)	3,343 (±448)	14.5 (±3.1)	12.4 (±3.0)	3.9 (±0.3)
Striped Skunk	42 (±10)	2.4% (±0.6%)	22.0 (±3.4)	928 (±143)	0.0 (±0.0)	3.9 (±0.9)	0.0 (±0.0)
Long-tailed Weasel	3 (±3)	0.2% (±0.2%)	30.0 NA	97 (±0)	7.0 (±0.0)	0.0 (±0.0)	0.0 (±0.0)

Table 14: Expanded NORTH PIEDMONT REGION estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	136 (\pm 17)	3 (\pm 3)	139 (\pm 17)	117 (\pm 16)	3 (\pm 3)	120 (\pm 16)	1,306 (\pm 130)	16 (\pm 6)	1,323 (\pm 129)
Bobcat	42 (\pm 10)	3 (\pm 3)	45 (\pm 10)	23 (\pm 7)	3 (\pm 3)	26 (\pm 8)	69 (\pm 14)	3 (\pm 1)	72 (\pm 14)
Coyote	81 (\pm 13)	0 (\pm 0)	81 (\pm 13)	52 (\pm 11)	0 (\pm 0)	52 (\pm 11)	517 (\pm 110)	0 (\pm 0)	517 (\pm 110)
Gray Fox	65 (\pm 12)	3 (\pm 3)	68 (\pm 12)	49 (\pm 10)	3 (\pm 3)	52 (\pm 11)	190 (\pm 22)	23 (\pm 8)	213 (\pm 23)
Red Fox	104 (\pm 15)	10 (\pm 5)	114 (\pm 15)	75 (\pm 13)	10 (\pm 5)	84 (\pm 13)	920 (\pm 123)	62 (\pm 21)	982 (\pm 141)
Mink	16 (\pm 6)	6 (\pm 4)	23 (\pm 7)	3 (\pm 3)	6 (\pm 4)	10 (\pm 5)	13 (\pm 5)	7 (\pm 2)	20 (\pm 5)
Muskrat	55 (\pm 11)	16 (\pm 6)	71 (\pm 12)	49 (\pm 10)	16 (\pm 6)	65 (\pm 12)	334 (\pm 41)	92 (\pm 27)	629 (\pm 89)
Nutria	6 (\pm 4)	0 (\pm 0)	6 (\pm 4)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)
Opossum	39 (\pm 9)	49 (\pm 10)	88 (\pm 14)	32 (\pm 8)	49 (\pm 10)	81 (\pm 13)	170 (\pm 23)	255 (\pm 36)	426 (\pm 41)
Otter	62 (\pm 12)	19 (\pm 7)	81 (\pm 13)	52 (\pm 11)	19 (\pm 7)	71 (\pm 12)	174 (\pm 17)	29 (\pm 5)	265 (\pm 28)
Raccoon	104 (\pm 15)	39 (\pm 9)	143 (\pm 17)	94 (\pm 14)	39 (\pm 9)	133 (\pm 17)	779 (\pm 63)	255 (\pm 41)	1,064 (\pm 81)
Striped Skunk	23 (\pm 7)	26 (\pm 8)	49 (\pm 10)	16 (\pm 6)	26 (\pm 8)	42 (\pm 10)	49 (\pm 12)	62 (\pm 10)	111 (\pm 14)
Long-tailed Weasel	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)

Table 15: Expanded NORTH PIEDMONT REGION estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 traps nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (±SE)	% of total license buyers (N=1,729) (±SE)	Estimated average # days trapped per trapper (±SE)	Estimated total # days trapped (±SE)	Estimated average # traps set per day per trapper (±SE)	Estimated average season harvest per trapper (±SE)	Estimated average harvest per 100 trap days per trapper (±SE)
Beaver	136 (±17)	7.9% (±1.0%)	15.4 (±1.9)	2,098 (±259)	7.3 (±1.1)	8.1 (±1.2)	6.5 (±0.4)
Bobcat	42 (±10)	2.4% (±0.6%)	21.5 (±4.5)	907 (±190)	6.7 (±1.6)	1.4 (±0.4)	0.7 (±0.0)
Coyote	81 (±13)	4.7% (±0.8%)	29.4 (±4.3)	2,384 (±349)	8.9 (±1.1)	5.3 (±1.6)	1.5 (±0.1)
Gray Fox	65 (±12)	3.8% (±0.7%)	32.9 (±5.0)	2,134 (±324)	11.0 (±1.3)	2.6 (±0.5)	0.6 (±0.0)
Red Fox	104 (±15)	5.6% (±0.8%)	28.5 (±3.6)	2,958 (±374)	9.0 (±1.0)	7.8 (±1.5)	2.4 (±0.1)
Mink	16 (±6)	0.9% (±0.3%)	14.0 (±6.5)	227 (±105)	9.2 (±4.1)	0.8 (±0.7)	0.3 (±0.0)
Muskrat	55 (±11)	3.4% (±0.7%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	4.9 (±1.3)	0.0 (±0.0)
Nutria	6 (±4)	0.4% (±0.2%)	27.5 (±14.6)	178 (±95)	17.5 (±9.6)	0.0 (±0.0)	0.0 (±0.0)
Opossum	39 (±9)	2.3% (±0.5%)	17.8 (±4.7)	693 (±183)	7.2 (±1.9)	4.3 (±1.0)	3.0 (±0.1)
Otter	62 (±12)	3.8% (±0.7%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	2.2 (±0.4)	0.0 (±0.0)
Raccoon	104 (±15)	6.2% (±0.9%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	6.4 (±1.0)	0.0 (±0.0)
Striped Skunk	23 (±7)	1.3% (±0.4%)	27.3 (±6.2)	620 (±141)	4.4 (±1.2)	2.1 (±1.0)	1.7 (±0.0)
Long-tailed Weasel	3 (±3)	0.2% (±0.2%)	10.0 (±0.0)	32 (±0)	6.0 (±0.0)	0.0 (±0.0)	0.0 (±0.0)

Table 16: Expanded SOUTHERN MOUNTAIN REGION estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	94 (\pm 14)	0 (\pm 0)	94 (\pm 14)	88 (\pm 14)	0 (\pm 0)	88 (\pm 14)	305 (\pm 26)	0 (\pm 0)	305 (\pm 26)
Bobcat	159 (\pm 18)	6 (\pm 4)	165 (\pm 18)	91 (\pm 14)	6 (\pm 4)	97 (\pm 14)	252 (\pm 27)	16 (\pm 4)	268 (\pm 27)
Coyote	217 (\pm 21)	0 (\pm 0)	217 (\pm 21)	143 (\pm 17)	0 (\pm 0)	143 (\pm 17)	1,411 (\pm 128)	0 (\pm 0)	1,411 (\pm 128)
Gray Fox	139 (\pm 17)	29 (\pm 8)	169 (\pm 18)	91 (\pm 14)	29 (\pm 8)	120 (\pm 16)	216 (\pm 20)	43 (\pm 6)	259 (\pm 20)
Red Fox	175 (\pm 19)	13 (\pm 5)	188 (\pm 19)	114 (\pm 15)	13 (\pm 5)	127 (\pm 16)	524 (\pm 46)	13 (\pm 2)	537 (\pm 46)
Mink	71 (\pm 12)	10 (\pm 5)	81 (\pm 13)	39 (\pm 9)	10 (\pm 5)	49 (\pm 10)	98 (\pm 11)	10 (\pm 2)	108 (\pm 11)
Muskrat	123 (\pm 16)	13 (\pm 5)	136 (\pm 17)	110 (\pm 15)	13 (\pm 5)	123 (\pm 16)	1,277 (\pm 94)	20 (\pm 4)	1,297 (\pm 94)
Nutria	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)
Opossum	45 (\pm 10)	149 (\pm 17)	195 (\pm 20)	45 (\pm 10)	149 (\pm 17)	195 (\pm 20)	534 (\pm 76)	1,054 (\pm 76)	1,588 (\pm 98)
Otter	65 (\pm 12)	3 (\pm 3)	68 (\pm 12)	45 (\pm 10)	3 (\pm 3)	49 (\pm 10)	102 (\pm 10)	3 (\pm 1)	105 (\pm 10)
Raccoon	182 (\pm 19)	58 (\pm 11)	240 (\pm 22)	172 (\pm 19)	58 (\pm 11)	230 (\pm 21)	2,135 (\pm 120)	445 (\pm 50)	2,580 (\pm 117)
Striped Skunk	26 (\pm 8)	68 (\pm 12)	94 (\pm 14)	26 (\pm 8)	68 (\pm 12)	94 (\pm 14)	206 (\pm 58)	180 (\pm 18)	386 (\pm 60)
Long-tailed Weasel	3 (\pm 3)	3 (\pm 3)	6 (\pm 4)	0 (\pm 0)	3 (\pm 3)	3 (\pm 3)	0 (\pm 0)	3 (\pm 1)	3 (\pm 1)

Table 17: Expanded SOUTHERN MOUNTAIN REGION estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 trap nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (\pm SE)	% of total license buyers (N=1,729) (\pm SE)	Estimated average # days trapped per trapper (\pm SE)	Estimated total # days trapped (\pm SE)	Estimated average # traps set per day per trapper (\pm SE)	Estimated average season harvest per trapper (\pm SE)	Estimated average harvest per 100 trap days per trapper (\pm SE)
Beaver	94 (\pm 14)	5.4% (\pm 0.8%)	13.4 (\pm 1.7)	1,261 (\pm 160)	4.2 (\pm 0.4)	3.1 (\pm 0.5)	5.1 (\pm 0.2)
Bobcat	159 (\pm 18)	9.2% (\pm 1.0%)	29.0 (\pm 3.0)	4,610 (\pm 477)	7.7 (\pm 0.9)	1.5 (\pm 0.4)	0.6 (\pm 0.0)
Coyote	217 (\pm 21)	12.6% (\pm 1.2%)	31.9 (\pm 2.8)	6,933 (\pm 609)	9.9 (\pm 0.8)	5.7 (\pm 1.1)	1.6 (\pm 0.1)
Gray Fox	139 (\pm 17)	8.1% (\pm 1.0%)	36.0 (\pm 3.6)	5,022 (\pm 502)	8.5 (\pm 0.8)	1.5 (\pm 0.3)	0.4 (\pm 0.0)
Red Fox	175 (\pm 19)	9.4% (\pm 1.1%)	33.3 (\pm 3.0)	5,833 (\pm 526)	9.1 (\pm 1.1)	3.1 (\pm 0.6)	0.9 (\pm 0.0)
Mink	71 (\pm 12)	4.1% (\pm 0.7%)	22.6 (\pm 3.5)	1,613 (\pm 250)	12.2 (\pm 3.9)	1.2 (\pm 0.3)	0.5 (\pm 0.0)
Muskrat	123 (\pm 16)	7.1% (\pm 0.9%)	23.4 (\pm 2.0)	2,884 (\pm 247)	11.8 (\pm 2.3)	9.5 (\pm 1.4)	3.8 (\pm 0.2)
Nutria	3 (\pm 3)	0.2% (\pm 0.2%)	90.0 (\pm 0.0)	292 (\pm 0)	0.0 (\pm 0.0)	0.0 (\pm 0.0)	0.0 (\pm 0.0)
Opossum	45 (\pm 10)	2.6% (\pm 0.6%)	38.2 (\pm 6.3)	1,735 (\pm 286)	12.9 (\pm 1.9)	10.9 (\pm 2.7)	1.8 (\pm 0.0)
Otter	65 (\pm 12)	3.8% (\pm 0.7%)	16.1 (\pm 1.9)	1,045 (\pm 123)	12.3 (\pm 4.5)	1.6 (\pm 0.3)	0.9 (\pm 0.0)
Raccoon	182 (\pm 19)	10.5% (\pm 1.1%)	26.5 (\pm 2.7)	4,814 (\pm 490)	11.2 (\pm 1.8)	10.9 (\pm 1.2)	3.7 (\pm 0.2)
Striped Skunk	26 (\pm 8)	1.5% (\pm 0.4%)	41.9 (\pm 8.9)	1,087 (\pm 231)	9.9 (\pm 2.6)	7.9 (\pm 4.8)	1.4 (\pm 0.0)
Long-tailed Weasel	3 (\pm 3)	0.2% (\pm 0.2%)	0.0 (\pm 0.0)	0 (\pm 0)	1.0 (\pm 0.0)	0.0 (\pm 0.0)	0.0 (\pm 0.0)

Table 18: Expanded NORTHERN MOUNTAIN REGION estimates of the total number of trappers, total number of successful trappers, and total harvest by furbearer species, based upon responses to the 2015-2016 Trapper Harvest survey (standard error estimates in parentheses)

Species	Estimated Total # Trappers (\pm SE)			Estimated # Successful Trappers (\pm SE)			Estimated Total Harvest (\pm SE)		
	Target	Non-target	Total	Target	Non-target	Total	Target	Non-target	Total
Beaver	62 (\pm 12)	0 (\pm 0)	62 (\pm 12)	49 (\pm 10)	0 (\pm 0)	49 (\pm 10)	157 (\pm 16)	0 (\pm 0)	157 (\pm 16)
Bobcat	94 (\pm 14)	6 (\pm 4)	101 (\pm 15)	39 (\pm 9)	6 (\pm 4)	45 (\pm 10)	88 (\pm 11)	7 (\pm 2)	95 (\pm 11)
Coyote	152 (\pm 18)	3 (\pm 3)	156 (\pm 18)	104 (\pm 15)	3 (\pm 3)	107 (\pm 15)	478 (\pm 44)	3 (\pm 1)	481 (\pm 44)
Gray Fox	127 (\pm 16)	19 (\pm 7)	146 (\pm 17)	97 (\pm 14)	19 (\pm 7)	117 (\pm 16)	298 (\pm 26)	79 (\pm 17)	377 (\pm 30)
Red Fox	201 (\pm 20)	6 (\pm 4)	208 (\pm 20)	165 (\pm 18)	6 (\pm 4)	172 (\pm 19)	1,496 (\pm 123)	10 (\pm 3)	1,506 (\pm 123)
Mink	62 (\pm 12)	6 (\pm 4)	68 (\pm 12)	19 (\pm 7)	6 (\pm 4)	26 (\pm 8)	29 (\pm 5)	10 (\pm 3)	39 (\pm 5)
Muskrat	130 (\pm 16)	6 (\pm 4)	136 (\pm 17)	120 (\pm 16)	6 (\pm 4)	127 (\pm 16)	1,247 (\pm 96)	43 (\pm 15)	1,290 (\pm 96)
Nutria	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)
Opossum	45 (\pm 10)	136 (\pm 17)	182 (\pm 19)	42 (\pm 10)	136 (\pm 17)	178 (\pm 19)	399 (\pm 61)	812 (\pm 60)	1,215 (\pm 78)
Otter	49 (\pm 10)	3 (\pm 3)	52 (\pm 11)	36 (\pm 9)	3 (\pm 3)	39 (\pm 9)	49 (\pm 6)	3 (\pm 1)	52 (\pm 6)
Raccoon	169 (\pm 18)	58 (\pm 11)	227 (\pm 21)	149 (\pm 17)	58 (\pm 11)	208 (\pm 20)	1,608 (\pm 109)	327 (\pm 34)	1,935 (\pm 106)
Striped Skunk	23 (\pm 7)	78 (\pm 13)	101 (\pm 15)	23 (\pm 7)	78 (\pm 13)	101 (\pm 15)	82 (\pm 16)	331 (\pm 27)	413 (\pm 30)
Long-tailed Weasel	3 (\pm 3)	0 (\pm 0)	3 (\pm 3)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)	0 (\pm 0)

Table 19: Expanded NORTHERN MOUNTAIN REGION estimates of total number of trappers, average days trapped, average season harvest, and average harvest per 100 trap nights for trappers targeting individual furbearer species, based upon responses to the 2015-2016 Trapper Harvest Survey (standard error estimates in parentheses)

Species	Estimated total # trappers that target species (±SE)	% of total license buyers (N=1,729) (±SE)	Estimated average # days trapped per trapper (±SE)	Estimated total # days trapped (±SE)	Estimated average # traps set per day per trapper (±SE)	Estimated average season harvest per trapper (±SE)	Estimated average harvest per 100 trap days per trapper (±SE)
Beaver	62 (±12)	3.6% (±0.7%)	11.3 (±1.8)	696 (±111)	4.0 (±0.6)	2.3 (±0.4)	4.8 (±0.2)
Bobcat	94 (±14)	5.4% (±0.8%)	19.5 (±2.7)	1,834 (±254)	7.7 (±1.0)	0.8 (±0.2)	0.6 (±0.0)
Coyote	152 (±18)	8.8% (±1.0%)	25.9 (±2.5)	3,949 (±381)	11.4 (±1.1)	2.6 (±0.4)	0.8 (±0.0)
Gray Fox	127 (±16)	7.3% (±0.9%)	25.5 (±3.1)	3,226 (±392)	8.7 (±0.9)	2.1 (±0.3)	0.7 (±0.0)
Red Fox	201 (±20)	11.3% (±1.1%)	27.9 (±2.3)	5,611 (±463)	10.0 (±0.8)	6.5 (±1.1)	2.0 (±0.1)
Mink	62 (±12)	3.6% (±0.7%)	19.1 (±3.1)	1,177 (±191)	4.7 (±0.7)	0.4 (±0.1)	0.6 (±0.0)
Muskrat	130 (±16)	7.5% (±1.0%)	17.8 (±1.9)	2,310 (±247)	8.5 (±0.8)	9.5 (±1.5)	5.0 (±0.3)
Nutria	0 (±0)	0.0% (±0.0%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	0.0 (±0.0)	0.0 (±0.0)
Opossum	45 (±10)	2.8% (±0.6%)	0.0 (±0.0)	0 (±0)	0.0 (±0.0)	6.8 (±2.0)	0.0 (±0.0)
Otter	49 (±10)	2.8% (±0.6%)	13.9 (±2.7)	676 (±131)	3.3 (±0.4)	1.0 (±0.2)	2.0 (±0.1)
Raccoon	169 (±18)	9.8% (±1.1%)	27.5 (±2.9)	4,639 (±489)	8.4 (±1.0)	8.3 (±1.2)	3.2 (±0.2)
Striped Skunk	23 (±7)	1.3% (±0.4%)	34.2 (±12.9)	777 (±293)	14.0 (±4.4)	3.1 (±0.8)	0.5 (±0.0)
Long-tailed Weasel	3 (±3)	0.2% (±0.2%)	14.0 (±0.0)	45 (±0)	1.0 (±0.0)	0.0 (±0.0)	0.0 (±0.0)

Table 20: Rare furbearer observations based upon responses to the 2015-2016 Trapper Harvest Survey

Fisher:

Number reported observed: 3

Number reported trapped: 0

Counties of observation: Washington, Smyth, Prince William

Spotted Skunk:

Number reported observed: 7

Number reported trapped: 1

Counties of observation: Bedford, King William, Albemarle, Grayson

Counties where trapped: Henrico

Least Weasel:

Number reported observed: 1

Number reported trapped: 0

Counties of observation: Smyth



2015-2016 Virginia Trapper Harvest Survey



This is your 2015-2016 Virginia Trapper Harvest Survey. Please complete the survey and return it in the enclosed business reply envelope. Your response is completely confidential and very important. Please send in your response, even if you did not trap this season. If you have any questions, please contact the Mike Fies at (540) 248-9390 or mike.fies@dgif.virginia.gov.

First, did you trap in Virginia between November 15, 2015 and February 29, 2016?

Yes No

If **NO**, stop here and return the survey in the postage-paid envelope.

If **YES**, please follow the instructions below and complete the remainder of the survey on the other side of this page.

Instructions for Completing the Trapping Table:

1. Please report information for furbearers trapped during the general trapping season (Nov. 15, 2015 to Feb. 29, 2016) only. Do **not** report information for animals trapped under authorization of a Commercial Nuisance Animal Permit or other nuisance animals trapped outside the general season. Also, please do not include live foxes trapped for transport to foxhound training preserves.
2. **For Targeted Species:**
 - Indicate total # of animals trapped, total # of days trapped, and average # of traps set per day for each species in each county.
 - If you were unsuccessful at catching a targeted species, place a "0" for the total # of animals trapped, but still report the total # of days trapped and the average # of traps set per day for that species. *See bobcat example for how to report unsuccessful target species trapping.*
3. **For Non-Target/Incidental captures:**
 - If you captured non-target/incidental animals, please report the total # of animals trapped, but place a "0" for the total # days trapped and a "0" for the average # of traps set per day, since these animals were not the primary target for your traps. *See gray fox and opossum examples for how to report incidentally trapped animals.*
4. **For fisher, spotted skunk, and least weasel:**
 - Please indicate if you observed or trapped these species during the past trapping season. If YES, please provide a detailed location where each animal was observed or trapped OR you may contact DGIF Furbearer Project Leader Mike Fies at 540-248-9390 or mike.fies@dgif.virginia.gov to provide specific details

Please read the instructions on the opposite side of this page before completing this survey.

	Write in the name of each county or city in which you trapped																	
	Example			County/City #1			County/City #2			County/City #3			County/City #4			County/City #5		
	<i>Buckingham</i>																	
	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day	# Animals Trapped	# Days Trapped	Average # Traps Set Per Day
For each species, record total # of animals trapped, total # days trapped, and average # traps set per day (see instructions on opposite side of page) →																		
Beaver	17	15	10															
Bobcat	0	7	5															
Coyote																		
Gray Fox	2	0	0															
Red Fox	10	12	8															
Mink																		
Muskrat	55	30	15															
Nutria																		
Opossum	25	0	0															
Otter																		
Raccoon																		
Striped Skunk																		
Long-tailed Weasel																		
	Fisher			Spotted Skunk			Least Weasel											
Please indicate if you observed or trapped any of the following species during this past trapping season. If YES, please provide a detailed location where the observation occurred. You may also provide details to DGIF Furbearer Project Leader Mike Fies at 540-248-9390 or mike.fies@dgif.virginia.gov	Did you observe a fisher during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No			Did you observe a spotted skunk during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No			Did you observe a least weasel during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No											
	Did you trap a fisher during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No Detailed location: _____			Did you trap a spotted skunk during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No Detailed location: _____			Did you trap a least weasel during the past trapping season? <input type="checkbox"/> Yes <input type="checkbox"/> No Detailed location: _____											

Appendix B. Cover letter for first mailing.

March 10, 2016

Dear Trapper,

Enclosed you will find the 2015-16 Virginia Trapper Harvest Survey from the Virginia Department of Game and Inland Fisheries. We would appreciate your cooperation in this voluntary survey designed to provide us with the necessary information to estimate the statewide harvest of furbearers during the 2015-16 trapping season.

This survey is being sent to a random sample of Virginia licensed trappers and it is important that every recipient send in a response. All information on this survey is **completely confidential**. No personally identifiable information is being collected on the survey so that responses cannot be tied to an individual. A postage-paid envelope has been enclosed for your convenience in returning the completed questionnaire.

If you have questions or comments about this survey, please do not hesitate to contact Dustin Martin, Survey Coordinator, via email at surveys@dgif.virginia.gov, phone at (804) 367-1180, or mail at Virginia Department of Game and Inland Fisheries, P.O. Box 90778, Henrico, VA 23228. You may also contact Mike Fies, Furbearer Project Leader, at (540) 248-9390, or mike.fies@dgif.virginia.gov.

Your assistance in providing trapping harvest information is greatly appreciated and important for effectively managing Virginia's furbearers in the future. Please try to complete and return the questionnaire **within the next 10 days**. Thanks in advance for your cooperation.

Sincerely,

Dustin Martin, Ph.D.
Survey Coordinator
Virginia Dept. of Game and Inland Fisheries

Virginia Trapper Survey — Reminder!

Recently, a questionnaire seeking information about your experience trapping in Virginia during 2015-2016 was mailed to you. If you have already completed the survey and returned it, please accept our sincere thanks.

If not, please do so at your earliest possible convenience. Because it has been sent only to a small, but representative sample of trappers in Virginia, it is important that your responses also be included in the study if the results are to accurately represent trappers' opinions.

If you have not received this questionnaire, or it was misplaced, please either email me at surveys@dgif.virginia.gov or call me at (804) 367-1130 and I will mail another questionnaire to you.

Sincerely,

Dustin R. Martin, Ph.D.
Survey Coordinator
Virginia Department of Game and Inland Fisheries

Appendix D. 2015-2016 Virginia Trapping Season Dates

There is a continuous open season to trap beaver, muskrat, opossum, and raccoon within the incorporated limits of any city or town in the Commonwealth, and in the counties of Arlington, Chesterfield, Fairfax, Henrico, James City, Loudoun, Prince William, Spotsylvania, Stafford, Roanoke, and York. When beavers are damaging crops or lands, the owner of the premises, his agent, or tenant, may kill the animals or have them killed. This includes shooting, except in areas where the discharge of firearms is prohibited.

Beaver

December 1 through February 28

Bobcat

November 15 through February 28

Coyote

Continuous open season.

Fisher

Continuous closed season.

Fox

November 15 through February 28

Fox trapping is prohibited in Clarke (except on G. Richard Thompson WMA), Fauquier (except on Chester F. Phelps WMA and G. Richard Thompson WMA), Loudoun, and Rappahannock counties.

Mink

December 1 through February 28

Muskrat

December 1 through February 28

Nutria

Continuous open season

Opossum

November 15 through February 28

Otter

December 1 through February 28

Raccoon

November 15 through February 28

Skunk

Continuous open season for striped skunk. Continuous closed season for taking spotted skunk and the pelts of spotted skunk may not be sold.

Weasel

December 1 through February 28