Kinzua Quality Deer Cooperative Annual Report

January 2022 - December 2022

Good antlerless harvests



Allow good plants to grow on the Forest floor



Which allows good forest regeneration and wildlife habitat to grow



That supports healthy mature deer



KQDC Facebook Kqdc.com

Kinzua Quality Deer Cooperative Annual Report for January 2022 to December 2022

KQDC Coordinator – John Dzemyan

<u>KQDC Partners</u> – USFS, Allegheny National Forest; USFS, Northern Research Station; Kinzua Forests LLC/Conservation Forestry; Forecon; Bradford Municipal Water Authority; Generations Forestry Inc.; Kane Hardwood (a Collins Pine Company); RAM Forest Products; Sand County Foundation of Madison, WI.; Pennsylvania Hunters; AHUG: Allegheny Hardwoods Utilization Group.; Allegheny National Forest Visitors Bureau; University of Pittsburgh at Bradford, Penn State University, Dubois Campus.

<u>Leadership Team</u> – Ken Kane, Susan Stout, Collin Shephard, Alex Royo, Linda Ordiway, Mary Hosmer, Mike Bleech, Emily Rowan, David deCalesta, Linda Devlin, Brad Nelson, Kevin McAleese, Tom Kase, Rick Constantino, Becky Carson, Amy Shields, John Dzemyan.

<u>Check Stations for 2022</u> – Marshburg RT 59 - Mary Hosmer, Emily Rowan, Mike Bleech, Matt Obrien, Jim Rowan. Willows Restaurant RT 346, Lisa Barlow, Aanchal Tewari, Brad Nelson, Larry Wise.

<u>Pellet Group Transects</u> for 2021 – Completed by Generations Forestry, Collins Pine, Kinzua Forest LLC/Conservation Forestry/Forecon, Allegheny National Forest, USFS Lab Irvine, and KQDC Coordinator and Volunteers.

Trail Cameras for 2022 John Dzemyan

Hunter Vehicle Count Surveys for 2022: - No vehicle counts were conducted for 2022.

<u>Annual Report prepared by</u> John Dzemyan, Alex Royo and Emily Rowan

Charts, graphs, tables developed by Alex Royo, Emily Rowan and John Dzemyan

Executive Summary 2022

In 2000 a group of private landowners, public land managers, scientists, hunters, and others came together to form the 74,000-acre Kinzua Quality Deer Cooperative (KQDC) in McKean County, PA. Common goals included improving deer herd quality, forest ecosystem health, and the hunting experience.

Annually, a report is issued that includes a summary of data collected that year and trends that may be evident. This year's report covers the progress of work beginning in January of 2022 to December 2022. The report includes an analysis of deer density and habitat conditions from transects that were accomplished, deer herd sex and age composition drawn from deer harvest information obtained from the check station, October's Deer Season Kick Off Program at the University of Pittsburgh Bradford, along with other endeavors of the KQDC for 2022. Annual car counts during the first two days of the rifle season were not accomplished this year due to no available personnel or volunteers.

The global COVID-19 Pandemic affected availability of people again in 2022, but not as much as in 2021. In spite of work restrictions in the public and private work forces, all 26 square miles of vegetation surveys were completed in April of 2021. Thank you goes to all the people involved who made the effort to get them done.

The October 2022 KQDC Annual Deer Season Kick Off was held at University of Pittsburgh at Bradford after being cancelled the two prior years due to COVID-19 restrictions on public gatherings.

The deer check station project was expanded to two locations in 2022. The Marshburg location was for the second time held at truck company parking lot along RT 59 one quarter mile east of Timberdoodle Flats thanks to the generosity of owner John Perkins of Marshburg. The second location was held along RT 346 Willow Creek at the Willows Restaurant thanks to the generosity of owners Janet LaRoche and her husband Jim.

A sincere thanks to this year's check station staff and volunteers. 39 deer were brought into the check stations. (20 at Marshburg and 19 at Willows) We were hoping that with two check stations we would increase the numbers of deer brought to be checked. However, Poor weather lowered the success for hunters. For the whole two weeks there was almost no snow cover on the KQDC area. Plus, the second day was an almost all-day rain (Sunday, Nov 27th) and the Saturday December 3rd was also overcast, warm with some rain. For the second year in a row Emily Rowan was in charge of the Marshburg Check Station assisted by Mary Hosmer. At the Willows site Lisa Barlow was in charge assisted by Aanchal Tewari.

We also thank the 39 deer hunters who took the extra time to bring their deer into the check station for KQDC research gathering. The data collected adds to the statistical base for properly managing forests and deer on the KQDC and throughout Pennsylvania's forested landscape.

Other successful accomplishments for the KQDC in 2022 were:

KQDC personnel along with other conservation/forestry/wildlife organizations gave in person testimony at the January Pa. Game Commission annual season and bag limits meeting. Written testimony was supplied to each individual PGC Commissioner along with other relevant information about deer and habitat on and around the KQDC. Copies of the KQDC Annual Report were also supplied to all PGC Commissioners and to all participating landowners/cooperators. Copies were also mailed to PGC Deer Biologists as well as area legislators, Penn State Instructors, and related organizations.

Both deer check station buildings were repaired, modified and waterproofed which should keep them ready for service for more years to come.

Over the past three years such testimony and reports have helped the PGC Commissioners institute new programs such as the Saturday opening day followed by a Sunday to hunt deer as well as other adjustments to make more days available for deer hunting in Pennsylvania.

This 2022 report includes data that shows deer numbers and deer impacts continue to be above the levels that the KQDC has set out to maintain. The results are that deer health and forest health are being negatively impacted.

Deer numbers on the whole KQDC over the past four years are as follows.

Deer numbers on the whole KQDC have gone from 15.7psm in 2018 to 24.6 psm in 2022. (2018 = 15.7) (2019 = 19.8) (*2020 = 26.1 to 21.5) (2021 = 21.8) (2022 = 24.6)

(* In 2020 information was from only 13 transects that were completed. The lack of data collection led to a possible two population numbers estimates)

The 2022 vegetation surveys show the impact from deer remains too high for good forest regeneration. This continues the trend documented in 2021 when the 90 remaining permanent plots on the KQDC were surveyed over the summer growing. The summary was that species richness had declined since the last such survey in 2016.

(2021 Survey conducted by Alex Royo. Mariah Slaughter, a M.S. student at Wright State University, Ohio, led the work assisted by two undergraduate field assistants (Raquel Menella and Karen Klug) with additional botanical expertise contracted (Loree Speedy and Mark Bowers)

In response to the increase in deer population and increase impact on vegetation the KQDC has increased the number of DMAP permits as follows.

(Total DMAP permits on KQDC over the past 5 years.

(2018 =967) (2019=1117) (2020 =1517) (2021 = 1881) (2022=1881)

In 2022 the breakdown was as follows

DMAP UNIT 135 Kinzua Forest LLC/Conservation Forestry/portion of ANF = 440 permits

DMAP UNIT 1996 Bradford Watershed/Collins Pine = 800 permits

DMAP UNIT 1981 Allegheny National Forest = 641 permits

In addition to the increase in permits logging and vegetation treatments on the 74,000 acres continue. See table #3.

Check station data also shows us that deer weights and antler spreads are down since the high year of 2016. Deer weights for both males and females continue trending downward. KQDC hunters continue to bring more antlered bucks in much more often than antlerless deer. In 2022 out of 39 deer brought in only 8 were antlerless.

In this year's report I added a column and discussion to table #1 concerning table #6. It's about how antierless harvest are affected by numerous actors which result in population changes. I also added table # 9 which compiles information from the PGC DMAP reports for years 2018 to 2022.

During 2022 KQDC continued to use Facebook and its website to reach out to hunters and the public since meetings and tours were prevented by COVID-19. Contacts were maintained with the University of Pittsburgh at Bradford and Penn State Dubois Campus to arrange for college students and campus facilities remain involved with KQDC. Over the past three years since COVID-19 there has not been much involvement from the colleges.

We were able to have the 2022 Deer Season Kick Off after two years without it. Gary Alt was the featured speaker and the program went well. However, attendance was light, with about 60 people. Very few of the attendees were under 50 years old. We need to find ways to reach out to the younger hunters. The KQDC Facebook page helps inform people with numerous views during the fall hunting seasons. The KQDC Website is still up and running, but needs some attention to make additions to it easier and to increase viewer participation.

The 2022 annual report covers from January 1, 2022 to the end of December 2022.

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INTRODUCTION AND FRAMEWORK OF KQDC

In 2000 a group of private landowners, public land managers, scientists, hunters, and others with the support and guidance of the Sand County Foundation (SCF) came together to form the 74,000-acre Kinzua Quality Deer Cooperative (KQDC Figure 1). Common goals included improving deer herd quality, forest ecosystem health, and the hunting experience. An extensive monitoring program was established to track changes in deer density and habitat, deer harvest, hunter satisfaction, and deer condition (body weights, buck/doe ratios, and antler characteristics). The success of the program has been enhanced by deer management regulations enacted by the Pennsylvania Game Commission that include a three-point antler restriction, presently a week of concurrent antlerless and antlered deer seasons, and the Deer Management Assistance Program (DMAP) which started in 2004, Saturday opener in 2019, and in 2020 a Saturday opener with the next day, Sunday, being open to deer hunting for the first time in Pennsylvania's modern hunting history. In 2021 and 2022 concurrent antlered and antlerless season were again allowed for the first time since 2011.

Annually a report is issued that includes a summary of all data collected that year and trends that may be evident. Protocols have been described in detail in these past reports. In an effort to streamline the report and reduce the size, this year's report will not repeat the description of protocols and will primarily describe important trends and new findings. Protocols will be posted on the KQDC website for those interested.

This year's report includes an analysis of deer density and impact from transects that were completed, deer harvest data collected at the check station, and vehicle counts compared to prior years.

The 2022 hunting season marked the 21st year under the three-point antler restriction rule and the 19th year of DMAP. Cumulatively, these annual reports provide a record of changes in deer quality (age, weight, antler size), habitat quality (browse impact, tree regeneration), and deer density as DMAP, antler restrictions, and hunting regulations that have changed.

Presently the KQDC is made up of the following landowners as shown in Figure #1.

The KQDC initially participated in DMAP by creating north and south DMAP units as divided by State Route 59. In order to achieve a better distribution of hunters and ultimately a better distribution of deer harvest, the Bradford Water Authority and Collins Pine properties were designated as a separate DMAP unit from the Allegheny National Forest (ANF) in 2012. The result is that the KQDC is now divided into three DMAP Units each with a separate DMAP permits request (Figure 2).

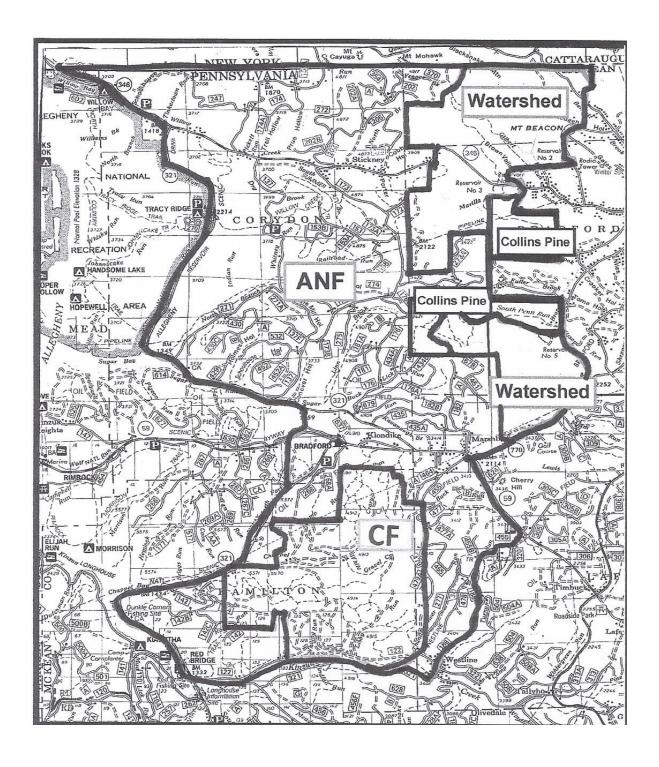


Figure 1. Landowners of the KQDC Project Area. ANF = Allegheny National Forest. CF = Kinzua Forest LLC / Conservation Forestry. Watershed = Bradford Watershed Authority. Collins Pine = Collins Pine

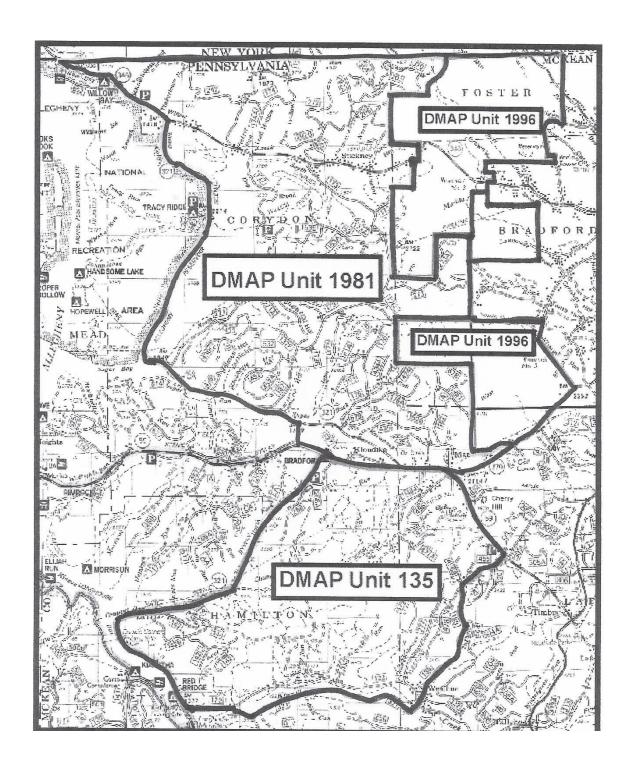


Figure 2. DMAP units within the KQDC: DMAP Unit 1981 (Allegheny National Forest- north), DMAP Unit 1996 (Bradford Water Authority and Collins Pine), and DMAP Unit 135 (Kinzua Forest LLC. / Conservation Forestry and Allegheny National Forest-south).

Deer Density and Habitat Conditions

In 2022 all 26 transects were completed to gather and document data about vegetation and deer population. The data indicates that the total KQDC deer population is still on the upswing since 2016. The vegetation data shows that information gathered spring of 2022 is still impacting forest regeneration and wildlife habitat more than is desired. From 2016 to 2021 deer populations on the whole KQDC have gone from 11.4 per square mile to 24.6 per square mile.

For a second straight year the mast (acorns, cherries, beechnuts) crops from 2021 to 2022 were not abundant and when that occurs deer remain highly dependent on woody browse as a source of forage. During the summer of 2022 gypsy moth caterpillars had an effect on the oaks resulting in little to no acorn production for the 2021-to-2022-time span. My observations were that cherry and beech seed were not abundant either, although a few scattered spots had some.

Deer living on the KQDC landscape are highly dependent on the plant quality and quantity for their survival and healthy. Deer populations and browse impacts need to be reduced to the 2016 levels for the forest and deer to thrive. To do so KQDC and managers must find a way to increase the antierless harvest with KQDC hunters.

Forest management continues throughout the 74,000 acres with all four landowners. (Table #3) Along with the normal timber management treatments there has been an increase in salvage for white ash due to the emerald ash borer infecting and killing a high percentage of the ash trees. The increase in sunlight on the forest floor will help increase the ability of native plants, trees and shrubs to sprout and grow. Keeping deer numbers low enough to ensure that the diversity, quality and quantity of these important plants is vital. In order to maintain quality forest regeneration to produce a quality forest with quality deer and also to provide the proper plant structure for other species of wildlife.

Table #1 shows that from 2005 to 2016 (12 years) the average deer density was 13.6 deer psm on KQDC overall. From 2017 to 2021 (5 years) the average deer density overall KQDC rises to 19.2 deer psm. The years with the best deer health and the best forest regeneration occurred when deer populations were between 10 and 15 psm (average 13.6) If one looks at the last three years alone one sees the last three years average is 24.3 (or 22.9 if one uses the reduced/adjusted d/psm of 22.5 instead of 26.7 for Unit 135 in 2020 when only half the transects were completed). Data shows that the best years for deer health (by weight and antlers) and forest regeneration was when the populations were closer to 14 d/psm for 12 years.

Table 1. Mean deer density (deer/square mile) by DMAP Unit 2002 to 2022 with DMAP Tags, Regular Antlerless Tags, and concurrent season information.

YEAR	DMAP Unit 1981	DMAP Unit 1996	Unit 135	Whole KQDC	95% C.I.	Antlerless tags WMU 2F	DMAP Tags	2-week Concurrent seasons
2002	20.8	33.7	32.0	27.3	+ - 3.3	By county	0	Yes
2003	27.0	35.6	25.3	28.7	+ - 3.0	44,000	0	u u
2004	22.9	29.1	23.8	24.7	+ - 3.7	44,000	3000	u
2005	12.1	20.3	13.2	14.4	+ - 1.4	30,000	3000	u
2006	7.4	14.0	15.1	11.6	+ - 1.8	28,000	700	u
2007	9.8	17.0	11.9	12.2	+ - 1.2	28,000	150	u u
2008	9.3	24.7	15.3	14.9	+ - 1.3	28,000	300	u
2009	10.0	22.2	17.3	15.4	+ - 1.3	28,000	550	u u
2010	8.4	26.8	15.8	15.3	+ - 2.7	22,148	800	u u
2011	16.3	25.2	15.6	17.2	+ - 3.5	34,000	800	One week
2012	8.2	13.4	8.9	9.6	+ - 1.3	27,000	800	u
2013	12.2	22.7	10.7	13.7	+ - 2.7	29,000	905	u
2014	12.3	18.9	10.9	13.4	+ - 3.5	27,000	1067	u
2015	12.0	20.2	12.1	14.0	+ -3.1	22,000	1067	u
2016	10.3	15.2	10.7	11.4	+ - 2.7	22,000	1067	u
2017	7.7	20.6	12.4	12.2	+ - 3.0	24,000	1067	u
2018	17.9	18.4	11.2	15.7	+ - 2.5	23,000	967	u
2019	22.3	24.2	13.9	19.8	+ - 1.0	31,000	1117	u
2020	18.6	35.1	n/a	26.7	n/a	36,000	1517	u
2021	24.6	26.0	14.5	21.8	+ - 3.7	32,000	1881	2 weeks
2022	27.9	32.3	15.4	24.6	+ - 3.5	37,000	1881	и

Discussion on Table #1 with Table #6 which tabulates the total deer brought to the check station very year for 22 years.

In this year's report I added a column to Table #1 with the concurrent season information. This helps compare the relationship between the regular antlerless licenses for all of UNIT 2F along with the DMAP Permits for the KQDC area which is in Unit 2F. In the 22 years that the KQDC has been operating there are only two years when hunters brought more antlerless deer to the check station than antlered deer. This happened 20 years out of 22 even though DMAP permits are for antierless deer only, and the check station was set up to with a prize that if you brought in an antlerless deer, you received two chances at the prize instead of just one. For the first 20 years the KQDC gave a raffle ticket for a rifle and if you brought in an antlered deer, you got one raffle ticket, and if you brought in an antlerless deer, you got two raffle tickets. This was done to encourage hunters to harvest more antlerless deer to bring the total deer population down and into balance with a sustainable forest habitat. In 2021 and 2022 the prize was changed to guarantee that a hunter who brought in an antlerless deer would get a raffle ticket for the main prize, and the hunter who brought in an antlered deer would get a chance for a second smaller prize. Hunters still have brought in more antlered deer than antlerless 20 out of 22 years. When one looks at the total number of antlerless licenses for unit 2F and the DMAP permits numbers for 2F, the only two years when more antlerless deer were checked in were 2002 and 2004 when antlerless licenses, and then DMAP permits were at their highest levels. It also occurred when the concurrent season was in effect for the whole two weeks. Could it be that hunters do better at harvesting antlerless deer when there are lots of hunters with antlerless tags in the woods? During the 2003, 2004 and 2005, 2006 season the deer population on the KQDC was brought down from 27.3 d/psm to 11.3 d/psm. From 2006 to 2016 the levels fluctuated up and down a bit to the 2016 population of 11.4. Since 2017 the population has been increasing from and now stands at 24.6.

Table #1 with Concurrent season information added

The concurrent season started in 2001 in McKean County when county boundaries made up antlerless license areas. Then in 2002 in KQDC became part of Unit 2F. It continued for WMU 2F until 2011 when it was changed to a split season (5 days antlered only, 7 days concurrent). It was then brought back to fully concurrent in 2021 and 2022 (in 2021 the antlerless allocation was educed since the days to hunt were increased. In 2022 antlerless licenses were increase due to CWD detection in Unit 2F near Warren Pennsylvania. From 2019 to 2022 DMAP permits were increased as data showed the population growing.

Over the 22 years many factors contribute to hunters harvesting deer. For antlered harvests (bucks) the number of hunters is a primary factor with Saturday opener and Sunday hunting adding some change. For antlerless harvests (does) numerous other factors are involved such as the number regular antlerless tags in 2F, DMAP permits, number of days to hunt, concurrent seasons, opening day, weekends available, and now Sunday hunting.

Many of these changes have been implement by the Pennsylvania Game Commissioners with input from KQDC.

TABLE 2. Over winter deer density for the past 14 years based on spring pellet group transects. (2009 to 2022)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Site														
Α	8.7	7.2	7.4	8.2	7.3		5.6	13.6	6.2	22.7	23.5	18.5	17.0	19.4
В	4.7	9.9	8.6	8.5	9.1	11.9	17.9	4.0	8.0	28.6	40.0		23.1	8.2
С	22.4	4.5	30.3	6.1	10.9	9	10.7	6.8	14.4	19.5	25.3	24.8	21.5	24.6
D	24.6	14.8	15.8	7.9	8.6	9.5	9.7	12.3	13.0	18.2	17.9	20.0	22.8	25.5
E	14.0	23.3	5.4	2.8	9.4	4.4	18.1	4.0	5.9	18.0	20.3		14.7	18.2
F	17.3	16.2	22.7	4.3	10.6	18.9	10.2	4.9	9.6	10.9	16.9	52.8	18.4	21.5
G	3.6	4.1	7.5	5.7	24.5	11.3	5.5	5.2	10.5	6.8	7.1	6.8	13.4	14.0
Н	11.2	1.0	17.4	9.8	2.4	6.2	5.1	4.6	6.8	15.6	21.2	13.4	31.4	21.8
ı	26.3	27.3	51.4	13.6	34.3	15.3	22.2	8.1	22.6	16.0	16.2	36.2	19.3	20.9
J	11.1	29.1		17.9	30.8	19.8	31.7	23.2	16.0	23.9	39.0	48.1	25.1	33.0
К	26.3	37.0		21.9	29.1	28.3	22.3	27.6	37.6	27.4	37.2	33.0	32.5	44.7
L	16.7	21.4	28.1	9.3	10.4	12.7	15.6	13.3	3.0	11.7	17.9	30.7	15.7	47.7
M	10.8	6.8	18.6	10.3	18.6	22.6	18.9	7.1	5.9	15.4	31.9		48.3	47.0
N	8.2	5.2	25.7	8.0	19.6	10.5	11.3	11.2	5.3	21.3	27.9	20.9	31.9	45.7
0	17.3	18.7	9.1	15.3	14.3	18.3	21.5	29.7	10.4	23.5	14.3		26.0	27.5
Р	27.4	36.3	10.7	15.0		21.5	25.3	23.9	24.9	14.0	17.8	21.3	37.9	48.1
Q	2.7	8.7	11.2	3.9	9.6	9.7	11.1	8.7	7.7	11.5	17.1		30.5	32.8
R	4.3	5.1	8.9	5.5	7.8	10.5	9.1	8.9	6.3	20.0	19.5	20.8	32.3	18.0
S	4.1	6.0	10.9	7.9	6.4	7.6	2.1	8.8	5.0	19.8	8.3		17.3	8.0
Т	8.7	4.9	8.7	4.8	6.8	12.7	3.3	8.3	7.4	7.4	12.3		21.7	21.9
U	20.2	26.6	17.2	12.2	9.2	9.3	7.3	9.4	6.6	8.5	15.9		11.5	6.9
V	24.6	20.4	15.6	11.7	10	10.2	10.8	7.8	17.9	6.8	15.4		7.83	5.4
W	22.2	10.5	12.2	8.0	5.8	13.1	17.0	11.7	14.0	10.7	10.0		17.8	29.4
Х	25.6	17.8	28.2	13.7	16.2	17.3		10.2	18.3	9.9	14.6		13.3	27.0
Υ	20.1	19.3	14.1	7.7	14.1	14.8	11.5	8.9	16.9	5.7	13.1		7.86	17.6
Z	16.2	13.8	27.7	11.5	18.8	8.8	26.3	13.7	19.2	13.8	15.0		23.7	4.2
mean	15.3	15.3	17.2	9.6	13.7	13.4	14.0	11.4	12.2	15.7	19.8	*26.5	21.8	24.6
	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+ -	+-	+-	+ -		+ -	+ -
95% C.I.	1.3	2.7	3.5	1.8	3.2	2.2	3.1	2.7	3.0	2.5	1.0		3.7	3.5
Antlerless														
WMU 2F (x 1000)	28	22.1	34	27	29	27	22	22	24	23	31	36	32	37
DMAP	550	800	800	800	905	1067	1067	1067	1067	967	1117	1517	1881	1881
DIVIAP	l	l	l		203	1007	_	_	_	_		_		

(For *26.5 see remarks on page #4)

FIGURE 3. TRANSECT LOCATIONS 2001 to 2022

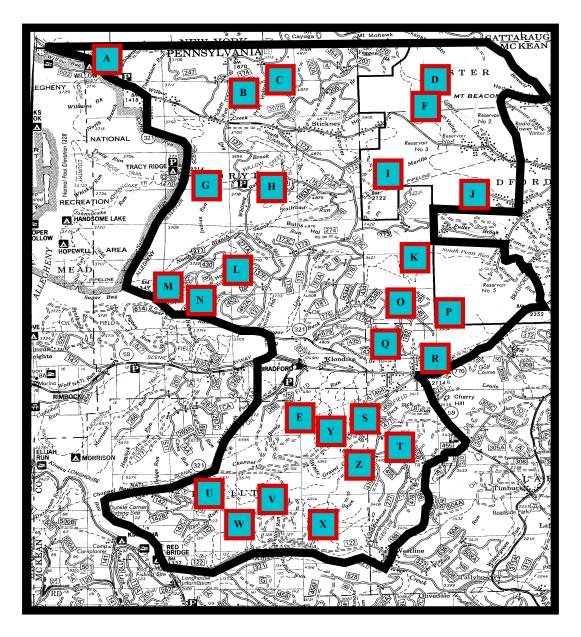


Figure 3. Location of 26 sites where deer density and impact estimates are collected.

All 26 transects sites were completed in 2022

The 2022 spring deer densities are at their highest levels overall since 2004. Individual DMAP UNIT #1981 is again at its highest since 2003, DMAP UNIT #1996 at its highest since 2003, and DMAP UNIT #135 is again at its highest since 2011. For the 2021 hunting season DMAP numbers were increased on UNIT 1981 from 300 to 641. On Unit 1996 they stayed at 800 (since they were increased from the 2019 of 500.) And on UNIT 135 they increased from 417 to 440. For a KQDC total of 1881. In 2022 they remained at 1881.

All KQDC DMAP permits sold out in 2022.

The Pennsylvania Game Commission Wildlife Management Unit 2F antlerless permits were as follows - 23,000 in 2018, 31,000 in 2019 and 36,000 in 2020. In 2021 they were reduced to 32,000 for 2F since the concurrent season was restored to the full two weeks of regular rifle deer season. In 2022 they were increased to 37,000 due to CWD having been found on a deer farm in Warren County. All UNIT 2F antlerless licenses were sold in 2022.

HABITAT and FOREST CONDITIONS

Table 3. Vegetation Treatments on the KQDC over the past 10 years (acres)

Table 3. Vegetation Treatments on the KQDC over the past 10 years (acres)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Regeneration	161	381	528	640	279	175	307	222	918	430
Harvest										
Partial Harvest	675	807	1061	295	1214	1020	1239	1612	922	1156
Herbicide	123	101	49	705	0	449	821	868	924	866
Fence	100	0	0	219	0	0	52	0	9	18
Removal										
Fence	0	0	0	0	0	0	57	143	144	208
Construction										
Total acres	1059	1289	1638	1859	1,493	1644	2476	2507	2917	2678
treated										

All landowners on the KQDC continue to do forest treatments which are geared towards a sustainable harvest and a sustainable forest ecosystem.

Table 3 shows those treatments. It is the cumulative number of acres treated over the last 10 years. A total of 19,898 acres have been treated. Of which 14,102 acres had partial harvests or regeneration harvests.

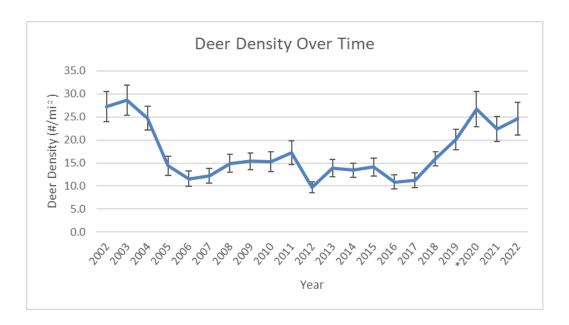
As one can see from the chart of Total Acres treated, forest management continues and is increasing to improve forest conditions for forest diversity and wildlife habitat, two of the original and ongoing goals of the KQDC. The harvests provide income for the landowners and allow increased sunlight to reach the forest floor which can increase the abundance of plants growing there. This provides more trees seedlings, shrubs, forbs and other herbaceous growth that are beneficial for deer. Over the past four years it has once again become necessary to fence more acres each year to ensure that the regeneration is diverse along with being abundant.

Table 4. Habitat variables on the KQDC by year.
2002 to 2022

Year	Percent plots without regeneration	Percent of plots with regeneration & no browsing impact	Percent of plots with a closed canopy
2002	59	15	N/A
2003	63	8	N/A
2004	60	15	N/A
2005	53	34	N/A
2006	52	38	N/A
2007	55	28	N/A
2008	53	26	78
2009	55	25	75
2010	55	24	79
2011	50	22	84
2012	41	35	79
2013	49	25	87
2014	43	29	86
2015	58	27	84
2016	53	33	87
2017	50	35	87
2018	50	35	86
2019	44	41	77
2020	52	16	81
2021	44	23	76
2022	46	24	81

Impacts on vegetation are collected on all 26 transect to compile the habitat variables.

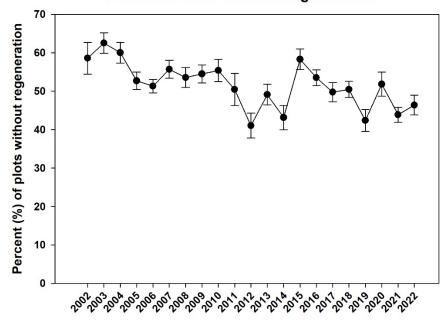
GRAPH # 1 Deer Density graph 2002 to 2022



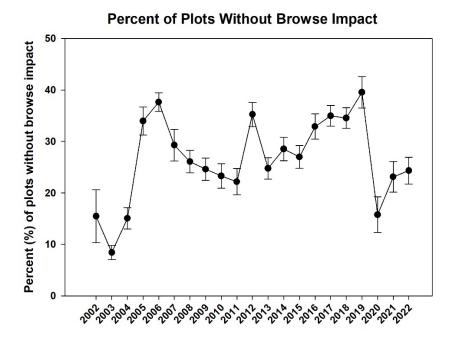
As one can see in GRAPH # 1 deer density from 2016 to 2022 is on an upward swing except for a slight glitch in 2020 when only 13 transects were completed. In 2021 and 2022 all 26 transects were completed. If all transects were completed in 2020 it was estimated that the actual number on the chart would be 21.5 instead of 26.7 which would show the population steadily increasing without the drop from 2020 to 2021. (See page #4 for details) Overall, the rise in deer density is above what the KQDC data shows will allow good forest regeneration and good deer health. Deer density is still much higher than it was in 2016 and is nearing what it was in the 2002 to 2003 years when the KQDC started.

Graphs # 2 and # 3 show that little has changed since last year. KQDC is still at a point where approximately 46% of the plots show no regeneration. Only approximately 25 % of the plots show no impacts from deer browsing. In some locations low browse use is the result of unfavorable available browse, such as beech brush. In many locations beech is also the most common understory tree under five feet tall.

GRAPH #2 Percent of Plots without regeneration 2002 to 2022
Percent of Plots Without Regeneration

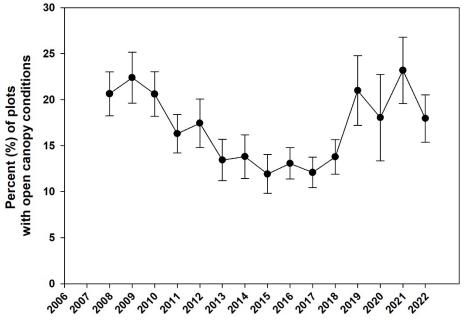


GRAPH # 3 Percent pf plots without browse impact 2002 to 2022



Graph # 4 Percent of plots with open canopy 2002 to 2022



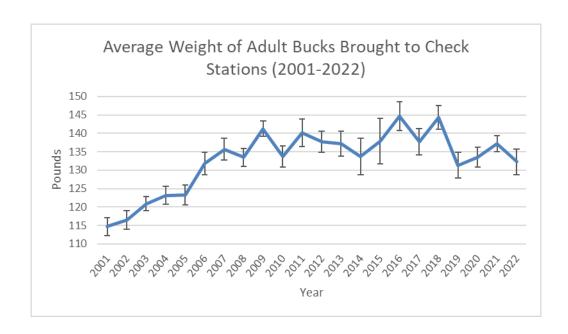


In 2002, 2003, 2004 the three-year average across the KQDC was 27 d/psm. By 2005 deer populations were dramatically reduced down to 14.1 d/psm. From 2004 to 2016 the average was 13.6 deer per square mile across the KQDC. Since 2016 the deer population has increased to 24.6 d/psm by 2022.

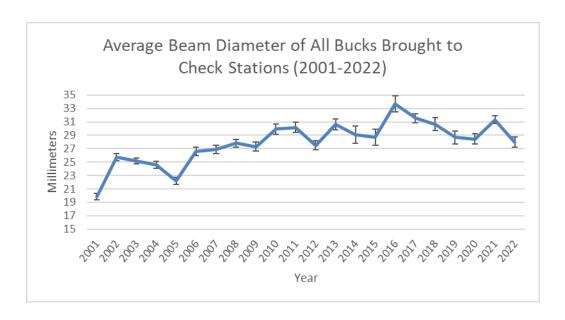
KQDC data shows that since 2016 deer weights and antler size have decreased and remains below the 2016 levels. It also shows that deer habitat and forest regeneration have declined. Over the long term both of these factors result in smaller, undernourished deer and eventually, fewer deer to hunt. Both these factors result in less hunter satisfaction. The improvements hunters saw in deer weights, antler points and spread are the result of keeping the populations at an average of 14 d/psm for 12 years. This resulted in more forest regeneration which provide more browse per deer as well as establishing a new higher quality forest as well as improvements in the forests understory. The increase in forest regeneration along with the decline in hunters harvesting deer, especially antlerless deer on the KQDC is allowing the deer population to grow out of balance with the forest regeneration food supply.

Hunters and land managers must once again work together to balance present day deer numbers with present day forest and habitat conditions. GRAPHS #5 thru #8 show the changes in average weights of adult bucks, average spread of adult buck antlers, average beam diameters, and average weights of adult does for the past 22 years.

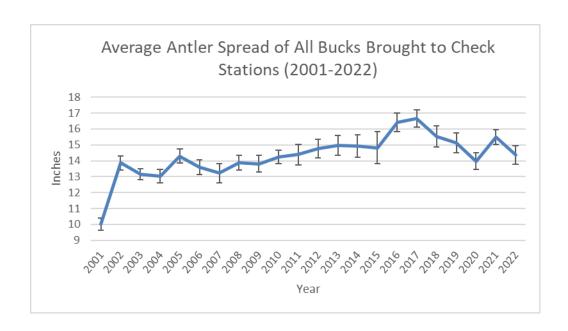
GRAPH 5. Average Weight of Adult Bucks Brought to the check stations (2001-2022).



GRAPH 6. Average beam diameter of all bucks brought to the check stations (2001-2022).



GRAPH 7. Average antler spread of all bucks brought to the check stations (2001-2022).



GRAPH 8. Average weight of all does brought to the check stations (2001-2022).

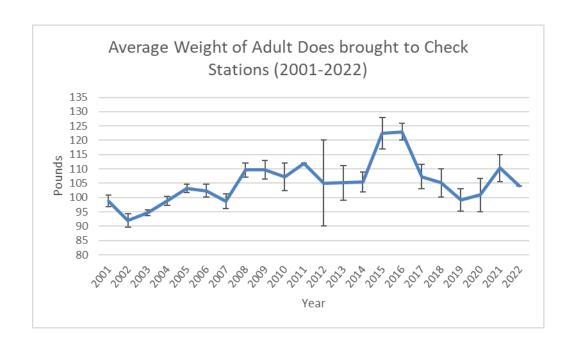


TABLE # 5 - YEAR 2022 Deer Check Stations RT. 59 + RT 346 #1 through #20 at RT 59. #21 Through #39 at RT 346

DEER#	GENDER	POINTS RIGHT	POINTS LEFT	SPREAD inches	WEIGHT (gutted out)	AGE	Beam diameter right	Beam diameter left
*1	M	4	4	12	148	3.5	*	*
2	М	5	5	14.5	132	2.5	32	32
3	F				73	4-5 months		
4	M	3	3	13.75	115	3.5	29	29
5	M	4	4	16	104	2.5	27	29
6	M	4	4	15	124	2.5	27	28
7	М	3	3	12.75	Head only	1yr 7mo	22	23
8	F				68	1yr 4-5mo		
(Day 2) 9	M				54	4-5 months		
10	M	4	4	18.5	158	3.5	31	31
11	M	3	3	13.5	132	2.5	22	21
(Day 3) 12	F				104	2.5		
13	F				62	5 months		
14	М	3	3	13	123	2.5	21	23
15	M	4	3	12	98	1yr 7mo	21	21
16	M	4	4	14.5	Head only	1yr 7mo	24	22
17	F				Head only	2.5		
18	М	3	4	18.75	142	2.5	37	36
19	F				76	1yr 4mo		
20	M	4	5	16	142	2.5	37	36
(Day 1)21	F				96	1.5		
22	M	4	3	11.5	111	2.5	21	19
23	M				62	6 months		
24	M	4	4	12.5	115	3.5	25	24
25	М	5	4	19.5	158	4.5	41	37
26	M	4	4	16	126	3.5	30	28
(Day 2) 27	М	2	3	7.25	105	1.5	21	20
28	M	4	4	12	112	2.5	26	27
29	М	3	3	12	110	2.5	23	23
30	М	4	4	12.5	125	2.5	25	25

^{*}Deer # 1 – first deer of day, crew forgot to measure beam diameters.

DEER#	Gender	POINTS RIGHT	POINTS LEFT	SPREAD Inches	Weight (gutted out)	AGE	Beam diameter right	Beam diameter left
(Day 3)31	М	6	5	17	160	3.5	33	32
32	М	5	4	20	156	4.5	33	43
33	М	4	4	15.75	132	5.5	34	34
34	М	5	4	17	142	5.5	34	32
35	М	2	2	7.25	Head only	1.5	17	18
36	F				81	1.5		
(Day 4)37	М	4	4	17	140	4.5	32	33
38	М	4	4	14	120	4.5	30	32
39	М	3	4	14.5	137	3.5	32	32

NOTES/COMMENTS - In 2022 hopes were high that with two check stations we would check as many or more deer than in 2021. In 2021 we checked a total of 71 deer which was the highest number of deer since 2009. However, we only check 39 deer total in 2022. (20 at Marshburg and 19 at Willow Creek.) Numerous factors may have played a part in that lower number. In 2021 we had car counts preformed on the first two days. The people doing the car counts put information leaflets on all the cars they counted which the check station dates and times had listed on them. In 2022 no car counts were done due to a shortage of help. So those who were hunting on the KQDC were not reminded about the check stations. Also, PADOT for the last 10 years has supplied large electric roadside information signs telling hunters of the check stations and the dates. PADOT informed us that they were not able to provide the signs in 2022. In addition, weather always plays a big role in hunter participation and success. On the second day (Sunday) of the season we had a heavy cold rain most of the day. Only 6 deer were checked all day, three at each station, of which two were killed the previous day. (Like in 2020, we had an all-day rain on the third day which was Monday and only one deer came in) So numerous factors may have been the cause of fewer deer coming to the check station in 2022.

Some KQDC hunters continue to express that they only shoot a doe if they have not been able to shoot a buck, and if they get a buck, they do no try to get a doe. Some hunters said they won't shoot does on the KQDC as they don't think there are that many deer, but will shoot a doe in other areas of the state where they see more deer. There were numerous other similar comments. The tradition of many Pennsylvanian hunters to not shoot antlerless deer remains strong with impacts on many forested areas.

Table 6. Number of antiered and antierless (male & female) brought to the check stations

Years (2001 through 2022).

Year	Antlered	Antlerless	Total	Female	Male	Unsexed
	Deer	Deer		Antlerless	Antlerless	
2001	104	48	152	39	9	
2002	71	62	133	48	11	3
2003	87	168	255	145	23	
2004	57	86	143	76	10	
2005	47	44	91	36	8	
2006	54	35	89	30	5	
2007	32	26	58	24	2	
2008	57	28	85	21	7	
2009	44	31	75	26	4	1
2010	40	13	53	10	3	
2011	22	5	27	5	0	
2012	37	4	41	3	1	
2013	31	10	41	8	2	
2014	15	4	19	3	1	
2015	19	7	26	4	3	
2016	21	4	25	3	1	
2017	26	10	36	10	0	
2018	24	15	39	10	5	
2019	21	11	32	8	3	
2020	38	19	57	16	3	
2021	51	20	71	19	1	
2022	31	8	39	6	2	
totals	929	658	1587	550	104	4

Note, from 2001 to 2009 there were three check stations, The Warehouse, RT 59, The Willows, RT 346, and Bobs Trading Post, RT 321) From 2010 to 2015 there were two check stations, (The Warehouse (Harrisons) and the Willows, (in 2011 there was also a roving check station) (in 2012 Marshburg one was at USFS Bradford Ranger Station)

Since 2016, there has been one check station located at ANF's Timberdoodle Flats Trail Head Parking Lot on RT 59. In 2021 the RT 59 Marshburg Check Station was moved from the ANF Timberdoodle Parking Lot and held in John Perkins parking lot ¼ miles east of Timberdoodle. In 2022 we had two check stations. RT 59 Perkins and the Willows.

TABLE #7 Average weight of adult buck, average antler spread of adult buck, and average weight of adult doe brought to the check stations

2001 through 2022

Year	Average Weight of Adult	Average Antler	Average Weight of Adult
rear	Bucks	Spread	Does
2001	105	10	96
2002	110	13.9	92
2003	118	13.2	92
2004	120	13	96
2005	121	14.3	100
2006	128	13.6	101
2007	131	13.2	99
2008	129	13.9	107
2009	137	13.8	107
2010	132	14.2	106
2011	131	14.4	98
2012	134	14.8	105
2013	133	15	102
2014	134	14.9	108
2015	109	14.8	121
2016	143	16.4	123
2017	137	16.7	106
2018	140	15.5	104
2019	130	15.1	97
2020	131	14	95
2021	137	15.9	110
2022	129	14.3	104

Note: Out of the 39 deer brought to check station in 2022:

Valid weights documented on 26 adult bucks age 2.5 or older

Valid spreads documented on 29 adult bucks age 2.5 or older

Valid weights documented on 2 females age 2.5 or older

DMAP, KQDC and the Pennsylvania Game Commission

The information collect by the Pennsylvania Game omission is all reviewed in February and March and DMAP Cooperators are then sent the information to assess how effective the DMAP program is at helping to control the deer population.

Table #9 DMAP REPORTS
Years 2018 through 2022 for all three KQDC Units (#135, #1981, and #1996)

License Year	DMAP Unit Number	DMAP Permits Approved	DMAP Permits Sold	DMAP Permits Unsold	Percent Permits Sold	DMAP Reports Received	DMAP Reports Not Received	Percent Reports Received	Reported they did Harvested a deer	Reported Did Not Harvest a deer	Percent Hunters successful
2018	135	416	416	0	100%	314	102	75.4%	64	250	15.3%
2019	135	416	416	0	100%	322	94	77.4%	53	269	12.7%
2020	135	417	417	0	100%	327	90	78.4%	65	262	15.5%
2021	135	440	440	0	100%	245	195	55.6%	57	188	12.9%
2022	135	440	440	0	100%	297	143	67.5%	41	256	9.3%
2018	1981	200	200	0	100%	151	49	71.5%	43	108	21.5%
2019	1981	200	200	0	100%	159	41	79.5%	42	117	21%
2020	1981	300	300	0	100%	235	65	78.3%	46	189	15.3%
2021	1981	641	594	47	92.7	286	308	48.1%	42	244	6.5%
2022	1981	641	641	0	100%	419	222	65.3%	51	368	7.9%
2018	1996	500	500	0	100%	288	212	57.6%	70	218	14%
2019	1996	500	500	0	100%	329	171	65.8%	76	253	15.2%
2020	1996	800	800	0	100%	532	268	66.5%	95	437	11.85%
2021	1996	800	800	0	100%	330	470	41.2%	60	270	7.5%
2022	1996	800	798	2	99.8%	410	388	51.3%	48	362	6%

The DMAP program as it has been implemented over the past five years shows that DMAP holders reported taking a little over one deer (1.48) per square mile on the whole KQDC.

(74,350 acres = 114.5 square miles) That means hunters have reported about 170 DMAP tagged deer average for the past five years. DMAP tags are considered deer taken above what would be taken with the use of the e regular antlerless tags in UNIT 2F. Even with this DMAP reported harvest, deer populations and deer impact on the forest regeneration and wildlife habitat have increased. Future adaptations to DMAP and other possible ways to increase hunter success at harvesting antlerless deer will need to be implemented to reduce deer impacts and maintain quality deer health and quality forest health on the KQDC.

DMAP holders are also required to report whether or not they killed a deer for every DMAP tag issued. The reporting rate for DMAP tags varies year to year and unit to unit from a high of 79.5% to a low of 41.2%

Square miles per DMAP UNIT and 5-year average of deer taken per square mile with DMAP permits

UNIT 135 = 20,000 acres = 31.2 square miles 5-year avg. = 56 deer = 1.8 deer per square mile

UNIT 1996 = 14,800 acres = 23.13 square miles 5-year avg. =44.8 deer = 1.9 deer per square mile

UNIT 1981 = 38,540 acres = 60.21 square miles 5-year avg. = 69.8 deer = 1.1 deer per square mile

Total KQDC = 73,340 aces = 114.5 square miles 5-year avg. = 170.6 = 1.48 deer per square mile

CAR/VEHICLE COUNTS, HUNTER NUMBERS Due to lack of laborers and volunteers in 2022 car counts were not conducted.

Prior ten year counts below:

Numerous factors may contribute to this. Such as, Saturday opener, restoring concurrent season, increased antlerless permits and DMAP permits, increased advertising with the new KQDC Brochure being distributed. Covid pandemic effects on hunting and recreation. Etc.

While doing the car counts each person records all the vehicles parked along certain routes annually. They also stop at each vehicle and place the annual Check Station Flyer on the windshield. They also placed the updated KQDC Brochure on the vehicles. Normally two people ride together to do the car counts. Due to COVID-19 restrictions routes were completed by one person alone. ANF employees completed the normal two days' worth of vehicle counts for 2021. In 2022 unfortunately no personnel were available to conduct the car counts.

2022 Weather, Hunters, Hunting and Tradition.

Weather is a major factor during the opening days and Saturday of the regular rifle season. If the ground is snow covered and the weather mild and pleasant, hunters can remain comfortable and also see deer better due to snow cover, tracks, etc.

Inclement weather, especially rain and or fog, or heavy snows during hunting hours the opening week of rifle season can reduce the annual total deer harvest.

In 2022 the first day was sunny with but little to no snow was on the ground on most of the KQDC. The second day (Sunday) was a terrible day with heavy rain all morning till about 2 or 3 pm. I myself drove through sections of the KQDC that afternoon and saw almost no vehicles or hunters along RTs 321 between RT 59 and the Willow Creek check station and also traveled up the North Branch of Sugar Run and saw only three vehicles along FSR roads 271, 430, and 137. Other factors that weather can create that affect hunting are over winter conditions. The winters of 2021/2022 and so far as of March 2023 have not caused any appreciable amount of hardship on white tailed deer.

Trail Camera Information 2022

In 2022 ten trail cameras were set out and maintained by KQDC Coordinator. They were in place as of August 1st and remained in place until December 31st 2022. Camera Cards were collected and data recorded once each month. Eight original cameras functioned well this year and two more were replaced with new cameras. Although no cameras were stolen, four camera cards were stolen from three different cameras. (One camera had a card stolen two months in a row, so I removed the camera.) A total of 153 days x 10 camera = 1530 trail camera days minus the 152 days missed from camera cards that were stolen. After subtracting the days missed form stolen cards equals 1378 trail camera days.

During that time period deer set off the cameras 1,228 times. Second place for tripping the cameras were bear at 237 times. The reason for so many bear pictures was just by chance. One camera location was near a patch of berry bushes that produce ample foods in September. A mother and three cubs and what seemed like at least three or four other bears fed at that site day after day taking their own pictures over and over. That's why there were so many pictures of bears this year. See Table # 8 for data by month by species. The fruit was mostly used up by the first week of October and the bear pictures dropped right off after that.

Table 8. All Wildlife Photographed on Trail Cameras (2022)

Year 2022	AUG	SEPT	ОСТ	NOV	DEC	TOTAL
Antierless Deer	247	222	92	49	87	697
Fawns	64	19	2			85
Bucks: 1 or 2 points to a side	16	62	9	13	7	107
Bucks: 3 or more points to a side	3	16	30	36	1	86
Unknown deer	79	87	32	27	28	253
Turkey	2	7		4		13
Grouse						
Black bear	13	157	67			237
Bobcat		3			1	4
Fisher						
Coyote	4	6	2	2	1	15
Gray Fox		1				
Porcupine		1				1
Red Fox			1	1		2
Squirrel	8	1	2			11
Raccoon		2	5	3	1	11

Trail camera pictures continue to be useful on Facebook and for programs to advertise and explain the KQDC. There are a lot of other cameras placed by hunters and others throughout the KQDC. They are useful in allowing people to actually see what's out there. For most people, the cameras see and prove what's out there beyond what one can see during their time in the woods.

OUTREACH EFFORT - DEER CHECK STATION

Deer Check Stations expanded to two locations in 2022. Hunters that brought deer to the check station were given a fluorescent orange KQDC hat and entered in a raffle for a cash prize antlerless deer (\$500) and antlered deer (\$250) Information on Chronic Wasting, KQDC maps, and KQDC Brochures, deer density maps, and contact information on a variety of subjects is handed out to hunters. Most hunters who brought in a deer had one or two other hunters with them. A few hunters stopped by without deer just to ask questions, get information, or see some deer being brought in. Estimate at least 120 hunters visited the check station in 2022 and had lots of questions answered and received information. NOTE: in 2022 repairs were made to both check station buildings as the floor stringers needed reinforced to handle the loading and unloading of the buildings when moving them.

OUTREACH EFFORT – KQDC DEER CHECK STATION RAFFLE

Every deer check station season the KQDC holds a raffle whereby any hunters who bring their deer in form the KQDC to have it recorded for data receives a raffle ticket. Former years each antlered deer brought in would receive one raffle ticket and each antlerless deer brought in would receive two tickets for a chance to win a rifle. In 2020 the leadership team tried a new idea. Two prizes instead of one. Each hunter who brought in an antlerless deer got one chance to win \$500 and each hunter who brought in an antlered deer got one chance to win \$250. The idea was to get more hunters to use their DMAP permits early in the season when the check station is open. And the buck hunters would still have a chance to win a prize too.

OUTREACH EFFORT - ANNUAL DEER SEASON KICK OFF 2022

In 2022 we were able to hold our 6th Deer Season Kickoff. It was cancelled due to Covid-19 in 2020 and 2021. This year's main speaker was Gary Alt, retired PGC Deer Biologist who was instrumental in getting concurrent seasons, Wildlife Management Units, and DMAP Permits and antler restrictions implemented during the years 1999 to 2004. We were hoping to attract a larger crowd as 18 years earlier Gary often drew crowds of 100 to 500 people to his deer talks. We also wondered if a large group of hunters would show up to voice their pleasure or displeasure with what had occurred over the past 20 years. However, the passing of time the controversy with Gary Alt has decreased and we got our average crowd of about 60 people.

The program was well received. A survey to rate the program was available to all who attended and 49 people responded. Over 95% of the respondents rated all three programs (Gary Alts, John Dzemyan, and Linda Ordway's) with strongly agree or agree. A few had no opinion, no one marked disagree or strongly disagreed.

OUTREACH EFFORT - KQDC FACEBOOK SITE AND KQDC WEBSITE

KQDC still gets a good following on its Facebook page during the fall hunting seasons. From September to December hunters and others check out the site for information and to see some pictures of deer and other wildlife on the KQDC area.

Site Managers are Collin Shephard and John Dzemyan. www.facebook.com > KQDC

The KQDC website is easily reached online at <u>kqdc.com</u>. It still needs some attention from its administrators, but its total cost per year is less than \$200 so the decision to maintain it was approved. It has the potential to post information in way that Facebook does not offer.

Both sites need people with more website skills and Facebook skills than this coordinator, but in the meantime, both sites do get information out to hunters and others.

Shared links of KQDC with other Facebook sites such as the Hunting 2F Facebook site, the ANF Visitors Bureau, Mt. Jewett Sportsman's Club, and some Ruffed Grouse sites are being developed. This has helped to spread information about the KQDC.

OUTREACH EFFORT - KQDC BROCHURE

The 2019 printing of the KQDC trifold Brochure is still available in limited quantities. Its gets distributed through the ANF Visitors Bureau. It also available on line in three places. Facebook, KQDC website, ANF Visitors Bureau.

Brochures are also on display and available in numerous public locations such as local State Parks and other public offices. Thousands of people access the ANF site daily and can find links to the KQDC on the site.

OUTREACH EFFORT - KQDC NEWS RELEASES

Over the past seven years and probably more Mary Hosmer has taken on the role of sending out news releases. She has developed a standard news release form which works well with local newspaper, radio stations and other media outlets. She has a standard list of over 80 some places that get the KQDC News Releases. Other KQDC leadership staff assist with the editing and content, and Mary gets it out there.

College Students Involvement, University of Pittsburgh and Penn State Dubois

Contacts in 2022 continued with both colleges to encourage students and staff to get involved with KQDC. Over the past three years little involvement has occurred with students or teachers. Renewed efforts to increase this involvement are needed.

Testimony at the Pennsylvania Game Commission Meetings

KQDC Coordinators continue to give written and verbal testimony at the January Commission meeting annually. KQDC leadership team work together on input for the letter and testimony.

Deer Health and CWD (Chronic Wasting Disease)

Chronic Wasting Disease is a serious threat to deer all over North America including Pennsylvania. The KQDC has gone on record in letter form to support efforts to stop CWD from spreading to this area or other areas and to control and eradicate CWD. The best know way to slow the spread, to stop the spread, and to keep deer on the KQDC safe from CWD is to keep

deer populations on the KQDC under control and in balance with the forest deer habitat. The best way to handle any new areas that are documented to have deer with CWD is to increase deer harvests in that locality. Educational Postings on Facebook and the Website will continue. As of December of 2022, no cases of CWD have been documented in KQDC. However, in the summer of 2021 one deer in Warren County about 20 miles west of the KQDC on a private deer farm did test positive. Another deer in Elk County near Brockway Pa. tested positive. Both these areas had additional regulations places on the handling and movement of deer for any reason including deer harvest by hunters. The KQDC has not been directly affected by these two new areas regulations for CWD in 2022.

AHUG Allegheny Hardwood Utilization Group

AHUG provides bookkeeping and financial services to the KQDC. Based in Kane, Pennsylvania they serve a 14 – county region bringing together the timber processing industries and other related industries and agencies, public and private, to further sustainable forests through wise management of the area's natural resources. In 2022 Collin Shephard has been replaced by Linda Ordiway of the ANF office in Warren Pennsylvania coordinates the budget with Becky Carson and Amy Shields of AHUG.

Leadership Team Recommendations + 2023 Budget Discussion

On 01-14-2023 at the annual January end of the year/start of New Year meeting numerous ideas about the goals for 2023 were discussed. An important item was the budget situation and discussion.

The KQDC 2022 Budget is in good shape and sufficient to complete all the projects planned for 2022. They are as follows

- Complete all 26 transects and analyze the data in April and May 2022
- Conduct Two KQDC Deer Check Stations in 2023 regular rifle deer season
- Hold the October 2023 KQDC Deer Season Kick Off at UPB
- Increase efforts to attract more hunters and helpers to the KQDC

Present funds should cover those five main functions and there should be funds to spare for other possible functions and/or KQDC activities.

It was noted that some of the present balance in the budget has a deadline to be spent by June of 2023. This budget deadline has nearly been met as of end of February 2023.

Ideas to effectively use those funds were entertained/discussed.

They were:

- Long discussion on how to increase interest in the KQDC program through social media. Contact to be made with University of Bradford teachers who specialize in that skill.
- Discussion on how to reach younger generations of hunters and conservationists through the Deer Season Kick Off and also through social media.
- Sponsor Tours for PGC Commissioners and state legislators. In the past KQDC rented buses to travel the 74,000 acres and provided lunches, dinner. Possible sponsor tours for other constituents (Hunters or hunting/conservation organizations, college students in related biology, botany, forestry, wildlife, studies)
- Continue to digitally scan and store all the KQDC records from the past 20+ years. Lots
 of the information is still stored in cardboard boxes and need to be physically scanned
 and recorded and stored in a retrievable and useable way. USFS lab has started to do
 some of that work on a shared online repository (Box). Possibly KQDC funds could be
 used to hire someone to finish that effort at the lab or elsewhere.

THANK YOU!

I would be remiss as coordinator not to extend a proper Thank You to all those who continue to assist with the KQDC.

They are: Bradford Watershed Land/Generations Forestry and those who manage it, Kinzua Forest LLC. /Conservation Forestry Land/FORCON and those who manage it, Kane Hardwoods/Collins Pine Land and those who manage it, Ram Forest Products land and those who manage it, and Allegheny National Forest Land and those who manage it.

Thank you to all the people mentioned in this report and numerous others who though not mentioned continue to assist with the KQDC.

The challenges of managing forests and deer continues. The goal to maintain quality deer, quality forests and quality deer hunting remains.

Sincerely, Thank You. John Dzemyan KQDC Coordinator.