

Pennsylvania Game Commission Annual Report, 2008-09

THE Game Commission is proud to present this 2008-09 annual report, highlighting many of the agency's accomplishments over the last fiscal year.

Maintain and improve populations for consumptive and non-consumptive recreational use and their many public values.

As Pennsylvania's wildlife management agency, the Game Commission is responsible for managing more than 460 species of wild birds and mammals. Primary attention, due to funding sources and limitations, is directed to select game species and the commonwealth's most imperiled nongame species.

Work continued throughout the year to develop and implement management plans for several species or species groups (e.g., grassland nesting birds). More than 20 plans have been completed, as well as a comprehensive wildlife conservation strategy for priority species of concern. These plans are on the agency website.

During 2008-09, fisher, woodcock and ring-necked pheasant management plans were completed and implemented. Plans for deer, elk and bobcat are under revision, and plans for ruffed grouse, bobwhite quail, beavers, bald eagles, peregrine falcons and Allegheny woodrats are being developed.

Forty-five annual field surveys are conducted to assess population trends for about 40 species of game animals and furbearers, and endangered and threatened species. Mail surveys were conducted to track the harvests and participation for 29 game and furbearing species, and harvests for deer, turkeys and snow geese (Conservation Hunt) were monitored through mail card reporting. Check stations, field checks and harvest reporting systems were used to catalog deer, bear, elk and bobcat harvests.

The 2008-09 Game Take and Furtaker surveys were completed in the spring of 2009. These surveys estimate small game and furbearer harvests, numbers of hunters and trappers, and days of effort. We have been conducting these for 26 years, so important long-term trend information is available. As an example of the type of information provided, in the 2008-09 hunting seasons there were 33,814 Canada goose hunters and 2,890 snowshoe hare hunters. They hunted 238,906 and 5,067 days, respectively, and harvested 212,158 Canada geese and 783 hares. In 1983, there were 70,019 Canada goose hunters and 28,960 hare hunters, who hunted 171,436 and 15,632 days, respectively, and harvested 68,333 Canada geese and 10,867 hares. For information on other species check out the Dec. '09 *Game News* and a detailed report on the PGC website.

During the year, white-tailed deer research activities focused on deer survival and harvest rates in WMUs 2D, 2G, 3C and 4B, where we are investigating the effects of shortening the concurrent antlered and antlerless firearms season from 12 days to 7 days. From July 2008 to April 2009, we documented the deaths of 88 radio-collared deer. Hunting accounted for 66 percent. Other causes included deer-vehicle collisions, poaching, natural causes, and capture-related deaths. Between January and April 2009, an additional 733 deer were captured and fitted with radio-collars and ear tags in these four WMUs. By the end of April 2009, more than 300 radio-collared deer were being monitored on the four study areas. This research is being conducted in cooperation with the Pennsylvania Cooperative Fish and Wildlife Research Unit at Penn State.

During 2008-09, 33 PGC deer aging teams collected sex, age and kill (SAK) data from a sample of harvested deer. SAK data were used to estimate 2008-09 deer harvests. Based on hunter harvest reports and SAK data, hunters harvested 335,850 deer. Overall, this was a four percent increase from the year before. Hunters took 122,410 antlered deer, up 12 percent from the previous year's 109,200. Also, hunters harvested 213,440 antlerless deer, similar to the 213,870 taken in 2007-08. Harvest estimates for 2008-09 are based on 127,351 usable harvest report cards and online reports (44,995 antlered; 82,356 antlerless)

returned by hunters to the Commission, and 26,509 deer (9,357 antlered; 17,152 antlerless) examined by PGC personnel in the field and at processors. Yearling bucks comprised 52 percent of the antlered harvest, which is less than the 56 percent in 2007-08. Button bucks and doe fawns were 22 percent and 18 percent, respectively, of the antlerless harvest, and down two percent from 2007-08 season rates. Statewide hunter reporting rates remained below 40 percent.

The Deer Management Assistance Program (DMAP) was developed to provide both public and private landowners a tool to better control deer numbers on their properties through hunting. For 2008-09, the Commission approved 841 applications, up from the 801 in 2007. Enrolled acres increased to 1,502,896, from 1,470,306 in 2007. Number of coupons requested and approved dropped from 32,379 in 2007 to 30,476. Hunters redeemed 23,520 DMAP coupons. With all DMAP permit holders required to submit a report card, 78 percent reported a harvest of 5,744 antlerless deer.

Several deer-related hunter surveys were completed during the year. We sent daily hunting diaries to hunters in WMUs 2D, 2G, 3C and 4B prior to the 2008 firearms season. These hunting diaries are being used to monitor hunter activities, success and satisfaction in these 4 WMUs. We also surveyed hunters from WMUs 5C and 5D to assess their use of bait, where permitted, in Bucks, Chester, Delaware, Montgomery and Philadelphia counties.

More than 110 elk were radio tracked throughout the year to evaluate survival, distribution and movements. PGC researchers captured and radio-instrumented additional elk between January and March 2009 to improve the distribution of marked animals across elk subpopulations and to replace faulty transmitters. An annual survey was conducted in the fall of 2008, when personnel from the PGC, DCNR, and many volunteers completed 68 survey routes. There were 1,205 elk sightings recorded, and of those, 77 were marked animals. The population estimate resulting from the survey was 771.

In our continuing efforts to assess elk recruitment, 20 newborn calves were captured. Annual calf survival was 82 percent. Mortalities were due to poaching, legal harvest, pneumonia, elk-vehicle collisions and four unknown. In the winter of 2009, a calf died due to rumen acidosis caused by the artificial feeding of corn.

Elk seasons were held in September and November 2008. Ten hunters participated in the September elk season, and two harvested antlerless elk. Forty-five hunters participated in the 6-day season in November, and 40 harvested elk.

To monitor the bear population, several sources of data were used: a statewide capture and tagging program; mandatory check stations during the hunting season; aging of teeth collected from roadkilled, captured and harvested bears; assessment of reproduction of hibernating bears fitted with radio-collars; and a statewide wildlife food survey.

A record 145,795 bear hunting licenses were sold in 2008, and 3,458 bears were taken, the second highest harvest on record, and a 46 percent increase from 2007. The harvest included 69 taken during the archery season, 2,951 during the 3-day season, and 438 during the extended season.

Before the 2008 fall seasons, 622 bears from 50 counties had been captured and ear-tagged. Based on the ratio of tagged-to-untagged bears in the harvest, the 2008 statewide population was estimated at 15,000 to 20,000, which is similar to the previous year's estimate. Population estimates have been relatively stable, near 15,000, since 2000.

In February, 3,316 teeth collected from bears during 2008 were sent for age analysis. Results were then posted on our webpage, so hunters could learn the ages of their bears. The average age of harvested bears was 2.5 for males, 3.5 years for females.

Most WMUs show stable to slightly increasing bear populations, but WMUs in the northern half of the state have shown greater increases. Two northeastern WMUs, 3C and 3D, have had decreasing trends, indicating populations may be stabilizing.

To monitor cub production and survival, 39 winter dens were visited. In all, 38 adults, 44 cubs, and 33 yearlings were handled and tagged. The average number of cubs per litter was 2.9 and the sex ratio of cubs was about 50:50.

An ongoing study of bear populations in the northcentral range continued, to measure bear production and survival in big-woods habitats versus the more developed Pocono region — where almost all previous research on bears had focused. Twenty-nine bears were trapped and tagged on a study area in northern Clinton County, and 22 adult females fitted with radio-collar transmitters were monitored until hibernation. Dens of radio-collared bears were visited in March, and an additional 24 cubs and yearlings were tagged.

Responsive Management, a human dimensions research firm, completed a survey for the PGC measuring public opinions on bears, bear management and bear hunting. Of the 4,411 residents contacted, 79 percent agreed that bears should be managed to control population size. Over half, however, believed that bear populations in their WMUs should remain as they are. The survey also revealed that 5 percent of Pennsylvanians have had a problem with bears at their homes within the past two years; 50 percent involved birdfeeders, 40 percent garbage cans and dumpsters.

A proposal was developed to study bears living in urban and suburban areas, beginning in 2009-10, to determine if nuisance bears are transient or full-time residents of suburban habitats, and if regulated, hunting in suburban areas is an effective management tool.

There were 1,378 human-bear conflicts reported in 2008, and officers relocated 349 problem bears. Thirty-one bear damage claims totaling \$9,723 were approved, and 21 bears were euthanized because of crop damage or repeated nuisance behavior.

Furtaker license sales have continued to increase, as trappers and hunters take advantage of our abundant furbearer resources. During 2008-09, 29,717 furtaker licenses were sold, the most since 1988, and the fur harvest was valued at \$3.4 million.

Fisher populations continue to expand. During the year, we estimate that trappers captured and released 1,893 fishers from traps set for foxes, coyotes and raccoons. WCOs received 138 reports of fishers that had been captured and released by licensed trappers, and 561 reports of fisher observations. The geographic distribution of these reports suggests that fisher populations are rapidly expanding from the reintroduction areas in northern regions and from naturally expanding populations from Maryland and West Virginia into southwestern and southcentral Pennsylvania. In addition, 76 percent of WCOs surveyed during 2008 reported fisher populations existing within their districts.

A fisher management plan was finalized and implemented. The plan is designed to achieve five goals related to population monitoring, habitat assessment, population enhancement, and development and implementation of a harvest program.

River otter populations continue to grow, as are the numbers of incidental otter captures, primarily by beaver trappers. Most of these occur in the Northeast Region, but reports indicate continued population expansion throughout the Susquehanna River drainage. During 2008, otters occupied 88 percent of WCO districts.

All of the tools used to monitor the bobcat population indicate increased abundance and continued range expansion. The number of incidental captures, as estimated from the annual Furtaker Survey, has been steadily increasing since 1990. We estimate that 3,105 bobcats were captured and released by trappers who did not possess bobcat harvest permits. The number of roadkilled bobcats has also increased.

For 2008-09, 1,443 bobcat permits were issued, allowing for the harvest of bobcats in WMUs 2A, 2C, 2E, 2F, 2G, 3A, 3B, 3C, 3D and 4D. Furtakers reported 487 bobcats, from 29 counties within all WMUs that were open to harvest. Harvest density (bobcats taken/100mi²) increased in all but two WMUs. The harvest consisted of 54 percent males, 44 percent females and 2 percent undetermined. Eighty-three percent of the harvest was attributed to trappers. Weather conditions were favorable during most of the season, but freezing rain and snow made trapping difficult late in the season. Nonetheless, 58 percent of the harvest occurred during 2009.

During 2005-06, the use of cable restraint devices to harvest red foxes, gray foxes, and coyotes during late winter periods was legalized, and as of September 9, 2008, 4,215 trappers had received cable restraint training and passed the certification exam.

The overall efficiency of cable restraints for red and gray foxes has been high, but for coyotes it has been marginal. Cable restraint regulations were refined during this fiscal year to allow eligible furtakers to keep incidentally captured animals, such as raccoons, that are otherwise in season.

In June 2009 the PGC executive director issued an executive order removing protection on feral swine in all but Bedford County — where trapping operations are underway. Any person taking feral swine anywhere in the commonwealth must report it within 24 hours to the PGC region office that serves the county where it was taken.

There were no turkey hunting season changes for the fall 2008 or spring 2009 seasons. In 2008, the spring turkey season was extended one day to include Memorial Day (the last Monday of May). This extra day accounted for two percent of the statewide harvest.

Turkeys continue to be our second most popular game species. There were 216,511 hunters in the spring 2008 season, which was six percent below the 10-year average of 229,894. Even though there were fewer hunters, they experienced the best success, 19 percent, since 2002. Hunter success has exceeded the 2008 level in only three other years (2000-2002). The 2008 spring harvest of 40,482 (not including second birds harvested with the special turkey license) was 12 percent above 2007's (36,296), and 3 percent above the previous 10-year average, when we had harvests of more than 40,000 from 2000-2004.

Spring 2008 marked the third year hunters, with the appropriate license, could harvest a second bearded turkey, and license sales increased to 10,733 (8,794 in 2007 and 7,582 in 2006). The reporting rate for this license was 52 percent. We mailed reminder letters to 1,000 randomly selected non-respondents, of which 92 percent did not harvest a second turkey. The estimated harvest was 1,954 (1,507 in 2007) with a success rate of 22 percent (compared to 20 percent in 2007).

Fall turkey hunting season length continues to be our primary means of managing populations; season lengths vary from a closed season to three weeks, depending on WMU. Numbers of fall turkey hunters (152,294 in 2008) and days fall turkey hunting (486,592) have been declining since the early 2000s. Even though the fall 2008 harvest of 24,288 was 30 percent below the previous 10-year average, hunter success of 16 percent was the highest since 2002. The trends of fewer fall hunters and hunting days are due to a combination of shorter seasons in almost half of the WMUs since 2004, average to below average spring reproduction, and abundant fall mast crops, which tend to disperse turkey flocks, making them more difficult to locate.

We recently completed the final year of a 4-year study with New York and Ohio to determine spring harvest rates and annual survival rates of gobblers. This information is crucial for evaluating the effects of hunting on turkey populations. Over the 4-year study, Pennsylvania leg banded 1,279 turkeys (623 juveniles, 656 adults); New York banded 1,341 (748 juveniles, 593 adults); and Ohio banded 676 (336 juveniles, 340 adults). Half of the bands provided a \$100 reward for reporting the harvest/recovery. Reward money was furnished by the NWTF. Additionally, PANWTF provided the PGC \$38,000 for trapping supplies, bait and volunteers to assist with trapping activities. Pennsylvania hunters received \$27,000 in reward payments.

Numbers of grouse hunters in 2008-09 increased six percent from 2007, and the grouse harvest increased by 32 percent. Although the number of hunters and hunter days remained similar to the previous year, harvest per hunter day was up about 23 percent (102,139 hunters took 108,693 birds). The 2008 grouse cooperator survey showed the statewide flushing rate was 1.42 flushes per hour, up from 2007-08's 1.25. Rates were highest during the November and mid-December portions of the season. Compared with the previous year, the Southcentral was the only region that didn't have a higher flushing rate.

Harvest Information Program surveys conducted by the U.S. Fish and Wildlife Service indicated 30,700 hunters took 340,900 doves during 129,900 hunter days in Pennsylvania. This was an 18 percent drop in hunter numbers, a 19 percent decrease in hunter days, and

a 33 percent decrease in birds bagged. During the year 996 doves were banded by 22 banders, at 38 banding sites.

An estimated 9,000 woodcock hunters (most of any eastern state and fourth nationally, behind Michigan, Wisconsin and Minnesota) took about 19,200 woodcock in 2008. Compared to 2007, this was a 15 percent decrease in the number of hunters, but a harvest increase of 72 percent. So those who did hunt encountered many birds migrating through Pennsylvania. We compiled 2008 woodcock singing ground survey results from selected study sites in northwestern Pennsylvania and at Bald Eagle State Park. For the comparable routes run, there was an increase from 85 birds heard in 2007 to 92 in 2008. Erie National Wildlife Refuge and Bald Eagle State Park had increases, while SGLs 101 and 314 had declines.

We met with representatives of the Wildlife Management Institute regarding the Appalachian Mountain Woodcock Initiative and identified woodcock habitat for demonstration areas at Montour Preserve, Swatara State Park, Bald Eagle State Park and Claremont.

A statewide, long-range woodcock plan was completed and provides a comprehensive and current summary of woodcock taxonomy, biology, population trends, habitat relationships and trends, hunter harvest, economic significance, partnerships and population restoration approaches. The plan has a goal of returning woodcock populations to densities that would provide improved hunting and viewing opportunities.

In cooperation with the USFWS, 2009 Woodcock Singing-Ground and Mourning Dove Call-Count surveys were completed. Since 1968, woodcock population indices have declined 42 percent, although not significantly in the last 10 years. Since 1966, mourning dove populations have not changed significantly.

PGC staff completed a ring-necked pheasant management plan in January 2009. Focusing on providing good pheasant hunting, the 10-year plan calls for raising and releasing 225,000 pheasants annually, in areas that will not support a wild pheasant population, and for restoring wild pheasant populations in at least four Wild Pheasant Recovery Areas (WPRAs) through an aggressive habitat program and the trap and transfer of wild pheasants.

Wild Pheasant restoration projects are underway in Washington County, Somerset County, and in the Central PA WPRA, an area including Montour, Northumberland, and Columbia counties. Trapped wild ring-necked pheasants from South Dakota and Montana were released in these WPRAs. Agency staff released 105,124 pheasants for hunting during 2008-09.

New incubators and hatchers were delivered and installed at all game farms, replacing decades old equipment. Nine new brooder houses were built to replace 80 antiquated brooders at the Northcentral Game Farm. Work was completed at the Loyalsock Game Farm to replace existing in-ground water lines supplying covered pens.

Preseason duck banding continued, in cooperation with the Atlantic Flyway duck banding program, to help us determine the timing and distribution of the duck harvest, survival, harvest rates and migration patterns, and evaluate changes in hunting regulations. Banding occurred at 20 sites, and 3,618 ducks were banded, 23 percent above last year's 2,946.

As usual, mallards were the most common, with 2,364 banded. Wood duck bandings were up 43 percent from 2007, with 1,123 banded. Only 27 American black ducks were banded. This was similar to 2007, but down nearly 60 percent from the long-term average.

In June 2009, PGC personnel and volunteers banded 2,790 Canada geese; juvenile geese comprised 40 percent. The number of juveniles per adult female banded (1.17) was 30 percent below the 1988-2007 average, and the lowest age ratio observed since 1996, indicating below average gosling production and recruitment in 2009.

The Atlantic Flyway Midwinter Waterfowl Survey (MWS) provides information about waterfowl populations and distribution, and is an important component of management programs at the state, flyway and even continental levels. Although breeding ground

surveys have become the primary source of information used in setting most waterfowl hunting regulations, MWS results still guide harvest management for some species, including tundra swans and Atlantic brant. MWS data is also important in assessing progress towards species population goals set forth in the North American Waterfowl Management Plan, and is useful for documenting long-term shifts in the spatial distribution of wintering waterfowl, assessing the locations and status of key wintering habitats, and various other applications.

During the 2009 MWSA, 72,735 waterfowl were observed here: 4,012 dabbling ducks (mostly mallards and black ducks), 25 diving ducks, 704 mergansers, 67,166 geese (81 percent Canada geese and 19 percent snow geese), and 819 swans (96 percent were tundra swans). The total number of waterfowl observed was 18 percent higher than in 2008 and virtually identical to the 1999-2008 average. With five of the six major wintering species actually declining from 2008, the rise in the overall totals was due mainly to a 41 percent increase in Canada geese. Tundra swans and most duck species were below their respective 10-year averages, with Canada and snow geese slightly above 1999-2008 levels.

From April 15 to May 5, 2009, PGC staff completed the cooperative Atlantic flyway breeding waterfowl survey in PA. This survey began in 1989, to provide breeding waterfowl population estimates for the portion of the Atlantic Flyway from Virginia to New Hampshire. The number of mallard breeding pairs (92,629) was similar to the average of 95,647. There have been declines in other indices of mallard abundance (the North American Breeding Bird Survey and the number of preseason-banded mallards). A decline in mallard abundance was expected, following liberalized hunting frameworks adopted in 1996, but managers expect this trend to stabilize. American black ducks were observed on two survey plots in northeastern PA, which resulted in a statewide estimate of 639 pairs. Black ducks have been at very low densities since the survey was initiated, and have been declining here since the mid-1990s.

There were 63,235 wood duck breeding pairs, 25 percent above the average of 50,665 and the second highest recorded. The estimate was not significantly above average, though. Trends in wood duck abundance indicate stable to slightly increasing populations. The estimates of total blue-winged teal (7,814) and American green-winged teal (5,569) were near average in 2009. Teal abundance in this survey can vary dramatically from year to year due to weather related impacts on teal migration. Because teal migrate relatively late, we don't believe these estimates are indicative of breeding populations of teal in PA. Estimates of total hooded mergansers (2,982) were near average, while the total common merganser estimate (12,420) was below average. The trends for both breeding merganser species have been stable since 1993.

The 2009 Canada goose breeding pairs estimate was 88,773, similar to average (91,918). The 2009 total population estimate of 290,339 was similar to the recent 6-year average of 254,282. As expected, the highest goose densities were in southeastern and northwestern Pennsylvania. The Canada goose spring population appears to have stabilized, at between 250,000 and 300,000, following the rapid growth observed during the 1990s. This is a result of significant expansion of hunting seasons and other programs implemented to control Canada goose numbers. This population remains well above the Resident Population management plan goal of 100,000.

In November 2008 the USFWS allowed Atlantic Flyway states to implement additional hunting methods and expanded seasons to reduce overabundant greater snow geese. The snow goose conservation season in Pennsylvania was held March 11-April 1, 2009. Hunters were allowed to use expanded hunting hours (until a half hour after sunset) and electronic calls. There were 3,276 free permits issued; 96 were obtained through online registration. The 1,724 individuals who indicated that they hunted during the season took 5,903 snow geese. Use of electronic calls accounted for 26 percent of the geese taken, while extended hunting hours accounted for only 12 percent.

In 2009, a record of at least 170 bald eagle nests, including 36 new locations, were monitored. Where eagle populations are reaching the saturation point, in the northwest and upper Delaware River, reports of eagle-to-eagle conflicts at or near nests have increased, with eagles occasionally interfering with established pairs.

Twenty-four active peregrine falcon nesting sites were monitored, including three new nesting sites. Of these, 21 nests were successful, producing 68 young, of which 56 were banded. This fiscal year, 125 school children were involved in our annual peregrine falcon banding at the Rachel Carson State Office Building.

The 2nd Breeding Bird Atlas effort completed fieldwork in 2009, resulting in about 150,000 additional data records. Data were recorded from all blocks, thanks to more than 3,000 volunteers who logged 9,300 hours of fieldwork. A major expansion in osprey was documented, but declines in many wetland birds were apparent. The status of all breeding birds will be redefined by this project.

Great egrets, black-crowned night-herons and yellow-crowned night-herons are classified as endangered in Pennsylvania. These and other colonial wading birds are particularly vulnerable to disturbance because their nests are clustered in colonies. Active nests were counted in spring 2009 at the only two known great egret colonies and 10 black-crowned night-heron colonies. The annual survey at Wade Island counted 116 black-crowned night-heron nests and 197 great egret nests, both increases. Double-crested cormorant nests on Wade Island also increased, from 112 in 2008 to 120 in 2009; the growing cormorant population is a concern because it increases competition for nesting space with the herons and egrets. The number of nests of both black-crowned night-herons and great egrets increased at the Kiwanis colony, York County. The black-crowned night-heron colony at Ephrata, Lancaster County, also increased. Six yellow-crowned night-heron nests were found in a residential area of Harrisburg. PGC personnel and volunteers surveyed 14 great blue heron colonies in 2009, and information on 9 colonies was received from other sources. Of the 25 colonies, 6 were new sites. The Barrows colony, Mercer County, retained its status as the state's largest, even though it declined in size, but a Butler County site increased from 60 nests in 2008 to 110 in 2009.

State Game Lands with reclaimed surface mines support grassland sparrows. With State Wildlife Grant support, field crews collected vegetation data at reference points across 400 acres and intensively sampled vegetation characteristics associated with 75 grassland bird nests to understand the benefits of specific habitats and habitat management practices.

During the summer of 2008, 63 bat surveys resulted in a tally of 63,551 bats in 5 churches, 8 bat condos and 24 bat boxes, 8 barns, 3 utility buildings, 6 occupied homes and 1 unoccupied home, and 7 other structures including a community hall, historic mill and covered bridge. Churches had the high count of 15,389 bats, with 13,260 of those in a managed maternity roost in a retired church on Canoe Creek State Park. With 4,796 bats, a bat condo near the church topped the count among artificial roost structures. Colonial-roosting bats have come to depend on manmade structures for summer roosts, in part because forest management practices no longer provide the type and number of natural roosts they require.

Because it is not known whether White Nose Syndrome (WNS) persists in summer habitats, monitoring of summer roosts will be an essential tool to measure impacts on those roosts.

In April 2009, 16 female little brown bats live-trapped at the entrance of a Mifflin County mine known to be affected with WNS were equipped with transmitters, and 11 were successfully tracked by aerial and ground crews. Each of the bats used a different roost, 10 of which were in buildings located in Mifflin, Snyder, Juniata or Union counties. The sole tree roost fell down before an emergence count could be conducted. Emergence counts conducted at the 10 building roosts, before the young of the year were capable of flight, ranged from 10 to 3,185, for a total of 10,582. To monitor reproductive success of these

maternity colonies, the early counts will be compared with counts conducted after pups can fly.

We receive capture reports from private consultants conducting bat monitoring and survey work as a requirement of their state permits. Reported mist net surveys in summer habitat are entered into a database that currently contains 192 staff surveys and 3,185 consultant surveys totaling 22,902 bats captured in 57 counties. In late July and early August 2008, an environmental consulting company captured 13 federally endangered Indiana bats at a Greene County maternity site. A female banded there in 2007 was recaptured in Aug. '08 and discovered again in a Pendleton County, West Virginia, cave in Mar. '09. The cave is 107 miles from the summer roost. Seven Pennsylvania counties are known to have summer Indiana bat roosts: Adams, Armstrong, Berks, Bedford, Blair, Greene and York.

The range of the threatened Allegheny woodrat is — or was — comprised of the rockier sections of states from southern Connecticut to northern Alabama. The species is now extirpated or declining over at least 35 percent of its range due to development and forest fragmentation, loss of mast-producing trees, and a raccoon parasite. The current decline was first noted in the late 1970s in Pennsylvania and New York. In an effort to re-evaluate 10 percent of Pennsylvania sites known to have been active within the past 15 years, PGC surveys conducted at 27 sites found 10 active sites, 12 inactive sites and 5 with suitable habitat but no woodrat sign. An agency Allegheny woodrat management plan draft will be revised pending results of efforts.

The barn owl is a species of concern that has great management and recovery potential. Found in agricultural fields, grasslands and other open areas, these owls often nest in barns, silos and manmade nest boxes, because large, dead trees are increasingly difficult to find. Biologists launched an initiative focused on assessing foraging, nesting and roosting habitats where barn owls exist (or existed in the past), erecting nest boxes in suitable habitat, and documenting productivity. In 2008, biologists visited 214 barn owl sites and banded 153 owlets from 37 nests. Prior to 2008, there were no known barn owl nests in the Northwest Region, but that may change as the result of the June 2009 release of seven barn owls in Erie County.

Nighthawks are nocturnal insect-eating birds that are declining as migrants and breeders here. They do not build nests; two eggs are laid directly on the ground or on gravel roofs. In the spring of 2009 35 gravel roofs and 4 artificial nest pads in the Northwest Region were monitored, and 7 nighthawks were observed, but no nests were found.

To minimize the impact of disease on wildlife populations, prevention or early detection of chronic wasting disease (CWD) in cervids continues to be a high priority. This year 4,224 hunter-killed deer and 41 elk were tested, as well as 14 elk and 52 deer that were CWD suspects. In addition, 99 roadkilled deer were tested in the counties that border West Virginia, because CWD exists there, just 23 miles from our border. Fortunately, no evidence of CWD was found in any of these samples.

Feral swine reports were received sporadically over the year. Even some of the swiftest responses to these sightings by PGC personnel were frustrated by the mobility and large home ranges of the swine. However, eight pigs were killed and tested by PGC, and others were handled by USDA Wildlife Services (WS) and the Pennsylvania Department of Agriculture (PDA). We found that there was almost certainly illegal importation of these non-native and invasive animals, and some of our testing suggested that some of these swine had been exposed to diseases that are dangerous to domestic and wild species.

To educate more people on the value of wildlife, the use of Citizen Advisory Committees (CACs) continued. We completed five CACs, in WMUs 1A, 2E, 3A, 4A and 5B, to assess the level of deer-human conflicts and the desire of citizens for more, fewer or the same number of deer. Various groups representing the interests of hunters, farmers, foresters, homeowners, public landowners, motorists, and others participated in these committees. In addition to CACs, seminars were given to organizations interested in learning more about

the PGC's deer management program and assistance programs, and a guide to deer management in developed areas was completed. The PGC also held six open houses this year, to give people the opportunity to learn more about deer and deer management, and to speak to PGC personnel. Other efforts included a DVD and videos posted on YouTube, continued revisions to the deer website, and continuation of the Deer Chronicle.

Acquire, protect, maintain and enhance an array of habitats on public and private lands.

The Game Commission's public access program is being upgraded to help hunters and trappers and to make it more flexible for landowners. More than 2.8 million acres of private land are open to public hunting in the Farm Game, Safety Zone and Forest Game programs.

The following habitat enhancements occurred on these private lands:

- 15,746 cooperators were contacted about habitat and hunting issues.
- 415,535 tree and shrub seedlings were provided to cooperators.
- 70 acres of border cuts were done by PGC staff.
- Food & Cover Corps crews placed 1,070 waterfowl nesting structures and 2,150 other types of nesting structures.
- The pruning or releasing of 85 fruit trees was performed in old orchards.
- Warm season grasses were planted on 234 acres of marginal pasture or cropland.
- Habitat improvements such as wetland creation, food plot construction and specific wildlife management plan development occurred on 376 acres.

To further improve habitat on private land, five biologists are working in the regions, and are funded by State Wildlife Grants and Landowner Incentive Programs. Pittman-Robertson Wildlife Restoration Grant Funding provided in fiscal year 2008-09 was the largest amount ever received in Pennsylvania — \$12,236,088. State Wildlife Grants Program funding for the Commission was \$947,047.

In addition to the Cooperative Public Access Program, other lands under agreement include: State Parks, 283,000 acres; State Forests, 2,100,000 acres; National Forest Lands, 513,161 acres; National Recreation Areas, 24,732 acres; National Wildlife Refuges, 6,116 acres; and U.S. Army Corps Lands, 35,224 acres.

Since June 2000, 202,153 acres of wildlife habitat have been planned through the Conservation Reserve Enhancement Program (CREP). Last year, the Farm Service Agency (FSA) received 879 CREP applications from more than 800 landowners, who offered to enroll 15,250 acres in conservation cover plantings. PGC and Natural Resource Conservation Service biologists completed 671 applications and wrote 392 conservation plans encompassing 8,624 acres. The FSA approved 351 contracts on more than 6,390 acres.

In 2008-09, the Commission acquired 8,745 acres, bringing the agency's total State Game Land acreage to 1,446,244, on 305 tracts in 65 counties. During this period the Commission received nine donations: five properties ranging in size from 1 to 53 acres, two rights of subsurface oil, gas and minerals, and two right-of-ways across private property into existing SGLs. These generous gifts benefit wildlife, hunters and trappers, and everyone else who enjoys natural areas. Acquiring interior holdings, indentures and access into existing SGLs has long been a high priority. In 2008-09 the Commission acquired two interiors, five indentures and nine new access routes into existing State Game Lands. SGL 44 was increased by 6,523 acres, thanks to an oil and gas lease.

The Surveying Section continues to be understaffed, but was able to survey 6,237 acres and 97 miles of SGL boundary lines, while also working with adjoining landowners to settle boundary line disputes.

From right-of-way licensing for pipelines, utility lines, tower sites, and other uses of SGLs, the agency received more than \$2 million, the most in agency history.

Local governments received \$1.20 per acre in-lieu-of taxes, as required by the Act of May 17, 1929, as amended. During the fiscal year, \$1,722,650 was divided into three equal payments to the county, school district and township where Game Lands are located.

Through participation in the Environmental Review Committee (ERC), staff reviewed and commented on potential wildlife habitat impacts, and ultimately recommend approval for the creation, restoration and/or enhancement of more than 16 acres of wetlands on private lands and 1.5 acres of wetlands on State Game Lands through the U.S. Fish & Wildlife Service's Partners for Wildlife program, and the Department of Environmental Protection's Pennsylvania Wetland Replacement Project.

Since the creation of the PGC Wind Energy Voluntary Cooperative Agreement, 22 wind development companies have become cooperators, thus agreeing to avoid, minimize and potentially mitigate any adverse impacts the development of wind energy on private lands may have on the state's wildlife resources. Fifty-three wind energy development projects were reviewed for potential impacts to special concern species, natural resources and State Game Lands.

Staff reviewed and commented on 213 transportation projects (PennDOT, Turnpike, airports, rail) concerning species of special concern with 154 potential impacts. Habitat or presence/absence surveys were conducted for four projects. The surveys were conducted for bald eagle, peregrine falcon, least bittern, osprey, great blue heron, sedge wren and bats. The survey results were used to avoid, minimize, or mitigate (for unavoidable) impacts.

The State Game Lands Banking Agreement, adopted as a partnership with PennDOT and the Federal Highway Administration, provides advance mitigation lands to offset permanent acreage losses to SGL resulting from bridge replacement or minor road improvement projects. State Game Land Banks totaling 107.7 acres available for mitigation were established in Tioga and Northumberland counties. These agreements expedite the mitigation process where small acreage impacts to SGLs can be debited from existing land banks, instead of being addressed on a case-by-case basis.

A total of 834 Pennsylvania Natural Diversity Inventory (PNDI) reviews were completed for construction and development projects, and 618 potential impacts to species of special concern were identified and recommendations made. Surveys were conducted on six projects to avoid adverse impacts to bats, bald eagles, ospreys, great blue herons, northern goshawks, short-eared owls and woodrats or their habitats. Avoidance measures were required or recommended on 60 projects to avoid adverse impacts to species of special concern and their habitats.

Staff reviewed and commented on 12 National Environmental Policy Act project proposals involving various transportation (rail, highway, airports), Natural Resource Damage Assessment and private development projects. Staff reviewed and commented on 39 Community Development Block Grant projects, 13 ACOE stream or wetland permits, 10 projects located on PGC property, 6 Fish and Boat Commission projects, and 43 projects located on DCNR property. Comments were provided that helped avoid and minimize impacts to streams, wetlands and unique wildlife habitats. Staff also reviewed and commented on 288 mining permit applications.

A total of 761 PNDI reviews were completed for oil and gas projects. These involved 638 oil/gas wells and 278 miles of oil/gas pipeline. Measures were recommended or required for 92 projects to avoid or minimize adverse impacts to grassland nesting birds, bats, bald eagles, Swainson's thrushes and marsh wrens. Habitat or species surveys were completed for 9 projects to avoid or minimize adverse impacts to woodrats, bald eagles, various bat species of special concern, and great blue herons.

To maintain optimum habitat diversity on Game Lands, 44 forest habitat management projects affecting 5,586 acres were offered for bid to commercial timber harvest operators. Contractors harvested 5,085 acres that yielded more than 16.7 million board feet of logs and 113,366 tons of pulpwood, and generated \$5,773,252. This was an increase of 141 acres over the previous fiscal year, but timber sales revenue decreased by \$6,042,351. This 51 percent reduction occurred due to historic collapse of the timber market. Of the timber

sale revenue received, 220 acres of additional Game Lands, with a value of \$320,000, was accepted in lieu of cash.

Additional forest non-commercial habitat improvement projects, including regeneration cuts, crop tree releases, thinning and prescribed woodland fires resulted in 1,228 acres of improved habitat. Also, staff provided support to oil/gas and mineral recovery and right-of-way operations on 149 acres of SGLs. In all, 6,462 acres of forest habitat were treated this year. 965 acres were treated with herbicide to remove ferns, striped maple, spicebush, low quality beech brush, and other species that impede establishment of more beneficial tree species.

Logging contractors completed 40 contracts during the year, improved 49.1 miles of haul roads, constructed 6.8 miles of new roads (which became wildlife food strips after seeding), and placed 53 culverts. The cost of these improvements exceeded \$390,000 and were borne by the timber operator and, thus, deducted from the timber bids. Additionally, \$336,124 worth of improvements were completed through timber sale contracts, including landing and skid road seeding with wildlife mixes, parking lot construction, gate installation and deer enclosure fencing.

Habitat improvement cuts resulting in timber sales on Game Lands created various stages of forest succession. Forest management techniques, such as regeneration cuts, select thinning and prescribed fire provided a habitat mosaic across the landscape. Depending on local wildlife needs, permanent herbaceous openings were managed as fawning grounds, nesting and brooding areas, or as seasonal food plots. In certain areas of the state, wetlands were managed for waterfowl and shorebirds through seasonal flooding. This interspersed of forested, herbaceous and wetland cover types on created habitat for many wildlife species.

More than 1,900 acres of early successional habitat on Game Lands were improved through warmseason grass establishment, aspen regeneration and scrub oak management, through the federal Wildlife Habitat Incentives Program. Pheasants Forever donated food plot and grassland seed valued at \$26,000.

The agency's Howard Nursery produced and distributed 2,376,300 tree and shrub seedlings for wildlife food and cover. Most were used on Game Lands and distributed to public access cooperators. More than a million were sold to the public. The Howard Nursery wood shop produced and shipped 13,900 bluebird boxes/kits, 732 wood duck boxes/kits, 992 other wildlife nest boxes, 4,165 bulletin boards and backboards for use on Game Lands and cooperative access properties, and 212 wooden signs.

In partnership with the Wildlife for Everyone Foundation, with financial support from Waste Management, Pheasants Forever and Mealey's Furniture, the "Seedling for Schools" Program, in just its second year, distributed more than 95,000 seedlings to 526 schools in Pennsylvania.

The Forest Inventory and Analysis Program is in its fourth season of data collection, and 645 permanent assessment plots have been established. The goal is to have 875 by next year. Then, on a 5-year cycle, the plots will be reevaluated to determine changes in growth, health and species composition of Game Lands forest habitats, which will provide valuable habitat planning information. A system for monitoring habitat conditions before and after prescribed burning is also being developed.

Nearly 104,000 acres of forest habitats on Game Lands were impacted by gypsy moth defoliation in 2008, and approximately 22,700 acres were sprayed, due to their habitat values, at a cost of nearly \$800,000. Because the gypsy moth population collapsed in 2009 no spraying is anticipated this year.

With the reduction of deer, we are beginning to see improvements to forest habitats, but some areas still need deer enclosures. Contractors erected 8-foot-high woven wire fences around 190 acres of recently harvested forests to protect the susceptible new growth from excessive browsing. On the other hand, 776 acres of fencing will be removed this year.

Staff inspected six high hazard dams for annual DEP-Dam Safety requirements, and coordinated efforts of 10 PGC crews in facility maintenance projects with a budget of \$111,500. Staff also:

- Completed 14 bridge projects, including 8 bridge replacements and 6 abutment/deck repair projects.
- Removed two dams that were no longer needed.
- Completed repair projects on four dams.
- Completed one road repair project.
- Constructed nine new brooder houses at the North Central Game Farm.
- Completed the renovation of the HVAC system at the PGC headquarters.
- Completed upgrade projects at two shooting ranges.

Eight oil/gas and mineral recovery lease actions were approved in 2008-09. Four were for oil/gas development and one was for gas storage, which resulted in an immediate value to the Commission of \$2,492,325. The Commission also approved one deep mining coal lease, one surface mining coal lease and one coal refuse removal lease. These projects will result in the reclamation of approximately 21 acres of abandoned mine spoils, and the creation of 5 acres of wetlands and a stream water quality improvement system.

The Oil/Gas & Mineral Development Section reviewed and coordinated with region personnel and industry on 205 oil/gas well locations on Game Lands. Revenues generated from oil/gas and mineral recovery operations were \$7,454,355. A total of 1,932,790 Mcf (thousand cubic feet) of natural gas and 1,347,825 tons of coal were produced from Game Commission oil/gas and mineral recovery leases during 2008-09. The Oil/Gas and Mineral Recovery Section currently works with 52 companies operating 97 lease agreements on 58 SGLs.

Oil/gas and mineral ownership continues to be researched and updated in response to Marcellus shale drilling activity. Research was conducted on 214 parcels (more than 121,740 acres), distributed among 34 different Game Lands complexes and put into the Commission's GIS database. Eight mineral lease boundaries were created in our GIS database. Also, 570 well locations on SGLs, including their associated well attribute data, were added to or updated in our GIS database.

Expand and improve communication, education and outreach for public awareness and understanding of wildlife resource management.

The third and final wave of classes transitioned to the new Hunter-Trapper Education curriculum in 2009. Now this new training program is being used in every county. The new curriculum meets national standards for basic hunter training as established by the International Hunter Education Association (IHEA). The curriculum appears in three instructional formats: traditional classroom lecture/demonstration course; classroom instruction with skills stations; or independent study opportunities. The flexibility of three separate formats better meets the needs of our students, volunteer instructors and field staff. Most importantly, we're producing the safest, most responsible, knowledgeable and involved hunters and trappers that we can.

During the year, 684 HTE classes were conducted, and 30,916 students completed the training. Included were 958 students who chose the independent study format at one of 52 such classes. These students study online and then attend a short session where they participate in a lesson on hunting laws and regulations. At the conclusion of the lesson, students take the standard HTE written examination. On average, the independent study component takes about 8-10 hours to complete. The actual class is about two hours. During 2008-09, the minimum age for this format was lowered to 11, which is consistent with all HTE programs.

To make basic hunter education more accessible, an online course for hearing impaired students was created. This course added synchronized video of a sign language interpreter

to the existing online study program. The course is available upon request to all hearing impaired students.

The PGC provides advanced training with its voluntary "Successful Bowhunting" and "Cable Restraint Training" courses. During the year, 590 students were certified at one of the 21 classes statewide. The training is designed to improve the student's skills and abilities, thereby increasing enjoyment and success. Big game anatomy and shot placement, shooting exercises, hunting methods and techniques, big game recovery and care, treestand use and safety, basics of using a map and compass, together with distance estimation, are but a few of the lessons conducted at the 1-day bowhunter class. Much of the training is held outdoors in wooded environments. Students who complete the training receive certification that is accepted throughout North America.

With the expanded opportunity to hunt with crossbows, training was held for bowhunter education instructors to increase their understanding of this equipment. Similar training is planned for the basic HTE instructors during 2010. The student curriculums for bowhunter education and basic HTE are now being modified to include expanded crossbow information and training.

Cable restraint devices are permitted to capture coyotes and foxes during the later part of the furtaking season. To use these devices, trappers must first complete a mandatory training program. This 4-hour class is designed to produce safe, knowledgeable and responsible furtakers. During the past year, 21 classes were conducted and 662 students were certified. This curriculum is now being expanded into a comprehensive Furtaker Education program called "Successful Furtaking," which is designed to provide the necessary knowledge and skills needed by first-time trappers to catch furbearing animals. Experienced trappers will also learn tips and techniques to increase their chances of success, too. This training will be available in 2010.

Improvements were made to the Hunter Education Registration and Reporting System (HERRS), an automated Internet-based system designed to post class schedules on the web and allow students to register for hunter education classes online. Customer convenience and operational efficiency are the greatest features of this new service.

Hunter education efforts are supported by a Federal Assistance Program grant. With this stable funding source, state-of-the-art computers, video projectors, DVDs, training aids and teaching materials have been purchased and developed. In the near future all WCO districts will have program-dedicated equipment.

Finally, to improve the quality of hunter education instruction, a new course review process was instituted. Each year one-third of the volunteer instructor teams are observed during a class. The purpose of the review is to measure certain aspects of the training facility and the program's delivery. Positive attributes are recognized and maintained. Recommendations for improvement are also offered to ensure uniform course content and quality across the state.

Game News continues to be the primary voice of the Game Commission, and the hunting stories, natural history content and, as always, Field Notes, remain popular with many readers, not just in Pennsylvania, but throughout the country and to our servicemen and women throughout the world. *Game News* also features articles about Game Commission research and management projects, law enforcement accounts by our WCOs, and agency news.

Thanks to a federal Pittman-Robertson grant, *Game News* is again being sent to school and other Pennsylvania public libraries. We're in our second year of posting the entire issue of *Game News* online. The online version allows readers to conduct searches, go directly to particular features and, by using a zoom feature, make the type larger and easier to read. Broadband Internet access works best.

Three people won craft awards for their work in *Game News*. From the Pennsylvania Outdoor Writers Association, Harvey "Bumper" Bauer received the "Wild Turkey Award" sponsored by the PA Chapter of the NWTf for "Late Season Turkeys: Feast or Famine," in the May 2008 issue. Gregg Rinkus captured an award from the National Shooting Sports

Foundation for "Walking Home," in the November 2008 issue. Tom Tatum won the Best Magazine Feature award, sponsored by Reed Exhibitions, for "The Longest Season," in the July 2008 issue. Also, Gerald Putt won the Best Published Color Art award, sponsored by GATCO Sharpeners/Timberline Knives, for his 2007 Pennsylvania Duck Stamp.

In addition to the magazine, a host of other brochures and publications, including the annual Digest and a hardcopy record book of Pennsylvania big game trophies, are produced by *Game News* staff.

The Game Commission continues to offer a wide variety of news releases and features about wildlife, hunting and trapping to the news media and public. The Game Commission continues to offer TV news stations weekly one-minute programs called "Pennsylvania Wildlife Moments." These segments cover a range of topics, from the variety of wildlife found in our state to hunting safety tips to wildlife habitat programs. In June of 2008, the agency, with Radio PA, began offering daily (Monday through Friday) radio segments called "Outdoors PA with the Pennsylvania Game Commission."

For 2008-09, 10,322 PGC items were sold over the Internet and 24,447 over the counter. Total sales were \$402,976, an increase from the \$400,235 the previous year. Sales at the Eastern Sports and Outdoors Show amounted to \$30,707. Donations to the agency during the fiscal year amounted to 2,109, totaling \$13,373.

Starting in February, orders will be taken for the fourth year of the 5-year Time Collectible wild turkey heritage turkey call series and upland game bird knife series, with patches and prints. The first, second and third years of these items were a huge success.

Other new items brought out during the fiscal year included:

- Orange Hat with PGC Logo on the front and "Wildlife Supporter" embroidered on the back
- 2009 Calendar
- 2009 Working Together for Wildlife patch (Mink) and print ("Wetland Wonder")
- 2009 Elk Hunt Patch and Field Note Patch
- 2009 Waterfowl Management Stamp and Print (Hooded Mergansers)
- PA Big Game Record Book
- Mentored Youth Patch and Saf-T Plug
- 50 Years of Hunter Education print and patch
- "Connect with Wildlife" magnet and poster
- Bumper Stickers: "Proud Parent of a New Hunter" and "Proud to be a PA Hunter"
- Orange draw string bag with the PGC logo and "Conserving & Protecting Wildlife for Everyone" printed on it.

The Game Commission established a partnership with the Harrisburg Area Community College to offer several courses: "Focusing on the Snow Geese," "Wade Island Heron Colony," "Waterfowl Identification for Beginners," "Zeroing in on Wildflowers," "Wildlife Forensics" and "Photographing Fall on State Game Lands." New billboards advertising the Game Commission were instituted during the fiscal year.

Once again, this has been an eventful year for conservation education. More than 2,050 educators participated in 81 Game Commission Project WILD (39), Advanced WILD (31) and PA Songbird (11) workshops. Advanced WILD workshops are special topic workshops. This past year, advanced workshops were held on elk, bears, bats, owls, endangered species, peregrine falcons, raptor migration, biodiversity and reading. The biodiversity workshops featured the new PA Biodiversity guide.

Protect and enhance our hunting and trapping heritage.

The Bureau of Wildlife Protection continues to work toward our mission of protecting Pennsylvania's wildlife through law enforcement, seeking effective legislation and developing regulations.

To improve and streamline the Game & Wildlife Code, several amendments were made this year. The legislation authorized the unrestricted sale of mounted specimens by a

commonwealth licensed auctioneer, authorized reduced safety zone limitations for falconry permit holders, further authorized vouchers for licenses and permits, authorized the Commission to auction off one elk license each year, and authorized a transaction fee to be assessed to license purchases.

The legislation enacted by the General Assembly that created sliding penalties could have resulted in increased penalties, if the District Judges were inclined to assess penalties on the high end of the sliding scales. However, in most cases, the opposite happened, actually lowering the fines assessed compared to when they were statutorily defined with no sliding penalty discretion provided. In rare instances, some Magisterial District Judges and Court of Common Pleas Judges have assessed maximum penalties on the sliding scale for aggravated circumstances, but as a general rule, the sliding penalty legislation has reduced total penalties. While there is minimal fiscal impact from this, and enforcement is geared toward protecting wildlife and not viewed as a revenue source, the sliding penalties have had generally adverse effects on increasing penalties for serious violations.

An extensive amount of staff effort was spent with the House Game and Fisheries Committee on House Bill 1859. This legislation would provide a comprehensive update to the Game and Wildlife Code and provide for increased penalties by treating the theft of wildlife the same as the theft of any other property. The legislation would be the first comprehensive increase in penalties since 1987 and would create the first felony offense ever in the Game and Wildlife Code. House Bill 1859 passed the House and is now in the Senate Game and Fisheries Committee awaiting action.

The Bureau also worked with Representative Mark Gergley to reintroduce legislation that would authorize the PGC's participation in the Interstate Wildlife Violators Compact. A third attempt to achieve this legislation is still pending. Pennsylvania is now one of only eight states that is not a member of this compact. This is a travesty, if for no other reason than the fact that many states are anxious for Pennsylvania to join the compact, due to the number of Pennsylvania hunters that travel to other states to hunt. We will continue to pursue this legislation, as part of the strategic objective to update penalties in the Game and Wildlife Code.

Other regulation revisions include tagging requirements in special regulation areas, expansion of DMAP seasons, expansion of authorized applicants relating to deer control permits, and defining geographic locations of wild pheasant recovery areas.

The Mentored Youth Program was expanded to include coyotes as an eligible species to be harvested. Updates were made to wildlife rehabilitation standards and nuisance wildlife control standards. Amendments were made to accommodate the new Point Of Sale or PALS licensing system. Hunting opportunities were expanded with the inclusion of crossbows during many big game seasons, allowing the use of magnifying telescopic sights on bows and crossbows during deer and bear archery seasons, authorizing limited use of electronic calls under the snow goose conservation hunt permit, and broadening the ability of licensed trappers to keep nontarget species captured in cable restraint devices.

The Commission has begun the process to overhaul Title 58 Pa. Code, because of the plethora of regulations promulgated since the last recodification in 1987, but the effort is hindered by staff constraints.

The Bureau completed a statewide maintenance cycle, replacing parts in all officer duty handguns in accordance with the manufacturer's recommended schedule.

Body armor is not a standard issue to deputy WCOs, but due to the second-hand availability created by the upgrades in WCO body armor through a federal reimbursement program, the Commission was able to offer the same security to the deputies as salaried WCOs. Deputies were also issued a second utility uniform.

In addition to the standard issue equipment, 148 GPS units and 112 rangefinders were purchased and issued to officers. A flashlight upgrade for salaried officers was also completed.

Officers encountered 19,172 violations during this year, and action taken resulted in 12,224 warnings and 6,948 citations. That more warnings were issued than citations indicates officer discretion in focusing on the violations with the most impact to wildlife. Of the violations cited, the conviction rate was 96 percent, attesting not only to the discretion, but also to the competence and professionalism of Game Commission officers. The final indicator of the professionalism of our officers is that only seven complaints were received against officers this year, and only two were founded.

The Game Commission conducted a Waterfowl Enforcement detail in November of 2008. Other region task forces targeted night-time poaching and illegal ATV operation on State Game Lands. Additionally, responses to a question on the Game Take survey indicated that 9 percent of hunters had been checked by a conservation officer in the past year. This indicates that in field check activity alone, officers performed over 93,000 field checks in the last year, clearly accomplishing the goal of increasing visibility and creating deterrence to protect wildlife.

The top ten violations prosecuted this year are:

1. Unlawful taking or possession of Game or Wildlife – 887
2. Operating vehicles on State Game Lands in areas closed to travel, primarily
ATV violations – 543
3. Possession of a loaded firearm in a stationary vehicle – 313
4. Hunt or take wildlife through the use of bait or enticement – 247
5. Safety Zone violations – 233
6. Big game tagging violations – 218
7. Unlawful use of lights while hunting – 202
8. Cast a light after 11 p.m. – 189
9. Hunt or take wildlife through use of a motor vehicle – 193
10. Possession of a loaded firearm in a moving motor vehicle – 143

Hunting and trapping safety is critical to the general acceptance of these magnificent pastimes. Although the Commission's goal is zero Hunting Related Shooting Incidents (HRSI), we realize that achieving this goal is not realistic. During the calendar year 2008, only 35 HRSIs were recorded, 32 nonfatal and 3 fatal. The incident rate (number of incidents per 100,000 participants) was 3.79, one of the lowest rates on record.

Develop a sustain-able funding structure that supports the agency's mission and identity.

The PALS system was fully implemented for the 2009-10 license year. In preparation for the large volume of sales in a short period of time, each county treasurer was outfitted with three PALS stations for antlerless license processing.

In addition to selling hunting and trapping licenses, the PALS system will allow for the online reporting of deer and turkey harvests. Hunters who report their harvests online will not have to complete and mail in harvest report cards, and the harvest data will be immediately available to the agency.

The Commonwealth's Data Powerhouse project provides the service that supports our mainframe computer platform. The Data Resource Division supports and maintains about 20 application systems that reside on the mainframe. Because the PALS system is now in full production, we are tasked with integrating our legacy mainframe systems with data from the PALS system. This is an opportunity to redesign and improve many business processes, because we will now have a comprehensive database for our license buyers.

Our Game Commission webpage is being moved to a software package called Aqualogic, which is the new commonwealth standard.

The following licenses were issued for the 2008-09 license year:

Resident Adult	670,659
Resident Junior	40,004
Resident Junior Combination	49,567

Resident Senior	31,236
Resident Landowner	1,073
Resident Military	2,758
Nonresident Adult	51,994
Nonresident Junior	2,098
Nonresident Junior Combination	582
Nonresident 7-Day	2,471
Resident Archery	260,001
Nonresident Archery	11,022
Resident Muzzleloader	188,273
Nonresident Muzzleloader	7,536
Resident Migratory Game Bird License	104,430
Nonresident Migratory Game Bird License	4,320
Resident Antlerless Deer	811,244
Resident Armed Forces Antlerless Deer	2,763
Resident Disabled Veteran Antlerless Deer	1,305
Nonresident Antlerless Deer	20,724
Resident Adult Furtaker	28,341
Resident Junior Furtaker	381
Resident Senior Furtaker	773
Nonresident Adult Furtaker	212
Nonresident Junior Furtaker	6
Resident Bear	140,817
Nonresident Bear	4,978
Senior Lifetime Hunting	3,019
Senior Lifetime Combination	4,124
Senior Lifetime Combination (Upgrades)	400
Senior Lifetime Renewal Hunting	66,907
Senior Lifetime Furtaker	4
Resident Spring Turkey	10,337
Nonresident Spring Turkey	396
Elk (17,432 applications)	45
Bobcat (6,623 applications)	1,435
DMAP (coupons received)	23,520
Total Revenue Received:	\$34,407,824

Recruit, develop and maintain an effective workforce.

The Training Division is responsible for facilitating, developing and documenting agency wide training for all employee classifications. A large portion of this responsibility involves initial training and regular updating and qualification of our law enforcement officers.

Approximately 70 mandatory in-service training sessions plus 660 deputy meetings occurred during the fiscal year, affecting approximately 400 deputies and 200 full-time officers.

In addition, the Commission mandates annual training in Legal Updates, Communication Skills, Firearms, Defense and Control Tactics, First Aid and CPR, and Hazardous Materials First Responder training. WCOs receive additional training by attending a minimum of four of the six district training meetings required by policy. Additional structured training

modules were developed this year by the Training Division, and more than 30 structured training modules are available for use on the agency's Intranet website.

PGC FINANCIAL REPORT
JULY 1, 2008 TO JUNE 30, 2009
RICHARD CARDAMONE CPA, CGFM
DIRECTOR OF ACCOUNTING

The accompanying Balance Sheet and Statement of Changes in Fund Balance were prepared using the modified accrual basis of accounting, whereby revenues earned and available and amounts expended or payable at June 30, 2009 are reported. On this basis of accounting, the June 30, 2009 Unreserved/Undesignated Fund Balance in the Game Fund was \$39,245,737, a decrease of \$2,902,015 from June 30, 2008. Fiscal year 2008-09 expenditures exceeded revenues earned and prior year lapses, resulting in the decrease in the Game Fund Unreserved/Undesignated Balance.

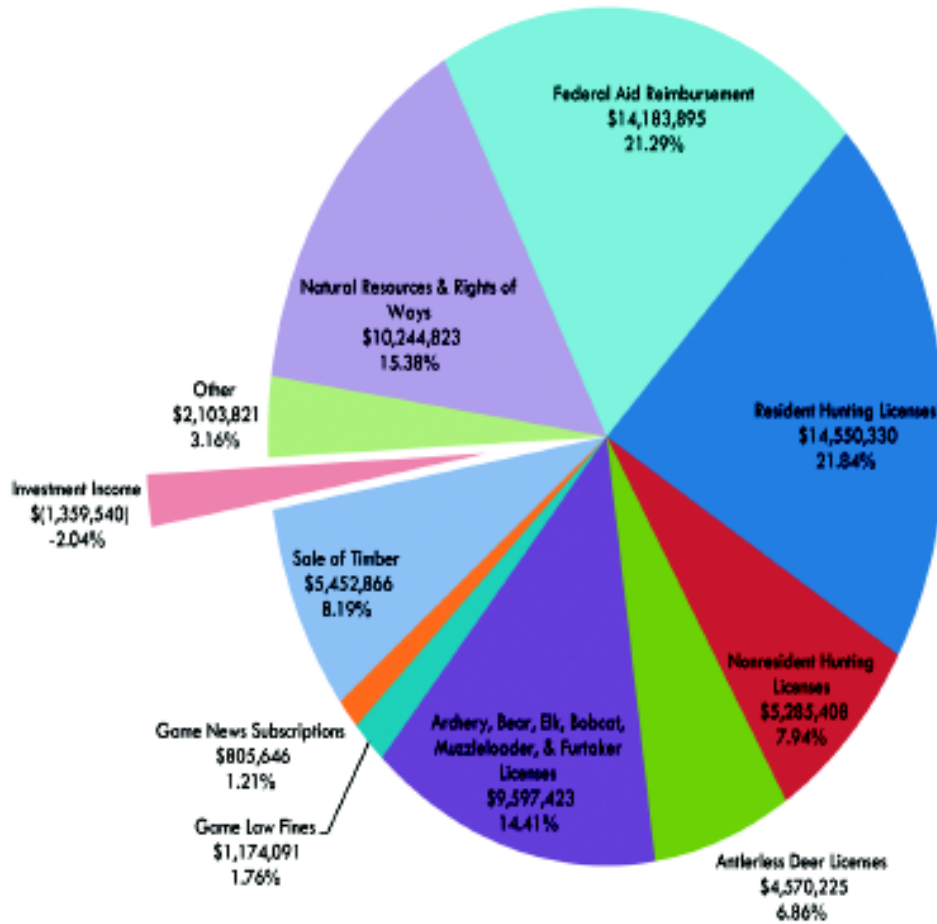
All other schedules included in this report were prepared on a cash basis combined with a budgetary encumbrance system. Actual cash receipts reported and credited to the Game Fund during the 2008-09 fiscal year were \$66,608,988, a decrease of \$2,723,623 over the previous year's actual cash receipts. During the year, investment income on securities and deposits experienced a net loss of \$1,359,540 due to market conditions.

Adult resident and nonresident hunter licenses decreased \$281,541 or 2.16% and \$751,710 or 12.95% respectively. Timber and wood product sales decreased \$6,362,728, or 53.85%, due to slowing lumber demand as a result of the economic downturn. Sales of coal, gravel and hay increased \$1,661,317 or 200.03%. Royalties from oil and gas leases increased \$3,297,975, or 138.78%, due to \$2,378,110 in bonus payments associated with Marcellus Shale as well as increased wellhead prices for natural gas at State Game Lands. Federal Aid increased \$3,115,162, or 28.14%, in association with increased gun and ammunition sales. Right-of-Way revenues increased by \$338,486 or 19.74%.

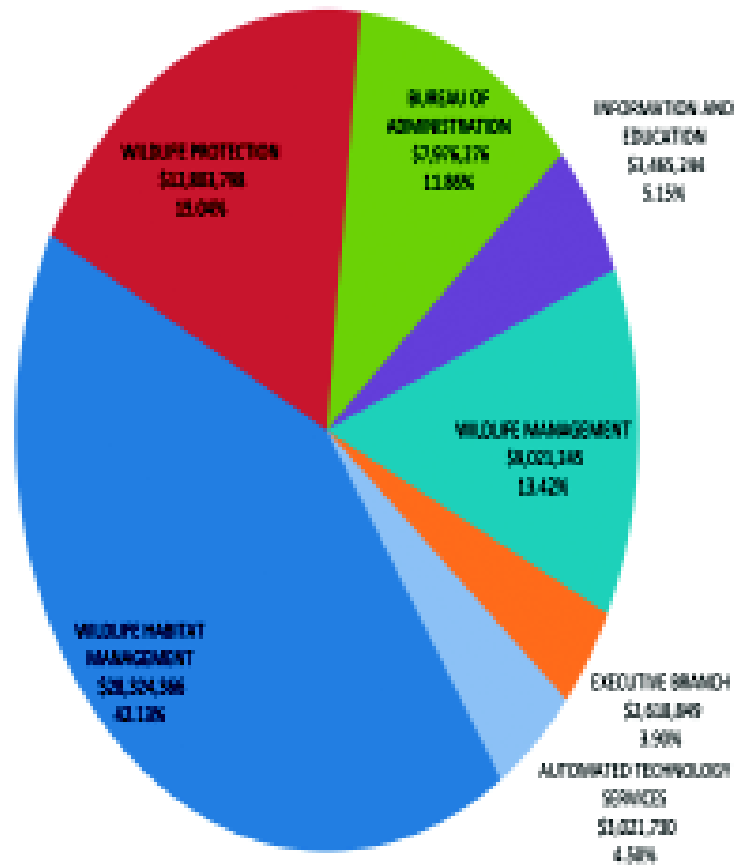
Expenditures and commitments for the fiscal year July 1 through June 30, 2009, as of October 31, 2009, totaled \$67,231,508, a decrease of \$1,504,744, or 2.19%. Printing and Advertising decreased \$508,678, or 44.00%, due to licenses now being printed at the point of sale. No purchases of motor vehicles were made this year, a reduction of \$1,387,542. Salary, benefits and training costs totaled \$49,012,647, an increase of \$659,858 or 1.36%. Act 138 of 2002 amended the Game Code sections relating to mandatory spending. The Game Code stipulates that a minimum of \$4.25 from each resident and nonresident license and a minimum of \$2 from each antlerless deer license issued for which the full fee has been paid is to be used for habitat improvement, development, maintenance, protection and restoration conducive to increasing natural propagation of game and wildlife on all lands under the control or operations of the Commission, including lands enrolled in the Commission's public access programs and other public lands open to hunting under agreement with the Commission. The money collected for the above are deposited into one separate account.

The number of resident and nonresident licenses sold during the 2008-09 fiscal year, as reported by the Game Commission, totaled 858,512. Antlerless deer licenses sold during the 2008-09 fiscal year, as reported by the Game Commission, totaled 831,968. This mandated that a minimum of \$5,312,612 be expended for the above-mentioned purposes. The actual amount expended and committed in the restricted account during the fiscal year for these purposes was \$6,169,952, an excess of \$857,340 over the requirement.

Game Fund
2008-09 Revenue
Fiscal Year Ended June 30, 2009



Game Fund
2008-09 Expenditures
Fiscal Year Ended June 30, 2009



Creek Mountain Road Incident

By Harold J. Malehorn
Snyder County WCO

IT HAD BEEN RAINING off and on all day. It was now dusk and the rain really started to fall. I was looking forward to hanging up the uniform and sitting down to dinner with my family. The second week of the general firearms deer season was almost over. As luck would have it, though, the phone rang. It was Deputy Bruce Teats, who had just received a call about a violation, but advised me he was handling family matters and could not assist. I put my uniform back on and headed out the door, calling the informant on the way.

"A guy living on Creek Mountain Road heard a shot down by the road. He spotted a pickup headed east out of sight. A few seconds later a vehicle that the guy recognized came from the other direction. He went down to the road to meet and discuss what he saw with the other person. They identified the truck and knew it belonged to a Chuck. They called me. I drove up and down the road and found a deer lying on the hillside close to where Chuck was stopped in his vehicle. I called Bruce," the informant told me.

I met the informant on Creek Mountain Road where the incident had occurred. He showed me the deer and a spot to hide my vehicle to watch for the shooter to retrieve it. I prepared for a long night.

It was now well after dark and the rain continued to come down harder, making the ground very slick. I was beginning to wonder if I could even get my vehicle out of the logging road in a hurry if the situation dictated.

A vehicle went past, but no one got out. I was expecting a vehicle to come by and drop someone off to retrieve the deer. After about 20 minutes I happened to catch a glimpse of light out of the corner of my eye. It was a flashlight on top of the ridge and to the west of my location, a hundred or so yards from the deer. It had to be a person looking for the deer. The vehicle that passed earlier must have dropped the individual off up the road. For a while I watched from my vehicle as the person methodically moved across the ridge looking for the deer. I got out and made my way to the edge of the road and continued to watch the person looking for the deer when a vehicle came down the road. The flashlight went out and I moved off Creek Mountain Road about 20 yards and ducked into the woods. Imagine my surprise when I stepped on a large metal object that sounded to me like thunder crashing. With a sick feeling in my stomach I waited for the vehicle to pass and to see if the flashlight came back on. It did. The person didn't hear me and continued to look for the deer.

I moved back up to the edge of the road. It wasn't long before the flashlight went out again. After maybe a minute the light came back on and this time was heading straight down the ridge. He had found the deer. The person was dragging the deer straight toward me. The light went out again and stayed out. Despite the rain, I could hear brush cracking with every step. The individual was now only a few feet off the other side of the road and a few yards away from me. I could not see him, but I knew where he was and heard him say, "Where are you?" He had a radio. At that point headlights appeared from the west. "Is that you? Drive by, turn around and come back."

The vehicle drove by as I hunched down on my hands and knees in the weeds. The vehicle turned around and came back. I heard "Stop! Back up! Stop!" The vehicle stopped, backed up and stopped on command. The driver exited the vehicle. He reached the back of the truck and I was sure I could make it to him before he could get back in and drive away. I jumped out with my flashlight on and yelled, "State officer, put your hands on the truck, do it now! Keep them where I can see them! Chuck, come down out of the woods and bring the deer with you! Move to the truck and put your hands on it as well!"

They both complied and I searched for weapons and began to take information on the two subjects. After questioning them, I loaded up the deer (which was not tagged) and told them to meet me at the state police barracks for further questioning.

The driver turned out to be the son-in-law of the shooter. I read him his Miranda warnings. He stated he got a call from Chuck telling him that he got a deer and needed help. Chuck told him to get his dad's truck and pick him up to get the deer.

The son-in-law drove from Middleburg to Liverpool and then to Chuck's house. This was probably an hour away, but it got Chuck a pickup that was not known in the area.

After reading Chuck his Miranda warnings, I questioned him further. Chuck stated he shot the deer farther down the ridge, while still-hunting, and that the deer ran to the spot where it died. He also stated he never walked up to the deer until he retrieved it. He said he saw where it fell. Based on what the witnesses said and where Chuck said he was hunting, this would have been impossible. Witnesses saw him in his vehicle just after the shot and he would not have been able to see the deer lying where it was from on top of the ridge.

Chuck was charged and pled guilty to the unlawful taking or possession of a deer and trespassing on private property while hunting. (He had been told several times that he was not welcome to hunt on the property.) The son-in-law was charged and pled guilty to assisting in the taking or possession of an unlawful deer. Both individuals could lose their hunting privileges for a minimum of one year.

In this case, because the witness wished to remain anonymous, I did not charge Chuck for shooting on or across a roadway or using a motor vehicle to hunt. A thank you goes out to all involved, particularly the witness. Remember, if we don't know about a possible violation, there is nothing we can do. Make the call.



By J. T. Fleegle

People, people & more people

"I DON'T LIKE people, so, I'm going into wildlife biology." To any wildlife biologist, this is the punch line of a bad joke. In every wildlife management class, students are told wildlife management is ten percent animal management and ninety percent people management. As a student, I heard these words and I understood them, but I'm not sure I truly believed them. Even through graduate school, students are relatively insulated from the social side of wildlife management. I'm not sure anything could have prepared me for the public tsunami that, at times, seems to drown out anything that has to do with wildlife.

Many on the outside think biologists live in the wilds, keeping the company of animals, worlds away from humanity. Being part of a state deer management program is more like living in a fish bowl. And everyone is tapping on the glass, watching us swim around.

In February, our fish bowl gets really sloshed around. After hunting season is over, 'tis the season of sports shows and open houses. This is when I question if I have the right degree on the wall. It says wildlife biology. But after a day at the Eastern Sports & Outdoors Show, a degree in sociology, psychology or communications might seem more useful. Our job is not only to gather and analyze data and make management recommendations, but also to help people understand why the recommendations are made. Most people don't see the hundreds of hours of data collection, analysis and deliberation that go into forming recommendations. Deer management is a complicated business and people have questions.

When you flip the light switch at your house and the light goes on, do you think about the coal that is being burned, the complex inner workings of the power plant that changes that heat into electricity, the power lines and transformers that transport that energy to your electric meter, the wiring from your meter through your walls, finally connecting to your light switch? Imagine having to explain that process to someone in a few minutes . . . imagine explaining it to every person you speak with . . . all day.

Welcome to the fish bowl!

Tundra Swans—A PA “Responsibility Species”

By Lori D. Richardson

PGC Wildlife Education Specialist

IN MARCH of 2009 I took a trip to Middle Creek Wildlife Management Area in Lebanon County, but not just to hear the cacophony of the thousands of snow geese and tundra swans migrating through. I went to hear what a group of people are saying and doing to keep the tundra swans a part of that cacophony.

Tundra swans (*Cygnus columbianus*) are large white birds with wingspans of about six feet and weights of up to 18 pounds. They have black bills and feet, and most adults have a yellow patch just in front of their black eyes that distinguishes them from trumpeter swans, which are also larger. They differ from the non-native, and invasive, mute swan, which has an orange and black bill. Juvenile tundras have a grayish cast to the plumage on their heads and necks. Tundra swans establish lifelong pair bonds at about four or five years of age, and their high-pitched vocalizations earned them their former name as whistling swans.

Why should we care about swans that live on the tundra? Tundra swans have one of the longest migrations of any waterfowl — 4,000 miles. It takes them two to three months to get from their arctic breeding grounds in northeastern Alaska and northern portions of the Yukon, the Northwest Territories and Nunavut in Canada to their wintering grounds. Tundras winter along both U.S. coasts. The eastern population is slightly larger and winters from southeastern Pennsylvania and the Chesapeake Bay south to coastal North Carolina.

Tundra swan families migrate together until the young have traveled both south and north routes with their parents. They spend 40 percent of the year in migration, 30 percent of the year on the breeding grounds and the remaining 30 percent on their winter range. The eastern population visits four important sites during winter: Middle Creek, the Chesapeake Bay, the Potomac River, and the Tri-Refuge area in North Carolina.

The Game Commission’s Middle Creek Wildlife Management Area has been managed for migrating waterfowl since it was created in the 1970s; more than 6,000 acres are cared for by agency employees. A 400-acre lake is visible from the Visitor Center. Birds staging in the area in winter and spring roost on the lake at Middle Creek, nearby quarry ponds and other large bodies of slow moving water.

They feed in large agricultural fields, mainly of harvested corn and winter wheat, in Lebanon and Lancaster counties. But, when the swans arrive in those fields, they are finding that some have already been consumed by something else — houses.

The Middle Creek Initiative is a combined effort of many organizations to preserve open spaces, specifically agricultural fields around Middle Creek, for

tundra swan feeding areas. The Lebanon Valley Conservancy, Lebanon County Conservation District, Highland Coalition and the Game Commission are among the organizations engaging in this effort.

By the 1800s, tundra swans had been extirpated from much of North America. In 1918, the Migratory Bird Treaty Act and the national refuge system began affording some protection. Their population has more than doubled since 1955, from 40,000 to 100,000. But, although the population of tundra swans is currently secure, their habitat may not be.

Nowadays, swans from more southerly wintering areas begin arriving on Pennsylvania's Susquehanna River drainage in late winter, and Middle Creek has been known to hold as many as 17,000 during staging periods. During this spring migration, it is critical that the birds load up on nutrients to help fuel their northward journey and to provide the energy needed to nest successfully.

Agricultural lands are an excellent source of these essential nutrients. Though there are many crop fields maintained on the Wildlife Management Area, the birds apparently prefer to feed on private agricultural lands, mostly to the northwest of Middle Creek. Although farmers sometimes suffer crop damage from grubbing snow geese and Canada geese, they are more tolerant of tundra swans, which merely graze on waste grains and hardy crops that seem to recover readily.

Research shows that while most tundra swans roost on only one site, they tend to feed on at least two different sites. Use of multiple feeding sites is important for management implications. It shows that a habitat complex is necessary. During winters when the lake at Middle Creek doesn't freeze over, a few hundred swans may stay all winter. In fact, research shows that most birds that winter in Pennsylvania tend to stay in Pennsylvania all winter, while others move north, a little at a time, as weather conditions thaw along their northward journey. In 2001, 27 percent of swans marked in southern states throughout the eastern range were confirmed passing through Pennsylvania, demonstrating that in some years the habitat complex around Middle Creek is used by a large portion of the eastern population. Therefore, maintaining the health of this habitat complex is not just of local importance, it has regional, national, international and global impacts.

Game Commission biologist Ian Gregg says, "Acting locally will conserve continentally with this species. That's why the tundra swan has been deemed a 'responsibility species' — one that our state plays a key role in keeping common — in Pennsylvania's Wildlife Action Plan."

So what do we do to fulfill this responsibility? Tundra swan roosting areas are fairly stable and secure. Problems could, however, arise with adjacent land development and increases in disturbance. Biologists suggest that 500 acres of known or potential roosting habitat in the Lebanon/Lancaster County region be secured and that human disturbance at current roost sites

be monitored and, if necessary, managed. Feeding areas are, in contrast, very vulnerable because they are subject to development. Biologists want to identify key areas used by the swans in Lebanon and Lancaster counties and to preserve, conserve, protect and secure at least 25,000 acres in those areas.

Jim Binder, Land Management Officer at Middle Creek, boils it down, "Like much of southeastern Pennsylvania, Lebanon County is under pressure from development. Farm fields that a few years ago held winter wheat and tundra swans now hold suburbia."

The director of the Lebanon County Planning Department, Earl Meyer, notes that an area important for tundra swans has some upcoming planning issues with the potential to significantly impact agricultural land. The current septic system in some municipalities is in need of improvement, and a public sewer system connected to the Lebanon City system is being considered as a means to update. There is great concern that if a public sewage infrastructure were in place, lands around the new system would quickly be consumed by development. Some areas that tundra swans currently use are likely to be the target of development.

The Lebanon County Agricultural Land Preservation Program provides agricultural conservation easements that preserve farmland. An easement is a permanent deed restriction that restricts development. The farmland, in this case, is protected. Easements don't restrict the landowner from selling the property but the restriction stays with the property indefinitely. Easements may offer landowners some tax savings as well. Binder says, "The beauty of conservation easements is that the land stays in private ownership, it stays in agricultural production, open space is preserved and, in this case, the swans also benefit."

Currently, easements exist on about 11 percent of the land that qualifies. But, the major concentration of swan sightings is where no farms are currently preserved. There is a waiting list of about a dozen landowners interested in selling conservation easements on their farm properties, but it takes \$250,000 to secure a 100-acre farm. Funding is the primary limiting factor. Government support, when available, requires matching dollars, so acquiring local private dollars is very important.

The Lebanon Valley Conservancy emphasizes, "The success of the Middle Creek Initiative will be measured in dollars raised to purchase agricultural easements as well as the number of acres of farmland removed from development. Inaction is not an option for Lebanon County. If the cropland necessary to sustain the feeding habits of this migratory species is not protected, it will have a direct and negative impact upon the local and regional economy."

For more information and to support the Middle Creek Initiative to preserve open space and protect tundra swan habitat, contact the Lebanon Valley

Conservancy, Inc. at www.lebanonvalleyconservancy.org or 752 Willow Street; Suite E; Lebanon, PA 17046; 717-273-6400.

Chasing the Dream

By Lawrence R. Hergenroeder

SO, ARE YOU going to apply for the next class of WCOs?"

"You bet," I said.

"Good, I was hoping you'd say that."

That was about the extent of the conversation I had with WCO Mario Piccirilli. Mario is a graduate of the 25th Class at the Ross Leffler School of Conservation, the most elite and oldest school of its kind in the United States. To be appointed to and graduate from the school is an accomplishment that until March 8, 2008, fewer than 600 men and women had ever experienced. The school held its first class in 1936, when it was located in the rural forests of Jefferson County. Then, in 1987, when the Game Commission's new headquarters in Harrisburg was completed, the school was relocated to the complex.

I was two years old in 1971, when my father Reid became a deputy game protector under the supervision of District Game Protector Al Pedder. Al had Clarion County back then and later transferred to Forest County. Al went on to serve in supervisory positions, but made it back to Forest County before retiring. In his void, LMO Rich Cramer (then a WCO) covered the east side of Forest County along with his western district and, for a while, WCO Brad Myers had the east district. After all the shuffling, WCO Mario Piccirilli was awarded the district.

Mario and my mother, Sheila, worked together in the emergency department at a local hospital for several years prior to Mario's appointment to Ross Leffler. I still remember the day Mom told me Mario was going to the school.

It wasn't until 2002, while on a bear hunting trip in Canada with Mike Condon, another co-worker of Mom's and Mario's, that I began pursuing a career with the Game Commission. Mike asked what I thought about becoming a deputy, and I told him that although I had a lot of interest I had never pursued it because of the amount of time I spent hunting and competitive archery shooting. When Mike mentioned that Mario was transferring to Forest County, I told him to let Mario know I'd like to speak with him. A couple weeks later, Mario stopped by and I told him that my father had been a deputy all through the '70s and part of the '80s, and how I remembered stocking pheasants on State Game Lands 63 when I was four or five years old. Mario explained the process and requirements for becoming a deputy and I asked, "Where do I sign?"

I took care of all the paperwork and physical requirements and began the ride-along process. On the second day of ride-along we trapped a bear in a culvert trap that had been getting into a local woman's trash. That bear weighed 672 pounds. If I wasn't already hooked, that incident most definitely set the "barb."

I attended the required deputy training in May 2003 at the Ross Leffler school. Photos of every class of WCOs that had graduated from the school lined the walls outside of the classroom, and I told myself that one day my photo would be on that wall, too. Following a final exam, I was commissioned a deputy on September 14. Mario said it would be a good idea to work with other officers, so I began working with deputies Rob Cochran, Chuck Worley, Sam Hale and neighboring WCO Rich Cramer. LMO George Miller and, now retired, Bureau of Wildlife Protection Director Mike Dubiach made many night patrols a learning experience.

Wanting to get involved with every aspect of the job, I attended the Waterfowl Identification and Law Enforcement training held in the spring of 2005. Prior to that training I asked Mario if he would approve of me working a day with, now retired, WCO Dave Myers at the Pymatuning Wildlife Management Area, an area frequented by a great variety of waterfowl. I received approval from both WCOs and spent the day (like my dad did in the '70s) patrolling the goose blinds with WCO Myers.

Pymatuning had many memories for me as a youngster and as a hunter. I told Mario that when the district came open and if he wanted to transfer, I would go with him. Mario was

awarded the district in September of 2005 when Dave retired, and before the end of that same month I had a new address.

SGL 214 is probably my favorite Game Lands. I've logged many hours there doing law enforcement work and information and education programs. At that time, my occupation was as an independent contractor hauling film and prescription drugs to retail stores. I didn't start my day until 10 a.m., which allowed me to spend a lot of mornings patrolling around the management area and the controlled goose blinds.

The 27th Class of new WCOs was to begin in 2006 but, due to budget constraints, the class was postponed until 2007. Deputy Andrew Troutman, a long-time friend of mine, also applied for the class. The process for becoming a WCO began with an online test at the State Building in Pittsburgh. Both Andy and I tested on March 25. The next step was an oral interview in Harrisburg. Again, Andy and I tested on the same day, so we carpooled. Though we are both highly competitive, we always commented how great it would be to be classmates at Ross Leffler.

Mario assured me that I'd make it, but the wait was unbearable. I wished I had his confidence. When we received notice that the class would be delayed, Andy and I decided to concentrate on our deputy work and enjoy the year.

In late 2006 the background investigation packets arrived. Andy's mail always ran a day or two ahead of mine, and the waiting caused me a lot of anxiety. After our background investigations, we received notice of a final interview. This time my interview was scheduled prior to Andy's. When I entered the second-floor room at Harrisburg headquarters, my butterflies disappeared and I left feeling pretty good. Then it was back to waiting.

On my way to work a few weeks later I received a phone call from Andy. He asked if I had heard from the PGC Executive Director. I told him I had not and asked why? Andy said he didn't want to make me nervous but that he had received a call the night before, from Director Roe, congratulating him personally for making the 27th Class — pending the physical fitness and psychology exams.

I told Andy that I hadn't received a call, but that I hadn't been home the night before. Then, as if on cue, my cell phone flashed an incoming call. On the other end was exactly the call I had been waiting for, and I even asked Director Roe to please tell me what I wanted to hear. I called Andy back immediately and I tried to kid around and say that my news wasn't as good as his, but I couldn't even complete the joke. Instead, I reminded him how great we thought it would be to be classmates and added, "Well, now we'll know."

My eating habits aren't exactly from the book of Jenny Craig. I like those things we shouldn't eat, such as pies, cakes, donuts, hamburgers, steaks and chips. In less than four weeks, on a regimen of running and dieting, I took my frame from 185 pounds down to 168. As part of the regimen, Andy and I would meet at a local swimming pool to practice the swimming requirements, and the low impact exercise helped out considerably.

My physical fitness test came about six days earlier than Andy's, and I was looking forward to putting it behind me and moving on to the next phase. At the physical I met Rick Finnegan (who would go on to earn the physical fitness award at Ross Leffler). Rick is one of those people that you become instant friends with. With our last names alphabetically close, we figured that if we both made the final cut, we could end up as roommates. At the end of the day, we both passed with flying colors. The final task was a 300-question psychological test held in a suburb of Harrisburg.

After much anticipation, I received a letter asking that I report to the school on the evening of April 1. I wondered for several days if Tim Grenoble, the director of the training school, was pulling a practical joke for April Fools Day or if we were to actually report. In early March, the school offered an open house for cadets and their spouses, to give everyone an idea of what to expect. We toured the school and had a presentation of the history of the PGC.

Back at home I gave a 2-week notice to Barry Shrift, the contractor that I was subcontracted under. I told him I was finally going to fulfill my dream of becoming a WCO

for the Game Commission. Barry, like others, was proud of me and reminded me that I always had a job waiting if things didn't work out. I told him I appreciated the offer, but guaranteed him that it wouldn't be necessary.

Among the proud were my parents Reid and Sheila. They allowed me to make their home my weekend home, as they lived more than an hour closer to Harrisburg, and it didn't make sense for me to pay for an empty apartment. As I moved stuff everywhere, my sister Sue kept my mounted game trophies, and my sister Kate's basement was full of all my furniture and boxed possessions. I practically lived out of my car that year, between visits to see my girlfriend, Missy, and weekends at home with my parents.

The year at Ross Leffler was the single greatest experience of my life. The days were long and full, yet it was one of the shortest years of my life. The broad curriculum was trying at times, but very rewarding. My favorite training activities include the hours spent at the pistol range and field training with veteran WCOs.

At the conclusion of the 49 weeks of training I was assigned to the Northwest Region. Mercer County became my new home, a place I was familiar with due to former employment in the area. Waiting for me was a deputy force with more than 100 years of experience. Al, Bruce, Dave and Terry welcomed me with open arms. WCO Don Chaybin is to my north and my "big brother," a veteran officer who keeps an eye on me as a new graduate. The Northwest Region supervisors and staff, as well as neighboring officers Clint Deniker, Jeff Kendall, Arthur "Chip" Brunst and my predecessor, Jim Donatelli, now the Mercer and Venango County LMO, also keep me under their watchful eyes.

At the graduation ceremony I was privileged to carry the 27th Class flag. My greatest honor was to have received my credentials from retired Deputy Game Protector C. Reid Hergenroeder, my father. I want to express my deep gratitude to those who always believed in me and helped me become who I am today. I don't have to list names, they know who they are.

Now, when you walk down the hall at the Ross Leffler School of Conservation in Harrisburg, there's a new class photo on the wall. The mighty 27th Class of graduates, Cory, Kevin, Derek, Chris, Jason, John, Rick, Dave, Lawrence, Wayne, Matt, Mark, Ray, Scott, Seth, Dan, Mike, Chris, Mike, Andrew, Dennis and Michael. I'm proud to be one of them.

The Spring Turkey Scofflaws

By Mario L. Piccirilli

Crawford County WCO

GREED, temptation and opportunity seem to be the norm for some people who lack the moral fiber to do what's right when they think no one is looking. Such is often the case when hunting, as in the fields and forests we are our own referees.

At our HTE classes, ethics is one of the first principles we try to instill in our new hunters, and I believe we have been successful. Some individuals, though, succumb to the temptation to take wildlife at any expense, and ultimately pay the price in humiliation, fines and loss of hunting privileges. The following are two incidents that portray what can happen when greed, temptation and opportunity are mixed with the desire to take a game animal and not adhering to the rules of fair chase. Ironically, these incidents occurred on the third Saturday in May, one in 2006 and one in 2007, both with striking similarities.

On Saturday, May 20, 2006, Harlan returned home from working the night shift and was getting ready to go to bed just as the sun was rising with the promise of a beautiful day. Harlan had just recently moved into his new log home, with its spacious windows that provided spectacular views of the woods and fields surrounding his home. Wildlife, especially deer and turkeys, abounded in this area of northern Crawford County. Looking out his second floor bedroom window, he noticed a gobbler strutting in a field 80 yards from his neighbor's residence. About the same time he spotted a green Ford pickup driving slowly up and down Turner Road.

As Harlan watched, the truck turned around on Colt Road and then headed back up Turner Road toward the gobbler in the field. Through binoculars he watched the truck drive up to the turkey and then a teenager with a shotgun jumped out of the passenger side and ran to the back of the truck. The young man raised his shotgun and, while standing on the road, shot the gobbler. The youngster then ran out, grabbed the turkey and jumped into the truck and the driver took off. Larky had just shot his first turkey and his father, Hooper, was ecstatic. Harlan watched as the pair sped off, but not before he jotted down the vehicle license plate number.

Harlan, who is a law enforcement officer, immediately called our region office to report the violation. Dispatcher Ken Clark took all the information from Harlan and thanked him for his prompt action in reporting what he had seen. Before calling me, Ken ran the vehicle registration and learned that the truck belonged to Hooper Lawless from Guys Mills. When Ken called, he told me that Hooper was likely on his way home with an illegally killed gobbler, and provided me with a description of the vehicle and its two occupants.

I called WCO Mark Allegro, told him what had occurred and asked him if he could meet me at Hooper's residence. Hooper lived just inside Mark's district, so I met him in Meadville and we headed to Hooper's house. We pulled into Hooper's residence an hour after receiving the initial call, but the green pickup wasn't there. Hooper's wife said that Hooper and her son went to a friend's house to help him paint. Mark glanced over his shoulder and noticed a dead turkey under the front of a van.

I asked Mrs. Lawless who shot the turkey and she said her son got the turkey that morning with her husband. I checked the tag on the bird's leg and it was made out to Larky Lawless. I informed her that we were seizing the bird as evidence, as we suspected that it had been taken illegally, and explained to her what had been reported to us. She had such a rueful look on her face when I took the bird. I left her my card and asked her to have Hooper call me as soon as possible.

About two hours later Hooper called and wanted to know why I took his son's turkey. I provided him the details of what the witness had reported, and there was a long pause at the other end of the phone. I asked Hooper when I could meet with him and we made arrangements to meet the following Monday morning.

When Hooper showed up at my office the following Monday, his first words to me were, "Yeah, I know we really messed up, but it's my fault. Can you keep my son out of this?"

I looked at him and said, "Your son is almost 18 and should know better." Hooper lowered his head and didn't respond.

Hooper ended up with two citations: one for hunting and shooting in a safety zone, for which the fine was \$254.50, and the second for using a motor vehicle to locate and kill game, \$210. Larky was issued two citations, one for shooting from and across a roadway, a \$154.50 fine, and a \$100 fine for illegally killing a turkey. Hooper and Larky each received a 1-year revocation of hunting privileges. It sometimes makes me wonder what type of guidance Hooper was providing for his son.

Jason was drinking a cup of coffee around 10:30 on Saturday, May 19, 2007, and looking out his large picture window, which provided a beautiful view of the large field in front of his house. The field stretched for more than 300 yards to a dirt road that ran past the east end of his property. It was a beautiful morning, with the sun shining into his windows as he watched a big tom turkey. The gobbler's beard hit the ground as it strutted and put on a show for the three hens that seemed to be ignoring the tom's advances. Jason, an avid turkey hunter himself, had seen and hunted this gobbler, and had had many heart-pounding moments that season. Due to prior commitments on this morning, though, he was unable to hunt on this day. He was enjoying the performance the big tom was putting on in the field, and was content to watch the events unfold.

The scene he was watching was about to become unpleasant, though. As he looked to the south, about a quarter mile away he noticed a brown Ford SUV driving slowly up the road. Jason watched the vehicle until it was near the end of his 300-yard long driveway, where a line of trees blocked his view, until the vehicle cleared the trees. Looking through binoculars, he could see two camo clad individuals in the vehicle and knew what the pair was up to. They were roadhunting for turkeys and on a collision course with the big gobbler in his field. He immediately glanced back to the gobbler. The turkeys seemed oblivious to the vehicle slowly approaching, less than 45 yards away.

When Jason looked at the gobbler he noticed that it was now following the hens toward the road, in a direct path with the approaching vehicle. The vehicle was barely creeping along when it passed the line of trees obstructing the turkeys in the field. Jason watched the vehicle come to a stop and the passenger open his door ever so slowly and ease out of the vehicle. The passenger then crawled on the ground to the front of the vehicle and pointed his shotgun toward the gobbler across the road and waited for him to get closer.

When the gobbler got within 30 yards of the vehicle, Jason could see the man crouched in front of the vehicle up against the passenger headlight, and then he heard and saw the blast from the shotgun. At the report the big gobbler was upended and sent flopping on the ground in the field, as the hens took flight into the adjoining woodlot.

Jason was incensed that these slobs could be so brazen to shoot this turkey from the road directly in front and toward his house. At the shot, the man who was crouching on the road in front of the vehicle immediately jumped up, shotgun in hand, and ran across the road to the flopping turkey in the field. Jason was unable to see the license plate, so he grabbed his car keys and ran out to his vehicle and sped down his long driveway toward the road. When he turned onto the road he saw the hunter with the turkey coming out of the field with his shotgun clenched in his other hand. Jason pulled his vehicle to within 30 yards of the SUV to copy down the license number.

Jazbo Buffer, who had just shot the turkey, saw Jason and realized he was in trouble. Jazbo hurried back to his father's vehicle, with turkey in hand, but then approached Jason while still carrying the turkey. Jason was just finishing copying his license plate down when Jazbo ran up to him and offered to give him the turkey and asked him to not call the Game Commission.

Jason said no thanks and immediately drove back up his driveway while the SUV sped away in a cloud of dust. Jason then turned around in his driveway and drove to his neighbor's house, who is a retired PGC Food and Cover Crew employee, two miles down the road. Jason gave John all the information about the turkey poaching incident and John contacted me. John said that his neighbor told him the shooter was in his late 30s and gave me a description of him and the driver, who was in his late 60s, and all the other details.

I was working the other end of my district when John called. I thanked him and told him I would get on it immediately. I phoned the vehicle registration into the region office, and dispatcher Ronda Bimber called me back within two minutes to inform me that the brown Ford Explorer was registered to a Corky Buffer from Meadville, and she also provided me with his phone number. Having dispatchers working a step or two ahead of us, providing this sort of information is invaluable for WCOs in the field.

I called the Buffer residence, introduced myself and asked to speak to Mr. Buffer. Mrs. Buffer said he was out hunting with their son and wanted to know why I was calling. I explained to her that I needed to speak to them about a turkey I understood they had shot. I asked her if they had a cell phone, and she replied that she would call them and for me to call her back in about 10 minutes. I was about 45 minutes away from their residence and knew I had to get there as soon as possible or my evidence, the turkey, would be gone. I waited five minutes and called Mrs. Buffer back and asked her if she'd spoken to her husband or son. She said she did and I informed her that I would meet them at their residence in a short while. She immediately said, "No, don't come to our house for about 45 minutes; we won't be ready." I thanked her and said good-bye.

Now I knew she was aware of what was going on because Jazbo and Corky were only about 15 minutes from their home. I called LMO Jerry Bish on my cell phone, filled him in on what was going on and asked him how soon he could get to the Buffer residence. Jerry said he could be there in about 15 minutes, and I told him I'd meet him there in about 35 minutes.

As Jerry was approaching the Buffer residence he noticed two occupants exit the brown Explorer. He watched one walk over to another vehicle, the trunk lid pop open and then close. As Jerry pulled into the Buffer residence, Jazbo, Corky and Mrs. Buffer were all standing in the driveway. Jerry introduced himself, told them why he was there and started checking their hunting licenses and asked Jazbo where the turkey was that he had killed.

Jazbo said it was in the trunk of his vehicle. As Jerry continued collecting the pair's information, he was bombarded by questions and he informed them they would have to wait until I arrived to answer their questions.

Jerry was just finishing obtaining information from the two suspects when I pulled in. As soon as I got out of my vehicle, Mrs. Buffer approached me and said rudely, "I thought I told you I didn't want you to come over here for at least 45 minutes; you know, I'm not happy about this, especially you sending this other officer here."

I politely replied, "Mrs. Buffer, I can understand and appreciate your concern, but I'm not bound by your timetables when I'm conducting an investigation, and if there is anything you should be upset with, it should be your husband and son, not Officer Bish or me." She looked at me and offered no more antagonistic remarks, just ominous glares.

I told Jazbo I needed to see the gobbler he had killed that morning. Jazbo went to his vehicle, opened the trunk and retrieved the bird. I asked him if he could tell me how he killed it. Jazbo started to concoct a story about how he and his father saw the gobbler strutting in a field and he jumped out of his father's vehicle, ran 25 yards off of the roadway and shot the bird. I asked him about offering the gobbler to Jason, and he said that Jason was crazy and make up the whole story.

I told Jazbo and Corky I was seizing the turkey and would be issuing citations when I completed my investigation. Corky wanted to know what citations I would be issuing. I advised them that they had used a motor vehicle to locate game, shot from and across a roadway and killed a turkey illegally. They both started to vehemently argue, saying that the witness was lying and they were innocent. I informed the pair that we were not holding

court in their driveway, and for them to save it for the judge who would hear their case. I thanked them for their cooperation as we left.

Two days later both Corky and Jazbo called the region office and requested to speak to me. I returned their calls and they both apologized to me for their behavior and said they just got excited when they saw the turkey and couldn't resist shooting it.

They said they would plead guilty to killing the turkey and vowed never to do anything like this again. Corky said he knew better and wanted to tell me the truth in the driveway that day, but was too embarrassed. I subsequently filed a citation for each of them for killing a turkey illegally, and they were fined \$127.50 apiece. They also lost their hunting privileges for one year.

A few months later I was at the Game Commission Headquarters in Harrisburg for an administrative hearing concerning the revocation of Corky's hunting privileges. The hearing examiner listened to the defendant's side as to why the Commission should not revoke his hunting privileges. During Corky's testimony I had to look at my notes and citation to see if I was at the right hearing. Corky mentioned all the hunting clubs he belonged to and good deeds he had done for conservation. After 15 minutes of this he went on to explain about a medical condition, which was not that serious, and then the hearing examiner looked over at me.

The hearing examiner held his hand up and asked Corky if he could tell him about the turkey that had been killed. Corky said, "Yes, we killed the turkey, but it was a mistake and we've never done anything like this before." Then, not missing a beat, Corky continued telling the hearing examiner about more of his conservation accomplishments. When Corky finished, the hearing examiner asked me if I had anything to say and I just shook my head no in disbelief.

I'm not entirely convinced this was the first time Jazbo and Corky broke the Game Law, but I do believe it's the first time they were apprehended. Corky's appeal to have his revocation rescinded was denied by the Game Commission.

Silent Whispers

By William M. Williams

TWO YOUNG LADIES stand along the railroad tracks, under a slate-gray sky. They are wearing woolen coats and leather boots. Kerchiefs on their heads offer minimal protection against the cold and wind. They are not smiling.

Behind them the tracks sweep to the north and follow the Mehoopany Creek before turning back again toward the town of Lopez. Behind them and to their left, a wooden footbridge strikes across the creek. On the far end of the bridge several steps drop down and connect to a crude plank walkway that leads to the town hall. The two are facing in the direction of the general store and stave mill. To their right on the hill sits the hotel, Wyoming County schoolhouse, and some modest homes.

The man about to take their picture repositions his camera and makes some final adjustments. He is a freelance photographer in the lucrative business of making postcards. Postcards are very popular at this time and he has the local market cornered. The shutter is released with an audible click and the moment is forever frozen in time.

The photographer gives the young ladies a nod and a smile in appreciation of their participation. It is all he can do. As a child of five, he barely survived a battle with scarlet fever, measles and whooping cough that left him deaf and mute. They part ways.

The names of the women are unknown. On this day they are somebody's daughters. They will become mothers, grandmothers and great-grandmothers. They will pass away. The photographer is Randal Douglas of Syracuse, NY. It is the winter of 1908. The name of this town is Ricketts. It is located atop the North Mountain in northeastern Pennsylvania, in both Sullivan and Wyoming Counties.

On this day, it is a booming lumber town, home to more than 800 people of various lumbering occupations and their families. It has been here since 1890. It will remain here until around 1913. State Game Lands 57 and 13 total nearly 100,000 acres and stretch across and into four counties. These Game Lands are mostly mountainous and home to a wealth of wildlife including deer, bear and turkey. State Route 487 ascends North Mountain in Luzerne County, passing Ricketts Glen State Park before dissecting the two Game Lands into roughly equal parts. This may be the largest tract of contiguous Game Lands in the state.

On the plateau, the area is desolate, with Game Lands on either side for many miles. Sections near the park may give a person the impression of being in Maine. Boreal hemlock and spruce swamps make up a large portion of this area. Seeing a moose here almost seems plausible. On the west side of SR 487, just past Mountain Springs Road, is a Game Lands parking lot that beckons travelers to rest and try their cell phones. It offers hunters a place to park and start off into the woods in search of game. It is here that a few concrete foundations can be seen among a thick growth of spirea and blueberry bushes.

A short walk across the road may find a visitor walking along a service road that follows the Mehoopany Creek. After passing more foundations and the remains of a railroad trestle, the road sweeps north and follows the creek for a while before turning back again toward Lopez.

I have been the Land Manager for these and other State Game Lands in the Northeast Region since January 2008. While the primary mission of the agency is to manage wildlife and their habitats for current and future generations, structures and other tangible property of historical significance should be protected and preserved whenever possible.

Game Lands regulations reflect this responsibility by making it illegal to remove, or attempt to remove, any archaeological or historical artifacts. I have the honor of playing a part in managing, protecting and educating people about this area. The town of Ricketts played an important role in the development of the region, and the products produced there had statewide implications.

Today I find myself looking up at the old railroad bed from a flat area below, where the Mehoopany Creek and a small stream meet. It's early spring and the growth of ferns and shrubs that will make searching for clues more difficult is only a few weeks away. I am trying to determine where the young ladies and the photographer stood and find remnants of the footbridge. Mostly, I'm trying to verify the exact location of the Ricketts Town Hall.

The town of Ricketts was named after Civil War Colonel Robert Bruce Ricketts. R.B. Ricketts was the fifth of nine children and was born on April 29, 1839. His father was a merchant and farmer in Orangeville. The heroics of Battery F of the First Pennsylvania Light Artillery during the battle of Gettysburg are especially well known to Civil War historians. Perhaps the most notable highlight of the military career of then Captain Ricketts was as the commander of "Ricketts Battery" in the successful defense of Cemetery Hill on the late afternoon of July 2, 1863.

After the war, Colonel Ricketts returned home to Orangeville a hero. For the rest of his life he was famously referred to by just about everyone simply as "Colonel." The colonel soon started purchasing large tracts of timber land in Luzerne, Wyoming and Sullivan counties. By 1873 he had amassed more than 66,000 acres, most of it on North Mountain.

Toward the end of the 19th century, Colonel Ricketts leased thousands of acres of valuable virgin timber to the Trexler and Turrell Lumber Company. The town and related lumber operations that developed as a consequence of this business venture included a massive sawmill on the Sullivan County section of town and a barrel and heading mill on the Wyoming side. The two areas were (perhaps with a little tongue-in-cheek) referred to as Uptown and Downtown Ricketts. The uptown area contained the sawmill, planing mill, horse stables, blacksmith shop, Lutheran Church, Patriotic Sons of America Hall, and a number of company homes. The Downtown area was home to the stave mill, drying sheds, train station, general store, post office, hotel and several homes. Years after the boom was over, this area was purchased by the Game Commission and became a State Game Lands.

I had the good fortune of spending an early spring day with local historian and author Peter Tomasak, who gracefully showed me several remnants of the "ghost town." His book entitled *In Command of Time Elapsed, The Life and Times of Robert Bruce Ricketts* is an extensive and authoritative piece on the subject.

We first examined what remains of the Patriotic {Order} Sons of America Hall and a few other foundations on Church Row. POSA is a nationwide fraternal organization formed in 1847 to uphold and keep alive patriotism and religious values. Chapters still exist, and the organization has its own website. Next we walked along what once was Whipple Street and the foundation of the Sullivan County Schoolhouse, still very much intact.

Apple trees in this area indicate where homes once stood. These trees today represent a valuable food source for deer and other animals. Closer to the mill pond we entered the blacksmith shop. The cement walls of one section still remain, and rusted iron debris can still be found around the structure. Farther along, we examine the base of the water tower that provided water for the underground steam boilers that serviced the huge engines that powered the mill saws. The engine and saw foundations are located in a wet area behind the breast of the old mill dam. Peter shows

me a few pieces of saw blade amongst the grass and muck. We slosh our way past the planing mill and follow a railbed heading “downtown.”

I asked Peter about the location of the town hall. He explained that he’s searched for the foundation over the years but never found it. I admitted that I looked the previous fall and was also unable to locate any remnants. Before parting ways, I told him I would give it another try.

The town hall was the social center of Ricketts. It was there that many church services, meetings and Saturday night dances were held. It was even the venue for boxing matches. The winners of the bouts at Ricketts would travel to Lopez to take on the winners of contests there. The Saturday night dances were lively affairs that usually included a fiddle player. Folks could unwind and shed the pressures of work at the lumber camps or at the mills. Also shown in the town hall were “magic-lantern shows,” an early version of movie theater productions. These shows have been described as a combination of color images, live drama, music, comedy and boisterous audience participation. As the town grew, the activities of the town hall were moved to the POSA building.

The most curious point about the town hall is its unusual location. It was the only structure near downtown Ricketts that was on the east side of the creek, and it was only a few feet above normal creek level.

A Douglas photo dated December 10, 1907, shows the town hall with the muddy waters of the Mehoopany Creek about four feet up the sides of the building. No doubt this was also a factor in moving activities to higher ground.

I find myself gingerly stepping around a northern water snake. It’s coiled and resting on a deer trail leading away from the creek, soaking up the afternoon sun. I will soon learn that this location is a favorite sunning area for these large reptiles known for their impressive size and aggressive bite. While admitting to no abject fear, I do sense a primal sense of unease whenever walking amongst them and remember an old historical precautionary warning: “Don’t Tread on Me.”

The photographs of the town hall I had previously studied were taken from almost the same location, shot from only a slight angle off the footbridge, looking across the creek, making the structure appear closer to the bridge than it actually was.

On this day, the photo I am using for reference, of the two young ladies, was taken at almost a 90-degree angle to the bridge and instantly gives a better appreciation of the distance that the building was from the creek. The town hall is barely visible in the picture on the far right. I had been looking in the wrong location.

The outline of a row of moss-covered rocks rises before me just above the forest floor. It is partly hidden by blueberry bushes and fallen logs. The structure appears too straight not to be manmade.

A carpeting of moss peels easily away from the rocks with only a slight pull, revealing flat stones that had been placed there with precision. The line of rocks comes to a corner and makes a 90-degree turn back toward the creek. This must be the back of the foundation. A subsequent detailed search around the immediate area produces two sections of stove-pipe flashing and a corroded axe head. The most significant items I find are the most numerous and scattered under the leaf litter: Around the perimeter of the foundation are several cut nails dating back nearly 100 years. I am standing in the center of the Ricketts Town Hall.

The shutter of the camera released with an audible “click.” I look up the embankment toward the railroad bed to an image of three figures standing by the tracks. I give the photographer and two young ladies a smile and a nod. They part ways.

Life & Times of the whitetail **Biologist**



By J. T. Fleegle

Deer Wrestling Wrap-up

OKAY, SO WE DO get to do a little Animal Planet stuff after all. We catch deer. Every year from February through April, we gear up and head out to catch our quarry. The deer we catch are fitted with various paraphernalia: ear tags, radio collars, GPS collars and reward tags. The fittings a deer receives depend on the research project and its objectives. At minimum, a deer that has encountered a capture crew will sport a new set of ear tags.

It's not easy to catch a deer. First and foremost, deer are wild animals. Not even the deer that come into your yard to eat your roses like people. Deer move in silence, under the cover of darkness. They have a nose that can detect the slightest scent and a set of bionic ears that seem to hear the grass grow. Any hunter will tell you they are a formidable opponent. To catch one of these stealthy animals takes planning, patience and nerve.

We use three common methods to catch deer: drop nets, rock nets and Clover traps. Drop nets and rocket nets work as you would expect. Drop nets are suspended from poles and dropped on deer; rocket nets are attached to rockets and shot over deer. Clover traps have nothing to do with clover, however. In 1954, a box trap with a pipe frame covered by netting was designed by Melvin Clover, hence, the Clover trap. Trap set-up requires strength and strategy. The traps are heavy and awkward and require staking. In frozen, rocky ground this is a challenge. Careful consideration of deer movement, landscape, wind direction and weather are critical to selecting a successful trap site.

Vehicle repairs, landowner contacts, pre-baiting, trail camera monitoring, endless equipment maintenance, injuries, and ridiculously long hours are also required for deer trapping. Every year, we hire young, hardworking, fearless, technicians to help with this effort.

Hours go into the capture of each deer, but actual handling time is only minutes. There are many nights when the net is never dropped, the rockets never shot, nor the trapdoor ever sprung. But all those hours are worth it (personally and professionally) the minute you're confronted with a kicking, bawling 100-plus pound firecracker called a white-tailed deer.

Two Down on Turtle Road

By WCO Mario L. Piccirilli

CRIMINALS often return to the scene of the crime, as an act of defiance, perhaps, or for the sheer thrill and excitement of taunting the authorities at not getting caught. In some cases, though, returning to the crime scene is their demise.

Turning my truck onto Creek Road from Crown Road I said, “Kevin, I think that’s our truck.” Our suspect’s truck, a green and blue open-bed pickup with the license plate number we had been given, was parked partly on the road.

“That’s it,” Kevin replied, “but where are the suspects?” I pulled in behind the truck, and in plain view in the truck bed was bright red blood staining the snow. There also was blood and deer hair all over the tailgate and rear bumper.

It was 11 a.m. on the first Saturday of the 2007 regular firearms deer season, and Federal Aid Supervisor Kevin Thompson and I had been patrolling since early morning. The temperature was in the low 30s, there was about four inches of snow on the ground and there was a pretty stiff easterly wind. Information we had received earlier in the week is what brought us to this location. We returned to my truck and continued down Creek Road to the intersection of Turtle Road. We turned right onto Turtle Road, traveled 20 yards and pulled over. There we met our witness, Stan Upright.

“You know,” Stan began, “I was coming out of the woods from deer hunting at about 4:25 on Wednesday when I saw the green and blue pickup driving by real slow. I knew the guys were up to something, because the two guys in the back of the open bed, rifles in their hands, were intently scanning the fields on both sides of the road. I couldn’t believe they didn’t see me at the edge of the woods. When the truck turned onto Creek Road I saw the driver, who I recognized as Rollo Toady. Also, in the front passenger seat was a young boy with a rifle between his legs, the barrel pointing up toward the windshield. I figured these guys were roadhunting, so I just stayed in the woods and decided to watch them for a while.

“The truck and its occupants cruised down Creek Road at about 5 miles per hour. I could see through my binoculars that the guys in the back of the truck were standing up and scanning the fields on both sides of the road with binoculars. They went about a quarter mile, made a sharp right turn onto Turtle Road, went about 50 feet and then came to an abrupt stop. Then the two guys in the back of the truck jumped out.

One guy ran down the road and jumped across a ditch into a 10-foot wide strip of trees that stretched down the east side of Turtle Road. The other guy ran up to the front of the passenger side and hurried the young boy out of the truck, and then they both jumped up onto the bank. They were less than 20 feet off of Turtle Road, and there was a house less than 40 yards away, across Creek Road to their left. These two were probably 30 feet from the intersection of Creek and Turtle roads. Rollo stayed in the truck, with the passenger door wide open.

“Then the shooting started. The young boy shot four times, dropping a doe in the field, and the guy farther down Turtle Road — and less than 15 feet from the roadway — shot a doe that was out in the field. I was flabbergasted that these guys would shoot so close to the house, and in plain daylight. I watched them run out into the field to get their deer, and then I got into my truck and left. I don’t want to get any more involved in this, please.”

After verifying that it was, indeed, Rollo Toady’s vehicle, by checking the vehicle registration, we got out of our vehicle on Turtle Road and started searching for evidence. We saw two sets of boot prints in the snow, one larger than the other. They led up the embankment and into a clump

of trees adjacent to the house the witness told us about; they'd stood less than 15 feet from the roadway. The tracks continued out into a field where we found a gut pile from a deer.

We searched quite some time for cartridge cases near the clump of trees, on the embankment, ditch and roadway, but to no avail. While Kevin continued to search for empty cartridge cases I walked down Turtle Road and found another set of boot prints in the treeline where the second individual had allegedly shot from; he'd been less than 20 feet from the road. I searched the area but was unable to find any spent cartridge cases in the high grass and snow. I followed the boot tracks about 100 yards out into the field and found a gut pile from a second deer. While out in the field, I saw Kevin motioning for me to return. I gathered evidence from the gut pile and walked back down to the road.

Kevin said, "Come over here, I want to show you something." Just behind my vehicle, on the other side of the road and down a steep embankment in the creek, was a big doe with just the back straps cut out; she was not gutted. What a waste. I have so many needy families that could have made good use of this animal. With much huffing and puffing, we got the deer up out of the creek, up the 10-foot embankment, and onto my deer rack. We continued patrolling the area, trying to locate Rollo and his comrades. As it was approaching lunchtime, we thought they might return to Rollo's truck.

We'd just turned around in a gas well landing site when we saw three vehicles coming down Creek Road — one car and a small SUV followed by a pickup. In the open bed of the pickup, with the tailgate down, were four orange-clad hunters clutching their rifles, and two other hunters were in the cab of the truck. When the hunters in the bed saw us they became antsy and looked around at one another. I looked at Kevin and said, "I'll bet these are our guys, headed back to the truck on Creek Road."

We followed the truck to the intersection of Creek Road, where it turned right and pulled in front of Rollo Toady's truck, followed by the SUV, which had two people inside. We pulled in behind both vehicles as I radioed our location and the vehicle registration numbers of the truck and SUV to the region office dispatchers in Franklin.

There was a flurry of activity as we approached the group of six hunters and two other individuals. The two people in the SUV were friends of the "hunters" who just happened to be driving by and had stopped to see how their friends' hunting was going. We identified ourselves and started checking hunting licenses and rifles to make certain they were unloaded.

Kevin was checking a father and son by the name of Bilbo and Cub Woofers. The second hunter I checked was Rollo Toady. Kevin spoke to Bilbo apart from the group, while I asked Mr. Toady to step behind my truck so I could speak to him away from everyone else.

I asked Rollo if he hunted this area often and he replied that he did. I asked him if he recognized the deer on the back of my deer rack. He looked at it for a few moments and said, "No."

I asked him if he was sure he didn't recognize the deer. Again Rollo said, "No, I don't."

I told him we found the deer on Turtle Road, where he was hunting on Wednesday afternoon, and thought that maybe he or someone else in his group had failed to follow up their shots at the deer they were shooting at. Rollo replied, "No way. We don't waste any deer, and if we shoot a deer we take it and never waste the meat."

I then said to Rollo, "Well, then, maybe you can tell me about the two deer your group shot right off of Creek Road and Turtle Road this past Wednesday at 4:30. An eyewitness saw you driving your truck, with a young boy in the cab and two adults in the bed, who bailed out when you spotted the two deer and started shooting. Also, can you tell me about all the blood and deer hair in the back of your pickup?" Rollo just looked up at me, stunned.

Then he surprised me with his honesty. “Yes, we did shoot two deer on Turtle Road and took them. We wouldn’t waste a deer. I’m not going to lie to you.”

I asked him to tell me what happened, and he recounted the same events that our witness had related to us earlier that day. I asked Rollo who he was hunting with that day. He stated, “Cub Woofers was sitting up front with me, and his dad Bilbo was in the bed with Roby Loon.”

I asked him if Roby Loon was hunting with him today. “No,” Rollo said, “he’s at work. He filled his doe tag on Wednesday, when Cub shot his deer in the same field.” I asked him where Roby’s deer was and he said that Roby took it home, skinned it and had it hanging in his garage. “I know it was wrong, but we just got excited and carried away when we spotted the deer in the field. We’d been hunting all day with no luck.” Rollo then looked at me and said, “What am I going to be charged with?”

I explained that they had used a motor vehicle to locate game. Killed two deer illegally; shot within 25 yards of the roadway, and had been hunting, shooting and killing game in a safety zone. He then stroked his chin and said, “What’s this going to cost me in fines?”

I told him that the fines were sliding and that it was up to the District Magistrate to determine the amount for each charge. He asked me if I was going to take his rifle and scope. I told him that I could confiscate them but, instead, I would just collect the serial numbers from his equipment. He was very appreciative and thanked me for not taking his rifle, so he could hunt the remainder of deer season. I had to ask, “Rollo, what were you and the other two adults thinking when you decided to start roadhunting with a 14-year-old hunter in the truck?”

Rollo lowered his head, shaking it from side to side, “We just weren’t thinking and got carried away. I never should have done it.”

I could see remorse in his face and hear it in his voice; he seemed like a decent fellow who just got caught up in the moment. I asked him for Roby Loon’s phone number, which he provided, and then he further stated that Roby works for a government agency. I thanked Rollo for his honesty and informed him that he would be receiving citations in the mail once I completed my investigation.

I walked over to Kevin while he was interviewing Bilbo Woofers. Kevin told me that Bilbo admitted everything and was responsible for his son shooting the deer in the safety zone and within 15 feet of the road after using a motor vehicle to locate the deer. Bilbo spoke up and said, “It was all my fault, please keep my son out of this. I was the one who jumped out of the truck and forced my son to shoot the deer.”

I asked him what kind of behavior he’s teaching his son and the image he’s portraying as a responsible hunter. Bilbo said, “I just wanted my son to get a deer.”

I replied, “At what expense? You are engaging in illegal activities.”

Bilbo replied, “I know, I know, I really did it this time.”

“Bilbo,” I said, “I’m not going to preach to you, but you have to decide what you want to tell your son concerning this illegal behavior. I’ll give your son a break, but I’m charging you with all the offenses you permitted him to commit, and we will confiscate the deer.”

Bilbo spoke up, “But, it’s his first deer.”

“Bilbo,” I replied, “it’s an illegal kill.” I informed him he would be receiving citations for the incident and made arrangements to pick up the deer meat that he had already paid to have processed the following day.

I contacted Roby Loon the next day, and he said he’d been expecting my call. I told him that I needed to confiscate the doe in his garage. “Hey. Wait a minute,” Roby replied forcefully. “How about extending me a little professional courtesy?”

“What do you mean?” I asked.

He proceeded to say that he worked for a government agency and that he should get a break. I told him that if anyone should have known better, it was him, and that he should have been the one to stop everyone rather than joining in the illegal behavior.

Roby replied, “All I did was jump out of the truck, get off the road and shoot a deer.”

I said, “You used a motor vehicle to locate game, shot within 25 yards of the roadway, and conspired with your cohorts to kill deer illegally. Do you need me to say more?”

Roby wasn't pleased and continued to try to talk his way out of it, but when he saw that nothing was working for him, we finally made arrangements to confiscate his illegal deer the following day. The next day WCO Mark Allegro and I confiscated the deer, and Roby was still trying to justify his behavior in this incident, which still absolutely astounds me.

All the defendants ended up pleading guilty in this incident, with Rollo Toady paying \$566 in fines and costs. Bilbo paid \$677 and Roby paid \$151. The deer were confiscated and there were hunting license revocations.

In this case I believe that temptation and greed was too great for these individuals to resist, and they were ultimately apprehended because of it. What really surprised me about this incident was Roby's behavior. Working for a government agency, he still refused to admit to his wrongdoings, where Rollo and Bilbo admitted to breaking the Game Law, with no excuses for their behavior when confronted.

In a final note, the deer that Kevin found over the embankment we later transported back to the FCC headquarters. When we didn't find any metal fragments by using the metal detector, we skinned the deer and determined that it had been struck by a vehicle, as it had sustained a large amount of trauma to its head, neck and upper chest area. Who took the backstraps we'll never know.



By J. T. Fleegle
PGC Wildlife Biologist

Reports & More

REMEMBER BACK in October when I said, “It would be great if I could just do the fun and fabulous parts of my job . . .”? Well, this is the time of year I wish that were true. Deer biologists are responsible for producing no fewer than 11 *Game News* articles (one of which you are reading now), 8 annual reports, 2 issues of the “Deer Chronicle” newsletter, and a slew of brochures, scripts and handouts on deer related topics each year. It is definitely not the fun and fabulous part of the job, but, nonetheless, necessary.

White-tailed deer are the state animal and the Commonwealth’s most beloved and most popular big game species. They demand a lot of the Game Commission’s time. Deer are the only species that has two full-time biologists and a supervising biologist that spends more than half his time on deer-related tasks.

Annual reports cover the technical aspects of our work — research projects, annual harvest estimates, population trends, program updates, surveys, etc. Our reports must be submitted for review and eventual web posting by June 30 each year. These reports share the nuts and bolts of the deer program with those who are willing to delve into the scientific writing. Tables, figures, t-tests, chi-squared tests, the Lincoln-Peterson estimator and Mann-Kendall test — this is the language of our annual reports; many find it cumbersome and confusing.

Pieces that can be read without referring to a techniques manual are also available. These *Game News* tidbits, the “Deer Chronicle” newsletter, brochures and handouts serve a different purpose. They relay important information on a variety of topics in a form that is more understandable to most people. Not everyone has the time or patience to comb through an annual report, but that doesn’t mean they are uninterested in deer or the deer program.

What good is all the work we do as biologists if we don’t share it with others? And if you want the best, most up-to-date information, you should be able to get it from the source. So we spend a lot of time at our computers in the spring. They may be warm, but they definitely don’t have big, brown eyes.



By J. T. Fleegle
PGC Wildlife Biologist

Deer jaw déjà vu

JUNE IS A GREAT time of year. Winter memories are starting to fade, the days are long, the birds are singing, and tiny deer with creamy white spots pepper the landscape.

While life is bursting around us, my colleagues and I are poring over the remains of those that did not look both ways before crossing the road. To monitor deer health — one of the goals of the deer management plan — female roadkilled deer are examined each spring to see if they were pregnant and how many fawns they would have had.

With more than 120,000 miles of roads in Pennsylvania, we enlist the help of many agency personnel. May 31 marks the end of the fetus collection period.

Eventually, the annual report reads something like “at target – 1.5 embryos/doe.” Clean and nice. It does *not* say “had to deflate doe before cutting into abdomen then poked around ruptured intestines to find the uterus . . . ”

The link between age and reproduction is an indicator of deer health. So, after finding the uterus, counting and sexing the fetuses and recording the information, the lower jaw bone of the doe is cut out, placed in an envelope and sent to us.

Unlike firearms deer season, when we go to the deer jaws, in the spring, the jaws come to us. In June, we handle every blood-smeared, bug-nibbled jaw envelope to age hundreds of deer jaws. Spring jaws are trickier to age; they are collected over a period of four months — a jaw collected in May has been grinding up deer food three months longer than one collected in February. But, experience and a keen eye can determine the appropriate age.

Then the information gets logged into a database with the fetus surveys from each year prior to build a picture of deer health in Pennsylvania.

So as you settle into your summer routine, we are experiencing a bit of winter déjà vu.

A Long Time Forgotten

By PGC Northwest Region Law Enforcement Supervisor Clint J. Deniker

IT'S FUNNY how some of the most rewarding experiences we enjoy in life happen by accident. For me this particular experience lasted more than a year and allowed me to learn about a long-forgotten Game Commission officer. During April 2007, I stopped at the Northwest Region Office to drop off some paperwork. While there, I talked with Information and Education Supervisor (IES) Regis Senko, as he was cleaning out a closet.

While we were talking, Regis pulled two large retirement certificates out of the closet. As we looked at them, I recognized one of the names. Officer Woodrow "Woody" Portzline was listed as having served the Game Commission from 1948 until 1973. When I mentioned to Regis that I knew Officer Portzline's family, he asked me to deliver the long-overdue certificate. Happy to help, I made plans to deliver the certificate the next day.

Officer Portzline's daughter, Lexie Dean, was thrilled to see me as I walked into her house. She talked about her father's distinguished career with the Game Commission and told story after story. I learned that Portzline had made the ultimate sacrifice while investigating a deer poaching incident in October 1973.

After talking with Lexie for more than an hour, I left wondering why I had never heard about her father's death.

Determined to learn if any other PGC officers knew of Officer Portzline, I began asking around. Much to my surprise, few had. Frustrated, I began to ask retired officers if they had ever heard about Portzline's death.

The first I asked was my dad, James Deniker. Although he didn't remember specifics about Portzline's death, he did remember hearing about it as a young officer in Indiana County. Dad also suggested that I talk to retired officer Ned Weston. Due to the busy spring turkey season, I wasn't able to talk to Ned until late May 2007. He provided me with a wealth of information. Not only was Ned working as the district game protector at that time, but he arrived on the scene shortly after Officer Portzline died, and eventually prosecuted the two poachers Portzline was attempting to locate. Ned provided the names of other retired officers who worked with Portzline.

Woody, I learned, was part of the "Greatest Generation." He honorably served as a gunner on a B-series bomber in the U.S. Army Air Corp in WWII. On December 7, 1941, Woody was stationed at the Schoefield barracks in Pearl Harbor. As he was eating breakfast with his fellow soldiers, the Japanese attacked. Woody quickly sought cover. When the raid was over he discovered that many of the men he'd been eating with had been killed.

Woody fought in the Battle of Midway and his plane was shot down by Japanese fire. He, along with several others, survived for seven days, floating in a life raft. He was awarded the Silver Star for actions during the battle.

Woody began his Game Commission career in 1948 as a member of the 5th Class at the Ross Leffler School of Conservation in Brockway. Upon graduation, Portzline was assigned to northern Butler and portions of southern Mercer counties. He worked as a district game protector until he was promoted to land manager in the early '60s. His land management group consisted of Butler and Lawrence counties. While working as a land management officer, he was given the difficult task of obtaining a portion of SGL 95 through eminent domain. Although Portzline was known for being fair and level-headed, he often met violent resistance from landowners whose land was taken.

On one particular evening, Woody was literally pinned between an exterior wall of Moniteau High School and the front bumper of an angry landowner's vehicle. In another incident, an angry landowner nearly ran over Portzline as he was walking along South Main Street in Slippery Rock. The landowner drove his car over the curb and a parking meter in an attempt to hit Portzline.

True to his heroic nature, he never told his family, because he didn't want to worry them. (I learned of this while interviewing retired Officer Jay Swaggart.) Unwavering in his duty, Portzline continued to acquire the portion of SGL 95 known as "The Glades."

In 1967, Portzline was one of four commonwealth employees to receive the Career Service Award from the Governor. Forever the face of the Game Commission in Butler and Lawrence counties, Officer Portzline helped establish the first county wide conservation camp in the U.S. The camp educated school-age students during a week-long program about conservation and conservation law enforcement, and is still in existence today. Thanks to his efforts, many young Pennsylvanians have a sound appreciation for the state's wild resources.

Officer Portzline continued serving with honor until the fateful night of October 23, 1973. While off-duty at his home in Slippery Rock, he received a call from a local farmer about two men who had poached a deer on the farmer's Mercer County farm.

As he was getting into his car, Lexie asked him not to go, to turn the investigation over to District Game Protector, Ned Weston. Ever vigilant, Portzline left to investigate the poaching until Weston arrived. As he pulled onto the farmer's property, he met the waiting farmer.

As he and the farmer walked into the field to collect evidence, Portzline suddenly stopped talking, and the farmer turned to find him lying on the ground. The farmer's efforts to revive him were unsuccessful, and the county coroner reported that he had died almost instantly of a massive heart attack.

Officer Portzline's death was a tragedy. It forever affected his family, friends and co-workers. Although many officers attended the funeral, the Game Commission never officially recognized his death.

As I began to research a way to honor Officer Portzline, I contacted LMO Rich Cramer. In addition to serving the PGC, Rich was the Region 7 Director for the North American Wildlife Enforcement Officers Association (NAWEOA). Rich suggested we submit Portzline's name for addition to the Fallen Officer Memorial at the International Game Warden Museum and the National Law Enforcement Officers Memorial (NLEOM) Wall in Washington, DC.

As Rich was working with NAWEOA to have Portzline's name added to the Fallen Officer Memorial, I contacted the NLEOM and began the application process. Approximately four weeks later, I received confirmation that Officer Portzline's name had been added to the wall. Moreover, he was honored during a ceremony on May 13, 2008.

Although we succeeded in adding his name to these memorials, I felt we should honor him locally. The most appropriate place seemed to be on SGL 95. After considering several ideas, I decided a bronze plaque with specific information about Officer Portzline seemed the most fitting tribute.

Ted Onufrak of the Center County Solid Waste Authority contacted Darrell Klink of Waste Management and told him Officer Portzline's story. He explained that money was needed to purchase a memorial plaque. Darrell, a retired deputy WCO, offered to pay for the plaque in full.

On August 16, 2008, we held a formal ceremony memorializing Officer Portzline with the plaque. Portzline's family, as well as active and retired officers and co-workers attended. As WCO Jack Lucas played the bagpipes, we presented the Pennsylvania Flag, the Game Commission Flag and the 5th Class flag.

The cooperation, commitment and support I received reaffirmed my belief that Pennsylvania's Conservation Officers Association (COPA), the Pennsylvania Game Commission and the North American Wildlife Enforcement Officers Association truly support conservation officers in Pennsylvania.

While it is not surprising that the aforementioned groups are supporters of conservation, the many private individuals and companies who supported this effort are the unsung heroes. I would like to specifically thank Ted Onufrak and Darrel Klink. Also, Deputy Executive Director Mike Schmit, now retired, Region Director Keith Harbaugh, IES Regis Senko, LMO Rich Cramer, LMO Dale Hockenberry, WCO Len Hribar, the Butler County Game Lands

maintenance crew, Ned Weston and the many other retired officers and employees who made this project possible. Most importantly, I would like to thank Officer Portzline's family. His daughters, Lexie Dean and Dixie Wolfe, provided me with candid, heartfelt information about the day their dad died.

As I look back over this long process, I can't help but reflect on Portzline the man. I learned that he was a true officer of conservation; not only a WWII hero but also a hero to his family and friends. He was hard-working, fair and honest. He had a wonderful sense of humor and never took himself too seriously. During his funeral, even individuals whom he had arrested came to offer condolences. I think that speaks volumes about the man he was. Looking back over the long process, I realize how rewarding it was for me. Not only did I help to honor a fallen officer, but I learned to be a better conservation officer as well.

Fire For Wildlife

By Richard Voytko and Mike Pruss
Bureau of Wildlife Habitat Management

AS I WAS watching the first bluebird of spring outside my office window, my cell phone vibrated off my desk and into my top drawer, where I finally caught up to it. I snapped it open, and the land manager on the other end said, "It's a GO! The weather is excellent. Everything is in place. Meet at the game lands building at 9 a.m."

I grabbed my gear, rushed out of the office, and in a few hours was part of a crew conducting a prescribed fire of native grass on a State Game Lands. By the end of the day, several fields would be black, with only smoldering woody stems still standing.

Why does the Game Commission intentionally burn vegetation that wildlife use? Prescribed fire is often the most ecologically appropriate method to manage habitats for both common and sensitive birds and mammals. Fire improves nutrient cycling, creates a clean seedbed for new plants, and reduces competition from non-native and invasive plants. Prescribed fire is also a cost-effective tool to create and maintain fire-adapted and dependant habitats. Administratively, fire is incorporated throughout the Game Commission Strategic Plan, annual Pitman-Robertson Habitat Management Project Description, State Wildlife Action Plan and the agency's turkey, woodcock and pheasant management plans.

Fire is returning as a natural process to the ecosystems of Pennsylvania. Oak forests, grasslands, barrens and wetlands are all fire-adapted ecosystems. These ecosystems were originally created and maintained by fire. Native Americans were the first fire managers and used it as a tool to manage habitats for thousands of years. Widespread wildfires that followed the deforestation of Pennsylvania in the 1800s, gave fire a bad name and resulted in over-suppression of forest fires. In recent years, wildlife biologists, foresters and land managers concerned about the health of fire-adapted ecosystems have placed renewed emphasis on the positive roles of fire.

By definition, prescribed fire is the planned and controlled application of fire to accomplish specific land management goals. It is used only when weather and habitat conditions are appropriate. Prescribed fire is implemented by trained personnel, following site-specific burn plans, with specific fuel reduction and habitat objectives. Goals often include: invasive species control, forest regeneration, barrens restoration, grassland rejuvenation, education and training, and public safety

Fire affects wildlife by changing the habitat. There can be both immediate and long-term effects on habitat. One of the oldest uses of fire has been on native grasslands to reduce the amount of woody vegetation and increase the nutrients available to the grass plants, which improves habitat for grassland dependant wildlife such as bobwhite quail, meadowlarks and several sparrow species.

Oak regeneration is improved by reducing competing vegetation, with the long-term result of increased acorn production to benefit deer, bear, turkey and a host of other woodland bird and mammal species. Special habitats such as shale, serpentine, scrub oak and pitch pine barrens, and many wetlands also benefit from prescribed fire. Appalachian cottontail, woodcock and golden-winged warblers are just a few of the many species that benefit from the management of these special habitats.

Planning and conducting a prescribed fire can take months. After it is decided that a particular site could benefit from prescribed fire, a site specific burn plan is developed. The burn plan details the area to be burned, the goals of the burn, under what conditions the burn may be conducted, what resources are needed to manage the burn, and who must be contacted before the burn. Then the plan is reviewed and approved.

After a burn plan has been developed and approved, the person managing the fire must gather the needed personnel and equipment. The Game Commission may share resources with other agencies and organizations that also have prescribed fire experience. Because

specific weather requirements regarding wind, humidity and temperature must be met, the manager often must wait for the right weather conditions. When the weather cooperates and all resources are in place, trained personnel conduct the prescribed fire in accordance with the burn plan. After the prescribed fire is completed the site is evaluated to determine the success of the project. One interesting side benefit that the Game Commission is evaluating is the short term reduction of tick numbers, an important aspect for those who hunt with dogs in the early fall, or call turkeys in the spring.

From 2006 to 2009 more than 2,400 acres of State Game Lands were treated with prescribed fire. With more than 1.4 million acres of State Game Lands, there is certainly more habitat that could benefit from the use of prescribed fire. This past summer, a Prescribed Fire Law was passed by the legislature and signed by the Governor to allow for the increased use of prescribed fire to improve wildlife habitat. The next time you are on State Game Lands and see a burned area — that may be in the plan. The Game Commission uses fire to meet wildlife habitat management goals and may increase the use of prescribed fire in the future for the benefit of wildlife and fire-adapted ecosystems.

Integrity

By Victor Rosa

Wyoming County WCO

“A guy just shot a buck with his muzzleloader. You have to get here right away.”

“Calm down, Mr. Doright, and speak slowly,” I interjected. “Now, tell me what happened, starting from when you left your house this morning.”

“Okay, okay. I watched this big 8-point on my property all summer and have been hunting him since the beginning of archery season. This morning while in my treestand I heard a gunshot on a neighboring property. It was small game season, but it just didn’t sound like a shotgun, so I got down to look. I saw a guy in camo field-dressing the 8-point. He finished, picked up a gun, slung it around his back and drove away on an ATV.”

I was making my way to pick up Deputy Jeff Pierce when I received the call to contact Mr. Doright, and I called him to give him a heads up about the call. Jeff found it interesting that John Doright reported a violation, because he had been on the wrong side of the law on more than a few occasions. I pointed out that many violators are quick to point fingers at others breaking the law, as if they’re upset that someone beat them to the punch.

When we arrived at John’s home we noticed all sorts of hunting equipment and sets of antlers — some taken on long ago hunts and some not so long ago — and several large chest freezers. “Lots of elk and deer meat, and everything is legal,” John shouted out with a big smile.

“No doubt. What do you have for us, John?” I asked, while Jeff admired the deer mounts lining the walls of the home.

“I got photos of them,” John said.

“You have photos of whom?” I asked.

John Doright is a tall, average-built person and sly like a fox. Therefore, when he says something, the statement needs to be contemplated from several perspectives. John explained that before we arrived, he went back to make sure the suspect didn’t take the deer. When he got there, he saw the guy in camouflage clothing with the ATV and a woman next to a pickup truck; they had just loaded the deer into the truck. John walked right up to them and took their picture and photos of the deer in the truck.

A slam-dunk case? That’s what Jeff and I were thinking. “I don’t know who they are,” was John’s reply to my prior question.

“Okay, what’s the plate number of the truck?” I asked.

John paused, his eyes staring back at me with a blank look. “I didn’t have any paper, so I didn’t write it down.” It was a response nobody wanted to hear.

Not all was lost, though. John thought at least one of the photos might reveal the plate number. Mrs. Doright volunteered to go to the one-hour photo lab and have the film developed. In the meantime, Jeff and I would look for where the truck and ATV had entered and exited the area.

We knew time was critical because once a deer is processed, gathering evidence becomes difficult. We figured the suspect lived close to the kill site, so Jeff and I went directly to the landowner’s residence, but no one was home. We then circled the area and, although we found several possible locations, we could not locate the spot where the suspect had exited. With each passing minute, an uneasy feeling that the case was heading south crept in. Reaching John, he told us his wife had just gotten home, so we immediately went to his house.

John met us in his driveway, photos in hand, but he had a disappointed look on his face. Expecting the worst, Jeff and I checked each photo until we came to a perfectly framed shot of the rear of the truck. We could see two people along the side of the vehicle, and there was a license plate in the photo, but the photo was so fuzzy, grainy and dark, we couldn’t even make out the large letters across the tailgate. The suspects’ faces were too blurry to

identify them, or even tell the other person was a woman, but the photo of the buck came out okay.

Feeling this case was slipping through our fingers, we decided to try one more thing. A friend of mine owns a photography studio, so we went to have the negatives scanned, in hopes that with a computer we could decipher the license plate number. While the technician did his best, he could provide only enough detail for us to make out "FORD" on the tailgate.

Pondering our next move, Jeff and I decided to go have lunch at a nearby pizza shop. I ordered my usual calzone and Jeff ordered a 5-course meal, which took him a long time to eat. Jeff was ahead of me as we left the busy restaurant, and while holding the door, he said that two people sitting at a nearby table were the ones we were looking for. With a deliberate purpose to my step but no idea what I was going to say, I walked back through the restaurant and up to the people at the table. They stared at me. I looked at the man, well groomed and neatly dressed in casual clothes.

"We need to talk," is all I said.

He looked down at the table, glanced at the women sitting with him, then back at me, "Okay."

As we left I was thinking that this must be the guy, because why would he be walking outside with me. "Did you shoot a buck this morning?" I asked with conviction.

"Yes, but some guy thinks I used a gun to shoot it," he said with a surprised look on his face. I told the suspect I needed additional information and asked him if he would talk to me in my vehicle. As the suspect, Mr. Fibber, started to tell his side of the morning events, all I could think of was my stroke of good luck.

Luck or not, this is what being a law enforcement officer is about. Always knowing your surroundings and trusting your instincts, and having a good partner. If Jeff had not said anything, I would not have gone back in.

Mr. Fibber was not talkative, at least not with me, so extracting even basic information was tedious. He appeared to be more cold and calculating than nervous, but Jeff and I noticed more than a few inconsistencies in his story. After talking with Mr. Fibber, we needed a look at the deer, which had been completely butchered and was at his girlfriend Innocent's house.

When we pulled into the driveway, along the road we'd been traveling all day, we spotted the red Ford pickup. How could we have missed the truck? Exiting our vehicle, Jeff went to the pickup and I followed Mr. Fibber to the house to retrieve the deer. As it turned out, all that remained of the deer was the cut up meat. The rest of the deer, including the head and hide, was at his cabin several miles away.

As he opened his bow case, Fibber explained that he had permission to hunt the land across the street from his girlfriend's. I found it odd that only the bow was in the case and the case was tucked away in the house. Because Fibber had told us he was hunting with a muzzleloader the day before, on a different property, I asked to look at that equipment. A muzzleloader with a sling was located just inside the garage, as if it had been hastily placed. I could tell that the gun had been recently fired and, as with all my questions, Fibber had an instant response. He had missed a deer at his cabin the previous afternoon.

Fibber then opened his vehicle, a sedan with hunting equipment thrown all about. He handed me his hunting licenses and then quickly threw the camouflage hunting jacket back inside the vehicle. Jeff had now joined me. Noticing the licenses, I ask Fibber why he didn't have an antlerless license for the WMU across the street. Fibber quickly replied that he hunted antlerless deer only at his cabin, in another WMU. When I asked to look at the camouflage jacket, Fibber reluctantly handed it to me. Inside I found a charged speedloader, and another was recovered from his camo pants. More interesting was what we didn't find — an archery trigger release. In fact, it took a long time for Fibber to locate his release in the back of his car.

When asked about the arrow he retrieved from the deer, Fibber opened the trunk, rummaged through several loose arrows and produced one that had blood on it. The blood looked fresh, but something didn't seem quite right. We headed over to Fibber's cabin to get the head and hide. The hide would tell us if Fibber was telling the truth and, in fact, could end the investigation immediately, if it showed that the deer had been killed with a broadhead-tipped arrow.

Fibber wanted to show us where he was when he shot the buck, so we went to the location of the kill. Right off, something was out of place. We already knew where the deer had fallen, and Fibber's story about shooting the buck while walking didn't add up; he even had to modify his story to make it work.

The cabin was a small trailer on a wedge of property. Jeff and Fibber got out of the truck and I contacted our dispatch center for some background information. While I was anxious to see the remains of this deer, I felt it was even more important to know just who I was dealing with. I glanced up to see Jeff looking at deer parts on the ground as Fibber stood silently by. When I went over to the remains, without even touching a piece of the hastily butchered deer, I knew Mr. Fibber's story didn't add up. Jeff photographed the evidence as I directed Fibber to the front seat of my vehicle. I knew that unless he confessed right then, our work was just beginning.

Looking directly at Fibber and in a calm reassuring voice, I explained his predicament and why I believed he was not telling the truth. I explained the charges he was facing and that he had implicated his girlfriend in the crime. We gave the Miranda warning and Fibber remained quiet while I explained his options. He never offered another scenario or professed his innocence. He never lifted his eyes from the spot on the floor he had been staring at. Then it happened, Fibber did the classic preparation of someone about to tell the truth. With a deep gasp of air, his chest rising with the anticipated relief, he blurted out, "I shot that buck with a bow."

Once Fibber completed a written statement, Jeff and I headed back to Innocent's house. We had three crime scenes to investigate and time was running out; it soon would be dark and nothing could wait until the next day. Our first objective was to seize all the deer parts, which consisted of one garbage bag of deboned deer meat and some hair and blood samples from the bed of the pickup. We also took Fibber's muzzleloader, the speedloader charges, and the bow and several arrows, including the one with blood on it. We needed to get back to the cabin, but felt finding the gut pile would be the quickest to investigate, being we were so close.

I called John Doright and he told me he had something we needed to see. When we arrived, John was standing by a table with something bloody poking out of a plastic bag. "How much more proof do you need?" he said with a confident smirk.

John knew what was needed to convince us he was telling the truth, and he also wanted to vindicate himself after his less than stellar photography performance. John had returned to where he had seen Fibber gutting the deer, and found a key piece of evidence — the heart. John didn't know it, but Jeff and I knew the deer had been shot low and just behind the right leg, and that Fibber had intentionally removed the first three ribs from the right side of the ribcage and four from the left. Fibber also took the time to completely cut away the entrance and exit holes of the hide; there were no holes in the hide at all.

I put on latex gloves and stuck a finger through the hole in the damaged heart. Such trauma simply does not occur with a broadhead. While John's intentions were good, because he had removed the heart from the location of the kill, he would have to testify. An attorney, however, would offer that John could have obtained a heart from a deer he had killed or that he had shot the heart with a gun. Fortunately, we have ways to defend both those accusations. We made our way to quickly take photos and measurements of the kill location and get tissue samples at the gut pile.

Back at the cabin, we bagged the butchered remains of the buck, and the antlers, and loaded everything into my vehicle. What we were really looking for was the cut out pieces of

the hide, but in the dwindling daylight, we didn't find them. We both agreed, though, that while they certainly would help the case, they were not critical pieces of evidence.

We really wanted to build a case based on the evidence, not witness testimony. While John certainly helped with the case, as a witness he could be a problem, and removing problems in the courtroom is always a wise decision.

The following Monday I spoke with Dr. Jane Huffman of the East Stroudsburg University Northeast Wildlife Forensics DNA Laboratory. Jane couldn't have been more willing to help, and asked what tests I needed. When filling out the paperwork for the lab I never include details of the case. The lab is not there to prove someone guilty or not, just to use science to provide answers to questions such as: Did the heart contain any lead fragments? If so, did the lead match the lead from the suspect's bullets? Did the heart tissue match the samples taken from the gut pile, the processed meat and the cabin area, and the blood on the arrow? Are all the samples from the same deer? Lastly, had the arrow been shot through an animal that was dead or alive?

I expected the work to take a few weeks, so I couldn't submit any citations until then, but Jane did call later that afternoon; she had found lead fragments in the heart, which meant Fibber was going to get some paperwork. But, I wanted all the information before proceeding.

What did bother me was that Innocent was going to be charged with aiding in the unlawful killing, just as if she had shot the buck herself. In addition, she would be charged with unlawfully transporting the deer. I decided to speak to her directly and arranged to meet in person. Speaking with her revealed that she was an innocent bystander asked to help with what she believed to be a legally taken deer. She explained the story Fibber told her, and I looked her in the eye and said, "He is lying to you."

Two weeks later I got a call. The timid voice on the other end of the line was no longer confident, "Officer Rosa, I did kill that buck with a muzzleloader. I was stupid and I'm sorry."

"Why did you continue with the lies, even after I gave you the chance to come clean?" I asked.

Fibber explained that he had gotten caught up in the lie and that while he was not worried about what would happen to him, he was worried about what would happen to Innocent. I told him if he had told the truth right away, the only way she would have found out is if he'd told her. Fibber was advised of the charges that he would face, along with the license revocation he would receive, and the added costs of the lab fees. Fibber seemed relieved that this was finally over.

A week later I got the lab results: Everything matched and the arrow had not been shot through a live deer. Fibber paid all his fines and will not be purchasing a hunting license in Pennsylvania for the next few years. I pass the site of the violation several times a week and still wonder why some people, when given the opportunity to keep their integrity, sometimes throw it away.



Lazy, Hazy, Crazy Days of Summer

By J. T. Fleegle PGC Wildlife Biologist

SUMMER IS officially in full swing and concentrating on work seems challenging for anyone with a window view. For biologists, most of whom are in the field because of their love for wildlife and the outdoors, it is especially taxing. With deer, most field work occurs in the winter. So, when the weather is the nicest, we are often imprisoned in the office, shackled to our computers, finishing or preparing projects that have been lingering. There is also lots of organizational planning to do. Preparing for CACs and deer aging activities takes months. The deer program is also very data dependant. Though the data has been collected, it must be analyzed.

Add to our To Do List that the deer program was recently called into court, then subject of an external audit, and you'll see we entertain many hazy and crazy days of summer, but very few lazy ones, between interrogatories, depositions, documentation requests, confirmatory factor analysis, news releases and email requests, minimum convex polygon home range analyses, aging team assignments, equipment inventories and orders . . .

Some of this is not the type of work I expected to be doing as a biologist. The possibility of being deposed as part of a lawsuit certainly never crossed my mind as a graduate student. Being a biologist certainly has been an eye-opening experience.

Other aspects of this summertime toiling may not be the type of work *you* expected a biologist to do. If you were asked to list my job duties I doubt that reconciling Visa purchases would make the list. In reality, preparation for a deer research project includes the likes of vehicle repairs, website maintenance, personnel scheduling and more.

But, without these dog days of summer, there would be no December deer aging, no winter deer wrestling, and nothing to write about in those pesky springtime annual reports. So we peer out the window watching the wildlife world from the confines of our cage; plotting our escape with every click of the send button, reshuffle of team members, and request fulfillment.

A Different Perspective

By Brian E. Witherite
Somerset County WCO

IT'S SAFE to say that most of you reading this probably have a good understanding of what a Wildlife Conservation Officer does, which predominantly involves wildlife law enforcement. Although law enforcement is a very important function of a WCO, it is far from our only responsibility.

One other area of our varied responsibilities is conducting wildlife management duties in our districts. Having a district with a high bear population allows me to be very active in bear research work. Every year I trap many bears for nuisance control and for research purposes, as part of the bear-tagging efforts the Game Commission uses to estimate bear populations across the Commonwealth.

In 2008, my son, Brandon, was a junior at Meyersdale Area High School and needed to complete a senior project, and he selected the Game Commission's bear management and research program and history as the focus of his project. And that's where this story begins. Brandon's project plan was to participate in the capture, tagging and radio-collaring of a female bear. I informed the PGC Southwest Region staff of my son's intentions, and they quickly endorsed the project.

In May 2008, the first major hurdle was cleared. I had a nuisance bear situation in Black Township; a bear had been raiding birdfeeders. I set a culvert trap at the residence and the next morning captured a bear. I hooked up to the trap and drove home. As soon as I pulled in the driveway my kids piled out the back door: They never seem to tire at seeing the wildlife their dad brings home.

After I sedated the bear, Brandon applied ear tags, I tattooed its upper lip, and we determined the bear's weight and its sex, which we recorded on a PGC bear capture report form.

The bear was an adult female and she weighed 172 pounds. The fact that the bear was a female and in good health made her a perfect candidate for our bear monitoring work, which gave Brandon the opportunity to fit her with a radio collar. As soon as Brandon got the collar fitted it was activated.

Throughout the summer and fall, using a radio telemetry receiver and antenna, Brandon and I tracked the bear's movements. She kept out of trouble, I'm glad to say, and was able to elude bear hunters during the November bear season. With that obstacle avoided, we knew she would settle in for her winter hibernation, where we expected her to give birth to a litter of cubs.

In January 2009, Brandon got a fixed location on the bear. It was apparent that she was in a den. My entire family was excited as we now knew where she was and that the probability of her having newborn cubs was great.

At the end of January, northern Somerset County WCO Travis Anderson helped in doing a visual verification of the bear. We were able to see her in her den, which was a thicket in a logged area. It was exciting to see her, but when I heard the sounds of newborn cubs crying, it was music to my ears.

We backed out of the area and left. I updated the Southwest Region office on the site location and confirmed that she did, indeed, have newborn cubs.

When I got home that evening I updated Brandon on the day's events. He was very excited that the key pieces of his project were in place.

At the end of February I contacted the landowner of the property where the den was located. I actually did a bear educational program for the family and informed them that we wanted to process the female and her cubs, and that it was my son's senior project. I invited them to come along to the den with us, and they quickly accepted. I left their home

with another piece of Brandon's project in place, and a family anxious for the day of the den visit.

Excitement was building at school, too. Brandon made arrangements with his school's superintendent, Mr. Tracey Karlie, to video the process. Mr. Karlie is also a volunteer Hunter-Trapper Education instructor for the Game Commission, and he understood the importance of this project and made arrangements for video production of Brandon's presentation at the den site.

On the morning of March 18, 2009, everyone involved met at SGL 50 near Somerset. In attendance were PGC bear biologist Mark Ternent, PGC veterinarian Dr. Walt Cottrell, WCO Anderson and several other support personnel. We also extended several invitations to various other groups, including the Pennsylvania Conservation Corps; Pennsylvania State Police in Somerset; Angie Brant, a reporter for the Meyersdale Republic newspaper; school Superintendent Karlie; and High School Principal John Wilttrout.

I welcomed the group and provided some general guidelines on the den visit and Mark Ternent provided some background on the research work we would be conducting at the den site.

We arrived at the site location and gathered our gear. A group of us went to the den and sedated the female. After the site was secured, WCO Anderson went back to the parking area and escorted the group to the site. Brandon was then on his own. He had spent weeks preparing for his interview—and he was a bundle of nerves. Mr. Karlie activated his camera and fitted Brandon with a mike and the process started. We were fortunate that the bear had four cubs. As the cubs were brought to the group, everyone's attention was on Brandon.

I handed him a cub, and after a brief moment to get organized, he was being videoed and his presentation began. Brandon explained the whole process of what we were doing and why. The rest of the group was fascinated by the three other cubs. The mother was examined by Dr. Cottrell and Mark, and it was determined that she was doing very well. The time came when the cubs needed to be weighed and ear-tagged. Brandon held the cubs while Mark applied the numeric tags. Each cub was then weighed and its sex determined. The cubs ranged from three to five pounds and there were three females and one male.

Now that this task was completed it was time for the cubs to rejoin their mother. After we placed the cubs back into their den with mom, everyone left with smiles on their faces, and Brandon looked relieved.

He was being congratulated by many of the visitors. Mark and Walt offered their further assistance to Brandon in the event he needed more information for his project. Mr. Karlie and Mr. Wilttrout were very impressed and were anxious to view the video footage.

Brandon made arrangements with the school to edit the footage the following week. Everyone was pleased on how well it all turned out. It was also noted how well Brandon articulated the facts and reasons why we trap, process and track bears in Pennsylvania. I guess living in a home with a "game warden" who loves trapping bears, the kids have no choice but to pick up on something.

In April, Brandon's project was selected to represent Meyersdale Schools when the Pennsylvania Secretary of Education visited. His project was highlighted in the local newspaper, thanks to Mrs. Brant, and in May, Brandon officially presented his edited video and materials to a board of teachers for evaluation. Needless to say, Brandon earned the highest marks for his efforts. This project was a journey of a father and son, whose dad just happens to be a WCO.

This journey enabled me to give something back to my family. All too often our jobs take us away from our families. We spend countless hours afield, conducting patrols, answering nuisance animal calls and fulfilling various other obligations. It was great to do something with my family to highlight my son's interest.

Our kids grow up fast. It wasn't long ago Brandon was his sister's age. Now he is attending Lock Haven University, majoring in History Education. I'm confident that he has the skills to

succeed. As the years pass, my family will always have this treasured memory of Brandon's senior project, and the future classes at Meyersdale Schools will have a special project to view and learn something from.

The Conneaut Lake Goose Chase

By Mario L. Piccirilli
Crawford County WCO

AT 11:20 A.M. on Saturday October 25, 2008, the first morning of the Canada goose season here in the Pymatuning area, I received a radio call from dispatcher Charles Worley at the region office requesting me to call him as soon as possible. I could sense the urgency in his voice as I was pulling into the Pymatuning administration building off of Hartstown/Linesville Road. The hunting pressure on the first day of goose season here in the Pymatuning Area is comparable to the opening day of the firearms deer season.

When I called Worley he asked how far away I was from Conneaut Lake. I replied that I was about 10 minutes away, and he said that two workers from a private beach club on the lake had watched a group of five goose hunters in a large pontoon boat shoot at geese within 35 yards of the club, well within a safety zone, while the boat was still in motion. The witnesses also told Worley that the hunters were chasing the geese with the boat and shooting at them as they lifted off of the water. The witnesses described the pontoon boat in detail as to color, make and model, and what the suspects were wearing. Some of the goose hunters were wearing blaze orange hunting attire.

I called LMO Jerry Bish to assist me and asked him to head toward Conneaut Lake. Jerry was working the goose blinds in the Controlled Shooting Area at the time and said he was on his way. I asked him if he could go to the east side of the lake and I would head to the west side.

My radio began buzzing, as dispatcher Worley reported six more residents on the lake called about these same individuals shooting at geese in safety zones. In a subsequent radio message, Worley stated that the Conneaut Lake Regional Police were on scene and directed me to the southwest end of the lake to meet the police.

Turning down Pymatuning Drive, I spotted the police cruiser traveling toward me and stopped to meet him. Officer Michael Broderick advised me that he had watched the same group of hunters in the pontoon boat shoot at the geese in another safety zone on the lake, and he motioned them off the lake. When the group saw him, they just spun around and took off for the other side of the lake, in the direction of the Pennsylvania Fish and Boat Commission dock off of Route 618 at the north end of the lake.

I radioed Jerry to go to the dock, as he was closer. Upon arriving at the dock on the west side we spotted the suspects in the pontoon boat, blaze orange hunting attire and all, traveling south on the east side of the lake. Jerry said he would head over to the east side with Officer Broderick, while I monitored the progress of the boat with my binoculars and provided its location. I watched the boat pull into Midway Bay and called Jerry on my cell phone to tell him. Within seconds I could see Jerry's emergency red lights activated on his vehicle and then Officer Broderick's emergency lights and siren on his cruiser.

The group of hunters in the pontoon boat, who were less than 50 yards from the shoreline, just ignored the officers and slowly pulled back out into the lake and headed for the southwest corner. Watching the pontoon boat and its occupants leave Midway Bay, I couldn't help but wonder what they were doing. They reminded me of those police car chases on TV, where the driver thinks leading the police on a chase is funny.

Conneaut Lake is only three quarters of a mile long, a half mile wide and we had them in sight the entire time. For them to think they were going to escape was ludicrous. Jerry called my cell phone and told me that the pontoon boat was heading toward Feather Canal at the southwest end of the lake, and that Officer Broderick was en route to that location.

I pulled out of the parking lot to meet Officer Broderick. Turning onto Pymatuning Road I saw the police cruiser in my rearview mirror and pulled over to let him go by, as I wasn't sure of the exact location of Feather Canal. At the next intersection Officer Broderick took a left and I followed. We'd gone about 200 yards when Feather Canal came into view on my

right, and I didn't see any moving boats. However, moored at one of the private docks was the pontoon boat with the same registration number we'd been trying to get stopped in this ongoing wild goose chase.

I was astounded at how fast these individuals were able to moor the large boat, which was at least 25 feet long. Officer Broderick verified the registration number as I pulled into the driveway. I immediately noticed three shotguns leaning up against the outside overhead garage door and could hear a flurry of activity inside through the open main door.

I stepped out of my vehicle and radioed Jerry that I was at the suspects' residence and would be out of my vehicle. Approaching the garage I could see the defendants rushing about inside, attempting to change clothes and hurrying to pack their gear and leave. I introduced myself and ordered everyone outside. A couple of the defendants were balking, until I shouted out for everyone to come outside posthaste.

As the defendants filed out of the garage, Jerry and Officer Broderick pulled in behind me. I explained to the five individuals why we were there, while Jerry and I checked hunting licenses, HIP cards, duck stamps and their shotguns. I asked the group why they didn't come to shore when summoned by the officers.

One of the hunters, Bully Morph, sharply retorted, "What are you talking about? We didn't see anyone."

His two adult sons, Loop and Droop, chimed in saying they didn't see anyone. The entire time the group proclaimed their innocence and that the witnesses weren't able to gauge distances. I informed the group to save their comments for the judge. We then asked the owner of the pontoon boat, Rout Law, if we could check his boat for any geese and he told us to go ahead.

While Jerry and I were checking the boat with the owner and other defendants, I asked them what they were doing on the lake. Their candor astonished me, as all five admitted to chasing the geese with the boat to make them fly so they could shoot at them — a comment they all would later deny in court.

Oskar Cattail spoke up and asked, "Are we going to be charged with anything?"

I informed the group that they could receive citations for hunting and shooting in a safety zone, having loaded firearms in a moving craft, chasing and rallying geese and using a watercraft under power to locate and shoot at migratory waterfowl. Bully asked when they would receive the citations. I replied when my investigation was complete, after I interviewed the remaining witnesses.

Jerry and I then proceeded to the private beach club to interview the two main witnesses who observed the suspects committing the Game Law violations.

The following week I filed citations against all the individuals for hunting and shooting in a safety zone, using a motored watercraft to rally, chase and shoot at geese while under power, and having loaded firearms in a motorized watercraft while in motion. All five defendants received their summons in the mail and quickly requested a summary trial to state their innocence. I contacted the District Attorney's office to request representation, as I was certain the defendants would secure counsel and I didn't want to be outgunned in the court room. The summary trial was scheduled two months later in district court on December 20, 2008.

I was surprised when the five defendants showed up in court without an attorney to represent them. The Assistant DA had me testify first, followed by my two witnesses. I testified that all five of the defendants admitted on their own volition that they chased the geese with their motorized watercraft to flush and shoot at them. On cross examination Rout Law asked me who said this, and I pointed at all five defendants sitting together and said, "All five of you sitting there at the defense table."

Rout Law then asked me, "When did we make that statement about chasing the geese?"

"When Officer Jerry Bish and I were at your boat in your backyard with the four friends you're sitting with now."

My two witnesses were stellar in their testimony, unshakeable and right on point when cross-examined by the defendants. A point of contention was how the two witnesses could estimate distances on the water. The witnesses both stated they had hunted waterfowl for more than 12 years, but opted to use a canoe and not a motorized watercraft.

Another question from the defendants was how the witnesses could prove they were the ones who did the shooting. The one witness calmly stated, "Because I saw you and the rest of the group and could easily discern your boat 30 yards away while I stood on the dock and watched all of you shoot at the geese and the blue smoke coming from your motor." The defendants decided not to ask those two witnesses any more questions, as they were only digging themselves in deeper.

Rout Law decided to testify and, of course, he denied making the comment about chasing the geese and that the birds were more than 300 yards away from any safety zones when they shot.

At the conclusion of the trial the judge found all five defendants guilty of hunting in a safety zone, and Rout Law guilty of rallying and chasing geese, because he was the one operating the boat. Rout Law ended up with \$342 in fines and court costs, while Bully, Loop, Droop and Oskar paid fines and costs of \$257 apiece. The judge admonished the group for their unsportsmanlike behavior on the lake, but gave them a break on the remaining citation of having loaded firearms in a moving watercraft under power.

I regret not having a video camera to film those characters in their pontoon boat running up and down the lake in their blaze orange hunting clothing, thinking they would get away with their violations. It would make a great episode of the world's dumbest criminals.



On Tour for a limited engagement

By J. T. Fleegle PGC Wildlife Biologist

THE SUMMER CONCERT series usually brings lots of variety to the stage. Something for everyone — country, pop, alternative, and “biofunk.” I guess that’s how you’d categorize our “sound.” For the past several years, biologists in the Deer & Elk Section have been touring Game Commission offices, carrying the white-tailed tune. The deer program has changed tremendously during the past 10 years and, although those of us in the Deer & Elk Section are intimately familiar with the changes, personnel with other expertise are not. But, no matter what your job is, if you work for the Game Commission, people expect you to know about deer.

The deer program is so high profile that it has its own PR team. The team develops tour themes, ad campaigns, and schedules. Since the team began “managing the image” of our state animal, brochures have covered everything from deer food to harvest estimates, DVDs have been produced, and annual open house tours help get the information out to the public. But of all these communication innovations, the summer employee training tour is the most important.

We schlep all over the state, setting up equipment and prepping audiences. We talk to every employee of every office and field crew. It is our job to convey the details of the deer program so they may have a better understanding of the deer program and be able to answer questions posed by the public. Topics include program goals and how they are measured, harvest estimates, antler restrictions, antlerless allocations, and answers to common questions. It’s a lot to take in.

I don’t see biofunk breaking into the big time. It will likely retain a small cult following outside the walls of the agency. But within the confines of the PGC, it is mandatory listening.

After the third show, I begin to feel like a broken record. But the beat goes on. The tour is intense but short lived. After their brief time with us, agency personnel scatter back to all corners of the state, singing, we hope, a tune they’ve just heard on our exclusive deer program tour.

Wills Mountain Scrub Oak Barrens Restoration

By PGC staff members Justin Vreeland, Robert Criswell, Robert Einodshofer and Jonathan Zuck

SCRUB OAK MANAGEMENT is for the birds (warblers, that is) and for bear, deer, turkey, grouse and a long list of other wildlife species.

Far different from a stand of majestic pines, oaks or hemlocks that may evoke visions of the primeval wilderness of Pennsylvania, and unlike a picturesque forested wetland, neatly manicured agricultural field or babbling brook, scrub oak communities are nothing particularly attractive to behold. They are typically composed of dense, almost impenetrable thickets of squat, crooked shrubs with occasional trees — particularly pitch pine — and snags. And the Game Commission recognizes these areas as critical wildlife habitat and is managing them for sensitive bird species and popular game animals alike.

Scrub oak barrens are rare in Pennsylvania. Historic accounts by naturalists and pioneers, however, document vast expanses of barrens that are no longer present here.

Barrens are disturbance-dependent communities, which means they require some form of intense periodic catastrophe or disturbance to rejuvenate them and eliminate competing vegetation.

Historically, the process that kept these barrens healthy was fire. Native Americans, settlers and Mother Nature burned these communities about every 5 to 12 years. Even into the 20th century, arsonists torched these areas so more blueberries would be available for picking, and trains often threw sparks that set barrens ablaze. But aggressive fire suppression in the 1900s through today has permitted fire-intolerant forest plants to encroach on and dominate scrub oak communities.

SGL 48, in southern Bedford County, contains one of the largest known patches of scrub oak barrens in central Pennsylvania. This “ridegetop barrens,” as it is classified, is perched on the summit of Wills Mountain at the southernmost extreme of the Game Lands. The barrens also includes a small 10- to 15-acre native grassland savannah remnant. Photographs from the 1940s clearly show this savannah, but it is being encroached upon by locust and striped maple. Grassy openings such as this one were historically more prevalent in frequently burned barrens communities.

Why does this unattractive patch of Game Lands matter? The Wills Mountain scrub oak barrens is outstanding habitat for a diverse array of game and nongame species. White-tailed deer, bears, turkeys and ruffed grouse find reliable food and cover in the scrub oak thickets. Acorns are critical fall foods for these species and, because the high elevation (over 2,400 feet) of this scrub oak community makes the climate considerably harsher than habitats farther down the mountain, acorns are a particularly important food source.

Scrub oak barrens also provide high quality habitat for a group of bird species closely associated with early successional forest and shrubland types. Among these are golden-winged warblers, chestnut-sided warblers, brown thrashers, common yellowthroats, eastern towhees, whip-poor-wills, prairie warblers and yellow-breasted chats. Other, more common species with more general habitat preferences that also use the SGL 48 scrub oak community include dark-eyed juncos, black-capped chickadees, hairy woodpeckers, northern flickers, saw-whet owls and Cooper’s hawks. Bird surveys conducted by volunteers in 2009 suggest that the Wills Mountain barrens has considerable numbers of indigo buntings, prairie warblers, red-eyed vireos, black-and-white warblers and eastern towhees, as well as blue jays, tufted titmice, scarlet tanagers, ovenbirds, eastern wood pewees, common yellowthroats and chipping sparrows.

Of all these species, the golden-winged warbler is the most imperiled. Populations of this warbler are declining at a most alarming rate. Evidence of declines in golden-winged warblers comes from the Breeding Bird Atlas (BBA).

The BBA is a statewide survey of breeding birds conducted from 1984-89 and again from 2004-08. In the earlier survey, golden-winged warblers were observed in 615 survey blocks (of a total of 4,928). During the 2004-2008 survey, these birds were observed in only 230 blocks, a decline of 63 percent in just 20 years. These declines are primarily the result of habitat loss due to fire suppression, natural succession of young forest and shrubland habitats to older forest, and intensive agriculture. Restoration efforts on Wills Mountain are intended to create and maintain ideal habitat for this bird.

Scrub oak plants produce a fairly reliable acorn crop nearly every year, but their production declines as the shrubs grow older. Judging by the sizes and ages of encroaching tree species, the extent of trees and mountain laurel growing on the barrens, and local knowledge of disturbances in the area, the scrub oak community on SGL 48 has been persisting without a major disturbance since before the 1970s. In fact, extensive mortality to oaks from gypsy moth infestation in the 1970s and 1980s likely accelerated a takeover by black birch, striped maple and red maple in and around the scrub oak area. This further emphasizes the importance of proper management to maintain this habitat type.

Funded by federal grant money and state funds, the Game Commission has embarked on an extensive restoration and management project on the Wills Mountain barrens that is intended to create catastrophic events to rejuvenate habitat for game and nongame species and to restore the ecological functions of the barrens ecosystem.

Using a large machine capable of mowing shrubs and trees up to 12 inches in diameter, several blocks of encroaching trees and aging scrub oak and laurel have been mowed to create a mosaic of young and old scrub oak habitat. Conifers, notably pitch pines, snags and occasional large, healthy mast-bearing trees such as chestnut oak and serviceberry were left standing. These treatments will be repeated over the coming years to expand and maintain the mosaic of habitat types and ages.

This mechanical treatment will rejuvenate the scrub oak community by encouraging sprouting from the plants' extensive root systems. It will also reduce competition and encroachment from red maple, chestnut oak, black gum, sassafras, black birch, striped maple and mountain laurel.

Small herbaceous openings, another historic component of the barrens community, will be created by scraping areas down to mineral soil with a bulldozer and seeding with native grasses and forbs to provide nesting and foraging areas for songbirds and game alike.

Because this ecosystem was historically maintained by fires, the Game Commission is also preparing a large network, currently totaling more than three miles, of firebreaks with hopes of introducing small-scale controlled burns to further rejuvenate both the barrens and savannah communities. Prescribed fire is often a more efficient management tool for these systems than repeated mowing, which require significant resources, such as large machinery, fuel, and maintenance and staff costs. Fire will become an important management tool on this barrens in the future.

By reinvigorating the scrub oak thickets, acorn production and nutritional quality will increase, providing better forage for deer, bears, turkeys and grouse. In addition, stump sprouts will provide browse for deer. Habitat diversity will increase and escape cover and nesting cover will be maintained and increased throughout the barrens complex. By managing this rare and critical habitat type, the Game Commission will provide better habitat for an entire community of plants, and game and nongame species, while enhancing hunting and wildlife viewing opportunities.

Antler Restrictions in Pennsylvania Are they working?

By Dr. Christopher Rosenberry
PGC Deer & Elk Section Supervisor

ANTLERS! Nothing captures the attention of a deer hunter more. Antlers appear in the dreams of many a hunter on the night before deer season. However, for years, most Pennsylvania hunters could only dream of harvesting a large antlered buck. Typically, bucks taken by hunters had lived long enough to grow only one set of antlers. Few survived long enough to produce the larger antlers of an adult deer. One way to change that situation was more restrictive antler restrictions.

In 2002, the Game Commission implemented new antler restrictions. Prior to 2002, the antler restriction was two points to an antler or a spike at least three inches long. Since 2002, the antler point restriction (APR) has been three or four points to an antler, depending on area of the state. A swirling of myth and reality has followed. Here are the facts about Pennsylvania's antler point restrictions.

The primary goal of APRs was to increase the percentage of adult bucks (2.5 years of age or older) in the population. Doing so creates a more natural breeding ecology, and an older buck age structure, and greater hunter satisfaction might be realized. To achieve those goals, APRs needed to protect most yearling bucks (1.5 years of age) from harvest. This required two different APRs: a four points to an antler restriction in western Pennsylvania and a three points to an antler restriction for the rest of the state (excluding junior hunters).

To assess biological and social aspects of APRs, the Game Commission initiated a multi-year study with the U.S. Geological Survey's Pennsylvania Cooperative Fish and Wildlife Research Unit at Penn State. This study included the capture of more than 2,000 deer and the surveying of more than 25,000 hunters. Additional information came from the Game Commission's annual collection of deer harvest data.

Why Antler Points?

When defining antler restrictions, antler points or spread can be used. Although hunters can judge both criteria in the field, we chose antler points.

APRs can be defined by any number of points; however, spread restrictions are usually judged on the distance between ear tips. In many areas of Pennsylvania, a spread restriction of 15 inches (a common ear tip width estimate) would have protected nearly all yearling bucks, as well as most adult bucks. Although that level of protection would attain our goal, it would also make many adult bucks ineligible for harvest. Antler points were chosen to protect most yearlings and allow most adult bucks to be harvested.

Buck Survival

Prior to APRs about 80 percent of bucks (a majority of which were yearlings) were harvested by hunters each year. This led to buck survival rates of less than 20 percent. Protecting most yearling bucks would increase buck survival, thereby increasing adult bucks in the population, the goal of APRs.

Based on survival rates of hundreds of radio-collared bucks, yearling buck survival increased from less than 20 percent to 64 percent after APRs. Adult buck survival increased to 36 percent as well.

Breeding Changes

With 80 percent of bucks being harvested each year prior to APRs, most bucks survived through only one breeding season. Few older bucks were present in the population. Could APRs change the breeding ecology in Pennsylvania's deer herd?

Although yearling bucks are capable breeders, the dominance-based breeding hierarchy to which white-tailed deer were thought to conform was absent in Pennsylvania due to the high buck harvest rate. This low number of older bucks and “unstructured” breeding could have extended the breeding season. Would APRs and more adult bucks lead to changes in breeding behavior, in particular conception dates?

From 2000 to 2007, data on breeding dates from more than 2,500 females were collected. Average date of conception prior to APRs was November 17. Following APRs, the average date was November 16.

In Pennsylvania, most adult does are bred in mid-November and sexually mature female fawns tend to peak about two weeks later. Other aspects of breeding ecology, such as pregnancy rates and embryo counts, have also remained at stable and healthy levels.

Based on these data, it appears APRs did not significantly change the timing of breeding in Pennsylvania.

Genetic Impacts

Concerns over genetic impacts of selective harvest are common. Would selecting bucks based on the number of antler points they carried be enough to alter future antler development? Current research is clearly mounting evidence to the contrary.

First, yearling antler points are poor predictors of future antler development. Research indicates little relationship between a buck’s first set of antlers and those he carries at 4.5 years of age and older. So, using yearling antler points as a harvest criterion should not influence future antler development in the population as a yearling spike buck and a yearling 6-point can have similar size antlers by age 4.5.

Second, most of Pennsylvania’s antlered males are harvested after the breeding season. About 75 percent of Pennsylvania’s antlered deer harvest occurs during the firearms season in late November and early December. The peak of breeding is mid-November. As a result, most antlered deer harvested in Pennsylvania have already passed their genes onto future generations.

Third, a few mature males are not dominating breeding. In two different studies, yearling males successfully sired fawns in populations with high percentages of older males. In fact, most males, regardless of age, sired only one litter.

Fourth, does are regularly being bred by multiple bucks. Initially studied in captive deer, multiple paternity has been documented in every free-ranging white-tailed deer study in which researchers have looked. Populations with different male age structures in different states have seen litters with two or more offspring having different fathers at rates of 20-24 percent.

Finally, a buck’s mother contributes half of his genetic characteristics, but nobody can tell what a doe’s contribution to her son’s antlers will be. There is no way to visually evaluate the genetic antler potential of a doe. As a result, 50 percent of the genetic contribution to future antler development is randomly selected.

Given the complexity of the white-tailed deer’s breeding ecology and high genetic variation, large-scale alteration to Pennsylvania’s deer herd genetics is unlikely.

Hunter Success Rates

Increasing the standard for the harvest of a legal buck with APRs could have reduced the number of hunters who were successful. Tracking hunter success rates over the last three decades has shown little change in the percentage of successful hunters. Today, licensed Pennsylvania hunters are as successful harvesting a buck under APRs as their predecessors were 20 years ago under the old antler restriction.

Age Structure of Antlered Harvest

Age structure of the antlered harvest before APRs was about 80 percent yearling bucks and 20 percent adult bucks. With the increase in survival of yearling bucks under APRs, the age structure of the antlered harvest changed to about 55 percent yearling bucks and 45

percent adult bucks. This increase in adult buck harvest has occurred during a time when overall deer populations have declined.

The increased harvest of adult bucks does not necessarily mean more “record book” bucks. Although age structure and number of adult bucks in the harvest has increased, about 75 percent of them are only 2.5 years-of-age. In other words, most of the state’s bucks are still being harvested prior to growing their largest antlers.

Hunter Support

Prior to changing to APRs, surveys showed a majority of hunters favored them. Many hunter surveys have been conducted since APRs started in 2002. Would hunter support wane after APRs became reality? Not hardly! In fact, hunter support of APRs has remained steady since their implementation.

Conclusion

After six years, APRs are a success. they have increased survival and the buck age structure. They have maintained strong support from hunters, and Keystone State hunters are experiencing similar levels of success.



Packing for 80 on a 7-day trip

EVER WONDER what your mother felt like, packing for the family vacation?

Remembering the essential clothing items for three children, herself and her husband; the toiletries, must-have toys, allergy medications, snacks, first aid supplies; the list goes on. She must pack the car, bearing in mind that those three children, herself and her husband need to fit in there as well. What does this have to do with a deer biologist? Well, during deer season, we pack for more than 30 “families” heading out on a 7-day trip.

Our “families” are deer aging teams, and they’re not headed to a vacation destination. After Thanksgiving, they set out to visit deer processors statewide and collect vital data for the deer program. But they are not set adrift in the “ocean” of deer heads on a “raft without paddles,” as each team is outfitted with equipment needed to complete the task.

As Deer and Elk Section biologists, we have taken this trip before and, subsequently, we set the itinerary. Trip preparation starts with ordering supplies: 1,263 PGC calendars, 288 packs of AA batteries, 62 boxes of nitrile gloves, 77 containers of disinfecting wipes, 3,967 data sheets, 4,975 medium plastic bags, 705 large plastic bags, 385 Zip- lock bags, 870 zip ties and 705 manila tags. Teams with women need size M gloves; Teams 2, 2A, 7, 17, 19 and 27 need new knives; Teams 2A, 5, 7, 9, 19, 22, 23 and 28A need knife sharpeners. And let’s not forget the “vehicle.” It takes a month just to gather the more than 60 boxes necessary to deliver these items.

Then there is the packing. Like Mom, when we get going, you better stay out of our way. There are more than 30 deer aging teams, so that means those 4,975 plastic bags need to be divided among them. And don’t think it’s an even distribution. Like members of a family, each team has unique needs. Team 5 will receive 250 bags, while Team 15 gets only 175.

Packing for annual deer aging activities is another one of those behind-the-scenes duties of a biologist. Funny, I’ve never seen anybody packing equipment on the Animal Planet channel.

— By J. T. Fleegle

Road Hunting 101

By Harold J. Malehorn
Snyder County WCO

USING A MOTOR VEHICLE to hunt, commonly called “roadhunting,” is an all too frequent violation that Wildlife Conservation Officers enforce. Roadhunting is not only unethical, but also unsafe — to the violators themselves, to other road users, and to those living in the vicinity. One law enforcement tool WCOs use is a wildlife facsimile, or decoy, of the intended target species in areas where roadhunting activities are known to take place.

I was having a problem in a specific area in Snyder County. Deer were being shot after hunting hours, even late at night, during the firearms deer season.

To catch the violators, LMO Steve Bernardi and I decided to deploy an antlerless deer decoy. The plan was that I would put the decoy out and be the watcher, and Steve would be in the chase vehicle.

About 10 minutes before the end of hunting hours — and while wearing fluorescent orange — I put the decoy over my shoulder and ran across the field to the spot I had picked. Once the decoy was set, I ran back to my spot in the woodlot across the road to watch. With hunting hours now over, I checked my portable radio, and then sat back and waited.

“Do you hear that?” Steve radioed.

“Yes,” I replied.

We could hear the hollering of a group still driving for deer on the ridge to our south. Just then, a vehicle came from the east. It slowed to a stop. *Kaboom*. The gun went off like a cannon. “The driver just shot from the vehicle,” I radioed to Steve. “Go get him!”

Before the vehicle even moved Steve was behind it with his emergency lights activated. The driver did not attempt to flee. Steve radioed me with the shooter’s identity and address. The shooter lived just down the road. We decided to take all the information and his gun, and then meet him later to issue the citations, so we could continue to run the operation.

After Steve had finished with the shooter and was turning around, another vehicle slowed to a stop. I was just about to key the radio to tell Steve not to come back when the vehicle started moving again and Steve passed it. Steve continued on to the neighboring farm to see if the group still driving for deer was there.

The next thing I knew the vehicle that had just gone by was back and had slowed to a stop. *Kaboom*, the gun cracked. I radioed, “The passenger just shot from the truck, go get them!” Steve hadn’t made it back from the neighboring farm, though.

The vehicle pulled off the side of the road and three people exited with rifles. I started out to them, but before I made it, Steve finally responded with lights activated. The three got out in hopes of hunting the deer. All three guns were loaded. While taking their information, the driver acknowledged that he’d seen officer Bernardi pass them, yet still came back to shoot at the deer in the field.

The operator of the first vehicle was charged and pled guilty to having a loaded firearm in a motor vehicle and attempting to take a deer unlawfully. He was also issued some written warnings.

The operator of the second vehicle was charged and pled guilty to assisting in the attempt to take a deer unlawfully and hunting after hours. The front seat passenger who shot at the deer from the vehicle was charged and pled guilty to having a loaded firearm in a vehicle, attempting to take a deer unlawfully and hunting after hours. The other passenger was charged with hunting after hours. Remember, they all exited the vehicle and were going to hunt the deer. They were also issued written warnings.

The shooter asked, “Was the deer a decoy?”

“Yes,” I said.

He said, “Oh, that’s why it didn’t move, huh?”

Pennsylvania Game News – Volume 81 NO. 10 October 2010

Wildlife facsimiles are an extremely important tool in our wildlife protection mission. They help us enforce the illegal, unethical and unsafe practice of roadhunting.



By J.T. Fleegle
PGC Wildlife Biologist

The Truth is Out There

I FIND ALL WILDLIFE fascinating. I am even fascinated by the squirrel that visits my birdfeeder — although, not quite as fascinated as the dog. The fascination with regard to white-tailed deer transcends those of us in the field of wildlife biology. Even those far removed from the outdoors seem to know some fact about the white-tailed deer. I use the term “fact” very loosely. As sometimes the facts get a little sketchy. But to coin a phrase from my favorite ‘90s sci-fi show, *The X-Files*, “The truth is out there.”

To take a more philosophical view, science is the search for truth. Theories are born and die daily in the scientific community. Sometimes theories that have been supported for decades succumb to death. And this is okay. After all, we are searching for the truth. But theories don’t always die easily. Some people cling to them like that last bit of barbeque sauce that you just can’t seem to get off your hands.

For example, there is a belief that dominant bucks do all the breeding. Though this is a decades-old theory of whitetail breeding ecology, new research has placed this theory on the scrap heap.

Other various falsehoods transform into facts through simple conversation. A plausible explanation for an observed event gets repeated again and again and, all of a sudden, that’s the way it is. Or, the coup de grace, it is seen in print. In that case, it must be true. To borrow yet another phrase from the cult classic, “I want to believe.” Some of us may be skeptical, but most of us are eager to believe obscure and sometimes outlandish reports.

One of my favorites is the theory that the Game Commission is receiving “kick backs” from the insurance and timber industries. This is interesting, considering evaporating funding has been an issue for this and numerous other state wildlife agencies for decades.

The conspiracy theorists will tell you to “trust no one,” including me. And on some level I concur. Investigate these topics for yourself. Be a critical thinker. Ask questions. Be a scientist. Search for the truth. But remember, sometimes the answers aren’t always what you might expect. So that is where we are headed for the next year in this *Game News* feature. We are going to bust some myths and lay waste to some tired old legends.

Saturday morning, October 26, 1968, 8:30 a.m., opening day of small game season:

But instead of preparing to head afield that morning, I was on my way to school to take the College PSAT exam. Didn't matter that the test had been scheduled on one of the most important dates on the outdoor calendar: My mother insisted that I take the exam. All the way into town we passed legions of cars and trucks filled with red and blaze orange clad hunters, headed for the farm country I had just left, to hunt rabbits and pheasants.

To this day I don't know how I got through that morning and managed to do well on the test. My mind was focused on one thing, getting home and bagging a pheasant with my brand new Remington 870. My torment was relieved within two hours of arriving home that afternoon. I not only flushed several birds, but managed to bag my very first cockbird. Its longest tail feather, matched with a pair of '60s-era Game News, hang framed on my office wall as lasting mementos of that special day long ago. The enthusiasm Pennsylvania sportsmen had for pheasant hunting back then is beyond imagination. Vehicles lined farm country roads throughout southern Pennsylvania, and ranks of bird hunters could be seen strung out across cornfields. – Keith Sanford

Wild Pheasants Welcomed Back

By LMO Keith Sanford and PGC Wildlife Biologists Colleen DeLong and Larry Crespo

BY THE MID-1970s, however, pheasant populations and harvests had begun to decline in Pennsylvania and all other eastern states, and by the early '90s they had all but disappeared, victims of a "perfect storm." The perfect storm was a combination of factors: Farming practices changed dramatically by the mid-1970s. The Soil Bank (1956-66) and Feed Grain Programs (1960s to 1973) that had idled 500,000 acres in Pennsylvania were discontinued. And as a result, much of this land that had been planted in timothy and clover, a preferred nesting cover for pheasants, was put back into production, leading to a loss of safe nesting habitat for pheasants. What had been a landscape of small farms with idle fields and hedgerows became large fields farmed from one forested edge to the next. Other "storm" factors were increased pesticide use and early hay mowing, which tends to destroy nests. Then, during this same time, urban sprawl deeply invaded our farmlands, consuming grassland bird habitat along its way.

It was a personal love of the sport and the continued interest in pheasant hunting by multitudes of hunters that inspired Pheasants Forever chapters, volunteers and wildlife professionals to pursue a recovery of this great game bird. Thanks to the partnership formed between the PGC and Pheasants Forever (PF), wild pheasants may once again have a significant presence on part of the landscape in a few select areas of the state.

The Ring-necked Pheasant Management Plan, 2008-2017 calls for restoring sustainable, huntable populations in suitable habitat by establishing Wild Pheasant Recovery Areas (WPRAs). The key is to start with suitable habitat of sufficient size and quality, then accelerate the rate of pheasant expansion through the release of wild birds. Habitat first, then birds follow.

Returning secure nesting cover is essential for wild pheasant restoration. In 2000, USDA's Conservation Reserve Enhancement Program (CREP) gave farmers the opportunity to do this again. Fields enrolled in CREP provide grassy nesting and brood rearing cover as well as brushy winter cover, adjacent to grain fields — the right combination of habitat components needed by pheasants.

Without large-scale conservation programs such as CREP, wild pheasant recovery efforts could not even be attempted. We must also manage for pheasants, and other farmland wildlife, over large landscapes. One or two farms with good habitat is not enough. That's

why CREP is the key: it has added thousands of acres of secure nesting cover for pheasants to agricultural landscapes in Pennsylvania.

As prescribed in the pheasant management plan, the minimum acreage for a WPRAs is 10,000 acres, and the pheasant habitat model developed along with the management plan calls for areas that have more than 50% cropland, more than 20% grasses (including hay, pasture and small grains), less than 20% forest, and less than 10% developed land. Also, at least 8% of the area must be in secure nesting cover provided predominantly by CREP fields.

Through a trap-and-transfer program that began in 2005, wild pheasants from South Dakota and Montana have been released in three areas: Pike Run WPRAs in Washington County; Central Susquehanna WPRAs in Northumberland, Montour and Columbia counties; and Somerset WPRAs in Somerset county. A fourth area, the Hegins-Gratz WPRAs, in Schuylkill and Dauphin counties, was approved this past June.

The first three WPRAs were established in cooperation with PF before the pheasant management plan was completed and the size and habitat criteria were developed. They were approved as WPRAs at that time to protect wild birds that had already been released. These areas do not all meet the habitat criteria prescribed in the pheasant management plan, and time will tell if they are suitable for establishing pheasant populations. The Hegins-Gratz Valley WPRAs was established according to the size and habitat criteria in the pheasant management plan, and the first release of wild pheasant in this new WPRAs is planned for winter 2011.

Because hens are the key to building a sustainable population, spring hen density is considered the defining measure of success. PGC pheasant biologist Scott Klinger explains, "Thanks to research by PGC biologist Fred Hartman during the early 1970s, we know that spring hen pheasant densities were 40-120 hens/mi² in primary pheasant range, 10-39 hens/mi² in secondary range, and 0-9 hens/mi² in tertiary range. Based on the habitat available in Pennsylvania now, the pheasant management plan calls for spring hen densities of 10 hens/mi² over a 6-year monitoring period to consider a wild pheasant population in a WPRAs to be sustainable."

When the first WPRAs got started, landowners posted their properties against hunting and dog training during the nesting season, and the Game Commission stopped releasing game farm birds in the areas. After the Game Commission designated the existing projects as WPRAs, the following regulations were established:

- It is unlawful to release pen-raised pheasants anytime within any area designated as a WPRAs.
- It is unlawful to train dogs in any manner or hunt small game from the first Sunday in February through July 31 within any area designated as a WPRAs.
- There is no open season for the taking of pheasants in any area designated as a WPRAs.

Roads are used as WPRAs boundaries so hunters, landowners, WCOs and others can easily tell where regulations protecting these wild birds are in effect.

Severe winter weather, heavy spring rains, nest depredation, and mortality due to mowing and hay making are factors that we have no or little control over. However, hunting, the release of pen-raised birds, and disturbance during the release period and nesting season are factors we can control. Even in suitable habitat, protecting these birds during the winter months and throughout the nesting and brood rearing season is critical to the establishment of a new population.

Wild pheasants for WPRAs are trapped in western states and transferred to WPRAs in February each year. "Working with local trappers is vital to obtaining wild pheasants," said Jesse Putnam, a biologist with Habitat Forever, a Pheasants Forever Company, "and trapping must be conducted in cold, snowy conditions. If the winter is mild, trapping is not as successful." Putnam and his trapping team have endured extreme winter weather while trapping pheasants for Pennsylvania's WPRAs.

The trappers place the birds in holding facilities designed to keep them safe and healthy until their ride to Pennsylvania, and before transport, the birds receive a clean bill of health from veterinarians. "It's amazing how healthy these birds are when they arrive here. The trappers take great care of the birds. We couldn't ask for better people out west," said Shon Robbins, Pheasant Forever's Regional Biologist. A minimum of 300 wild pheasants have been, or will be, released each February for three years in each WPRAs. Pike Run releases began in 2005, Central Susquehanna releases began in 2007, and Somerset's first release took place in 2009. If all goes well this winter, the Hegin-Gratz Valley WPRAs is slated for its first release then.

Once in Pennsylvania, pheasant releases take place immediately before dawn, when the darkness helps to keep the birds calm, so they come out of the boxes slowly and stay in a group. The crates are placed facing good cover, such as shrubby thickets or thick native grasses. Volunteers quietly open one end of each box and then walk away and wait in the truck. Some of the birds walk out of the boxes together, and some will begin to fly short distances as daylight approaches.

Following a release, PGC and PF biologists and volunteers begin monitoring the radio-collared hens to determine survival. Annual hen survival of 30% or more is needed for a population to grow and stabilize. Crowing counts are used to determine annual densities and long-term trends in rooster numbers.

Brood surveys confirm reproduction and provide location, size and age of broods. Most of the brood data are provided by landowners and community members, and average brood sizes can tell us if pheasant reproduction in our WPRAs is consistent with other sustainable populations studied in the past. Additional reports of wild pheasant sightings throughout the year provide dispersal data and information on large flocks of pheasants.

Volunteers with bird dogs conduct flushing surveys in late winter to determine pre-nesting season sex ratios, and a ratio of at least 1:1 is needed for the population to be able to grow. Flushing survey sample sizes are also important. Because bigger sample sizes provide the most accurate picture of the sex ratio, the volunteers (and dogs), who help survey large areas of habitat, are very important.

Spring hen density in the Pike Run WPRAs increased from 2 to 3 hens/mi² from 2009 to 2010. In the Central Susquehanna WPRAs's Turbotville-PPL study area from 2008 to 2010, hen density increased from 3 to 6 to 9 hens/mi². In the Central Susquehanna WPRAs's Greenwood Valley study area, hen density fluctuated from 2 to 4 to 2 hens/mi² from 2008 to 2010. In 2010 in the Somerset WPRAs, hen density was 1 hen/mi².

It is important to continue monitoring for six years, as longer trends will better tell us whether the populations are increasing, decreasing or staying the same over time. More details from wild pheasant monitoring are also available in the Wild Pheasant Recovery Area Annual Report for 2010, available at the Game Commission website.

At this time the Turbotville-PPL study area in the Central Susquehanna WPRAs is showing considerable promise in reaching 10 hens/mi² within the 6-year monitoring period. Pike Run and Greenwood Valley are not doing as well. While it is too early to know how the wild pheasant population will do in the Somerset WPRAs, another release year and continued monitoring will provide more information.

While pheasants are not doing as well as hoped for in some of the early WPRAs, we have learned that using the habitat model from the pheasant management plan to select appropriate WPRAs sites is critical. Since the completion of the pheasant management plan and the development of the habitat model, approval of all proposed WPRAs sites is based on whether or not the existing habitat components fit the habitat model. We are optimistic that WPRAs with suitable habitat and size can give wild pheasants a chance at making a comeback in select areas of the state. WPRAs sites must provide a sufficient level of secure nesting habitat, and habitat improvements should be made continually to ensure future

pheasant habitat. Ultimately, the right combination of suitable habitat components in a farmland landscape is the key to success for wild pheasant populations.

A Shot in the Dark

*By David L. Grove
Adams County WCO*

I HAD JUST PICKED up deputy applicant Joe Webb for his first evening of night patrol. Joe was excited, but as we drove to our spot for the evening I explained to him that while we typically put a lot of hours in at night, there is not always action. Joe understood, but was still hoping for something to happen. I made the decision earlier in the evening to change our surveillance area for the night. I don't know why, but as many "game wardens" will tell you, there is just some gut feeling that tells us to go somewhere else. This night would prove no differently.

Joe and I slipped into our spot and waited. Although the night was rainy and windy, deer were on the move. The rut was gearing up and the bucks were moving. As we sat at our spot we could see spotlights working, but because it was still before 11 p.m., that was fine. As the night wore on Joe and I began to talk about the upcoming test that he would have to take before he could become a deputy. I quizzed him on all types of things from game laws to state history. I then began to give him some scenario or "what if" questions so he would begin to understand the job a little better.

One of the scenarios involved pursuits, and I went on to tell him that since coming on as a deputy in 2001, and now as a full time WCO, I had been involved in a pursuit every year that involved individuals fleeing from us as a result of game law violations. At the time that statement seemed so innocent, and little could I have imagined what the evening held in store for us.

It was edging up on midnight and we heard quite a few officers across the Southcentral Region, stopping individuals trying to take deer unlawfully. While it's good to hear other officers making stops, it makes us wonder what type of evening we will have.

As the clock ticked past midnight, Joe commented that he thought he saw the flash of a spotlight about a mile away and directly across from us. Although I didn't see the spotlight, I focused on that direction. A few moments later, I heard the distinct sound of a large caliber rifle shot. I wasn't completely sure what direction the shot came from, but when I stepped outside to listen, another rifle shot sounded and I knew it came from the exact location where Joe had seen the spotlight.

We pulled out of our parking spot, as I knew the road the vehicle was on intersected the road we were on. I also knew that once they reached the intersection, they would probably make a left or right, because going straight across would lead them to a road that dead-ended at a covered bridge. With that in mind, I pulled into the road that led to the covered bridge and waited for the vehicle to arrive at the intersection. After what seemed like an eternity, a vehicle finally came out the road and, to my surprise, pulled into the dead end road to the covered bridge. This brought the vehicle face to face with us, so I immediately turned on my headlights and red/blue emergency lights. The look of shock on the driver's face was priceless, but that would not be the last shocked look on his face.

As the small sports car stopped in front of me, I exited my truck and cautiously approached the driver. He had his window down and I immediately saw a spotlight and rifle between his seat and his passenger. I told them to hand out the spotlight and gun to me. The driver's first words were, "We didn't shoot." I again asked for the gun and spotlight and the driver just looked at me with a blank stare and then put the car into reverse.

In what can only be described as a scene from a movie, the driver hit the intersecting road and spun the car around in one quick move. Even though his driving skill was impressive, it ended up being his downfall. As he tried to drive away he spun his back tires on the wet road with a lot of gravel on it. This momentary delay allowed me to close the gap to get a clear look at his license plate. After that, the driver sped away. I later found out he had entered a nearby field and turned off his headlights.

After losing sight of the car, Joe and I headed to the field where we had heard the shots. Lying in the field were three dead deer — a doe and two fawns. These deer were shot with precision in the shoulder and the spine, so they would drop immediately. We gathered up the deer and had our region office dispatcher obtain the name and address from the license plate, which came back to a Justin Big.

Justin's address was not far away, so neighboring officer Darren David said he would go there and wait. During that time, I received a call from the State Police in Gettysburg that Justin's mom heard her son's name on the scanner and wanted to know what was going on. She was filled in on what happened and said her son would meet me at the State Police barracks to say what his involvement was in the whole matter.

I arrived at the State Police barracks around 1:30 a.m. and was given the phone number for Justin's mom. She informed me that Justin had been staying with his friend, Tom Sawyer, for the evening, and that she had just got a phone call from Justin who said he wasn't sure what was going on, because he had been sleeping, but would still come to the barracks.

When Justin arrived it was obvious that he and his mother were already having an argument, which wouldn't help me with my interview. Justin told me that he had been sleeping the whole time and had no idea what had happened. However, having seen Justin's face as the driver of the car, he was out of luck with that excuse.

Although I could smell the distinct odor of alcohol on his breath, he insisted that he was not drinking. After spending more time with the interview but getting nowhere, WCO Darren David performed a field sobriety test on Justin, because he had driven to the barracks. Justin failed the sobriety test. In fact, he registered more than five times the legal limit for someone only 18.

At that point I handcuffed Justin and placed him under arrest, for underage drinking and driving under the influence as a minor. When the cuffs were placed on Justin, he asked where he was going and I informed him that he was going to the hospital to have his blood drawn for his official blood alcohol count results, and then be escorted to jail. Realizing the full extent of his actions, Justin began to tell me the entire story about the preceding events.

He had gone to Tom Sawyer's house earlier in the evening to spend the night before going hunting the next day. However, as the night wore on the beer at the house became too much of a temptation. They began to drink and the idea was suggested to go out and shoot a deer, and that Justin's vehicle would be used. Tom climbed into the passenger seat and off they went.

It was shortly after midnight when they spotted the deer in the field, and being that it was Justin's rifle, he decided he would shoot first. He saw the big doe and knew if he shot her the two fawns would probably hang around. Justin dropped the doe where she stood, with a shot in the shoulder from the .30-06, and the fawns stood there not knowing what to do. Justin took aim and shot again. The first fawn fell in its tracks and when Justin centered the crosshairs on the next fawn, another perfect shot dropped that deer. They knew with three deer on the ground they would have to go back and get Tom's truck, because they wouldn't fit in Justin's compact car.

They drove away from the deer and headed toward a covered bridge to see who was there, because it is a popular spot, but they hadn't counted on it being me. As soon as they pulled across from me they saw my headlights and flashing emergency lights. Justin later admitted that he couldn't remember saying, "We didn't shoot," probably due to the amount of alcohol consumed earlier.

At that point Justin said he got scared and knew he had to get out of there. That's when he put the car into reverse and fled. He tossed the gun and spotlight out of the car, because it would be better if they weren't caught with it. He figured he could get away and I wouldn't catch him. Later, when he got to the State Police barracks to talk to me he knew he had to lie, but he realized when he was going to jail that it was time to tell the truth. I told him that was his best decision of the evening.

The next day Justin and I met again and he handed over the gun they had used. Because of Justin's cooperation he received a lot of cooperation from me as well, and he also agreed to testify against Tom who was ultimately fined \$5,000 and lost his hunting privileges for up to 10 years. Justin was fined almost \$2,000 and lost his hunting privileges for up to eight years, but it could have been a lot worse for him if he hadn't been so forthcoming.

As a footnote to this story, I later encountered Tom Sawyer during the firearms deer season, as he was burying an untagged 6-point in the leaves. He also had in his possession an antlerless tag that he had used on a doe during the archery season. What is so disturbing about the situation is that Justin was with him during this encounter. I hope Justin will learn from his encounters with me and realize that breaking game laws and poaching will never do anything good for him in his life.

As for my deputy applicant, Joe; he's now passionate about becoming a deputy, and is going through the process. He looks forward to more cases like this one in his future. He's also my good luck charm for night patrol.

CWD in Pennsylvania

Will it Come?

What are the Risks?

By Walt Cottrell, DVM

PGC Wildlife Veterinarian

SOME WATCHERS of wildlife in Pennsylvania, and especially those with an interest in deer and elk (cervids), have been watching this strange and dangerous disease called Chronic Wasting Disease (CWD) for years.

Some may have started in 1967, when the disease was first described in Colorado, but nothing was known about its origins or implications. Others became interested when more about the disease was described in 1982, again a result of studies out West. But most people probably began to really take notice when the disease mysteriously came east of the Mississippi to Wisconsin in 2002, and then in September of 2005, when it again traveled some 750 miles to Hampshire County, West Virginia, which is only 26 miles from our southern border. That same year it was also discovered in central New York, only 80 miles from our northern border. In that span of time much has been learned about CWD, and yet much more remains to be learned.

As the disease creeps closer to Pennsylvania it's important to take stock of what we now think we know, and get the best possible understanding of what may be ahead.

The Facts

Just what do we think we know about CWD? Here are the highlights:

The disease is a member of the TSE (Transmissible Spongiform Encephalopathy) family of diseases that includes BSE (Bovine Spongiform Encephalopathy), or Mad Cow Disease in cattle; the disease called Scrapie in sheep; and CJD (Creutzfeldt-Jakob Disease) in humans. The specific agent of CWD is believed to be an abnormal prion (protein infectious particle) that is found in the brain, the nervous system and, to a lesser degree, in several other tissues of infected animals. It causes death of brain cells, and on a microscopic level, holes appear in the brain tissue, creating a sponge-like appearance. These changes are recognizable only in the later stages of the disease, so early detection is nearly impossible. Conclusive diagnosis is, for now, only after death by looking at certain areas of the brain and nearby lymph nodes.

These prions are taken in by mouth and pass to the intestines. They exit the gut and migrate up the local nerves to the spinal cord, and then to the brain and other tissues.

Prions are very hardy and can persist in the environment for a long time (at least 17 years). They are neutralized only with extreme temperature or when subjected to harsh chemical environments.

The older an animal is the more likely it is to be affected. Some fawns are diagnosed with the disease every year, and it is not known if other older cervids are actually first infected as fawns.

Males are more commonly affected than females, but the reasons are unknown. Therefore, older bucks and bulls are a group of special interest when conducting surveillance, such as when the Game Commission examines deer acting as if they may have CWD.

Prions will readily form bonds with soil particles. Once they do, they are better able to survive in the animals' digestive tracts, so the infective dose is dramatically reduced. We ask ourselves if this and the soil sampling behaviors of cervids at salt licks and scrapes are related to the increased prevalence in older males.

CWD is a disease with a long incubation period; the average is 24 months before clinical signs develop, but it can be years more.

Infected cervids can shed infectious prions into the environment for at least 11 months before clinical signs are observed.

Prions capable of causing infection have been found in brain, nervous system and lymphoid tissues, as well as blood, urine and saliva.

The Risk Factors

In any disease management strategy the issues to be decided and the actions to be considered come down to assessment of the risks. These are often divided into those risks associated with the introduction of the disease agent and those that relate to its spread within the environment. What are they for CWD?

The risks associated with having the CWD agent come to Pennsylvania include:

Proximity to areas with CWD positive cases. With CWD around 20 miles from our border (see map) we certainly know we have it nearby. This may be the biggest threat right now.

Having a history of receiving imports of live animals or potentially infectious material from CWD positive areas. Some states prohibit the importation of any cervids, and some prohibit importation from a CWD positive location. Some states, like Pennsylvania, have no ban on importation of live cervids from CWD positive locations.

Having a history of allowing the importation of carcasses or parts of carcasses from CWD positive locations. Before 2005 Pennsylvania had no ban on the importation of potentially infectious cervid body parts, including raw taxidermy specimens. Is this how prions crossed the Mississippi? The recently updated CWD Parts Ban is in the Pennsylvania Hunting and Trapping Digest (page 49) and at www.pgc.state.pa.us, under "Wildlife" and then "Wildlife Diseases."

Use of urine-based lures. This is a new risk factor, now that we know urine can contain infectious prions. These products are all created from captive cervid urine and travel freely across state lines; there is no regulation of that industry, nor is there a good understanding of the CWD status of herds producing the urine. In 2006 only two percent of captive cervid operations in Pennsylvania reported collecting and selling urine for lures. So where is the rest of what is on the shelf or sold by mail order coming from? We just don't know. Can we say what the risk is? No, but it is not zero. Remember the facts about prions, soil binding and environmental persistence.

Much emphasis has been placed on risk factors associated with captive cervids. This is largely because of a combination of the facts, including that there is such a long incubation period, there is no test for the disease for live animals, and because there is so much variation in the way the movements of these animals are regulated. There is also a clear epidemiological link between national and international movements of captive animals and subsequent movements of the disease. Pennsylvania ranks second only to Texas in number of captive cervids. There are between 1,100 and 1,200 businesses, with more than 23,000 captive cervids in the commonwealth.

In those fenced settings we also worry about timely reporting of cervids that escape, nose-to-nose contact between wild and captive cervids, reporting and testing of sick and dead animals, and unknown movements of potentially infected animals between farms and shooting facilities.

CWD risks related to establishment and amplification of the disease are:

Feeding and baiting, which concentrate susceptible animals, result in greater likelihood of exposure to prions from infected cervids and an increased probability of environmental contamination.

Conditions that lead to the introduction of the prions are more likely to lead to exposure to susceptible animals. Large populations of susceptible animals make the impact more profound. And factors that cause animals to congregate and facilitate the spread of the agent either directly, or indirectly through environmental contamination, are more likely to lead to the permanent establishment of the disease in a population.

Should CWD become established in Pennsylvania it will change our deer and elk herds, possibly forever. It will also change things in the Game Commission and the Department of Agriculture. Responding to the introduction of this disease in Pennsylvania will almost certainly divert some resources from other programs.

All of these are factors that make the disease hard to contain. In the history of this disease so far it has never been eliminated (except possibly in New York), or even slowed in its spread. Where it has been present the longest it has been shown to shorten the average lifespan of animals and cause the studied population to decline.

It's been said that CWD will come to us either by walking across our border or in a truck, meaning either from a dispersing wild cervid or a captive one imported here, or from cervid parts brought in by individuals hunting in CWD infected areas.

In the case of a wild introduction it would seem that the most likely direction to look is to our south, where West Virginia has detected 44 more infected animals since its first case; the closest being 20.7 miles away, but we don't know if other infected animals may be closer. It would have to cross Maryland's panhandle to get to Pennsylvania's Fulton, Bedford or Somerset counties, but we know that deer can and will cross roads and rivers, and there are ample amounts of the preferred forested habitat for travel along those intervening ridges that connect us.

In the case of a captive or farmed animal, it will be up to USDA to tell us where it came from. The quarantine and tracing the origins of the animals of that farm will fall to PDA. The PGC will sample around the farm. A more detailed plan for these activities can be found in the Chronic Wasting Disease Response Plan located at our website: point at the Wildlife dropdown menu, then Wildlife Diseases and select Chronic Wasting Disease; this plan is a pdf file.

It's important for all citizens of the commonwealth to understand the risk factors associated with CWD. What we have to remember is that there are only so many things we can do to prevent the invasion of this disease. But there are behaviors that we can alter to reduce these risks, and possibly contribute to keeping CWD from infecting our deer and elk herds. Some examples include being educated about and observing the CWD Parts Ban, reporting deer that appear to be sick, considering the wisdom of using urine-based lures, and the elimination of feeding. Ask yourself, Why not change, considering all that is at stake?



Deer Sex in the 21st Century: Part 1

By J. T. Fleegle
PGC Wildlife Biologist

WHILE the very mention of Bambi makes wildlife biologists wince in pain, they would have once begrudgingly agreed with the premise that the biggest, strongest, most mature buck (i.e. the Prince of the Forest) would likely be Bambi's father. The paradigm of white-tailed deer breeding ecology is that large dominant bucks do the breeding — period. For decades, observational research supported the idea that bucks maintain a strict dominance hierarchy in which physically mature males dominate immature males. Bucks at the top of this hierarchy possessed all of the breeding rights, and any hunter could recite this “common” knowledge.

Fast forward to the 21st century and the development of DNA testing. Trying to observe a specific behavior of wild animals, such as mating, is the proverbial needle in a haystack. And, in the past, when it came to reliably determining paternity, you were more likely to win the lottery. But now, that unique double helix string of nucleic acids can pinpoint exactly who your daddy is. A whole new world has opened regarding mating systems and paternity. Harbor seals, greater horseshoe bats and brushtail possums are just a few of the species on which DNA paternity studies have been conducted. And as more tissue was spun around in test tubes, interesting details surfaced, like multiple paternity. That's right. Individuals in the same litter can be fathered by more than one male. Deer mice, common shrews, black bears and grizzly bears have documented cases of multiple paternity.

What about white-tailed deer? Surely this cannot happen. There is a pecking order. Big mature males get breeding rights. It's common knowledge for cryin' out loud. Think again. In 2002, a study documented multiple paternity in captive white-tailed deer. Two years later, it was documented in a free-ranging population in Michigan. Since then, multiple paternity has been documented in every free-ranging white-tailed deer population that has been tested. A set of twins has a 20 to 25 percent chance of being half siblings. Which means a doe will mate with multiple bucks, casting a new light on her role in the “bedroom” saga. So the biggest, baddest, best looking buck doesn't get all the girls after all. In fact, a quarter of the time he can't even keep his hooves completely on one.

So if the Prince of the Forest isn't doing all the breeding, who is?

Do It Yourself Dirt Hole Set

By Dan Lynch

PGC Wildlife Education Supervisor

FOX TRAPPING is one of my outdoor passions and it consumes some part of every day from October until February. If I'm not actually setting or checking traps, then I'm scouting for locations while out driving around or talking to landowners about gaining permission. I really enjoy the entire process, from looking for sign to making the sets, as well as putting up the furs after they are harvested.

One aspect I've always found intriguing is the different variations of dirt hole type sets that can be made to catch foxes. Fox trappers have used dirt hole sets as a mainstay type of set probably since the initial use of foothold traps for canines. One thing is certain: every trapper who uses them has his or her own technique and twist to making them. What works for one person may be totally different from what you use, but if you give it a try, you may find dirt hole sets will put the reds on the stretchers for you.

The dirt hole itself is said to mimic some piece of food, such as a mouse or rabbit that a fox had previously buried for later consumption. When a different fox sees the hole and surrounding disturbance in the ground, as well as any smells emanating from that hole, the response many times is to try and dig in the hole and steal the food piece. If the trapper puts too much lure or bait in the hole, it is sometimes considered too "hot," and instead of the fox digging for the smell it may roll over the whole trap site and snap the trap but not get caught. I have seen this myself with my dogs at home, rolling in a fresh pile of deer droppings or a dead carcass of a rabbit or some other animal.

I do a lot of reading about set making from various authors of trapping magazines based here in Pennsylvania, as well as across the country. One thing I have noticed is that there is a wide variation in making a dirt hole set and that trappers seem to be successful with almost all of them.

The preceding photos show a few of my variations to the dirt hole set. I have taken bits and pieces from various individuals and sort of came up with my own variation. This article doesn't discuss in great detail set location, but this is one of the most important aspects of any trapping. If you have the best lures and traps made, but set them in a location void of foxes, then you won't be filling too many stretching boards.

In general, my set locations take into account wind direction, pre-existing trails and evidence of target animal sign, as well as ease of accessing the location by vehicle, because most of my trapping is done in the dark in the early morning before heading off to work.

I start my dirt hole sets by making sure I'm facing into the prevailing wind and dig the dirt out in a trench fashion about 12 to 15 inches long, 4 to 5 inches deep and no more than 4 inches wide with a slightly wider spot to place the trap in. The hole is dug at a 45-degree angle away from the trench and at least 4 to 5 inches or more deep. I want the fox to spend some time walking around in the trench, trying to figure out how to get the food or smell out of the hole. The longer it stays in the trench the more chance it has of stepping on my trap pan. Because the trench is narrow it helps to focus the fox in the correct position, and because it is lower than the accompanying ground surface the fox has to commit its weight to its front legs when it steps down. All of these factors help in the fox placing its foot on the pan.

Anchoring your trap is also important. I use both earth anchors and/or a double-staking method with 15- to 18-inch rebar stakes, depending on the soil type. As with the variations of this set type, there are many options for staking your traps and you should choose which works best for you and your soil types.

There are many variations to making a dirt hole set. The best part about it is learning what works best for you. Read as much as you can on the subject, watch trapping DVDs, ride

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along with more experienced trappers and above all, get outside and experience for yourself the excitement and thrill of fox trapping.

Bad Luck Divine Intervention

*By Dick Bodenhorn
Elk County WCO*

IT WAS THE LAST HOUR of daylight on the first Saturday of the 2008 flintlock season when my cell phone rang. The dispatcher called with some information about a hunter who had found where a deer had been killed. It was muzzleloader season, so at first that didn't seem like anything to be concerned about, but that changed when the caller said he'd found a spent .30-06 casing where the hunter had been standing.

I enjoy a good investigation and this one sounded promising. I was a fair distance away from the area and knew it would be dark before I could get there. Investigations that require evidence location and collection in the dark are always challenging, but sometimes there just isn't any other choice.

At least with some snow on the ground it would be easier to figure out what had happened, and I hoped to get some good boot and tire impression evidence. I just love snow when investigating; it doesn't lie about what happened or who did what.

While on my way I called Deputy Andy Brigger and was glad he could help.

We got to an area just above Johnsonburg that is signed up in the Game Commission's public access program. The property is closed to motor vehicles, but we immediately noticed tire tracks. We followed them to the area where the deer had been killed.

Sure enough, with the snow it was easy to find where the deer had been dragged to the vehicle and loaded. Two sets of boot tracks were also evident. We got good photos of both the tire and boot impressions. We collected blood samples from where the deer had been killed, but because there were no entrails, we were concerned about gathering enough evidence for DNA samples.

Following the vehicle's back trail, we found where one of the subjects had exited the vehicle, stalked a short distance and discharged a firearm. We found a spent .30-06 case.

We followed the deer's backtrail to see if we could find any evidence of the bullet or where the deer had been hit. That, too, would be good evidence. Once we got to where the blood trail started we didn't find a bullet mark, but we did find two blood trails from two deer. One was a heavy trail that led to where we found the boot tracks, and where the dead deer had been loaded into the vehicle. The other set of bloody deer tracks had boot tracks following it. It was clear that both deer had been hit, but we weren't sure just how it had occurred. One deer was hit fatally, and another wounded. Could it have been from one shot?

We took up the deer/boot trail and followed it across the top of the hill. The blood wasn't much and it appeared likely to be a gut-shot deer, but we still collected samples for DNA testing. We, as well as the boot tracks of the shooter, followed the deer right to the edge of town, where it then headed down into the yards and streets within Johnsonburg Borough.

At that point the poacher had quit tracking and left the trail. It was going to be harder to follow the deer trail there, because the snow was melted in many places. Andy and I debated the situation for a bit and decided we would come back the next morning, because it would be easier to locate evidence, and also because we didn't want to be wandering around in backyards with lights in the middle of the night. Besides, we had other evidence to look for and sort out, maybe even locate the suspect vehicle. The vehicle tracks were pretty distinctive, and with Johnsonburg being such a small town, we thought we might be able to locate the vehicle that night.

We hiked back to our vehicle and started following the tracks of the suspect vehicle. They lead us back deeper into the closed lands to where the occupants had stopped, unloaded, field-dressed the deer and tried to cover the entrails with leaves and snow. Now we had a good DNA sample from at least one of the deer. We also got more good quality boot and tire

impression evidence. From there the vehicle tracks lead back out of the closed land and onto the streets of Johnsonburg.

I radioed the Johnsonburg Police and set up a meeting to get their help in locating a short wheelbase vehicle, which we believed to be a small SUV. They quickly gave us a couple names and general areas to look for vehicles matching that description. They agreed to keep an eye out during their patrols and to call if they located anything promising.

We then headed out to an area to check out an individual that the police had mentioned. The individual wasn't home, so we decided to call it a night and catalog our evidence and get it into storage. We also contacted Deputy Ron Beeler and arranged to all meet the following morning to continue the investigation.

The next morning was warmer and the snow was melting as we headed to Johnsonburg. We drove to the top of the hill and picked up the trail of the injured deer where we had left off the night before. It was important to locate the deer, because finding a bullet in it could be vital in proving our case. Besides, these guys shot two deer and I wanted to charge them with both deer and have a solid chance of winning it in court.

With much of the snow melted out of the yards, following the sparse blood trail was slow, and after going through several yards we found where the trail seemed to end, in a pool of blood at a bloody bed near a street and garage.

We talked to several residents, but they either didn't see anything or were not willing to tell us what they knew. We did find ATV tracks nearby, and I wondered if someone picked the deer up. It appeared that we reached a dead end.

We decided to take a more direct route back to our vehicle, through the borough streets rather than back over the hillside. As we came out one of the streets where there was still some snow on one lawn, we spotted deer tracks and a blood trail.

The injured deer traveled within a few feet of the side of a house and down through the front yard to a city street. It crossed the street and into a little patch of woods, where once again the trail ended in an area with no snow. We did, however, spot a drag mark heading back up to the street. While we were looking around for any evidence, a truck came up the street and turned into a driveway near the house we had just walked past, and within sight of where the deer died and had been dragged out.

My first thought was that the deer had been loaded in a vehicle, but the drag mark headed right up the driveway of the house, where the deer had just come down through and where the truck just pulled in. I figured that the guy saw the deer down in the woods and retrieved it instead of letting it go to waste. Perhaps a violation, but not really the one we were looking for.

I told the deputies to get the vehicle while I talked to the homeowner. Once I got to the top of the driveway, because there was still some snow on the ground, I noted that the tire tracks matched the tracks of the vehicle we were looking for. Next, beside the vehicle were two sets of boot prints that matched the prints found where the deer had been shot up on the hill a half mile away. Wow, this just can't be, I thought.

I decided to wait for my deputies to get back before I knocked on the door, and when they arrived I filled them in on the new evidence. After I knocked on the door, a man opened it and I introduced everyone, explained that we were conducting an investigation and asked what he knew about the deer.

He said he had been gone for a couple days, but some of his family members could have used his garage. We walked out to the garage and I showed him the evidence in the snow. I explained that he could sign a consent to search form, or wait until we obtained a search warrant. He agreed that someone had a deer in his garage, but he had nothing to hide and was willing to allow a search.

After the appropriate paperwork was completed, he opened the garage door and we collected blood and hair samples from knives, saws, a sheet of plastic and the floor, but there was no deer.

The homeowner made a call and asked the person on the other end of the line to come up to his house. Soon, two younger men arrived who turned out to be a nephew and his friend. They told us they got a couple deer with muzzleloaders the previous day and processed them in the garage.

I explained to them that we had reason to believe the deer weren't shot with muzzleloaders, and we had evidence that led us to them. I explained that we would need to see their licenses, firearms, boots and the vehicle they hauled the dead deer in.

Initially, they didn't want to cooperate, saying they had legally harvested a couple of deer. I further explained that we had enough evidence to make application for a search warrant to obtain all of those things and that the items would be sent to the lab for analysis. When I mentioned having a .30-06 casing one of the individuals was slightly shaking his head no while the other was nodding yes. Then I knew who owned the gun I needed.

I explained that once the lab work was done, if it came back positive to them, that lab fees would be added to any fines due as part of the costs of prosecution. I then told them I'd give them a few minutes to converse and decide if they wanted to cooperate, or if I was going to obtain a search warrant for guns, boots and deer parts.

The two walked off a short distance with the one's uncle. After a few minutes the two suspects walked over and wanted to know what kind of fines they were facing. From that point on they were cooperative.

It wasn't long before we had photos of their boot soles and examined the tires from the suspect vehicle. We also had the meat from the two deer and signed confessions from the two suspects. It turned out they had each shot one of the deer with the same rifle.

Before we left I explained that I would file the charges without submitting the evidence to the lab, to save them some money, but if they opted for a hearing, I would withdraw those charges, send the evidence to the lab and then, should the results come back as expected, I'd re-file the original charges.

Charges were filed on the two guys for their involvement in taking two deer illegally, plus one for driving on a closed road. They pled guilty, paid their fines and are now serving hunting license revocations.

The interesting thing about this case is that although we had enough from the local police to go talk to one of the suspects because his vehicle seemed to be right, we might not have been able to get enough for warrants. That is, until the following day when we found where the deer had been dragged into that garage. If we had found the vehicle the night before, that might not have happened. If we had gone back to our vehicle the same way we came down through the yards Sunday morning after losing the blood trail, we would never have found where the deer had ended up.

What if they hadn't found it and it had just died and been lost in that little patch of woods? What if they hadn't dragged it to the garage where I could find the evidence of their vehicle, boots and the first deer? What are the odds of an injured deer covering a half-mile, leaving the woods to travel through yards and streets, only to die where the person responsible for its death could drag it right into the garage with the other illegal deer? What are the odds of all of those things working out against the poachers in this case?

Over the years I have investigated many cases where I swear someone, or something, with a lot more authority than a "game warden" has stacked the deck with bazaar events that put the evidence right where it was needed to bring a wildlife criminal to justice. Was it just luck? You'll have to decide that on your own, but for me, I already know what I believe.



Deer Sex in the 21st Century: Part 2

By J.T. Fleegle

PGC Wildlife Biologist

LAST MONTH everything you thought you knew about the rut was turned on its ear. Tests confirm that does breed with more than one buck and 20 to 25 percent of the time twins aren't even full siblings. Has the deer world gone mad? How can dogma decades old just be tossed aside like yesterday's trash? It's simple. We call it science and research. Sometimes theories are supported, sometimes they aren't. Up until the turn of this century, DNA fingerprinting of deer was a pipe dream. It just didn't exist. All the research supported the theory of a male social hierarchy in which those at the top won the breeding rights with any and all does that crossed his path.

With the advent of DNA technology, however, now we can "see" what we couldn't before. This new knowledge may come as a shock to us, but deer sex has been happening this way for eons. It's just taken us 100 years to realize it. So what is going on if the "prince of the forest" is just another face in the crowd?

White-tailed bucks don't have harems or territories. They form a "tending bond" with a doe in estrous, staying with her for 24 to 48 hours. Does live in small groups and bucks chase individual does. The majority of does come into estrous at the same time. That means hundreds of thousands of does need to be bred during a 2-week period. Because bucks don't have harems or territories, they are stuck courting one doe at a time. That leaves the door wide open for all bucks to find one of those hundreds of thousands of does looking for a romantic encounter. No matter how dominant a buck is, he can be in only one place at one time.

Okay, but certainly the larger, more dominant bucks do more of the breeding. Sorry. An ongoing long-term study shows that most males only sire one fawn per season, and over their breeding lifespan, the average isn't even two. The most successful bucks still have few fawns, and breeding success cannot be predicted by antler characteristics. Yearling males, despite holding the lowest position on the deer dominance totem pole, even breed. In fact, yearlings are part of the breeding scene in all populations studied, even those with a large portion of males 3.5 years and older.

In the end, deer will keep having sex like they always have with no regard to our silly theories and assumptions. Everybody gets in on the action, so let the romance continue.

2009-10 Small Game and Furbearer Harvests

By Robert Boyd, Wildlife Services Division Chief, and Melanie Weaver, Wildlife Research Associate, Survey and Statistical Support Section

EVERY YEAR the Game Commission uses hunter surveys to learn about small game and furbearer harvests and hunting/trapping effort. Our ability to manage wildlife effectively and maximize recreational opportunities without jeopardizing our wildlife heritage are improved through the cooperation of dedicated sportsmen who take the time to provide us with a summary of their hunting/trapping seasons. In March 2010, following the hunting and trapping seasons, a sample of Pennsylvania's hunters and trappers was surveyed to determine their success and hunting effort. Each purchaser of a general hunting license had a 1-in-50 chance of receiving a Game Take Survey and each purchaser of a furtaker license had a 1-in-5 chance of receiving a Furtaker Survey. A total of 18,517 Game Take questionnaires and 5,235 Furtaker questionnaires were mailed. For the Game Take and Furtaker surveys, respectively, 10,165 and 3,186 returned questionnaires were processed.

Overall, between 2008-09 and 2009-10 hunting seasons, harvests of 6 of 10 small game species decreased (Table 1). The number of hunters decreased for 4 small game species and increased for 6 (Table 2). Harvest per 100 hunter-days decreased for 6 of 10 small game species (Table 3).

Furtakers and furbearer harvests have remained relatively stable or increased since 2005 (Tables 4 and 5). The furbearer harvests increased for 5 of 9 species (Table 4), and the number of hunters/trappers of furbearers decreased for 8 of 9 species (Table 5), between the 2008-09 and 2009-10 seasons.

A question was asked to assess the percent of hunters checked by a wildlife conservation officer during any of the 2009-10 hunting seasons. Eight percent of hunters reported being checked, which was similar to the previous year (9%).

We also asked resident junior hunters if they participated in youth waterfowl, pheasant, squirrel or spring gobbler hunts. Overall, 7,029 resident junior license buyers participated in youth hunts. Participation and harvest results by species are provided in Tables 6 and 7.

For a full report of Game Take and Furtaker survey results, including results back to 1983, go to our website, www.pgc.state.pa.us, and click on Resources then Reports/Minutes. The reports are found under Annual Wildlife Management Reports.

We would like to thank all of the hunters and trappers who completed Game Take and Furtaker surveys. Their time and dedication to hunting/trapping and our wildlife heritage are greatly appreciated.

Table 1. Estimated harvest by species, 2005-2009.

Year	Rabbit	Grouse	Squirrel	Pheasant*	Woodcock	Quail*	Dove	Hare	Woodchuck	Crow
2005	428,414	58,596	646,033	175,676	37,792	2,891	409,769	1,522	892,391	188,460
2006	409,350	89,145	784,741	141,775	39,782	1,228	384,625	1,310	910,654	222,382
2007	418,139	82,020	674,991	168,094	26,924	4,507	416,844	685	840,523	182,320
2008	463,935	108,693	708,898	110,331	41,556	1,097	409,837	783	993,207	183,203
2009	419,721	75,997	635,193	151,737	15,171	3,452	316,930	1,525	710,411	268,711

* Estimates exclude harvest on shooting preserves.

Table 2. Estimated number of hunters, 2005-2009.

Year	Rabbit	Grouse	Squirrel	Pheasant*	Woodcock	Quail*	Dove	Hare	Woodchuck	Crow
2005	149,647	112,210	166,476	105,508	13,615	3,222	41,328	5,033	71,682	23,380
2006	145,712	105,282	174,151	96,590	11,978	3,322	40,145	5,211	80,522	26,880
2007	135,956	96,429	154,653	90,548	12,574	3,112	40,166	3,030	75,554	23,228
2008	137,842	102,139	171,786	86,052	11,709	2,396	39,780	2,890	80,116	25,706
2009	139,772	104,228	157,907	91,549	9,935	4,412	37,895	4,703	69,407	31,519

* Estimates exclude number of hunters on shooting preserves.

Table 3. Estimated harvest per 100 hunter-days, 2005-2009.

Year	Rabbit	Grouse	Squirrel	Pheasant*	Woodcock	Quail*	Dove	Hare	Woodchuck	Crow
2005	47.8	9.8	70.0	37.8	56.7	23.9	189.9	17.0	98.7	118.7
2006	47.5	15.3	84.9	31.8	57.3	8.4	194.8	12.0	92.3	131.6
2007	50.7	15.3	78.6	41.4	38.5	42.4	224.6	10.1	87.7	102.6
2008	58.6	18.7	79.3	29.8	63.4	10.9	221.8	15.5	94.7	108.2
2009	51.4	14.6	74.3	39.2	33.6	16.8	177.5	16.8	88.7	137.5

* Estimates exclude effort on shooting preserves.

Table 4. Estimated harvest of furbearers, 2005-2009.

Year	Raccoon	Muskrat	Red Fox	Gray Fox	Opossum	Skunk	Mink	Coyote*	Weasel
2005 ^b	106,082	70,995	40,551	17,616	43,720	9,977	9,335	20,377	567
2006 ^b	138,640	121,167	45,512	20,754	48,102	10,687	12,680	21,601	487
2007 ^b	121,446	72,174	52,000	18,613	41,168	9,818	10,004	28,974	813
2008 ^b	142,808	74,059	44,745	20,845	54,273	12,331	8,632	23,699	504
2009 ^b	112,550	63,988	37,418	13,793	37,270	8,314	7,261	30,386	468

* Combines estimates from Game Take Survey and Furtaker surveys.

^b Estimates are minimum estimates that do not account for combination licenses.

Table 5. Estimated number of hunters and trappers of furbearers, 2005-2009.

Year	Raccoon	Muskrat	Red Fox	Gray Fox	Opossum	Skunk	Mink	Coyote*	Weasel
2005 ^b	8,434	3,815	9,583	7,358	4,479	2,813	2,997	35,010	714
2006 ^b	10,606	5,630	11,331	8,264	5,669	3,603	4,194	36,175	1,325
2007 ^b	10,131	4,272	10,628	7,811	5,307	3,484	3,674	37,792	1,447
2008 ^b	11,498	4,687	12,426	9,561	6,344	4,143	3,617	40,982	1,466
2009 ^b	8,702	3,261	6,651	3,953	4,482	2,587	2,147	40,648	203

* Combines estimates from Game Take Survey and Furtaker surveys.

^b Estimates are minimum estimates that do not account for combination licenses.

Table 6. Estimated number of resident junior license holder participants for Youth Hunts, 2006-2009.

Year	Waterfowl	Spring Gobbler	Pheasant	Squirrel
2006	1,171	8,976	5,660	7,652
2007	254	5,911	3,874	6,165
2008	682	7,354	5,272	8,941
2009	417	1,876	2,003	4,713

Table 7. Estimated number of resident junior license holder harvests for Youth Hunts, 2006-2009.

Year	Ducks	Geese	Spring Gobbler	Pheasant	Squirrel
2006	766	153	613	3,218	12,259
2007	508	888	1,650	5,964	18,101
2008	409	0	1,638	3,412	29,143
2009	1,355	313	1,772	3,671	17,453