

Virginia's Bobwhite Legacy

A History of the Bobwhite Quail and Its Management

By Mike Fies, [Virginia Wildlife magazine](#), March 1997.

No other game bird embodies Virginia's rich Southern heritage like the bobwhite quail. A pair of well-trained bird dogs staunchly "honoring" each other's point, a thunderous covey rise in a field of golden broomstraw, and the sound of a weathered double-barrel shotgun piercing the crisp morning air. These are the things that traditions are made of. Sadly, Virginia's quail hunting tradition is dying a slow and painful death in the Old Dominion. In response to declining populations, many long-time quail hunters have given up their cherished sport. Those dedicated few who perpetuate the quail hunting legacy must often reminisce about the "good ol' days" to boost their spirits after disappointing days afield.

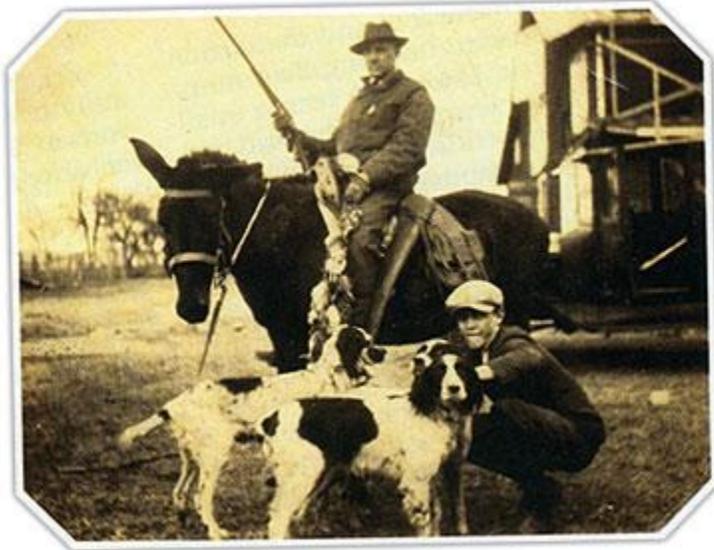


"What happened to all the quail?" is probably the most frequently asked question by Virginia sportsmen. It's a difficult question, but a fundamental one that must be answered if we ever hope to reverse the bobwhite decline. Much insight into the problems that quail currently face in Virginia can be revealed by looking at the bobwhite's rich and storied past.

Although many quail hunters might find it difficult to believe, the bobwhite is probably more abundant today than it was during precolonial times. When the first colonists reached Virginia's shores in 1607, the landscape was comprised primarily of mature woodlands that were generally not suitable quail habitat. Early accounts, perhaps exaggerated, described these forests as being so expansive that a squirrel could travel the entire length of the eastern United States without ever coming down from the tops of the trees or catching a glimpse of sunlight on the forest floor! Other descriptions of precolonial forests characterized them as park-like woodlands "so free of vegetation that a man could gallop a horse in any direction he wished, being halted only at rivers and creeks." Most of the trees in these cathedral-like forests were hardwood species, like oaks, hickories, chestnut, and beech. Their thick canopies obstructed nearly all sunlight from the forest floor, causing them to be almost bare of understory growth.

Less than one percent of precolonial Virginia was believed to have been open-land habitat suitable for quail. Most of these openings were created and perpetuated by native-American Indians through the repeated use of fire. Large areas were often burned for hunting purposes and for producing food for game animals. Smaller clearings were created around villages and for planting agricultural crops. One of the most extensive cleared areas was called "The Barrens," extending northward from the Shenandoah Valley to southern Pennsylvania. This large grassland was more than 1,000 square miles in size and probably supported large numbers of quail. Although bobwhites were locally abundant in these cleared areas, the Indians rarely pursued them because of their small size and relative difficulty to bag.

As European colonists began to clear additional lands for agriculture, quail gradually became more plentiful. Using farming methods learned from the Indians, land was cleared by girdling trees and planting rows of crops between the standing trunks. Cropped areas were burned annually before planting and undoubtedly produced excellent habitat for quail. Other lands were also cleared to obtain timber for building houses and firewood.



Although quail were not yet abundant statewide, bobwhites were plentiful in the cleared areas occupied by early settlers. The first mention of quail in the "New World" was published by Captain John Smith in 1612. Other accounts in the late 1600's described quail, usually referred to as "partridges," as being "so plentiful and so tame that they come into the barnyards." In 1702, another author wrote that "Partridges were numerous and tame. It is not an uncommon sight to see them eating with the chickens." Because quail were readily available and their meat was highly prized for food, colonists shot these "partridges" for table fare at every possible opportunity.

As cleared fields were planted repeatedly to the same crops, the soil eventually began to lose its fertility. Land was abundant and slave labor was readily accessible, so the common farmer took few measures to conserve fields with depleted soils. As old fields were worn out, new areas were simply cleared to replace them. Many additional acres of forested land fell to the early settler's ax. These newly cultivated areas were often located in close proximity to the abandoned fields,

creating ideal conditions for quail. As a result, the bobwhite became an increasingly abundant byproduct of pioneer agriculture.

Farming methods changed little during the early 1800's. Eventually, the iron plow was introduced and animal manure was found to be useful as fertilizer. By plowing deeper and fertilizing the formerly infertile soils, many abandoned fields were gradually reclaimed for agricultural purposes. Areas that had grown too thick for quail were restored to prime habitat once again.

With the abolition of slave labor following the Civil War, many lands were abandoned and large plantations were frequently subdivided into smaller farms. Most of landowners in the Piedmont and Tidewater regions of Virginia were not accustomed to cultivating their own lands and commonly utilized the services of tenant share-croppers. Under this system, tenant farmers generally took less care of the land than the landowner had done previously. Many abandoned fields were quickly invaded by broomsedge, ragweed, and native legumes that created favorable habitat for quail. Fencerows became increasingly unkept with briars and shrubs. The zig-zag pattern of the split-rail fences made them almost impossible to cut next to, and these areas soon grew thick with excellent escape cover for quail and other small game. It was a time of plenty for the bobwhite and Virginia quail populations probably reached their peak during this period.

Market hunting was commonplace during the mid to late 1800's and was responsible for the near depletion of certain game species like turkeys and grouse. Quail populations, however, were relatively unaffected, even though large numbers were commonly sold in the open market. According to one Virginia writer of this day, quail continued to thrive despite being "snared, gunned, baited, trapped, hunted, shot at and worried." It wasn't until 1885 that legislation was first passed in Virginia to protect quail. This law, which applied only to Piedmont counties, made it illegal to hunt, kill, sell, or buy quail from January 1 to October 15. A similar law that applied to the remainder of the state was enacted in 1904.



It was during this heyday that quail hunting became symbolic of Southern aristocracy. Hunting bobwhites was considered to a sport of privileged southern gentleman, even though many

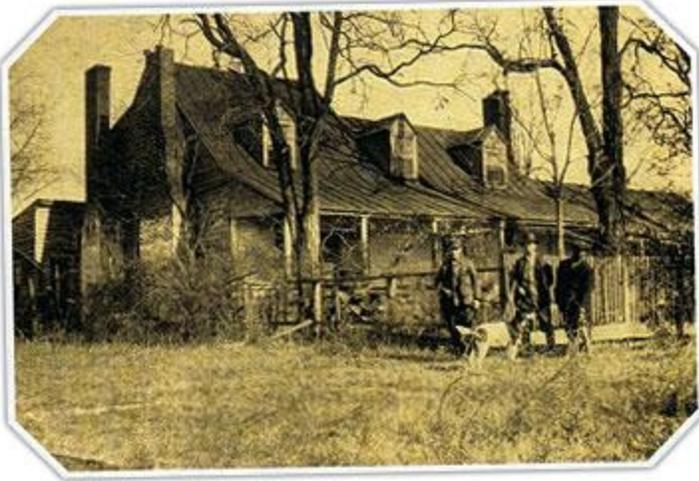
"Yankees" migrated South during the winter months to hunt on the larger plantations. Alexander Hunter, a wealthy Virginia sportsman of the Old South, emphasized the importance of quail hunting to the economy: "Plain, unpretending bobwhite furnishes at least one-half of the sport in both North and South today. Exterminate him, and every gun manufacturer in the land would fail; every ammunition factory would go to the wall ... Not only this, but every kennel in the land, whose combined capital runs in the millions, would be broken up, and blue-blooded setters and long-pedigreed pointers would not bring the cost of their collars ... Yes! a wonderful bird is the little brown-coated, shy partridge, who is as much the friend of man as the dog who hunts him."

Unfortunately, this quail utopia was short-lived. Landowners and sportsmen soon began to notice that quail numbers were declining. According to an early Game Department report, quail were delivered a particularly devastating blow just prior to the turn of the twentieth century. This event was described as follows: "In February 1899, a severe snow storm swept Virginia. The snow fell to an average of three and one-half feet on the level, and for three weeks the thermometer was often below zero, and never much above. In 'Partridge' history, this was the 'Great Plague'. It almost killed the whole species ..."

Although bobwhites possess the inherent ability to recover from such disasters, conditions were never again as favorable for quail as they were during the late 1800's. As the twentieth century progressed, Virginia became increasingly urban and the amount of farm land decreased accordingly. At the same time, crop production increased on lands that were being farmed more intensively. A self-sufficient agricultural system, in which most crops were raised for a farmer's own use, was gradually replaced by a system in which farmers became businessmen who produced commodities for sale. Stiff competition from other areas of the country forced farmers to develop more efficient farming methods that generally had adverse impacts on quail numbers.

In its first annual report of 1917, Commissioner John P. Parsons of the newly created Department of Game and Inland Fisheries reported that quail populations in Virginia were low and that action was necessary to bring their numbers back. Later that year, a quail breeding program was initiated and Virginia soon led the nation in the number of captive-reared quail produced. In 1922, 1,200 bobwhites were raised at the Game Farm and released on "sanctuaries" throughout the state. These "sanctuaries" included more than 100,000 acres of privately-owned land that the Department leased for a minimum of three years.

At the same time that bobwhites were being raised at the Game Farm, large quantities of quail were imported from other areas and restocked in Virginia. Most of these imported quail came from Texas or Mexico. According to Department records, 1,260 Texas quail were released in 1927 and 6,200 Mexican quail were released the following year. More than 10,000 additional Mexican quail were released in 1929. The cost of these Mexican quail was approximately \$2.00 each and officials soon realized that not enough birds could be purchased to significantly increase wild populations. Also, these Mexican quail were smaller in size, did not overwinter well, and were considered to be less "sporting" than our native bobwhites. To this day, many long-time hunters who kill an undersized quail (usually a late-hatched juvenile bird) mistakenly blame their experience on the genetic influences of Mexican quail that were stocked nearly 70 years ago!



By the 1930's, efforts to restore quail were once again focused on the propagation of pen-raised birds. In 1931, the Department's policy was to stock pen-raised quail only on areas that were closed to hunting for one year following the release. For the first time, game managers also began recommending habitat improvements, particularly the establishment of Korean lespedeza field borders to improve food resources. According to a Department report, game wardens distributed approximately 15,000 pounds of Korean lespedeza seed to interested landowners in 1932.

Private individuals also began to rally behind the Department's efforts to save quail. Mr. G. B. Collins of Newport News offered a \$1.00 reward for each quail nest that was saved in a harvested field. The rewards was only paid if the saved nest subsequently hatched, a determination that was made by the local game warden. Records show that Mr. Collins paid about 260 claims for "saved" nests.

Despite these valiant efforts, quail populations in Virginia continued to decline. To counteract these losses, the Department devised a plan where even more quail could be released throughout the state. Pairs of adult quail were distributed as brood stock to anyone who agreed to release all birds that were raised into the wild. Clutches of eggs were also distributed as part of the plan. The results of this program were disappointing; only 184 adult birds and 28 clutches of eggs were distributed statewide.

During the early 1940's, biologists began to seriously question the value of stocking pen-raised quail. Areas where large numbers of quail had been released seem to have no more birds than unstocked areas. Soon it was the general consensus that stocking pen-reared quail into unoccupied areas did not result in the establishment of new populations, usually because habitat conditions were sub-optimal. Furthermore, stocking birds into favorable habitat was deemed unnecessary because it was believed that native birds would colonize these areas. As a result of this change in philosophy, the number of quail produced at the Game Farm gradually declined. Soon, quail propagation efforts were abandoned in favor of experimental work with other exotic game birds like pheasants and partridges. When it was all said and done, more than 100,000 pen-raised quail had been liberated throughout the state without satisfactory results.

During the late 1950's, the never-ending search for a "better" game bird led the Department to experiment with the Coturnix quail (also known as the "button quail" and "stubble quail"). A native of Asia and Europe, its principal attraction was a high reproductive rate. Hens were said to lay between 150 and 200 eggs per year and two generations of birds could be raised in captivity during a single season. Enthusiasm for this species was high among sportsmen throughout the United States as sporting magazines heralded the arrival of a new quail era. In 1956, Virginia purchased 25 pairs of Coturnix quail from the Missouri Department of Conservation. More than 2,800 young were produced at the Game Farm during the first laying season. By 1957, Coturnix quail had been released in every county in Virginia. The experiment quickly turned out to be an expensive embarrassment, however. The Coturnix quail, known to be migratory in their native range, quickly scattered to the winds after release. Banded birds released in Virginia were recovered in North Carolina, South Carolina, Georgia, Pennsylvania, and Ohio! Needless to say, the Game Department's fascination with Coturnix quail was short-lived.



As the futility of restocking quail became increasingly apparent, game biologists began to focus on improving habitat as the best way to increase bobwhite numbers. Unfortunately, this was no simple task, since Virginia's agricultural landscape had been drastically altered during the first half of the twentieth century. Changing land use patterns and increased farm technology resulted in the loss of many acres of formerly good quail habitat. Farms that were once typified by a diverse assortment of small crop fields had been gradually transformed into large fields of intensively managed monocultures. Tractors and bulldozers were now commonplace and allowed for the easy removal of fencerows that hindered the use of large farm machinery and did not fit the desired image of a "clean" farm. The removal of these fencerows also resulted in the loss of important escape cover, nesting habitat, and travel corridors for quail.

Quail numbers also declined in response to the increase in cattle production that took place during this period. The rough pastures and fallow fields formerly used for grazing purposes were "improved" by planting sod-forming grasses like fescue. Fields that were converted to fescue could be grazed much more intensively, but offered little in the way of nesting and brood range habitat. The conversion of large acreages of pasture land to fescue was one of the most devastating changes to affect quail during the twentieth century.

During the 1960's and 1970's, things only got worse for the bobwhite. A rapidly expanding human population continued to encroach into agricultural areas. The farm economy dictated that

every available acre be cropped as efficiently as possible and little concern was given to the needs of wildlife. Technological advancements in farm machinery allowed more acres to be harvested with less "waste." Improvements in mowing equipment, particularly the introduction of the bushhog, enabled farmers to clear brushy areas that quail had used as escape cover. Other modern farming practices, like fall plowing, double cropping, the reduced use of fire, and an increase in the use of pesticides also had detrimental impacts on quail numbers.

Although biologists recognized the changes that were taking place, there was little that they could do to reverse the disturbing trends. Without an economic incentive to produce quail habitat, few farmers were interested in spending the time or money to manage their lands for bobwhites. Department personnel began to focus their technical assistance efforts on areas where landowners had a specific interest in quail and were likely to follow their management recommendations. More emphasis was also placed on educational efforts to promote cost-efficient quail management practices on working farms. Public-owned wildlife management areas were used to demonstrate techniques for increasing quail numbers.

Despite the best efforts of dedicated wildlife professionals, the decline in Virginia's quail population accelerated at an exponential pace. The statistics were alarming; U.S. Fish and Wildlife Service data showed that the number of quail heard calling on breeding bird survey routes declined 48 percent from 1966 to 1980. Quail hunters became increasingly concerned and



the Virginia Quail Association was chartered in 1983. In 1985, this group became the first Virginia chapter of a new national organization called Quail Unlimited. Other chapters sprang up throughout the state, and the Department began working closely with Quail Unlimited on a variety of quail management projects. In 1988, the Virginia General Assembly became involved and established a Joint Subcommittee to study the quail decline (House Joint Resolution 114, The Decline of the Bobwhite Quail). Their report to the Governor, published in 1989, was the first major effort to develop a comprehensive quail management plan in Virginia.

As a result of this study, two additional wildlife biologists were hired to work specifically on small game problems. A great deal was accomplished in the years to follow, with particular emphasis placed on education and technical assistance. Numerous quail management publications were developed and workshops on controlled burning, warm season grasses, and habitat management were held around the state. Technical assistance was available for anyone who asked and an unprecedented number of site-specific quail management plans were written for landowners. Research efforts were also expanded and knowledge was gained on the effects of chemical pine release on quail habitat, the impacts of different disking dates on quail food production, and bobwhite nesting ecology.

These efforts were still not enough, however, and quail populations declined to record-low numbers in 1994. Frustrated quail hunters found little consolation in the fact that every other state throughout the Southeast was experiencing similar problems. The Virginia Department of Game and Inland Fisheries had a history of being a leader in the wildlife management profession and the Board expected staff to do more. As a result, an ambitious 5-year Virginia Bobwhite Quail Management Plan was developed in 1996.

The bobwhite quail has enjoyed a rich history in the Commonwealth. Only by understanding the problems of the past, can we hope to preserve quail for the future. This task is not only a tremendous challenge for sportsmen who cherish this noble game bird; it's a responsibility that everyone who loves wildlife must be willing to accept.

Photos courtesy of Darnley Adamson. Quail illustrations by Spike Knuth

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