



# DOWN, NOT OUT!

## Squirrels remain Kentucky's top game animal

By Dave Baker

**T**WO HUNDRED YEARS ago, it wasn't unusual for a hunting party to go into Kentucky's woods and return after a week with thousands of squirrels.

The numbers of gray and fox squirrels in Kentucky's woods today are nowhere near those of the past. Nowadays, a successful trip is coming home with the daily limit of six squirrels. No matter. The adaptability of squirrels and their enormous capability to reproduce have made them the state's top game animal for well over two centuries.

Squirrel hunting is deeply embedded in Kentucky's culture. It gave rise to pioneer community celebrations and the game stew

known as burgoo. Early hunters such as Daniel Boone learned to "bark" squirrels by firing just underneath them, killing the animal without the bullet even touching fur.

Squirrel hunting became a mainstay early in Kentucky's history; shortly after statehood, most of the big game was already gone. By 1810, elk and buffalo had practically been eliminated from Kentucky. Naturalist John James Audubon noted around the same time that vast numbers of deer which once roamed the Ohio River valley of Kentucky had already "ceased to exist."

With other game animals in short supply, squirrels became the primary

source of wild meat. And accounts of the number of squirrels in Kentucky stagger the imagination.

In 1819, Audubon floated down the Ohio River on a flatboat, looking for birds to paint. Near the present-day town of Milton in Trimble County, he began seeing thousands of squirrels plunging into the water and swimming across the river into Kentucky.

Waves of squirrels continued in various places for some 300 miles, until the flatboat was nearly to Smithland in Livingston County. "The boys, along the shores and in boats were killing the squirrels with clubs in

*"I have heard Captains of Steam Boats say that Between Louiusvill and Cincinaita, they have Seen the Ohio River almost Covered with Squirls Crossing From the indianna Shore To the Ky Shore, and the Boat wold drownd Thousand of them,"*  
**Ebenezer Stedman, 1834**



great numbers, although most of them got safe across," the naturalist wrote.

Observers called these movements squirrel migrations. For reasons still being debated, huge numbers of squirrels suddenly had the urge to leave their home territories and swarm into new areas.

Franklin County resident Ebenezer Stedman, whose personal reminiscences of the 19th century were published in the book "Bluegrass Craftsman," noted a similar squirrel movement into Kentucky. "I must relate that this year 1820 there was a Great Emigration of Squirrels From the other Side of the Ohio River," he wrote. "Such immense numbers have never made Their appearance in Ky Since. Thare Could not Be a pound of Shot purchased in Geotown. We Boys had Fun after them."



KENTUCKY AFIELD ARCHIVE PHOTO

Early legislators recognized the threat that huge numbers of squirrels represented to the state's wheat and corn crops. In 1795, just three years after Kentucky gained its statehood, the General Assembly enacted a law compelling "each male tithable to kill a certain number of squirrels or crows."

The natural range of gray and fox squirrels includes the entire eastern United States; squirrel hordes were not limited to Kentucky. In 1749, Pennsylvania collected 640,000 squirrels after offering a bounty for them. In 1808, Ohio required each man to deliver 100 squirrel pelts or pay \$3 in cash.

"Squirrels have a high reproductive capacity," explained John Morgan, small game biologist for the Kentucky Department of Fish and Wildlife Resources. "Nature designed squirrels that way because a lot of other animals eat them. High reproduction is how the species survives."

During years when food is scarce, a squirrel may not breed until it is two years old. When acorns and other mast are plentiful, a squirrel may breed when it's just six months old. Squirrels can produce two litters a year, averaging two-three offspring each time. Female squirrels can reproduce for 12 years.

Prior to settlement, Kentucky had the ideal habitat and food sources for tremendous squirrel populations. Kentucky Nature Preserves officials estimate that forests – the favored habitat of gray squirrels – once covered 75 percent of the state. Another 18 percent of Kentucky was covered in the forest-grassland habitat preferred by fox squirrels.

Early Kentuckians frequently competed in squirrel hunting contests to protect their crops and fulfill their legal obligation, Stephen Aron noted in "How the West Was Lost." These events, usually held after spring planting, could generate harvests



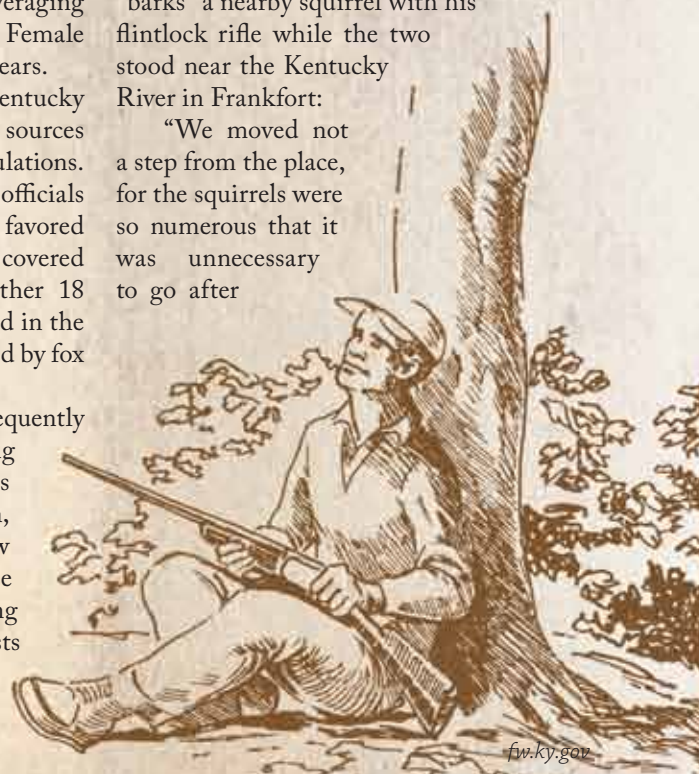
PHOTO COURTESY CLAUDE C. MATLACK COLLECTION, UNIVERSITY OF LOUISVILLE PHOTOGRAPHIC ARCHIVES

**Heavy harvesting of Kentucky's forests led to a decline in the state's squirrel numbers.**

of 5,000 squirrels a day. "Afterwards," Aron wrote, "the furry prey became the featured course in a festive barbecue and burgoo."

Marksmanship became a point of pride among Kentuckians. In this passage, Audubon describes how Daniel Boone "barks" a nearby squirrel with his flintlock rifle while the two stood near the Kentucky River in Frankfort:

"We moved not a step from the place, for the squirrels were so numerous that it was unnecessary to go after



fw.ky.gov

them. Boone pointed to one of these animals which had observed us, and was crouched on a branch about fifty paces distant, and bade me mark well the spot where the ball should hit. He raised his piece gradually, until the bead of the barrel was brought to a line with the spot which he intended to hit, and fired.

"I was astounded to find that the ball had hit the piece of bark immediately beneath the squirrel, and shivered it to splinters; the concussion produced by which had killed the animal, and sent it whirling through the air, as if it had been blown up."

The "Hunter's Feast," published about 1840, contains a story about a dozen men killing nearly 10,000 squirrels while on a week-long hunting trip. Historian Lewis Collins noted one all-day hunt in Madison County produced

more than 8,800 squirrels.

Populations of squirrels, however, remained high despite this hunting pressure.

"I have heard Captains of Steam Boats say that Between Louiusvill and Cincinaita, they have Seen the Ohio River almost Covered with Squirls Crossing From the indianna Shore To the Ky Shore, and the Boat wold drownd Thousand of them," Stedman said of his experiences in 1834.

The "Annals of Kentucky" noted this scene on Sept. 28, 1849: "The woods all through northern and central Kentucky swarming with squirrels, who ravage the cornfields and most of the forest. A similar visitation occurred in 1833, just after the cholera disappearance."

Today's biologists theorize food shortages triggered these mass movements. Some early naturalists blamed pressure from overpopulation. "The (squirrel) army has always come from a land of plenty – a place of ideal squirrel conditions – at a time when they seemed at their best, and further, the time of migration is always just as the broods of the year are full grown," Ernest Seton noted in a 1920 Journal of Mammalogy article.

It took deforestation rather than bullets to significantly reduce the number of squirrels.

fw.ky.gov

"Squirrels are a forest species," Morgan said. "There are some early references that a squirrel could jump from tree to tree in Kentucky for hundreds of miles."

Kentucky's unbroken forest landscape dissolved into patchwork by the rise of the Industrial Revolution of the early 20th century. The state's majestic chestnut trees, which provided wood for numerous pioneer cabins and barns, also fell victim to blight in the early 1900s.

"The loss of the chestnuts, especially in the Appalachian mountains, was enormous," Morgan said. "It was a massive, dominant species of tree. Its loss was catastrophic to squirrels and other wildlife in the mountains."

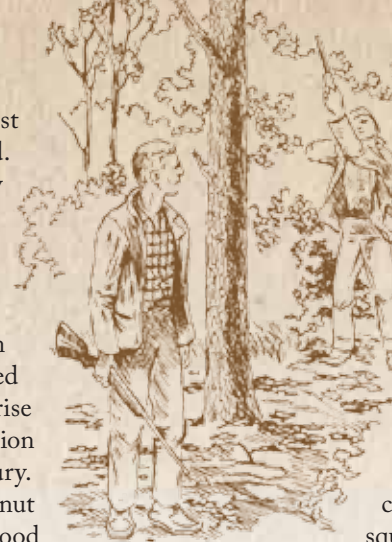
In some areas of forest, one in every four trees was a chestnut. The chestnut was a reliable producer of nuts thanks to its late bloom. Oaks, which bloom earlier, can lose their entire year's crop of acorns with a late killing frost. Chestnuts also began producing nuts after 5-6 years. Oaks, a mainstay of Kentucky's hardwood forests, take as long as 20 years to begin producing acorns.

Squirrel populations rise and fall with food and habitat – and mass squirrel movements of the past have become more

**Approximately 93 percent of people who hunt squirrels come home with meat for the table.**



ROX HILL PHOTO



legend than reality. "There haven't been many documented occurrences in the past 70 to 80 years," Morgan explained. "We received reports of one in the late 1960s, and another in 2004. People reported squirrels swimming across lakes and rivers, and moving into parks and cities. In some cases, there were 20 to 40 squirrels in a single tree."

Morgan said these modern-day squirrel movements were triggered by a lack of food, not overpopulation pressure. Trees simply failed to produce enough nuts to sustain the population. Squirrels had to move or starve.

Despite historical hunting pressure and loss of habitat, squirrels remain the most popular game species in Kentucky. A 2008 survey by the Responsive Management company showed some 87,000 hunters harvest nearly 2 million squirrels a year in Kentucky. Hunters take about 1 million rabbits and 500,000 doves – the next two most popular species – each year.

The popularity of squirrel hunting, however, is diminishing across the country. Nationwide, the number of squirrel hunters in America dropped from 3.6 million in 1991 to 1.8 million in 2006, according to the U.S. Fish and Wildlife Service's Trends in Fishing and Hunting 1991-2006 report. The same report noted Kentucky had an estimated 167,000 squirrel hunters in 1991 – approximately twice as many as today.

Morgan said modern-day hunters shouldn't pass up squirrels. Approximately 93 percent of squirrel hunters are successful, according to the Responsive Management survey. More than half of the hunters surveyed harvested more than 10 squirrels.

"The opportunity to harvest squirrels is much higher than most other species," Morgan noted. "You learn woodsmanship skills that carry over to other kinds of hunting. You increase your marksmanship. Squirrel hunting is also a good training ground for novices and beginners."

Squirrels may not swarm over the landscape as they did a century or two ago. But Kentucky's resurgent forests still offer great opportunities for a successful – and fun – hunt for families and friends. ■