The Last Stand Of the Heath Hen

by MAITLAND A. EDEY Sr.

IT IS hard to believe, when you stand on South Beach in a strong wind -- with the breakers booming, the sand flying, the air so thick with salt that you can taste it -- that you are less than a mile away from the hot, still stretch of scrub oak known as the Great Plain, which covers most of the center of Martha's Vineyard. The winds blow there too, of course, but softly as they are lifted from the ground by the heat of the sun. And in the gentle hollows, the occasional shallow swales that pucker the Great Plain, there is often no wind at all and everything is silent. Not a leaf trembles among the knobbly dry little oaks. The grasses and tangled bushes stand motionless.

So do you stand, motionless, waiting for somebody -- something -- to move on this plain; to stir the grass, to agitate the air, to scratch, snort, cackle. But nothing does; there is nothing to come but dreams, nothing but ghosts. And if you are here late in the day, when the shadows grow long and the fogs roll in from the sea, it is easy to believe in ghosts, in the ghosts of Heath Hens stepping as lightly as the shreds of mist which drift over the bushes, thicker and thicker, pearling your hair.

But not even ghosts come. The Heath Hen is too long gone. The last one walked here in the 1930s and its spirit is worn too thin now for it to return. There was a time when you could watch the edges of the fields in a certain part of the Great Plain, checking the open spots at daybreak, hoping

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against your better judgment that you might miraculously see one. When you didn't, you could always say to yourself that you had merely missed it: "The scrub plain is wide and my field of view is small; perhaps there is one skulking somewhere else."

But that hope dies just as the bird did, just as the hope that it might be saved died. For prolonged efforts *were* made to save the Heath Hen. For one reason or another they all failed. Conservationists were to discover that what man has done cannot always be undone.

This strange and interesting bird, once its numbers had been brought desperately low, resisted the most carefully laid plans to bring it back. Accidents (they always seem to stalk the beleaguered), predators and diseases -- each did its part. But the conclusion seems inescapable that there was a disinclination on the part of the bird itself to continue.

In the end, it just slipped away.

The Heath Hen (*Tympanuchus cupido cupido*) was very much like the western Prairie Hen. Some experts maintain that these are two distinct species; others believe they are geographical races of a single species, sharing a common prehistoric ancestor. Whichever was the case, the Heath Hen resembled the western bird closely, being slightly redder or rustier in its plumage and having minor differences in the length and shape of some of its feathers.

When the Pilgrims landed, the "Headcocke" or "Grous" was abundant on the edges of open barrens throughout southern New England and the Atlantic states. It did not frequent the deeper forests, as did the Ruffed Grouse. Hence, as settlers began clearing the land and providing more and more open country edged by woods, the Heath Hen's outlook was improved, and its numbers may have increased for a while.

In 1840, one author[1] wrote that the Heath Hen had been so plentiful years before on "the ancient busy site of the city of Boston, that laboring people or servants stipulated with

[1] Thomas Nuttall, A *Manual of the Ornithology of the United States and of Canada*," 2nd ed., 1840, p. 800 (quoted in Alfred O. Gross, *The Heath Hen*, Boston Society of Natural History, May 1928, p. 496).

their employers not to have Heath-Hen brought to table oftener than a few times in the week."

But by the mid-1800s, the bird had disappeared from Boston and from many another busy plain. As the settlements grew, it was more and more disturbed by dogs and cats and by continuous shooting throughout the year. To be sure, birds were still being reported in small numbers in New Jersey, in isolated places in New England and on Long Island, but nowhere else. By the end of the Civil War, the only sure place one could find a Heath Hen was on Martha's Vineyard. And from then on its history was lived out among the dense bushes in the center of this Island.

One extraordinary aspect of the Heath Hen's latter days is that of all the bird species decimated by men in North America, it was the first by nearly a hundred and fifty years to have any legislation to protect it. The first Heath Hen bill was in New York State in 1708 and was aimed at preserving the birds on Long Island. There is no record of the bill's provisions having been enforced, or even what those provisions were. Many years later, in 1791, it was followed by another which levied a fine of $2.50 for the killing of Heath Hens between April 1 and October 5. The clerk who read out the bill in the New York Assembly mistakenly pronounced it "an act for the preservation of Heathen. . ."[2] As a consequence many of the legislators present were inclined to vote against it, for they could not see the sense of preserving heathens. Finally, the matter was cleared up and the bill passed. But it was never effective. Poaching was common and became more so when the New York market price for a brace of Heath Hens gradually crept up from $1 to $5 over a period of years.

It is difficult to understand why the Heath Hen needed protection. It was not a sporting target:

The Heath Hen, even when in its prime, was never given a high place among birds by the sportsmen. It was easily shot because of its direct and laborious flight, and the habit of massing in flocks in the open fields. . .[3]

[2] *Ibid.*, quoted in Gross, p. 498. Incidentally, Islanders recall that the local pronunciation of "Heath Hen" was "heth'n," rhyming with "Beth'n." (Elmer Athearn and William Smith, in conversations with the editor.)
[3] Gross, p. 521.

Elisha J. Lewis wrote of this characteristic in the *American Sportsman* away back in 1855:

So numerous were they . . . and so contemptible were they as game birds, that few huntsmen would deign to waste powder and shoot on them. . . As for eating them, such a thing was hardly dreamed of, the negroes themselves preferring the coarsest food to this now much admired bird.[4]

Most of the year, the bird's meat was too bitter to make it worth a hunter's effort, as Allan Keniston, one-time superintendent of the Vineyard reservation, described it:

The heath hen was never considered a good table bird except in the early fall. Later, and all winter, . . . [it lived on] acorns of the scrub oak, which are very bitter, and bayberries, which were used in candle-making. Consequently, after early fall the birds were never hunted hard, hunters spending their time hunting water fowl which were very plentiful in those days.[5]

Tasty or not, the Heath Hen was being killed. They were becoming scarce and Massachusetts legislators, like their New York counterparts, took action:

In 1831 the Heath Hen had become so rare in the state that a special act was passed protecting them during the breeding season, or from March 1 to September 1, under penalty of a two-dollar fine. This partial remedy proved entirely ineffective. . . In 1837, after they had disappeared from the mainland, a special statute was passed, establishing a closed season for the Heath Hen for four years . . . This was extended for five years more in 1841 and in 1844 the fine was increased to $20 . . . and the possession or sale of the birds was forbidden. All these provisions. . . were of no avail, except to protect the few left on Martha's Vineyard. . . In 1855, all protection was removed; still, for five years the last remnant of the race persisted, unprotected, in the wild and busy interior of Martha's Vineyard, where they were not much molested.[6]

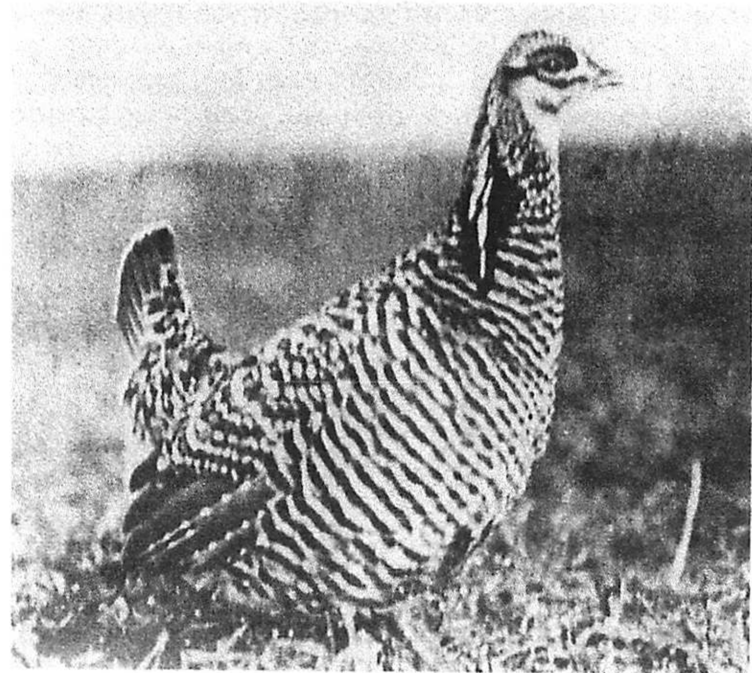
So it was on the Vineyard where, in the late 1800s, the bird established its final refuge. Here, its continued survival was attributed mostly to its shyness, its habit of burying itself away in impenetrable thickets, and its ability, even in an open cornfield, to make itself invisible, squatting down in cover which would seem too sparse to conceal a mouse.

But to balance these qualities were those others which

[4] Quoted in Gross, pp. 521-22.

[5] Allan Keniston, "The Last Years of the Heath Hen," *Intelligencer*, May 1966.

[6] *Ibid.*, p. 504, citing E. H.. Forbush, "Statutory Bird Protection in Massachusetts," *Bulletin*, *Mass. Board of Agriculture*, 1907.



Pinnae of male hen (feather-like appendages) hang limp on the neck when he's not "tooting" or "booming" to attract a mate. Then they are upright, like horns.

made it an easy bird to hunt. When flushed by a dog, it flew straight away, rather laboriously, offering itself as a fat target compared to the Bob White or Ruffed Grouse. Also it congregated, during its more populated period, in flocks of a hundred of more. Even a poor shot could hit a bird or two on a rise as large as that.

However, the real chink in the Heath Hen's armor was in its courting habits. These, as those which may still be observed in the related Prairie Chick, were unique. Like others in this family, the Heath Hen was polygamous. Those males that could attract and hold more than one wife did so. Their method of broadcasting their virility was to gather at daylight in certain ancestral fields or sandy stretches and there to dance and display themselves with great energy for several hours before retiring into the scrub again.

While this ritual was going on, it was relatively easy to

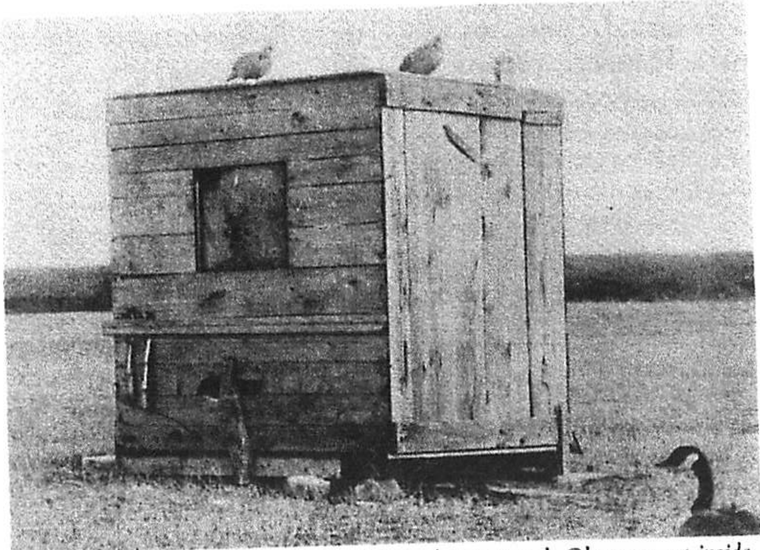
sneak up on the birds, easier still to arrive before daylight and wait for them. In much earlier times, in the years before firearms, it had been said that "cunning natives were accustomed to strew ashes and rush upon them with sticks when [they were] blinded by the dust which they had raised."[7] In the foggy confusion it was often possible to knock a couple of the hens down before they got away.

The courting habits of the Heath Hen almost had to be seen to be believed. By ones and twos, the males would drift from the thickets onto the bare ground, strutting like a turkey gobbler. The bird would appear to grow greatly in size, fluffing out its feathers and lowering its head. Then from the back of its neck would rise two feathery tufts, long, slender pinnates which normally hung downward, to point straight up like rabbit ears. Its tail would raise up, spreading into a fan.

In this bizarre attitude the bird would begin running and strutting around, sometimes backwards and forwards, sometimes in circles. Often, with a loud cackle, it would jump straight up in the air for a few feet, whirling around so that when it landed it would be facing in the opposite direction.

Most remarkable of all was the "tooting" or "booming" which accompanied this display. It was a slow *woo-woo* or *woo-doo-woo*, all on the same pitch. If you were close up, it did not seem to be particularly loud and the squawks and snarls which the birds were making could easily be heard above it. However, it had great carrying power and if fifty or a hundred Heath Hens were tooting, there would be an almost continuous moaning sound hanging in the air which might be heard for a couple of miles. E. H. Forbush, Massachusetts State Ornithologist, likened it to "the subdued and distant echo of many medium pitched steam whistles."[8] Keniston described it as "a sound similar to that made by blowing small blasts of air across the mouth of a bottle."[9] This extraordinary noise was produced by the bird inflating a pair of bright orange air sacs in

[7] *Ibid.*, p. 500.
[8] E. H. Forbush, "The Heath Hen on Martha's Vineyard," *American Museum Journal*, v. 18, pp. 278-285. Also Allan Keniston, *Intelligencer*, May 1966, p. 283.
[9] Keniston, *Intelligencer*, May 1966.



Blind on the "tooting" field around which food was spread. Observers sat inside. Birds on the roof were studied closeup via an adjustable mirror, visible at right.

the sides of its neck. These were generally round and when fully inflated were as big as tennis balls.

The courting exercises of the Heath Hen have been observed in detail by numerous expert ornithologists and there are accounts of vigils in small box blinds on the West Tisbury farm of James Green, one of whose fields was a favorite courting ground. Here, for one, in 1923 came Dr. Alfred O. Gross, a conservationist and ornithologist from Bowdoin College in Maine. He had been hired in a last effort to save the dying species and one of his first acts was to install himself in a blind at 3:30 on a frosty morning in April. There was no sound but the crunch of his boots on the frozen grass as he crossed the field and crept into the blind.

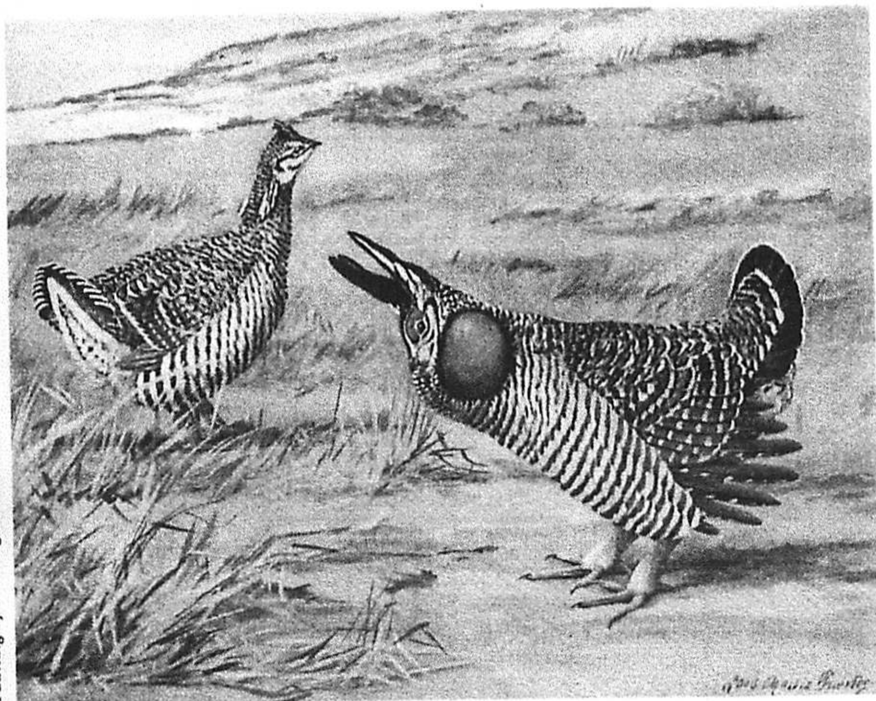
There he sat in darkness for nearly an hour, watching wisps of fog obscure the stars over his head. All was silent. Then, as the first flicker of dawn broke on the horizon, he heard a Bob White, then a Robin, then a Vesper Sparrow. Finally came the first toot of a Heath Hen. His notes describe what happened after that:

4:21 [a.m.] The first toot of the Heath Hen is heard in the distance near

the western margin of the meadow. . .
4:24 The toot is followed by hen-like calls resembling *cac-cac-cac*.
4:27 A Heath Hen appears from the scrub oaks . . . and immediately starts tooting.
4:30 I can now see two birds . . .
4:45 A third bird has appeared on the south. I cannot as yet see the birds to the westward because of the fog, but I can plainly hear their answering calls and toots.
4:50 It is growing lighter. One of the birds has flown to the roof of my blind where I have placed corn . . .
4:53 The bird on the roof is now eating corn. The two other birds . . . are busy feeding but gradually making their way towards the blind. Their feeding, however, is frequently interrupted by their tooting or so-called booming . . . followed by the hen-like *cac-cac-cac*. . . . Frequently one of them leaps into the air to a height of three or four feet and in so doing utters a loud piercing *urrrrrrrrb* . . . followed by a curious laughter-like sound . . .
5:01 The Heath Hens in the western part of the field can be plainly seen and are now approaching the blind.
5:02 One male from each group runs rapidly toward another male in a defiant war-like attitude. When near together they hesitate, lower and waver their heads, leap at each other and strike their wings vigorously as they leap . . . no harm is done . . .
5:51 Four more birds have come on to the field, making seven in all.
5:55 The bird on top of the blind is picking at the corn and makes a great deal of noise . . . At irregular intervals . . . the bird goes through his tooting performance; at other times he merely rests quietly near the edge of the roof. . .
6:30 . . . One bird still remains on top of the blind and I am getting some very fine views of him through a reflecting mirror, offering unexcelled opportunities to study its vocal mechanism. The stamping which precedes the tooting . . . is one of the chief features . . .
6:45 The bird on the roof, for no evident reason, flies away and the two birds on the ground follow, flapping their wings vigorously as they sail off into the seclusion of the scrub oaks. . . [10]

Gross then climbed out of the blind, stiff and nearly frozen. He had seen something which only a handful of scientists and wardens would ever see again. He had watched birds tooting only a few feet from him and had confirmed previous observations that the noise was made while the bird was breathing in, not out, while the sacs were inflating, not deflating. He was to watch the birds many times, he was to count

[10] Gross, pp. 534-536.



Painting by Louis Agassiz Fuertes.

Female and male heath hens, with the male in his characteristic "tooting" or "drumming" condition, pinnae erect and orange-colored sacs on neck inflated.

them, study the activities of the females, analyze their diseases, and compile voluminous statistics on them. He was to feed them and supervise the killing of their enemies.

But he was not to save them.

As noted, Heath Hen protection (in legislative name at least) goes way back, even on the Island. The town of Tisbury in 1842 had voted to restrict the hunting of the hen to local residents in the first ten days of December, and only if "they hunt them without the aid of dogs." However, no serious effort was made to enforce the law and many were "killed . . . by duck hunters crossing the Island to. . . the south shore."[11]

With the growing realization that the Heath Hen was becoming extinct, there developed a demand for mounted birds by private collectors and by museums. "Large prices were

[11] *Ibid.*, p. 505.

paid, and this was an inducement for the market hunter. . . [who] possibly got $20 for it, so he was working a good thing. . . This intensive collecting. . . must be considered a very important factor. . . for the low ebb reached by the Heath Hen at the beginning of the twentieth century."[12]

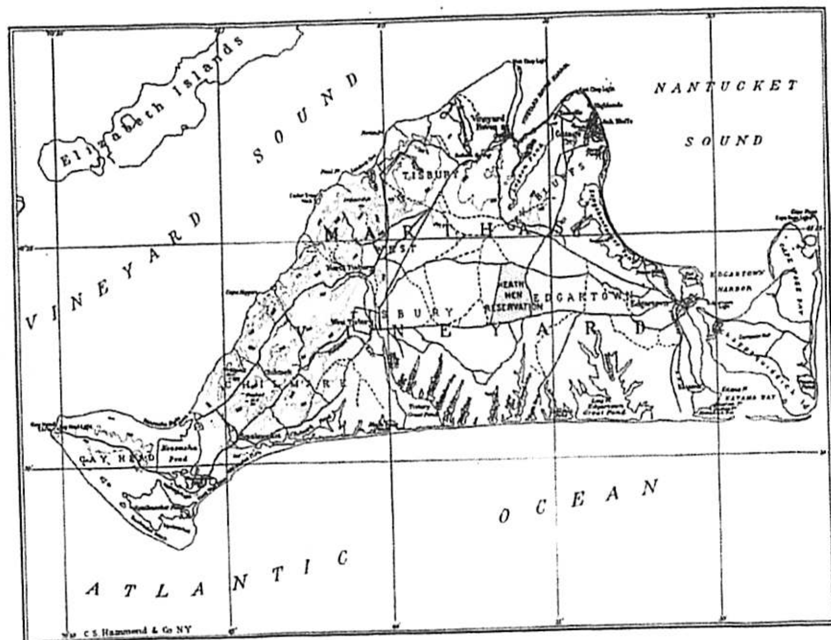
As late as 1870, when the Heath Hen was admittedly extinct everywhere else, inhabitants of the Island towns still hunted the bird. One observer, Charles Hyde, mentioned having seen in a farmhouse around 1890 a feather bolster entirely filled with Heath Hen feathers. That was the same year he reported the total living population as under 200 birds.

By 1896, the count was below 100, much of the decline having been caused by a fire in the scrub plain two years before. There was now great concern for the future of the species. Prominent men in Boston began contributing money and agitating for more rigid protection. In that year, as in other years, Prairie Chickens were shipped in from the Midwest and released, some on the Vineyard's Great Plain and others on the neighboring island of Naushon. Whether the western birds mated with the eastern ones is not known. But the local race did not hang on. In 1905, increased pressure from the State of Massachusetts, the Audubon Society, and other conservation groups led to a five-year closed season on hunting of the Heath Hen. A fine of $100 was set for violators. This was more like it, conservationists thought. But the fine could have been $10,000 and still have been ineffectual if not enforced. And it wasn't -- much.

In 1906 another devastating brush fire swept across the plain. A spring count on the courting ground (the existence of which made possible the precise annual censuses taken thereafter) revealed a population of only 80. The total area on the earth's surface regularly frequented by Heath Hens was now down to under thirty square miles.

Bold action was needed. So in 1907 a most important step was taken. A state preserve was established in the middle of the Great Plain for the Heath Hen to inhabit unmolested.

[12] *Ibid.*



In 1908, 600 acres in the center of the Island were set aside as a reservation for the dwindling species. Map shows the route of the old railroad, by then defunct.

John E. Howland of Vineyard Haven spearheaded the drive. He called the attention of the Commissioners on Fisheries and Game to the imminent demise of the Heath Hen and, through the efforts of Vineyard Representative Ulysses S. Mayhew, a bill was passed authorizing the setting aside of land as a "refuge and breeding area for the Heath Hen." Funds were appropriated and contributions were received from individuals and preservation societies.[13] In 1908, six hundred acres in the center of the Island were purchased. Included with the land was a house, which was later improved to serve as the dwelling of the warden, and a barn. A lease on an additional 1000 acres was signed at a rental of $400 a year, bringing the total set aside for the birds to 1600 acres.

The hen population, then estimated at between 45 and

[13] The town of Tisbury gave $200; West Tisbury, $100. Oak Bluffs, Edgartown, Chilmark and Gay Head apparently did not contribute.

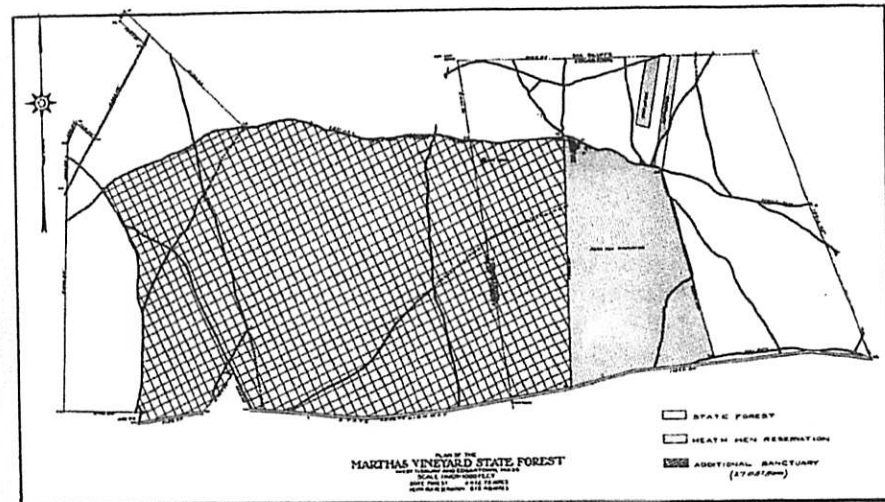
60, began to pick up. In 1909 the number had grown to an estimated 200 and in 1910, the flock totaled 300. By 1913, when William Day was appointed superintendent of the reservation, he estimated the hen population to total 400. On November 6th of that year, he had seen 80 birds in one flock. Fire breaks, 70 feet wide, were cut through the preserve. Crops were planted to furnish year-round food and a campaign was waged against hawks, rats and cats.

These efforts seemed to help, particularly the campaign against cats, of which there were a great number on the Island because of its popularity as a summer resort. Too often, a family which had a cat for a month or two in summer to keep the mice down, or a kitten for the children to play with, would simply drive out to the Great Plain and turn it loose when the time came to go home for the winter. Many of those cats thrived in the wild state, some growing to enormous size. These semi-wild cats had become, Day said, the biggest threat to the Heath Hen.

By spring of 1916 the population of Heath Hens was up to an estimated 2000, a remarkable increase in only eight years. All concerned were greatly encouraged. The birds had spread over most of the Island and their survival seemed assured. So optimistic did Day and others become that plans were made to use Island birds to start colonies in other places.

Their optimism soon died. On May 12, 1916, while a gale was whipping along the Eastern Seaboard, a fire started in the scrub plain. Soon it raged along a mile-wide front, jumping the newly-cut fire breaks with ease. By the following day more than twenty square miles of Heath Hen territory were blackened and desolate. Although there was little evidence that the fire had killed Heath Hens in large numbers, it did destroy eggs and nests. As a result there were few young birds observed that year.[14] The burning left those that did survive with little natural cover against their enemies. Later in the summer, when an unprecedented flight of Goshawks appeared,

[14] Gross explains that the extremely determined manner with which a female hen protects her eggs, refusing to move off the nest, indicates "why forest fires have been so destructive to the species." (p. 547.)



The State Forest began as a heath-hen sanctuary (shaded and hatched). More land was added later. Triangular notch, lower left, is James Green's farm, the hens' favorite "tooting" ground.

the birds had no place to hide. Many were taken off.

Strangely, even after these calamities, the plan to establish new colonies went ahead. Twenty or thirty adult birds were trapped and transported to Long Island and the Massachusetts mainland. All soon died. Some were killed by hawks and owls; others died of various diseases.

It is probable that if the authorities had realized how deeply the population had been cut that summer they would never have made their colonization attempt. But one of the realities in any fight to save doomed species seems to be that such things are not thought of until too late. There is a fatal ineptitude which walks hand in hand with every action taken, and by the time action is taken there is no margin for errors. In April 1917, ornithologist Forbush, after a three-day survey, estimated that there were fewer than 100 birds remaining on the Vineyard reservation.

One year later, Forbush returned for his annual count and this time he saw only 21 birds and estimated the total population at 150. He emphasized the need to have a warden living on the reservation to prevent poaching. Warden Day, who had been head of the reservation since its beginning, had

resigned in 1917 and James Peck was appointed on an interim basis. After Forbush's visit in April 1918, Allan Keniston was named permanent warden with instructions to devote his full time to the protection of the Heath Hen.[15]

Keniston described his new position:

It was my job to see that all plans for the care and protection of the birds were carried out. That meant planting fields of corn, sunflowers, clover and other crops to provide a food supply for the whole year. The purpose was to concentrate them in the center of the five-thousand acre preserve. . . Mrs. Keniston and I occupied the house in the center of the reservation so that we could be on duty at all hours.[16]

Superintendent Keniston stepped up the vermin campaign, getting 19 cats, 35 hawks and 258 rats during 1919. A new procedure for feeding the hens was set up. Experts had learned not to cut grain and leave it in the fields as food. It attracted so many rats that the Heath Hens were driven away altogether. So a policy of feeding the birds by hand in certain places and in limited amounts was adopted. A mass emigration of rats from the sanctuary into neighboring farms resulted and led to a great deal of local criticism of the program. But it worked. After the rats had gone, the birds moved back into their fields and appeared to pick up again. By 1920 there were more than 300 Heath Hens. But things went downhill after that.

In 1921, there were 117 birds
In 1922, there were 60 birds.
In 1923, there were 28 birds.

It was in this extremity that Dr. Gross was called in from Bowdoin College. He noticed immediately that there was a great preponderance of males, which in a polygamous society is a bad thing. The cocks fought among themselves. What was worse, they molested the broody hens and prevented them from raising young. So Gross trapped five cocks, intending to keep them confined during the breeding season. All five contracted a poultry disease and died. James Green, behind whose house was the historic courting ground of the Heath Hen, had

[15] See *Intelligencer*, May 1966, for Allan Keniston's "The Last Years of the Heath Hen."
[16] *Ibid.* The state increased the reservation, now the Corellus State Forest, by purchase of adjacent lands through the years, bringing it to more than 5000 acres, as it is today.

been keeping chickens and geese on the same field. The wild birds were catching and succumbing to the plagues of civilization just as natives of the South Seas had done when measles, to which they had no immunity, was carried there by English sailors. And like the South Sea Islanders, the Heath Hens were hopelessly perverse. They preferred the infected Green farm[17] to their own hygienic reservation next door, apparently for no other reason than that it suited them, as it had suited them for a thousand years.

Still, the taking of males seemed to inject a little pep into the remaining birds, which had begun to get unaccountably listless in the past year or so and were now showing a distressing lack of interest in one another at mating time. So, even though the five he had trapped the year before were dead, and though the total supply of birds was beginning to approach the vanishing point, Gross made the difficult decision in 1924 to remove another four males. This may or may not have been effective. All Gross could tell was that several females were seen that summer with broods of young. Through the rest of the year he permitted himself to hope that the tide might turn again.

But that was the last hope that he or anybody else had. When the birds gathered in the spring of 1925 it was clear that some calamity had overtaken them. No young ones seemed to have survived. The total count was only 25.

Factors over which the human caretakers had no control were taking charge. Gross had noticed, on dissecting the males which had died the previous year, that their sex organs had degenerated. Continued inbreeding was apparently making them sterile. From then on, the males neglected their duties to the handful of remaining females, who in turn became utterly indifferent about the whole thing, confining themselves to strolling about to pick up the corn that was set out. A couple of them became so indolent that they ate while lying down.

Doggedly, hopelessly, Gross redoubled his efforts

[17] Map on page 167 shows the location of the Green farm west of the reservation.

against predators. Conceding that, although it was not the real solution, he had to do something, he killed more cats: 42 of them in 1925 and 120 in 1926. He added more wardens and a vermin specialist to his staff. Soon there may have been more humans taking care of the Heath Hen than there were Heath Hens. As a grim obligato to his other troubles, Gross was forced to admit that poachers were still at work. To avoid arousing local animosity and to extract what comfort he could from this bottomless, discouraging state of affairs, he wrote in his report that there was "less opposition" than there had been -- one of the most pitiful graveyard whistles ever heard. In a short time there would be no opposition whatsoever.

In 1925, with the population at its lowest point, a conference was called at the Massachusetts State House, attended by representatives of the Federation of New England Bird Clubs. It was, Dr. Gross wrote, "one of the most important steps taken to save the Heath Hen from extinction since the establishment of the reservation in 1907."[18] Money was raised to pay for an extra warden to patrol the reservation daily from October 1 to March 1. The extra warden was James Green on whose land the birds had gathered for years. An additional special warden was appointed to control the Heath Hen's enemies, especially cats and predatory birds. Concern had become so high that, Gross reported, "influential people on the Island, who formerly were indifferent, are now taking an active interest in the birds."

In 1926, there were an estimated 35 Heath Hens on the Island.

In 1927, there were fewer than 30.

In 1928, there were three.

That seemed to be the end -- the remaining three were all males. The conservationists came to know them well, for they had taken to hanging around the Green farm where they were fed regularly by Jimmy Green,[19] who had lived there for

[18] Gross, p. 519.

[19] James "Jimmy" E. Green was a native of the island of St. Helena and a mariner. He probably arrived on the Vineyard by way of New Bedford early in the 1900s. Although his obituary does not mention her, some who knew him say he married a Gay Head woman, who died before he did. He died on January 28, 1938, at 72 years. (Our thanks to Leonard and Elmer Athearn.)

LAST HEATH HEN IS DEAD AND RACE IS NOW EXTINCT, EXPERT OBSERVERS AGREE

according to her individual taste. The plots will probably bear signs, indicating that they are planted areas, to prevent picking of the flowers by passersby.

This land by the roadside is in fine condition for planting, as the brush has recently been cut and the stumps pulled by the state road maintenance force, under S. T. Arno. Mr. Arno intended to sow it with grass, but gladly entered into the scheme of planting seeds, being an artist at roadside decorating. Transportation for the Girl Scouts and Mrs. White, with their supply of seeds, has been supplied by William A. Carroll of Vineyard Haven, and the whole plan promises to make a barren road blossom into beauty.

REPLETE WITH FOOD IN FLOODED PONDS,

Bird Fails to Appear on Booming Field for the First Time—All Hope Ends

PLACE AND MANNER OF DEATH UNKNOWN

Extinction Follows Long Struggle Against Odds; Great Plain Kept Race Alive

Somewhere on the great plain of Martha's Vineyard death and

The Vineyard Gazette, *April 21*, 1933, *headlined the end of the Heath Hen.*

many years and had undoubtedly seen more Heath Hens and knew their ways better than any other person. In the fall, Green reported that there were only two left. He continued to observe these two every few days until December 8. On that day in 1928 he saw only one.

When the news got out that the race of Heath Hens was reduced to a single individual, it precipitated a storm among bird lovers everywhere. Gross, a scientist first and a sentimentalist second, became immensely unpopular for his refusal to snatch up all the crackpot suggestions that cascaded from everywhere. Most insistent were the Prairie Chicken enthusiasts. Since those birds were almost identical to Heath Hens, it was argued, why not stir up things by putting a few of them on the reservation? Wearily, Gross pointed out that Prairie Chickens seemed in some obscure way to be as resis-

tant to relocation as Heath Hens. What the mysterious factors were which let them thrive in one stretch of scrub but killed them off in another was not known then, nor is it now. Gross reminded a board of experts that was hastily convened by the State of Massachusetts that well-intentioned people had been pouring Prairie Chickens into Martha's Vineyard and the Elizabeth Islands for years without their getting established. Furthermore, he asked, was he trying to save Heath Hens or to raise Prairie Chickens?

Prairie Chickens were turned down. But this did not daunt the self-appointed geneticists. If Prairie Chickens were so sensitive, why not try something else, some bird that could live anywhere -- pheasants perhaps. Gross could not bring himself to reply that when cats mated with raccoons it would be time to turn pheasants loose with Heath Hens.

Others, particularly editorial writers in big cities, kept insisting that there must be Heath Hens *somewhere*; they couldn't just disappear like that. Nature writer Thornton Burgess, the creator of Grandfather Frog and Jimmy Skunk, offered a reward of $100 to anybody finding another Heath Hen -- a live one. Strangers began coming to the Island and poking around in the thickets, but Burgess kept his $100.

Meanwhile the sole surviving bird lived on. It was seen by Green for several weeks. Then it disappeared. In the spring of 1929, it showed up again on the ancestral booming ground.[20] It was a fine, plump specimen, active and wary, just the kind of bird (you might think) that could propagate an entire race if given a chance. And some ancestral urge to do just that was plainly flickering in it. It stalked here and there, looking hopefully around. It did not toot; that was the trumpet cry of an inflamed male in full sexual vigor, and there was now no rival cock to inflame it, and no hen to delight it. It did fly into a tree and make a feeble display of its feathers for a few moments. This was the first time anybody had seen a Heath Hen do such a thing, and it moved Gross to say: "A

[20] That year, 1929, Allan Keniston retired as superintendent. "There was no longer any reason to maintain a Heath Hen reservation," he wrote. "There were never going to be any more Heath Hens." (*Intelligencer*, May 1966.)

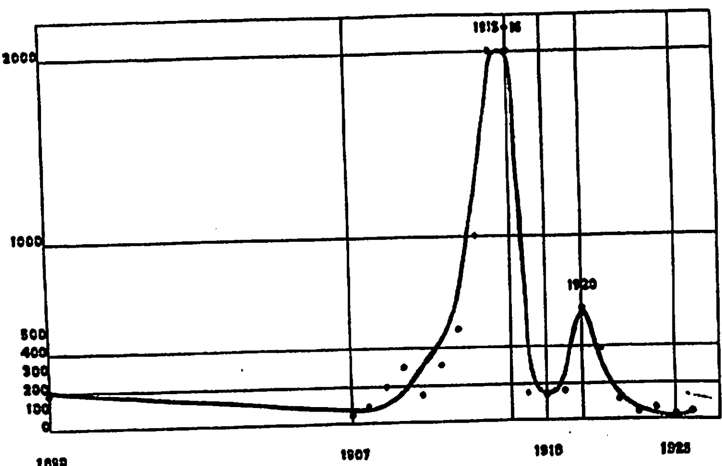


Chart showing the rise and fall of the Heath Hen population on the Vineyard. The curve, estimated from observations, ends five years before the last hen died.

bird bereft of all its companions might well be expected to do that which is unusual."

After the courting season the bird again disappeared, but in 1930 it was back. For a few weeks, Green saw it off and on before it vanished once more. Knowing the species as intimately as he did, Green was certain that he always was seeing the same individual. But the nagging suspicion persisted that there still might be more than one. Dr. Gross, a scientist to the last, had to be sure. He decided that if the bird came back in 1931 he would try to band it.

Dramatically, it returned. It chose a driving northeast storm for its reappearance, picking its way cautiously but steadily to the corn in front of the blind. It ate a few grains, sat for a moment, shook the rain from its feathers and then approached the corncob that baited the trap. The catch was sprung and the bird caught.

What must have passed through Gross's mind as he stared at the creature in his hand, its head poked up in the awkward way birds have when they are held on their backs, its eye bottomless as a lake, its heart racing -- that tiny pump hurrying the last drops of vital blood through its veins, blood

Dr. Alfred Gross, whose monograph was a major source for this article, tenderly holds the last surviving Heath Hen before releasing him after banding in 1931.

that has warmed an entire race and was now down to half a teacup.

Methodically, Gross examined the bird, noting that it was in superb condition, fat, vigorous, virtually free of parasites. He placed an aluminum band No. 407,880 on its left leg, and a copper band No. A634,024 on its right. He smoothed the bird's feathers once and let it go. It ran off into the bushes.

A few days later it was seen again. The bands on its legs twinkled in the sunlight as it walked. After that, Green looked for it in vain.

A year passed. On February 9, 1932 it was back. It was still in good condition, although it was probably at least eight years old by now, the last known chicks having been born in 1924. Green fed it and saw it irregularly for a month, the last sighting being on March 11. He did not see it after that. It did not return in 1933.

Today, 65 years later, somewhere on the Great Plain, two small metal bracelets lie beneath the scrub oak duff.