



MVM@Homeschool

Booming Ben the Heath Hen *Animal Habitats of Martha's Vineyard*

Grade Levels Included: PreK-3

Ages: 4-8

MA Curriculum Frameworks:

PreK-ESS2-1(MA)	K-ESS2-2	2-LS4-1
PreK-ESS2-6(MA)	1-LS1-2	3-LS4-3
PreK-ESS3-2(MA)	2-ESS-2	3-LS4-4
PreK-LS2-2(MA)	2-LS2-3(MA)	3-LS4-5(MA)

Why did the heath hen go extinct?

Background:

The heath hen, a small ground bird related to the prairie chicken, once roamed the North Atlantic coast from Maine to the Carolinas. By the 1800s, over-hunting had pushed the species to the brink of extinction. They survived in just one place: Martha's Vineyard. Even with public support to protect their habitat and limit hunting, the heath hen was still endangered. In March 1932, the last heath hen on earth - nicknamed Booming Ben - was seen for the last time in West Tisbury.

Learning Objective:

Using the story of Booming Ben, students will learn about habitat loss and the unique ecology of Martha's Vineyard. They will be able to identify the factors that caused the extinction of the heath hen and explain how human activity can both harm and help the environment.

In This Package:

- Teacher's Guide & Lesson Plan
- MVM@Homeschool Artifact Display
- Read All About It!
- Writing Activity Worksheet
- Hands-On Activity Guides
- Field Trip Guide: *Visit the Manuel F. Correllus State Forest*

Teacher's Guide

Welcome to MVM@Homeschool! We hope your students will enjoy this opportunity to experience a little bit of the MV Museum in their home classroom. This package includes photographs of Museum artifacts, copies of documents from our archives, oral histories, and activity guides to enhance student learning. MVM Education staff are available to answer any questions you might have while presenting this lesson; please email education@mvmuseum.org if you need us!

MVM@Homeschool Learning Kits are designed with flexibility in mind for anyone teaching and learning at home. All of the content and activities can be presented in a single day or spread out over several classes, depending on your needs and preferences. Content [underlined and in blue](#) is directly linked to the internet from this document.

Contents of This Kit

- Section I:** The Story of the Heath Hen
- Section II:** MVM@Homeschool Artifact Display: *The Heath Hen*
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- Section IV:** Writing Activity Worksheet: *Interview Booming Ben*
- Section V:** Hands-On Activity Guides:
 - Learn the Heath Hen Song and Dance*
 - Make a Yarn-Wrapped Heath Hen*
 - Make a Collage Heath Hen*
 - Color a Heath Hen*
- Section VI:** Field Trip Guide: Visit the Manuel F. Correllus State Forest
- Section VII:** Additional Materials and Further Reading

Section I: The Story of the Heath Hen

Lesson Plan

Ask the Big Question: Why did the heath hen go extinct?

- A. Let's learn about habitats.
 1. What is a habitat?
 2. What kinds of habitats are there on Martha's Vineyard?
 - a) [Frost Bottoms](#)
 - b) [Outwash Plain](#)
 - c) [Coastal Grasslands](#)
 - d) [Pitch Pine Forests](#)

- B. Meet Booming Ben the Heath Hen
 1. Tell the story of Booming Ben (page 4).
 2. Discuss: Based on the story, what two things were the main causes of the heath hen's extinction?
 - a) Hunting
 - b) Habitat loss

- C. Visit the MVM@Homeschool Artifact Display
 1. Look at the pictures of real heath hens and artists' impressions (see pages 8-9).
 2. Review the map of the original heath hen preserve and compare it to the map of the present-day state forest (see pages 10-11).
 3. Draw a portrait of Booming Ben in 1932 based on what you've learned about heath hens.

- D. Read All About It! - *Grades 2+*
 1. Read the article from the *Vineyard Gazette* (begins on page 12).
 2. Discuss: According to the newspaper, what happened to Booming Ben? Do you think they described the situation accurately?

- E. Interview Booming Ben - *Grades 2+*
 1. Imagine yourself as a newspaper reporter in 1932. You're going to sit down and interview Booming Ben about his life. What kinds of questions do you have for the last heath hen?
 2. Write a short newspaper article to report on your conversation with Booming Ben. Be sure to include details about his home (habitat)!

- F. Hands-On Activities
 1. Sing the "Heath Hen Song" - *Grades PreK-2*

2. Dance Like Booming Ben - *Grades PreK-2*
3. Make a Yarn-Wrapped Heath Hen - *Grades 1+*
4. Make a Local-Newspaper Heath Hen - *Grades 1+*
5. Color a Heath Hen - *All Grade Levels*

G. Field Trip: Manuel F. Correllus State Forest - *All Grade Levels*

Excerpt: [The Sad Story of Booming Ben, Last of the Heath Hens](#)

Rebecca Heisman

March 2, 2016

One of the first major efforts to save an endangered species concerned an almost-forgotten grouse known as the heath hen, a unique eastern subspecies of the greater prairie chicken that quietly blinked out of existence in the early 1930s despite decades of unprecedented effort to save it.

During colonial times, the heath hen ranged through scrubby coastal habitats from Maine to the Carolinas. However, European settlers brought increased hunting pressure and suppressed the fires that had kept coastal headlands free of large vegetation for thousands of years, altering the birds' preferred habitat. By 1870, heath hens had completely [vanished from the mainland](#) and remained only on Martha's Vineyard, a tiny island off the coast of Cape Cod.

Officials on Martha's Vineyard banned hunting and established a preserve to protect the remaining birds' habitat on the island. At first things appeared to be looking up—the population increased from less than 100 to around 2,000 by 1916. However, the heath hens' good fortune wouldn't last.

In May, 1916, a devastating wildfire swept through the heath hen breeding grounds. The following year the annual census turned up only 150 birds, and through pure bad luck most of the survivors were males, leaving the population dangerously imbalanced. Inbreeding and diseases carried by domestic poultry took a toll over the next decade, and in 1927 only 13 birds remained... then two in 1928... And then, in the spring of 1929, only [a single survivor](#) returned to the blind that biologists had set up at the remaining heath hens' mating ground at a local farm.

Islanders nicknamed the remaining heath hen "Booming Ben," after the noise grouse make during their



A male heath hen on the Great Plain of Martha's Vineyard, circa 1909.

elaborate mating display. With no females left to impress and no other males to compete against, however, Ben remained silent. “The bird presented a pathetic figure as it stood out there all alone,” wrote Bowdoin College professor Alfred O. Gross at the time, “without any companions save the crows that had come to share the food intended for the heath hen.”

Gross and his colleagues trapped Ben and fitted him with [identifying metal leg bands](#), hoping that they’d be able to recognize his remains if a hawk or other predator captured and ate him. Eventually he disappeared for good after a last sighting in March 1932.

Booming Ben’s death marked the first time biologists had been able to watch firsthand as a species (or, technically, in this case, a subspecies) went extinct. The heath hen’s demise came in spite of years of effort to save it—reintroducing birds into areas of their former range failed, attempts to breed them in captivity failed, introducing the Western subspecies of greater prairie chicken (its closest relative) in the east failed. Even if conservationists had found Ben a mate, it would probably have been too late: Examinations of several of the other last remaining male birds revealed that their reproductive organs had degenerated, probably due to inbreeding.

Even though it’s been gone for nearly a century, the heath hen’s long, sad slide toward oblivion has lessons for the ecologists and land managers working to preserve its living relatives today.

Background for Teachers

This article provides a good overview of the heath hen, a ground bird once widely found on Martha's Vineyard, and the loss of habitat that led to its extinction. Words highlighted in **red** appear on the supplemental vocabulary sheet (page 26) following the lesson plan.

Adapted from Wikipedia:

Introduction

The **heath hen** (*Tympanuchus cupido cupido*) is an extinct subspecies of the greater prairie chicken (*Tympanuchus cupido*), a large North American bird in the grouse family. It became extinct in 1932.

Heath hens lived in the scrubby **heathland barrens** of coastal North America from southernmost New Hampshire to northern Virginia in historical times. Heath hens were extremely common in this habitat during the colonial period; because of this, along with being a **gallinaceous** bird, they were hunted by Anglo-European colonizers extensively for food. By the late 18th century, the heath hen had a reputation as a poor man's food for being so cheap and plentiful.

Description

The adult heath hen was approximately 17 inches (43 cm) from beak to tail and weighed about two pounds. Heath hens generally displayed a strong reddish hue in their **plumage**, especially in their crop area, and much thicker barring throughout the breast and sides. Their **pinnae** (horns) were generally pointed, and tails were grayish brown.



Male and Female Heath Hen

Extinction

Owing to intense hunting pressure, the population declined rapidly. Perhaps as early as the 1840s, at any rate by 1870, all heath hens were **extirpated** from the mainland. There were about 300 left on the island of Martha's Vineyard, but by 1890, this number had declined to about 120-200 birds, mainly due to predation by feral cats and poaching.

By the turn of the century, there were about 70 birds left on the island. These were protected by a hunting ban and by the establishment in 1908 of the "Heath Hen Reserve" (today the Manuel F. Correllus State Forest) and the population grew

rapidly to almost 2,000; by the mid 1910s, observing the birds on their **lekking grounds** had become something of a tourist attraction. However, a combination of factors in the 1916 nesting season (a destructive fire, severe winter, an unusual influx of predatory northern goshawks, inbreeding, an excess number of males, and apparently an epidemic of blackhead disease possibly transmitted by domestic poultry) brought these numbers down quickly. After a last recovery to 600 in 1920, the population began its final decline.

At the beginning of 1927, only 11 males and two females remained. Despite being afforded the best protection according to contemporary science, the number had declined to a handful, all males, by the end of the year. After December 8, 1928, apparently only one male survived. The **endling** was lovingly nicknamed “Booming Ben.” He was last seen on his traditional lekking ground between West Tisbury and today’s Martha’s Vineyard Airport on March 11, 1932 - early in the breeding season - and thus presumably died, at about eight years old, days or only hours afterward from unknown causes.

Heath hens were one of the first bird species Americans tried to save from extinction. As early as 1791, a bill “for the preservation of heath-hen and other game” was introduced in the New York State Legislature, an unsuccessful effort that paved the way for the conservation of other species.

The establishment of the reserve on the open scrubland of what was then called the Great Plain on the Vineyard may have accelerated the heath hen’s extinction. Fires were a normal part of the environment, but with the attempt to suppress fires instead of enforcing ecological succession with controlled burns, open habitat quality decreased and undergrowth accumulated until a normally-limited fire would have disastrous consequences, as it did in 1916. Lack of awareness of the region’s historical fire ecology also led the state legislature to require firebreaks when protecting the heath hen.

Realizing the degradation that has affected the State Forest (and although it does hold some biodiversity, prevents it from being utilized to its full potential), reestablishment of the original shrubland/heath/woods mosaic and eventual introduction of the closely-related greater prairie chicken subspecies as an “umbrella species” that serves as an indicator of **habitat** quality has been discussed since the late 1990s. There is also a research project aiming at the de-extinction of the heath hen using cloning from preserved cells and domestic chicken surrogates.

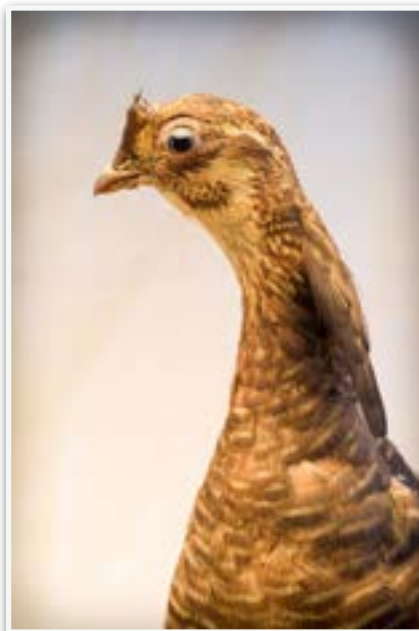
Section II:
MVM@Homeschool Artifact Display



Taxidermy Heath Hens, c. 1880-1935 - Object 1949.010



Male Heath Hen



Female Heath Hen



"Gross on the Heath Hen," from *Memoirs of the Boston Society of Natural History*, Vol. 6 -
Object 1981.058



Print of Heath Hens, undated - Object 1985.045

MVM@Homeschool: More to Learn

Watch!

[Rare Footage of the Heath Hen on Martha's Vineyard](#)

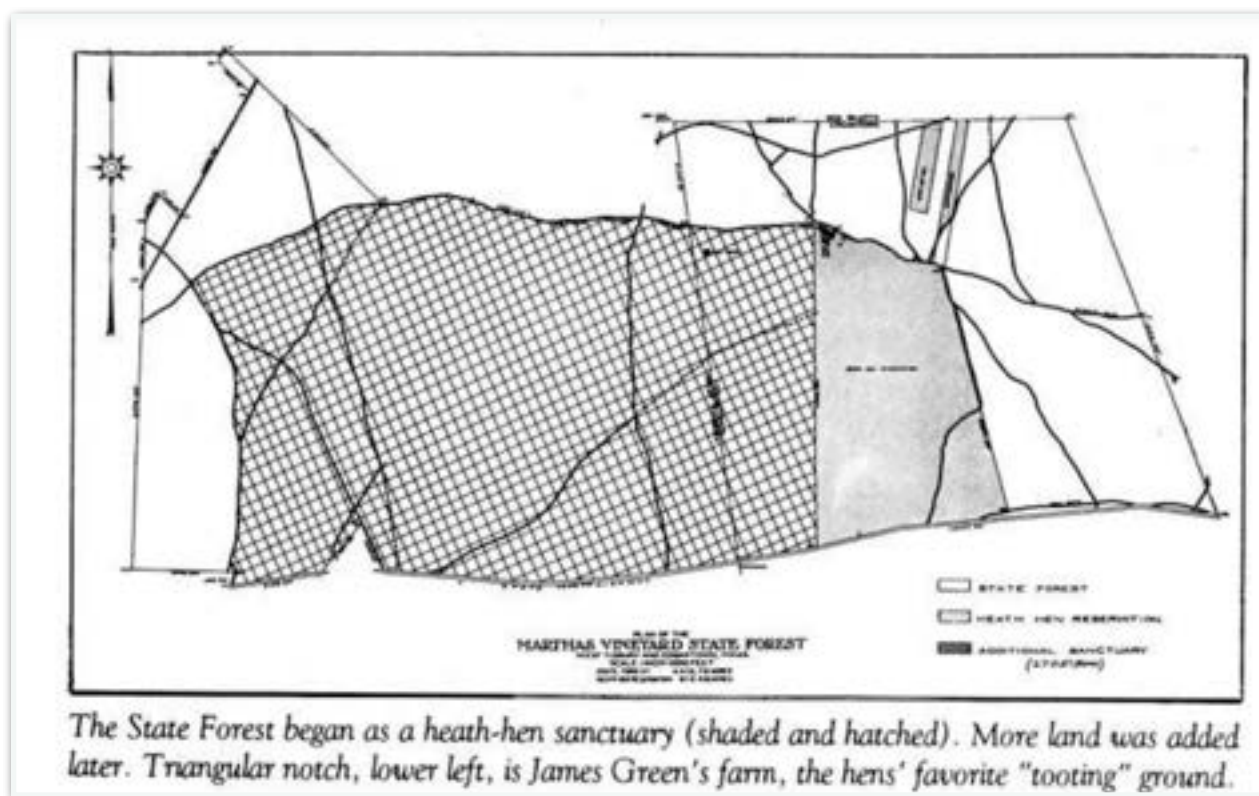
Video courtesy of the Vineyard Gazette

Listen!

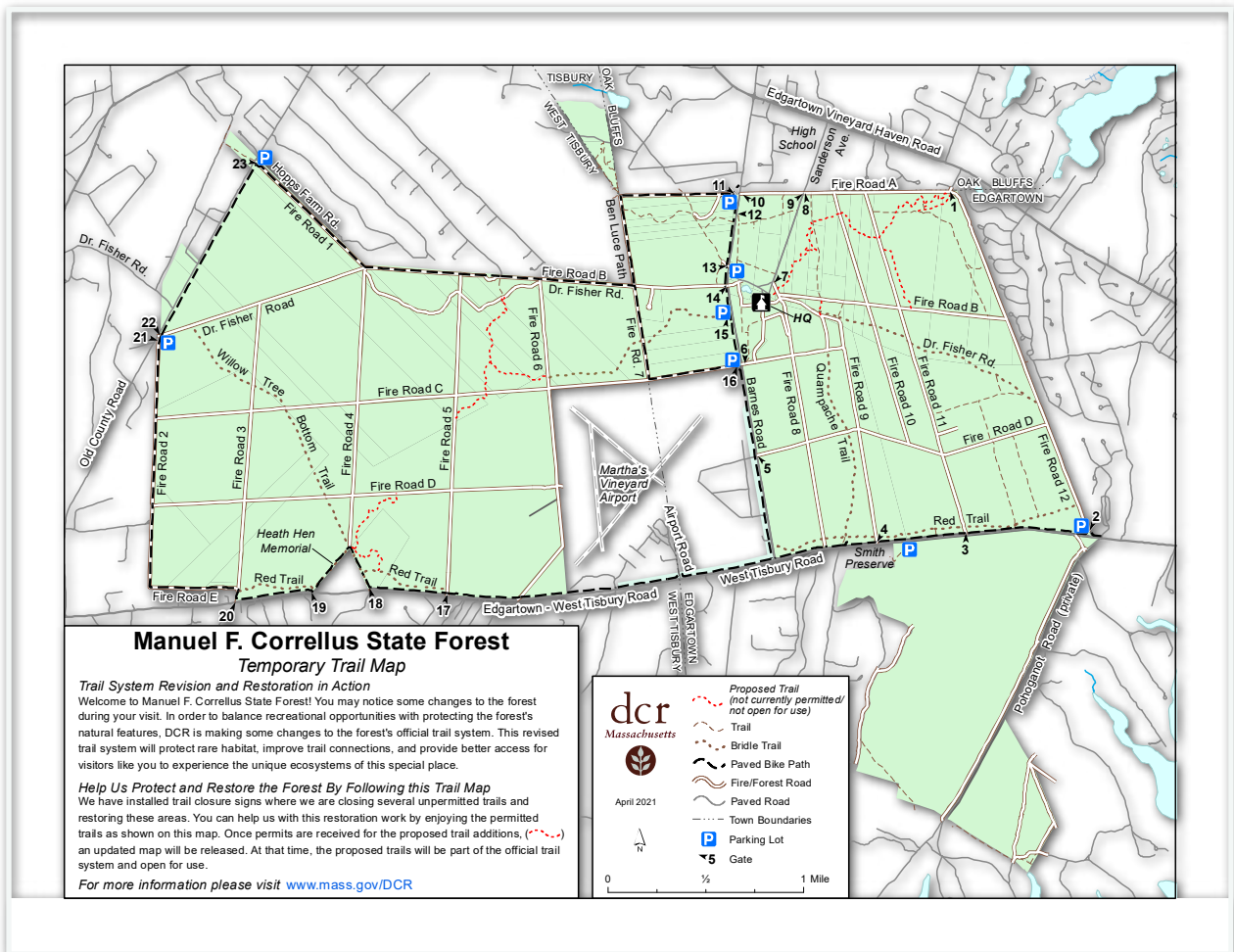
[Hollis Smith: Heath Hens](#)

Oral History from the MVM Collection

Compare & Contrast!



Map of the Heath Hen Sanctuary, 1930s



Temporary Trail Map of Manuel F. Correllus State Forest, 2022

Section III: Read All About It!

"Wherever anything lives, there is, open somewhere, a register in which time is being inscribed."—Henri Bergson

Foreword
to the
Heath
Hen

VINEYARD

Issue of Martha's Vineyard, once more set afloat
west of Nantucket. Winter population, 1933, is
1,000. Twenty miles from city at New Bedford.
Six miles from Boston, and 100 miles from New York.



GAZETTE

Devoted to the interests of the six towns on the island
of Martha's Vineyard, the Pigeon, Oak, and
Turkey Vineyard, and the towns of Nantucket, Gay
Head, and the towns of the island of Nantucket.

Foreword
to the
Heath
Hen

Vol. 47, No. 51.

Established 1895

MARBLEHEAD, MARTHA'S VINEYARD, MASS., FRIDAY, APRIL 21, 1933

\$2.50 a Year. Eight Pages

Dr. Gross Announces Bird's Evident End In Official Report

Tragedy Was Foreseen But
Not Averted—Heath
Hen Joins Other
Dead Races

1 SURVIVOR SINCE 1928

Last Authenticated Appear-
ance Given as March 11,
1932—Expert Mis-
taken Reports

The report of Dr. Alfred G. Gross, in which the apparent extinction of the heath hen is announced officially, was submitted to the Massachusetts Division of Fisheries and Game this week. Dr. Gross writes as follows:

The last heath hen apparently is dead and the race *Tympanuchus cupido cupido* is extinct.

Survived as Fabled Illustration

The extinction of a race is a sad thing, and the history of the heath hen reveals an awful story of extinction which, as a result of neglect and carelessness, has been the fate of many other birds and animals. The heath hen, which has been the subject of much interest and study, has been the subject of much interest and study, and its extinction is a sad thing.

The heath hen was a native of the island of Martha's Vineyard, and it was the last of its kind. It was a native of the island of Martha's Vineyard, and it was the last of its kind. It was a native of the island of Martha's Vineyard, and it was the last of its kind.

It is difficult even for an expert to determine the exact date of the extinction of a race. The heath hen was a native of the island of Martha's Vineyard, and it was the last of its kind. It was a native of the island of Martha's Vineyard, and it was the last of its kind.

COAST GUARD AIDS EFFORTS TO TRACE POLLUTION BY OIL

Orders from Washington
Bring Commander Patch
To the Vineyard

Commander Patch, who is in charge of the Coast Guard cutter, is in charge of the Coast Guard cutter. He is in charge of the Coast Guard cutter, and he is in charge of the Coast Guard cutter.

Some of the oil was spilled on the beach, and it was a sad thing.

"I AM THE LAST OF MY RACE. MY NAME ENDS WITH ME."



Tympanuchus Cupido Cupido

Some Milestones in the Heath Hen's Journey to Extinction

That part of the story of the heath hen which has been written in the pages of newspapers and journals and in the hearts of old mariners. Please many different reports, the

Photo Shows Heath Hen In Wild State; Remains Is Offered for Remains

This photograph of the last heath hen, which was taken in 1932, is a sad thing.

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

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, the last heath hen was killed. One day, just as some, there was a bird called the heath hen, and the last of its kind was killed. The heath hen was a native of the island of Martha's Vineyard, and it was the last of its kind.

Anglers Have Poor Luck—
Fish, in Finest Condition,
Fail to Bite

Replete with food in flooded ponds, trout reject hooks. The heath hen was a native of the island of Martha's Vineyard, and it was the last of its kind.

April 21, 1933

Last Heath Hen Is Dead and Race Is Now Extinct, Expert Observers Agree

The Vineyard Gazette

April 21, 1933

Somewhere on the great plain of Martha's Vineyard death and the heath hen have met. One day, just as usual, there was a bird called the heath hen, and the next day there was none. How he came to his end no human being can know. But the death of wild birds is a violent death. The eye becomes dimmed, the beat of the wings lags ever so little, the star of fortune blinds for a fraction of a second it is enough. An enemy strikes and death has come. Somewhere on the great plain, under the black twigs of a scrub oak, in the open track of an old road, near some hawk's sentinel post on a blighted pine, swift death and the heath hen have met.

The bird has been reported dead many times before, only to reappear dramatically in spring. But there have never been circumstances like this. Not one of the men who have watched the heath hen in the last years of its existence now believes it to be alive. James Green, whose observations have been the surest reliance, has not seen it for more than a year. Every spring the last of the race has come to the field on Mr. Green's farm at West Tisbury to keep an immemorial tryst; almost to the very day and hour it has appeared and reappeared, during what used to be the mating season. This should have been an annual tryst with life, the occasion of a strange dance and ritual, "a vital, virile expression of the Fecundity of Mother Earth . . . a rune of reproduction," but it had ceased to be that. The lone heath hen had given over all the grotesque pomp and ceremony of spring dawns and dusks. Still, the tryst in the field it had never failed to keep until this year. Only one compulsion could have interfered - the heath hen had already fulfilled an even more urgent engagement.

The official report of Dr. Alfred O. Gross announcing the apparent extinction of the heath hen is first published in this issue of the *Vineyard Gazette* through the courtesy of Doctor Gross and the state Division of Fisheries and Game.

This eastern prairie chicken, pinnated grouse, heath hen or *tympanuchus cupido cupido* - to give it all its names - was once bountiful throughout the east. It was especially abundant from Massachusetts to New Jersey, and

since it flourished in the scrub and cut-over country rather than in the forest, it might have increased and prospered as the nation builders began changing the new country to suit their purposes. Unfortunately, however, although known as a game bird, the heath hen was easy to kill. It had as enemies the fox, and the hawk, but most of all the cat and man.

Long Ago Extinct on Mainland

Such was the slaughter of the heath hen in the early days that it was virtually, and perhaps entirely, extinct on the mainland a hundred years ago. That left the flock on Martha's Vineyard the only reserve against extinction.



"I am the last of my race, my name ends with me."

To understand the history of the bird on the Island, one must understand the great plain, a broad expanse of terrace drift left by the glacier a great while

ago. Although the plain, at first glance, seems a level or slightly rolling tract of impressive distance, it is really grooved and furrowed by the tracks of subglacial streams which had to force their way to the sea. Spring comes late on the plain, and the first tardy budding takes place on the higher undulations while the shallow grooves are still black with winter. This makes it seem as if the fingers of a giant hand had been laid across the land. The lateness of the spring is one of the indirect causes of the heath hen's extinction.

The great plain comprises some 40 square miles and all the grandeur that level places can convey. It has no counterpart in New England. Distant hills in the west are blue, and for the rest the eye sees only apparently limitless reaches of scrub oak, for scrub oak alone - except in a newly launched state forest can grow on the plain. There are occasional blasted pines, left lifeless by the latest fire, and once in a while some other queerly postured tree standing above the interminable thickets. Sweet fern and huckleberries grow on the plain, and many ancient cart tracks and roads traverse it.

History associates tall pines, spruces and cedars with this region, but for many generations scrub oak has reigned alone as it reigns now. This is because the roots of the scrub oak are peculiarly resistant to fire, and fire has been the scourge of the plain for many generations. No other trees can grow. The devastating fires which have so often swept the plain land have been due sometimes to carelessness, and sometimes to a desire for better blueberries. But for the basic factor one must look to the tardiness with which a spring comes to the plain.

Dangerous Interval

After winter goes, the plain is still black, and it is dried by the suns of April. The rest of the Island comes to life, but the plain lags behind, and there follows a dangerous interval in which the whole region is like tinder, ready to feed a sweeping tide of fire. If this interval can be safely passed, the creatures of the plains are safe again. But dozens of times - at least once in every decade - broad areas, and sometimes the entire plain, have been burned over.

Therefore, although the scrub oak of the great plain supplied ideal cover and environment for the heath hen, the very reason for the existence of this tremendous scrub oak thicket was one which menaced the bird's security. It was, in fact, fire which made extinction for the heath hen finally certain.

Even after the heath hen were protected, half heartedly, by state law, about a century ago, they were hunted on the Vineyard by virtue of suspensions of the law which individual towns were empowered to make. Then, for many years, all protection was removed. Still the birds survived. So extensive was the scrub oak that no man or dog hunted over all of it, and somehow the broods of young managed through the years to escape the spring fires. Had it not been for three enemies fire, cat and man there is no doubt that the heath hen would have increased and flourished. Hawks, too, were enemies, but against the hawk the heath hen had a better defense. Let a hawk appear in the sky and the heath hen would freeze into perfect silence, and so marvelous was its protective coloration that it would disappear from the most searching eye simply by cessation of movement, or by crouching.

Doubtless the heath hen tried this method of protecting itself against fire. As the rim of the blaze came on, crackling, terrifying, shedding clouds of hot yellow and white smoke which made the air suffocating, the mother bird and her chicks would crouch and wait. And when the fire had passed there would be a circle of blackened bodies to be picked by the scavengers of the plain.

If fire came when the heath hen were on their nests, the mother birds would not move. Some commenters think there has been too much sentimentalizing over the heath hen, and of course it cannot be implied that there was any heroism in the instinctive devotion which made the mother birds die rather than leave the eggs which were under their bodies. Heath hen could do nothing else, for nature had not put it within the power of these lower animals to betray.

Section IV:
Writing Activity Worksheet

Interview Booming Ben

Imagine that you are a newspaper reporter on Martha's Vineyard in 1932. Your assignment: Go meet Booming Ben, the last heath hen in the world, and interview him for an article. On the lines below, write down your questions for Booming Ben and then use the pictures, videos, and recordings included in this packet to make up the answers you think Ben would give.

Which sources did you use?

Section V: Hands-On Activity Guides

Activity 1: Learn the Heath Hen Song

Teddy Murphy wrote the “Heath Hen Song” for the MV Museum! Click [here](#) to listen to the song.

Can you sing it? Here are the words:

Oh, the heath hen lives in the forest
where the deep, deep frost bottoms are.

She loves to rest and nest and play
and he really likes to display.

They also live in the grasslands,
the sandplain grasslands of Katama.

Oh, the heath hen lives in the forest
where the deep, deep frost bottoms are.

It's sad what happened to the Heath Hen
But we can't just sit and cry.

We can help the heath hen's friends,
like the moth and the butterfly.

We can protect their homes,
connecting habitat stepping stones.

It's sad what happened to the heath hen,
but we can't just sit and cry.

Activity 2: Dance Like Booming Ben

Watch the *Vineyard Gazette's* [Rare Footage of the Heath Hen on Martha's Vineyard](#) from 1927 closely, especially the parts where the male heath hens are displaying and dancing. Can you imitate their dances?

Activity 3: Make a Yarn-Wrapped Heath Hen

Materials

- Heath Hen Pattern Template (see page 22)
- Cardboard
- Yarn
- Felt
- Black marker
- Scissors or X-Acto knife
- Glue or tape

Instructions

1. Print the Heath Hen Pattern template on page 22.
2. Cut out the templates to create paper patterns for the body, wing, and air sac.
3. Trace the body pattern onto the cardboard with the black marker.
4. Cut out the body shape from the cardboard using scissors. **Note:** It may be easier to ask an adult to use an X-Acto knife for this step.
5. Trace the wing and air sac (optional) onto the felt.
6. Cut the wing and air sac (if using) shapes from the felt using scissors.
7. Take one end of the yarn and affix it to the back of the cardboard body using glue or a small piece of tape.
8. Wrap the yarn around the cardboard body, covering it from head to tail. **Note:** Wrapping the yarn in different directions and crossing it over itself creates interesting patterns. Not all of the cardboard needs to be hidden. It's your bird - design it how you like!
9. When you are happy with your yarn wrapping, attach the loose end to the back with another drop of glue or small piece of tape.
10. Attach the felt wing and air sac (if using) to the front of the bird body with glue. Use the diagram below as a guide.
11. Leave your project flat to dry.

Activity 4: Make a Local-Newspaper Heath Hen

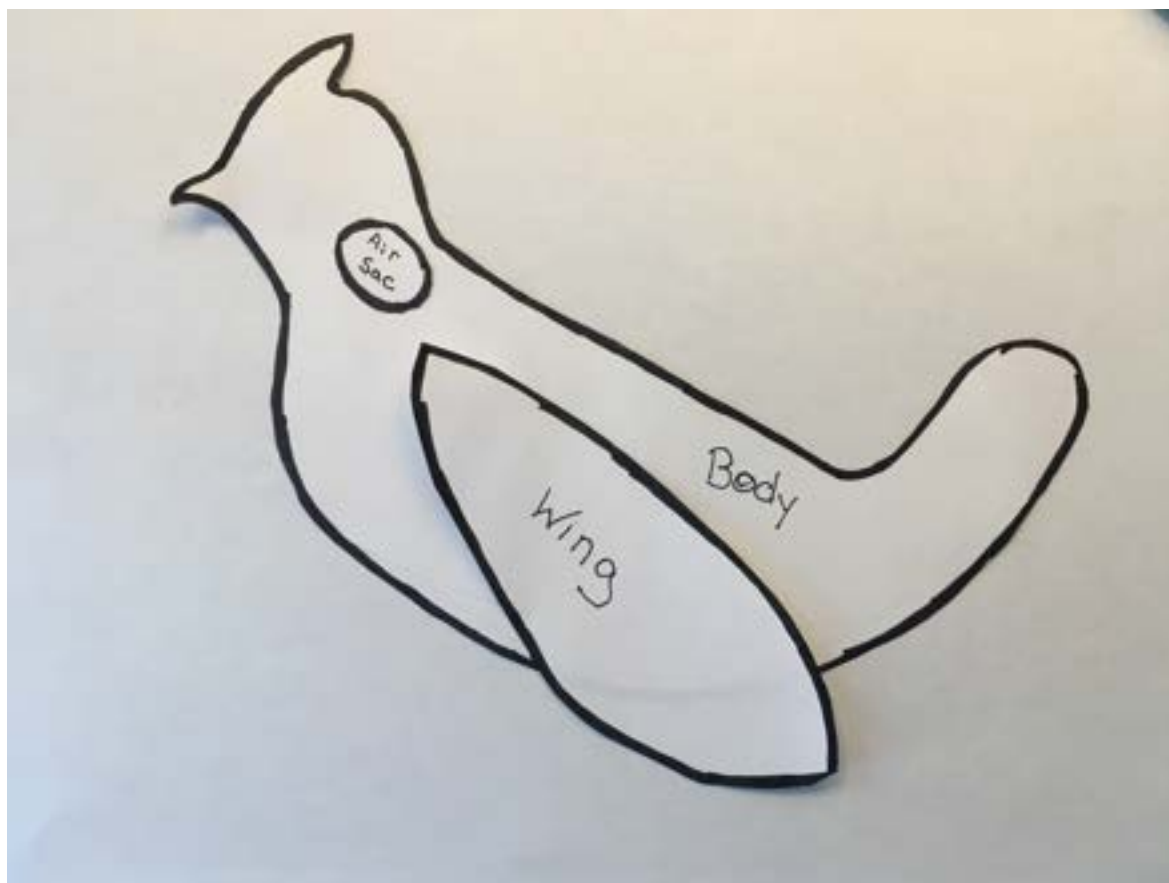
Materials

- Heath Hen Pattern Template (see page 22)
- Two or three pieces of colored or patterned paper, newsprint, or magazine pages
 - Old newspapers and magazines can make interesting patterns if you have any available - remember to ask first!
 - Consider using Vineyard newspapers or magazines to emphasize the heath hen's connection to the Island.
- Pen or pencil
- Scissors
- Glue or glue sticks

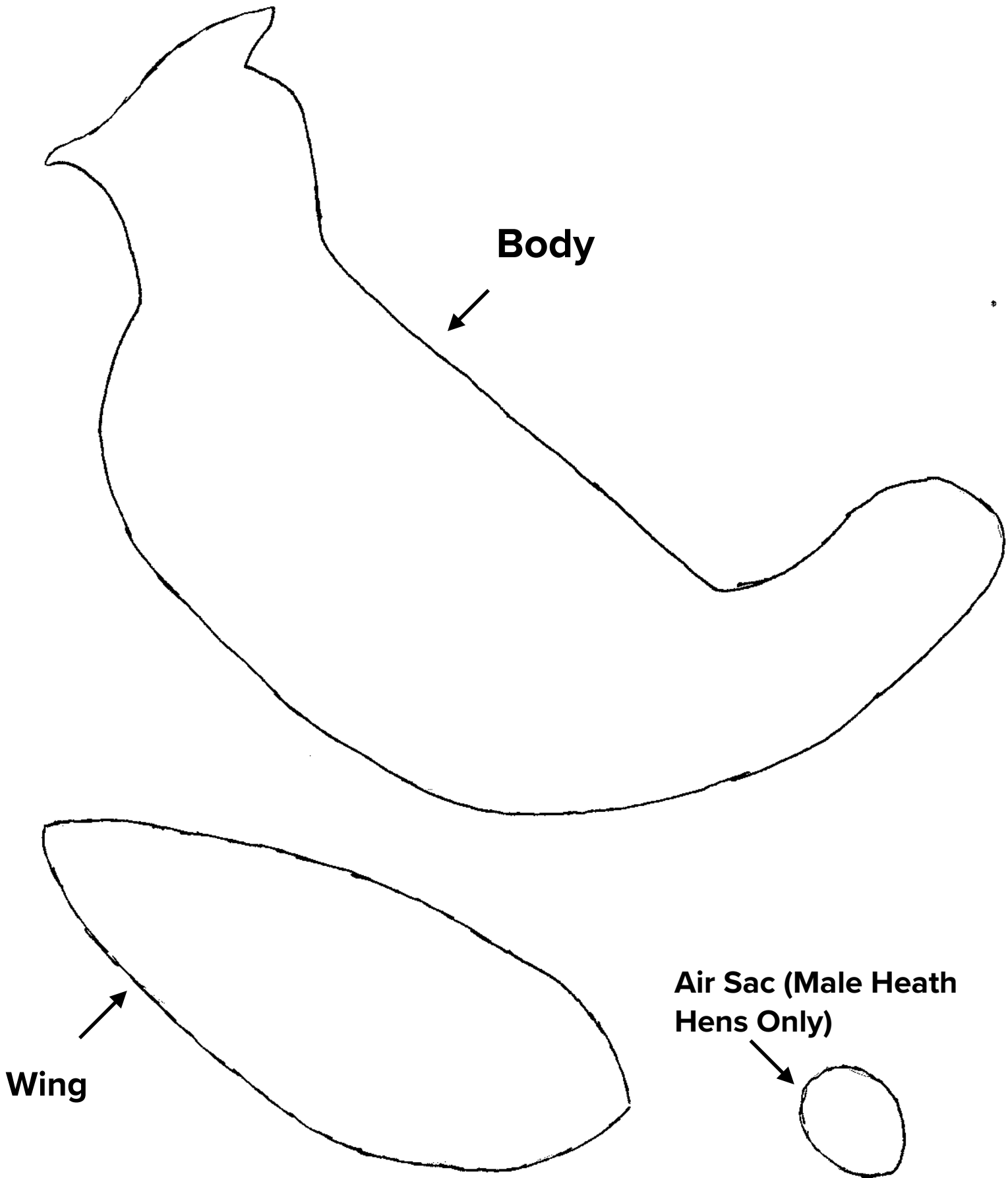
Instructions

1. Print the Heath Hen Pattern Template on page 22.
2. Cut out the templates to create paper patterns for the body, wing, and air sac.
3. Trace the paper body pattern onto your colored/patterned paper, newsprint, or magazine pages.
4. Carefully cut out the body piece.
5. Choose different paper for the wing and air sac (if using). Trace the wing and air sac onto colored/patterned paper or newsprint.
6. Carefully cut out the wing and air sac.
7. Using the guide below, glue the wing and air sac (if using) onto the bird body.
8. Leave your project flat to dry.

Assembly Diagram for Both Heath Hens:

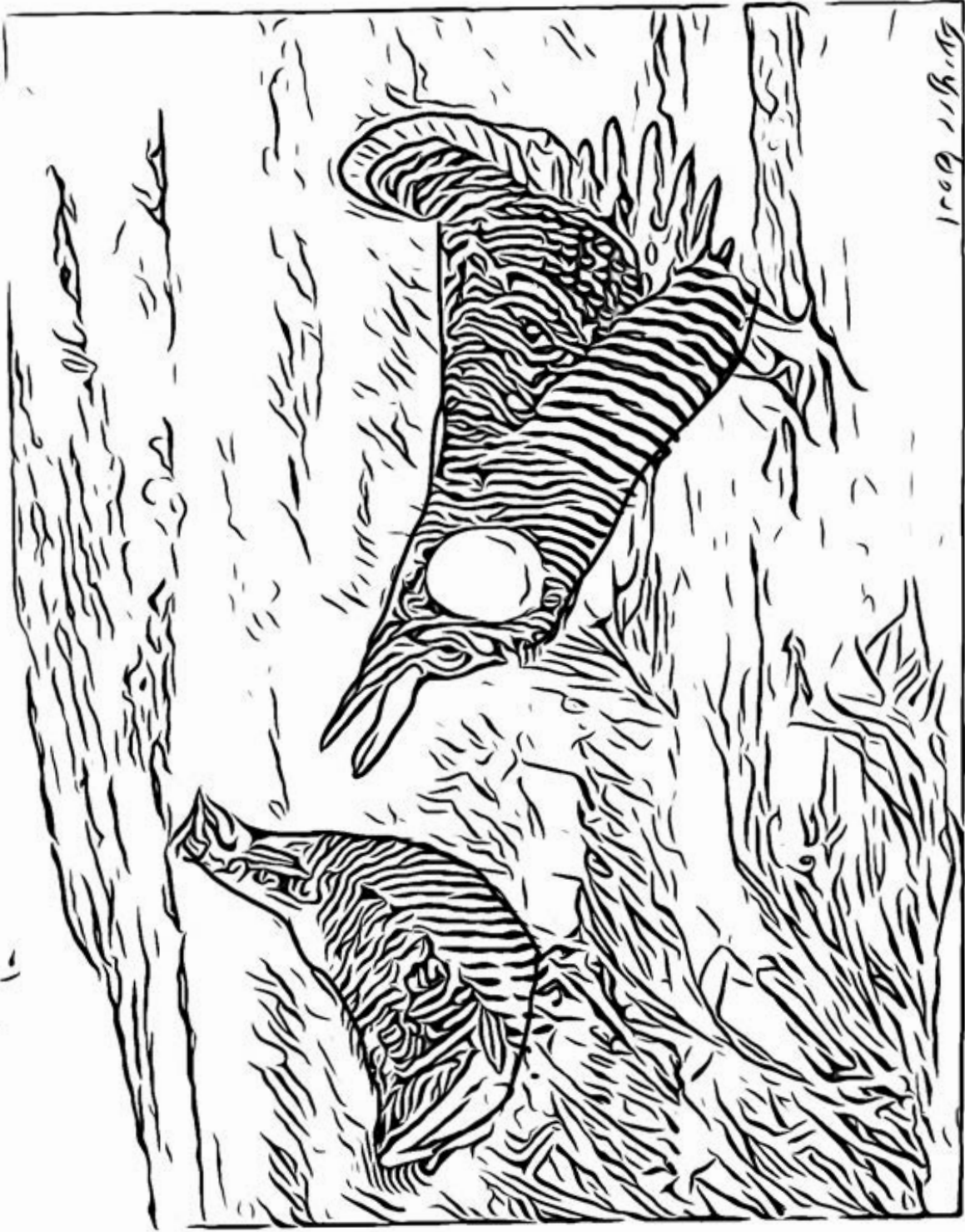


Heath Hen Pattern Template





Made with Colorscape



Colorscape

100% cotton

Section VI: Field Trip Guide

Manuel F. Correllus State Forest

Barnes Road
Edgartown, MA 02539
(508) 693-2540

Visit the State Forest to see the statue honoring Booming Ben, the last heath hen on earth.

Look & Learn!

Here are directions for the Heath Hen Habitat Hunt:

- Begin at **Gate 19** on Edgartown-West Tisbury Road. It is located 1.2 miles east of the intersection of Old County Road.
- Walk *north* on the Shared Use Path. Look to your right. Do you notice how steep and hilly the ground is? You're in a frost bottom!
- Continue going north along the Shared Use Path until you come to a clearing. Read the nearby wayfinder (sign) to learn more about this piece of art.

Name five plants or animals you see or hear in the State Forest.

Draw a picture of the heath hen in its frost bottom habitat. Use the back of the page if you need more room.



Walk 2/10^{ths} of a mile from Gate 19 to the Heath Hen Statue.

Think About It!

Do you think the statue is a good likeness of a heath hen? Why or why not?

This statue is standing where Booming Ben was last seen in 1932. If the statue were somewhere else, like in the middle of downtown Edgartown, more people would see it - but would visiting the statue be a different experience? Is it more important for a commemoration like this to be seen by many people or by just the few who look for it? Explain.



State Forest Gate 19



Heath Hen Statue

Section VII: Additional Materials

Heath Hen Vocabulary

endling: the last specimen of a species, upon whose demise the species is considered extinct

extirpate: to root out and destroy completely

frost bottom: a small gorge carved out by water following the retreat of the glacier that formed Martha's Vineyard

habitat: the natural home or environment of an animal, plant, or other organism

heathland barrens: an extensive area of *heath*, vegetation dominated by dwarf shrubs of the heath family

gallinaceous: relating to birds of an order (Galliformes) which includes domestic poultry and game birds

lekking: the practice by males in certain species of birds and mammals of engaging in a communal display during the breeding season on a patch of ground known as a lek

outwash: material carried away from a glacier by meltwater and deposited beyond the moraine

pinnae: any of a number of animal structures resembling fins or wings; in the case of the heath hen, the feathers that stand upright like horns

plumage: a bird's feathers collectively

taxidermy: the art of preparing, stuffing, and mounting the skins of animals, birds, or fish with lifelike effect

For Independent Readers:

In the Wake of the Willows, by Frederick Gorham Thurber (Historical Fiction)

Written by a local author, this "sequel" to the classic *The Wind in the Willows* is set along the Westport River in the 1920s. Heath hens feature prominently in the story, as do the Elizabeth Islands and Martha's Vineyard (though they are not named).

“Decline of the Heath Hen Told in List of Dates”

Henry Beetle Hough, *The Heath Hen's Journey to Extinction*, 1934

1792 - Heath hen reported rare in New Hampshire.

1800-1840 - Heath hen generally exterminated in Massachusetts.

1812 - Disappears from Connecticut valley.

1813 - Disappears from district around Springfield.

1824 - No longer common around Boston.

1831 - Massachusetts legislature passes special act to protect heath hen from March 1 to Sept. 1, the first recorded protective legislation.

1836 - Last recorded specimen in New York killed on Long Island.

1837 - Massachusetts establishes close season for four years.

1839 - Heath hen extinct except on Martha's Vineyard.

1841 - Close season extended for five years.

1842 - Town of Tisbury, under state authority, suspends law and allows hunting of heath hen from Dec. 1 to Dec. 10, without dogs.

1844 - Close season extended five years more.

1850 - Town of Tisbury permits hunting heath hen Nov. 12 and 13.

1855 - All protection of heath hen is removed.

1859 - Dr. Daniel Fisher liberates ruffed grouse and quail on the Vineyard, but no prairie chickens as sometimes believed.

1860 - Heath hen protected by law at all times.

1869 - Heath hen reported found in New Jersey.

1870 - Protection of heath hen in Massachusetts limited to five years.

1876 - Extinction of heath hen reported.

1877 - Foxes and raccoons introduced on Martha's Vineyard for sport.

1890 - Estimated that 120 to 200 heath hen survive on Martha's Vineyard.

1892 - Seventy-five per cent decline in numbers from previous year is reported.

1894 - Disastrous fire destroys many heath hen.

1897 - Hunter with dog fails to start single heath hen on great plain of the Vineyard.

1902 - Three western prairie chickens liberated on the Vineyard, these being survivors of sportsman's show at Boston. No subsequent evidence of these birds is found.

1905 - Movement to protect the heath hen is begun by John E. Howland of Vineyard Haven, Dr. George W. Field and others.

1906 - Close season declared until 1911, with \$100 penalty. Fire again sweeps Vineyard plain.

1907 - Twenty-one heath hen are counted on May 2. Ten broods known to be successfully reared. Mr. Howland and Dr. Field collect \$2,420 to acquire reservation. Rep. U.E. Mayhew introduces bill in state legislature to establish reservation and appropriate \$2,000.

1907-1916 - Numbers of heath hen flock show gradual increase.

1908 - Estimated that 45 to 60 birds exist.

1909 - About 200 heath hen accounted for.

1916 - Heath hen estimated to number from 800 to 2,000. Great fire kills females in nesting season. Fire tower is built on reservation.

1917 - Fewer than 100 birds found.

1918 - As many as 155 heath hen accounted for.

1920 - Flock believed to number 314.

1921 - Flock estimated to number 414.

1922 - Only 117 birds counted.

1923 - Not more than 50 birds accounted for; 28 are seen.

1924 - Census indicates 54 birds still alive.

1925 - Emergency measures for protection of the surviving heath hen are taken, in cooperation with the State, by the New England Federation of Bird Clubs. Three birds are seen and flock is estimated at 25.

1926 - Census estimates 26 survivors.

1927 - Census accounts for 13 birds and estimates that fewer than 30 exist. Federation of Bird Clubs withdraws support and Martha's Vineyard Heath Hen Committee is formed.

1928 - Only 3 birds seen by Dr. Alfred O. Gross in annual census, all males. After Dec. 8, one bird alone is ever observed.

1929 - Sole surviving heath hen booms from tree top. Martha's Vineyard Heath Hen Committee lapses, and accuracy of official reports is conceded.

1930 - Sole survivor reappears.

1931 - Dr. Gross and Thornton W. Burgess trap the last heath hen and mark both legs with metal bands.

1932 - World's only heath hen reappears on booming field on Feb. 9 and is seen regularly until March 11.

1933 - No heath hen appears on booming field.