

## Birds

Across CT Arb ↓ grassland + low shrub types → forest spp.; but thru ↓ forest, ↑ suburban spp  
 Interior forest specialists ↓ ↑ generalists chick. titmouse, card. ↓ redstart, black-throated green  
 small woodland islat.

PP < 1400 breeds pairs USFWS; MA 1985-131 | 1997-500 } 350 pairs nests, 1994 } 2005 475 breedly pgs } 100 sites  
 MA has largest breedly popn on Atlantic Coast } 1/2 of Atlantic Coast popn

1998 Woodcock 3.4m days hunting annually 1.1m killed among top 10 migratory game animals  
 Among earliest nesters April-May 2.4% ↓ 1968-74 in Nest  
 Am Woodcock Mgt Plan USFWS - restore 1985 levels by 2005

↓ blue bird, VS, GHS, Bobo, US, SS

Range - cardinal, Tit, Mock titmouse ME invasion 1980  
 possum, vulture, coyote 1981 expansion to MA - bird feeders

1955-85 recovery: loon, cormorant, <sup>snova</sup> Great egret, osprey, eagle, N osprey, red bellied  
 woodpecker, cardinal, mockingbird, GBH, LBH, Parakeet, Turkey, Oystercatcher,  
 Willet, Swan, Raven, Goose, vulture, Dove, Barn Owl.

1970s - S coastal spp - minor N - Gr Egret, Snowy, LBH, CCHL, Glossy Ibis,  
 Willet, Oystercatcher, Herring + Great Black-backed Gulls

↓ bittern, N Harrier, Red Shouldered, PP, US, S-E Owl, Whip, VS, GHS, Bob, Mock

Mourning Dove ↑ range + #s feeders, food

Benefit from light to moderate grazing in lush areas  
 GHS - Westover shift to later mowing 55 → 168 pairs 1600 ac  
 Upl S - 152 adults 75 nests  

	1993	1994	1995	
Katama	5	9	8	today?
MV Air	5	8	5	

VS was chiefly at MV Air 1952-54 No longer on island

Best sites bases, airports Elizabeth Islands

Gross 1928 State Forest - many bluebirds, tree swallows, brown thrashers, song + field sparrows, prairie warblers, bob white + HH

Spp Increasing

20th C Mocking bird (Peabody 1839-rare), turkey vulture, turkey (natp.)

MAS 2013. B-H Cowbird, Bluebird, Bobo

Coopers Hawk - ate poultry, relentlessly shot, then DDT; recolonized MV mid-late 1990s  
Indigo buntings - widespread + streak MA; just occurring on MV. Allen Keith - due to late springs getting earlier. Also like oak-killed woods.

Tufted titmice ↑ don't like mossy water. so as ↑ w/forests didn't get to MV until  
SGF 1997 - now common MAS

19th C UplS, SS, VS, GHS, EM, Bo - CT Valley most imp. as large + earliest in Ag

MAS State of Birds - Decline with Ag - S-E Owl, EM, BobWh, VS, Barn Owl

Am Kest, Cliff Sw, UplS, H Lark, Bald Sw, GHS, SongS, Barn Sw, RWB, E King, SS

+ E succ  
Decline w/shrubs - N Harrier, Prairie Warb, Field Sp, E Tow, Br Thrasher,

Whipp, Wh-ThrS, Nighthawk, BobWh.

Predators - skunk, coon, chipmunks.

2011 Decliners - Soc

↓ Towhees, BobW, Br thrash, ovenbirds, B+W Warb, terns, BCNH, GH, SE, PP,  
Lost ML, UplS, GHS, S-E Owl, N Harrier, Whipp, Blue bobo.

↑ Coopers Hawks; N cardinal, modern, Red belly Wood, Carolina wrens,  
tufted tit, R-Br Gros, Great egr, turkey V

↑ w/ forest: Balt or, scarlet tow, Gr Cashed fl, E wood pewees, red-gr vireo

↓ groundnuts, grassland + succ habitats

SED + GHS once common SED no nest, GHS persist

Figures - Wildlife

Bernardos + F+M vs DeGraaf + Yamazaki

Deer graph; Grassland bird spp. graph; Map - changing abundance grassland birds

Coyote map NA - Pre-European + modern; MA thru time

Grassland figure - Grass Pre-European + European

MAS declines - Meadowlark.

MA - Grassland bird habitat ranking - class by rank + type of site

Insects: ~60% rare moths in MA in SO barrens, coastal heath, SPG

Faded gray geometer, chain-dotted geometer, imperial moth



State of  
2013 MAS

degradative

habitat destroyers - dur, limited

Causes - habitat loss/frag N+S; toxic chemicals; ground predators incl cove, collisions,

Ag - reforestation + the development

Spp lost with Ag lands + barns - S-E Owl, Mark, Bob, VS, Barn owl, Kestrel, Cliff Sw,

UPS, Horned lark, Bank Swallow, GKS, SS, Barn Sw, RW Bird, E Kingbird, Sav Spr

lost w Shrubland - Golden winged warbler; W-F vireo, Towhee, thrasher, Prairie Warbler

↑ Ag spp - Turkey, bluebird, B-H Cow, Bobo

Graph

Mark - serious decline ↓ Ag - succ + develop; ↓ habitat quality Ag intensification; ↓ size grassland

"fate of the ~~EM~~ M has always been closely tied to farms"

Graph

Brown thrasher - Shrubland - "thrasher" from "thrasher" - loss of shrublands; ↓ low

intensity ag, pesticides; grazing cattle may ↑ insects

Wood thrush = Swamp Angel - Colonists Forbush: "seems like a vocal

expression of the mystery of the universe, clothed in a melody so pure and ethereal

that the soul still bound to its earthly tenement can neither imitate nor describe"

"Bambi Plague" - MA 95,000

11

DeGraaf/Miller

Indian burnings, As, fuelwood cutting + burning - patchy landscape of fields + forests  
various succ. stages + ↑ oak - grouse, deer, turkey, rabbit, Heath hen, extensive grassland

Abund of HH supports openia - Stebbins 1864 Willarcham MA - open + burned

Middwa 4300 - deer + bear common:

Lacey Act 1900; prohibited interstate traffic wildgame

No elk, caribou, cougar, wolf

Wildlife Mgt +  
Farms

Edminster 1941

Orcs wildlife of forests - not abundant. Biggest Δ - increase openland so ↑ deer, grouse

↑ openland spp - bobwhite, quail, crow, cottontail (mound Nvp (tulson)), birds, add openland spp  
to woodland so more varied than ever

Gray fox

1840 rare in MA ↓ Dr Emmons

Turkey

Wm Wood - 1634 NE Prospect - "some have killed ten or a dozen in half a day; if they  
can be found towards an evening and watched when they perch, if one comes about  
ten or eleven of the flock he may shoot as often as he will"

PP

Higgonson Salem 1630 "Upon the eighth of March from after it was faire daylight w<sup>th</sup>  
about eight of the clock in the forenoon, these flew over all the houses of our plantation

see many flocks of dozens, each flock containing many thousands and soe many  
that they obscured the light, that passeth credit, if but the truth be written"

Medway roads  
9-29

2013 State of Birds

Most blocks - Song sparrow, cat bird, robin, yellowthroat, RW blackbird, Chickadee

Biggest ↑ - Turkey, red-bellied woodpecker, Carolina wren, grouse, Cooper's hawk, bluebird, hummer

" ↓ - Kestrel, black duck, meadowlark, pheasant, thrasher, purple finch, bobwhite, crow

↓ breeds rare - grassland + ag birds, shrubland birds, ground nesters,

↑ ranges - wooded swamp breeders, forest breeders; river, lake, pond; spp of N range



✓  
Coopers Hawk - ate chickens so relentlessly, shot; the DDT  
recolonized MV mid/late 1990s

Indigo bunting - ~~common~~ <sup>stable</sup> MA but just occurring on MV - Allen Keith  
due to late spring getting earlier. Also like oak-killed woods

Tufted titmouse - don't like crossing water. As expanded N due to fields  
skipped MV 1997 - SG Farm now common

Blue winged warblers ↑, chimney swift ↓

Camp Edwards / MMR - GHS, VS, US

# Bernardos Grassland Birds

would then be adjusted specialized habitat for these spp

UpS, Bobo, ML, SavS, VS, GHS - each unique specialized needs/habitat

No long historical record. Pre-Eur? ~ mid 1800s

150 ac 5-10 ac  
US - mixture short + tall grass; VS - open sparse short; B/ML - mature fieldw/mosaic

of veg; SS - all ages

regularly present in Midwest; ↑ as forests cleared declined late 1800s hunting but did not recover when stopped

Bird of prairies + open grasslands

was occasional nester in 1849-55

old name upland plover  
US - 1st record MDT - common breeder plains Eastham, Wellfleet, Truro

2012 Farm Institute sightings + photo

late 19th C. hunted prof. gunners - delicacy; 1875-90 49 shot ACK; first noticed decline

1871 Brewster - extirp Concord; 1884 formerly abundant, rather rare; visitor not

breeding some places; breeding others 1890s. Boule

1895 breeding  
Boule's 4 pair + 1 nest w/eggs MV; 1897 several pairs with broods; early 1900s

Seen 1986 Katama

1920s CTRY but declining statewide Hadley a hotspot 1931 2-3 young

1919 4-5 shot 1936 - Agawam Bowles Airport 23

"It has partly dwindled because of abandonment of so many farms and field; but the main cause was July gunning, which killed most of the young birds" 1937 Bags + Eliot

1930s-40s Ag, Hadley, Newburyport, MV, ACK; 1950s Newburyport; Ag, ACK

1950s - only on Katama on MV 1968 ceased to nest on plain Whitest Peak '83

1960 - 1st Worcester Airport; 1972 Grayby; 1977 Westover; Plymouth 1974-77; 1983 - Lincoln

1985 - Bourne 10 pair mid 80s depend on airports - Logan, Haise, Otis, Westover

1990 - 35-50 pairs total; listed endangered 1993-95 90% at 7 air bases 10 sites total

Westover active mgmt - 1997 - 118

1880s - 1900 common up to 20 nests at Katama now 2000

1 at MVA 2010 - none since 2005 None at Katama since 2006 GHS - doing well at Nashawena - so spillover

GHS 1864 1st historical Allen "breeds abundantly in dry fields and pastures"

190 - Quanaimes 010 Quansoo Farms

"spectacular abundance CC, ACK, MV 1869-82"

Forbush 1907 "probably much more common than is generally believed, as it is

patchy covered grass ~ 35% shrub

never conspicuous, and it is largely confined to the open fields"

Threatened

1920s - common on MV loss

loose colonies that appear/disappear



1990s more concentrated on airfields; uncommon at MV due to loss of <sup>habitat</sup> Katam

1993 - rare to uncommon except Eliz Is, airports, isolated Ag fields + pastures

307 territorial males 1993 53% at 12 airports/bases

1996 - threatened

(VS) 1864 - common, abundant breeder sandy fields + dry pastures

1890 - 150 on MV June 28

Ferbusch  
1907

"The vesper sparrow is, next to the song sparrow, the most abundant ground sparrow in MA. It is generally distributed wherever there are open fields and upland pastures..."

"most characteristic of rolling farmlands, grassy overbuds or bare hill tops" Bagg + Eliot 1927

1952-54  
Acc severe decline 1950s + MV decline since 1900 - only 4 sites esp airport

1983 - gone MV <sup>not breeding</sup> migrants

1996 100 pairs nesting MA

(SS) 1864 common <sup>1901</sup> abundant summer resident Ipswich, MV, Berk Co

Ferbusch "along river valleys, in upland meadows, fertile fields + pastures"

1967 - 70 MV

1993-5 87 sites 535 partial count 1998 - most common grassland bird

EM 1864 - common weather + ↓ Ag; some would winter over

common MV 1910-15 severe winter 1917-18; MA coast entire winters pop

"wiped out" - none nesting on MV, 3 in 1915 40 in Oct 1919 by foster

1950s 15-40 in winter + 84 1950

1965 Cape - "clearly a species which had benefited from the forestation of the Cape, ~~and~~ drastically reduced by a series of severe winters and restriction of breeding area by the regrowth of trees"

**Bobo** Shot in S with black birds as Ag pests esp on rice - Forbuck  
 1950s large flocks MV but 1955 overall S&E great decline  
 Still one of most abundant yet greatly reduced

What was the hunted plover?      Piping plover, Killdeer plover  
 Upland Sandpiper

Historical note: "Although appropriate mgmt of airfields + protected natural areas is important for the future of grassland birds in the Northeast farmland remains the greatest potential source of habitat for many of these species"

2001 265 GHS MA 73% Hampden + Bucks Co      155 Upl S 88% 1 site

MV Airport Improvement Program

MAS 2013 Support net gain Ag  
 OF sites with US/GHS MVA + Katama rank 14/16 States



Annex 2012

8-22-14

Coastal Brook Trout - At s limit of anadromy; little geneflow among proximate pop'ns; Little evidence for genetic introgression from stocked fish. One hybrid fish. So natives could be source for anadromous restoration. Native range Hudson Bay to Georgia; can be anadromous wherever access to sea + cold water; have been anadromous north of NYC.

74 coastal MA streams - only 17 coastal brook trout pop'ns remaining - 1970s;

Current reproducing pop'ns - Tribs of ACX Sound, Buzz Bay, Nar Bay + one on LI

Heavy stocking 1940s to 1980s - possible introgression + Connecticut - LI Sound  
Examined 5 pop'ns - CC + LI Santuit, Mashpee, Quashnet, Red Br  
Stocking pressure - 29,450 - 62,300 in SA, MAGU. None since 1990s most 1950s

Genetic differentiation - due to enhanced drift from small pop'ns; restricted gene flow; lower ~~gen~~ GD in n Canada;

Consistent with reduced anadromy in S pop'ns; some do use the ocean; poorly understood;

Recent stocking - headwater ponds where <sup>non-native fish</sup> they stay in cold deep water so can't reach streams;

Otherwise might expect introgression - bred in Sandwich to grow quickly in hatchery environment - are highly susceptible to avelis; Poor survival. Originate from W MA inland streams

Maintenance of genetic diversity in extant pop'ns is critical may show local adaptation; ↑ anadromy also important  
Restoration to allow metapop of stream brook trout of S limit anadromy

Brook Trout  
Also - see  
More Notes for  
Cultural - Natural

? | WT - Old Mill Pond, Seth's Pdl, Duarte Pdl  
OB - Upper Lagoon Pdl



Trout 1955 letter to WT selectmen from state - To support trout remove warm water fish. Problem with the series of ponds that warm water. Leave all overhanging vegetation - trees, shrubs etc. Plant willows in pasture along stream. Need to rotenone

1988 Printout of sampling sites - WT, GH, C, E, T

1958 Mullan Sea Run or Salter Brook Trout of Coastal streams - Cape Cod  
 larger than native brook trout as access to sea. Mashpee River believed to be one of last popns. Privately owned. But small pop'n + small fish.  
 Tested whether overstocking with others would force salters into anadromy.  
 One of finest brook trout streams as  $\approx 70^\circ$ . Vast alewives;

Stocked marked trout: 92,100 over 8 yrs

Coloration + body size separate salters: silvery w/ pearl white belly; lose salter appearance in 10 days to 2 weeks. Hatchery fish became salters.  $\star$  All only left after spawning the first time.

0.450 caught in different streams.

The overstocking hypothesis was refuted.

Estuarine areas more important than marine environment.

One study 64.5 days average in sea.

20% unmarked native; 67% hatchery that year; 13% carryover from  $> 1$  yr.

Most live  $\leq 4$  yrs Salters were larger 9-14" vs 6-9"

Limits to trout - crawbarn bog pesticides; rotenone, DDT; stream alteration - canals; dams + warmings (but winter havens),  $\downarrow$  eel grass + size

Much exaggeration of former pop'n so decline not that great.

Cape Cod Canal elimination of major FW drainage systems



Wildlife

Mill Brook Stocking 1968 - 200; 1969 - 200; 1970 - 300; 1971 - 150 + 150; 1972 - 200 + 100  
 EBT EBT RT RT  
 1973 - 300; 1974 - 300; 1975 - 250; 1976 - 250; 1977 - 78 - 250 RT both yrs

So mix of Eastern Brook Trout, Brown Trout, Rainbow - all 6-9"

1988 MV Fish Sampling - <sup>3</sup>Am Br Lamprey, <sup>9</sup>Am eel, <sup>7</sup>Brook trout, <sup>2</sup>Red fin pickerel, <sup>2</sup>Chain  
<sup>4</sup>pickerel, <sup>3</sup>Goldw shiner, <sup>11</sup>Brown bullhead, <sup>13</sup>Sheepshead minnow, <sup>13</sup>Banded kill fish,  
<sup>10</sup>Mummichog, <sup>4</sup>Striped kill fish, <sup>9</sup>Rainwater kill fish, <sup>9</sup>Atlantic silverside, <sup>11</sup>Inland silverside, <sup>10</sup>Fourspine  
<sup>2</sup>stickleback, <sup>2</sup>Threespine stickleback, <sup>10</sup>Ninespine stickleback, <sup>2</sup>Northern pikefish,  
<sup>2</sup>White perch, <sup>2</sup>Banded sunfish, <sup>2</sup>Bluegill, <sup>2</sup>Swamp darter, <sup>6</sup>Tessellated darter,  
<sup>1</sup>Yellow perch, <sup>1</sup>Winter flounder.

26 spp Streams + Ponds

individual reaches may be very limited - Blackwater yes then no

Steve Hurley Wild Brook Trout Popins in Blackwater Brook, Fullins Mill Brook,  
 Mill Brook Chilmark, Mill Brook WT, Witch Brook, UT - Priesters  
 Pd, Paint Mill Brook, Roaring Brook, Tiasquam  
 1988 - most comprehensive survey

Stockings 2001 to 2014 - Duarte's Brook Trout - 3100/150; RT - 1405/1475/10  
 Tiger Trout 25/153; Old Mill Rd BT - 1800/100; RT - 1605/200/2175/10  
 TT - 30/108; Seth's BT 200/50/50; RT 1955/400/2200/5  
 TT - 20/93 Upper Lagoon - BT 2900/300/; RT - 2050/200/2225/10  
 TT 45/248

Rod + Gun Club stocked Duarte's earlier

# Salter's

Times of great decline - eel, herring, shad

One little known survivor - brook trout - salter - coastal

brook trout.

→ Pure; distinct sub pop's

How did survive + not interbreed

reaches + populations can be very limited → so pop' persistence

Survival - poorly knowing; adapt - not tied to

anadromy; can stay small + stunted; original estimates

Not interbreed.

overlooked

Stocked fish poorly adapted to habitat - WMA, bred for

rapid growth

Stick to cold stretches - deep hole Mill Pt; upper reaches

Caught in large #, immediate

Dams that prevent passage also prevent mixing

Pop'n high genetic differentiation - local adaptation?

also drift

Impacts - Land clearance + deforestation - siltation, flow change,

warm water, pollutants incl. livestock

Then - crawleyn bog pesticides, rotenone (herbicide? pesticide)

DDT

Dams, channelization

Estuarine impacts



Fire - Timeline; map on plain  
Controlled burns - all orgs.

## Management + Historical A

Graham 1947 "the most practical wildlife mgt is accomplished through good land use"  
"The wildlife characteristics of a successional stage, thru which the forest must develop to reach the final type desired, should be recognized as transient, and efforts should not be made to perpetuate it in the face of a changing climate"  
Don't cut forest patches for succ spp - deer woodcock  
"In the past, use of the land changed so rapidly that an estimate of the kinds of wildlife, let alone its quantity, was not possible." Today there is little point to be ~~in~~ gained by correlating potential wildlife occurrence with the land, for we are in the process of readjusting our use of the land on a major scale

Leopold "[we] pay too little attention to the history of wildlife... we do not yet appreciate how much historical evidence can be dug up, or how important it can be in the appraisal of contemporary ecology"

✓ Pynchon Springfield 47 hogsheds of 8992 beaver skins 1652-57  
1658-74 6480 beaver (decline); 718 muskrat; 415 moader; 379 other, 92 fisher  
82 martens

Foss Constant change/adjustment - some spp here 10,000 yrs; others 10  
↓ dependency on land stability to manage it.

Droge 1998 "Before European settlement [the Northeast] was a mosaic of open old-growth forests, shifting agriculture, and fire-maintained grasslands and savannas. Following Eur. contact, diseases decimated NA peoples, and much of the unsettled interior became wooded"

2-  
4% MIA residents hunt/fish license - pay most of budget.

mostly no years, southeast - 2014  
- 2012 11/2 - Grand Canyon

Tom O'Shea DFW - "we're using timber harvesting machines to imitate some aspects of natural disturbances such as ice storms, windstorms, and insect infestations"

Hayfield mgt from MAS - Small + Large Pastures



## Wildlife Conservation - Bernardino

Pelts - beaver, fur - bears, deer 1631-36 Plymouth Plantation 10,000 pds sterling

Audubon + Nuttall - songbird recipes w/ descriptions

First MA <sup>outcry 1840</sup> ~~1845~~ - protect fish - 2 commissioners 1865 investigate barriers to fish passage on CT + Merrimack

MA  
Set up fish farms for Shad (1867), Brook Trout (1868), At Salmon (1870)

MA Commission of Fish and Game  
1886 Game Commissioners "to preserve and protect birds + mammals in like manner as fish"

1855 1st MA non-game bird protection 1897 - MA law against wearing bird feathers

MA Anglers Assoc - 1873 - 1st Sportsman's Club 1887 <sup>TR + Grinnell</sup> Boomer + Crocker W

1874 - National Sportsman's Assoc - protect game + fish

1883 - Am Ornith Union - protection against indiscriminate slaughter

1900 Lacey Act - interstate shipment of wild birds + mammals + products  
but few funds for enforcement; may state no law

1903 MA moved beyond game birds to protect herons + bitterns

1913 Weeks - McLean - gave mgmt of migratory birds to fed govt

(Hornaday, Grinnell etc.) - resurrected Migratory Bird Bill; states rights upon

Hornaday - focused on killing alone - not habitat

## Deer Clean-up

8-18-2014

Naturalist Inquirer + Mirror Rabbit fever hits island Aug 6 2001

Lyme described Europe ~1915. 1975- First treated Lyme CT; 1991 - 9465 US

most common arthropod borne disease. Prob in NA 1500

Emergent due to greening of US LI w/ deer Peromyscus - reservoir

All mammals + birds support larvae + nymphs

Hornaday - killing deer - reprehensible

~ 1/2 m hit annually on US highways

Deer ↑ with Eur settlement + deforestation

MAS 2013 - Bambi Plague 95,000 MA



Clear-up Notes Osprey

8-12-2014

National ban on DDT 1972

Gardiners Island - worlds greatest concentration 2500 ac > 200 nests  
1950s + 40s

NA - as low as 11 nesting pairs

DDT + DDE peaked 1950s-60s

exclusive fish; snakes, amphib, small mammals

# Newspaper anecdotes

## The Heath Hen's Journey to Extinction

- 1859 Dr Fisher liberates ruffed grouse + quail; not GPC
- 1877 Foxes + raccoons introduced on MV as sport
- 1902 3 Western prairie chickens liberated - survivors of ~~islands~~ show. No later evidence found



# Heath Hen - Clean up Notes

7.28.2014

2000

Cokinos Fire created its home; easy to shoot, bait or trap

MA 1831 spray off limit Tidbury 1842

1906

Brewster Prairie Hen 6 pairs released 1885 Belmont-Concord; skeptical of Brewster

Grinnell 1910 May have been first meal tasted at Plymouth Rock

1857

Elisha Lewis Called a woodcock bird but in open and thick pitch pine and scrub oak

Grinnell 1910 Reserve should protect HH "from a danger which has been of late years the most important element in reducing its numbers - the bush and forest fires"

Gross 1928 Feb 1791 NY Intro Act for preservation of HH + offer game Cornelius Engel

1898 2 pairs GPC liberated; 1907 large flock GPC Naushon - flew to MV?

1902 GPC released from Boston sportsman show on MV

"Not even an expert ornithologist can distinguish them in the field"

1st protection 1703 + 1985 NY

Bayberry, cranberry, bearberry, Barberry, Mitchella, Vacc. Gay; Acorn, Rumex

leaves, & buds, insects

## Figure Ideas

- To Chris Siedell's animation of houses add forest and forest fragmentation to indicate changing quality of habitat.



Birds

with fragmentation  
 Askins: ↓ grassland, ↓ shrub, ↑ forest but ↓ forest ↑ suburban ↓ interior ↑ generalist  
 chickadee, cardinal, robin ↓ redstart black-throated green

MA largest breeding popn on Atlantic Coast  
 PP < 1400 breeding pairs US; MA 1985-135; 1994-350; 1999-500; 2005-475 at 100 sites 1999  
 1/3 Atlantic coast

Woodcock 3-4 m days hunting annually; 1.1 m killed; early winter April-May; 2.4% ↓ annually  
 1968-94 NE

Indigo bunting just occurs on MV though well north like oak-killed woods Titmic don't like x water  
 Expansion Cardinal, Titmic, Mockersbird, Possum, vulture Mourning Dove  
 SGF 1997- now common

Recover: loon, cormorant, eagle, snowy, peregrine, GBH, LBH, Oystercatch, Goshawk  
 Predators - skunk, coon, chipmunk

## MCSF

Gross 1925 Bluebirds, tree swallows, brown thrashers, Song + field sparrows, prairie warblers, bob white

MAS 2013 Bambi Plague - 95,000 - MA

Lost - ML, UPS, GHS, SE Owl, N Harrier, Whipp,

Decliners Ground nesters, GL, Succ: ↓ Towhee, Bobw, E Thrasher, ovenbird, prairie warbler, white-eye vireo

2013 MAS Change Ag quality; also; intensive; chemicals; "fate of MLark has always been closely tied to farming"

Insects 60% rare moths in MA in SO Barrens, coastal heath, STG Faded gray geometer  
 Chain-dotted geometer

Pass Pigeon Higgonson Salem 1630 "upon the eighth of March from after it was faire daylight until about eight of the clock in the forenoon there flew over all the townes of our plantation

see many flocks of doves, each flock containing many thousands and soe many that they obscured the light, that passeth could, but the truth be written

↓ breeds range - Grassland, shrubland, ground nesters

MAS 2013 ↑ range - wooded swamp breeder, forest breeder, river, lake, pond; spp at 0 range

2012

Aebins et al. "Although appropriate mgmt of airfields + protected natural areas is important for the future of grassland spp in the northeast, farmland remains the greatest potential source of habitat for these species. Providing farmers with economic incentives to manage their land for conservation as well as agric. production could help sustain grassland popns while preserving historically important rural landscapes"

## Wildlife Clean-up

Black Bear Vt jawbone midden. Breckton ref? But no mention from Plymouth County or Bradford, Winslow, Trefethen; 1842 ~ 10; low 1860-80

Turkey - 1600 190,000 in MA; 1951-0; 1911-67 9 attempts to restore in 5 counties  
1972-3 37 trapped in NY → Beartown St forest; 1975-1000, moved 558; 1992 ~ 8-10k in 5 W Counties; 2012 18,000 1991 official state game bird

Beaver Kaye 11,650 Squib bog

Since Freeman/HDT: Dynamics: Skunks eliminated + reintroduced; deer migrated/reintro, NH extinct; Osprey crashed + rebounded; grassland/shrublands ↓; coyote wash ashore; NE cottontail replaced; turkeys, geese exploded etc.

Nadir Skunks - bounty as real problem; then so uncommon missed Devere's 1838? Banks?

Dean 1939 17 sites stocked with quail; 13 with pheasant

Reintroduced - deer, skunk, mink, squirrel, cottontail, raccoon Dunwiddie

NSS - large white owls in winter

Journal Young Man - Aug 13 1846 "Mr Whiting + McClean sunny very good luck some fine Plover, etc.

Lacey Act 1900 - prohibited interstate traffic in wild game

Edminster 1941 Wildlife Mgt + Farms - Original wildlife of forests not abundant. Biggest change - increase openland, deer, grouse; bobwhite, quail, crow, cottontail, birds + woodland so >> diverse!

Skunks 1-3000 on MV; tagged 120; 49 transmitters 1-2 mi/hr!



## Ospreys History on MV - Downloaded WWW

DDT invaded 1940s Boston-NYC 1000-1200 to 100 pairs  
1970s

Gus Ben David 1970-1992 kept track; godfather to 60-70 pairs  
from 2 to > 70 pairs

Gus stopped in 1990s - # chicks declined

1998 Bierregard picked up; visited all 114 nest poles

50 nests - 33 produced 54 young (0.8 young/nest minimum  
to sustain a pop'n)

2008 70 pairs - 121 young - most ever

2010 Beginning of baby boom 74 nestings + 12 additional  
pairs house-keeping (don't lay eggs) + house-busting (no real nest)

No accurate records - 5-10 pairs 1900-1960, Most in old pines

1971 - 2 pairs one on 1769-70 pole above Deep Bottom and  
1 in dead pine Mink Meadows

Since 1971 127 nest poles. Exponential increase 1975-90

more than doubling every 5 yrs. Ave 1.8% young / breeding pair

1992 - > 70 pairs Gus dramatic decline # young fledged - collapse of prey base

1998-2007 58-67 breeding pairs

Early 70s fledged 3-4 young/nest but no ↑ breeding pairs.

Power crews had been removing nests from transformers

At first they watched + replaced transformer nests w/ higher poles

Then speculation poles. Now 40 unoccupied

Now fledging well but no ↑ - unknown why. Food is fine as  
young doing well. Empty poles. Territoriality.

MV pop'n recovered much faster than others from DDT - unclear why

Satellite telemetry, 77 total. 25 on MV, rest NVAH to SC



45 young tagged. (of 77) hourly

Switched in 2011 to GPS telemetry - can follow daily movements

2012 - GSM transmitter - via cell phone not satellite - some by minute.

2013 - 7 w/ GSM 2 on MV

Adults come <sup>north</sup> back Feb/March; juveniles remain in SA another

15 mos. Some not near a cell tower in SA so invisible. 5 within 10-15 mi of cell towers

Lost 6/8 juveniles

Killed by great horned owls or N. goshawks - most GHO

1995 1st transmitters used on sparrows \$3-4K per

Cell - 10,000 pts/mo. Now 5 gms; solar power; ~~GPS~~ - speed, direction, altitude. 2 teflon ribbons over bird shoulder and 2 under wings - stitched together.

Bands - up to 30,000. Most to SA ♀ leave in August; ♂ and juveniles <sup>mid</sup> 3 wks later; juveniles spend extra year on wintering grounds.

Keys to Cuba - Hispaniola - SA; NA birds to valleys in Colombia; few to Argentina. ♀ go further S travel separately

Satellite - only 12 locations/day

Tag males - female w/ eggs glued to nest; 8-9 wks except 1/2 hr. stints;

Ave ~130 mi/day on migration 20-30 mph; don't misvok over land at night; do over water; can fly 50 hrs + 1000 mi.

Return to exact place each winter but may take diff route.

Shift as diff fish spp shift

Rise in popn - stagnant at ~60 <sup>pairs</sup> w/ 120 poles

2007 - 135 sites had been used in 10 yrs; 119 poles set up, 5 old or active electric; 5 houses/sheds - chimneys; 4 trees; 1 boat + 1 HS light tower 72 used 2007

Since 1998 nesting pairs very stable

3 week variation in nesting activity

26 pools or sites have had at least 1 yr w/ breeding birds  
675 young.

A few pairs are most successful. 25 nest sites active every  
yr for 10 yrs: 424 young. 13 of 33 nests > 50% of  
young;

19 nests are < 1 per yr - underachievers. Birds get  
better at raising

Stonewall Pd / Couch Cottage 21

Cornell site

Alaw Pools'

Still shot; especially around fish ponds;

Most GPS units drop off in 2-3 yrs.

Penelope MV to French Guiana - 2700 miles - 13 days  
up to 160,000 miles over 15-20 yrs. Oldest 25 yrs

Osprey - hawks with unusual reversible outer toe - allows  
two forward + two in reverse; barbed pads on feet  
and fly with fish head first

Success 1/4 dives; average = 14 minutes.

Chicks emerge separate by up to 5 days; older can dominate

Fish 6-13 inches; only hawk & exclusive live fish

- Occasional snake, squirrel, salamander + 3-6' wide

Male brings material; female builds nest Can be 10-12' deep

Incubate 36-42 days Nest 50-55



8-4-2014

### Osprey

Begin in Goodale's pit - incongruous. Far from sea but near water. Close to Lagoon Pd. Success in recovery. Tolerance of people and commotion. Lack of full understanding on their distribution. Why there? Why are poles empty elsewhere? Why did the numbers level out?

TN- NuHall 19th C - Abundant + "gregarious" TN; Cowardly disposition; social  
Capt Gardiner - 300 nests with young on E extremity of LI; Wilson 20 within 1/2 mile; TN ~ as thick as DE  
Arrival coincides w/ arrival shoals of fish; shad, herring; public tolerance as no threat to domestic animals;

MV 1900-60 5-10 pairs but no accurate records; nest in old pines

DDT 1940s Boston-NYC 100 pairs from 1000-1200

MV 1971 - 2 pairs: One on 1969-70 pole Deep Bottom; 1 Mink Meadow cloud pine

Gus Ben David Early 70s 3-4<sup>young</sup>/nests but no ↑ as power crews removing nests <sup>transformers</sup>

From replacement to speculation Total 127 nest poles

1975-90 exponential - doubles + every 5 yrs; Ave 1.84 young/pair <sup>need 0.8 young/nest</sup>

MV pop'n recovered much faster than nest

1970-92	GED	2 → 70 pairs	
1992		770 pairs	but decline # young <sup>purchase collapse</sup>
1998	R Bionnegard	114 nest poles visited	50 nests
1998-2007			58-67 breed pairs <sup>max #</sup>
2008			70 → 121 young
2010			74

Now ~40 poles unoccupied; fledging well but no ↑;

Food fine as young doing well

Territoriality? Mortality off island?

## Osprey Status

1995 1st transmitters #3-4K 1 yr  
2011 Switched to GPS telemetry - hourly  
2012 GSM - cell phone not satellite -; 2013 7 w/ GSM 2-MV  
5 gms - speed, direction, altitude; solar power

2007 135 sites used over 10 yrs 5 electric (some aboard.); 5  
houses/sheds/chimneys; 4 trees

since 1998 v stable 96 poles/sites at least 1 yr w/ broodies  
675 young lost 618 juveniles GHO >> N goshawks  
Some poles v. successful 35 nests sites ever or 10 yrs <sup>424 young</sup>  
13 of 33 > 50% of young 19 nest < 1/yr.

Birds better at raising as older

[Disease; cold; malnourish]

Some have nested on ground.

Can make Ft in 2 days

Travelling mortality - fish ponds; shot

Penelope MV French Guiana 2700 mi 13 days

160,000 mi 15-20 yrs oldest ~25 yrs; ave 130 mi/day <sup>20-30 mph</sup>  
can fly 50 hrs 1000 mi.

Juveniles remain SA 18 mos.

♀ leave mid August <sup>- go further S</sup> ♂ + juveniles Sept - 3 wks later

Florida Keys to Cuba - Hispaniola - SA; NA birds to valleys Colombia

few to Argentina; return to same place each winter; may go

1 different route. Overwinter Venezuela, Cuba

Don't nec. return to MV

Belle - E ~~of~~ couple hundred mi W of Bermuda to Colombia and Brazil

## General - Osprey

Hawks with unusual reversible <sup>outer</sup> toe - allows 2 forward/2 reverse

Barbed pads on feet; fly fish head first so aerodynamic

Success ~ 1/4 dives      Avg 14 mins      6-18" fish

Only hawks ~ exclusive live fish; occ. snake, squirrel, salamander

Female builds nest of material make pellets      can be 3-6' x 10-18"

36-42 days incubation      Nest 50-55

♀ on nest - stays w/ eggs glued to nest 8-9 wks except 1/2 hr shift

Diff fish spp as change thru season

## Figures



Griscom, L. and G. Emerson. 1959. Birds of Martha's Vineyard.  
Privately Printed. MV.

Foreword - Roger Baldwin, Guy Emerson, E Hough, H. Hough, Wm Leigh  
Acknowledge Richard Pough editorial work

Griscom - Sheep numbered 30-50,000

Poucho Id was cut thru for bay scallops + ruined as duck pond  
Tashmo also opened

All islands were heavily forested - treeless so w/ heath here was  
originally forest (conifer)

Familiar w/ Gordon Days work

5.12.1916 WT fire - Fam at Eds by 11am <sup>largely eliminated Hthen</sup> 11-13,000 ac. burned

Wm Brewster 6.27.1890 see Hthen + census tern colonies. Drove all around  
MV tallying birds. 38 spp. 325 Towhees, 400 Brown Thrashers,  
only 200 Robins. ~~most numerous he had seen.~~

Saw no Hthen

5.8.1891 - returned. Told grey squirrel introduced. No native red squirrel,  
Woodchuck, chipmunk, deer Saw Hthen

Francis Apthorp Foster - elected to Nuthall Club 1892, moved to MV  
1916. Daily book 1918-24 1922- 133 field trips w/ notes. >200 spp.

Joseph Kittredge Jr - <sup>MV 1911</sup> original member of Norfolk Bird Club MV under  
club founded 1905

1941 - No Mans taken over by Navy for bombing. Ralph Horabours

place on Squib Pond - emergency Coast Guard station with floating targets in pond, used for Navy dive bombing practice.

1938+44 - brood over S Beach - many ponds salt ruining food for ducks  
Pocha Pt - cut through for scallops

1944 - blew down Spruce grove at Roger Baldwin's place Chilmark  
where Barn Owls roosted fall + winter

Many common summer NE residents - Larkins on coastal plain - MV  
Same w/ transients

Fewer sea birds as inside Nova Scotia - CC-ACK

Mrs HBH - weekly avian column

Red Tail - Breeds sparingly but for bush common until 1927

Osprey - Nest Lambert's Cove - <sup>Chappy, WI - E road</sup> 1952-54 w/ young; 4 nests 1954

Bobwhite - Common resident due to restocking

Killdeer - S Shore, MV airport

Am Golden Plover - was common in fall after gale + Plains was a noted shooting locality  
on meadows with Black-bellied Plover

Woodcock - remarkably common resident - best locality in NE

Ups. Plover - formerly common - still on Ed or Kofama Plain

Whippoorwill - Common summer resident

Crow - MV great roasts - birds from Cape roost on MV Far bush 1918

Wood Thrush - 1st 1930 now common - <sup>12 pairs nest</sup> since 1950 - sing in thick woods (C+V)

Bobolink - rare spring, common fall transit. Sept - widely in meadow



Griscom + Emerson

E Meadowlark - formerly abundant, ↓ w/ severe winters

Sav Sparrow - locally common summer resident

Grasshopper - formerly common summer resident, now local 10-20/yr

Hewslow - very rare; 1 pair on Hancock meadows

Copy of Allan Keith's Christmas bird count from VG  
100 spp.



# Heath Hen

File  
7-28-2014

Alfred Gross 1928

Sandy scrub-oak plains

He and others don't mention  
five

At this time it is idle to predict the future of the Heath Hen but it is probable that under the present efficient methods of protection the birds will continue to exist for many years, alternately rising and falling in numbers but finally fading out.

Gather all info about vanishing race

"There is, however, such a dearth of material concerning the Heath Hen during those early times that we know but little of the conditions under which it existed... and we are unable to determine with any degree of accuracy its relative abundance and distribution prior to the nineteenth century."

ME - VA, poss. Carolinas.

Chiefly on sandy SO plains of MA, CT, LI, NY, NJ, PA where large #s

Wm Brewster 1885 2 spp. of which pt only MV

AG - specimens only, located for MV + Nashawena

"we have no proof that birds from other parts of the range remote from MV, as those of PA, were of this subspp."

Wood - 6 in morning

uncertain

Some doubt about Carolinas + ME; Belknap - rare in NH 1792

Muttall/Winthrop - AG no comment

But rare on mainland by 1800

Last MA specimen - NOrth 1830

David Eckley to Audubon Dec 6 1832 - on MV + Nashawena

Nashawena thru 1855 or 1876

217  
105.85.8

## mtl mtl

Few accounts from CT except ~~the~~ Nuttall 1840

LI - <sup>Dr</sup> Samuel Mitchell to Alexander Wilson Sept 19, 1810 - "inhabit chiefly the forest range.

+ other game legislator

Act for preservation of Ht introduced NY Feb 1791 by Cornelius Boyd

No killing Ht before April + Oct 5

An Act for the preservation of Ht and other game"

Extinct ~1840s

PA - Common - Wilson 1837

1869 - now v. rare

lingered NJ + PA to 1869

Extinct from Eliz Is ~1880 exclusive MV

"We cannot be positive because of conflicting and uncertain statements whether the Heath Hen was native to MV or introduced there from the mainland after the coming of the white man."

Act State of MA 1831 - limits to Nov-Dec shoots

Quotes Brewster 1890 on distribution 120 birds - 200

American Ornithology

Hoyle 1901 - collected more specimens than anyone - "range covers all the barrier portions of the island and it prefers the more open portions to the wooded ones"

Fox introduced to MV

made

1898 - 2 liberated pairs GPC - probably interbred - Hoyle



Hine 1907 Mr Forbes liberated large flock PC on Nantuxet  
none found - believed to have flown to MV. Several flocks  
also taken to MV

George Field 1907 - 1902 PC from sportsman show in Boston,  
liberated on MV

Not even an expert ornithologist can distinguish these in the field

NY - 1st protection 1708 + 1785 ; NJ 1820 RI 1846

PC were introduced into Cape Cod 1877 + various seaboard  
states NJ ~2000

Every attempt a failure - not adaptable to new  
conditions, food, cover, enemies + disease

"It is problematical, even if the HH is restored to large numbers on  
MV, whether it <sup>ever</sup> can be successfully transplanted to the mainland."

Big bump 1915-16

Five tower on state forest - built the  
BO + WO 4-10' tall SO ~ 3'

Many blue birds, tree swallows, brown thrashers, Song + Field Sparrows  
Prairie Warbler, Bobwhite

Berries - Bayberry, cranberry, Arctostaphylos, Berberis, Mitchella,  
blueberry, Gaylussacia. Acorns - v. important SO + tree at  
Rumex leaves, buds, insects



"The Heath Hen"

Cokinos, C. 2000. Hope is the Thing with Feathers. Penguin, NY.

From Emily Dickinson

Alexander Wilson painting "Pinnated Grouse" - name for both

starts with Greater Prairie Chicken - 2 races of PC.

HH - dry brushy habitat with low trees; 30+ blueberry bushes barren  
grassy clearings and meadows.

ME to Carolinas LI, NY, NJ, PA, CT, MA stronghold.

Ground nesting though no one found a nest. June-July hatch 3 wks  
incubate;

Fire created its home - lightning, Indians, blueberry farmers

Liked partridgeberry - called HH plum (?) Couldn't find it on MV.

Wm Wood 1635 - kill 6 in morning.

Writers Inscat - Pilgrims survived through first winters on HH

Nuttall - servants etc.

SO imparted bitterness; easy to kill on booming grounds

Indians covered legs with ashes - dust would blind them so could be clubbed

Straight flight easy to shoot; baited + trapped

1821 2 for \$5; market replaced with GPC

MA 1831 3 spring off limits; towns could exempt themselves

Tisbury 1842 - early Dec hunt but no dogs; 1850 exempt - November; 1853

1855 MA - lifted regs; then reinstated

MV HH report 1899 Dep. Game Warden John Howland - some shot every year

Charles Brown MV resident 1932 - few shipped to Boston thru 1940s

C.E. Hoyle shot for collectors - sold BD for \$700

NH extirpated by 1792; CT Valley by just after 1812; 1812 gone from MA

LI by mid 1840s + US mainland ~ 1870

MV closed season 1890 - 200 HH; 1896 < 100

1905 Howland wrote MA F+G Commission - warning of extinction

New Eng closed season at 100

1906 fire - MV - 80 birds total

1907 refuge 1600

1908 another 600 ac + barn + house; raked another 1000

1908 45-60

1909 2000      1910 300      1911 150      1912 300

1913 Wm Day Refuge wards 400

Day plowed 7000 acres - timber economy

1916 Forbush - commissioner visited 800 on one day; 2000 total  
to island

May 12 1916 - fire from cigarette 8 miles in 4 hrs

13,000 ac - birds stayed on nest - cooked

heards of N Goshawks

1917 Wm Day quit after popn plummeted 126

Some captured to mainland - none bred 16♂ 10♀ all died

1918 Allow Kennerly new sp.

Norman MacLinnbeck movie

Forbush - saw 21

1919 AK killed 35 hawks 19 cats 258 rats; 165 birds

1920 Suzzard 600

1921 EF counted 314; hard frosts May + June

1922 117 seen

1923 "



H Hen

1918

Forbush, E. The Healer Hen of Martha's Vineyard.

EH - state ornithologist - MA

starts w/ diorama of PChicken, 1885 - discovery that MV HH was distinct from PC. At that point eliminated from mainland + so impossible to determine how far W it had gone.

Abundant, <sup>NE + Middle States</sup> E of Appalachians and S to PA "in suitable habitats"

Photo of nesting site studied Flat plain - veg one foot grass + scrub with scat sprouts to six ft.

"Shrubby oaks, low bushes + stunted pines". From fire tower on plain.

Strange weird sound; wail of wind like;

"Like the trilling of the toads in a million ponds, like the morning chorus of bird song on a thousand hills, it is a vital, virile expression of the fecundity of old Mother Earth." "It is a paean of hope and joy, a forerunner of the pulsating, vigorous life of summer!"

"Here in the gray dawn a strange, weird sound fills the air. It swells and dies upon the ear, but never rises or falls, and become intermittent or ceases only when the sun rides up the sky." "It is neither whistle nor call; there is no other sound quite like it in nature." "One might imagine it the wail of the wind spirit, but no man understands just what it is or how it is made." "Heard from a distance, borne of a sea wind, it swells to the fullness of a grand undertone."

Carries 2 miles

PC E form - smaller, ruddier or rustier; 



1834 - MA legislation to protect fowl - heathens. Bill for Protection of Heathen of MV

Nest - mere hollow scratched in ground, under scrubby oaks + pines;  
No one knows where HT range ends TC began.

Extirpation due to absence statutory protection + law enforcement.

MV preservation due to local pride + MA Commission Fisheries + Game

Reservation 1907

1906 severe fire; May 2, 1907 - only 21; June 11, 1948 - 45-60

1916 - EH - 800; superintendent - 2000 William Day

Raging fire 1916 + goshawks; April 1917 - 126, many males < 50♀

Few sent to LI - died

Blind - allowed them to walk beneath + around

Toot ~ 4 a.m. dawn until 7 a.m. toot occasionally thru day

Biggest threat cats + hawks

EH there with AC Best April 25 1917

Few foxes, skunks, coons  
on MV; mink rare

Corn planted + scattered to attract them

Great detail on dance

No one knows how they actually couple + mate

Steal into shade at night; disappear w/ alarm; hide easily in  
stubble. But fly swiftly + flutter + sail like meadow lark - mile or more.

Flock can speed across the landscape.

6-13 eggs. Young follow in bars. Never seen in or near water.

Captive birds will drink.

Roost - ground, shrubs + slight in trees

DeVries + Megapolewsis - common where NYC + Albany stand

Nuttall 1832 - Gov Winthrop species once so common "on the ancient <sup>bushy</sup> and  
site of Boston that laboring people or servants stipulated with their employers  
not to have the heath hen brought to their table oftener than a few times in the week



## HHen

William Brewster. 1906 The Birds of the Cambridge Region of Massachusetts. Memoirs of the Nuttall Ornithological Club. Number IV: 172-173.

Prairie Hen - 1885 - 6 pairs freed between Belmont + Concord along Concord Avenue. Lived: a few years - ~~was~~

Heath Hen - Likely Wood's Heathcocks. May kill Heathcocks or Partridge 6 in a morning. Common.

Believes Morton describes HH as Pheasant - seldom shot though good meat; 40 in tree but roost on ground

Nuttall 1832 - Grous plains of NJ, brushy plains of VT, shrubby barrens Westford CT, + MV. Quotes Winthrop but then ~~says~~ "If + Brewster says

If "laboring people" and "servants" were really ever satisfied with HH then the birds must have visited Cambridge shores of Buck Bay.

Eliza Cabot - one saw one in Newton and on Cape ~ 1812

WB - surmises that rather numerous on ancient bushy site of Boston when founded + possibly to Cape Ann

Largely exterminated by 1650. But at least on Cape early 1800s

De-extinction Editorial April 1933 officially extinct

VG 4-3-2014 Heath Hen revival. HBH 1933 "There is no survivor, there is no future, there is no life to be recreated in this form again." also passenger pigeon + mammoth

Revive + Restore - Stewart Brand + wife Ryan Phelp; <sup>DNA background</sup> Non-profit within Long Now Foundation; Susaw Johnson Banta on MV; Peter + Gwen Norton HH genetics 10 yrs old. Use chickens. Surrogate prairie chicken pop'n.



## Heath Hen

Thomas Nuttall, 1832. A Manual of the Ornithology of the United States and of Canada Hilliard and Brown, Cambridge

Ruffed grouse - sell in Boston as low as \$12 1/2 a piece

Pinnated grouse, Grouse, or Prairie Hen - much less common.

Confined to dry, barren and bushy tracts of small extent in several places wholly or nearly exterminated.

Still on grouse plains of NJ, brushy plains of LI, shrubby barrens in Westford CT and MV, scrub oak + pine hills Pocono, PA

Lieut Gov. Winthrop - quote

---

Jim MacDougall Essex County Ornithological Club WWW  
repeats quote - attributes to Townsend.

---

Airizo Orxu Gages birdzilla

Not distinct spp but geographical races

Early mention but a dearth of material

Wood - into NE Mass; restricted to specific spots across E seaboard

No published account matches Nuttall

Chiefly on sandy scrub oak plains, Easily trilled + killed soon after 1840 gone CT + MA mainland

Don't know for certain if native to MA

Brewster 1890 - 200 birds in care of surry entire island

Kentwood 1896 - < 100 "



1908 - 600 ac. bought 1000 ac leased

\$70k by State

50 birds

1915-16 increased so to MV except Gay Head <sup>superintendent</sup> ~2000 acc. to Wmby  
could flush 300 from clover + corn

May 12, 1916 fire 20 mi<sup>2</sup> to <150

1920 many diseased + found dead. Fed near domestic turkeys  
with blackhead

1925 low abb Federated Bird Club NE - \$2000 annually

1927 13 birds - 2 ♀

1928 2 birds in fall one by Dec.

James Green farm

1930 Sept 15 nearly run over on road in plain

Still alive Nov 15 fall 1931 disappear

1st time in history a bird studied down to last one

Nest on ground w/ leaves, grasses, twigs

Acorns, seeds, insects, buds, berries, bearberry

Scrub oak acorns - major staple + rationale for distribution

Easily shot - direct + laborious flight

Heath Hen Film 1918 once abundant SNH - NVA

Matthew Kamm Tufts grad student  
studying extinction

Bowdoin ornithologist - steeply sloping curve 1920s - exponential decline - extinction

Cardoza - they kept them in wrong habitat - open areas/corn fields

2004  
Paltorac et al.

Potential to introduce prairie chicken - divergent genetics either due to  
bottleneck or long separation. More isolated than current populations



## H Hen

George Bird Grinnell 1910 American Game Bird Shooting.  
Forest and Stream Publishing, NY

The Heath Hen - Before prairie grouse discovered the pinnated  
grouse well known. May have been the first meat tasted  
at Plymouth Rock - prairie hen, prairie chicken,  
heath cocke, heath henne

"long abundant in MA" in open, brushy country around  
the seacoast; where it no doubt fed on acorns, berries,  
grass, insects.

"well known in New England in first quarter of the nineteenth  
century, but disappeared soon after that."

Old NE writers speak of it as common Wood\* Hee that is a  
husband, and will be stirring before may kill a half  
a dozen in the morning"

Cites WBrewster + Eliza Cabot b. 1791

May assume it was more or less abundant

C.S. Wescott of PA "frequently spoke of it as having occurred-  
according to tradition - in MD and DEL, on the shores of the  
Chesapeake and on peninsula of MD + VA"

as late as 1832 (but N didn't see them)

Cites Nuttall and Gov Winthrop.

1843 - Linsley - extinct in CT

1840 - Girard - about extinct in LI but abundant in 1810

#

Audubon cites David Eckley Boston - Nashawans only  
other island w/ HH; surprised not on Nashann



"the residents of MV...<sup>(who)</sup> ought to feel proud of this bird and to do everything in their power to preserve it."

Dec. 1832 letter

Eckley - scarce on MV - few weeks resident - 3 people got ten brace of birds. Many killed by cats, owls, hawks, skunks. In Tisbury Plain - "being mostly covered with scrub oak of a uniform height" with occasional mossy hollows"

<sup>early</sup>  
1800s ornithol - did not separate the 2 spp + spot of HH as almost extirminated from its old range on Atlantic coast

Elisha Lewis "The American Sportsman" PA 1857

"The prairie hen was, no doubt, at one time widely disseminated over the whole country, more particularly, in those portions interspersed with dry, open plains surrounded by thin shrubby or scrubby covered with trees." Birds are "very rare" "may almost be considered extinct in the Northern and Middle States" a few on Jersey plain + in PA - we believe

Always abundant in KY + PENN. + LA, Ill, IN

So numerous + contemptible in KY that few huntsmen would bother. As abhorrent as crows. destructive to crops farmers would employ their young negroes to drive them away "the negroes themselves preferring the coarsest food to this now much admired bird". Prairie chickens have deserted MV, Eliz Is, NJ + KY

Called a woodcock bird - but in open + thick PP + SO

~150-200 alive "more nearly extinct than the buffalo"



## Grinnell-2

W Brewster - Ark + Forest + Stream visited 1885

most people on MV have heard of it.

frequently seen along road or "started in the depths of the woods"

long section on history excerpted.

Description of started birds flying fast and low across plain and out of sight. Behavior with young sounds like grouse.

Stay in large flocks of 50-60.

Tried raising by hen. Only 1 born + killed instantly.

Mr J.E. Howland responsible for trying to save it.

Got Rep. Mayhew to introduce bill to lease or buy Ht refuge or breeding center. ~1600 ac under protection

Legislature approved commissioners to take such unimproved lands in MV - not exceeding 1000 ac - to make fire stops

for protection of fire. Should suffice to protect Ht "from a danger which has been of late years the most important element in reducing its numbers - the bush and forest fires.

Preserve land - sow crops of clover + grains, build fire stops, ↓ disease; start systematic ~~the~~ artificial incubation + rearing. \$2400 subscribed by sports clubs + individuals

Elisha Lewis 1851. Pinnated grouse or prairie hen.

So numerous were they a short time since in the barrens of Kentucky...  
that few hunters would deign to waste powder and shoot <sup>on</sup> them.

Described LI, MV, Elizabeth Is. NJ ; moved W

Audubon domesticated 60 by clipping their wings.

Like the divicet situations ; moisture from dew

# Heath Hen

Most ~~initial~~ writings focus on its demise and the details since 1909 when MH reserve established. But highly declining and going extinct, last gasp on area <sup>they were</sup> gathered together. To understand the spp look more broadly + back in time - this provides appreciation and better ability to restore.

Details vague, claims + exaggeration great, facts few. But intriguing.

ME to Carolinas LI, NY, NJ, PA, CT, MA - stronghold (Cape Cod)  
Range - SE (Audubon - "so abundant could hardly be given away" to NEM)

NH - extirp 1792; KY - few 1831; CT Vally + MA 1812; LI - mid 1840s

US Mainland ~1870; CT extinct 1843 (Linsley) Nashawena only, other islands

MA 1831 - Regs

Forbush: Distinct spp - only 1885 - MV #1  
~~#Extinct~~

1839 status MV - "the same causes which have removed the greater proportion will soon deprive us of all" they are said to "diminish fast"

Legend: Pilgrims survived first winter; Nuttall - servants attributed to Gov. Winthrop 1852

1885-90 2 visits Wm Brewster via Grinnell - Wooded

1885 Forbush (1918) - 1st recog that MV MH distinct from GPC and extinct elsewhere so impossible to determine how far W if wood

"shrubby oak, low bushes, scattered pines Fire tower on plain

1933 officialy extinct

Brewster - skeptical of Winthrop quote; rather numerous on busy site of Boston when found + passing to Cape Ann. Large extirp flock 1650; Cape into early 1800s. Eliza about saw one in Newton + on Cape in 1812



Never saw it acc to Grinnell  
Nuttall 1832 much less common than ruffed grouse

Confined to dry, barren + bushy tracts of small extent

Still on grouse plots of NJ, brushy place LI, shrubby barrens of

Wetford CT + MV SO + Pine hills Poconos

Sandy SO plains

Brewster 1890 ~200 birds MV

Kestwood 1896 < 100

1908 land bought 600 ac.

SO acorn major food/dist

1915  $\frac{1}{2}$  MV as  $\uparrow$

Cardoza - wrong habitat

Grinnell 1910 "long abundant in MA" in open bushy country around  
Coast when fed on acorns, berries, grass, insects

Dec 1832 letter from Eckley - scarce on MV - killed by cats,  
owls, hawks, skunks - T's plain "beans mostly covered w/ SO of <sup>uniform</sup> <sub>type</sub>"

"more nearly extinct than the buffalo"

Elisha Lewis 1857 PA Birds are "very rare... may almost be  
considered extinct in the Northern and Middle States"

formerly abundant KY, LA, Ill, IN

Open + thick PP + SO

WBrewster frequently seen along road or "started in the depths of the woods"

have the direct situation

Forbush quote on eerie sound

Nuttall, Thos. 1786-1859 British  
Botanist / Zoologist

A Manual of the Ornithology of the United States and  
Canada The Land Birds  
1834

### Pinnated Grouse

Confined to Dry barren and bushy tracts of small extent  
in several places wholly or nearly extinct  
Wooded thickets; small acorns of scrub oak dwarf oaks  
berries



**Hobson, Jenny**

---

**From:** Foster, David  
**Sent:** Monday, July 28, 2014 7:45 AM  
**To:** Hobson, Jenny  
**Subject:** pp

**Nuttall 1834 A Manual of the Ornithology of the United States and Canada. The Land Birds.**

## PINNATED GROUSE.

{*Tetrao cupido*, L. Wilson. iii. p. 104. pl. 27. fig. 1. [male.] Ait. Orn.Biog. ii. p. 490. pl. 186. Phil. Museum, No. 4700, 41701.)

Spec Charact. — Partly crested, mottled; tail rather short, much rounded, formed of 18 nearly plain dusky feathers, tipped with whitish, primaries externally spotted with brownish white. — In the male the neck is furnished with wing-like appendages. — Female and young without the cervical tufts.

Choosing particular districts for residence, the Grouse, or Prairie-Hen, is consequently by far less common than the preceding species. Confined to dry, barren, and bushy tracts, of small extent, they are in several places now wholly or nearly exterminated. Along the Atlantic coast, they are still met with on the Grouse plains of New Jersey, on the Brushy plains of Long Island, in similar shrubby barrens in Westford, Connecticut, in the island of

Martha's Vinyard on the south side of Massachusetts Bay; and formerly, as probably in many other tracts, according to the information which I have received from Lieut. Governor Winthrop, they were so common on the ancient bushy site of the city of Boston, that laboring people or servants stipulated with their employers not to have the

Heath-Hen brought to table oftener than a few times in the week ! According to Wilson, they are also still met with among the scrub-oak and pine-hills of Pocono, in

Northampton county, Pennsylvania. They are also rather common throughout the barrens of Kentucky, and on the prairies of Indiana, and as far south as Nashville in Tennessee

; but I believe, nowhere more abundant than on the plains of Missouri, whence they continue to the Rocky Mountains. Dislike of moisture, as with the Turkey, but principally the nature of their food, appears to influence them in the choice of their resort. The small acorns of the dwarf oaks, and various kinds of wild fruits, as strawberries, whortle-berries, and partridge berries, with occasional insects, abounding in these wooded thickets, appear to be the principal inducement to their residence; from which they rarely wander at any season, unless compelled by a failure of their usual food, and so become, notwithstanding the almost inaccessible nature of the ground, a sure prey to the greedy and exterminating hunter. In the Western States, where they appear as an abundant species, they are, at times, observed to traverse the plains and even cross extensive rivers in quest of the means of subsistence. In winter they likewise feed on buds as well as mast, sometimes swallowing leaves, and occasionally the buds of the pine. At times, if convenient, they have been known to visit the buck-wheat field, for their fare, or even devour the leaves of clover. In wintry storms they seek shelter by perching in the evergreens ; but in spring and summer they often roost on the ground in company. They feed mostly in the morning and evening ; and when they can stir abroad without material molestation, they often visit arable lands in the vicinity of their retreats. In the inclemency of winter, like the Quail, Jkjiy approach the barn, basking and perching on the fences, occasionally venturing to mix with the poultry in their repast; and are then often taken in traps.

The season for pairing is early in the spring, in March or April. At this time the behavior of the male becomes remarkable. Early in the morning he comes forth from his bushy roost, and struts about with a curving neck, raising his ruff, expanding his tail like a fan, and seeming to mimic the ostentation of the Turkey. He now seeks out or meets his rival, and several pairs at a time, as soon as they become visible through the dusky dawn, are

seen preparing for combat. Previously to this rencontre, the male swelling out his throat, utters what is called a tooting, a ventriloqual, humming call on the female, three times repeated, and, though uttered in so low a key, it may yet be heard 3 or 4 miles in a still morning. About the close of March in the plains of Missouri, we heard this species of Grouse tooting or humming in all directions, so that at a distance the sound might be taken almost for the grunting of the Bison, or the loud croak of the bullfrog. While uttering his vehement call, the male expands his neck pouches to such a magnitude as almost to conceal his head, and blowing, utters a low drumming bellow like the sound of 'k'-tom-boo, 'k'-tom-boo, once or twice repeated, after which is heard a sort of guttural squeaking crow or koak, kdak, koak. In the intervals of feeding we sometimes hear the male also cackling, or as it were crowing like 'ko ko ko ko, kooh kooh. While engaged in fighting with each other, the males are heard to utter a rapid, petulant cackle, something in sound like excessive laughter. The tooting is heard from before day-break till 8 or 9 o'clock in the morning. As they frequently assemble at these scratching-places, as they are called, ambuscades of bushes are formed round them, and many are shot from these coverts.

The female carefully conceals her nest in some grassy tussock on the ground, and is but seldom discovered. The eggs are from 10 to 12; and of a plain brownish color. The young are protected and attended by the female only, who broods them under her wings in the manner of the common fowl, and leads them to places suitable for their food, sometimes venturing with her tender charge to glean along the public paths. When thus surprised, the young dart into the neighboring bushes, and there sculk for safety, while the wily parent beguiles the spectator with her artful pretences of lameness. The affectionate parent and her brood thus keep together throughout the whole season. By the aid of a dog they are easily hunted out, and are readily set, as they are not usually inclined to take wing. In the prairies, however, they not unfrequently rise to the low boughs of trees, and then, staring about without much alarm, they become an easy prey to the marksman.

The ordinary weight of a full grown bird is about three pounds, and they now sell, when they are to be had, in New York and Boston, from 3 to 5 dollars the pair. They have been raised under the Common Hen, but prove so vagrant as to hold out no prospect of domestication.

The Grouse, or Heath-Hen, as it was also formerly called by the first settlers, is about 19 inches long, and 27 in alar extent. The winglike tufts on the sides of the neck, each consisting of 18 feathers, of unequal length, are black, streaked with brown. Over the eye a warty bare space of an orange-color. Cbin cream-color. Above mottled transversely with black, pale rufous, and white. Tail short, much rounded, and plain dusky, brownish-white at the tip, with one web of the middle feather sometimes mottled with black and pale brown. Below pale brown and white. Feet dull yellow, the toes pectinated. Vent whitish. Iris reddish hazel. — The female considerably smaller, and without the neck wings and yellow space over the eye.

#### COCK OF THE PLAINS.

(Tetrao urophasianus, Bonap. Am. Orn. iii. pl. 21. fig. 1. [female.]  
Auu. Orn. Biog. 4. p. 503. pl. 371. T. (Cextrocercus) urophasianus,  
Swains. North. Zool. ii. p. 358. pi. 58.)

Spec Charact. — Tail wedge-shaped, of 20 narrow, acuminate feathers. — Male very dark. — Female and young mottled.

This large and beautiful species of Grouse, little inferior to the Turkey in size, and the American counterpart of the Cock of the Woods, was first seen by Lewis and Clarke in the wild recesses within the central chains of the Rocky Mountains, from whence they extend in accumulating numbers to the plains of the Columbia, and are common throughout the Oregon Territory, as well as the neighboring province of California.

---

David R. Foster 978.724.3302  
Director, Harvard Forest, Harvard University  
324 N. Main Street Petersham, MA 01366



The PINNATED GROUS, *Tetrao cupido*, was once very common in New England, but, being more shy than the preceding species, it has already been driven from all but a very few places, where it is comparatively free from intrusion. Audubon says, that when he first went to Kentucky, they were so abundant, that they could hardly be given away; now, hardly one can be found in the State, and they are, in like manner, fast disappearing from all the settled parts of the west. In Massachusetts, laws have been enacted to preserve the heath-hen, as it is commonly called; but it is impossible to withstand the operation of the law of nature by legislative enactments, and the same causes which have removed the greater proportion will soon deprive us of all. The better way is to try the experiment of domestication; the bird is easily tamed, and breeds in confinement. Some which Audubon kept for the purpose, soon became familiar, and would eat from the hand as readily as common fowls. Unfortunately, they became so destructive to the vegetables of the garden, that he was obliged to have them killed; but the experiment proceeded far enough to show,

that neither the natural wildness of the bird, nor the want of proper food, would prevent their being reared by any one who is willing to take the trouble.

The grouse feeds on berries of various kinds, in their season, the acorns of dwarf oaks, and the buds and leaves of trees. In summer, they pick whortleberries and cranberries, and sometimes venture into a field to pick the leaves of clover. It is said, that, sometimes in winter, when they are hard pressed with hunger, they will feed on the buds of the pine. They are also known, under these circumstances, to join the domestic poultry.

The *tooting*, for which these birds are remarkable, is produced by means of the air bags at the side. When these, resembling a small orange, are inflated, the bird lowers its head, opens its bill, and sends forth the air contained in these receptacles, in a succession of rolling notes, like those of a muffled drum. In parts of the country where the birds are become few and wild, this sound is seldom made after sun-rise, and sometimes the battles of the rival males are carried on in silence, and the *scratching grounds* carefully concealed.

The nest is built in May, with dry leaves and grasses, interwoven, and is carefully placed amidst the tall grass of a large tuft, where it is not often discovered. The eggs, from eight to twelve in number, resemble those of the preceding species, though somewhat larger in size. The female sits nearly three weeks, and as soon as the young are hatched, leads them away from the nest. When surprised, they conceal themselves, like young partridges, and one may search for them in vain, though perhaps he is treading them under his feet. In autumn, the different families associate together, sometimes in very large parties. Their most dangerous enemies are the hawk, the skunk, and the greatest of all destroyers, man.

The only place where they are now found in Massachusetts, is in Martha's Vineyard, and one small island near it; and there, though pains are taken to protect them, they are said to diminish fast. the high price which they command in the market, being a strong temptation to shoot them. Cats, also, which

run wild in the island, do their part in the work of extermination. The wonder is, that with all their timidity, they have remained so long, but their patience and their attachment to their old haunts will be wearied out, and other means must be found to gratify the epicure's taste, and the sportsman's love of pleasure. The order of nature supplies such game, as a resource for the pioneers of civilization, while the process of clearing the soil goes on; till the earth is subdued, the deer, the birds, and the fish, supply means of sustaining life. But when agriculture, and the other arts of life, begin to be pursued with profit and success, these resources cease to be needed; the habits of the hunter are inconsistent with regular industry; and as the game would only serve to tempt men away from their cares and duties, the forests and streams are deserted, and their wild tenants go where there are other adventurers who need them. If the gallinaceous tribes can be preserved, it is by domestication, not by law. Experiments should be made for several years in succession, and if these fail, we must make up our minds to lose them.

Swift & Cleaveland 1903. 1823 – Reconsidered to except hunting of heath hen; \$5 fine for Heath Hen – split with poor and complainant. 1842 – Law for preservation of grouse or heath hen be suspended in Tisbury to allow inhabitants to kill, take or sell from December 1-10 – without dogs.

November 14, 1842 – Warrant to prevent illegal hunting and shooters of heath hen first ten days in December.

Committee of vigilance to see that non-residents don't trespass on town rights to shoot heath hens the first 10 days in December. Printed in *New Bedford Mercury and Weekly Register*.

## Heath Hen

Nuttall 1834 A Manual of the Ornithology of the United States and Canada. The Land Birds.

### PINNATED GROUSE.

{*Tetrao cupido*, L. Wilson. iii. p. 104. pl. 27. fig. 1. [male.] Ait. Orn.Biog. ii. p. 490. pl. 186. Phil. Museum, No. 4700, 41701.)

Spec Charact. — Partly crested, mottled; tail rather short, much rounded, formed of 18 nearly plain dusky feathers, tipped with whitish, primaries externally spotted with brownish white. — In the male the neck is furnished with wing-like appendages. — Female and young without the cervical tufts.

Choosing particular districts for residence, the Grouse, or Prairie-Hen, is consequently by far less common than the preceding species. Confined to dry, barren, and bushy tracts, of small extent, they are in several places now wholly or nearly exterminated. Along the Atlantic coast, they are still met with on the Grouse plains of New Jersey, on the Brushy plains of Long Island, in similar shrubby barrens in Westford, Connecticut, in the island

of Martha's Vinyard on the south side of Massachusetts Bay; and formerly, as probably in many other tracts, according to the information which I have received from Lieut. Governor Winthrop, they were so common on the ancient bushy site of the city of Boston, that laboring people or servants stipulated with their employers not to have the Heath-Hen brought to table oftener than a few times in the week ! According to Wilson, they are also still met with among the scrub-oak and pine-hills of Pocono, in Northampton county, Pennsylvania. They are also rather common throughout the barrens of Kentucky, and on the prairies of Indiana, and as far south as Nashville in Tennessee ; but I believe, nowhere more abundant than on the plains of Missouri, whence they continue to the Rocky Mountains. Dislike of moisture, as with the Turkey, but principally the nature of their food, appears to influence them in the choice of their resort. The small acorns of the dwarf oaks, and various kinds of wild fruits, as strawberries, whortleberries, and partridge berries, with occasional insects, abounding in these wooded thickets, appear to be the principal inducement to their residence; from which they rarely wander at any season, unless compelled by a failure of their usual food, and so become, notwithstanding the almost inaccessible nature of the ground, a sure prey to the greedy and exterminating hunter. In the Western States, where they appear as an abundant species, they are, at times, observed to traverse the plains and even cross extensive rivers in quest of the means of subsistence. In winter they likewise feed on buds as well as mast, sometimes swallowing leaves, and occasionally the buds of the pine. At times, if convenient, they have been known to visit the buck-wheat field, for their fare, or even devour the leaves of clover. In wintry storms they seek shelter by perching in the evergreens ; but in spring and summer they often roost on the ground in company. They feed mostly in the morning and evening ; and when they can stir abroad without material molestation, they often visit arable lands in the vicinity of their retreats. In the inclemency of winter, like the Quail, they approach the barn, basking and perching on the fences, occasionally venturing to mix with the poultry in their repast; and are then often taken in traps.

The season for pairing is early in the spring, in March or April. At this time the behavior of the male becomes remarkable. Early in the morning he comes forth from his bushy roost, and struts about with a curving neck, raising his ruff, expanding his tail like a fan, and seeming to mimic the ostentation of the Turkey. He now seeks out or meets his rival, and several pairs at a time, as soon as they become visible through the dusky dawn, are seen preparing for combat. Previously to this rencontre, the male swelling out his throat, utters what is called a tooting, a ventriloqual, humming call on the female, three times repeated, and, though uttered in so low a key, it may yet be heard 3 or 4 miles in a still morning. About the close of March in the plains of Missouri, we heard this species of Grouse tooting or humming in all directions, so that at a distance the sound might be taken almost for the grunting of the Bison, or the loud croak of the bullfrog. While uttering his vehement call, the male expands his neck pouches to such a magnitude as almost to conceal his head, and blowing, utters a low drumming bellow like the sound of 'k'-tom-boo, 'k'-tom-boo, once or twice repeated, after which is heard a sort of guttural squeaking crow or koak, kdak, koak. In the intervals of feeding we sometimes hear the male also cackling, or as it were crowing like 'ko ko ko ko, kooh kooh. While engaged in fighting with each other, the males are heard to utter a rapid, petulant cackle, something in sound like excessive laughter. The tooting is heard from before day-break till 8 or 9



o'clock in the morning. As they frequently assemble at these scratching-places, as they are called, ambuscades of bushes are formed round them, and many are shot from these coverts.

The female carefully conceals her nest in some grassy tussuck on the ground, and is but seldom discovered. The eggs are from 10 to 12; and of a plain brownish color. The young are protected and attended by the female only, who broods them under her wings in the manner of the common fowl, and leads them to places suitable for their food, sometimes venturing with her tender charge to glean along the public paths. When thus surprised, the young dart into the neighboring bushes, and there sculk for safety, while the wily parent beguiles the spectator with her artful pretences of lameness. The affectionate parent and her brood thus keep together throughout the whole season. By the aid of a dog they are easily hunted out, and are readily set, as they are not usually inclined to take wing. In the prairies, however, they not unfrequently rise to the low boughs of trees, and then, staring about without much alarm, they become an easy prey to the marksman.

The ordinary weight of a full grown bird is about three pounds, and they now sell, when they are to be had, in New York and Boston, from 3 to 5 dollars the pair. They have been raised under the Common Hen, but prove so vagrant as to hold out no prospect of domestication.

The Grouse, or Heath-Hen, as it was also formerly called by the first settlers, is about 19 inches long, and 27 in alar extent. The winglike tufts on the sides of the neck, each consisting of 18 feathers, of unequal length, are black, streaked with brown. Over the eye a warty bare space of an orange-color. Chin cream-color. Above mottled transversely with black, pale rufous, and white. Tail short, much rounded, and plain dusky, brownish-white at the tip, with one web of the middle feather sometimes mottled with black and pale brown. Below pale brown and white. Feet dull yellow, the toes pectinated. Vent whitish. Iris reddish hazel. — The female considerably smaller, and without the neck wings and yellow space over the eye.

#### COCK OF THE PLAINS.

(*Tetrao urophasianus*, Bonap. Am. Orn. iii. pl. 21. fig. 1. [female.]  
Auu. Orn. Biog. 4. p. 503. pl. 371. T. (*Cextrocercus*) *urophasianus*,  
Swains. North. Zool. ii. p. 358. pi. 58.)

Spec Charact. — Tail wedge-shaped, of 20 narrow, acuminate feathers. — Male very dark. — Female and young mottled.

This large and beautiful species of Grouse, little inferior to the Turkey in size, and the American counterpart of the Cock of the Woods, was first seen by Lewis and Clarke in the wild recesses within the central chains of the Rocky Mountains, from whence they extend in accumulating numbers to the plains of the Columbia, and are common throughout the Oregon Territory, as well as the neighboring province of California.

#### Heath Hen

**Bird Grinnell, G. 1910. American Game-Bird Shooting. (eds). New York, Forest and Stream Publishing Company.**

Not much had been written about the heath hen on Martha's Vineyard until the year 1885, when Mr. William Brewster visited the island for the special purpose of studying the bird. He reported the results of this visit in the **Auk**, and in 1890 repeated the trip and gained additional information, which was printed in **Forest and Stream**. He said:

"Throughout Martha's Vineyard, the heath hen (locally pronounced hêth'n, as this grouse is universally called) is well known to almost every one. Even in such seaport towns as Cottage City and Edgartown, most of the people have at least heard of it, and in the thinly settled interior it is frequently seen in the roads or along the edges of the cover by the farmers, or started in the depths of the woods by the hounds of the rabbit and fox hunters.

"Its range extends, practically, over the entire wooded portion of the island, but the bird is not found regularly or at all numerous outside an area of about forty square miles. This area comprises most of the elevated central portions of the island, although it also touches the sea at not a few points on the north and south shores. In places it rolls into great rounded hills and long, irregular ridges, over which are scattered stretches of second-growth woods, often miles in extent, and composed chiefly of scarlet, black, white and post oaks, from fifteen to forty feet in height. Here and there, where the valleys spread out broad and level, are fields which were cleared by the early settlers more than a hundred years ago, and which still retain sufficient fertility to yield very good crops of English hay, corn, potatoes and other vegetables. Again, this undulating surface gives way to wide, level, sandy plains, covered with a growth of bear, chinquapin and post-oak scrub, from knee to waist high, so stiff and matted as to be almost impenetrable; or to rocky pastures, dotted with thickets of sweet fern, bayberry, huckleberry, dwarf sumac and other low-growing shrubs,

"Clear, rapid trout brooks wind their way to the sea through open meadows, or long, narrow swamps, wooded with red maples, black alders, high huckleberry bushes, andromeda and poison dogwood, and overrun with tangled skeins of green briars.

"At all seasons the heath hens live almost exclusively in the oak woods, where the acorns furnish them abundant food, although, like our ruffed grouse, they occasionally at early morning and just after sunset venture out a little way in the open to pick up scattered grains of corn or to pluck a few clover leaves, of which they are extremely fond. They also wander to some extent over the scrub-oak plains, especially when blueberries are ripe and abundant. In winter, during long-continued snows, they sometimes approach buildings, to feed upon the grain which the farmers throw out to them. A man living near West Tisbury told me that last winter a flock visited his barn at about the same hour each day. One cold, snowy morning he counted sixteen perched in a row on the top rail of a fence near the barnyard. It is unusual to see so many together now, the number in a covey rarely exceeding six or eight, but in former times packs containing from one to two hundred birds each were occasionally met with late in the autumn.

"Only one person of the many whom I questioned on the subject had ever seen a heath hen's nest. It was in oak woods, among sprouts at the base of a large stump, and contained either twelve or thirteen eggs. The date, he thought, was about June 10. This seemed late, but I have a set of six eggs taken on the Vineyard July 24, 1885, and on July

19, 1890, I met a blueberry picker who only the day before had started a brood of six young, less than half grown. These facts prove that this bird is habitually a late breeder.

“The farmers about Tisbury say that in spring the male heath hen makes a booming or tooting noise. This, according to their descriptions, must resemble the love notes of the western pinnated grouse. About sunrise, on warm, still mornings in May, several birds may be sometimes heard at once, apparently answering one another.

"During my stay at Martha's Vineyard, I obtained as many estimates as possible of the number of heath hens which are believed to exist there at the present lime. My most trustworthy informants were, creditably, averse to what was apparently mere idle guessing; but when I questioned them, first as to the extent of the region over which the birds ranged, and next as to how many on the average could be found in a square mile within this region, they answered readily enough, and even with some positiveness. As already stated, the total present range of the heath hen covers about forty square miles. The estimates of the average number of birds per mile varied from three to five, giving from 120 to 200 birds for the total number. These estimates, it should be stated, relate to the number of birds believed to have been left over from last winter. If these breed freely and at all successfully, there should be a total of fully 500, young and old together, at the beginning of the present autumn. When one considers the limited area to which these birds are confined, it is evident that within this area they must be reasonably abundant. I was assured that with the aid of a good dog it was not at all difficult to start twenty-five or thirty in a day, and on one occasion eight were killed by two guns. This, however, can be done only by those familiar with the country and the habits of the birds.”

May 1906 (?) destructive fires – over most of breeding grounds- few birds reared

Oct 1906 – May 1907 - <100

December 1907 - 75

First protective law 1831 – closed season March 1 – September 1.

1837 – closed season for four years, extended for five more

But permitted towns to suspend law: Tisbury did suspend for ten days on a couple of occasions beginning 1842.

No real effort to enforce until 1905.

“The inhabitants of Martha’s Vineyard felt a local pride in having there a bird found nowhere else in the world, but this local pride was not strong enough to protect the species.”

Nuttall 1834 A Manual of the Ornithology of the United States and Canada. The Land Birds.

PINNATED GROUSE.

{*Tetrao cupido*, L. Wilson. iii. p. 104. pl. 27. fig. 1. [male.] Ait. Orn.Biog. ii. p. 490. pl. 186. Phil. Museum, No. 4700, 41701.)

Spec Charact. — Partly crested, mottled; tail rather short, much rounded, formed of 18 nearly plain dusky feathers, tipped with whitish, primaries externally spotted with brownish white. — In the male the neck is furnished with wing-like appendages. —



Female and young without the cervical tufts.

Choosing particular districts for residence, the Grouse, or Prairie-Hen, is consequently by far less common than the preceding species. Confined to dry, barren, and bushy tracts, of small extent, they are in several places now wholly or nearly exterminated. Along the Atlantic coast, they are still met with on the Grouse plains of New Jersey, on the Brushy plains of Long Island, in similar shrubby barrens in Westford, Connecticut, in the island of

Martha's Vinyard on the south side of Massachusetts Bay; and formerly, as probably in many other tracts, according to the information which I have received from Lieut. Governor Winthrop, they were so common on the ancient bushy site of the city of Boston, that laboring people or servants stipulated with their employers not to have the Heath-Hen brought to table oftener than a few times in the week ! According to Wilson, they are also still met with among the scrub-oak and pine-hills of Pocono, in Northampton county, Pennsylvania. They are also rather common throughout the barrens of Kentucky, and on the prairies of Indiana, and as far south as Nashville in Tennessee ; but I believe, nowhere more abundant than on the plains of Missouri, whence they continue to the Rocky Mountains. Dislike of moisture, as with the Turkey, but principally the nature of their food, appears to influence them in the choice of their resort. The small acorns of the dwarf oaks, and various kinds of wild fruits, as strawberries, whortleberries, and partridge berries, with occasional insects, abounding in these wooded thickets, appear to be the principal inducement to their residence; from which they rarely wander at any season, unless compelled by a failure of their usual food, and so become, notwithstanding the almost inaccessible nature of the ground, a sure prey to the greedy and exterminating hunter. In the Western States, where they appear as an abundant species, they are, at times, observed to traverse the plains and even cross extensive rivers in quest of the means of subsistence. In winter they likewise feed on buds as well as mast, sometimes swallowing leaves, and occasionally the buds of the pine. At times, if convenient, they have been known to visit the buck-wheat field, for their fare, or even devour the leaves of clover. In wintry storms they seek shelter by perching in the evergreens ; but in spring and summer they often roost on the ground in company. They feed mostly in the morning and evening ; and when they can stir abroad without material molestation, they often visit arable lands in the vicinity of their retreats. In the inclemency of winter, like the Quail, Jkjiey approach the barn, basking and perching on the fences, occasionally venturing to mix with the poultry in their repast; and are then often taken in traps.

The season for pairing is early in the spring, in March or April. At this time the behavior of the male becomes remarkable. Early in the morning he comes forth from his bushy roost, and struts about with a curving neck, raising his ruff, expanding his tail like a fan, and seeming to mimic the ostentation of the Turkey. He now seeks out or meets his rival, and several pairs at a time, as soon as they become visible through the dusky dawn, are seen preparing for combat. Previously to this rencontre, the male swelling out his throat, utters what is called a tooting, a ventriloqual, humming call on the female, three times repeated, and, though uttered in so low a key, it may yet be heard 3 or 4 miles in a still morning. About the close of March in the plains of Missouri, we heard this species of Grouse tooting or humming in all directions, so that at a distance the sound might be

taken almost for the grunting of the Bison, or the loud croak of the bullfrog. While uttering his vehement call, the male expands his neck pouches to such a magnitude as almost to conceal his head, and blowing, utters a low drumming bellow like the sound of 'k'-tom-boo, 'k'-tom-boo, once or twice repeated, after which is heard a sort of guttural squeaking crow or koak, kdak, koak. In the intervals of feeding we sometimes hear the male also cackling, or as it were crowing like 'ko ko ko ko, kooh koo. While engaged in fighting with each other, the males are heard to utter a rapid, petulant cackle, something in sound like excessive laughter. The tooting is heard from before day-break till 8 or 9 o'clock in the morning. As they frequently assemble at these scratching-places, as they are called, ambuscades of bushes are formed round them, and many are shot from these coverts.

The female carefully conceals her nest in some grassy tussuck on the ground, and is but seldom discovered. The eggs are from 10 to 12; and of a plain brownish color. The young are protected and attended by the female only, who broods them under her wings in the manner of the common fowl, and leads them to places suitable for their food, sometimes venturing with her tender charge to glean along the public paths. When thus surprised, the young dart into the neighboring bushes, and there sculk for safety, while the wily parent beguiles the spectator with her artful pretences of lameness. The affectionate parent and her brood thus keep together throughout the whole season. By the aid of a dog they are easily hunted out, and are readily set, as they are not usually inclined to take wing. In the prairies, however, they not unfrequently rise to the low boughs of trees, and then, staring about without much alarm, they become an easy prey to the marksman.

The ordinary weight of a full grown bird is about three pounds, and they now sell, when they are to be had, in New York and Boston, from 3 to 5 dollars the pair. They have been raised under the Common Hen, but prove so vagrant as to hold out no prospect of domestication.

The Grouse, or Heath-Hen, as it was also formerly called by the first settlers, is about 19 inches long, and 27 in alar extent. The winglike tufts on the sides of the neck, each consisting of 18 feathers, of unequal length, are black, streaked with brown. Over the eye a warty bare space of an orange-color. Chin cream-color. Above mottled transversely with black, pale rufous, and white. Tail short, much rounded, and plain dusky, brownish-white at the tip, with one web of the middle feather sometimes mottled with black and pale brown. Below pale brown and white. Feet dull yellow, the toes pectinated. Vent whitish. Iris reddish hazel. — The female considerably smaller, and without the neck wings and yellow space over the eye.

#### COCK OF THE PLAINS.

(*Tetrao urophasianus*, Bonap. Am. Orn. iii. pl. 21. fig. 1. [female.]  
Auu. Orn. Biog. 4. p. 503. pl. 371. T. (*Cextrocercus*) *urophasianus*,  
Swains. North. Zool. ii. p. 358. pi. 58.)

Spec Charact. — Tail wedge-shaped, of 20 narrow, acuminate feathers. — Male very dark. — Female and young mottled.

This large and beautiful species of Grouse, little inferior to the Turkey in size, and the

American counterpart of the Cock of the Woods, was first seen by Lewis and Clarke in the wild recesses within the central chains of the Rocky Mountains, from whence they extend in accumulating numbers to the plains of the Columbia, and are common throughout the Oregon Territory, as well as the neighboring province of California.



## The Last of the Heath Hens

4.5.1929

One heath hen still lives. Waiting in the small cubicle which has served for several seasons as observation post in the field of James Green at West Tisbury, Dr. Alfred O. Gross, Thornton W. Burgess and others this week saw the last survivor of the species go through the ritual of countless years. Out of the brush came the bird and exhibited the now empty formality, the tragic irony of its famous mating dance. Perhaps this is the last spring in which a heath hen will boom anywhere in the world.

We believe that time has taken the situation in hand and revealed what in past years has been a subject of dispute. So long as hope could be held out that more heath hens existed, it was right that the hope should be kept in view; now it will be a person blind indeed to reality who can maintain that more than a single survivor of the species remains. The chance that so much as one other bird, besides the regular visitor in Green's field, still exists, is so slim as to claim small consideration.

Much has happened in a year. Although the actual number of birds seen has declined only from three to one, the possibility of additional groups or additional individuals has waned. It now appears that in recent years the actual number of birds seen has almost certainly constituted the entire surviving flock. And today only one remains.

Wild though it is, the last of the heath hen presents itself upon its ancestral booming place for inspection and we have the unparalleled, almost unbelievable situation, of the final individual of a once bountiful species being studied, photographed and described in its natural surroundings, its natural routines of life, so soon before its death.

For death awaits, perhaps tomorrow, perhaps a year from now. The extinction of the heath hen is plainly at hand. May it be delayed! Courage and luck to the lonely survivor, and when it comes may death be peaceful.

As for the scientists who have studied the heath hen and interested themselves in its protection, it must be said that the issue has justified the reports of Dr. Gross and those associated with him. Every effort is to be made to keep track of the last heath hen and when word comes, if it does, that the bird is dead, we charge ourselves to give him an obituary worthy of his epic and heroic end.

## Leadership Against the Mosquitoes

Martha's Vineyard, thanks to the initiative and patient work of some summer residents, is taking the lead in this state in the matter of mosquito elimination. A bill is now before the legislature the purpose of which is to provide ways and means for cities and towns to develop mosquito control campaigns. Dr. A. W. Gilbert, state commissioner of agriculture, has espoused the bill because of its probable beneficial effect upon country districts where vacationing city people afford an important market for farm products. He points out that the country recreational possibilities in Massachusetts are just coming into a period of considerable development and that the absence of mosquitoes will play an important part in this development.

other dependable means of transportation.

Not all men of the older Vineyard were sailors or horsemen, however. Not all were farmers, even though they were landsmen. It is said of an army that it takes twenty men in the shops, fields and so on to keep one soldier on the battle front, and so it is in peace time occupation. It takes many men to keep one afloat, or equipped to pursue his occupation as farmer or builder.

As an industry wanes those who occupy the rear supporting positions feel the decline first and accordingly disappear the soonest. In the case of the whaleships the outfitters and ship chandlers probably diminished in number before the ships did, and among the various lines of business ashore that flourished in older days, those who supplied the equipment and raw materials faded out of the picture one by one as the demand for their services became less and less, until at the present time certain lines of business and the trades connected with them have disappeared entirely and only now and then are mentioned by some elderly person who is able to recall them and the men who were thus employed.

## Horse Has Not Yet Vanished

The hardest thing to banish from the scheme of things, both on the Vineyard and other places, are the horses. True, the pleasure carriage is seldom seen, only three or four being in use on the Island today. But on the farms, and in places where draught animals are required, the tractor has not yet gained supremacy over the horse. There are still a number owned and employed daily, but that number is so small that no young man would consider learning the trade of horse-shoer or carriage-wright, and the last of the Island harness-makers closed the door of his shop last fall after more than half a century of business. This man is Franklin G. Downs, known to the entire Island as a harness-maker, having been the only one in business for many years. So modest and reticent is Mr. Downs that although he has often been urged to talk for publication he has steadfastly refused, always with the declaration that no one could possibly be interested in his commonplace career.

## Half a Century Ago

From the Vineyard Gazette for April 4, 1879:

The Dukes County Academy in West Tisbury closed Friday after an unusually successful term.

The Division of Edgartown, in the house of representatives Wednesday the bill for the incorporation of Cottage City was refused engrossment by a vote of 92 to 92 plus 10 pairs, and the house refused to reconsider its action by a vote of 83 to 79.

Friday's Gazette Wednesday on account of East Day.

# Last Heath Hen Booms in Vain for Vanished Mates

## Believed Sole Survivor, He Is Observed and Photographed at Annual Census

# State Reservation to Be Continued Till Only Bird of Kind in World Is Dead

A single male heath hen, almost certainly the sole survivor of its species in the whole world, showed itself this week to Dr. Alfred O. Gross and Thornton W. Burgess, here to make the annual heath hen census. The solitary bird appeared upon its ancestral booming ground on the West Tisbury farm of James Green and vainly postured and called for a mate which does not exist. Mr. Burgess, in the portable hut used as a blind for the study of the heath hen, took motion pictures of the last survivor.

In company with Allan Keniston, superintendent of the state reservation, Dr. Gross covered a great deal of ground where heath hen have been seen in other years. Mr. Keniston has maintained a careful watch of the Island cover, making daily reports of his quest for living heath hen. Whenever heath hen were reported to have been seen he investigated thoroughly. In every case where birds have been found they have proved to be ruffed grouse, and not the pinnated grouse or heath hen.

A year ago the census takers saw three birds. At that time, although the case of the heath hen was considered desperate, there was a sharp difference of opinion as to the number which might be believed to exist. Up to December 8 Mr. Keniston was able to keep track of two birds on the Green farm. Since that time only one has been seen, and the certainty that this bird alone survives has gained general acceptance.

### Former Estimates Too Hopeful

Dr. Gross, although reserving his conclusions for his official report to Director William C. Adams of the Massachusetts division of fisheries and game, has no further doubt that the total number of birds seen in recent years has been fairly close to the total number alive. It has been customary to make an estimate on the basis of the number actually seen, with the expectation that the birds seen might

## DIES AT HOSPITAL

### Charles F. Place First Came to Island 40 Years Ago

Charles F. Place, 77, died at the Martha's Vineyard Hospital Saturday morning, March 30, following the effects of a shock on the previous day. He had been in poor health for about five years.

Mr. Place was born in North Easton, Mass., and for the greater part of his life was engaged in shoe manufacturing. More than forty years ago he and his family came to the Vineyard in summer, following that program until about twenty years ago when the family established a permanent residence at 10 Clinton avenue, where they have since remained. Their residence was occupied by President Grant when he visited the Island in 1874.

After coming to Oak Bluffs Mr. Place was employed by the Camp Meeting Association until he was incapacitated by ill health.

He was a member of the Methodist Church and earlier in life had been a member of the Independent Order of Odd Fellows, and of the Knights of Pythias. Throughout his career he was noted for his fidelity and conscientious performance of duty.

He is survived by his widow, Mrs. Velina W. Place; a son, Frederick B. Place, both of Oak Bluffs; and a daughter, Mrs. Elizabeth Macy, of Au Sable Forks, New York; and four grandchildren.

Services were held at his late residence, on Tuesday, at 1:45, the Rev. C. H. Van Natter officiating. Burial was at Oak Bluffs.

The funeral was held on Tuesday at 1:45 p. m. at his late residence at 10 Clinton avenue and was conducted by his pastor, Rev. Charles H. Van Natter. Interment was in the local cemetery. The bearers were J. W. Woodard, D. J. McBride, M. C. Hoyle and H. T. Webb.

The casket was literally covered with beautiful flowers sent by organizations, friends and relatives.

## Hurley Is Named Master in Chancery

### Appointment as Special Justice of Dukes County District Court Automatically Vacated

Governor Frank G. Allen on Wednesday sent to the council the nomination of Francis X. Hurley as master in chancery, thus vacating the nomination previously made of Mr. Hurley for special justice of the district court of Dukes County.

According to Boston despatches Mr. Hurley's appointment as special justice was not confirmed because of criticisms on the Vineyard of his inexperience and youth. Mr. Hurley's

## Vote \$45,000 in 20 Minutes

### Tisbury Settles 5 Articles in Jig Time—To Buy Pumper—\$35,000 Addition for School Is Voted

Five articles, involving the appropriation or expenditure of more than \$45,000, were disposed of in twenty minutes at the special town meeting in Tisbury on Tuesday night. This period included the reading of the warrant and the election of the moderator, which was done by ballot.

Immediately following the adjournment of the town meeting, which voted an additional \$35,000 for the new schoolhouse, the schoolhouse building committee went in executive session, and awarded the schoolhouse building contract to A. M. Lundberg of St. Louis, which firm was the lowest bidder.

About 150 voters were present. Herbert N. Hinckley was elected moderator without opposition and the reports of the committees appointed at the annual town meeting to recommend fire apparatus and housing for the same were heard first.

### To Buy 500 Gallon Pumper

E. C. Burleigh read a detailed report of the recommendations for apparatus, which embodied in brief the purchase of one 500-gallon American-LaFrance pumper with 1200 feet of double-jacketed hose and other equipment enumerated in the report, also a Ford hose truck equipped to fight forest fires. Mr. Burleigh said that the cost of the recommended purchases would come well within the limits of the sum appropriated for the purpose. On a motion it was voted to authorize the town selectmen to make the purchase of the equipment as recommended.

Raymon G. Paltz then made the report of the committee on housing of the apparatus. The committee did not recommend the building of a central fire house, mentioning among other reasons the risk of housing the town's entire equipment under one roof unless the building were fireproof, which the committee considered impractical at this time owing to the expense.

The committee therefore recommended the storing of the new pumper in the town hall, and the remaining equipment in garages. The committee also declined to recommend the employment of a permanent man on duty at the station, offering a guarantee by the board of fire engineers that the equipment would at all times be ready for use. These and a further recommendation regarding an inquiry as to the reduction of insurance

## Spring Bird

Four called lings, early chatter Butter here at quant the cor on East The afflicted summer the Vi April. Expe waters tured summe arrived season usual.

## FOUR

## Henry After

Henry lapsed b just outs

ternoon, in train

New Be Irving

driving face do

ported Brown a

scene, Chief-B

scious n was aliv

The n to be tl

was hal at once

and his to acute

gained c ory who

Benefi ances through

He was

MR

Sumn Bl

Mrs. etyville of asph at the The b the dau

# State Reservation to Be Continued Till Only Bird of Kind in World Is Dead

A single male heath hen, almost certainly the sole survivor of its species in the whole world, showed itself this week to Dr. Alfred O. Gross and Thornton W. Burgess, here to make the annual heath hen census. The solitary bird appeared upon its ancestral booming ground on the West Tisbury farm of James Green and vainly postured and called for a mate which does not exist. Mr. Burgess, in the portable hut used as a blind for the study of the heath hen, took motion pictures of the last survivor.

In company with Allan Keniston, superintendent of the state reservation, Dr. Gross covered a great deal of ground where heath hens have been seen in other years. Mr. Keniston has maintained a careful watch of the Island cover, making daily reports of his quest for living heath hen. Whenever heath hen were reported to have been seen he investigated thoroughly. In every case where birds have been found they have proved to be ruffed grouse, and not the pinnated grouse or heath hen.

A year ago the census takers saw three birds. At that time, although the case of the heath hen was considered desperate, there was a sharp difference of opinion as to the number which might be believed to exist. Up to December 8 Mr. Keniston was able to keep track of two birds on the Green farm. Since that time only one has been seen, and the certainty that this bird alone survives has gained general acceptance.

## Former Estimates Too Hopeful

Dr. Gross, although reserving his conclusions for his official report to Director William C. Adams of the Massachusetts division of fisheries and game, has no further doubt that the total number of birds seen in recent years has been fairly close to the total number alive. It has been customary to make an estimate on the basis of the number actually seen, with the supposition that the birds seen might be supposed to be only a part of the flock actually alive. In earlier years, when the birds were numerous, this method was probably accurate. More recently, with the heath hen reduced to a small number, and the entire plains of the Island carefully and repeatedly combed for a glimpse of some additional survivor, there probably have been few if any birds not accounted for. This is the more true since elimination of females has gradually done away with the possibility that birds might be sitting on their nests and hence could not be counted.

The reward of \$100 offered to anyone who could guide Mr. Keniston to a spot where there were as many as three heath hens has not been claimed. Mr. Burgess, who was one

gram until about twenty years ago when the family established a permanent residence at 10 Clinton avenue, where they have since remained. Their residence was occupied by President Grant when he visited the Island in 1874.

After coming to Oak Bluffs Mr. Place was employed by the Camp Meeting Association until he was incapacitated by ill health.

He was a member of the Methodist Church and earlier in life had been a member of the Independent Order of Odd Fellows, and of the Knights of Pythias. Throughout his career he was noted for his fidelity and conscientious performance of duty.

He is survived by his widow, Mrs. Velina W. Place; a son, Frederick B. Place, both of Oak Bluffs; and a daughter, Mrs. Elizabeth Macy, of Au Sable Forks, New York; and four grandchildren.

Services were held at his late residence, on Tuesday, at 1:45, the Rev. C. H. Van Natter officiating. Burial was at Oak Bluffs.

The funeral was held on Tuesday at 1:45 p. m. at his late residence at 10 Clinton avenue and was conducted by his pastor, Rev. Charles H. Van Natter. Interment was in the local cemetery. The bearers were J. W. Woodard, D. J. McBride, M. C. Hoyle and H. T. Webb.

The casket was literally covered with beautiful flowers sent by organizations, friends and relatives.

## Hurley Is Named Master in Chancery

Appointment as Special Justice of Dukes County District Court Automatically Vacated

Governor Frank G. Allen on Wednesday sent to the council the nomination of Francis X. Hurley as master in chancery, thus vacating the nomination previously made of Mr. Hurley for special justice of the district court of Dukes County.

According to Boston despatches Mr. Hurley's appointment as special justice was not confirmed because of criticisms on the Vineyard of his inexperience and youth. Mr. Hurley is the son of Patrick J. Hurley, chief detective in Cambridge. He is a graduate of Harvard Law School and was admitted to the bar last fall.

The vacancy as special justice was caused by the advancement of Abner L. Braley to succeed Judge Arthur W. Davis when the latter became judge of probate.

## TISBURY TAKES SKEET LAUREL

Benjamin C. Cromwell brought home the laurels from last week's skeet shoot at the Martha's Vineyard Skeet Club, knocking seventeen out of twenty-five pigeons for a loop. Al Leonard made 14, 15 and 16 in three separate scores, Clyde MacNeill 14 and 14 and Dr. Amaral 14.

Forty-three scores of 25 rounds each were fired over the traps during the week.

in Tisbury on Tuesday night. This period included the reading of the warrant and the election of the moderator, which was done by ballot.

Immediately following the adjournment of the town meeting, which voted an additional \$35,000 for the new schoolhouse, the schoolhouse building committee went in executive session, and awarded the schoolhouse building contract to A. M. Lundberg of St. Louis, which firm was the lowest bidder.

About 150 voters were present. Herbert N. Hinckley was elected moderator without opposition and the reports of the committees appointed at the annual town meeting to recommend fire apparatus and housing for the same were heard first.

## To Buy 500 Gallon Pumper

E. C. Burreigh read a detailed report of the recommendations for apparatus, which embodied in brief the purchase of one 500-gallon American-LaFrance pumper with 1200 feet of double-jacketed hose and other equipment enumerated in the report, also a Ford hose truck equipped to fight forest fires. Mr. Burreigh said that the cost of the recommended purchases would come well within the limits of the sum appropriated for the purpose. On a motion it was voted to authorize the town selectmen to make the purchase of the equipment as recommended.

Raymon G. Paltz then made the report of the committee on housing of the apparatus. The committee did not recommend the building of a central fire house, mentioning among other reasons the risk of housing the town's entire equipment under one roof unless the building were fireproof, which the committee considered impractical at this time owing to the expense.

The committee therefore recommended the storing of the new pumper in the town hall, and the remaining equipment in garages. The committee also declined to recommend the employment of a permanent man on duty at the station, offering a guarantee by the board of fire engineers that the equipment would at all times be ready for use. These and a further recommendation regarding an inquiry as to the reduction of insurance rates were accepted by the town on a motion, without a word of discussion.

## Article Is Tabled

Under article three, which called for action on the request that a sum of \$500, appropriated for the promotion of baseball, be paid to the baseball club known as the Vineyard Haven Bears, Frederick C. Vincent, chairman of the board of selectmen, read from the acts of 1910 a special act which authorizes the town to raise and appropriate sums not to exceed \$500 annually, for the purpose of advertising the town or promoting entertainments of a public nature. The sum of \$500 has already been raised for advertising, he said, and the money paid over to the Chamber of Commerce which has the handling of it, and the town therefore had no authority to raise more. On motion this

the Vn April. Expe waters tured summer arrived season usual.

## FOUL

## Henry After

Henry lapsed b. just outs ternoon.

in trainl New Bed Irving

driving face dov

ported t Brown a scene, t Chief-Br

scious m was alive

The ne to be th was hall at once

and his to acute gained co

ory wha Benefit ances in through He was

## MR

## Summ Bl

Mrs. I Atyville, of asph at the a

The b the dau ston of wa brov

The fi on Tues known spent m where b in the : serving years.

Mrs. dence v survived childrer William ruary: 1 ter of gren of William bur S. Johnsto

ter of gren of William bur S. Johnsto

ter of gren of William bur S. Johnsto

ter of gren of William bur S. Johnsto

ter of gren of William bur S. Johnsto



# LAST HEATH HEN BOOMS IN VAIN FOR VANISHED MATES

(Continued from Page One)

of those to offer the reward, this week expressed his willingness to give the amount to anyone who could find a single additional bird, with the known survivor at the Green farm accounted for.

For several years there have been no heath hen on the state reservation and it has been taken for granted that they had moved away for some unknown reason. Dr. Gross and Mr. Burgess are now inclined to believe that the reservation birds became extinct and that they did not move to any other refuge. The lone heath hen at the Green farm, if this belief is correct, is probably the survivor of the great flock which has frequented that particular part of the plains from time immemorial, a flock described by Mr. Green as of considerable size as far back as he can remember. The heath hen, like other species, has an ingrained habit of returning to its ancestral mating ground in the spring; and it is likely that the heath hen on the Island have always been colonized and that the colony which alone represents the species today is the last to die out.

### State Will Continue Protection

How long a period lies between the single surviving heath hen and the extinction of the species cannot be conjectured. Dr. Gross said this week that every effort will be made to protect the bird and to keep track of it. Mr. Adams has given his assurance that the state reservation will be maintained even after the bird can no longer be found, with Superintendent Keniston in charge. Perhaps the end of the heath hen will come soon; it may be delayed until another spring.

An unparalleled and singular experience of science is that of studying at close range the last specimen of a species about to become extinct, the surviving specimen continuing to live its normal life in the habitat of its ancestors. The last passenger pigeon died in captivity; presumably no one saw the last dodo die. The last heath hen, free and wild to the very end, enjoys its liberty and yet, following the action patterns of its species, presents itself to view and acts out its mating ritual under the very eyes of the greatest authorities upon its natural history and under the lens of a motion picture camera.

Dr. Gross said that nothing could be gained, in his opinion, by attempting to capture the last heath hen. There are heath hen skins, well mounted, in many museums and science could not profit by stepping in

# Some One, Some Day

By A. W. PEACH

(Copyright.)

IRMA raced from the gate to the vine-clad porch where her invalid mother was busy with her knitting. "Mother, what do you think? Uncle Ren did remember us. Here's a letter from his lawyers, saying that he left us \$50,000 in cash, that the money had been forwarded to our local bank, and—well—now—"

Her mother laughed at the long sigh that followed the "now." "Now, Dark Eyes, I suppose you will want to be doing missionary work with it. Ren never liked us, but I guess he thought better of his family as he grew older. What are you going to do with it?"

Irma looked into her mother's twinkling eyes. "Well, with this and what father left us, I guess we won't worry any more; and then—and then—mother dear, I'm going to give Mrs. Jameson enough to have Bobby operated on, and I'm going to buy that home for old Mr. and Mrs. Peebles, and—"

"Gracious, child, get your breath! I hope you will do happy things with what we don't need, and our needs are not luxurious. We—here comes Del Stewart!" Her mother added, looking up the walk.

Irma went to meet him, a little of the happiness of her plans going from her face. Stewart was a persistent suitor almost to the point of being annoying; but he was regarded in the village as a good catch for any girl, and the village had been unable to understand why Irma had not accepted him. As a matter of fact, she had been on the verge of doing so, but always the realization that she did not love him as she wanted to love some one some day held her back.

She told him the good news, but he did not seem in any sense overjoyed by the information. She guessed the reason. The son of the richest family in the village, he had made her realize what he could do for her and her mother. In dark moments that thought had tempted her—but only for moments.

The next week she proceeded to make a few dreams come true. Mr. Peebles, limping home from work, found the deed to his home waiting for him in his wife's trembling hands. The old people wept softly in each other's arms, and then went slowly down the street together to the Raines cottage. The little Jameson boy, his

# 'ROUND 'BOUT TISBURY

Thirteen baptisms took place at the Baptist church during the morning and evening Easter services. Six of those baptised included Mr. and Mrs. Albert O. Fischer and members of their family.

The Needlework Guild, Federated Church of Edgartown, will give a play, "When Smith Stepped Out", at the Edgartown Gym, April 17, at 8:15 p. m.—advtm29-3

Dr. and Mrs. Edwin S. Thompson arrived home for the summer last Monday and went at once to their place at Menemsha-by-the-Sea. The doctor is looking fine.

Captain and Mrs. George Moir also arrived from Southern Pines on Monday, with Raymond Baptiste, who de-toured on his way home from California to join them on the trip home.

Mrs. George Furber and her little daughter were seen on the street this week.

Edward C. Swift spent the Easter vacation at home.

Merrymakers Dance, April 12, Association Hall, Vineyard Haven, Billy Ward's Orchestra. Benefit of St. Augustine's Church.—advtm22andap5

Mr. and Mrs. Thornton K. Burgess and Dr. Alfred O. Gross have been guests at the home of Mr. and Mrs. Allan Keniston this week. Mr. Burgess has been making moving pictures of the last known survivor of the heath hen flock while Dr. Gross has been combing wood and fen with Mr. Keniston in search of a possible mate or companion bird.

Carl E. Reed, honored and respected Chilmark merchant, and famous for his impersonation of a flock of wild ducks, calls our attention to the fact that he has recently been in town two or three times without receiving any mention in these columns. This paragraph, therefore, is to notify all and sundry that Mr. Reed was in town on Tuesday, and at exactly 5.35, daylight saving time, was at the home of his brother-in-law, from which distant vantage point he made wisecracks over the phone to the reporter.

Tuning and Repairing: pianos, players, pipe organs. Stanley Leaming. Call Briggs Stores.—adv-t-f

The first degree was conferred upon Donald S. Swift at the regular communication of Martha's Vineyard Lodge, A. F. and A. M., on Tuesday night. Following the work, an entertainment was given by Warren Tanner of the New England Telephone & Telegraph Co., consisting of a showing of moving picture films of the working process of the new system about to be installed on the Vineyard. Refreshments were served.

Although he has not hung out his

upon its natural history and under the lens of a motion picture camera.

Dr. Gross said that nothing could be gained, in his opinion, by attempting to capture the last heath hen. There are heath hen skins, well mounted, in many museums and science could not profit by stepping in ahead of nature. This last bird, therefore, is to be left to its own devices. It will die in the surroundings in which it has lived.

On Tuesday morning, the heath hen was seen to alight in a tree and from this unaccustomed perch he sent out his mating cry, the low penetrating boom that sounds like blowing in the neck of a bottle and carries farther than a gun shot. For a heath hen to boom in a tree is very rare. The watchers also saw a hawk soar above Green's field and the last heath hen wheel away in fear of this hereditary foe. How many such occasions there must be each day, it is impossible to guess. But on every threat of danger to this bird at West Tisbury the extinction of a species is in the balance.

Soon the time will come which no man can prevent when this lone cock of the plain brush will pass, and the dust of the ages, faintly tracked by the passenger pigeon and many another species, will bear a fresher track leading away into oblivion, the track of the heath hen.

## Unused to Fencing Cock Ducks in Vain

Once more Manuel Bettencourt figures in the public eye through his poultry, and this time he is credited with the gaining of pugilistic fame. It appears that Manuel owns a very large rooster whose responsibilities as lord and master of the coop rest lightly upon him. In fact the rooster is prone to escape from the run and wander abroad to the discomfort and irritation of his owner.

After having rounded up his rooster several times until his nerves were pretty well on edge Manuel started out with a small stick when the fowl next tried to roam, and cornering the bird, attempted to catch it by making passes with the stick even as the toreador of old Spain crosses with his rapier the horns of the maddened bull.

But alas the rooster, unused to fencing, ducked beneath the stick just as it fell, and in an instant dropped to the ground, unconscious. Manuel bore the fowl home in deep grief. He was not sure that it was dead, but he felt quite convinced that the rooster would be useless for anything but display as "hung game" as he tenderly laid it in a shady spot.

But the fowl revived and is apparently as good as ever, although it makes no more attempts to leave its lawful harem and recognized domain. Which is why his friends all claim that "Manuel won by a knockout" and the statement is pretty apt, at that.

Peebles, limping home from work, found the deed to his home waiting for him in his wife's trembling hands. The old people wept softly in each other's arms, and then went slowly down the street together to the Raines cottage. The little Jameson boy, his pale face alight with hope that he was going to be made like other boys, went with his mother to the great city.

Then out of the clear sky came the word that left Irma almost fainting—a letter from the western firm of lawyers, telling her to cease drawing on the \$50,000, that a later will had been discovered in which the money had been left to Mr. Starr Kingston, a friend of her uncle; that a representative would see her about the matter.

She was at her wits' end. "What shall I do? What shall I do?" was the bitter question she faced. She had spent the money for things that could not be returned. She might take the little money in her mother's name—and that would mean poverty for them.

In desperation she told Stewart. He smiled. "Marry me, Irma, and I'll take care of the whole thing," was his solution.

She looked at him with frightened eyes, and started to offer herself, for the gateway he mentioned seemed the only one. Just as his greedy eyes were growing triumphant, the doorbell rang and Irma had to go.

At the door she found a tall, clean-cut young man, and looked up into gray, pleasant eyes. She guessed who he was. "You are from Stetson & Stetson?" she asked fearfully.

He nodded. "Yes, I am here to explain the situation and arrange for the return of the money. It is very unfortunate."

Stewart was forgotten, as, her mind in a whirl, Irma led the tall lawyer into the cottage living room and began the terrible explanation.

He listened quietly, then said, "I would like to see Mr. Peebles' home and the Jameson lad—in fact, just what you have done."

He came the next day and she told him what she had done. The day drew into a week. Evenings found him at her house, a part of the little circle of home life. Under the quiet friendliness of his ways Irma almost forgot the tragic import of his errand. Then came the evening when he announced his departure. That night in the quiet of her room Irma saw with a soul's clear vision that in him she had found the some one she could love some day. But tomorrow he would come, tomorrow he would suggest some arrangement for the return of the money she had used. Very quietly she came to her decision to marry Del Stewart.

The next afternoon the attorney came. He asked her to walk with him in the old-fashioned garden her-

tainment was given by Warren Tanner of the New England Telephone & Telegraph Co., consisting of a showing of moving picture films of the working process of the new system about to be installed on the Vineyard. Refreshments were served.

Although he has not hung out his shingle, Francis X. Hurley, attorney at law, is now established in our midst, the first lawyer to make his headquarters in Vineyard Haven for 10 these many years. Frank has more than a mere passing affection for the Island, having spent his summers in Oak Bluffs since he was a small boy, and also being a college classmate of one of the Island's athletic heroes, Bayes M. Norton.

Rev. Clifton Chase has gone to Brockton to attend the Methodist Conference. He left Tuesday to be gone about a week.

A new Dodge delivery truck has been acquired by Paul Bangs.

Frank Swift has joined the movement to "brighten the corner where you are", and the fact that his place of business is located in the middle of the block doesn't make a bit of difference, the boy is going the whole way. The whole inside of the place is to be redecorated and some upright showcases have been built in. Then the front will be remodelled so that passersby can look in and see just how far the well-dressed young man's pants, beg pardon, trousers, should come from the floor.

Bishop Herman R. Page, Mrs. Page and their son, have been guests at the Mansion House this week. Bishop Page is building a summer home on a site near Tashmoo.

Mr. and Mrs. Albert S. Vennerbeck of Providence and Oak Bluffs stopped at the Mansion House this week while on a spring visit to the Island.

Judge Walter Makepeace and family have returned to Waterbury after a stay here. They were at the Mansion House.

Mr. and Mrs. Fred Magee and Mr. and Mrs. L. E. Briggs visited New York City last week.

Mr. and Mrs. John Costa, Mt. Aldworth, are the parents of a daughter, born March 28. The baby is to be named Laura.

The three masted schooner Esthonia, 8 days from Halifax, docked in Vineyard Haven harbor yesterday with 500,000 feet of lumber and lathes aboard, part of it consigned to the Vineyard. She was brought into the harbor by Pilot Louis Smith.

Agreements have been signed by Margaret J. Stinson of Somerville, and Esther B. Foster, recently of Vineyard Haven, for the sale and purchase of the two family house and garage located at 10 Whitman street, West Somerville.

St. Augustine's church gave a dance Easter Monday.

A chamarita was held in the Red Men's hall Saturday evening. The affair was given for the benefit of Maria Santos, who is in the Chil-

To  
Oa  
Dr.  
Carl  
F. C  
A. S  
Mur  
To  
Cary  
Mac  
Smil  
Crov  
Dela  
To  
De  
T  
con  
the  
Gra  
men  
cis  
Gra  
mon  
T  
Will  
thur  
Mite  
thir  
ferr  
take  
ing  
T  
Clul  
1, a  
Mor  
T  
fice  
Ma  
Luc  
ton  
war  
G  
ine  
"co  
ser  
the  
16

in Vin-  
ment in  
e U. S.  
district.  
Kelley  
trip.  
ollaston  
dmoth-  
th Wa-  
ian, nee  
he week  
e, North  
  
on was  
ek end,  
and Mrs.  
  
Wilson,  
ame for  
ich time  
about in  
  
Wellesley  
om Port  
of their  
e Easter  
  
of Wo-  
pent long  
of Jere-  
in Cam-  
age and  
was at  
  
nders and  
rised the  
the week  
  
the sloop  
dock with  
son, Cap-  
New York  
of mixed  
h was in  
probably  
  
alibuters",  
s of bait,  
0 barrels,  
on Thurs-  
sly. Prob-  
ound this  
  
graces the  
aurant on  
electrically  
sign is the  
ger. of the  
  
Wellesley  
is parents',  
on, for the  
  
tingly ob-  
hurch. The  
rated with  
hyacinths,  
rought by  
d ones who  
choir ren-  
music, and  
nurtlett and  
Miss Huss,  
the theme,  
the theme

effect a service entitled "Daybreak" At the Federated Church, St. Andrew's Episcopal and at St. Elizabeth's Catholic Church, large audiences were present, and all was in keeping with the glad Easter season. Over 200 were present at the last named church at the early morning service.

An addition 15x40 is being added to the rear of the French building on Main street, occupied by A. S. Teller. Ralph S. Taylor is in charge of the work.

A heavy shower of rain just before 2 o'clock this morning was very welcome as a sign that "all's right in the sky". The only reason for regret is that more did not follow. Thunder and lightning in the distance indicated that other sections were receiving the rain more abundantly.

### NORTH TISBURY

Mrs. Catherine Lomes of Dongan Hill, Staten Island, N. Y., is here for a few days, the guest of Mr. and Mrs. W. L. Webb, Seven Gates Farm.

Mrs. Isabel Andrews has returned from a visit on the mainland.

Miss Dorothy Barton went to her home in Wakefield to spend the week end and holiday, and was detained several days by illness.

Mrs. Lewis A. Rogers has returned from a visit of some length with relatives in Vineyard Haven.

Miss Emma Sherman Daggett has been spending a week's vacation from her school duties in Kearny, N. J., at home with her parents, Mr. and Mrs. Obed S. Daggett, Cedar Tree Neck.

Mrs. Lewis Rogers has returned home after an extended visit with her mother, Mrs. Mary O. Dow of Vineyard Haven. She was entertained by several friends and relatives while there, reporting the best visit ever.

What is the origin of these syllables, Do, Re, Mi, Fa, So, La, Si, as names for the seven notes of the musical scale? In histories of music their invention or discovery is attributed to Guido d'Arezzo or Aretinus, a Benedictine monk who lived near Ravenna, Italy, in the first half of the Eleventh century. As a music teacher of his fellows in the Pomposa monastery he was credited with the production of a teaching of music which gave immediate results in singing that before him could scarcely be attained in ten years.

Guido went to Rome to teach Pope John to sing and he met with complete success by means of his new syllables; after but one lesson the pope was able to find the tone of an antiphon and to sing it. Guido called his system solmisation; it consisted in part of the use of the now well-known syllables.

But a deeper search into the history

## U. E. MAYHEW FOUGHT LONG FDR HEATH HEN

### Ex-Representative's Interest in Birds Helped Establish The State Reservation

Former Representative U. E. Mayhew of West Tisbury rises once more in the defense of the heath hen, which he fought for back in 1907 when he was the Island representative to the General Court.

Mr. Mayhew expresses his strong interest in the birds and his desire that everything possible may be done to prevent their extinction. That this feeling is not of recent origin is probably well known to those who remember his fight to gain the establishment of the state reservation in the year mentioned.

It was on Jan. 1, 1907, that Mr. Mayhew introduced a petition for taking over a tract of the plain land for a heath hen reservation. This petition was the result of work done by other Vineyard men who realized that the birds were growing scarce.

The fish and game committee reported a bill in favor of the proposed taking on March 12, and upon being reported to the house on that same day it was referred to the committee on ways and means, as it carried finance. Mr. Mayhew was a member of this committee, which was headed by the house chairman, Joseph Walker.

Opposed by Walker from start to finish, the report of the ways and means committee was a rejection, which went to the house in May. Three days later the matter of the rejection came up on the floor of the house for debate and it was then that Mr. Mayhew moved that the bill be substituted for the report of the committee on ways and means.

Although the vote was close the motion was approved and took its third reading a few days later without much opposition. The bill was engrossed on May 31, enacted on June 10, and was signed by the governor on that date, 1907.

It is thus seen that Mr. Mayhew's motion started the actual work of state protection for the birds, and his interest in them has never waned.

road ease and  
road readi-  
ness  
and su-  
prame comfort  
  
W. S. NEVIN, Edgartown

"Don't you know what those are? They're Appalachians." — Manuel Swartz.

Nash  
Miles  
Are  
Smoothest  
Miles

# Free

For every FIVE GALLONS of GAS you buy MONDAY, APRIL 25, we will give ONE CAN of AUTO SOAP.

## Osborn's Service Station

Main St, Edgartown Phone 74

## To Remove Hair Quickly

from arms, under arms and legs use

### Primrose House

#### DEPILATORY POWDER

which is pleasant in odor and acts within five minutes.

Price \$1.00 a bottle

At Our Toilet Goods Department

### Mrs. L. E. Dame Norton

Circuit Avenue, Oak Bluffs  
Tel. 500

# AUTO LAUNDRY



...ng, when she left for  
The general interest  
of the town continued  
...ed to Edgartown a  
...a constant procession  
...ain street to the Yacht  
...ere she is berthed. The  
...de her trip from Da-  
...line, in twenty hours,  
...d of ten miles an hour  
...her easily the fastest  
...feet.  
...ooner is a beautiful  
...ndsmen and even more  
...e lover of salty things.  
...shows at once in her  
...which is surprisingly  
...yacht. With very few  
...would make an ideal  
...in which for some ar-  
...n to tear around the  
...s finer lines than other  
...he fleet, a high bow, a  
...a good sheer. Yet she  
...room than any other  
...harbor, partly because  
...and wide stern with a  
...rhang. By these same  
...oes not sacrifice any  
...ake of the better speed,  
...what more hold room  
...T. Hillman. Her fuel  
...d 1600 gallons. There  
...hold for thirty tons of  
...can pack down 55,000  
...fish.  
...t B. is seventy-three  
...nd sixteen feet, eight  
...beam. She draws eight  
...dimensions make her a  
...than the Hillman and  
...than the other schoon-  
...about the same ton-  
...arion, recently sunk on  
...eighty-four feet overall  
...feet beam.  
...ice of speed which the  
...s on top is due to her  
...as to her lines. The  
...is a new type Fair-  
...of 100 horsepower. It  
...oil burning and self re-  
...to New Bedford on  
...in Norton had the en-  
...rn to Page Three)

mother of twins and her declining  
years are not to be hurried by  
fears of the slaughter house. 4.18

**LONE HEATH HEN'S SPIRIT BROKEN, IS BELIEF OF DR. GROSS**

**Bird Will Be Allowed to Live Without Disturbance From the Hand of Man**

In his report of the heath hen census for 1929, Dr. Alfred O. Gross gives a striking picture of the last survivor of the species as he was observed on James Green's farm at West Tisbury, early this month. Although the report is nominally of a census, in reality it is simply a description of the lone remaining heath hen and a report on the bird's condition and prospects. Dr. Gross writes:

The annual heath hen census was made March 28-April 4 under the auspices of the Massachusetts Division of Fisheries and Game.

During the year 1928 the number of heath hen dwindled from three to one lone male bird. This bird was alive at the time of the annual census taken March 30 to April 3, 1929. Though suggestions have been made to the State Department of Conservation to collect and preserve this last bird for science, it has been allowed to live its normal life among the scrub oaks on the sandy plains of Martha's Vineyard Island. It was the common expectation at the time of the last census that this bird would step out of existence before another year had passed and with its going another race of birds would be added to that endless array of extinct forms. It is truly remarkable that this lone bird, subject to all the vicissitudes of the weather, to disease, and to natural enemies, has been able to live in solitude for such a long time.

**Gives Credit to James Green**

The bird continued to visit the farm of James Green, West Tisbury, during the early spring of 1929 and was reported as late as May 11. After that date, as was the custom of the heath hen in the past, this individual disappeared among the dense scrub oaks to live in seclusion during the summer months. In October, after going through the ordeal of moulting, it again appeared at the Green farm to announce to the world that it was still alive. It was seen at irregular intervals during the winter and since the

(Please turn to Page One, Sec. 2)

**Band Plays, Bell Tolls as Pupils Go from Old to New**

from which he never completely rallied. He was stricken with his fatal illness just two days after the death of Sanderson M. Mayhew, his lifelong friend and associate in the town affairs of West Tisbury. Mr. Rotch was 33 years old, one year younger than Mr. Mayhew.

The bitterness which was stirred when the town of West Tisbury was set off from the town of Tisbury under the leadership of Mr. Rotch died away long ago, and more than one generation has looked upon him as the Father of West Tisbury, and, to use a phrase coined long ago in the columns of the Gazette, in the character of "the Sage of the Midlands"—a guide, philosopher and authority on Islanders and the Island. At least three different aspects of his life were sufficient, each in itself, to have brought him renown and respect: his active and successful business life during which he carried on a general store in West Tisbury and a grist mill and grain store in Vineyard Haven; his career of thirty-eight consecutive years as chairman of the board of selectmen for West Tisbury; and his later devotion to Vineyard history and genealogy of which he had a great store of knowledge.

**Birthplace was Chilmark**

William J. Rotch was born in Chilmark, the son of John D. Rotch and Sarah Tilton Rotch. He removed to West Tisbury while he was still a small boy and lived his entire life in that town.

His school days were of brief duration. As a young man he entered business and carried on for many years the store business now owned by George G. Gifford. Later he established a grain and feed business in Vineyard Haven, setting up a steam grist mill on Water street in 1881. The business is now owned by Smith, Bodfish, Swift Company. These ventures prospered and about thirty years ago Mr. Rotch retired from active business, to be re-

(Please turn to Page One, Sec. 2)

**Hurt When Car Is Struck**

**Mrs. Place Suffers Injured Ribs When Car Is Run Into**

Mrs. Velina Place, 72, of Oak Bluffs, sustained injuries to her ribs and was more or less shaken when her son's car in which she was riding was struck from behind by that of Antoné Duarte of Vineyard Haven. The accident occurred last Sunday afternoon, near Call's ice cream store in North Tisbury. Mrs. Place was taken to the Martha's Vineyard Hospital where her condition was not regarded as serious.

Fred Place, Mrs. Place's son, had driven his car off the road near the

ing the company  
tion in answer to

Willoughby Webb  
men had been giv-  
the floor by vote.

"This is very like  
important meetings  
the town have ever  
hold," said U. E. M  
his place as mode  
declared the result  
taken, invited the  
representatives to s

It was explained  
tion of the street li  
as a means of exten-  
ing made plain that  
for household lig  
signed, which prom  
nue than would wa  
of the extention.

"There are thirty  
dents who have n  
said Mr. Wilder, "a  
sibility that the ye  
reach \$4300 if they  
the regular basis up  
necessary revenue  
tion, we would req

**Company Willi**

Mr. Wilder then  
that the company w  
ble on the possibil  
in the load and ha  
as a basic figure o  
nue. If that could  
sued, the line would

Asked by Mr. We  
be possible for the t  
ly bonus for three  
contracting for str  
that it could be d  
town would be req  
\$1500 yearly. But h  
this procedure wot  
mended or favored

"We will do it, if  
it that way," he s  
not be getting any

(Please turn to

**L. W. Be**

**Was Many Years a Resident of**

News has been  
Bluffs friends of tl  
in Camden, South  
mar W. Besse, pro  
Springfield, and a  
summer resident of  
he long maintained  
on Sea View avenu  
of Mrs. Besse a fe  
Besse sold his Vine  
Details of his dea

ceived up to this  
neral services will  
at 3 p. m. in Sprin

**WINDOWS**

A complaint has  
Oak Bluffs police  
broken by boys in

NuHall

Turkey Vulture - Avoids northeastern + NE states; not known to breed N of NJ

Black Vulture - Confined to S states

Osprey - Cowardly disposition; arrival coincides with <sup>- end March</sup> shoals of fish - welcomed by fishermen as indicates approach of shoals of shad, herring etc. ; public favor + tolerance as no threat to domestic animals;

Rehoboth 20 Del  
TN - almost as thick

C Gregarious - Gaudiner - <sup>10 years</sup> 300 nests on E extremity LI; Wilson 20 within 1/2 mi

indicate that at least a few of these Grouse may have succeeded in maintaining themselves for a number of years, but there are no good reasons for believing that any of them are still living or have left living descendants. In short the attempt to establish them permanently in the Cambridge Region, as well as in certain other parts of Massachusetts where they were liberated at about the same time, has evidently proved a complete failure.]

[*Tympanuchus cupido* (Linn.). HEATH HEN. It is probable that Wood refers to this Grouse when he speaks of the 'Heathcocke' in his poetical enumeration of "such kinds of Fowle as the Countrey affords." The word occurs in the following line: "*The Turkey-Pheasant, Heathcocke, Partridge rare.*" In the following text he says: "Pheafons be very rare, but Heathcockes, and Partridges be common; hee that is a husband, and will be stirring betime, may kill halfe a dozen in a morning." He adds: "The Partridges be bigger than they be in *England*, the flesh of the Heathcockes is red, and the flesh of the Partridge white."<sup>1</sup> This indicates that his 'Heathcocke' must have been the Heath Hen, and his Partridge the Ruffed Grouse. What his 'Pheafon' was we can only conjecture. Apparently he was not personally familiar with the bird and he probably learned of it through the Indians, who may have had the Spruce Grouse in mind, or, perhaps, from white men who had been in Virginia, where the Ruffed Grouse was and still is called 'Pheasant.'

Josselyn asserts that "the Countrey hath" no "*Pheafants, nor Woodcocks, nor Quails,*"<sup>2</sup> but he mentions the "*Partridge*" which, he says, "is larger than ours, white flesht, but very dry, they are indeed a sort of *Partridges* called *Groofes.*"<sup>3</sup> This passage relates, of course, to the Ruffed Grouse.

Morton's testimony on these points is so interesting that I give it in full. It is as follows: "There are a kinde of fowles which are commonly called Pheifants, but whether they be pheifants or no, I will not take upon mee, to determine. They are in forme like our pheifant henne of England. Both the male and the female are alike; but they are rough footed; and have staring fethers about the head and neck, the body is as bigg as the pheifant henne of England; and are excellent white flesh, and delicate white meate, yet we seldome bestowe a shoot at them.

"Partridges, there are much, like our Partridges of England, they are of the same plumes, but bigger in body. They have not the signe of the horsehoe on the brest as the Partridges of England; nor are they coloured about the heads as those are; they sit on the trees. For I have seene 40. in one tree at a time: yet at night they fall on the ground, and sit untill morning so together; and are dainty flesh.

"There are quailles also, but bigger then the quailles in England. They take trees also: for I have numbered 60. upon a tree at a time. The cocks doe call at the time of the yeare, but with a different note from the cock quailles of England."<sup>4</sup>

Despite what Morton says to the effect that its flesh was white, I am inclined to believe that his 'pheifant' must have been the '*Heathcocke*' of Wood, which, as I have already stated, was almost certainly the Heath Hen of later authors. The 'Partridges' mentioned by Morton

<sup>1</sup> William Wood, *New Englands Prospect*, ed. 2, 1635, 22-23, 25. Charles Deane's ed., 1865, 29, 30, 32.

<sup>2</sup> John Josselyn, *New-Englands Rarities Discovered*, 1672, 12, 13. E. Tuckerman's ed., 1865, 46-47.

<sup>3</sup> John Josselyn, *Two Voyages to New-England*, ed. 2, 1675, 99. W. Veazie's reprint, 1865, 78.

<sup>4</sup> Thomas Morton, *New English Canaan*, 1637, 70. Ed. C. F. Adams, Jr., 1883, 193-195.

Brewster, w 1906. The Birds of the Cambridge Region  
of Mass. Memoirs of the Nuttall ornithological  
Club, No ~~IV~~ Cambridge, Nuttall ornithological  
Club.



were, without much doubt, Ruffed Grouse, and his 'quails,' unquestionably Bob-whites which, as he asserts, occasionally "take trees also."

Nuttall, writing of the Heath Hen in 1832, says: "Along the Atlantic coast, they are still met with on the Grouse plains of New Jersey, on the brushy plains of Long Island, in similar shrubby barrens in Westford, Connecticut, in the island of Martha's Vinyard on the south side of Massachusetts Bay; and formerly, as probably in many other tracts, according to the information which I have received from Lieut. Governor Winthrop, they were so common on the ancient bushy site of the city of Boston, that laboring people or servants stipulated with their employers not to have the *Heath-Hen* brought to table oftener than a few times in the week!"<sup>1</sup> The final statement in the above passage has a familiar sound, for with the substitution of 'salmon' or 'shad' for '*Heath-Hen*' it appears in the early annals of several New England towns. If 'laboring people' and 'servants' were really ever surfeited with the flesh of Heath Hens killed on the hills now occupied by the city of Boston, the birds must have also visited the Cambridge shores of the Back Bay.

I have been permitted to quote the following interesting passage from 'Notes of conversations with Eliza Cabot written down by her son, J. E. C[abot],' and printed for private circulation in 1904: "I recollect the Western prairie grouse in this part of the country. I saw one once in Newton; and once, after I was married, your father went down to the Cape, fishing, and in the woods there I saw a grouse very near me, and saw him puff up that orange they have on the side of the neck."<sup>2</sup> Eliza Cabot was born on April 17, 1791, and married about 1811. Her granddaughter, Mrs. Charles Almy, thinks it probable that she saw the Grouse in Newton about the beginning of the nineteenth century, and the one on 'the Cape' (Cape Cod, no doubt) about 1812. That both birds were Heath Hens can scarcely be doubted, for there is no evidence that living western Grouse of any kind were introduced into Massachusetts at so early a period.

From the evidence above cited we may assume with reasonable safety that the Heath Hen was found rather numerous on the "ancient bushy site" of Boston, at the time that city was founded, while there are also reasons for believing that it frequented many other localities, more or less similar in character, along the neighboring coast, probably ranging as far northward as Cape Ann. Apparently it was exterminated nearly everywhere by the English colonists not long after this coast region became generally settled, and perhaps before 1650. Mrs. Cabot's testimony indicates, however, that it had not wholly disappeared from Cape Cod, nor even from the immediate neighborhood of Boston, at the beginning of the past century. On the island of Martha's Vineyard it has continued to exist in limited and varying numbers down to the present day.]

[*Phasianus torquatus* Gmel. RING-NECKED PHEASANT. 'MONGOLIAN PHEASANT.' This fine bird, the Ring-necked Pheasant, has apparently become permanently established in the Cambridge Region—as well as in many other parts of Massachusetts—during the past eight or ten years. Although not as yet very numerous represented in our immediate neighborhood, it appears to be already rather generally distributed there, especially in portions of Cambridge, Arlington, Belmont and Watertown. It is perhaps seen oftenest and in the greatest numbers in the region lying immediately to the north and west of Fresh Pond. Here as else-

<sup>1</sup> T. Nuttall, Manual of the Ornithology of the United States and of Canada. The Land Birds, 1832, 662.

<sup>2</sup> [J. E. Cabot,] J. Elliot Cabot [Autobiographical sketch — Family reminiscences — Sedge birds], 1904, 94.

where it frequents practically every kind of ground, although it is found less often — at least in summer — in dense woods than in open, thinly settled farming country, where it feeds at morning and evening well out in cultivated or grassy fields and skulks during the remainder of the day about the edges of briery thickets or in beds of rank herbaceous plants. In these respects its habits resemble those of our Quail. Like that bird, too, it sometimes comes close about buildings when the ground is deeply covered with snow and food difficult to obtain. During the winter of 1902-1903 a dozen or more Pheasants were frequently seen, shortly after sunrise, feeding on a large manure heap near a barn on the Hittinger farm, just to the westward of Fresh Pond. When disturbed they invariably separated into two flocks which flew off in different directions. It is said that a nest containing eggs was found not far from the eastern confines of this farm in the spring of 1902.

I have compiled the following brief statement of the more important facts and dates relating to the introduction of these Pheasants from the annual reports of the Massachusetts Commissioners of Inland Fisheries and Game.<sup>1</sup>

In the summer of 1894 a few birds were obtained, apparently from Oregon, by Mr. Samuel Forehand and by him were presented to the Massachusetts Commissioners of Inland Fisheries and Game who erected a 'State aviary' for their reception at Winchester. Although a number of eggs were laid, it does not appear that any chicks were reared that season.

Early the next spring twelve more birds (three cocks and nine hens) were received, also from Oregon. They bred so successfully that by the close of the summer there were considerably more than seventy-five young birds, many of which were allowed to escape into neighboring gardens and woods.

The following year over two hundred chicks were reared in the aviary, while nests with eggs and broods of young, belonging to escaped birds, were found in various parts of Winchester.

In 1897 nine pairs of mature birds were liberated in Winchester, and a number of broods of young were seen in that town. A Pheasant was killed in Watertown during this year.

In their report for 1899 the Commissioners state that "there have been but few [Pheasants] liberated in Winchester from the State aviary, yet this and the surrounding towns are becoming fairly well stocked. . . . On one estate, within two miles of the aviary, the owner reports that not less than seven or eight broods have been seen this season, and surely not less than fifty birds reared."

From the standpoint of the naturalist the introduction of most exotic forms of animal life must ever be a matter of regret rather than of satisfaction. And these Pheasants, despite their undeniable beauty of form and coloring and reputed value as game, seem deplorably out of place in a New England landscape. Even if they do not crowd out our Quail or Ruffed Grouse,—as

---

<sup>1</sup>In these reports the birds are invariably referred to as 'Mongolian Pheasants,' and the Commissioners distinctly assert in one connection (Report for 1894, p. 17) that they declined to purchase specimens of the "ordinary ring-neck, a very different pheasant from the Mongolian." I have had no opportunity of closely examining any of the birds which they have introduced, but other ornithologists who have done so (among whom may be named as good an authority as Mr. Outram Bangs) have unhesitatingly pronounced them to be *P. torquatus*. Mr. Robert Ridgway in the last edition of his 'Manual of North American Birds' (p. 206) cites *torquatus* among the species which have become naturalized in Oregon (whence our Massachusetts birds were originally derived) and does not mention the Mongolian Pheasant as occurring in North America at all. A recent popular writer on Pheasants also refers to "the so-called 'Mongolian' pheasant, properly the China Ring-neck, or *Torquatus*"; adding, "the true Mongolian has never reached this country alive." (Homer Davenport, *Country Life in America*, IV, 1903, 335.)

it has been feared they may eventually do,—or devastate our cultivated crops,—as they are already accused of doing,—it would have been much wiser to expend the time and money which have been devoted to their naturalization in fostering and increasing our stock of native game birds.]

[*Meleagris gallopavo silvestris* (Vieill.). WILD TURKEY. The works of Morton, Wood, Josselyn and other early writers on New England furnish convincing evidence that the Wild Turkey was abundant in eastern Massachusetts when the country was first settled. Morton, referring, no doubt, to his experience at Merrymount, now Wollaston, only a few miles south of the Cambridge Region, where he lived from 1625 to 1628, and again in 1629 and 1630, says: "great flocks [of Turkeys] have fallied by our doores; . . . I had a Salvage who hath taken out his boy in a morning, and they have brought home their loades about noone. I have asked them what number they found in the woods, who have answered Neent Metawna, which is a thofand that day."<sup>1</sup> Wood confirms this by stating that "sometimes there will be forty, three-score, and an hundred of a flocke, sometimes more and sometimes lesse; their feeding is Acornes, Hawes, and Berries, some of them get a haunt to frequent our *Engliffh* corne: In Winter when the Snow covers the ground, they refort to the Sea shore to looke for Shrimps, and such small Fishes at low tides. Such as love Turkie hunting, muft follow it in Winter after a new false Snow, when he may follow them by their tracts; some have killed ten or a dozen in halfe a day; if they can be found towards an evening and watched where they peirch, if one come about ten or eleaven of the clocke, he may shoote as often as he will, they will fit, unlesse they be slenderly wounded. These Turkie remaine al the yeare long, the price of a good Turkie cocke is foure shillings; and he is well worth it, for he may be in weight forty pound; a Hen two shillings."<sup>2</sup> Josselyn mentions seeing, probably at Black Point (now Scarborough), Maine, "threecore broods of young *Turkies* on the side of a Marfh, funning of themselves in a morning betimes, but this was thirty years since [in 1638 or 1639], the *Engliffh* and the *Indian* having now [1671] destroyed the breed, so that 'tis very rare to meet with a wild *Turkie* in the Woods."<sup>3</sup>

That the species was formerly found throughout the Cambridge Region, there can be no reasonable doubt. Turkey Hill in Arlington may well have derived its name from the presence there of this noble bird in early Colonial days. Indeed, Mr. Walter Faxon writes me that an acquaintance of his has seen "in a manuscript diary of the ancestor of an Arlington man . . . an entry of killing some Wild Turkeys in the region about Turkey Hill." At Concord, less than ten miles further inland, the species had not become wholly extinct at the beginning of the past century. The late Steadman Buttrick of that town, a keen lover of field sports and a man of undoubted veracity, who died in 1874, used to delight in narrating how, when a boy, he had made repeated but invariably fruitless expeditions in pursuit of the last Wild Turkey that is known to have lingered in the region about his home. He often saw the bird, a fine old gobbler, but it was so very wary that neither he nor any of the other Concord gunners of that day ever succeeded in getting a fair shot at it. It was in the habit of roosting in some tall pines on Ball's Hill whence, when disturbed, it usually flew for refuge into an extensive wooded swamp on the opposite (Bedford) side of Concord River. Mr. Buttrick was born in 1796. As he was presumably at least twelve or fifteen years of age before he began to use a gun effectively, it is probable that his experience with the Wild Turkey happened some time between 1808 and 1815.]

<sup>1</sup> Thomas Morton, *New English Canaan*, 1637, 69-70. Ed. C. F. Adams, Jr., 1883, 192-193.

<sup>2</sup> William Wood, *New Englands Prospect*, ed. 2, 1635, 25. Charles Deane's ed., 1865, 32.

<sup>3</sup> John Josselyn, *New-Englands Rarities Discovered*, 1672, 9. E. Tuckerman's ed., 1865, 42.



76. *Ectopistes migratorius* (Linn.).

PASSENGER PIGEON. WILD PIGEON.

Formerly a transient visitor in spring and autumn, sometimes occurring in immense numbers; now exceedingly rare, and perhaps extinct.

## SEASONAL OCCURRENCE.

April 23, 1875, one ad. male<sup>1</sup> taken, Waltham, W. Brewster.

October 21, 1871, one female taken, Watertown, W. E. D. Scott.

Of the many passages which might be cited, attesting the extraordinary abundance of Wild Pigeons in New England in former times, that published in 1634 by Wood is perhaps the most pertinent to the present connection, since it evidently relates in part to a locality (the neighborhood of Lynn) only a few miles distant from the Cambridge Region to which, without doubt, it might equally well have been applied. It is as follows: "These Birds come into the Countrey, to goe to the North parts in the beginning of our Spring, at which time (if I may be counted worthy, to be beleevd in a thing that is not so strange as true) I have seene them fly as if the Ayerie regiment had beene Pigeons; seeing neyther beginning nor ending, length, or breadth of these Millions of Millions. The shouting of people, the ratling of Gunnes, and pelting of small shotte could not drive them out of their courfe, but so they continued for foure or five houres together: yet it muft not be concluded, that it is thus often; for it is but at the beginning of the Spring, and at *Michaelmas*, when they returne backe to the Southward; yet are there some all the yeare long, which are easily attayned by such as looke after them. Many of them build amongft the Pine-trees, thirty miles to the North-east of our plantations; joyning neft to neft, and tree to tree by their nefts, so that the Sunne never sees the ground in that place, from whence the *Indians* fetch whole loades of them."<sup>2</sup>

Dr. Samuel Cabot told me, shortly before his death, that when he was at Harvard College (1832-1836) Passenger Pigeons visited Cambridge regularly in both spring and autumn, sometimes in immense numbers. He dwelt particularly on the recollection of a morning in early spring when the ground was still covered with three or four inches of snow and when, as he was crossing the College Grounds

<sup>1</sup>No. 215, collection of William Brewster.

<sup>2</sup>William Wood, *New Englands Prospect*, ed. 2, 1635, 24. Charles Deane's ed., 1865, 31-32.

on his way to a recitation, he was tantalized by the sight of great flocks of Pigeons continually passing overhead towards the westward. The recitation finished, he returned to his room for a gun and followed their line of flight which led to some gravel banks at Simon's Hill, near where the Cambridge Hospital now stands. Here he took a position on the crest of a knoll and in a short time killed eighteen birds. Not far off some men were working a net. They had captured a large number of Pigeons, and Dr. Cabot saw them take several dozens at a single 'strike.'

Such experiences were numbered among those of the past in the Cambridge Region when I began to take an active interest in its birds, but for ten or fifteen years later it was by no means uncommon to meet with a few Pigeons here, even within our city limits. I saw a flock of about fifty at Pout Pond on the morning of September 2, 1868. They came from the northward, and I still remember how distinctly the red breasts of the males showed in the level beams of the rising sun as the birds circled once over the pond; they were apparently looking for a place to alight, but finally kept on southward.

Three years later a really heavy flight passed through eastern Massachusetts between September 2 and 10. I was in the Maine woods at the time, but on my return was assured by game dealers in the Boston markets and by reliable sportsmen of my acquaintance that the birds had been very numerous everywhere and that "thousands" had been killed. At Concord and Reading old pigeon trappers had even used their long neglected nets with some success. My notes state that at Cambridge large flocks were seen passing at frequent intervals for three or four days, and that at night the birds "roosted in pine woods."

On July 6, 1870, I shot a female Passenger Pigeon which was eating red currants in our garden, and on June 20, 1874, I killed another in the same cluster of bushes, the fruit of which, however, could scarcely have been ripe at so early a date. Both these birds were young, — fully grown but still in first plumage. They were exceedingly tame, as was also a third young bird which, early in September, 1878, spent a week or ten days in or near our grounds, feeding, much of the time, in Sparks Street, where I frequently saw it avoid passing carriages by merely moving a little to one or the other side, just as a domestic pigeon would have done under similar circumstances.

Mr. W. E. D. Scott has asserted that in "1870, and before, . . . close to the town [Cambridge], in the vicinity of Mount Auburn, a few [Passenger Pigeons] bred every year."<sup>1</sup> In another and more recently published passage relating to the same period, he has reasserted that at "'The Farm' . . . just back of

---

<sup>1</sup> W. E. D. Scott, *Bird Studies*, 1898, 203.

Mount Auburn" these Pigeons "still bred in small numbers in the pine woods."<sup>1</sup> In 1869 I was living during the entire spring, summer and autumn in a house situated less than a quarter of a mile from the woods to which Mr. Scott refers, and during this year, and the five or six years immediately preceding, as well as following, it, 'The Farm' was at all seasons one of my favorite and most productive collecting grounds. It was also visited more or less frequently by H. W. Henshaw, Ruthven Deane and several other excellent observers. Had Wild Pigeons been found breeding anywhere in the neighborhood during this period it does not seem likely that the fact would have been known only to Mr. Scott, especially as we were all intimately acquainted with him and his field work when he was at Cambridge. As it has been unknown, all these years, to everyone else, I feel justified in claiming that his statements, above quoted, require confirmation. Probably they were based on his recollection of the capture of the young birds to which I have just alluded, or on that of a female Pigeon which he himself shot on October 21, 1871, in an asparagus bed near Mount Auburn.<sup>2</sup> All these birds were quite strong enough of wing to have flown a hundred miles or more, but it is not unlikely that some of them were reared in Middlesex County. Indeed I have notes of the breeding of the Passenger Pigeon at two localities in this county in 1875. On May 22 of that year a nest containing a single egg was found in Weston by the late Mr. E. B. Towne. Later that same season my friend, Mr. George H. Robbins, met with no less than three nests, *on which the birds were sitting*, near his house in Carlisle. As he is a careful observer and accustomed by long experience to distinguish Wild Pigeons from Carolina Doves, I have entire confidence in the accuracy of this record.

On April 23, 1875, I killed a fine adult male near the Lyman estate in Waltham. It was the last Pigeon that I have seen, or am likely to see, alive in the Cambridge Region, but on September 30, 1885, Mr. H. W. Henshaw and I, while collecting in the 'Warren Run' (a little to the southwest of Crown Hill), picked up an adult female which had evidently been dead only a few hours and which proved, on dissection, to have been shot through the lungs. Both of these birds, with the young female, taken on June 20, 1874, in our garden, are preserved in my collection.

I find it difficult to believe that the Wild Pigeon has become wholly extinct, but some of my ornithological friends, who have recently investigated the subject rather carefully, are convinced that the only birds now living are a few captive ones in the possession of Professor C. O. Whitman of Chicago, Illinois.

---

<sup>1</sup> W. E. D. Scott, *Story of a Bird Lover*, 1903, 39, 40.

<sup>2</sup> This is the only Wild Pigeon mentioned in Mr. Scott's catalogue of the birds which he collected in the region about Cambridge, the original manuscript of which is in my possession.



8-5-2014

Peabody

Birds of Massachusetts

Osprey Fish-hawk

Attacked by eagle to drop its prey

Eagle

~~Osprey~~ can wreak havoc among other birds; sometimes carries off lambs; has made attempt to carry off children; will rob sportsmen of birds he has shot;

Osprey - interesting and harmless; never attacks birds or land animals; social + friendly; End March/early April with alewives;

Elisha Jarrett Lewis

Hints to the Sportsmen. Notes on  
Shooting. Lea and Blanchard

PRAIRIE HEN.

87

Philadelphia 1851

## CHAPTER VII.

PINNATED GROUSE; OR, PRAIRIE HEN—(TETRAO  
CUPIDO.)

“Hurrah for the prairie! No blight on *its* breeze,  
No mist from the mountains, no shadow from trees.”

THIS species of grouse is very different in many respects from the last-mentioned variety. Its appearance, habits, flesh, are all quite dissimilar, and we regret never having had very full opportunities for studying these interesting birds in their natural haunts, the rich prairies of the far West. However, we, as many others, have this pleasure still in anticipation, and in the mean time will endeavor to lay before our sporting friends all the information upon this head that we have culled from reading and conversing with those who have been in the habit of hunting these birds for years past, and trust, at all events, that we shall succeed in making this chapter as interesting as some others that we have compiled for the benefit of sportsmen.

Wilson thus describes this bird. The pinnated grouse is nineteen inches long, twenty-seven inches in extent, and when in good order weighs about three pounds and a half; the neck is furnished with supplemental wings, each composed of eighteen feathers, five of which are black, and about three inches long: the rest shorter, also black, streaked laterally with brown, and of unequal lengths: the head is slightly crested; over the eye is an elegant semicircular comb of rich orange, which the bird has the power of raising or relaxing; under the neck wings are two loose pendulous and wrinkled skins, extending along the sides of the neck for two-thirds of its length, each of which, when inflated, resembles in bulk, color, and surface a middle-sized orange; chin cream-colored; under the eye runs a dark streak of brown; whole upper parts mottled transversely with black, reddish-brown and white; tail short, very much

rounded, and of a plain brownish soot color; throat elegantly marked with touches of reddish-brown, white and black; lower parts of the breast and belly pale brown, marked transversely with white; legs covered to the toes with hairy down of a dirty drab color; feet dull yellow, toes pectinated; vent whitish; bill brownish horn color, eye reddish hazel. The female is considerably less; of a lighter color, destitute of the neck wings, the naked yellow skin on the neck, the semicircular comb of yellow over the eye.

*Location.*—The prairie hen was no doubt formerly widely disseminated over our whole country, more particularly in those portions interspersed with dry, open plains, surrounded by thin shrubbery or scantily covered with trees. Unlike the ruffed grouse, this bird delights in the clear open prairie grounds, and will desert those districts entirely that, in the lapse of time, become covered with forests. These birds are very rare, in fact may almost be considered extinct, in the Northern and Middle States. Within a few years, they were quite abundant on some portions of Long Island. They were also to be found in Burlington county, New Jersey, and in some few other places. There are, however, still a few to be found on the Jersey plains, and every season we hear of some of our sporting acquaintances exterminating a small pack. We know of ten braces being killed this season, 1848, and about the same number last year, by the same party, and as usual, in both instances, these scarce and beautiful birds were butchered long before the time sanctioned by the strong or rather the weak arm of the law.

Thus it is that the destructive hand of the would-be respectable poacher, as well as the greedy gun of the pot-hunter, hastens to seal the fate of the doomed prairie hen in these eastern regions, and we may predict with great certainty that ere long, not one will be found save upon the rich plains of the West; from which also, in course of time, they will be driven, and ultimately perish root and branch from before the unerring guns of their ruthless destroyers. We understand that there are still a few of these birds to be found in Pennsylvania, we believe in Northampton county, where the pine forests are thin and open, and the country about them such as prairie hens delight in. They have always been abundant in the barrens of Kentucky and Tennessee, as also in the balmy plains and fertile



prairies of Louisiana, Indiana, and Illinois. So numerous were they a short time since in the barrens of Kentucky, and so contemptible were they as game birds, that few huntsmen would deign to waste powder and shot on them. In fact, they were held in pretty much the same estimation or rather abhorrence that the crows are now in Pennsylvania, or other of the Middle and Southern States, as they perpetrated quite as much mischief upon the tender buds and fruits of the orchards, as well as the grain in the fields, and were often so destructive to the crops that it was absolutely necessary for the farmers to employ their young negroes to drive them away by shooting off guns and springing loud rattles all around the plantations from morning till night. As for eating them, such a thing was hardly dreamed of, the negroes themselves preferring the coarsest food to this now much-admired bird; while the young sportsman exercised his skill in rifle-shooting upon them in anticipation of more exciting sport among the other prized denizens of the plain and forest. Prairie hens have not only deserted Long Island, Martha's Vineyard, Elizabeth Island, New Jersey, and their other haunts to the eastward, but they have also removed even farther west than the barrens of Kentucky, and are no longer to be found abundant save in Illinois, and on the extensive plains of the Missouri, Arkansas, and Columbia Rivers.

*Period of pairing.*—As soon as the winter breaks up, the pairing season commences, generally in March or early in April; then it is that one can distinguish the well-known booming sound of the male bird, known as the “tooting” of the cock. This singular noise is produced by the inflation and exhalation of the two small bags which are found on the neck, and appear to be formed by the expansion of the skin of the gullet, which, when not filled with air, hangs in loose, pendulous, wrinkled folds. When, however, they are charged with air, they are about the size of a full-grown orange. When these air chambers are freely distended, the cock inclines his head to the ground, opens his bill, and by a muscular effort forces out the air, which produces three melancholy and monotonous notes, not unlike the booming sound uttered by the night hawk when in pursuit of food in mid air, and which latter sound has not inaptly been compared to the noise occasioned by blowing violently into

the bung-hole of an empty barrel. This tooting, on a clear mild morning, can be heard several hundred yards off.

These birds, like the ruffed grouse, are extremely pugnacious at these times, and, during the early period of incubation, the males meet at early dawn at particular spots termed "scratching grounds," where they toot and strut about with extended wings and wide-spread tails, much in the pompous style of turkey gobblers, and, after a little while thus spent in expressing their wrath and defiance, they engage in the most obstinate and sanguinary conflicts, not inferior to the battles often witnessed between game-cocks.

During these encounters, they spring up in the air and strike their antagonists with the utmost fury, and oftentimes with the greatest effect; feathers are freely plucked from each other's bodies, and their eyes are not unfrequently seriously injured before one or other of the combatants gives way, and flies to the woods for shelter. A friend of the author, who is very familiar with the habits of these birds, informs him that last spring he witnessed, for over an hour, a series of battles between a number of these birds upon a favorite scratching ground, and declares that, after they had all retired, he might have picked up a hat full of feathers which they had torn from one another.

The nest is formed upon the ground, in a very secret spot upon the open plain, or perhaps at the foot of a small bush. It is rudely constructed with a few leaves and particles of grass, and contains from eight to twelve eggs of a brownish dirt color, and somewhat larger than those of the tetrao umbellus.

The birds are able to run a very short time after hatching, and the mother alone attends upon them, supplying them with food, calling them around her by a cluck, and nestling them under her wings at nightfall, or when the weather proves unfavorable, very much in the style of the common barn hen. The pinnated grouse is not so retiring and secluded in its disposition as the other variety, and is not very difficult to domesticate even when taken wild, as it soon becomes tame and accustomed to the presence of man.

Audubon cut the tips of the wings of sixty of these birds towards the close of the summer, and turned them out into an enclosure, where they remained quite contented the whole winter through,

and soon became sufficiently gentle to feed from the hands of his wife. They appeared quite unmindful of their former state of freedom, and conducted themselves very similarly to the tame fowls, with which they often mingled on the most friendly footing. In the spring, they "tooted" and strutted about in the most pompous style imaginable, even as much so as if they were still in their native haunts, and even coupled and hatched many broods. Their pugnacious tempers would not permit them to quail even before the threatening presence of the largest turkey cock, and they would not unfrequently take a round or two with the dung-hills of the poultry yard. The pinnated grouse, as the other variety, hatch but one brood each season, except when disturbed, as they are frequently, by the crows, hawks, polecats, raccoons, and other animals. When wandering about with their young, if interrupted, they resort to the same artifices as the partridge to protect their young. Their food consists of wild strawberries, cranberries, partridge berries, whortleberries, blackberries, and young buds. They also partake of worms, flies, and insects generally. In the winter season, they eat acorns, the tender buds of the pine, clover leaves, and, when convenient to their haunts, will frequent buckwheat stubble.

They are said to remain stationary during the whole year round, and show no disposition to migrate or travel as the ruffed grouse or partridge. They affect the driest situations, and avoid as far as possible marshy or wet places, and partake very sparingly of water, in fact depend entirely for a supply of this fluid from the morning dew, which they collect from off the leaves of plants. So dry are the situations that these birds generally affect that it is absolutely necessary to carry water along for the dogs, otherwise they will soon be entirely overcome by thirst.

*Flight.*—If surprised, the pinnated grouse rise with a moderate whirring sound; but, if they discover the sportsman at a distance, they run off with the utmost speed, then squat and remain perfectly silent till passed by or put up by the dog. Their flight is strong, regular and tolerable, swift, and at times, according to Audubon, protracted to several miles without intermission. They fly less rapidly than the ruffed grouse, and often repeat two or three cluckings when about to spring or when on the wing; they also frequently



take to the branches of the highest forest trees, and if then shot, they fall and turn round and round with great violence, not unlike a common chicken, till dead. If wounded only, they run with great swiftness, and hide themselves in some secluded spot, where they remain motionless.

*Feeding and roosting.*—Prairie hens resort to their feeding ground at a very early hour of the day, and retire towards noon to preen and dust themselves in the ploughed fields or along the roads. They do not roost on trees, but, like the partridge, they select a little eminence of ground, in the open field, and squat about within a few feet of each other.

*Their flesh.*—The merits of the meat of these two varieties of grouse are often a subject of discussion among sportsmen and epicures, whose opinions are often entirely at variance. We know very well that the tastes of people are much influenced by circumstances, and we are all apt to relish that most which it is most difficult to obtain; and the residents of those parts where prairie hens are abundant as a matter of course generally prefer the white and delicate meat of the ruffed grouse, while those that live in the Atlantic States, and seldom or never see a prairie hen, greatly prefer the dark meat of the latter bird, as it is to them a greater novelty and luxury than the other. They are considered a great delicacy at the east, and when exposed for sale command extravagant prices, seldom less than five dollars a brace, although we have purchased superior ones in the Philadelphia markets for two dollars, and even less. We do not think them equal by any means in point of flavor to the ruffed grouse. There are other varieties of grouse, found within the limits of the United States, two of which we will merely mention. They are occasionally met with in the wilds of Maine and Massachusetts, but are more common in Canada. Their haunts are very secluded, and they seldom encounter the form of a human being, and consequently are not much alarmed at his presence; their flesh is dark, and resembles that of the Prairie Hen—Tetrao Saliceti, Willow Grouse; and Tetrao Canadensis, the Spotted or Canada Grouse.

## MEMORANDA.

1. The prairie hen is now almost exclusively confined to the open champaign countries of the West.
2. Their habits and modes of life are very different from those of the ruffed grouse, the one seeking the seclusion of the deepest forests, while the other delights only in the open plains.
3. The time of pairing, period of incubation, number of young, and habits of male birds, all much the same as the ruffed grouse.
4. The cock birds at the pairing season are heard "tooting" instead of "drumming;" they are very pugnacious, and fight with great spirit among themselves during the period of courtship.
5. Unlike the ruffed grouse, the pinnated are easily domesticated, and will pair and hatch in captivity; they exhibit no disposition to migrate, as the other variety does.
6. Their meat is dark, and inferior to that of the ruffed grouse.