

Greater prairie chicken

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The **greater prairie chicken** or **pinnated grouse** (*Tympanuchus cupido*), sometimes called a **boomer**,^[2] is a large bird in the grouse family. This North American species was once abundant, but has become extremely rare or extinct over much of its range due to habitat loss.^[2] Conservation measures are underway to ensure the sustainability of existing small populations. One of the most famous aspects of these creatures is the mating ritual called booming.

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Description

Adults of both sexes are medium to large chicken-like bird, stocky, with round-wings. They have short tails which are typically rounded and blue in color. Adult males have orange comb-like feathers over their eyes and dark, elongated head feathers that can be raised or lain along neck. They also possess a circular, un-feathered neck patch which can be inflated while displaying; this, like their comb feathers, is also orange. As with many other bird species, the adult females have shorter head feathers and also lack the male's yellow comb and orange neck patch.

Subspecies

There are three subspecies;

- The heath hen, *Tympanuchus cupido cupido*, which was historically found along the Atlantic coast, is extinct. It was possibly a distinct species; in this case the two other forms would be *T. pinnatus pinnatus* and *T. p. attwateri*.
- Attwater's prairie chicken, *T. c. attwateri* is

Greater prairie chicken



Male displaying in Illinois, USA

Conservation status



Vulnerable (IUCN 3.1)^[1]

Scientific classification

Kingdom:	Animalia
Phylum:	Chordata
Class:	Aves
Order:	Galliformes
Family:	Phasianidae
Subfamily:	Tetraoninae
Genus:	<i>Tympanuchus</i>
Species:	<i>T. cupido</i>

Binomial name

Tympanuchus cupido

(Linnaeus, 1758)

Subspecies

Tympanuchus cupido attwateri
Tympanuchus cupido cupido†
Tympanuchus cupido pinnatus

endangered and restricted to coastal Texas.

- The greater prairie chicken, *T. c. pinnatus*, is now restricted to a small section of its former range.

Population and habitat

Greater prairie chickens prefer undisturbed prairie and were originally found in tall grass prairies. They can tolerate agricultural land mixed with prairie, but fewer prairie chickens are found in areas that are more agricultural. Their diet consists primarily of seeds and fruit, but during the summer they also eat insects and green plants. These birds were once widespread all across the oak savanna and tall grass prairie ecosystem.

Conservation

The greater prairie chicken was almost extinct in the 1930s due to hunting pressure and habitat loss. They now only live on small parcels of managed prairie land. It is thought that their current population is approximately 459,000 individuals. In May 2000, the Canadian Species at Risk Act listed the greater prairie chicken as extirpated in its Canadian range (Alberta, Saskatchewan, Manitoba, Ontario).^[3] It was again confirmed by the Committee on the Status of Endangered Wildlife in Canada in November 2009.^[4]

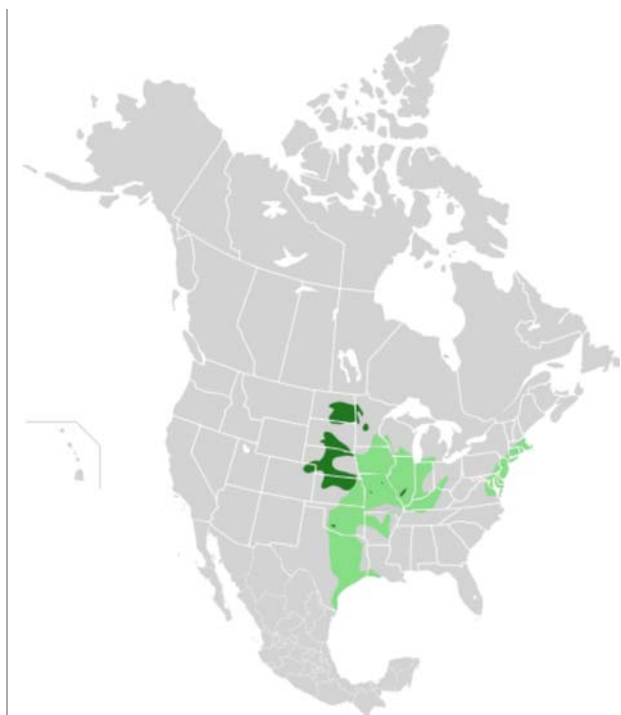
In states such as Iowa and Missouri that once had thriving prairie chicken populations (estimated to be "hundreds of thousands (<http://www.riverfronttimes.com/2011-04-21/news/prairie-chicken-recovery-project-missouri-department-of-conservation>)"), total numbers have dropped to about 500. However, the Missouri Department of Conservation has started a program to import prairie chickens from Kansas in the hopes that they will be able to repopulate the state and increase that number to 3,000.

Central Wisconsin is home to approximately 600 individuals, down from 55,000 when hunting was prohibited in 1954. Though this area was predominately spruce and tamarack marsh before European settlement, early pioneers drained the marshes and attempted to farm the poor soil. As the prairies to the south and west were lost to agriculture and development, and the southern half of Wisconsin was logged, the prairies spread northward into the abandoned farmland. Today, over 30,000 acres are managed by the Wisconsin Department of Natural Resources as greater prairie chicken habitat. Birdwatchers travel from around the world to visit Wisconsin in April for the Central Wisconsin Prairie Chicken Festival, started in 2006 by Golden Sands Resource Conservation & Development Council, Inc.

Threats

Greater prairie chickens are not threatened by severe winter weather. When the snow is thick they "dive" into the snow to keep warm. A greater threat to the prairie chickens comes in the form of spring rains. These sometimes drenching rains can wreak havoc on their chicks. Another major natural threat is drought. A drought can destroy food and make it difficult for the chicks.

Human interactions are by far the greatest threat. The conversion of native prairie to cropland is very detrimental to these birds. It was found in a radio telemetry study conducted by Kansas State University that



Distribution map of the Greater Prairie-Chicken.

Pale and dark green: pre-settlement

Dark green: current year-round

Synonyms

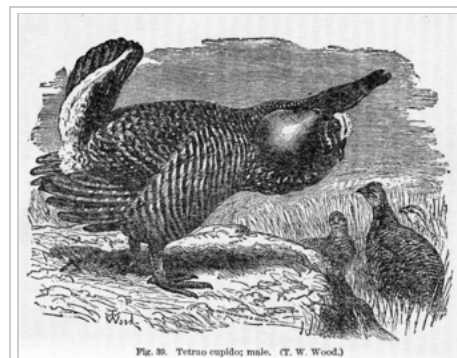
Tetrao cupido

"most prairie chicken hens avoided nesting or rearing their broods within a quarter-mile of power lines and within a third-mile of improved roads." (Kansas Department of Wildlife and Parks) It was also found that the prairie-chickens avoided communication towers and rural farms.

After "Population Bottleneck", human management of populations can also produce a loss of genetic variation and genetic diversity in the species.^[5]

Sexual behavior

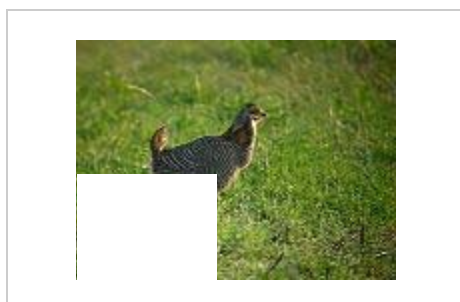
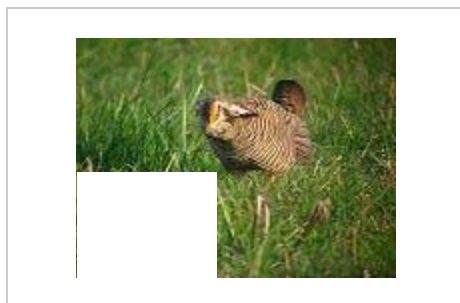
Greater prairie chickens do not migrate. They are territorial birds and often defend their booming grounds. These booming grounds are the area in which they perform their displays in hopes of attracting females. Their displays consist of inflating air sacs located on the side of their neck and snapping their tails. These booming grounds usually have very short or no vegetation. The male prairie-chickens stay on this ground displaying for almost two months. The breeding season usually begins in the United States starting in Late March throughout April. During this time the males establish booming sites where they display for the females. The one or two most dominant males will do about 90% of the mating. Due to their now small populations and habitat fragmentation the greater prairie chickens often undergo inbreeding causing observable inbreeding depression: with fewer offspring and a decreased survival rate within these limited offspring further aiding their population decrease.



Tetrao cupido drawn by T. W. Wood for second edition of Darwin's *The Descent of Man*, 1874

After mating has taken place, the females will move about one mile from the booming grounds and begin to build their nests. Hens lay between 5 and 17 eggs per clutch and the eggs take between 23 and 24 days to hatch. There are between five and 10 young per brood. (INRIN, 2005). The young are raised by the female and fledge in one to four weeks, are completely independent by the tenth to twelfth week, and reach sexual maturity by age one (Ammann, 1957). One problem facing prairie chickens is competition with the ring-necked pheasants. Pheasants will lay their eggs in prairie-chicken nests. The pheasant eggs hatch first; this causes the prairie chickens to leave the nest thinking that the young have hatched. In reality the eggs did not hatch and the young usually die because the mother is not there to incubate the eggs.

Displays at a lek in Illinois, USA



See also

- University of Kentucky mascot Lesser prairie chicken
- Lekking

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- ARKive - images and movies of the greater prairie chicken (*Tympanuchus cupido*) (http://www.arkive.org/species/GES/birds/Tympanuchus_cupido/)
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- Kansas Department of Wildlife and Parks: Greater and Lesser Prairie Chickens: Download from: http://www.kdwp.state.ks.us/news/hunting/upland_birds/greater_and_lesser_prairie_chicken
- State conservationists scour the Kansas boondocks, aiming to repopulate Missouri with horny prairie chickens: <http://www.riverfronttimes.com/2011-04-21/news/prairie-chicken-recovery-project-missouri-department-of-conservation>

External links

- Comparative Analysis between the Greater Prairie Chicken and the Extinct Heath Hen (<http://www.heathhen.webs.com>)
- Cornell Lab of Ornithology - Greater Prairie Chicken (http://www.birds.cornell.edu/AllAboutBirds/BirdGuide/Greater_Prairie-Chicken.html)
- USGS Patuxent Bird Identification InfoCenter - Greater Prairie Chicken (<http://www.mbr-pwrc.usgs.gov/id/framlst/i3050id.html>)
- The Nature Conservancy's Grassland Birds: Greater Prairie Chicken (<http://www.nature.org/animals/birds/animals/gprairiechicken.html>)
- gbwf.org - Greater Prairie Chicken (<http://www.gbwf.org/grouse/cupido.html>)
- eNature.com - Greater Prairie Chicken (<http://enature.com/fieldguides/detail.asp?allSpecies=y&searchText=greater%20prairie%20chicken&curGroupID=1&lgfromWhere=&curPageNum=1>)
- Stamps (<http://www.bird-stamps.org/cspecies/3601600.htm>) (for Canada)
- Greater Prairie Chicken photo gallery (<http://vireo.acnatsci.org/search.html?Form=Search&SEARCHBY=Scientific&KEYWORDS=tympanuchus+cupido&showwhat=images&AGE=All&SEX=All&ACT=All&Search=Search&VIEW=All&ORIENTATION=All&RESULTS=24>) VIREO
- The Return of the Prairie Chicken (http://www.iptv.org/iowaoutdoors/story.cfm/story/2865/iao_20110407_103_prairie_chickens/video) Documentary produced by Iowa Public Television



Wikimedia Commons has media related to *Tympanuchus cupido*.

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| Endemic birds of the Plains-Midwest (United States) | Grouse

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